ENTERPRISE ARCHITECTURE (EA) IN ACTION: THE METHODOLOGY FOR BUSINESS TRANSFORMATION (MBT)

Fall 2007

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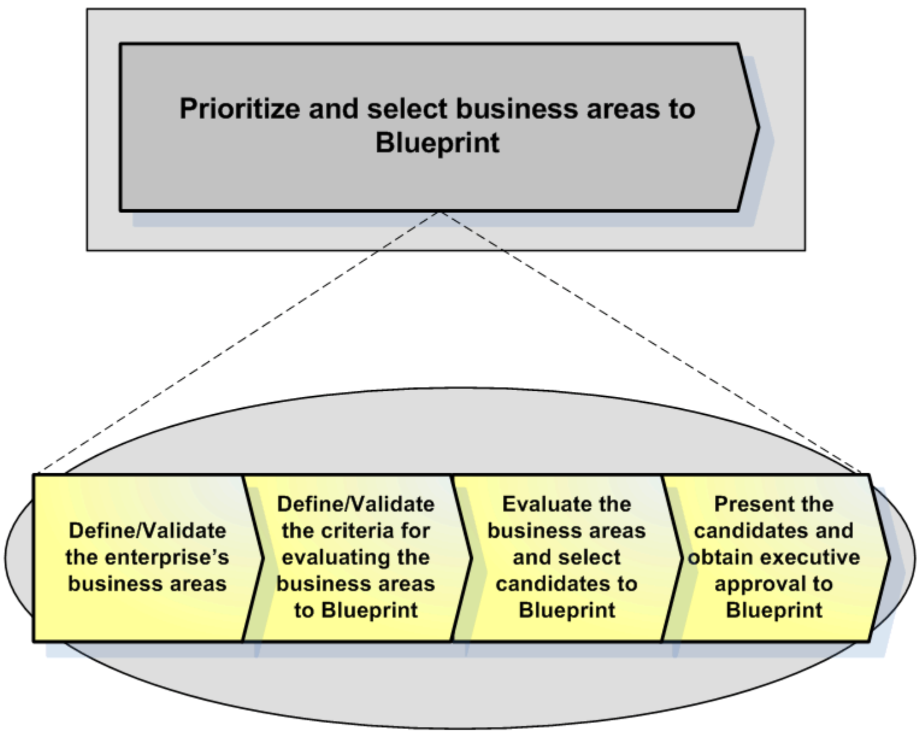
Step A:

Prioritize and Select Business Areas to Blueprint

Version 1.5, December 2006

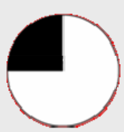
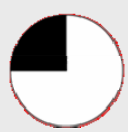
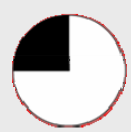
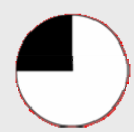
1. Step Description and Purpose

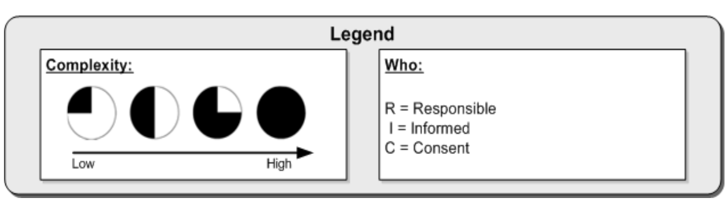
The *Prioritize and Select Business Areas to Blueprint* step is intended to clearly articulate the business areas that should create a modernization blueprint within the enterprise. The detailed activities for Step A are designed to define or refine the list of business areas within the enterprise, and then to apply quantitative, measurable criteria against those business areas in order to determine the business areas with the greatest need for transformation. This Step should be conducted annually in order to prioritize business transformation activities.



2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	**Define/Validate the enterprise's business areas**	**Define/Validate the criteria for evaluating the business areas to Blueprint**	**Evaluate the business areas and select candidates to Blueprint**	**Present the candidates and obtain executive approval to Blueprint**
Inputs (source)	Strategic Plan(s) Previous Business Areas Visual Relevant Operational Plans	Previous Business Areas Scoring Template Previous Business Areas Prioritization Presentation	Business Areas Scoring Template Sources of Scoring Data such as Budget, Investment, and Performance Data	Business Areas Scoring Business Areas Prioritization Chart Previous Business Areas Prioritization Presentation
Outputs	Business Areas Visual	Business Areas Scoring Template	Business Areas Scoring Business Areas Prioritization Chart	Business Areas Prioritization Presentation Record of Decision for Business Area to Blueprint Enterprise Transition Strategy
Who (role)	Business Management Governance Teams [R] Enterprise Architect [Support]	Business Management Governance Teams [R] Enterprise Architect [Support]	Business Management Governance Teams [R] Enterprise Architect [Support]	Business Management Governance Teams [R] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	5 days	5 days	5 days	5 days
Complexity				



Keys to Success:

This step should be completed annually. By completing this step during your budget planning cycle, you can schedule your year's modernization activities and integrate those activities with work/performance plans.

3. Activity Details

Activity 1 – Define/Validate the enterprise's business areas

Activity Short Description:

Although the general scope of the enterprise is certainly generally understood by most within the enterprise, the issue of defined business areas usually draws many different responses. A basic question such as how many business areas are within the enterprise will certainly draw many different answers. This activity is focused on leveraging existing strategic documentation to define and canonize the list of business areas within the enterprise. Having this official list allows for prioritization of the list for modernization activities as well as allows for the reporting on ongoing modernization activities in a standardized way, by business area.

Activity Tasks:

1. Determine which governance team has responsibility for determining the official business areas of the enterprise. This team should consist of business area representatives, not IT specialists.
2. Schedule a block of time (perhaps 2 hours) with the governance team at their next meeting.
3. Gather current strategic planning documentation and compare this documentation with the Previous Business Areas Visual to find potential gaps or changes.
4. Meet with the governance team to review the list of business areas from the previous year, to have an open discussion on potential changes, and to formally present your thoughts on changes based on the current strategic planning documentation. Be sure to schedule a one hour block of time on the next agenda of the governance team.
5. Make changes to the Business Areas Visual and circulate to the governance team members for review and comment.
6. Reconvene with the governance team in order to review changes to the Business Area Visual and to formally vote on acceptance of the new visual. Discuss the votes with the governance team and ensure that the results are acceptable.
7. Publish the new visual on the website of the governance team.

Activity Communications Considerations:

Ensure that the governance team understands the importance of the Business Areas Visual, how it will be used for prioritization, and how it will be used in future reporting and communications throughout the enterprise.

Activity Work Products and Templates:

Business Areas Visual: This is the key visualization of the business areas within the enterprise. This visual is color coded to show business areas that have completed or have ongoing transformation planning activities.

- **TEMPLATE:** Link to Business Areas Visual (Visio Format)
- **TEMPLATE:** Link to Business Areas Visual (Adobe Acrobat Format)

Activity 2 – Define/Validate the criteria for evaluating the business areas to Blueprint

Activity Short Description;

The immediate use of the Business Areas Visual is to apply criteria against each of the business areas in order to determine which areas most need transformation. Although there are likely criteria from previous years, it is a good idea to annually revisit the criteria before prioritizing that year's transformation planning activities. This activity is focused on defining and validating the criteria for performing the evaluation of business areas and adding or making modifications to the criteria as necessary and feasible. An important reminder is that the criteria should be measurable and defensible.

Activity Tasks:

1. Determine which governance team has responsibility for determining the prioritization criteria documented in the Business Areas Scoring Template. This team should consist of business area representatives, not IT specialists.
2. Schedule a block of time (perhaps 1 hour) with the governance team at their next meeting.
3. Prior to the governance team meeting, research to ensure that previously available source of data for business area scoring and prioritization are still available and generally reliable. Also, research to determine if new sources of data are available that could potentially be used for business area scoring and prioritization.
4. Meet with the governance team to review the previous year's Business Area Scoring Template, discuss potential changes, and brief them on new data sets that might be of use in the scoring. Determine changes that should be made and schedule a one hour block of time at their next meeting. Once the changes have been determined, discuss the weights to be assigned to each criterion.
5. Make changes to the Business Areas Scoring Template and circulate to the governance team members for review and comment.
6. Reconvene with the governance team in order to review changes to the Business Area Scoring Template and to formally vote on acceptance of the new template.
7. Publish the new Business Areas Scoring Template on the website of the governance team.

Communications Considerations:

It is important that the criteria be communicated beyond the immediate governance team to others that might be impacted by the prioritization process. Be sure to discuss this with the governance team and encourage the governance team members with performing these communications within their respective areas.

Activity Work Products and Templates:

Business Areas Scoring Template: This is a MS Excel workbook that contains the criteria by which the business areas will be scored. The template is setup for a finite number of criteria and will need to be modified if the criteria change. The template also includes weights for each criterion.

- **TEMPLATE:** Link to Business Areas Scoring Template (MS Excel Format)

Activity 3 – Evaluate the business areas and select candidates to Blueprint

Activity Short Description:

The previous two activities setup this activity where the criteria are applied against the business areas. The data sources associated with the criteria in step 2 are pulled together in this activity and associated with the business areas. This data is then analyzed to determine the scores that will be logged in the Business Areas Scoring Template. Once the scores are determined, the Business Areas Scoring is complete and the results can be analyzed by the governance team. The governance team analyzes the results and selects the business areas that it feels, based on the scoring and their knowledge of the enterprise, would be candidates for transformation planning.

Activity Tasks:

1. Determine which governance team has responsibility for reviewing and accepting the Business Areas Scoring. This team should consist of business area representatives, not IT specialists.
2. Schedule a block of time (perhaps 1 hour) with the governance team at their next meeting.
3. Pull together the data sources that are associated with the criteria that were approved in Activity 2. For instance, if budget spending is one of the criterions in Activity 2 then you would pull together the enterprise budget data during this activity.
4. Once the data sources are pulled into one place for review and analysis, map each of the business areas to the data itself. For example, map each line item from the budget data to a single business area so that the data can be used to produce a score for that business area.
5. Once all of the data has been mapped, generate reports that show the scores for the business areas. These scores are then entered into the Business Areas Scoring Template to produce the Business Areas Scoring and Business Areas Prioritization Chart.
6. Meet with the governance team to review the Business Areas Scoring and to select which business areas will be recommended to participate in transformation planning.

Activity Communications Considerations:

The governance team needs to understand the business areas and the prioritization criteria from the previous two activities. In many cases, each of these activities will involve the same governance teams. If, however, there are multiple governance teams across these activities, allow for more time in order to communicate the business areas, criteria, and scoring to each of the participating teams.

Activity Work Products and Templates:

Business Areas Scoring: This product is the Business Areas Scoring Template with the actual scores for the business areas captured in the template. This scoring is an official record of the scores identified in this activity.

- **TEMPLATE:** Link to Business Areas Scoring (MS Excel format)

Business Areas Prioritization Chart: This is a visual chart generated from the Business Areas Scoring. This chart visually shows the results of the scoring and segments the business areas into quadrants that help the governance team decide which areas should be deemed high priority for transformation.

- **TEMPLATE:** Link to Business Areas Prioritization Chart (Adobe Acrobat Format)

Activity 4 – Present the candidates and obtain executive approval to Blueprint

Activity Short Description:

Although much of the work has been accomplished in the previous activities and the business areas that are high priority have been designated, there is usually a higher level governance authority that is the final determination point for future transformation planning activities. This activity is focused on presenting the outputs of the previous three activities to this higher level governance team so that the final record of decision can be published that authorizes the creation of Modernization Blueprints for certain business areas. This activity also serves as validation that this higher level governance team is expecting and wanting to see the findings and recommendations that will eventually be produced from the transformation planning activities for each business area.

Activity Tasks:

1. Update the previous Business Areas Prioritization Presentation to include the new Business Areas Visual from Activity 1, the scoring criteria from Activity 2, and the actual scoring and Business Areas Prioritization Chart from Activity 3.
2. Create a draft of the Record of Decision for Business Area to Blueprint. This record of decision will be submitted to the higher level governance team for their consideration and formal vote on acceptance.
3. Circulate the Business Areas Prioritization Presentation and the Record of Decision for Business Area to Blueprint to the governance team members for review and comment.
4. Present the Business Areas Prioritization Presentation and the Record of Decision for Business Area to Blueprint to the higher level governance team for their consideration and vote.
5. Work with the owner of the Enterprise Transition Strategy in order to enter the dates and milestones for the Blueprint creation into the Enterprise Transition Strategy documentation.

Activity Communications Considerations:

Ensure that the presentation and record of decision are succinct and to the point. The lower level of detail associated with each score should be available for review during the presentation in order to address questions that may arise. However, such detailed information should not be included as part of the presentation itself. It is important to clearly and simply explain any changes to the business areas, the criteria, and the meaning behind the scoring and prioritization decisions.

Another important consideration is to ensure that the resources required for this Blueprint to be successful be communicated to the governance teams but also to the operations managers that will be impacted. It is important that operations managers understand the resources that could be taken away from other activities in order to participate in the Blueprint.

Activity Work Products and Templates:

Business Areas Prioritization Presentation: This is the presentation that summarizes Activities 1-3. Specifically this presentation outlines the business areas, scoring approach, scoring criteria, and the results of the scoring.

- **TEMPLATE:** Link to Business Areas Prioritization Presentation (MS PowerPoint format)

Record of Decision for Business Area to Blueprint: This is the official record of decision that will be voted on in order to determine whether a business area will participate in transformation planning activities. Once the scoring of business areas is complete and the high priority business areas are identified, the future studies are officially authorized by a vote for acceptance of this record of decision.

- **TEMPLATE:** Link to Record of Decision for Business Area to Blueprint (MS Word format)

Enterprise Transition Strategy: This is the updated Enterprise Transition Strategy that now will reflect the dates for the modernization blueprint creation activities associated with the Record of Decision for Business Area to Blueprint.

- **TEMPLATE:** Enterprise Transition Strategy (MS Word)

4. Step References

Not Applicable.

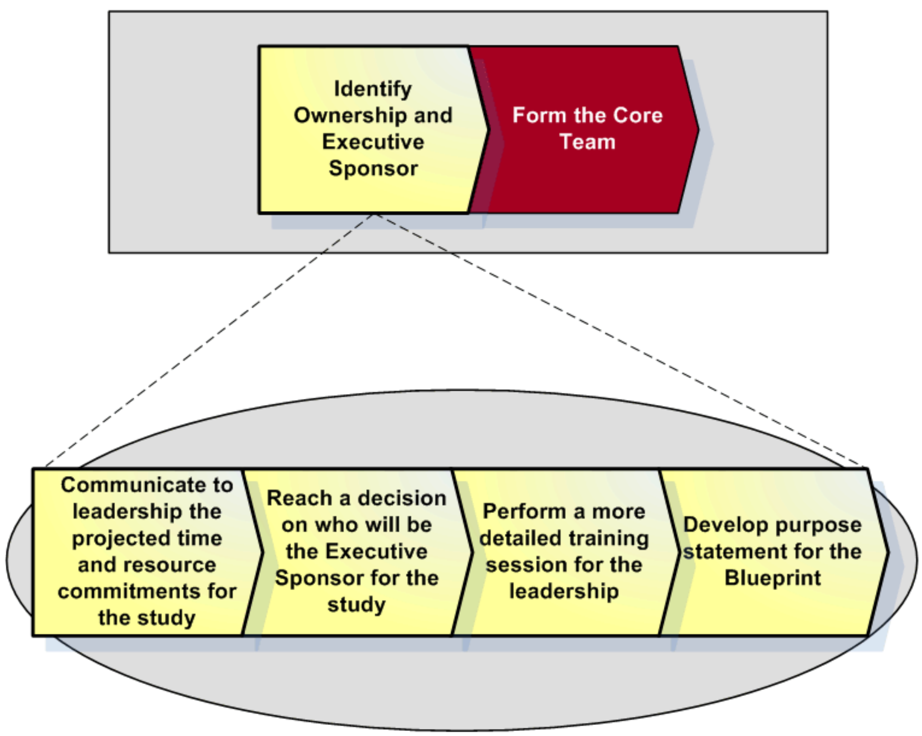
Step B:

Identify Ownership and Executive Sponsor

Version 1.5, December 2006

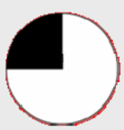
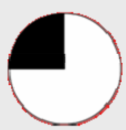
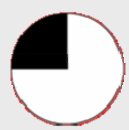
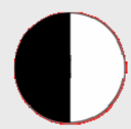
1. Step Description and Purpose

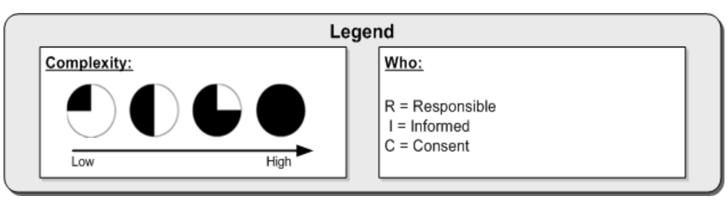
The *Identify Ownership and Executive Sponsor* step is intended to obtain a wide understanding from the business area leadership as to the process and time commitment for performing the transformation planning and then to select the official Executive Sponsor for the study and formulate a specific purpose for the study being completed. It is important that the leadership understand the breadth of the study and to jointly formulate a purpose for the study so that when the study is conducted, the core team and the chosen Executive Sponsor have a clear indication of what is expected and the mindset of the business area's leadership at the time of project inception. It is important to note that this entire Step can be accomplished in a single day, facilitated workshop with the business area leadership.



2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	**Communicate to leadership the projected time and resource commitments for the study**	**Reach a decision on who will be the Executive Sponsor for the study**	**Perform a more detailed training session for the leadership**	**Develop purpose statement for the Blueprint**
Inputs (source)	Record of Decision for Business Area to Blueprint (Step A) MBT Project Plan Template (MBT Toolkit)	Record of Decision for Business Area to Blueprint (Step A)	MBT Training Materials (MBT Toolkit)	Record of Decision for Business Area to Blueprint (Step A)
Outputs	None	None	None	Blueprint Purpose Statement
Who (role)	Business Area Leaders [I] Enterprise Architect [R]	Business Area Leaders [R] Enterprise Architect [Support]	Business Area Leaders [I] Enterprise Architect [R]	Business Area Leaders [R] Executive Sponsor [R] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	5 days	5 days	5 days	5 days
Complexity				



Keys to Success:

Make the most of your time with the business leadership by complete this entire step in one workshop. This ensures that you can move to the next step in a timely manner without additional workshops.

3. Activity Details

Activity 1 – Communicate to leadership the projected time and resource commitments for the study

Activity Short Description:

In previous studies that have produced Modernization Blueprints, the core team and Executive Sponsors have sometimes been surprised by the amount of time that they need to commit to this endeavor. Over time, the time commitments have become more broadly understood but it is still a wise idea to formally meet with the leadership of the business area to communicate how their resources will be used in this study. This activity is focused on doing just that. It should be noted that the time commitment and resource commitments will fluctuate based on the nature of the business area and the projected issues within the business area. A very large or highly complex business area will require more time and resources.

Activity Tasks:

1. Provide the business area leadership with a brief overview of the record of decision from Step A and, if necessary, the prioritization process from Step A.
2. Provide the business area leadership with a brief overview of the MBT including, most importantly, the breadth of areas typically studied by the MBT.
3. Provide the business area leadership with an overview of other business areas using the MBT to perform transformation planning to share their experiences and help set expectations relative to time commitments.
4. Use the MBT Project Plan Template from the MBT Toolkit in order to communicate the level of resource commitment they can expect throughout their transformation study.

Activity Communications Considerations:

This activity is not about explaining enterprise architecture or the virtues of the MBT. This activity is about explaining that there will be a structured planning process that will require time from certain key resources and to explain how much time can be anticipated to be necessary for a successful project.

Activity Work Products and Templates:

None

Activity 2 – Reach a decision on who will be the Executive Sponsor for the study

Activity Short Description:

Once the business area leadership has a high level understanding of the planning concept and resource commitments then they are ready to discuss the selection of an Executive Sponsor. An Executive Sponsor should be just that – an executive who is willing to sponsor and champion the concept of transformation within the business area. The Executive Sponsor will be a visionary leader for the core team and will play a key ultimate decision making role in determining the direction and scope of the Blueprint findings and recommendations. There is no science to selecting the Executive Sponsor however an informal nomination process followed by a silent vote is generally a good approach. The Executive Sponsor can be at any level within the organization but should be in a position of leadership for all of the participants on the Core Team.

Activity Tasks:

1. Facilitate a brainstorming exercise to list potential Executive Sponsors. List these potentials on a white board and list who "nominated" each person.
2. After the brainstorming has run its course, have each "nominator" speak to the pros and cons of the person that was nominated.
3. Allow the leadership to submit soft vetoes. Although there is no real official veto authority, allow the leadership to discuss nominees that they strongly do not agree with having as the Executive Sponsor.
4. Conduct a silent vote, tally the results, and inform the leadership.
5. Allow for any additional comments on the voting results and then declare the voting final.

Communications Considerations:

In scenarios where multiple organizations are represented, it is a good idea to have a person that can transcend differences of opinion between organizations. Having a dominant person that takes the position of one organization or another is not a good idea. Communicate this concept to the leadership and let them know that the Executive Sponsor needs to unite, not divide.

Activity Work Products and Templates:

None

Activity 3 - Perform a more detailed training session for the leadership

Activity Short Description:

In Activity 1, you provided the leadership with an overview of the MBT and the time commitments for performing a successful transformation study. Activity 3 is focused on providing a more detailed training session on the approach and what they can expect over the next several months. Where the informational aspect of Activity 1 could have taken 30 minutes, Activity 3 could take a couple of hours.

Activity Tasks:

1. Leverage the MBT Training Materials from the MBT Toolkit in order to tailor a succinct presentation that will provide a more detailed overview of each of the Steps for creating a Modernization Blueprint.
2. Perform the training over the course of a couple of hours. Do not make the training longer than 2 hours or shorter than 1 hour. Provide the leadership with URLs, phone numbers, and email addresses for key contacts should then have additional questions or concerns.
3. Answer any questions that they might have.

Activity Communications Considerations:

This activity is not about getting the leadership trained as MBT practitioners. This activity is about providing a more detailed appreciation for the breadth and rigor of the MBT related analysis. This should provide them with a better understanding of what their resources will be doing and they types of findings and recommendations that they can expect.

Activity Work Products and Templates:

None

Activity 4 - Develop purpose statement for the Blueprint

Activity Short Description:

Before the leadership disbands back to their organizations and leaves the steering of the study to the Executive Sponsor, it is critical that the leadership formulate their intent for the transformation planning process. This "purpose statement" serves to communicate to the MBT participants the reason why the Blueprint is being created. In some cases this can a high level statement of principles. In other cases this can be a more detailed listing of objectives and expected areas to consider. This is the leadership's opportunity to put a stake in the ground about why this Blueprint is important and what its intended purpose is for the business area.

Activity Tasks:

1. Facilitate a brainstorming session where the leadership provides expectations, outcomes, principles, needs, and other statements or words that might lead to the purpose of the Blueprint.
2. Let the leadership then take turns trying to formulate those brainstormed concepts into a sentence or a few sentences that articulates a meaningful purpose for this study.
3. Once there is unanimous support for a meaningful purpose statement, declare it official by pasting into the Blueprint Purpose Statement template and having the leadership sign the document.

Activity Communications Considerations:

Without consensus as to purpose at the top leadership levels, the MBT participants will struggle in their direction. Although there will be an Executive Sponsor throughout the process, the MBT participants need to see their organization's leader signed in agreement to purpose statement. Maintain focus on the visionary benefits of this work product and encourage the leadership to produce something meaningful and clear.

Activity Work Products and Templates:

Blueprint Purpose Statement: This is the template that captures the leadership's unanimous thoughts on what purpose the Blueprint should serve for the business area. This template has signature lines for each of the business area leaders whose organizations are participating in the study.

- **TEMPLATE:** Link to Blueprint Purpose Statement (MS Word format)

4. Step References

Not Applicable.

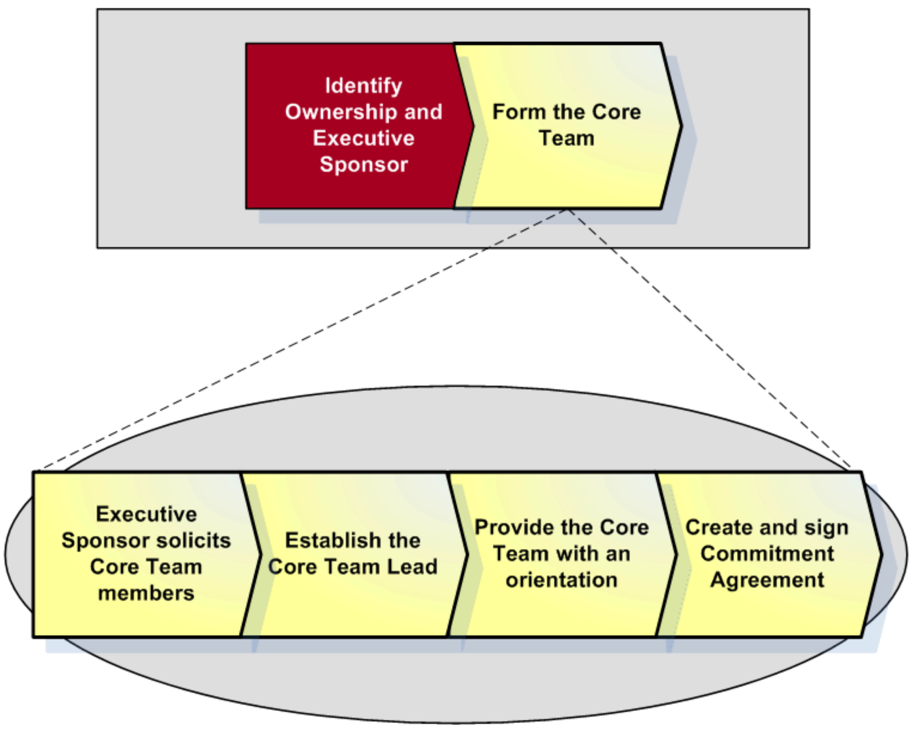
Step C:

Form the Core Team

Version 1.5, December 2006

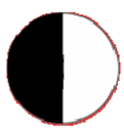
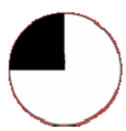
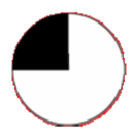
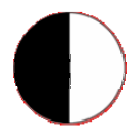
1. Step Description and Purpose

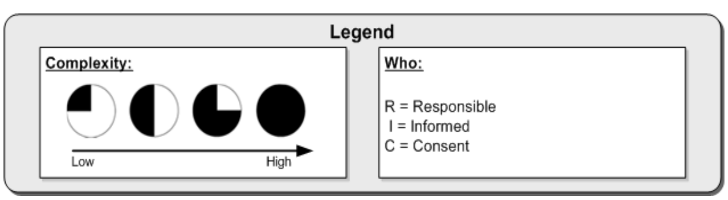
The *Form the Core Team* step is intended to get the right people to participate in the MBT process and to ultimately help guide and shape the findings and recommendations captured in the Modernization Blueprint. The Executive Sponsor solicits key resources from each of the affected organizations and forms the core team that will remain as a standing body throughout the MBT process. This step concludes with a Commitment Agreement that bonds the core team into active and constructive participation throughout the MBT process.



2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	**Executive Sponsor solicits Core Team members**	**Establish the Core Team Lead**	**Provide the Core Team with an orientation**	**Create and sign Commitment Agreement**
Inputs (source)	Record of Decision for Business Area to Blueprint (Step A) Blueprint Purpose Statement (Step B)	Record of Decision for Business Area to Blueprint (Step A) Blueprint Purpose Statement (Step B)	MBT Training Materials (MBT Toolkit)	Record of Decision for Business Area to Blueprint (Step A) Blueprint Purpose Statement (Step B)
Outputs	Core Team Solicitation Memorandum	Core Team Formation Memorandum	None	Core Team Commitment Agreement
Who (role)	Executive Sponsor [R] Business Area Leaders [C]	Executive Sponsor [R]	Executive Sponsor [C] Core Team [I] Enterprise Architect [R]	Executive Sponsor [C] Core Team [R] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	30 day	15 day	5 days	25 days
Complexity				



Keys to Success:

Ensure that you have Core Team members that are eager to participate in modernization planning. A good Core Team is more important than quickly completing this Step.

3. Activity Details

Activity 1 – Executive Sponsor solicits Core Team members

Activity Short Description:

The Core Team is a critical entity throughout the MBT process. Without a strong, enthusiastic, and constructive Core Team, the end results of the study will not be validated, highly applicable, and will probably not be able to be implemented due to organizational resistance. This activity is focused on the Executive Sponsor working to discover and recruit the best and brightest representatives from the affected organizations. All affected organizations need a seat at the table and that seat needs to be filled by an individual who will embrace the Blueprint Purpose Statement from Step B and respond positively to the Executive Sponsor and the other Core Team members. In general, you want less than 10 people on the Core Team.

Activity Tasks:

1. The Executive Sponsor can work with the other business area leadership to identify the best people to represent the organizations on the Core Team. The Executive Sponsor can send the Core Team Solicitation Memorandum to the business area leadership in order to get nominees for Core Team members. Remind the Executive Sponsor that Core Team members might need to meet as frequently as once per week.
2. The Executive Sponsor should have the applicable organizational leads contact identified Core Team members. The Executive Sponsor should then follow up with a phone call or meeting with each Core Team member to discuss the intent of the study and resource commitments.
3. Schedule the first Core Team workshop

Activity Communications Considerations:

Let the Executive Sponsor know that it is OK to be picky about who will be on the Core Team. Non-supporting members can be highly distracting to the team and its focus. Positive members are ones that are constructive and willing to commit the time and energy to the endeavor. Also let the Executive Sponsor know that it is important to initially communicate one on one with each of the Core Team members. The Executive Sponsor should welcome the Core Team members and communicate the value of their contributions and time sacrifices.

It is also critical for there to be accurate communications as to the role and time commitment associated with this endeavor. Ensure that the prospective core team members know what level of effort to expect during development of the Blueprint. Their input during this process will not be exclusively an oversight, but they will be expected to participate in the development of findings, recommendations and "sell" these through their organization. They will essentially "own" the blueprint outcomes.

Activity Work Products and Templates:

Core Team Solicitation Memorandum: This memorandum serves to solicit business area leadership in order to gather potential members for the Core Team. This memorandum restates the Purpose Statement for the Blueprint, the expected time commitments, and asks for nominations of Core Team members to represent affected organizations.

- **TEMPLATE :** Link to Core Team Solicitation Memorandum (MS Word format)

Activity 2 – Establish the Core Team Lead

Activity Short Description:

At the initial Core Team Workshop (scheduled in Activity 1), the team will convene to work through Activities 2, 3, and 4. The first order of business during the workshop is to provide a brief overview of the process, a brief overview of how the study came about, and then to vote on a Core Team Lead. The Core Team Lead will work more closely with the Enterprise Architect and the governance teams throughout the MBT process. The Core Team Lead should have good communications and presentation skills and be willing to be actively engaged with coordinating Core Team meetings and review sessions.

Activity Tasks:

1. Provide the Core Team with a brief overview of the record of decision from Step A and, if necessary, the prioritization process from Step A.
2. Provide the Core Team with the Blueprint Statement of Purpose from Step B.
3. Provide the Core Team with a brief overview of the MBT including, most importantly, the breadth of areas typically studies by the MBT.
4. Provide the Core Team with an overview of other business areas using the MBT to perform transformation planning and their experiences and time commitments.
5. Solicit self-nominations to be the Core Team Lead.
6. Conduct a vote (a silent vote might be a good way to do this), tally the results, and inform the Core Team.
7. Draft the Core Team Formation Memorandum to communicate the membership, purpose statement, and time commitments to a wider audience.
8. Circulate the Core Team Formation Memorandum to the Core Team for review and feedback.
9. Have the Executive Sponsor distribute the Core Team Formation Memorandum to the leads of all affected organizations.

Communications Considerations:

The role of Core Team Lead can be daunting and without a well articulated explanation of the role, there will be no volunteers. Be sure to communicate the expectations and benefits of the role so that you can solicit some self-nominations.

Activity Work Products and Templates:

Core Team Formation Memorandum: This memorandum serves to communicate and make official the existence and purpose of the Core Team as well as the membership that has been drawn from each of the affected organizations. This is an official communications mechanism.

- **TEMPLATE :** Link to Core Team Formation Memorandum (MS Word format)

Activity 3 – Provide the Core Team with an orientation

Activity Short Description:

This activity is focused on providing a more detailed training session on the MBT approach and what they can expect over the next several months. It is important to also communicate the time commitments that they should expect during the course of the MBT.

Activity Tasks:

1. Leverage the MBT Training Materials from the MBT Toolkit in order to tailor a succinct presentation that will provide a more detailed overview of each of the Steps for creating a Modernization Blueprint.
2. Perform the training over the course of a couple of a half day sessions. Provide the Core Team with URLs, phone numbers, and email addresses for key contacts should then have additional questions or concerns.
3. Answer any questions that they might have.

Activity Communications Considerations:

This activity is not about getting the Core Team trained as MBT practitioners. This activity is about providing a more detailed understanding of what the Core Team will be experiencing, hearing, and contributing to over the next several months. This should provide the Core Team with a better understanding of their time commitments and what they will ultimately produce of value at the end of the MBT process.

It may be desirable to initiate each MBT Step with a quick overview session (not more than 1-2 hours) to refresh the Core Team's understanding of what comes next as they proceed through subsequent transformation activities. This will help keep the Core Team focused on the upcoming MBT activities in each Step, and also maintain awareness of progress as the team proceeds through the MBT.

Activity Work Products and Templates:

None

Activity 4 – Create and sign Commitment Agreement

Activity Short Description:

The Core Team has been trained and has been briefed on the Blueprint Purpose Statement from Step B. Before the Core Team moves into analysis mode, it is important to capture the spirit and commitment of the team in a simple Commitment Agreement. This activity is focused on producing this Commitment Agreement so that there is a bond and common cause that is harnessed from the start of the study.

Activity Tasks:

1. Review the record of decision from Step A and the Blueprint Purpose Statement from Step B with the Core Team.
2. Review the concept of a Commitment Agreement – what it is, and what it is not.
3. Review the Commitment Agreement template which includes an example of a Commitment Agreement.
4. Facilitate a discussion about what is good and bad about the Commitment Agreement template. Make these updates to the Commitment Agreement in real time.
5. Once there is unanimous support for the Commitment Agreement, declare it official by having the Core Team sign the document. Note that this might have to be taken offline and done through a series of emails. It is optimal to have this done in person, and signed at the workshop.

<u>Activity Communications Considerations:</u>

Without consensus as to commitment of the Core Team members, there will be too many divergent paths for members to take as the team progresses into the MBT. Although there will be an Executive Sponsor throughout the process, the Core Team members need to see that the other Core Team members are committed to being active and constructive participants in the process .

<u>Activity Work Products and Templates:</u>

Core Team Commitment Agreement: This is a short document that builds from the Blueprint Statement of Purpose (Step B) and the record of decision (Step A) and commits the members of the Core Team to participate in the development and implementation of the Modernization Blueprint.

- **TEMPLATE :** Link to Core Team Commitment Agreement (MS Word format)

4. Step References

Not Applicable.

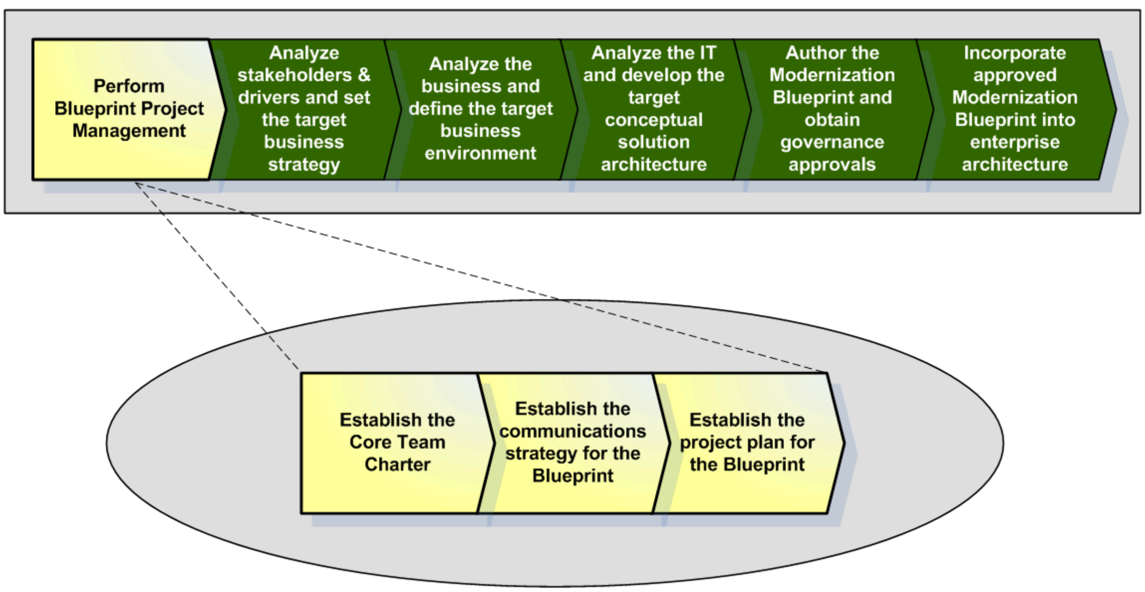
Step 1:

Perform Blueprint Project Management

Version 1.5, December 2006

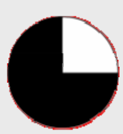
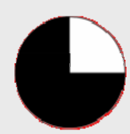
1. Step Description and Purpose

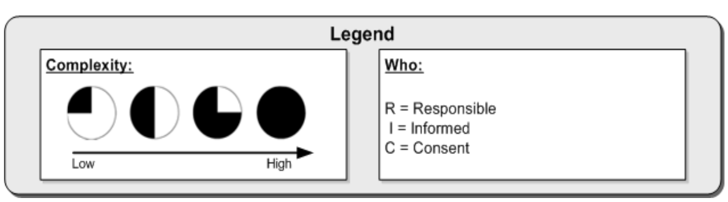
The Perform Blueprint Project Management step is intended to establish the key supporting project management tasks necessary to successfully manage and execute the Blueprint effort. The detailed activities for the Step 1 will ensure the project team follows solid project management practices, establishes its charter in line with blueprint's stated purpose, and executes its critical communications strategy.



2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	**Establish the Core Team Charter**	**Establish the communications strategy for the Blueprint**	**Establish the project plan for the Blueprint**
Inputs (source)	Record of Decision for Business Area to Blueprint (Step A) Core Team Commitment Agreement (Step C) Blueprint Purpose Statement (Step B) Record of Decision for Business Area to Blueprint (Step A) Blueprint Purpose Statement (Step B) Core Team Commitment Agreement (Step C)	Record of Decision for Business Area to Blueprint (Step A) Blueprint Purpose Statement (Step B) Core Team Commitment Agreement (Step C) Core Team Charter	MBT Blueprint Project Plan Template (MBT Toolkit) Core Team Charter Communications Strategy
Outputs	Core Team Charter	Communications Strategy Communications Plan	MBT Blueprint Project Plan
Who (role)	Core Team [R] Executive Sponsor [C] Enterprise Architect [Support] CPIC Coordinators/Capital Planning [I]	Core Team [R] Executive Sponsor [C] Enterprise Architect [Support]	Core Team [R] Executive Sponsor [C] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	30 days	25 days	20 days
Complexity			



Keys to Success:

The role of the Enterprise Architect is to provide facilitation and support to these activities while allowing the Core Team to begin making group decisions and solidifying their group dynamic.

3. Activity Details

Activity 1 – Establish the Core Team Charter

Activity Short Description:

The Core Team needs to establish a charter to support the development of the Blueprint. The Blueprint's development should be treated as a project management effort. The charter establishes the legitimacy of the project, the role of its players, operational ground rules, and its stated objectives and goals. These are critical decisions in the lifecycle of a project where project criteria like scope and objectives need to be thoroughly defined and understood.

Activity Tasks:

1. Establish time table for Project Charter completion and approval
2. Create draft charter using MBT Toolkit Template for Project Charter
3. Incorporate Core Team composition, Blueprint Purpose and background, Record of Decision (ROD) and ROD background information
4. Develop project management structure
5. Establish decision making rules for team
6. Review and approve Project Charter
7. Get Executive Sponsor signature and endorsement
8. Publish Project Charter

Activity Communications Considerations:

The charter development and its timetable need to be communicated effectively within the Core Team and the executive sponsor. Charters are often difficult to bring to closure and can cause delays in getting the project going. The effort needs to aggressively pursue the approval of the charter with the executive sponsors, Core Team and support staff, by timely and proactive identification and resolution of issues.

The completed and approved charter with its scope and objectives should be communicated to the governance community and executive management to ensure the initial purpose will be addressed by the scope and objectives.

Activity Work Products and Templates:

Blueprint Core Team Charter Template: Template for a Blueprint Core Team Charter

- **TEMPLATE:** Link to Core Team Charter Template (MS Word Format)

Activity 2 – Establish the communications strategy for the Blueprint

Successful Blueprint communication requires the development of two supporting products. A communication strategy and a supporting plan to execute the strategy. The strategy work product uses the Blueprint Purpose Statement, knowledge of the existing organization and ongoing organizational activities to identify the classes of stakeholders who will be influenced by the effort. It develops the necessary value-based messages for the respective class of stakeholders. As an integral part of its strategy, the project should establish a web site to facilitate barrier-less information dissemination. The supporting plan addresses the necessary targeting, (stakeholder, timing and delivery means) of the value message. This targeting should orchestrate with existing organizational, informational channels, behaviors, calendars and events to optimize reach and usefulness. Examples of key organizational events would be annual workshops, collaborative forums, Communities of Practice or Interest (COP, COI), annual budget cycle, field season, and so forth. The plan should identify the optimal formats, delivery mechanisms (email, brochure, presentations, and web) to sustain effective communications.

Activity Tasks:

1. Develop Communication Strategy
2. Identify the classes of stakeholders and key messages for the project
3. Develop the project's communication plan
4. Identify related key events and activities related to each stakeholder
5. Outreach to COI and COPs to establish communication points of contact
6. Customize messages for project status and stakeholders
7. Implement the Project Web Site
8. Execute Communication Plan continuously

Activity Communications Considerations:

In enterprise transformation efforts, it is important that the affected stakeholders be aware of the potential changes like new business processes, and changes in organizational relationships or policy as early as possible. Successful transformation relies on clearly defined, transparent objectives and enterprise goals with strong supporting communications to attain organizational buy-in. Communication should be treated as a continuous activity whose benefits are to be measured in the long term during acceptance of a project's recommendations. As stakeholders begin to provide feedback into ongoing activities, it is important to log the communications and resolve and respond as resources permit.

Activity Work Products and Templates:

Communications Strategy: This product identifies the key classes of stakeholders and the strategic messages that need to express the value of the project to the organization.

- **TEMPLATE :** Link to Communications Strategy Template (MS Word format)

Communications Plan: The plan takes the strategy and puts the strategy into an actionable set of activities. These activities should be integrated into the overall MBT schedule.

- **TEMPLATE :** Link to Communications Plan Template (MS Excel Format)

Activity 3 – Establish the project plan for the Blueprint

Activity Short Description:

The blueprint project will require the development and maintenance of a project plan. Blueprint project efforts can take between six to nine months and involve dozens of participants from executive managers to subject matter experts. The blueprint plan template, a part of the MBT toolkit, identifies the necessary activities, their sequence and associated deliverables. The creation of the project plan requires having the Core Team and executive sponsorship established. In addition to the plan, the project should establish a collaborative site to manage the development and review of work products and final deliverables.

Activity Tasks:

1. Review blueprint project plan template.
    a. Review blueprint sample work products
    b. Assess the Enterprise Architecture (EA) Repository for availability and quality of existing information for the blueprint business area to determine level of data collection effort. Use the reporting web site to access reports.
2. Establish Resource Requirements
3. Establish Collaborative Work Area
    a. Establish document approval process and document management rules
    b. Create role based access for document approval process
    c. Establish communication information for key participants including email, phone
4. Develop background knowledge
    a. Assess the CPIC Databases for related investments
    b. Assess and organize the relevant information from the following areas: Performance Accountability Report (PAR), Program Assessment Rating Tool (PART), GAO reports, E-gov, Security, HR related efforts, and external agencies related architectures.
    c. Identify and assess other ongoing transformation initiatives (other blueprint projects, business re-engineering) for relevance to blueprint project
5. Build Project Resource
    a. Establish resource availability and projected roles
    b. Identify external technical experts if required
    c. Identify Subject matter experts
6. Integrate CPIC and Governance Calendars into Blueprint Project Plan
7. Integrate Communications Plan into Blueprint Project Plan
8. Identify resource and schedule risks.
9. Build out resource loaded Blueprint plan
10. Publish Plan for Review by Core Team
11. Publish approved plan into DOI Enterprise Transition Plan (MS Server version of Project)

Activity Communications Considerations:

Keep the established stakeholders informed with the projected status of the project plan key milestones.

Activity Work Products and Templates:

MBT Blueprint Project Plan: The blueprint project plan should contain all the necessary activities, dependencies, resources and deliverables to support the successful development of the blueprint.

- **TEMPLATE :** Link to MBT Blueprint Project Plan Template (Zip file containing MS Project and Adobe Acrobat formats)

4. Step References

Not Applicable.

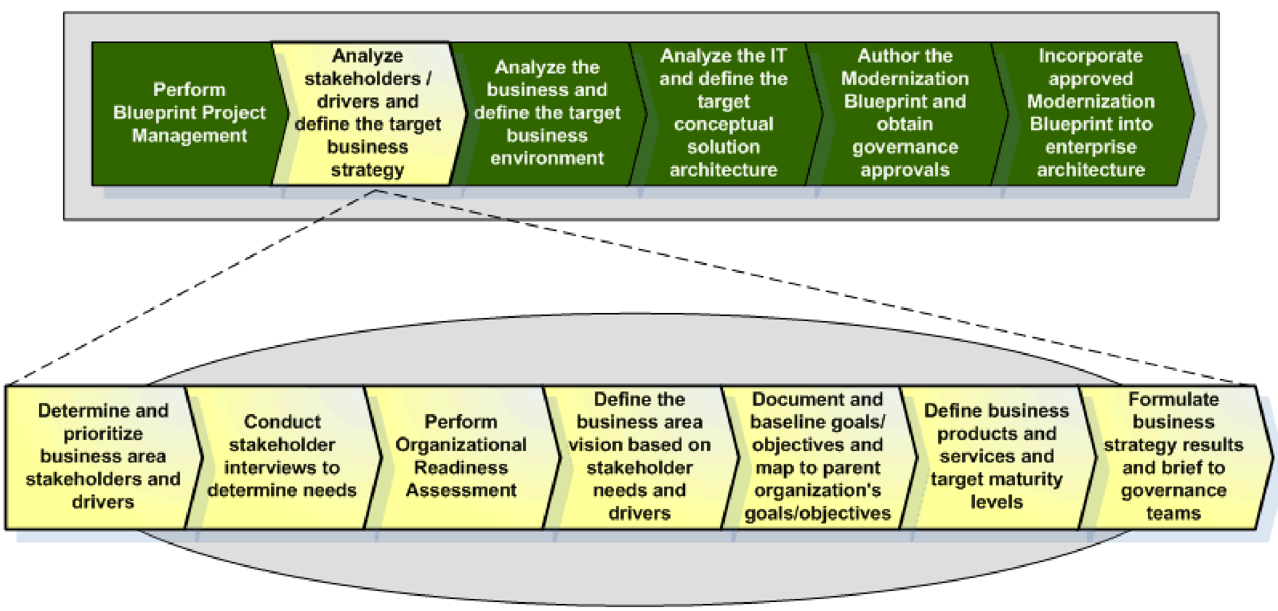
Step 2:

Analyze Stakeholders/Drivers and Define the Target Business Strategy

Version 1.5, December 2006

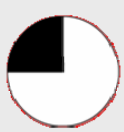
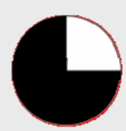
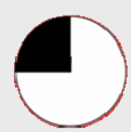
1. Step Description and Purpose

The step *Analyze Stakeholders/Drivers and Define the Target Business Strategy* provides the opportunity to evaluate the strategic objectives, business mandates/drivers, organizational readiness, products and services and the principal stakeholders of the business area. With the intended purpose of the blueprint identified and established in MBT Step B, Step 2 creates the strategic business context and the key components of the line of sight. Step 2 instantiates the line of sight relationship from stakeholder needs and business mandates/drivers to mission performance and scorecard through to the supporting products and services. The gathering and analysis of stakeholder needs and business drivers will provide the required information assets to create the target business vision and strategy for the business area. The subsequent MBT steps and blueprint development effort must align with the target goals (scorecard) and vision of the business area established in this step.

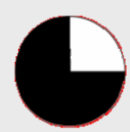


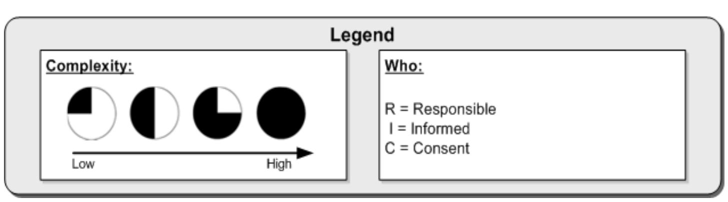
2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	**Determine and prioritize business area stakeholders and drivers**	**Conduct stakeholder interviews to determine needs**	**Perform Organizational Readiness Assessment**	**Define the business area vision based on stakeholder needs and drivers**
Inputs (source)	Blueprint Purpose Statement (Step B) Communications Plan (Step 1) Known Drivers/Mandates (PART, GAO, OMB reports) Strategic Plan(s), Performance Reference Model(s) (PRM)	Stakeholder Hierarchy Diagram and Prioritized List Business Drivers/Mandates Hierarchy Diagram and Prioritized List	Stakeholder Exchange Diagram SWOT Diagram	Stakeholder Hierarchy Diagram and Prioritized List Business Drivers/Mandates Hierarchy Diagram and Prioritized List SWOT Diagram Stakeholder Exchange Diagram Strategic Plan(s), Performance Reference Model(s) (PRM) Organizational Readiness Assessment
Outputs	Stakeholder Hierarchy Diagram and Prioritized List Business Drivers/Mandates Hierarchy Diagram and Prioritized List	Stakeholder Exchange Diagram SWOT Diagram	Organizational Readiness Assessment	Vision Document
Who (role)	Core Team [R, I] Executive Sponsor [C] Enterprise Architect [Support]	Core Team [R] Stakeholders [I] Enterprise Architect [Support]	Core Team [R, I] Executive Sponsor [C] Enterprise Architect [Support]	Core Team [R, I] Executive Sponsor [C] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	5 day	30 days	10 days	5 days
Complexity				

Step 2 Guidance: Analyze stakeholders/drivers and define the target business strategy

CTRL + click the activities for activity details ->	Document and baseline goals/ objectives and map to parent organization's goals/objectives	Define business products and services and target maturity levels	Formulate business strategy results and brief to governance teams
Inputs (source)	Strategic Plan(s), Performance Reference Model(s) (PRM) Business Drivers/Mandates Hierarchy Diagram and Prioritized List Organizational Readiness Assessment SWOT Diagram Stakeholder Exchange Diagram Vision Document	Goals and Objectives Hierarchy Diagram with Baseline Data Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix Business Area Balanced Scorecard Business Area Strategy to Mandates Matrix Organizational Readiness Assessment SWOT Diagram Stakeholder Exchange Diagram	All products from this step
Outputs	Goals and Objectives Hierarchy Diagram with Baseline Data Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix Business Area Balanced Scorecard Business Area Strategy to Mandates Matrix	Business Area Products and Services Maturity Model	Presentation on Business Area Strategy and Products and Services
Who (role)	Core Team [R, I] Executive Sponsor [C] Enterprise Architect	Core Team [R, I] Executive Sponsor [C] Enterprise Architect	Core Team [R, I] Executive Sponsor [C] Governance Teams [C] Enterprise Architect CPIC Coordinators/Capital Planning [I]
Duration	20 days	30 days	5 days
Complexity			



Keys to Success:

The rest of the MBT Blueprint Creation phase is based on the information gathered and formulated during this step. Effective stakeholder interviews and a thoughtful development and acceptance of the Products and Services Maturity Model are critical to the Blueprint's success.

3. Activity Details

Activity 1 – Determine and prioritize business area stakeholders and drivers/mandates

Activity Short Description:

This activity establishes the key stakeholders and business drivers/mandates. The team needs to develop the list of mandates and business drivers for the business area. Typically, these will include a number of general drivers like the Strategic objectives and goals, President's Management Agenda, E-Government, GAO reports, OMB Program Assessment Ratings, existing major investments etc. These are important considerations but the discussion should not be restricted to these topical areas. It is very important to use one's subject matter expertise and explore the needs and demands of the external customer base or stakeholders like the citizens, affected industries or special interests.

The Core Team needs to create the list of stakeholders. The team should use the initial list of stakeholders from the communication plan as a starting point. The team should review, and if necessary update, the stakeholder list. Once agreed upon, the team should prioritize the stakeholders based on importance to the business. It is critical for the Core Team to prioritize stakeholders to ensure the most significant issues and subsequent resource allocations are focused effectively.

Activity Tasks:

1. Review Blueprint Purpose Statement from MBT Step B
2. Review Communication Plan from MBT Step 1 for classes of Stakeholders
3. Establish a complete list of business drivers and mandates. Use the knowledge of the Core Team to identify existing internal and external enterprise information sources that are critical to the business area. The following is a general checklist for guidance:
    a. Extract the existing mandates and business driver information from the Enterprise Architecture (EA) Repository. Use the existing data as appropriate to improve data quality and more complete understanding of the impact of the mandates/drivers on the business areas.
    b. Identify and review existing Performance Assessment Rating Tool (PART) for assessment results and recommendations of programs or services associated to the business area
    c. Review Strategic Plans for the Department and related Bureaus for performance objectives and goals related to the business area. Use EA Repository PRM reports to list the end and intermediate outcomes and measures
    d. Identify and review any ongoing Workforce planning or transformation initiatives (Competitive Sourcing, A-76 actions) that would affect the business area
    e. Identify and review existing major investments within the business area from the Information Technology (IT) Capital Planning Investment Control (CPIC) perspective. Use the EA Repository system to generate the report on existing investments.
    f. Identify and review existing GAO reports, Inspector General audit reports, and independent auditor reports that have been issued within the last several years that would affect the business area

   g. Identify and review existing e-Gov requirements within the business area
   h. Identify and review externally driven standards requirements or cooperative agreements or contracts that will exert an influence on the business area
   i. Ensure key regulatory and legal requirements are identified.
   j. Identify any fixed asset planning issues or activities that affect the business area.
   k. Review the Management Initiatives Tracking System (MITS) for identified enterprise activities that would address the deficiencies in e-Gov, GAO or PART assessments and reviews.
   l. Have the Core Team identify additional business drivers

4. Establish the complete list of Stakeholders with the Core Teams assistance
   a. Use the EA Repository to extract lists of existing stakeholders that have already been defined. Stakeholders may cross business areas.
   b. Using inputs from activity 3 generate draft list of stakeholders
   c. Use Core Team, or their assigned resources, to complete the stakeholder list
   d. Review and finalize list of stakeholders
5. Ensure that the stakeholder list does not contain duplicates and the items in the list are at the same level of specificity. Classify the stakeholders into groups and build the Stakeholder Hierarchy Diagram.
6. Prioritize the Stakeholders list with Core Team's using a facilitated rating and ranking scoring process. It is preferred to do this in a workshop setting.
7. Develop the list of business drivers or mandates that address Federal and Departmental and external stakeholder drivers. Note that the list will continue to evolve as more information is discovered through the stakeholder and business analysis activities.

Activity Communications Considerations:

The prioritized list of business drivers/mandates should be input into Step 2 activity 7 communication activities

The prioritized list of stakeholders should be used to fine tune the communication plan developed in MBT Step 1. With the most significant stakeholders identified, the communication plan should develop more targeted messages and strategies to keep them apprised of blueprint developments and issues.

Activity Work Products and Templates:

Stakeholder Hierarchy Diagram and Prioritized List: The Core Team along with the architecture support staff will develop a list of stakeholders. These stakeholders will be classified and prioritized. The list is used to create the stakeholder hierarchy diagram to support issue prioritization, communication efforts, visualization and future information reuse.

- **TEMPLATE:** Stakeholder Hierarchy (Adobe Acrobat format)
- **TEMPLATE:** Stakeholder Hierarchy (Visio format)

Business Drivers/Mandates Hierarchy Diagram and Prioritized List: The Core Team along with the architecture support staff will develop a list of business drivers/mandates. These drivers/mandates will be classified and prioritized. The list is used to create the business drivers and mandates hierarchy diagram to support communication efforts, visualization and future information reuse purposes.

- **TEMPLATE:** Business Drivers/Mandates Hierarchy and Prioritized List (Adobe Acrobat format)
- **TEMPLATE:** Business Drivers/Mandates Hierarchy and Prioritized List (Visio format)

Activity 2 – Conduct stakeholder interviews to determine needs

This activity is designed to ensure the issues and ideas identified and managed throughout the blueprint project are grounded in the actual needs of the prioritized stakeholder community. The activity, using techniques like questionnaires, structured interviews or surveys, will collect the critical concerns and needs of the stakeholder community.

Activity Tasks:

1. Determine which prioritized stakeholders will need to be involved
2. Determine what form the stakeholder interviews will take (e.g. brainstorming, formal interviews, questionnaires, etc.). Develop guidance for communicating how the results will be used. Ensure privacy of information.
3. Brainstorm on what questions and issues you need answered by the stakeholders. Topical areas would include quality of service assessment:
   a. What is it like working with our products or services?
   b. How can they be improved?
   c. Are we providing the correct products?
   d. What additional products or services would be of value to you?
   e. Are there other participants that we could work with to improve our products and services?
4. Establish schedule for stakeholder interactions
5. Conduct Stakeholder interviews, surveys etc.
6. Record the results of the discussions in detail
7. Organize the results of the stakeholder interactions through keywords, classifications or themes.
8. Analyze the stakeholder results and develop diagrams for Stakeholder Exchange and SWOT Analysis
9. Review and validate exchange diagram and SWOT with the Core Team.
10. Identify common needs across stakeholders
11. Normalize list of needs once validated with stakeholders

Activity Communications Considerations:

It is important to prepare the stakeholders with a communication (like an introductory slide presentation) prior to the interviews. Ensure that they know how the information gathered during the interviews will be used. Discuss any issues or concerns about the limits of how the information should be used.

Coordinate with the Public Affairs group when interacting with external stakeholders

Activity Work Products and Templates:

Stakeholder Exchange Diagram: The architect will create an exchange diagram that identifies the products and services that the Business Area is delivering to its stakeholder, defined within the stakeholder hierarchy. The diagram is useful to capture the as-is products and services as well as the target products and services, i.e. those the stakeholder community is requesting.

- **TEMPLATE:** Stakeholder Exchange Diagram (Adobe Acrobat format)
- **TEMPLATE:** Stakeholder Exchange Diagram (Visio format)

SWOT Diagram: The Core Team will develop a Strengths, Weaknesses, Opportunities and Threats (SWOT) diagram based upon the stakeholder needs assessments and interviews. This analysis and diagram provides an effective communication tool for characterizing the business landscape from both an internal perspective (Strengths and Weaknesses) and an external one (Opportunities and Threats). The diagram is intended to provide a simple means of focusing on issues affecting the Business Area.

- **TEMPLATE:** SWOT Diagram (Adobe Acrobat format)
- **TEMPLATE:** SWOT Diagram (Visio format)

Activity 3 – Perform organizational readiness assessment

The analyst is equipped with a quantitative scoring template that will aid in summarizing the analysis and interviews from the business analysis tasks. The "Organizational Readiness Assessment" is a scoring template designed for the analyst to work with the Core Team (and possibly stakeholders) to assess the business area's organizational, information, and human capital. Specifically, this self-assessment evaluates items like leadership, customer focus, process management, business results, and human resource focus. The criteria for this assessment are based on the Baldridge Performance Criteria from National Institute of Standards and Technology (NIST). Ultimately, the stakeholder interviews, blueprint research, data gathering and analysis are all used as inputs into this evaluation mechanism. Once complete, the assessment results provide a key defensible work product to support Blueprint's organizational, system and HR related findings.

Activity Tasks:

1. Facilitate a session with the Core Team so that they complete the Organizational Readiness Assessment in an efficient amount of time
2. Use the tools within supporting Work products to organize and analyze the information. Compile the multiple self assessments into an integrated worksheet.
3. Brief the Core Team on the results of the Organizational Readiness Assessment and solicit feedback

Activity Communications Considerations:

Results of the assessment will identify issues and opportunities for developing targeted communications messages for the organization or stakeholder communities

Activity Work Products and Templates:

Organizational Readiness Assessment: The organizational readiness assessment is a Microsoft Excel workbook containing several worksheets. There is an introduction, scoring assessment and visualization worksheet to orient, capture, and visualize the results of the self-assessment. The resulting visuals can be used to communicate the results of the assessment. The scoring results when compiled will help develop findings.

- **TEMPLATE:** Organizational Readiness Assessment (MS Excel format)

Activity 4 – Define the business area vision based on stakeholder needs and drivers

This document should be a synthesis of the work products developed in MBT Step 2 Activities 1, 2 and 3. It needs to articulate the strategic business direction for the business area, based on the strategic goals and objectives, stakeholder assessment, organizational readiness and business drivers and mandates. The vision provides a general understanding of the gaps in the current business model and the envisioned state. The vision is used in the remaining steps of the MBT to guide and ensure the business community needs are driving the MBT process.

Activity Tasks:

1. Review work products and results of MBT Step 2 Activities 1, 2, and 3
2. Develop Draft Vision
3. Review with Executive Sponsor
4. Review with Core Team
5. Develop and publish Final Vision

Activity Communications Considerations:

The vision provides a critical communication document for the lifecycle of the project. The approved vision provides the opportunity for a general strategic communication to the stakeholder community.

Activity Work Products and Templates:

Vision Document: The Core Team will create a vision document for the Business Area. This document should consider the work products from MBT Step 2 Activities 1, 2 and 3 and focus on the target state of business services and products based on stakeholder assessments.

- **TEMPLATE :** Vision Document (MS Word format)

Activity 5 - Document and baseline goals/objectives and map to parent organization's goals/objectives

With the business drivers/mandates, stakeholder needs, organizational readiness and vision work completed, the blueprint project now has enough strategic insight to begin the process of establishing its goals, objectives, and measures for the business area. These goals, objectives, and measures need to be created in the context of the overall organization's performance reference model, system and strategic plans. Any business area goals need to be defined in relation to existing strategic goals or directly contribute to their respective measures and ensure the integrity of the line of sight. The recommended technique here is the balanced scorecard.

The topical areas for business area improvement should be considered relative to the following categories: Business Results, Customer Results, Processes and Activities, People, Technology, and Other Fixed Assets. Often the MBT Step 2 discovery process will identify performance gaps, faulty measures or need for more focused performance understanding. When creating goals, objectives, and measures for the business area, it is important to be practical. Do not introduce strategic elements that are costly to obtain and/or do not yield significance to overall effectiveness. Objectives should be specific, measurable, achievable, realistic, and time-bound (SMART). Business area goals, objectives, and measures need to be reviewed by the core team and the executive sponsor. The business area goals, objectives, and measures will be used throughout the MBT to help establish the value of the findings and recommendations to the business.

Activity Tasks:

1. Review Strategic Plans and Performance Reference Model (PRM) for the business area
2. Create the goals and objectives hierarchy diagram from the strategic plan, the PRM, and the stakeholder interviews.
3. Analyze the outputs from Activities 1 through 4 and derive performance improvement areas and measures
4. Develop business area measures and document as the balanced scorecard. Use the goals and objectives previously developed.
5. Map the goals, objectives, and measures in the context of the parent organization's goals and objectives to establish relationships and ensure the line of sight integrity
6. Review scorecard and hierarchy diagram with Executive Sponsorship and Core Team
7. Baseline the business area performance model
    a. Update the goals and objectives hierarchy diagram
    b. Update and publish scorecard

Activity Communications Considerations:

This activity produces the critical performance items for the business and how they relate to the larger organization’s strategic goals. Be sure to communicate this strategic message through your communications plan.

The Value Measuring Methodology Activity in MBT Step 5 will require this information.

Activity Work Products and Templates:

Goals and Objectives Hierarchy Diagram with Baseline Data: The Core Team will create a hierarchical goals and objectives diagram derived from the organization’s strategic plan(s) as well as the stakeholder interviews from earlier in this step. This diagram covers the performance responsibility of the business area and the additional goals and objectives discovered during the Step 2 analysis. When available, the baseline measurement data for these goals and objectives should be documented.

- **TEMPLATE:** Goals and Objectives Hierarchy Diagram with Baseline Data (Adobe Acrobat format)
- **TEMPLATE:** Goals and Objectives Hierarchy Diagram with Baseline Data (Visio format)

Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix: This matrix product ensures the goals and objectives are correctly mapped into the overall performance model of the organization. The establishment of these relationships to the overall performance model, ensures the financial value, efficiency or effectiveness contributions are traceable back to the source.

- **TEMPLATE:** Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix (Adobe Acrobat format)
- **TEMPLATE:** Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix (Visio format)

Business Area Balanced Scorecard: The Core Team will build from the business area goals and objectives to develop measures in the context of the balanced scorecard. This product provides an organized technique to weight and manage categorized performance improvements for the effort based on the discovery and analysis of existing capabilities and performance needs.

- **TEMPLATE:** Business Area Balanced Scorecard (MS Excel format)

Business Strategy to Mandates Matrix: This product ensures the goals, objectives, and measures established for the business area relate, via a matrix, to the business drivers and mandates created in Activity 1. This provides a means for ensuring that all relevant mandates are being addressed and conversely, that all business strategies have a legitimate driving force.

- **TEMPLATE:** Business Area Strategy to Mandates Matrix (Adobe Acrobat format)
- **TEMPLATE:** Business Area Strategy to Mandates Matrix (Visio format)

Activity 6 – Define the business products and services and target maturity levels

This activity establishes the listing of key products and services that are required for the business area. The analysis of the stakeholders, vision and organizational readiness determine the need for which products and services are required. With the justification established, the Core Team works to put these services into a time based maturity model. This maturity perspective is critical to subsequent analysis and the organizations capacity to adopt and accommodate change. It provides a pragmatic and managed tool to achieve the business area objectives as laid out in the balanced scorecard.

Activity Tasks:

1. Meet with the Core Team and review stakeholder analysis and strategy analysis
    a. Review prioritized stakeholder needs
    b. Review goals and objectives as well as the vision document
2. Review the balanced scorecard
3. List the products and services that the business area needs to provide or improve upon
4. Match the list of products and services against the goals and objectives and stakeholder analysis to determine the services most demanded
    a. Match each business product and service to a scorecard goal and objective
    b. Match each business product and service to a stakeholder based on the stakeholder exchange diagrams and the SWOT drivers that the individual stakeholders provided
    c. Note that the business products and services that match to the most SWOT drivers and goals and objectives are the highest demanded products and services
5. Brainstorm and document three levels of maturity for each product and service
6. Identify the desired level of maturity to be offered in 1-2 years, and 5 years

7. Adjust the scorecard performance measures to match the time based maturation of the product and service
8. Review the scorecard and the maturity model with the Core Team and Executive Sponsor

Activity Communications Considerations:

The maturity model will be a part of Activity 7 briefing to the governance community. The maturity model will provide a valuable communication perspective to stakeholders. It puts key areas of focus into a time based maturity view that addresses perceptions of risk.

Activity Work Products and Templates:

Business Products and Services Maturity Model: The Core Team will identify and discuss the key products and services that are now required to address the business drivers/mandates, vision, stakeholder needs and the balanced scorecard resulting from the MBT Step 2 discovery and analysis. The discussion should address a reasonable maturity strategy for each of the critical products and services that are deemed to be needed. The objective is to develop a practical framework for the subsequent analysis of the business (Step 3) and technology (Step 4) to provide scoping guidance and ensure analysis maps back to the strategic intent.

- **TEMPLATE:** Business Area Products and Services Maturity Model (MS Word format)

Activity 7 – Formulate business strategy results and brief to governance teams

This activity is designed to ensure the strategic business direction that the Core Team has established is communicated to the DOI governance community. The briefing required by this step should address the key business drivers, vision, stakeholder priorities, stakeholder analysis findings, business objectives and product and services maturity strategy decided by the Core Team. The briefing should communicate how the vision and product and services maturity strategy address the stakeholder analysis findings and support the overall organizational goals and objectives.

Activity Tasks:

9. Create a briefing that depicts the target business products and services, organizational readiness, the stakeholder analysis results and how these relate to organization goals and objectives and mandates.
10. Schedule and brief the Governance Teams and collect comments
11. Manage and resolve comments from the briefing sessions
12. Update Step 2 work products based on comments

Activity Communications Considerations:

This governance briefing will put together the strategic business information that will be required by the communication plan. The communication should be conveyed in common business language and be free from technical jargon.

Activity Work Products and Templates:

Presentation on Business Area Strategy and Products and Services: This briefing will describe the summary results of the strategic business analysis conducted in Step 2. It should address the balanced scorecard, vision, stakeholder analysis, and product and services maturity.

- **TEMPLATE:** Presentation on Business Area Strategy and Products and Services Template (MS PowerPoint format)

4. Step References

Kaplan, R. S. and Norton, D. P., "The balanced scorecard: measures that drive performance", Harvard Business Review Jan/Feb, 1992, pp71-80

Rohm, H. and Halbach, L., “Developing and Using Balanced Scorecard Performance Systems”, August 2005.

Step 3:

Analyze the Business and Define the Target Business Environment

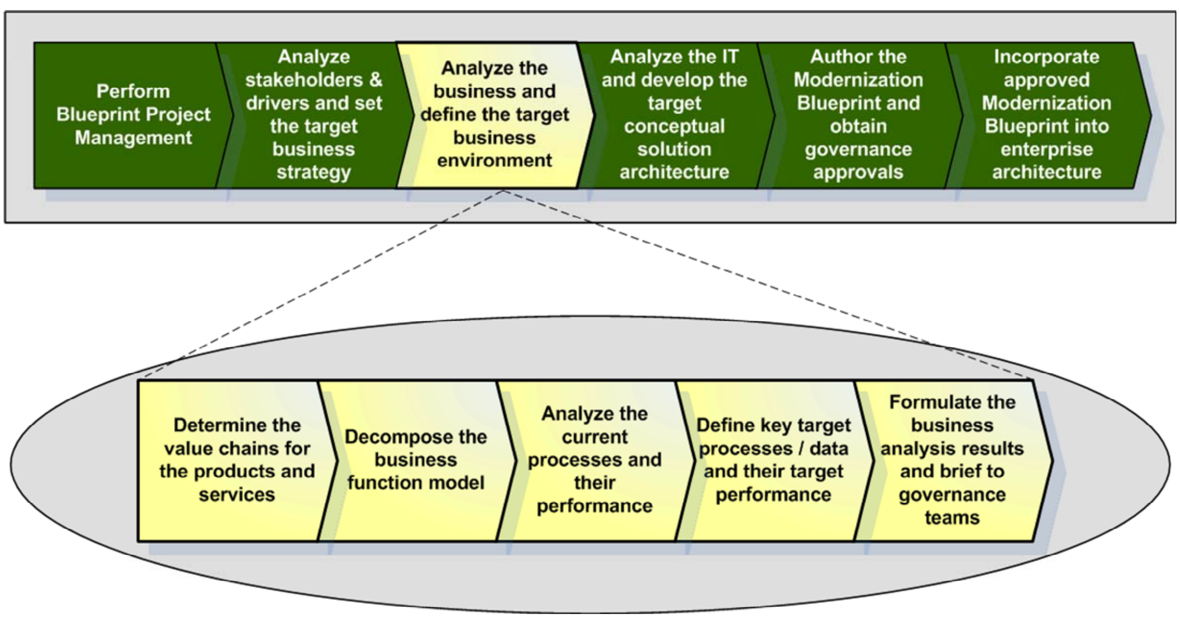
Version 1.5.3, September 2007

1. Step Description and Purpose

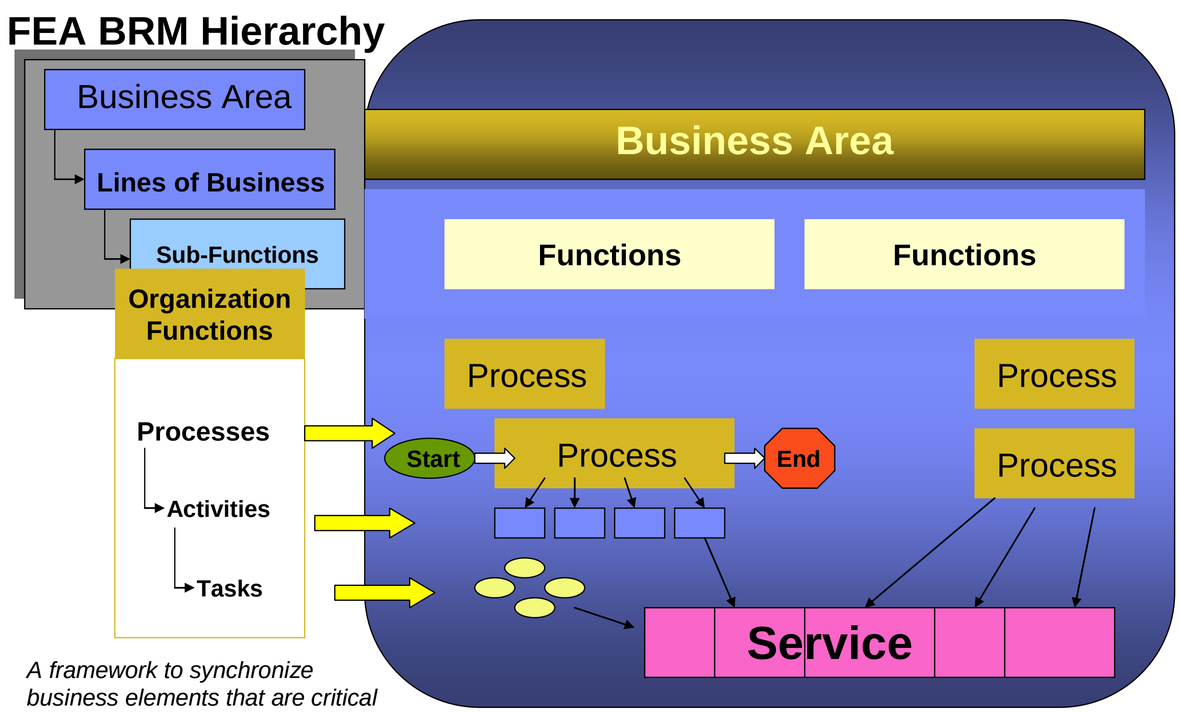
Step 3: *Analyze the Business and Define the Target Business Environment,* is intended to take a closer look at the business products and services, processes, information, and investments in order to formulate and support the findings and recommendations of the Modernization Blueprint.

This step uses outputs from the stakeholder analysis in Step 2 to conduct a more thorough business assessment. The purpose of this step is to document quantitative and qualitative evidence that will provide the basis for subsequent Modernization Blueprint findings and recommendations.

This step begins with the identification of value creation in the context of the business processes that deliver products or services. Analysis of the current business model is performed to identify and analyze the processes that deliver key products and services. Identification of key information sources and data dependencies is used to gain understanding of how knowledge and information is created, transformed, and used by the processes. The step concludes with development of the target processes for the delivery of products and services, along with the information, and data exchanges associated with the processes. At the conclusion of this step, the results of the business analysis are reviewed with the appropriate governance teams.



Processes are a group of related business activities performed to produce an end product or to provide a service. Unlike business functions that are performed on a continual basis, processes are characterized by the fact that they have a specific beginning and an end point marked by the delivery of a desired output. The figure below depicts the relationship between the business processes, business functions, and the business area's business reference model.



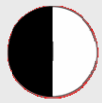
A framework to synchronize business elements that are critical to mission performance and managing change.

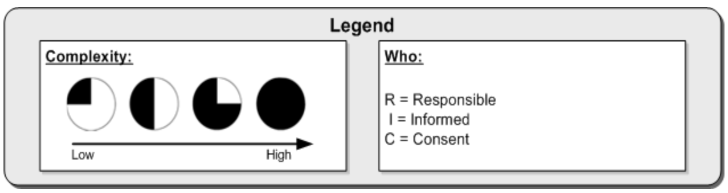
Functions	A logical set of business processes performed on a continual basis. Have no specific beginning or end point.
Processes	Related business activities performed to produce an end product or provide a service. Have a specific beginning and an end point marked by the delivery of a product or output.
Activities	A group of business tasks usually executed in a sequential fashion to achieve intermediate results.
Tasks	The smallest unit of work performed by an organization. Limited in duration and scope.

2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	Determine the value chains for the products and services	Decompose the business function model	Analyze the current processes and their performance	Define key target processes / data and their target performance	Formulate the business analysis results and brief to governance teams
Inputs (source)	Stakeholder Exchange Diagrams (Step 2) SWOT Analysis Diagram (Step 2) Vision Document (Step 2) Goals and Objectives Hierarchy Diagram with Baseline Data (Step 2) Business Area Goals and Objectives to Parent Organization's Goals and Objectives Matrix (Step 2) Business Strategy to Mandates Matrix (Step 2) Business Area Products and Services Maturity Model (Step 2)	Stakeholder Exchange Diagrams (Step 2) As-Is Value Chain Diagram Target Value Chain Diagram Business Reference Model	As-Is Value Chain Diagram Business Function Model Existing documentation of current business process Existing documentation of current and planned investments Stakeholder Exchange Diagrams (Step 2)	Target Value Chain Diagram Business Function Model As-Is Swim Lane Diagram (actual organization) Existing Investments to Business Processes Matrix Business Area's Data Reference Model Stakeholder Exchange Diagrams (Step 2)	All products from this step
Outputs	As-Is Value Chain Diagram Target Value Chain Diagram	Business Function Model	Existing Investments to Business Processes Matrix As-Is Swim Lane Diagram (actual organization)	Target Swim Lane Diagram (proposed organizations) IDEF0 Diagrams for Critical Value Chain Processes Target Information Exchanges Target Logical Data Model Target Business Process to Data Entity CRUD Matrix Target Data Entity Stewardship Matrix	Business and Data Analysis Presentation
Who (role)	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business Expert [I] Principal Data Stewards [C] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Business and Data Governance Teams [C] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	5 days	5 days	15 days	25 days	10 days

CTRL + click the activities for activity details ->	Determine the value chains for the products and services	Decompose the business function model	Analyze the current processes and their performance	Define key target processes / data and their target performance	Formulate the business analysis results and brief to governance teams
Complexity					



Keys to Success:

The key to the business analysis is to analyze to the lowest level of detail that is necessary to form actionable recommendations. Additionally, it is important that data and business analysis results be in sync.

3. Activity Details

Activity 1 – Determine the value chains for the products and services

Activity Short Description:

Using the business products and services identified during Step 2, the processes that the business area must perform in order to deliver those business products and services are identified. This should begin with a high-level focus on the key business processes that deliver products and services with the intent of identifying the critical chain of processes that deliver the value.

Activity Tasks:

1. List the products and services that are currently produced by the business area (from Step 2).
2. For each current product and service, diagram the business area's current chain of processes (using the value chain). The value chain drawing is a high-level logical ordering of processes that provides an overview of how value (i.e., product or service) is produced.
3. For each target product and service, diagram the business area's target chain of processes in a value chain drawing describing the value that will be produced by the business area.
    a. The target value chain must be consistent with the business products and services being produced. The intent of the value chain analysis is to identify any differences in the processes that are currently being provided versus those that need to be provided in the target state. The value chain analysis will help determine where new processes are required, or where existing processes may no longer be necessary.

Activity Communications Considerations:

Consultation with business experts is essential to ensure validity of the value chain analysis.

The results of the value chain analysis may need to be shared with key stakeholders to confirm the prioritization of the critical value chain processes.

Activity Work Products and Templates:

As-Is Value Chain Diagram: The As-Is Value Chain Diagram describes the current sequence of processes that deliver the current state products and services detailed in MBT Step 2. This work product is useful in evaluating the value each process adds to the business area's products or services. Note that the blocks above and below the processes are the management and support business areas from the Business Areas Visual produced in Step A.

- **TEMPLATE:** Link to As-Is Value Chain Diagram Template (Visio)
- **TEMPLATE:** Link to As-Is Value Chain Diagram Template (PDF)

Target Value Chain Diagram: The Target Value Chain Diagram describes the desired sequence of processes that will deliver the future products and services detailed in MBT Step 2. Note that the blocks above and below the processes are the management and support business areas from the Business Areas Visual produced in Step A.

- **TEMPLATE:** Link to Target Value Chain Diagram Template (Visio)
- **TEMPLATE:** Link to Target Value Chain Diagram Template (PDF)

Activity 2 – Decompose the business function model

Activity Short Description:

Business areas are decomposed to define a hierarchy that includes functions and processes. A business function is a logical set of business processes performed on a continual basis that has no specific beginning or end point. Functions are decomposed into processes which are usually executed in a sequential fashion to achieve intermediate results or an end-result product or service.

Activity Tasks:

1. Develop the business function hierarchy
    a. A Business Function Model is created to show the critical business processes identified in the value chain analysis in the context of the business area functions and FEA BRM. Existing reference models that catalogue enterprise business functions may be used in structuring the functional hierarchy. Note that the processes in the business function model must be consistent with the processes in the value chain models.

Activity Communications Considerations:

Business experts must be actively engaged to properly identify business functions, especially in situations where a formal business function model is not available.

Activity Work Products and Templates:

Business Function Model: Once the processes are identified in the value chain, the business function model is developed to show the hierarchy containing the processes and to map to the FEA BRM.

- **TEMPLATE:** Link to As-Is Business Function Model Template (Visio)
- **TEMPLATE:** Link to As-Is Business Function Model Template (PDF)

- **TEMPLATE:** Link to Target Business Function Model Template (Visio)
- **TEMPLATE:** Link to Target Business Function Model Template (PDF)

Activity 3 – Analyze the current processes and their performance

Activity Short Description:

Critical business processes are defined in detail in order to depict the decisions, actions, and activities of the business area. The analysis also identifies the organizations that perform the processes. Interactions across organizational boundaries in performing the business processes are described in swim lane process diagrams for the current business environment. Existing investments are also mapped to the business processes in order to identify gaps in investments, redundant investments, and investments that do not align with the target business environment.

Activity Tasks:

1. Map existing investments to the business processes
   a. The existing investments are identified and analyzed to determine how they relate to the business processes. Results of this analysis are described using a matrix of the existing investments that support the business processes.
2. Create As-Is IDEF0 Diagrams for critical value chain processes
3. Develop the As-Is Swim Lane Diagram to describe the As-Is processes and their organizational relationships
   a. Using the sequencing of data flow and business processes as identified in the value chain, IDEF0 diagram, and business function hierarchy, an overall swim lane flow is developed to describe a view of how organizational units interact in the context of the business processes that are delivering the products and services.

Activity Communications Considerations:

Business experts need to be consulted to ensure that the appropriate details of the business processes are adequately represented and that any available business performance data are incorporated into the analysis.

Activity Work Products and Templates:

Existing Investments to Business Processes Matrix: This matrix describes which of the existing investments support the business processes.

- **TEMPLATE :** Link to Existing Investments to Business Processes Matrix Template (Visio)
- **TEMPLATE :** Link to Existing Investments to Business Processes Matrix Template (PDF)

As-Is IDEF0 Diagrams for Critical Value Chain Processes: The IDEF0 diagrams provide more detail on the processes from the value chain. Additionally, the IDEF0 diagrams can be used to decompose processes and provide more detail on the activities within the processes.

- **TEMPLATE:** Link to As-Is IDEF0 Diagrams for Critical Value Chain Processes Template (Visio)
- **TEMPLATE:** Link to As-Is IDEF0 Diagrams for Critical Value Chain Processes Template (PDF)

As-Is Swim Lane Diagram (actual organization): The As-Is Swim Lane Diagram describes the dependencies, roles, and interactions between business processes.

- **TEMPLATE :** Link to As-Is Swim Lane Diagram (actual organization) Template (Visio)
- **TEMPLATE :** Link to As-Is Swim Lane Diagram (actual organization) Template (PDF)

Activity 4 – Define key target processes / data and their target performance

Activity Short Description:

The target business processes and data environment are analyzed to identify opportunities for process improvement and target information requirements. The target business processes are defined consistent with the Business Function Model and the business area's business reference model. The scope of this analysis should focus only on critical processes, at an appropriate level of detail and granularity, so as to:

- Identify which business processes need to be reengineered
- Facilitate the derivation of the data architecture from the business architecture, and
- Maintain traceability between the business architecture and data architecture.

This activity will produce the Target IDEF0 Diagrams for Critical Value Chain Processes and the Target Swim Lane Diagrams (proposed organizations). Data dependencies and interactions are also captured using the information exchange matrix. Once the models are aligned, the target business process and data entity matrices are used to identify candidates authoritative data sources (ADSs), support planning for business services, and identify which Principal Data Stewards will need to be engaged during development and execution of the target model.

Activity Tasks:

1. Define and analyze the target business processes and performance
    a. For critical business processes, the IDEF0 diagrams are used to describe the units of work, inputs, outputs, guidance, and enablers associated with each business process. This analysis should consider available efficiency metrics associated with the outputs from the critical business processes.
2. Develop the Target Swim Lane Diagram to describe the target process and organizational relationships
    a. Using the sequencing of business processes and data flow identified in the value chain, IDEF0 diagram, and business function hierarchy, an overall swim lane flow is developed to describe a high-level view of how organizational units interact in the context of the business processes that deliver the products and services.
3. Review the mapping of existing investments to the business processes in order to identify gaps or investments that may not align with the target business architecture.
    a. Any gaps or investments not aligned with the business area's strategy will provide the basis for developing findings and recommendations in MBT Step 5.
4. Define and analyze the target data environment

a. Develop the Target Data Stewardship Matrix which maps the information classes to the organizations containing the data stewards. Data stewards are responsible for the creation, maintenance, and quality of data to support target business activities in the target environment. There is only one Principal Data Steward for an information class. Additional data stewards are identified at the bureau/office level and they assist the Principal Data Steward.

b. Develop the Target Information Services Matrix that describes the producers and consumers for each information class along with the associated information services. This is the beginning of planning for information services and provides the basis for understanding the organizational information stakeholders. Note that the information service type that is to be specified for each information class producer-consumer relationship is defined in the FEA Data Reference Model (DRM) Chapter 5.

c. Develop the Entity Relationship Diagram which is a type of conceptual data model that provides a graphical representation of the business data requirements as entities and relationships. Entities are recognizable concepts such as a Person, Place, Thing, or Event which have relevance to the business and which are eventually transformed as tables in a database and/or as an XML Schema.

d. Develop the Target Logical Data Model for the business area and understand how data and business interact with each other in the future business environment. The Target Logical Data Model is based on the structures identified in the conceptual data model. It is not a database. Data is described in as much detail as possible without regard as to how they will be physically implemented in a database. Business experts drive the development and maintenance of this model. This model contains the data requirements and informs the process for identifying candidate authoritative data sources (ADSs).

e. Develop the Target Business Process to Data Entity CRUD (Create / Read / Update / Delete) matrix that maps the data entities to the business processes. The CRUD matrix helps identify: (1) what data actions take place with each process, (2) what data is used by the business, and (3) what data to process cluster might provide a service component opportunity.

Activity Communications Considerations:

Business experts need to be engaged in defining the target business and data models.

Activity Work Products and Templates:

Target IDEF0 Diagrams for Critical Value Chain Processes: The IDEF0 diagrams provide more detail on the processes from the value chain. Additionally, the IDEF0 diagrams can be used to decompose processes and provide more detail on the activities within the processes.

- **TEMPLATE:** Link to Target IDEF0 Diagrams for Critical Value Chain Processes Template (Visio)
- **TEMPLATE:** Link to Target IDEF0 Diagrams for Critical Value Chain Processes Template (PDF)

Target Swim Lane Diagram (proposed organizations): The Target Swim Lane Diagram describes the dependencies, roles, and interactions between business processes.

- **TEMPLATE:** Link to Target Swim Lane Diagram (proposed organizations) Template (Visio)
- **TEMPLATE:** Link to Target Swim Lane Diagram (proposed organizations) Template (PDF)

Target Data Stewardship Matrix: The target data stewardship matrix maps the information classes to the organizations containing the data stewards.

- **TEMPLATE:** Link to Target Data Stewardship Matrix Template (Excel)

Target Information Services Matrix: The target information services matrix describes the producers and consumers for each information class along with the associated information services.

- **TEMPLATE:** Link to Target Information Services Matrix Template (Excel)

Entity Relationship Diagram: An ERD is a type of conceptual data model that is a graphical representation of the business data requirements as entities and relationships.

- **TEMPLATE:** [Note: No generic template is provided, as this work product is typically generated using the available data architecture modeling tools within the organization]

Target Logical Data Model: This model is based on the structures identified in the conceptual data model.

- **TEMPLATE:** [Note: No generic template is provided, as this work product is typically generated using the available data architecture modeling tools within the organization]

Target Business Process to Data Entity CRUD Matrix: The Target Business Process to Data Entity CRUD (Create / Read / Update / Delete) matrix that maps the data entities to the business processes.

- **TEMPLATE:** Link to Target Business Process to Data Entity CRUD Matrix Template (Excel)

Activity 5 – Formulate the business analysis results and brief to governance teams

Activity Short Description:

This activity involves developing a summary of the results of the business analysis and providing a briefing to the governance teams. The key messages for the governance teams are focused on what is the underlying need for change, and what changes in business architecture, data dependencies, information flows, and existing investments are required to effect the change.

Activity Tasks:

1. Create a summary briefing
    a. The summary briefing provides a summary of the business and data analysis, and the results of the mapping of existing investments to business processes.
2. Brief the governance teams
    a. Either through a formal presentation, status review, or formal distribution, results of the business analysis are provided to the governance teams. The purpose of this communication is to solicit feedback from the governance teams in order to identify and resolve any issues that may exist. Incorporate approved feedback into the analysis, notes, work products, and other artifacts as necessary.

Activity Communications Considerations:

The Executive Sponsor should present the results of the business analysis to the appropriate governance teams.

It may be necessary to preview the results of the business analysis with key governance team members in order to identify issues up-front.

Activity Work Products and Templates:

Business and Data Analysis Presentation: This work product is focused on what is the underlying need for change, and what changes in business architecture, data dependencies, information flows, and existing investments are required to effect the change.

- **TEMPLATE :** Link to Business and Data Analysis Presentation Template (PPT)

4. Step References

MBT Step 1: Perform Blueprint Project Management, Version 1.5, December 2006

MBT Step 2: Analyze stakeholders / drivers and define the target business strategy, Version 1.5, December 2006

Federal Enterprise Architecture Program, FEA Consolidated Reference Model Document, Version 2.2, July 2007

Federal Enterprise Architecture Program, *The Data Reference Model*, Version 2.0, November 17, 2005

Porter, Michael E., Competitive Advantage: Creating and Sustaining Superior *Performance*, New York, NY, 1985

Spewak, Steven H., *Enterprise Architecture Planning: Developing a Blueprint for Data, Applications, and Technology*, Princeton, NJ, 1992

Step 4:

Analyze the IT and Develop the Target Conceptual Solution Architecture

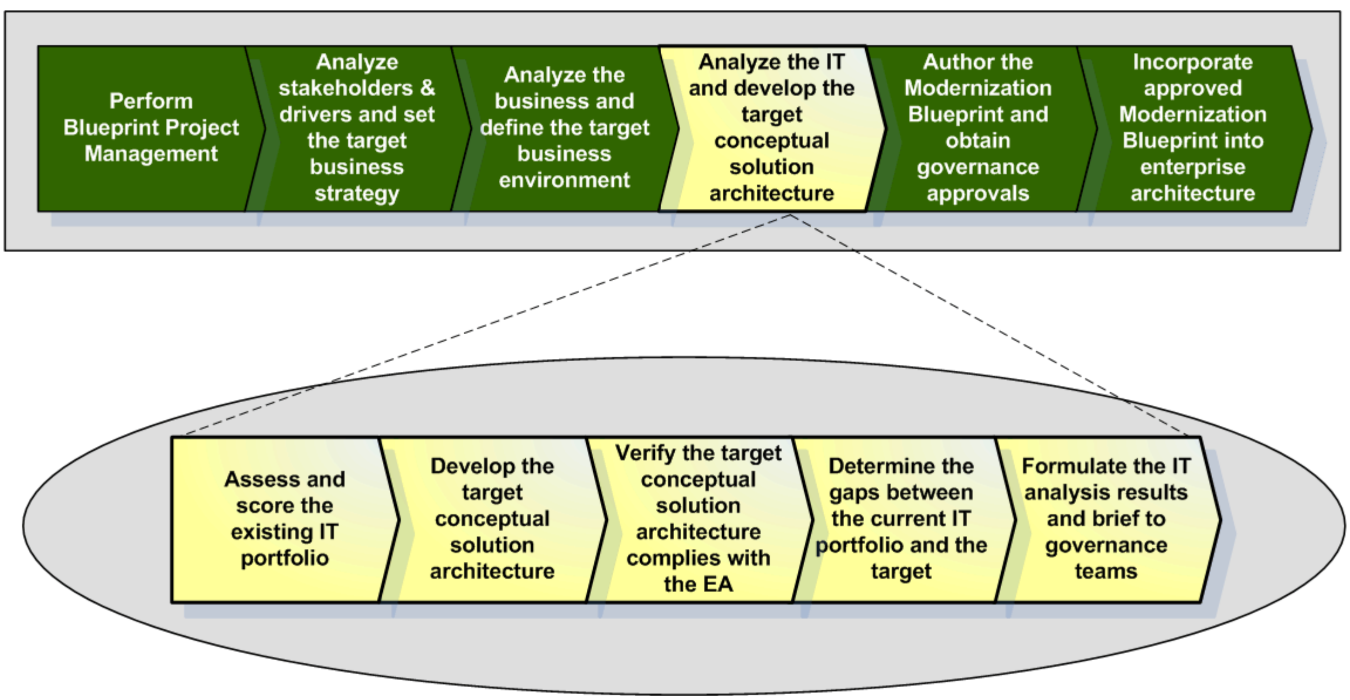
Version 1.5, December 2006

1. Step Description and Purpose

Step 4: *Analyze the IT and Develop the Target Conceptual Solution Architecture,* builds on the analysis from Step 3 by focusing on the maturation of the IT Portfolio. With detailed analysis and scoring of the current IT portfolio, the analyst will be able to develop the target conceptual solution architecture as well as perform alternatives analysis where gaps are discovered.

The target state will include business, enabling, and support services that are either re-used from the current portfolio, leveraged from existing enterprise services, or established as new services via projects to develop them. Each service will have a view into what new or existing systems will support the service, identify the authoritative data sources (ADS) for the service, and have a clear view into what functions and/or stakeholders the service will be supporting.

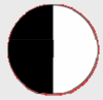
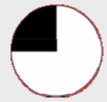
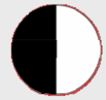
At the conclusion of this step, the analysis and service rationale are presented to and approved by the appropriate architecture governance teams.

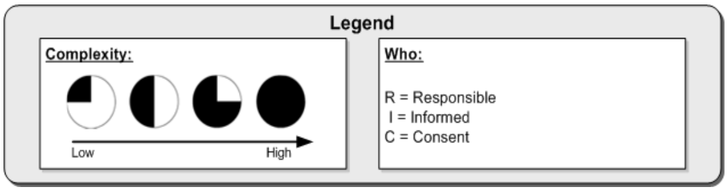


2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details →	Assess and score the existing IT portfolio	Develop the target conceptual solution architecture	Verify the target conceptual solution architecture complies with the EA	Determine the gaps between the current IT portfolio and the target	Formulate the IT analysis results and brief to governance teams
Inputs (source)	EA Repository Portfolio Reports including: Inventory CIO Integration Portfolio Reference Model Mappings As-Is System Data Store Information Initial Business Focus Area Metadata (Step 2)	All previous work products with an emphasis on: Business Area Products and Services Maturity Model (Step 2) Activity Diagrams for Critical Value Chain Components (Step 3) ADS Analysis As-Is System Interface Diagram Systems and Services Description and Scoring (As-Is)	*Note: The input list is common for both Activities* As-Is System Interface Diagram Systems and Services Description and Scoring (Target) Integrated Target Services and Systems Model Solution Architecture Document Target Data Entity Stewardship Matrix (Step 3) Enterprise Horizontal Services Model (Step 6) Enterprise Data Stewardship Matrix (Step 6) Enterprise Modernization Sequencing Plan (Step 6) Enterprise Modernization Dependencies Matrix (Step 6)		Systems and Services Description and Scoring (Target) Integrated Target Services and Systems Model Solution Architecture Document Architecture Decision Document Enterprise Architecture Repository Portfolio Reports (Dashboard view)
Outputs	Initial Business Focus Area Metadata As-Is System Interface Diagram Systems and Services Description and Scoring (As-Is) Total Cost of Ownership (TCO) and Decommission Enterprise Architecture Repository BFA Portfolio Reports Authoritative Data Source Analysis (includes As-Is Data Store to Target Logical Data Model Entity Matrix; As-Is Data Store ADS Assessment Matrix; and the ADS Scoring Summary)	Systems and Services Description and Scoring (Target) Integrated Target Services and Systems Model Solution Architecture Document	None	Architecture Decision Document	Presentation on Systems, Services, and Investments Analysis
Who (role)	Enterprise Architect [R] EA Repository Team [I] Core Team [I] System Owners [I]	Enterprise Architect [R] Core Team [I]	Core Team [I] Enterprise Product Lead [I] Enterprise Architect [Support]	Enterprise Architect [R,I] Core Team [I,C]	Enterprise Architect [R] Governance Teams [C]
Duration (calendar days for an average project based on past projects)	45 days	10 days	5 days	5 days	5 days

Complexity					



Keys to Success:

The key to a business driven solution architecture is to gather quality information about the as-is solution environment and to leverage the business analysis results from previous steps. Be sure to also leverage Federal and eGov solutions. Start interviews for this step early.

3. Activity Details

Activity 1 – Assess and Score the existing IT Portfolio

Activity Short Description:

Now that the business services and business functions have been analyzed, the analyst focuses on the existing set of solutions that currently enable the business area. This step focuses on:

- setting BFA IT Portfolio based on line of sight and creating BFA EA reporting website
- gathering architecture information in support of system scoring and total cost of ownership input
- constructing As-Is System artifacts
- performing system scoring to guide target state recommendations.

Activity Tasks:

1. Populate the Business Focus Area Metadata template to establish the IT Portfolio scope based on the Line of Sight information gathered in previous MBT steps. Note that this activity can begin in parallel with MBT Step 2.
    a. Using the Blueprint Team Website and MBT Products previously produced (specifically URL Links) as a source for most fields, update the metadata about the Business Focus Area.
    b. Validate the IT Portfolio using the BFA line of sight information by performing heuristics analysis against the enterprise view of the repository reports. This will ensure a more comprehensive view that incorporates into the scope those items that may have been missed by looking solely at the portfolio from a BFA viewpoint.
        i. Go to the Enterprise View or, where appropriate, the organization-specific view, and review report sections where the IT Portfolio (Systems, Boundaries, Investments) are mapped to performance objectives, business functions, information classes/entities, and Services/Components

   ii. Using this list of systems, determine if the BFA is a primary or secondary focus of the system. If systems were discovered in earlier steps that are not in the enterprise architecture repository, add those to the template as well, and plan for data collection interviews.

2. Coordinate with EA Repository Administrator to load BFA Metadata Template and establish a BFA-specific reporting site.
   a. By having this information, reports can be automatically generated based on the IT Portfolio and line of sight information. Review these reports for the BFA IT Portfolio analyze for discrepancies between what has been collected vs. what should be collected. List discrepancies and identify sources for gathering the missing information. Track the level of data collected for each system. This will guide you on how much system data collection interviews that will need to be performed in this step
3. With the IT Portfolio defined, conduct As-Is System/Service Interviews. Interviews are made up of four parts. Note that this activity can begin in parallel with MBT Step 2. Schedule interview and distribute any read-ahead materials to prepare the interviewees:
   a. Data Collection/Validation
      i. Follow the enterprise architecture repository activity guidance and data collection templates provided on the department public EA web site. Decide which activities will be necessary to complete the scoring template based on the scope and objectives of the blueprint (i.e., do not perform steps that are not necessary to complete analysis). If collection will be required on a medium to large scale, it is recommended to use the enterprise architecture guidance templates and create a workbook of forms.

         For example new or detailed guidance items such as System to Data Store Information, Data Entity Mapping, System to new BRM extension mappings, and Deployment information is likely not fully populated and will require data collection activity.
      ii. After collection, coordinate with the Managing Organization's Chief Architect to load this As-Is System information into the enterprise architecture repository. This is especially important for new systems, so that they can manage his information as part of MBT Step 13.
   b. Authoritative Data Source Analysis
      i. For the systems being evaluated and scored, identify and map their core underlying data stores to the Target Logical Data Model information classes and core entity types. This mapping will identify redundant sources of data that is being maintained in disparate systems, and candidates for scoring and selecting an Authoritative Data Source for cohesive grouping of data in the target solution architecture. These mappings will be recorded in the As-Is Data Store to Target Logical Data Model Entity Matrix (part of the ADS Analysis template).
      ii. For each core entity type or information class, perform an assessment of each of the as-is data stores mapped to a core entity type or information class in the Target Logical Data Model. The assessment includes evaluating at a high-level the data stores quality, reusability, and stewardship. Based on this assessment, each as-is data store is scored and an ADS is designated for each core entity or information class in the Target Logical Data Model. The assessment results are

recorded in the As-Is Data Store ADS Assessment and the scores are recorded in the ADS Scoring Summary (part of the ADS Analysis template).

c. Total Cost of Ownership (TCO)

   i. Follow the guidance provided in template to adequately interview and assess the TCO for this system.

d. System and Service Scoring Input Collection

   i. Review the Scoring template to get a better idea of the types of information that are important for these interviews. Pre-populate based on information provided in the enterprise architecture repository. To do this, here are a few suggestions:

   ii. Review the stakeholder exchange diagrams and SWOT in order to get an understanding of the stakeholder needs and their thoughts on the business area

   iii. Brainstorm a collection of solutions that are relevant for this interview process

4. After performing interviews, and documenting notes, make sure to catalog interview notes for future reference and input into other steps.
5. Construct as-is architecture artifacts listed for this activity and complete scoring template
6. Based on interviews and existing documentation, construct the As-Is System Interface Diagram. This diagram depicts systems and the data they exchange between the systems. These data items should be linked within the architecture repository to the entities in the logical data model that was constructed in earlier Activities.
7. Complete the As-Is Systems Scoring template following the guidance provided in the template
8. Brief the Core Modernization Blueprint Team on the results of the As-Is Systems Scoring

Activity Communications Considerations:

The data quality across organizations varies greatly. Therefore, coordinate early in performing the data collection planning steps and perform in parallel with MBT Steps 1 thru 3. Leverage data quality scorecards provided to organizations on a periodic basis as well to gain insight early into data completeness and accuracy.

To mitigate risk even further, it will be important to coordinate with organization's Chief Architect's as soon as you find out your IT Portfolio and Line of Sight.

Also, after establishing your IT Portfolio and Line of Sight, contact the enterprise architecture repository team early to plan on when your team will require the BFA Portfolio reporting site section in support of Step 4.

Suggest use the templates as noted in the activities to maintain submission, load, and QA status of the load effort.

Activity Work Products and Templates:

Initial Business Focus Area Metadata: The spreadsheet captures the metadata about the business focus area. Only populate the following sections: Descriptive, Blueprint Status, MBT Products for Review, Business Mission and Vision, Team Information, Portfolio, Line of Sight (Reference Models).

- **TEMPLATE:** [See Step 2 or 6 for Templates]

As-Is System Interface Diagram: This work product depicts the existing systems within the business area (and sometimes external to the business area) and the data that is exchanged between those systems in the current state.

- **TEMPLATE:** As-Is System Interface Diagram (PDF format)
- **TEMPLATE:** As-Is System Interface Diagram (VISIO format)

Total Cost Ownership (TCO) and Decommission Template: Total Cost of Ownership template captures activities and estimated for total cost to provide, deliver, support, and manage a system.

- **TEMPLATE:** Total Cost Ownership (TCO) and Decommission Template (Excel)

Enterprise Architecture Repository BFA Portfolio Reports: A reporting section will be created for you after working with the enterprise architecture repository team to load your IT Portfolio and Line of Sight information. Your section will be linked on this site, and can be pointed to from your Core Team Web Site.

- **TEMPLATE:** Enterprise Architecture Repository BFA Portfolio Reports Section (Intranet)

Systems and Services Description and Scoring (As-Is): This work product is a quantitative assessment of the business area's systems and services across several dimensions including data, business fit, technology fit, applications design, service management, and security maturity.

- **TEMPLATE:** Systems and Services Description and Scoring (As-Is) (Excel format)

Authoritative Data Source Analysis: This work product contains the templates for the following: As-Is Data Store to Target Logical Data Model Entity Matrix; As-Is Data Store ADS Assessment Matrix; and the ADS Scoring Summary.

- **TEMPLATE:** Authoritative Data Source Analysis (Excel)

Activity 2 – Develop the target conceptual solution architecture

Activity Short Description:

This activity will focus on delivering the conceptual solution architecture. For each major business function, review the services required (as noted from Step 2) by stakeholders to:

- establish services interface needs
- identify authoritative data source requirements
- capture service qualities
- note initial gap findings and recommendations
- note repeatable patterns

These activities will result in documenting Target Business Services integrated with supporting systems and defined authoritative data sources (ADS) including rationale supporting these services.

NOTE: This activity focused on business services. Activity 3 focuses on enabling and support services from an enterprise perspective and Activity 4 identifies business, enabling, and support services where systems and ADS are not available (i.e., gap exists). In this activity, avoid diving too deep into the enabling and supporting services. Make placeholder notes to record and capture any observations and issues that can be revisited further in Activities 3 and 4.

Activity Tasks:

1. Review the Business Products and Services Matrix and the Value-Chain with Service Overlay from MBT Step 3
    a. Review the Business Services Model/Matrix to gain an understanding of the target service maturity needs. This will assure that the architecture maturity for each service is in line with the near-term and long-term needs of the service (i.e. will avoid over-engineering architecture to best of breed and instead to best of “need”).
    b. Review Value-Chain with Service Overlay to gain an understanding of what functions require what service.
2. Load each service onto a new Integrated Services and System Model. In general organize the services on the diagram by the value-chain function.
    a. For each service added, add an item to the Target Services and Systems Scoring Template List in the Services Column.
3. For each SRM service or BRM value chain function above, using the enterprise architecture reports, discover which systems support those functions and services
    a. If a system is a target candidate based on As-Is System Scoring, update the rationale and score of the service on the template. Rationale should consider:
        i. Review and capture ADS candidates for this service using ADS Analysis input and Logical Data Model (from MBT Step 3).
        ii. Use of Service and define interface needs or new interfaces for each stakeholder of the functions. Note redundancy/repeatable business patterns in services.
        iii. Operational Qualities such as scalability, security, agility, reliability, flexibility, etc. i.e. consider whether systems were intended and can be used for a new target purpose, and what those target qualities are.
    b. Update Integrated Services and System Model by associating system to the service it is supporting, and add or describe the interfaces to other services. It may be necessary to keep multiple views with varying levels of detail and business focus. The template provides overview and system view.
    c. Optional: Capture Performance Measurement Results as well as Labor Costs Attribution of services. If the enterprise architecture repository environment is setup to support analytic annotation of symbols in a data-driven fashion, enable the capability to show the labor cost range as a super-note icon, and color-code symbols based on current performance
4. This is a very iterative process, so with each system you review, iterate on the services model and target scoring to assure all angles are captured.
5. Update the Solution Architecture Document Outline with key findings, rationale, and appropriate figures. Note and search on all areas where “Editors Notes” exist as these are the points where blueprint specific edits such as with key findings, rationale, and appropriate figures are required.

Activity Communications Considerations:

When looking at service models and considering or noting where service patterns will fundamentally change the way an organization may function, it will be critical to re-visit with Core Team the service organizational impacts early so they can consider these impacts. It is typically these types of changes that impact the blueprint implementation success the most.

Activity Work Products and Templates:

Systems and Services Description and Scoring (Target): This work product is a quantitative assessment of the business area's systems and services across several dimensions including data, business fit, technology fit, applications design, service management, and security maturity.

- **TEMPLATE:** Systems and Services Description and Scoring (Target) (Excel format)

Integrated Target Services and Systems Model: A diagram showing the target services and systems as well as the overview

- **TEMPLATE:** Integrated Target Services and Systems Model (PDF format)
- **TEMPLATE:** Integrated Target Services and Systems Model (Visio format)

Solution Architecture Document: Review Editor Notes and begin to capture notes of what needs to be updated in the solution architecture document. These notes will be based off activity 2 rationale

- **TEMPLATE:** Solution Architecture Document (Word format)

Activity 3 – Verify target conceptual solution architecture complies with the EA

Activity Short Description:

This activity focuses on all services available from an enterprise perspective to align and re-use enterprise and Federal-wide service investments. This activity is similar to Activity 2, except that it is performed from an enterprise service perspective.

This essentially is an iteration of the blueprint analysis performed in the three previous activities. The intent is to ensure that enterprise asset, service, and component re-use is considered as part of an overall portfolio analysis.

Activity Tasks:

1. Review the Enterprise Transition Plan, Enterprise Conceptual Architecture, and all Enterprise Architecture Artifacts created from previous Step 6 efforts.
    a. It is strongly suggested at this point to engage the overall enterprise architect support to collaboratively perform the next activity. This will assure that the architecture maturity for each enterprise service is in line with the near-term and long-term needs of the blueprint needs for service use. Gain familiarity with the Enterprise Architecture Principles, Guidance, and Strategy as well as the Enterprise Solution Architecture Guidance Template.
2. For each SRM service or BRM value chain function above, identify related Enterprise, Federal Business, Enabling, and Support/Infrastructure Services
3. If an enterprise service is a target candidate based on As-Is System Scoring, update the rationale and score of the service on the template. Federal services include e-Gov, LOB, and SmartBuy using FTF, OMB Segment Architecture Guidance. Department services include Enterprise Investments and Enterprise Infrastructure projects, along with others as described in the enterprise transition plan and related strategy documents

4. When documenting services, use rationale to capture impacts such as tolerance, impedance, and exceptions in each of the following service areas. These enterprise services can provide a foundation for reuse of applications, application capabilities, components, and business-enabling services. Some organizations will likely have limiting factors to the level of re-use that can be accommodated. Service related questions and other considerations include:
    a. Business Services – Are there different business rules, mandates, drivers, stakeholders that the enterprise business service has not considered?
    b. Enabling Services (white) – Are there competing investments in an organization providing Customer, Process Automation, Business Management, Digital Asset, Business Analytical, and Back Office Services?
    c. Support Services (orange) – Are their organization's involved in the blueprint which cannot use the enterprise support services due to complex network requirements, disconnected locations, or legislative limitations?
    d. ADS Candidates are reviewed and captured for the service based upon the existing ADS analysis.
    e. Use of Service can help define interface needs or new interfaces for each stakeholder or function. Note any redundancy/repeatable business patterns in the services.
    f. Operational Qualities such as scalability, security, agility, reliability, flexibility, etc. i.e. consider whether systems were intended and can be used for a new target purpose, and what those target qualities are.
5. Update Integrated Services and System Model as performed in Activity 2.
6. Update the Solution Architecture Document Outline with key findings, rationale, and appropriate figures

Activity Communications Considerations:

When considering leveraging Enterprise Services, validate your enterprise re-use impact document with Organizational IT Leadership such as a CIO, Chief Architect, Infrastructure Lead, or project representatives to confirm that indeed the enterprise services can be used in the organizational environment recommended or to capture limiting factors. These conversations will may lead to iteration on the target services and updating of the rationale.

Activity Work Products and Templates:

Updated Solution Architecture Document: Overall focus on highlighting the scope and level of change discovered including As-Is State of the Architecture, Target Service Architecture Overview, Portfolio Re-use Highlights, and Major Gaps and Alternative Analysis

- **TEMPLATE:** Solution Architecture Document (Word format)

Updated Systems and Services Description and Scoring: This work product is a quantitative assessment of the business area's systems and services across several dimensions including data, business fit, technology fit, applications design, service management, and security maturity.

- **TEMPLATE:** Systems and Services Description and Scoring (Excel format)

Updated Integrated Target Services and Systems Model: A diagram showing the target services and systems

- **TEMPLATE:** Integrated Target Services and Systems Model (PDF format)

- **TEMPLATE:** Integrated Target Services and Systems Model (Visio format)

Activity 4 – Determine the gaps between the current IT portfolio and the target

Activity Short Description:

In previous steps, as-is and target blueprint business services were analyzed and all enterprise services, including business, enabling, and support enterprise services, have also been analyzed with respect to the BFA. It is likely that there may still be gaps where the target architecture new requirements are not fulfilled by the existing architecture systems, components, and data sources.

A gap analysis is performed to ensure that the IT portfolio gaps are identified, and raw inputs to IT Portfolio findings for the blueprint are captured. This step will facilitate documentation of such gaps, as well as provide a basis for performing alternative analysis for each service using the Integrated Target Services and Systems Model and the Systems and Services Description and Scoring.

Activity Tasks:

1. Review the Systems and Services Scoring template for any system stated in the As-Is but not is not referenced as Target or Both.
    a. Capture decommissioning activities required and estimate cost ranges. Use As-Is scoring results, note the gaps score and consolidation/retirement recommendation as part of gap rationale.
2. For each target service, identify and document all gaps in the Architecture Decision template using scoring results rationale as inputs into the gaps. This will facilitate scoping architecture decisions and the analysis of alternatives.
    a. In architecture decisions, capture migration / partial decommissioning activities required and estimate cost ranges where existing systems will be supporting target services. Wrapping legacy systems with service interfaces is a Development / Modernization / Enhancement (DME) investment that will need to be captured in Step 5, as well as noted in the findings. This will guide level of complexity for completing Step 11.
3. Update the Solution Architecture Document Outline with key findings, rationale, and appropriate figures.

Activity Communications Considerations:

Ultimately, this step captures notes that will be used in developing findings and recommendation in MBT Step 5. Any notes relative to the gaps will be documented in further detail as to impacts to implementing the architecture as needed in Steps 10 and 11.

The architecture decisions will be critical in guiding the open issues and resolutions to address gaps. Documentation should be as complete as necessary based on the complexity and clarity of the gap or issue.

Activity Work Products and Templates:

Architecture Decision: This work product contains the gap analysis, draft architecture decisions, including alternative analysis.

- **TEMPLATE:** Architecture Decision (Excel format)

Draft Solution Architecture Document: Overall focus on highlighting the scope and level of change discovered including As-Is State of the Architecture, Target Service Architecture Overview, Portfolio Re-use Highlights, and Major Gaps and Alternative Analysis

- **TEMPLATE:** Solution Architecture Document (Word format)

Updated Systems and Services Description and Scoring: This work product is a quantitative assessment of the business area's systems and services across several dimensions including data, business fit, technology fit, applications design, service management, and security maturity.

- **TEMPLATE:** Systems and Services Description and Scoring (Excel format)

Updated Integrated Target Services and Systems Model: A diagram showing the target services and systems

- **TEMPLATE:** Integrated Target Services and Systems Model (PDF format)
- **TEMPLATE:** Integrated Target Services and Systems Model (Visio format)

Updated Total Cost Ownership (TCO) and Decommission Template: System Decommission, which is closely tied to the Total Cost of Ownership template captures activities and estimated for total cost to migrate, consolidate, retire, and finally decommission a system.

- **TEMPLATE:** Total Cost Ownership (TCO) and Decommission Template (Excel)

Activity 5 – Formulate the IT analysis results and brief to governance teams

Activity Short Description:

This activity summarizes the as-is IT portfolio analysis, recommended target concept, and findings on the gaps discovered. The communications strategy should include periodic outreach to governance teams, and the review and approval of intermediate results, to help ensure acceptance and success of the overall Blueprint effort.

Activity Tasks:

1. Review, update, and finalize the Systems and Services Description and Scoring and Integrated Target Services and Systems Model to ensure that the results of the analyses performed during this step are adequately incorporated.
    a. When creating the Target Services and System Interaction diagrams it is important to note that this will be a critical communications product. When using it in presentations, create an Overview Diagram of the Target Services and System Interaction Diagram, as well as the As-Is System Interface Diagram.
    b. NOTE: Where the Target Services and System Interaction Diagram will have Functions which have services that have systems with interfaces at the services and system level, the Overview would have Functions which have services with system counts and rolled up services interfaces
2. Summarize target solution architecture and gaps, along with any recommendations, into a 2-3 page executive summary using the Solution Architecture Document template.
3. Schedule and perform governance reviews of Solution Architecture Document. The decision gates for completing this step include Business Governance, Data Governance, Technology Governance, Chief Architect Governance, and Capital Planning Governance.

4. Update the Solution Architecture Document, Systems and Services Description and Scoring and Integrated Target Services and Systems Model based on feedback from each governance team.
5. Create a briefing that depicts the target business products and services, architecture decisions, ADS target decisions, and Solution Architecture Overview

Activity Communications Considerations:

In general, each governance team will have a separate focus.

- Business Governance (e.g., Interior Business Architecture Team [IBAT]) will focus on business services
- Data Governance (e.g., Data Advisory Committee [DAC]) will review of data artifacts, ADS, and data services
- Technology Governance (e.g., CTO Council and Technology Evaluation Teams [CTOC/TET]) will focus on Support services and enabling services. Feedback will likely focus on closing the gap on service rationale, gap/alternative analysis, and proposing enterprise license re-use opportunities.
- Chief Architect Governance (e.g., Interior Architecture Working Group [IAWG]) will provide input on all services but likely focused on service re-use and identifying enterprise service opportunities
- Capital Planning Governance (e.g., Capital Planning Working Team [CPWT]) will key in on portfolio re-use and new investment needs

Activity Work Products and Templates:

Updated Architecture Decision: This work product contains the gap analysis, draft architecture decisions, including alternative analysis.

- **TEMPLATE:** Architecture Decision (Excel format)

Final Solution Architecture Document: Overall focus on highlighting the scope and level of change discovered including As-Is State of the Architecture, Target Service Architecture Overview, Portfolio Re-use Highlights, and Major Gaps and Alternative Analysis

- **TEMPLATE:** Solution Architecture Document (Word format)

Final Systems and Services Description and Scoring: This work product is a quantitative assessment of the business area's systems and services across several dimensions including data, business fit, technology fit, applications design, service management, and security maturity.

- **TEMPLATE:** Systems and Services Description and Scoring (Excel format)

Final Integrated Target Services and Systems Model: A diagram showing the target services and systems

- **TEMPLATE:** Integrated Target Services and Systems Model (PDF format)
- **TEMPLATE:** Integrated Target Services and Systems Model (Visio format)

Presentation on Systems, Services, and Investments Analysis: This briefing will describe the summary results of the target business products and services, architecture decisions, ADS target decisions, and Solution Architecture Overview.

- **TEMPLATE:** Presentation on Systems, Services, and Investments Analysis Template (PowerPoint)

4. Step References

Enterprise architecture Repository Guidance:

http://www.doi.gov/ocio/architecture/guidance/dearguidance.htm

Enterprise Transition Strategy

http://www.doi.gov/ocio/architecture/documents/doi_enterprise_wide_transition_plan_final.doc

Conceptual Architecture Document

http://www.doi.gov/ocio/architecture/documents/conceptual_architecture_final.doc

CTOC Intranet site

Chief Technology Officer Council (CTOC) intranet site on doi.net specifically referencing the Interior Solution Architecture Volume I: Target Logical Solution and Service-Oriented Application Reference Architecture as provided by the Service Oriented Integration Center of Excellence. This includes the Solution Architecture Template Guidance which has the Architecture Decision Template.

Enterprise Architecture Repository

EA Information Management Guidance Section: (If System Data Collection Required) Use this website for guidance on collection the following system information: System Inventory, CIO Integration, Reference Models, and MBT Modeling requirements.

Enterprise Architecture Repository - EA Information Management Guidance Section

Raines Rules (for use in System Scoring Criteria Validation)

http://www.balancedscorecard.org/bkgd/Raines_rules.html

Solution Architecture Artifacts

The following table lists the artifacts for a solution complying with the Enterprise Solution Architecture document (i.e. Interior Solution Architecture (ISA)) document published by the Solution Architecture Governance Group (i.e. Chief Technology Officer Council (CTOC)).

The table shows artifacts produced during the MBT and shows how they are relevant to the ISA's requirements for the solution architecture. The first three columns show the MBT step, product, and how the blueprint product supports the related artifact in the solution architecture documentation.

For Example, the first row states in MBT Step 2, a Vision document is produced which is the business description as captured as a brief narrative in the solution architecture document which is required.

MBT Step	MBT Product Name(s)	Blueprint Supported	Artifact	Related Sub-architecture	Comments	Required
2	Vision Document	is	Business Description	Business	Brief narrative	Required
3	Business Process Models	contributes to	Use Case Model	Business	Diagram or text high-level with text documenting each use case and actor	Required
3	Business Services Matrix	provides	Functional Requirements	Business	List	Required

MBT Step	MBT Product Name(s)	Blueprint Supported	Artifact	Related Sub-architecture	Comments	Required
3, 6, 13	Enterprise DRM Taxonomy	is	Solution Subject Areas and Information Classes	Data	List	Required
3	Target System and Services Diagram, System Services Description/Scoring	is	SRM mapped to business functionality	Application	Diagram	As needed
4	Target System and Services Diagram	is	Solution Overview Diagram (SOD)	Business	Enhanced in subsequent steps with business and integration pattern and service components overlays	Required
4	EA Repository Portfolio Reports – Data Mapping Reports	contains	Solution data mapped to the enterprise entities or classes	Data	List	Required
4	Service Description	Yes	Application Reference Model	Application/ Technology	Diagram	Required for COTS products and new development
3, 9	Logical Data Model	is	Entity Relationship Diagram (ERD)	Data	Diagram	As needed for new development
3, 9	Logical Data Model	contributes to	Object Role Model (ORM) diagram	Data	Diagram	As needed for new development
11	Application Patterns and Tiers	is	Application Patterns and Tiers	Application	Diagram	As needed
11	User Roles and Security Levels	is	User Roles and Security Levels	Security	List	Required
11	Procedures	is	Procedures	Security	Document	Required
11	Data Security	is	Data Security	Security	Document	Required
11	Application Access	is	Application Access	Security	Document	Required
11	Application Security Boundaries	is	Application Security Boundaries	Security	Diagram	Required
11	Security Technology	is	Security Technology	Security	Document	Required
4,11	System and Service Scoring	provides	Non-functional Requirements	Application	List	Required

Step 5:

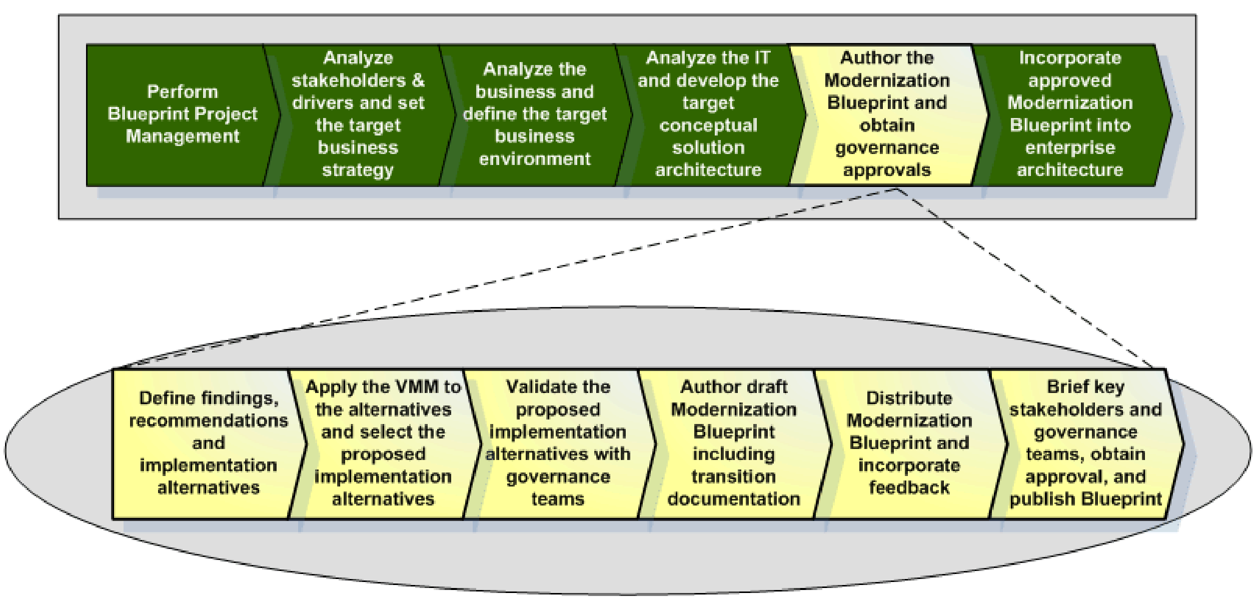
Author the Modernization Blueprint and Obtain Governance Approvals

Version 1.5.1, September 2007

1. Step Description and Purpose

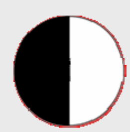
Step 5: *Author the Modernization Blueprint and Obtain Governance Approvals,* is the culmination of the process for creating a modernization blueprint. The step begins with the development of prioritized findings and recommendations. A risk-adjusted cost benefit analysis is performed for the prioritized recommendations using the Value Measuring Methodology. The prioritized recommendations then provide the basis for developing the detailed blueprint and transition plan.

The draft blueprint is developed and undergoes a structured review process with key stakeholders and members of governance teams. The review process also helps get buy-in to the recommendations and sequencing alternatives for implementation. As reviewer feedback on the findings and recommendations is received, comments and change requests provide the basis for finalizing the modernization blueprint and transition sequencing plan. Finally, the modernization blueprint is presented for approval by the appropriate governance teams. Once approved, the core team is ready to move ahead to subsequent steps to begin implementation of the recommendations described in the blueprint in accordance with the transition sequencing plan.

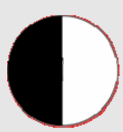
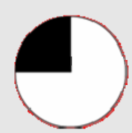


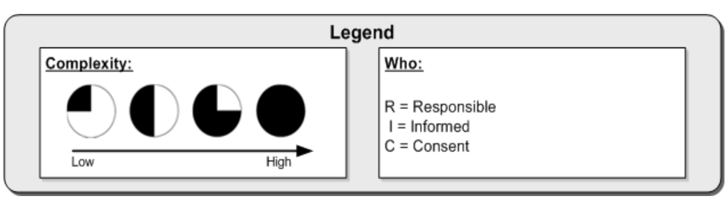
2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details ->	Define findings, recommendations and implementation alternatives	Apply the VMM to the alternatives and select the proposed implementation alternatives	Validate the proposed implementation alternatives with governance teams
Inputs (source)	All previous work products with an emphasis on: Presentation on Business Area Strategy and Product and Services (Step 2) Presentation on Business and Data Analysis (Step 3) Presentation on Systems, Services, and Investments Analysis (Step 4)	Modernization Blueprint Findings, Recommendations, and Alternatives Presentation	Modernization Blueprint Findings, Recommendations, and Alternatives Presentation Value Measuring Methodology Cost to Value Matrix
Outputs	Modernization Recommendations to Horizontal Dependencies Matrix Modernization Recommendations to Mandates Matrix Modernization Blueprint Findings, Recommendations, and Alternatives Presentation	Value Measuring Methodology Cost to Value Matrix	None
Who (role)	Core Team [R, C, I] Executive Sponsor [I, C] Enterprise Architect [Support]	Core Team [R, C, I] Executive Sponsor [I, C] Enterprise Architect [Support]	Core Team [R] Executive Sponsor [C] Governance Teams [C] Enterprise Architect [Support]
Duration (calendar days for an average project based on past projects)	20 days	15 days	10 days
Complexity			

Step 5 Guidance: Author the Modernization Blueprint and Obtain Governance Approvals

CTRL + click the activities for activity details ->	**Author draft Modernization Blueprint including transition documentation**	**Distribute Modernization Blueprint and incorporate feedback**	**Brief key stakeholders and governance teams, obtain approval, and publish Blueprint**
Inputs (source)	Modernization Blueprint Findings, Recommendations, and Alternatives Presentation Value Measuring Methodology Cost to Value Matrix	Draft Recommendation Implementation Overview Visual Draft Strategic Systems Migration Diagram Draft Strategic Sequencing Overview Visual Draft Implementation Sequencing Plan Draft Modernization Blueprint	Final Recommendation Implementation Overview Visual Final Strategic Systems Migration Diagram Final Strategic Sequencing Overview Visual Final Implementation Sequencing Plan Final Modernization Blueprint
Outputs	Draft Recommendation Implementation Overview Visual Draft Strategic Systems Migration Diagram Draft Strategic Sequencing Overview Visual Draft Implementation Sequencing Plan Draft Modernization Blueprint	Final Recommendation Implementation Overview Visual Final Strategic Systems Migration Diagram Final Strategic Sequencing Overview Visual Final Implementation Sequencing Plan Final Modernization Blueprint Feedback Tracking Document and Feedback Action Report Business and Stakeholder Interaction Log	Modernization Blueprint Presentation Record of Decision
Who (role)	Core Team [R] Executive Sponsor [C] Enterprise Architect	Core Team [R] Executive Sponsor [C] Business Expert [C] Key Stakeholders [C] Governance Teams [C] Enterprise Architect	Core Team [R] Executive Sponsor [C] Business Expert [C] Key Stakeholders [C] Governance Teams [C] Enterprise Architect
Duration	20 days	45 days	10 days
Complexity			



Keys to Success:

The findings and recommendations and the Modernization Blueprint itself need to be written to be understood by the business communities that are impacted. The Blueprint should be actionable, readable, practical, and capable of being implemented.

3. Activity Details

Activity 1 – Define findings & recommendation alternatives

Activity Short Description:

This activity will produce findings, recommendations, and alternatives that business owners can use to develop a prioritized strategy to drive business improvements. These business improvement activities ultimately will take the form of formal business case submission(s), business process re-engineering, systems integration, partnerships, policy development, or other transformational approaches.

Findings and recommendations can represent almost any issue, from outdated technologies, to poor business process fit, to redundancies, etc. Findings are developed using the relevant artifacts from Steps 2, 3 and 4. Findings should be categorized according to the service areas as defined in the organization's service reference model consistent with the business products and services that are associated with the findings. Recommendations and alternatives are then developed for each of the findings. The recommendations may be further categorized according to the value chain processes or capabilities that are impacted.

Activity Tasks:

1. Identify issues related to systems.
    a. Systems which do not provide adequate performance or capacity, that are a poor fit for business needs, may not conform to the target data architecture, have reached the end of their anticipated lifecycle, etc.
    b. Systems that require Development / Modernization / Enhancement (DME) investments as determined is Step 4.
2. Identify issues related to capability gaps and redundancies
    a. These include gaps relative to the target state that exist in capabilities, services, infrastructure, or performance measures that do not currently exist.
3. Identify system interface issues
    a. System interface issues, such as manual interfaces (e.g., "sneaker net"), data dumps which are not from a system of record, point-to-point interfaces that serve similar business purpose, but do not contain similar data, etc.
4. Identify data redundancy, gap, storage or communication issues
    a. Data issues in the form of unnecessary duplication of data, poorly designed (from an enterprise perspective) data stores, data entities that lack an enterprise definition, etc.
5. Identify gaps between target and as-is models
    a. Business processes which need to be re-engineered, or are not tied to the strategic plan or other business drivers, or that are significantly different from the target business rules.
6. Identify situations where best practices should adopted by looking for solutions that represent a departure from generally accepted as best practice
7. Issues are categorized according to the business products and services, critical value chain processes associated with the business products and services, and other underlying capabilities that deliver products and services

8. Generalize issues to create findings
    a. Issues are categorized and grouped according to business products and services within the business focus area. These issues are then generalized into findings associated with the business products or services.
9. Create recommendations to resolve issues
    a. The findings are then used to develop specific recommendations, which should be related to the specific capabilities or business functions associated with the products and services. Note that, in certain cases, several alternative sets of recommendations may be developed to support a given finding.
10. Cross reference recommendations to mandates
    a. Recommendations are cross-referenced to the mandates (business drivers, capabilities matrix, etc.). This is helpful to both validate the recommendations and provide a "line of sight" from the strategic plan through to the recommendation.
11. Identify any dependencies, external or within the recommendations
    a. Dependencies are also identified between the recommendations and with other key organizational initiatives and any modernization blueprint recommendations that may exist in other related business areas. This helps provide additional context for evaluating and prioritizing the recommendations.
12. Consolidate recommendations and identify alternatives
    a. Recommendations that share dependencies with each other are grouped into a higher level recommendation.
        i. Recommendations may be modular (i.e., "stand-alone"), in that they may be implemented independent of other recommendations. Recommendations may also share dependencies with each other. Such interdependent recommendations should be grouped into a higher level recommendation.
        ii. The recommendations may be further categorized according to the critical value chain processes, business functions, or capabilities that are impacted. This can provide the recommendations in a more actionable context for business owners to be able to evaluate and prioritize them.
    b. Recommendations that represent a group of mutually exclusive alternatives are grouped as alternatives.
        i. In some cases, a set of recommendations may represent a group of mutually exclusive alternatives. These should be grouped as alternatives from which a prioritized selection of options can be made.
    c. In practice, it is a good idea to attempt to consolidate recommendations and de-couple alternatives as much as possible in order to reduce the complexity of subsequent Value Measuring Methodology (VMM) analysis.
13. Estimate Cost, Value, and Risk
    a. For each recommendation or alternative,
        i. A value estimate is derived for each strategic focus area. This may require additional input from key stakeholders.

ii. An aggregate cost estimate is developed that includes the appropriate level of detail. Some more significant and strategic recommendations may require more detailed lifecycle cost estimates based upon the requirements for funding review and approval. Cost may also include decommissioning costs associated with recommendations that eliminate a service, or that result in system retirement. Decommissioning cost estimates developed in MBT Step 4 are reviewed, finalized, and rolled-up to the associated recommendations.

iii. Risk analysis is performed that includes the identification of the top risks in terms of overall impact. This involves assessing the likelihood of the occurrence of the risk, along with assessing the impact on both the cost and value of the recommendation. Risks are then rolled up to obtain an overall likelihood and cost / value impacts for each recommendation.

Activity Communications Considerations:

Consult with the Business and Data architecture teams to identify issues relative to business processes and data

Recommendations need to be shared across the organization to determine if there are any external dependencies or existing efforts.

Certain sensitive recommendations may need to be vetted with key business experts (e.g., general counsel, HR, etc.) before priorities can be developed

Activity Work Products and Templates:

Modernization Recommendations to Horizontal Dependencies Matrix: This work product describes how the recommendations overlap with key organizational initiatives and modernization blueprint recommendations from for other business areas.

- **TEMPLATE:** Link to Modernization Recommendations to Horizontal Dependencies Matrix Template (Visio)
- **TEMPLATE:** Link to Modernization Recommendations to Horizontal Dependencies Matrix Template (PDF)

Modernization Recommendations to Mandates Matrix: This matrix facilitates the prioritization of the Blueprint recommendations by demonstrating how each recommendation is aligned with key strategic mandates. This is an extension of the Business Strategy to Mandates Matrix developed in MBT Step 2

- **TEMPLATE:** Link to Modernization Recommendations to Mandates Matrix Template (Visio)
- **TEMPLATE:** Link to Modernization Recommendations to Mandates Matrix Template (PDF)

Modernization Blueprint Findings & Recommendations Presentation: This is a presentation that summarizes the findings and recommendations to facilitate further prioritization by the core team.

- **TEMPLATE:** Link to Modernization Blueprint Findings & Recommendations Presentation Template (PPT)

Activity 2 – Apply the VMM to the alternatives and select the proposed implementation alternatives

Activity Short Description:

For the recommendations, analysis is performed using a Value Measuring Methodology (VMM) approach to determine the cost, benefit and risk associated with each set of alternative recommendations. VMM requires a balance between the depth of analysis (e.g., high-level cost breakdown), available data (e.g., risk analysis assumptions), and the type of recommendation (strategic vs. tactical). The results of the VMM analysis are a key input to finalizing the priorities for implementation of the recommendations. The MBT provides a standard VMM analysis toolkit that can be used to complete this activity.

Activity Tasks:

1. Create the value structure
    a. The value structure for the VMM analysis represents the dimensions across which value is to be scored for each recommendation. Each value dimension is also assigned an overall weighting factor. It is recommended that the value structure be derived based on the strategic focus areas (e.g., Business Results, Customer Results, Processes and Activities, People, Technology, and Other Fixed Assets) as developed in Step 2.
2. Perform VMM Analysis
    a. Cost, value, and risk estimates for each recommendation are input into the VMM toolkit. The toolkit provides the overall cost, value score, risk adjusted cost, and risk adjusted value score. The toolkit also provides a graphical value-to-cost comparison chart that summarizes the risk-adjusted cost/benefit for each recommendation.
    b. Results of the VMM analysis may impact the initial prioritization of the recommendations, so that it may be necessary to update the draft implementation recommendation overview and the draft system migration diagram.
3. Prioritize the recommendations
    a. Review all findings and recommendations with the Core Team members to define priorities and select alternatives. Prioritized recommendations are used to develop a proposal for a high-level implementation plan.
4. Summarize the prioritized recommendations
    a. The prioritized recommendations are summarized to provide an overview of the proposed implementation plan, including a map to show an overview of the affected system associated with the recommendations.

Activity Communications Considerations:

It may be necessary to consult with key stakeholders when performing value analysis.

Cost and risk analysis may also require additional input from business experts.

Activity Work Products and Templates:

Value Measuring Methodology Cost to Value Matrix: The VMM cost-to-value matrix provides the results of a structured cost / benefits analysis of the recommendations and can be depicted graphically. VMM analyzes the value per dollar and associated risk to determine which recommendations provide the most “bang for the buck”.

- **TEMPLATE :** Link to Value Measuring Methodology Cost to Value Matrix Template (Excel)

Activity 3 – Validate the proposed implementation alternatives with governance teams

Activity Short Description:

Findings and recommendations are reviewed with the governance teams. Special emphasis should be placed on achieving consensus on the priorities and selected alternatives.

Activity Tasks:

1. Brief governance teams
    a. Results of the VMM analysis are reviewed with the governance teams to gain buy-in to the proposed recommendations and implementation plan. This review should include the value-to-cost comparison, together with the updated draft of the implementation recommendation overview and the draft system migration diagram. This is a critical step to ensure buy-in to the recommendation proposals that are to be formalized in the Modernization Blueprint and Transition Sequencing Plan.

Activity Communications Considerations:

Where external dependencies are known to exist, the prioritized recommendations need to be shared across the organization.

The executive sponsor should be informed of the core team recommendation priorities. This is especially critical when consensus is not possible and additional dependencies exist that cannot be managed within the scope of the core team.

Activity Work Products and Templates:

None

Activity 4 – Author draft Modernization Blueprint including transition documentation

Activity Short Description:

The prioritized recommendations provide the basis for producing the detailed blueprint document and transition plan. The draft blueprint document summarizes the results of the business analysis (MBT Step 2 and 3), the analysis of the findings and recommendations (MBT Step 5), along with an overview of the target data and technology environment (MBT Step 4).

The Modernization Blueprint is comprised the following primary sections: Executive Overview, Business Overview, Recommendations for Business Transformation, Target Technology Environment, Target Data Environment, and the Transition Sequence Plan.

Activity Tasks:

1. Develop the draft work breakdown structure
    a. Using the recommendation implementation overview and the system migration diagram, a draft transition work breakdown structure (WBS) is developed. For each recommendation, a top-down representation of the deliverables that are required for

implementation is developed and described in the WBS. The WBS should incorporate deliverables associated with all aspects of the transformation, including technology, process, system, data, etc.

2. Develop the Draft Transition Sequencing Plan
    a. Based on the WBS and the phased implementation described in the recommendation implementation overview and system migration diagram, a detailed draft transition sequencing plan is developed. This project plan details the tasks necessary to develop the elements of the WBS for the recommendations. Descriptions of the findings and recommendations may be included as notes within the project plan. Internal and external dependencies are also included as either milestones or predecessor tasks.
3. Develop the Drafts Modernization Blueprint
    a. A draft modernization blueprint is also developed that describes the findings and recommendations, and is focused on implementation of the business transformation recommendations. This document is generated using the provided template. A separate executive summary may also be created. The blueprint document also contains descriptions of some of the key artifacts developed in Steps 2, 3, and 4.

Activity Communications Considerations:

It may be necessary to consult with Business and Data architecture teams to identify business processes and data elements of the WBS

The WBS for may also need to be shared across the organization whenever external dependencies are known to exist for specific recommendations

Activity Work Products and Templates:

Draft Recommendation Implementation Overview Visual: The draft recommendation implementation overview depicts the proposed time line for the modernization blueprint implementation effort by focusing on the recommendations and the associated investments.

- **TEMPLATE:** Link to Draft Recommendation Implementation Overview Visual Template (PPT)

Draft Strategic Systems Migration Diagram: The draft strategic system migration diagram provides a visualization of the as-is and target systems and services corresponding the recommendations. It shows the corresponding sequencing of system-specific recommendations required to achieve the target state, along with the associated data migration dependencies.

- **TEMPLATE:** [Note: No generic template is provided, as this work product is typically generated using the available systems architecture modeling tools within the organization]

Draft Strategic Sequencing Overview Visual: The strategic sequencing overview visual provides a visualization of the transition from the as-is to the target state solution architectures.

- **TEMPLATE:** Link to Draft Strategic Sequencing Overview Visual Template (PPT)

Draft Implementation Sequencing Plan: The draft implementation sequencing plan provides a detailed step-by-step, time-sequenced approach to implementing the draft modernization blueprint recommendations.

- **TEMPLATE:** Link to Draft Implementation Sequencing Plan Template (MS Project)
- **TEMPLATE:** Link to Draft Implementation Sequencing Plan Template (PDF)

Draft Modernization Blueprint: The Draft Modernization Blueprint is the preliminary version of the document that describes the findings and recommendations, and is oriented towards moving to implementation of the business transformation recommendations.

- **TEMPLATE:** Link to Draft Modernization Blueprint Template (MS Word)

Activity 5 – Distribute Modernization Blueprint and incorporate feedback

Activity Short Description:

The draft modernization blueprint is distributed for review to key stakeholders and governance teams. Throughout the review process, feedback is recorded and consolidated, and resulting actions are tracked. Once the review is completed, the final modernization blueprint document is prepared for submission to the appropriate governance teams.

Activity Tasks:

1. Distribute the Draft Modernization Blueprint for review
    a. The draft modernization blueprint is distributed for review to the stakeholders and governance teams. Accompanying this distribution is a cover letter that describes the highlights of the blueprint. A separate executive summary document may also be provided for review. Also provided to the reviewers us the Document Review Form that is used to collect review comments and change requests.
2. Collect comments using the Feedback Tracking Spreadsheet
    a. During the review process, all feedback is recorded and consolidated using the Feedback Tracking Spreadsheet. Follow-up actions are documented to create the feedback action report.
3. Develop the Final Modernization Blueprint
    a. As feedback actions are documented and closed, comments and changes are also incorporated into the draft blueprint documentation. As a result of the review process, the following artifacts are updated and finalized:
        i. Strategic Systems Migration Diagram
        ii. Recommendation Implementation Overview Visual
        iii. Transition Work Breakdown Schedule
        iv. Transition Sequencing Plan
        v. Modernization Blueprint Document
4. Distribute final Modernization Blueprint and feedback action report
    a. The final modernization blueprint document is distributed to the reviewers along with a cover letter or email that contains and overview of the feedback received. The feedback action report containing a summary of all actions taken in response to the feedback is also distributed. The cover letter should also briefly describe the subsequent steps to be taken for final approval of the modernization blueprint.

Activity Communications Considerations:

It may be necessary to conduct face-to-face meetings with key stakeholders and governance team members to review the blueprint findings, recommendations, and transition plan.

Activity Work Products and Templates:

Feedback Tracking Document and Feedback Action Report: The Feedback Tracking Document is used to log and track all feedback received from reviewers of the draft blueprint document. Follow-up actions are documented to generate the Feedback Action Report.

- **TEMPLATE:** Feedback Tracking Document and Feedback Action Report Template (Excel)

Document Review Form: The Document Review Form is distributed with a document to be reviewed, and is used to collect reviewer comments and change requests.

- **TEMPLATE:** Link to Document Review Form Template (MSWord)

Final Recommendation Implementation Overview Visual: The final recommendation implementation overview depicts the proposed time line for the modernization blueprint implementation effort by focusing on the recommendations and the associated investments.

- **TEMPLATE:** Link to Final Recommendation Implementation Overview Visual Template (PPT)

Final Strategic Systems Migration Diagram: The final strategic system migration diagram provides a visualization of the as-is and target systems and services corresponding the recommendations. It shows the corresponding sequencing of system-specific recommendations required to achieve the target state, along with the associated data migration dependencies.

- **TEMPLATE:** [Note: No generic template is provided, as this work product is typically generated using the available systems architecture modeling tools within the organization]

Final Strategic Sequencing Overview Visual: The strategic sequencing overview visual provides a visualization of the transition from the as-is to the target state solution architectures.

- **TEMPLATE:** Link to Final Strategic Sequencing Overview Visual Template (PPT)

Final Implementation Sequencing Plan: The final implementation sequencing plan provides a detailed step-by-step, time-sequenced approach to implementing the final modernization blueprint recommendations.

- **TEMPLATE:** Link to Final Implementation Sequencing Plan Template (MS Project)
- **TEMPLATE:** Link to Final Implementation Sequencing Plan Template (PDF)

Final Modernization Blueprint: The Final Modernization Blueprint is the preliminary version of the document that describes the findings and recommendations, and is oriented towards moving to implementation of the business transformation recommendations.

- **TEMPLATE:** Link to Final Modernization Blueprint Template (MS Word)

Activity 6 – Brief executives, obtain ROD, and publish Blueprint

Activity Short Description:

In this activity, the final blueprint is presented to the appropriate governance teams. A formal presentation is made to the governance teams, after which the decision to approve the blueprint is recorded. Any issues that arise are addressed and closed as necessary to satisfy the governance team. The formal presentation may also be accompanied by an executive overview document describing the need for the transformation and a summary of the findings and recommendations.

Activity Tasks:

1. Develop the modernization blueprint overview presentation
   a. Using the template provided, an overview presentation is prepared that describes why the transformation is necessary, along with key highlights of the findings and recommendations.
2. Present the modernization blueprint for approval to the governance team(s)
   a. Using the overview presentation, the modernization blueprint is presented to the appropriate governance teams for approval, along with any additional supporting artifacts (e.g., executive summary document). The outcome of this governance team meeting is a formal record of decision.

Activity Communications Considerations:

The Executive Sponsor should present the modernization blueprint to the appropriate governance teams.

It may also be necessary to conduct pre-meetings with key governance team members to review the blueprint findings, recommendations, and transition plan

Activity Work Products and Templates:

Record of Decision: The Record of Decision is used to document approval of the governance teams. A separate template is not provided, as this work product is of a customary format for the particular governance team.

- **TEMPLATE:** [Note: No generic template is provided, as this work product should use the appropriate method for documenting the ROD as is customary for each governance team]

4. Step References

MBT Step 2: Analyze stakeholders / drivers and define the target business strategy, Version 1.5, December 2006

MBT Step 3: Analyze the business and define the target business environment, Version 1.5, December 2006

MBT Step 4: Analyze the IT and develop the target conceptual solution architecture, Version 1.5, December 2006

Step 6:

Incorporate Approved Modernization Blueprint into Enterprise Architecture

Version 1.5, December 2006

1. Step Description and Purpose

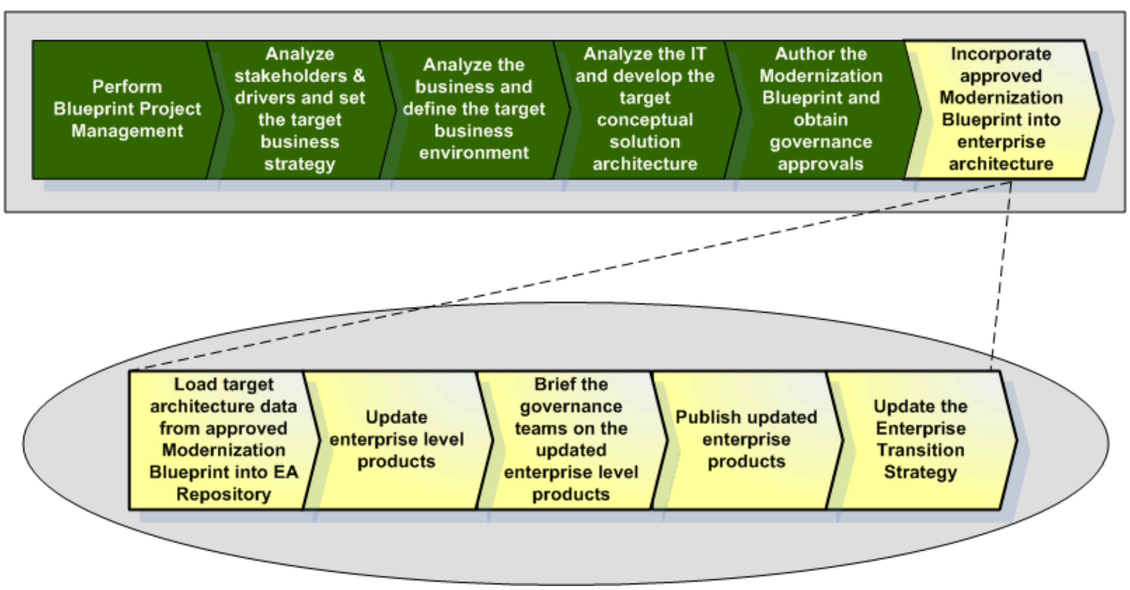
Step 6, *Incorporate Approved Modernization Blueprint into Enterprise Architecture,* is intended to bring the analysis and architecture associated with the business focus area into the more global architecture picture of the enterprise. Although the analyst is continuously referencing the enterprise architecture when making observations of the business area, the resulting analysis and architecture products are not fully integrated with the enterprise until they are approved and this step is completed.

The result of this step is an evolving view of the target state for the enterprise. As any given business focus area completes its architecture analysis, the enterprise architecture absorbs this analysis and continues to evolve. Step 6 allows for:

There to be an enterprise level architecture – other MBT Steps are business area or segment-focused.

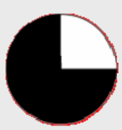
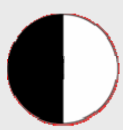
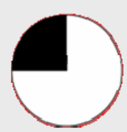
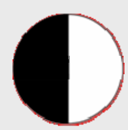
Executive management planning at enterprise level as well as within each business area in order to form conclusions about the enterprise and business area (segmented) efforts.

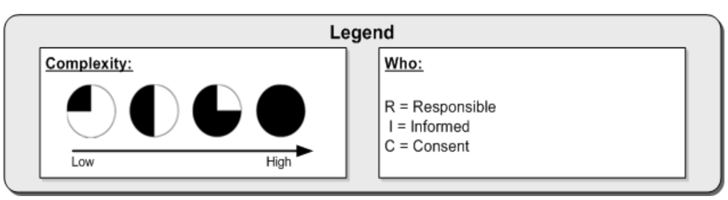
Future and Past Business areas can plan for modernization including other business areas to avoid redundant investments or investments that are not in line with other modernization efforts.



2. Activities within this Step

The table below provides a quick reference for the activities within this step.

CTRL + click the activities for activity details →	Load target architecture data from approved Modernization Blueprint into EA Repository	Update enterprise level products	Brief the governance teams on the updated enterprise level products	Publish updated enterprise products	Update the Enterprise Transition Strategy
Inputs (source)	MBT Products Checklist All Blueprint Products created in Steps 1 thru 5 (see checklist) including: Modernization Blueprint (Step 5) Business Focus Area Metadata (Step 4)	Existing Enterprise Services, Data Model, Modernization Plan, and Dependencies, etc. Department Reference Models Modernization Blueprint All Blueprint Products created in Steps 1 thru 5	All Enterprise Products	All Enterprise Products	All Enterprise Products Current Enterprise Transition Strategy including: As-Is Enterprise Architecture Conceptual Target Architecture Enterprise Transition Plan Enterprise Transition Strategy Update Checklist
Outputs	Blueprint Products Loaded Business Focus Area Metadata Loaded	All Enterprise Products Updated	None	Published Enterprise Products	Updated Enterprise Transition Strategy
Who (role)	Enterprise Architect [R] EA Repository Team [I]	Enterprise Architect [I] Enterprise Product Lead [R]	Enterprise Product Lead [I] Governance Teams [C] Enterprise Architect [Support]	EA Repository Team [R]	Enterprise Architect [R] Enterprise Product Lead [I]
Duration (calendar days for an average project based on past projects)	30 days	5 days	5 days	2 days	5 days
Complexity					



Keys to Success:

This step produces the enterprise view that shows the business segments and how they fit together. Be sure to work with the Enterprise Product Lead who is the keeper of the enterprise level products.

3. Activity Details

Activity 1 - Load target architecture data from approved Modernization Blueprint into EA Repository

Activity Short Description:

Upon approval of the blueprint, all target MBT Products and new As-Is Products need to be catalogued, submitted, and loaded into the Enterprise Architecture (EA) Repository. This step facilitates the communication and file submission by the blueprint team with the enterprise architecture repository team to facilitate timely and accurate loading of these MBT Products. The end result of this activity will be entered, linked, and validated MBT Products into the enterprise architecture repository.

Activity Tasks:

1. Complete the MBT Products Checklist
    a. The Enterprise Architect should note, using the MBT Products Checklist, which MBT products have been created by populating the status field of each product and file name that has been submitted.
2. Complete the Business Focus Area Metadata template
    a. Using the Blueprint and MBT Product Checklist (specifically URL Links) as a source for most fields, update the metadata about the Business Focus Area. The sections – which have the specific fields and URLS required with a description of what is required – that need to be updated include:

Descriptive
Blueprint Status
MBT Products for Review
Business Mission and Vision
Team Information
Portfolio
Line of Sight
Analysis – Summaries
Analysis – Scoring
Analysis – Findings
Analysis – Plans

    NOTE: Populate the sections as complete as reasonably possible, but do not spend more than one-day on updating this template prior to moving to next task. Much of this template, i.e. Line of Sight and Portfolio sections can be inferred from other products in discussed during the next task (meeting).

3. Meet with enterprise architecture repository team
    a. Provide the MBT Products Checklist and create a submission and load schedule
    b. Provide and discuss the populated Business Focus Area Metadata template; set a date to validate data entry of this information
4. Review products and Business Focus Area Metadata as entered into the repository

a. The enterprise architecture repository team will load the products submitted based on the MBT Product Checklist and import the Business Focus Area Metadata file into the enterprise architecture repository. This typically ranges over a 5 day period.

b. Review products stated in the MBT Product Checklist based on the Load status provided

c. Review the loaded Business Focus Area Metadata and provide feedback using the populated Business Focus Area Metadata template

Activity Communications Considerations:

It is recommended that the templates as noted in the activities be used, so as to maintain submission, load, and QA status of the load effort. Lessons learned from past efforts show that the enterprise repository team receives more complete products/data and more accurately load products/data across blueprint teams when the data is provided and communicated in a standard format.

Communicate with the enterprise repository team about when Step 6 will commence to assure they put it on their plan. Other blueprint teams may be requiring Step 6 or Step 13 support as well, so, as not to compete with other teams vying for repository staff time, plan and communicate ahead.

Activity Work Products and Templates:

MBT Products Checklist: The spreadsheet lists all MBT products that may be produced in creating a blueprint and is used as a communication and status management tool for tracking blueprint product submission, loading of those products, and validating of these products

- **TEMPLATE:** MBT Products Checklist (Excel)

Business Focus Area Metadata Template: The spreadsheet captures the metadata about the business focus area including Descriptive, Blueprint Status, MBT Products for Review, Business Mission and Vision, Team Information, Portfolio, Line of Sight (Reference Models), Analysis (Summaries, Scoring, Findings, and Plans), etc.

- **TEMPLATE:** Business Focus Area Metadata Template (Excel)

Activity 2 - Update enterprise level products

Activity Short Description:

Once the enterprise level impacts have been identified, this activity creates the “Update enterprise level products”. These products are representative of how the enterprise will look and how modernization will be achieved with the business area’s modernization plans taken into consideration. The draft products are created and are produced for review and acceptance.

Activity Tasks:

1. Review the existing enterprise level products

   a. The Enterprise Architect would meet with the enterprise product lead to review and note changes associated with the business area’s blueprint recommendations and products

   b. The Enterprise product lead will document the impacts

2. “Check-out” the current version of the enterprise level products

   a. Coordinate with the enterprise product lead to do check out the enterprise level products. This ensures that other blueprint efforts and groups are not changing the models at the same time. During this period, the blueprint team will have sole rights for updating the enterprise products in collaboration with working with the enterprise product lead.

   b. NOTE: Matrices do not require checkout. Instead this work will be performed off-line and collected in a spreadsheet that would look like the template. When ready, this information will be imported into the enterprise architecture repository.

3. Work with the enterprise product lead to modify the products to include the analysis from the business area
   a. Modifications should be made to the enterprise products based on the business area products and the identified impacts from the previous activity.
   b. The enterprise products, all listed below, should look very familiar in that each enterprise product is related to a business area product created during Steps 1 thru 4 of the MBT.
4. Verify that all analysis from the business area is acceptable within the enterprise models
   a. Identify elements within the business area architecture that are not compatible with the enterprise models
   b. Validate needed changes to the business area architecture based on this verification activity. Update the business area architecture with needed changes per Step 13: "Maintain Modernization Blueprint and architecture products"

Activity Communications Considerations:

Do not "Check In" changes at this point – the next activity will require governance review and updates. If the "lock" on the required products is lost to another team, it will not be possible to update until the other team performs a "check in" of their work. Coordinate with the enterprise product lead to understand what other efforts may be requesting edit access to the enterprise products.

There may be cases where minor update requests are made by other teams. Depending on the gap between this activity and the review activity, the enterprise product lead would "check in" artifacts temporarily to allow for those updates, then "check out" back to the blueprint team.

Activity Work Products and Templates:

Enterprise Data Exchange Node Drawing: This work product is a visual depiction of the data that is exchanged between the business areas within the enterprise. Each business area is a node in the diagram, and the lines between the nodes depict data, at a subject area level, that flows between the business areas.

- **TEMPLATE:** Enterprise Data Exchange Node Drawing (PDF format)
- **TEMPLATE:** Enterprise Data Exchange Node Drawing (Visio format)

Enterprise Data Stewardship Matrix: This work product is a matrix that documents the subject areas within the enterprise, and the business areas within the enterprise that are the stewards for the data.

- **TEMPLATE:** Enterprise Data Stewardship Matrix (PDF format)
- **TEMPLATE:** Enterprise Data Stewardship Matrix (Visio format)

Enterprise Modernization Sequencing Plan: This work product is an enterprise level snapshot of all modernization initiatives. Each Blueprint publishes a business area modernization sequencing plan. The enterprise modernization sequencing plan is a compilation of all of the business area plans plus the enterprise level initiatives.

- **TEMPLATE:** Enterprise Modernization Sequencing Plan (MS Project)
- **TEMPLATE:** Enterprise Modernization Sequencing Plan (PDF)

Enterprise Modernization Dependencies Matrix: This work product is a matrix that lists all of the modernization initiatives within the enterprise, and depicts the other initiatives on which those modernization initiatives are dependent.

- **TEMPLATE:** Enterprise Modernization Dependencies Matrix (PDF)
- **TEMPLATE:** Enterprise Modernization Dependencies Matrix (Visio)

Enterprise Horizontal Services Model: This work product is a drawing that depicts all of the recommended horizontal services within the enterprise, and how they would provide information to the business areas.

- **TEMPLATE:** Enterprise Horizontal Services Model (PDF)
- **TEMPLATE:** Enterprise Horizontal Services Model (Visio)

Enterprise Modernization Recommendations to Mandates Matrix: This work product is a matrix that illustrates all of the modernization recommendations within the enterprise, and how those recommendations meet the many mandates to which the enterprise is responsible for action.

- **TEMPLATE:** Enterprise Modernization Recommendations to Mandates Matrix (PDF)
- **TEMPLATE:** Enterprise Modernization Recommendations to Mandates Matrix (Visio)

Enterprise Modernization Recommendations to Outcomes Matrix: This work product is a matrix that illustrates all of the modernization recommendations within the enterprise, and how those recommendations meet the strategic outcomes to which the enterprise is responsible for action.

- **TEMPLATE:** Enterprise Modernization Recommendations to Outcomes Matrix (PDF)
- **TEMPLATE:** Enterprise Modernization Recommendations to Outcomes Matrix (Visio)

Department Reference Models: This group of reference models represents the enterprise common language in which the enterprise architecture is described. Each blueprint will have updates to one, some, or all department or enterprise-wide reference models.

- **WEB LINK:** Performance Reference Model
- **WEB LINK:** Business Reference Model
- **WEB LINK:** Data Reference Model
- **WEB LINK:** Service Component Reference Model
- **WEB LINK:** Technology Reference Model

Activity 3 – Brief the governance teams on the updated enterprise level products

Activity Short Description:

This activity includes working with the enterprise product leads and the governance teams to ensure that updates to the enterprise level artifacts are acceptable. This activity publishes the “draft updated enterprise level artifacts” to the governance teams for review and acceptance.

Activity Tasks:

1. Coordinate web publishing of the enterprise products created in the previous activity with the enterprise product lead and enterprise architecture repository team.
    a. Communicate when governance reviews will be conducted and when feedback is needed.
    b. Web Publication may either be in line with normal enterprise publishing refresh or a refresh of just the enterprise products that have been updated will be performed. If this is the first time for a web publication request, request the enterprise architecture repository team to create a quick links page for the business focus area so that all blueprint products and enterprise products are quick linked from a personalized page. This will make it easy to navigate and present.
2. Brief each Governance team – Data, Business, Technology, and Architecture Working Groups – on the updated enterprise level artifacts
    a. Though each governance team will key in on their specialty area, it is important to present all enterprise artifacts to understand the full picture.
    b. Recommended order of Product Review is:
        i. Enterprise Data Exchange Node Drawing – Demonstrates Common Products discovered via this blueprint and incorporated into the enterprise.
        ii. Enterprise Data Stewardship Matrix - Demonstrates Stakeholders vesting in Products discovered via this blueprint and incorporated into the enterprise.
        iii. Enterprise Horizontal Services Model – Demonstrate Common Services discovered via this blueprint and incorporated into the enterprise.
        iv. Enterprise Modernization Sequencing Plan – Demonstrates availability and transition plan from blueprint into the enterprise transition plan
        v. Enterprise Modernization Dependencies Matrix – Demonstrates critical success factors to achieve delivering the common products and services
        vi. Enterprise Modernization Recommendations to Mandates Matrix – Demonstrates Oversight responsibilities to deliver the common products and services as documented via this blueprint and incorporated into the enterprise.
        vii. Enterprise Modernization Recommendations to Outcomes Matrix – Demonstrates Strategic Alignment to deliver the common products and services as documented via this blueprint and incorporated into the enterprise.
        viii. Department Reference Models - Recommended extensions or changes to the reference models and requests for approval change by the respective governance team
            1. For reference models, specific governance teams only need to consent on their area of responsibility (though it is important to inform on all areas of changes at a high-level). Such as:
                a. Business Governance – PRM and BRM
                b. Data Governance - DRM
                c. Architecture Working Group Governance - SRM

d. Technology Governance – TRM

3. Obtain feedback from the governance teams and incorporate, as necessary, into the enterprise level artifacts
    a. Coordinate updates similar to how these were performed in Activity 2
4. Once changes are complete, "Check in" any changes
    a. At this point, changes are complete, and the enterprise product lead can be requested to "Check In" and release the enterprise products for others to make changes.

Activity Communications Considerations:

Share planned governance review dates with the enterprise product lead and enterprise architecture repository team so they can plan support accordingly. Road-show, re-visit, and seek feedback from Program representatives in the area of interest. i.e.:

- Data – Principal Data Stewards
- Business – Program Managers
- Applications – System Owners
- Technology – Infrastructure

The value of doing this will help the program representation see the other common opportunities brought to the table across the enterprise.

Activity Work Products and Templates:

Published Enterprise Products for Review: This is a collection of enterprise level work products that have been updated with new business area analysis, and have been made available to the governance groups for review.

- **TEMPLATE:** [See Activity 2 for Templates]

Updated Enterprise Products: This is a collection of enterprise level work products that have been updated with new business area analysis, and have been reviewed and deemed acceptable by the governance groups.

- **TEMPLATE:** [See Activity 2 for Templates]

Activity 4 – Publish updated enterprise products

Activity Short Description:

Once the updated enterprise artifacts have been reviewed and accepted by the governance teams, the artifacts are ready to be incorporated back into the enterprise architecture repository and are re-published.

Activity Tasks:

1. Coordinate web publishing of the enterprise products created in the previous activity with the enterprise product lead and enterprise architecture repository team.
    a. Web Publication may either be in line with normal enterprise publishing refresh or a refresh of just the enterprise products updated will be performed

b. Validate that the web publication was successful by verifying the quick-links page and testing each work product.

Activity Communications Considerations:

The Enterprise Architect should communicate back with the team that the web publication is complete and to add a link to the core team web site to the custom blueprint quick link page of MBT and enterprise products. From previous Step 4, there should also be a link to the as-is Nightly reporting section web site for the blueprint.

Activity Work Products and Templates:

Published Enterprise Products: This is a collection of enterprise level work products that have been updated with new business area analysis, have been reviewed and accepted by the governance groups, and have been incorporated into EA Repository and published through The enterprise architecture repository's regular operations.

- **TEMPLATE:** [See Activity 2 for Templates]

Activity 5 – Update the Enterprise Transition Strategy

Activity Short Description:

At this step, the enterprise product lead will include all enterprise product updates made during this process into the enterprise transition strategy documentation.

Activity Tasks:

1. Update Enterprise Transition Plan
   a. Follow the Enterprise Transition Strategy Checklist to complete updates
   b. Include coordinating and uploading plans to PMIS (Enteprise Project Plan Server)
2. Annually Update Standing Transition Strategy
   a. Follow the Enterprise Transition Strategy Checklist to complete updates
   b. Standing Transition Strategy including Principles, Governance, LifeCycle Management, Closing "Gap" Strategy, Methodology, and planning approach
3. Prepare document for publishing
   a. Enterprise Product Lead will coordinate QA review
4. Publish Enterprise Transition Strategy Quarterly along with updates provided to OMB

Activity Communications Considerations:

Coordination of loading enterprise transition plans is more than a logistical effort. It is important to understand how other plans in the enterprise project plan server toolset relate to each other. For instance, if two sets of plans are referring to similar items, but have not made predecessor relationships between each plan at minimum, then the value of having plans in one enterprise plan store is minimized greatly.

Assure that these linkages are made by communicating changes made in the enterprise transition plan with other groups.

Activity Work Products and Templates:

Enterprise Transition Strategy Checklist: Provides all section updates required for all four sections of the enterprise transition strategy. This also provides a status document and change tracking mechanism to communicate the progression the enterprise transition strategy document each quarter as it is reported to OMB.

- **TEMPLATE:** Enterprise Transition Strategy Checklist (Excel)

Enterprise Transition Strategy: This is the updated Enterprise Transition Strategy that now will reflect the milestones, deliverables, and measurable results associated with the approved modernization blueprint recommendations. The four sections to be updated in the Enterprise Transition Strategy are: As Is Architecture, Conceptual Target Solution Architecture, Enterprise Transition Plan, and Architectural Principles, Guidance, and Strategy.

- **TEMPLATE:** [NOTE: No template is provided, but it is suggested to use the checklist above to assure all sections are addressed and use the Interior Enterprise Transition Strategy Document referenced below as an example of a complete document.]

4. Step References

Enterprise architecture Repository Guidance:

http://www.doi.gov/ocio/architecture/guidance/dearguidance.htm

Enterprise Transition Strategy

http://www.doi.gov/ocio/architecture/documents/doi_enterprise_wide_transition_plan_final.doc

Conceptual Architecture Document

http://www.doi.gov/ocio/architecture/documents/conceptual_architecture_final.doc

Step 7:

Perform Business Transformation Initiation Tasks

Version 1.0, January 2005

1 Step Description/Objectives:

Step 7, *Perform Business Transformation Initiation Tasks,* is designed to establish the required resources and strategies to implement the approved recommendations from the Modernization Blueprint. It is the first step in the implementation phase of the Modernization Business Transformation methodology.

This step will create the Core Team as the key project management resource for execution. This step entails the requisite planning to identify strategies for funding, change management, risk management and communications.

Step 5 of the MBT established an executive sponsor to oversee the implementation plan and is a required input to this step. Executive sponsorship is critical to the implementation's success and should not move forward without it. The Core Team will lead the implementation. The skills required for the implementation phase of the Modernization Blueprint are different than those required for the Blueprint development. While the Blueprint phase requires strong business and analytical skills, the implementation phase will require capital planning, subject matter expertise, project management, and strong system development and technology skills. It is recommended to have some of the members of the Core Team continue through the implementation phase. (See section 3 Step Participants)

To ensure that the Core Team has the sound historical knowledge required for the implementation, the enterprise architect should brief them on the methodology and background information for the Blueprint. The Core Team should review the project charter, project schedule and communication plans from Step 1. The team should update the communication plan to reflect the new requirements imposed by the implementation phase. For example, the Core Team's implementation plan will, in time, directly affect the end user community's operational environment. The plan should provide the necessary information to support the change management issues that will be encountered. As in the Blueprint development phase, key governance and decision-making bodies (Investment Review Board, Architecture Review Board, Executive Sponsorship, and other architectural initiatives) will need to be kept informed of the implementation progress.

Once the team is formed and its members have been educated with all the background information, they will proceed to developing the project plan for implementation. They will use the MBT project template, the Blueprint content and its Transition Plan, and the specific recommendations from the Investment Review Board (IRB) Record of Decision (ROD) to construct the schedule. It is important to use the IRB's prioritization guidance for constructing the schedule. Once the schedule is built, the team will need to evaluate the key risk and change management issues associated with the plan. For example, if a recommendation requires coordinating several organizations to support the project, obtaining committed resources from these areas may be a risk. The team will need to develop a mitigation strategy and alternatives for all the risks they identify. Additionally, the implementation may have impacts on the current business procedures, policy, human resources, organizational structure, organizational relationships or program funding sources. These items will need to be developed into a change management plan with associated strategies to facilitate the project implementation transition. It is critical to understand the risks and change management strategy as early in the implementation as possible. The results of these two plans should influence the communication strategy and outreach strategy. Messages will need to be developed for all affected parties from the risk or change management point of view.

In addition to the change and risk management plans, the implementation team is responsible for developing the funding strategy required for this effort. Within the activities of the plan, there will be items that can be addressed in the near term without large amounts of funding, items that will take major infusion of capital and many years to complete (New Exhibit 300), and critical items that need to be addressed in the short term that may require additional funding dollars but have not been accounted for in the current investment cycle. The team needs to evaluate the planned items, investigate feasible funding sources, and coordinate with budget, strategic and capital planners to design funding strategies. These strategies will need to be presented to the Investment Review Board for approval. The funding strategy should evaluate current investments when they are affected by the recommendations in order to identify opportunities for redirecting funding.

After the implementation project plan, change and risk management plans with requisite supporting funding strategy have been developed, the Core Team will present the package to the governance bodies including the Investment Review Board (IRB), Architecture Review Board (ARB) and Interior Business Architecture Team (IBAT). The IBAT and ARB are informational briefings where issues and concerns may be identified. As a best practice, the team should address these issues prior to briefing the IRB. If the IRB approves the package and endorses the funding strategy, the team should proceed to step 8 of the methodology. If modifications need to be applied to plan or funding strategy, the team will need to revise its efforts and re-present the plans. It is very important to keep the IRB meeting schedule and capital planning calendar and schedules in mind. These are pivotal meetings and time frames that need to be worked into your transition plan and schedule. Missing key dates can introduce delays in your implementation plan and alter your funding strategy.

2 Step Purpose:

Step 7 is performed for the following purposes:

- Develop a core team to provide subject matter expertise and knowledge to ensure a successful and valuable implementation
- Develop the detailed implementation plan
- Develop Communication Risk Management and Change Management Plans to faciliate a successul implementation
- Develop the requisite funding strategy to support the implementation objective
- Provide outreach to governance bodies and user community to ensure adequate support for the initiative

Impact of Not Performing this Step

This Step is critical to establishing a best practices approach to project management for the implementation of the blueprint. It ensures that the basic items of risk, funding communication, change management and planning are addressed prior to seeking approval for the investment dollars. Without this type of information, the governance bodies and the investment decision makers would not have the adequate information to asses the quality or soundness of the implementation. This step ensures solid planning skills are exercised to help substantiate the request for executive support. If Step 7 is not performed:

- The plan will not be considered viable
- The Line of Business's reputation for preparedness will be damaged
- There will be delays to the implementation

3 Tasks to Perform Step:

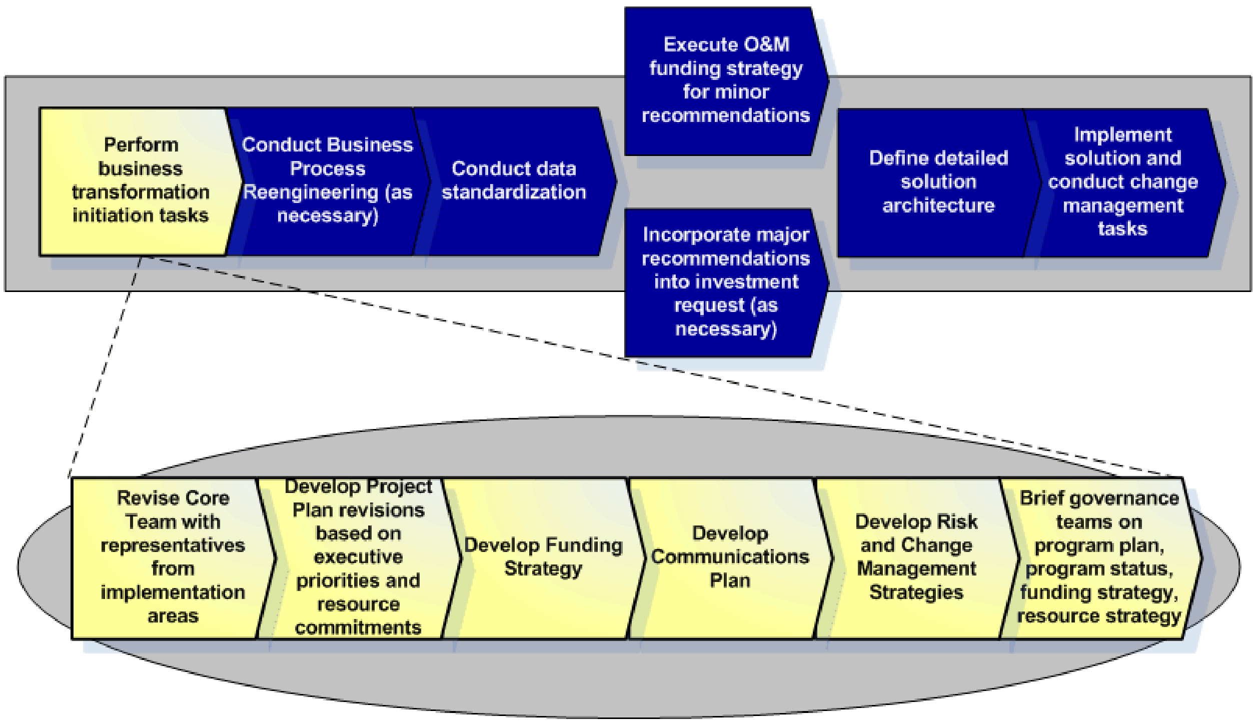
Step 7 starts with the following inputs:

Inputs:

- Modernization Blueprint and its Transition Schedule
- MBT Microsoft Project Template
- Communication Plan from Step 1 of MBT
- Record of Decision (ROD) on the Modernization Blueprint from the Investment Review Board (IRB) and supporting briefing materials
- Core Team Charter from Step 1 of the MBT
- Knowledge of budget, capital planning and funding mechanisms within the program area
- Background knowledge of MBT-related, Department and Federal-wide Architecture activities (e.g. IEA and DEAR)
- Knowledge of Department and Federal-wide investments that may be related (e.g. the E-CPIC)

Detail:

Within this step, there are six major tasks, each associated with sub-activities:



Task 1*: Form Core Team with Representatives from Sponsor Business Areas.* See Figure 3.

Activities:

1. Ensure existence of an Executive Sponsor from Step 5 of the MBT
2. Identify team members
3. Brief the Core Team on the Methodology and Blueprint background
4. Ensure access to the existing project charters, roles and responsibilities, and schedules

Task Outputs:

- Core Team Charter and Roles and Responsibilities

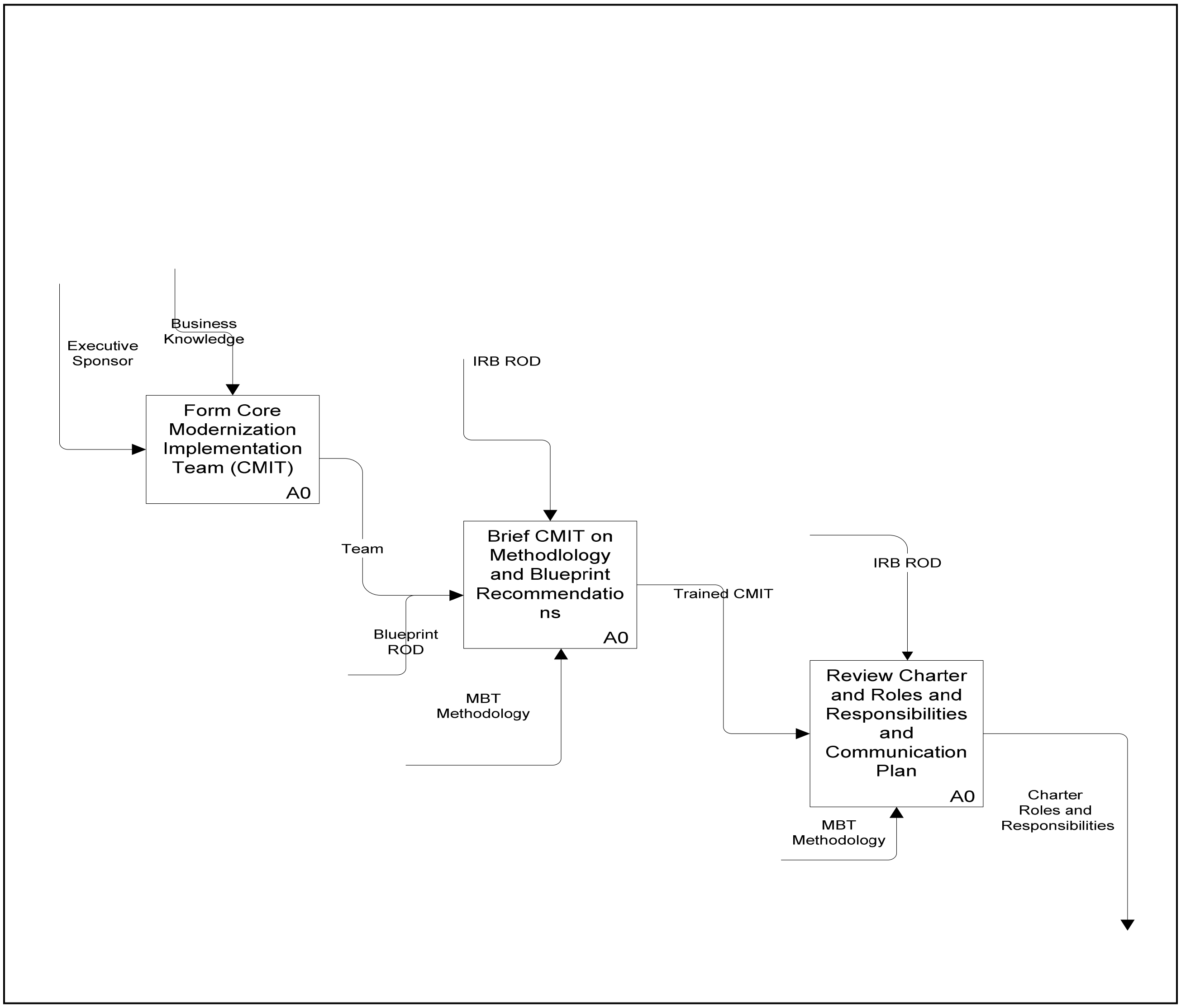

Business Knowledge
Executive Sponsor
IRB ROD
Form Core Modernization Implementation Team (CMIT)
A0
Team
Brief CMIT on Methodlology and Blueprint Recommendatio ns
A0
Blueprint ROD
MBT Methodology
IRB ROD
Trained CMIT
Review Charter and Roles and Responsibilities and Communication Plan
A0
MBT Methodology
Charter Roles and Responsibilities

Figure 3

Task 2: ***Develop Project Plan Revisions Based on IRB Priorities and Resource Commitments.*** See Figure 4.

Activities:

1. Revise existing project plans based on IRB priorities
2. Assess plan for risk and change management issues
3. Assess plan for funding strategies
4. Assess plan for communication requirements

Task Outputs:

- Project Plan

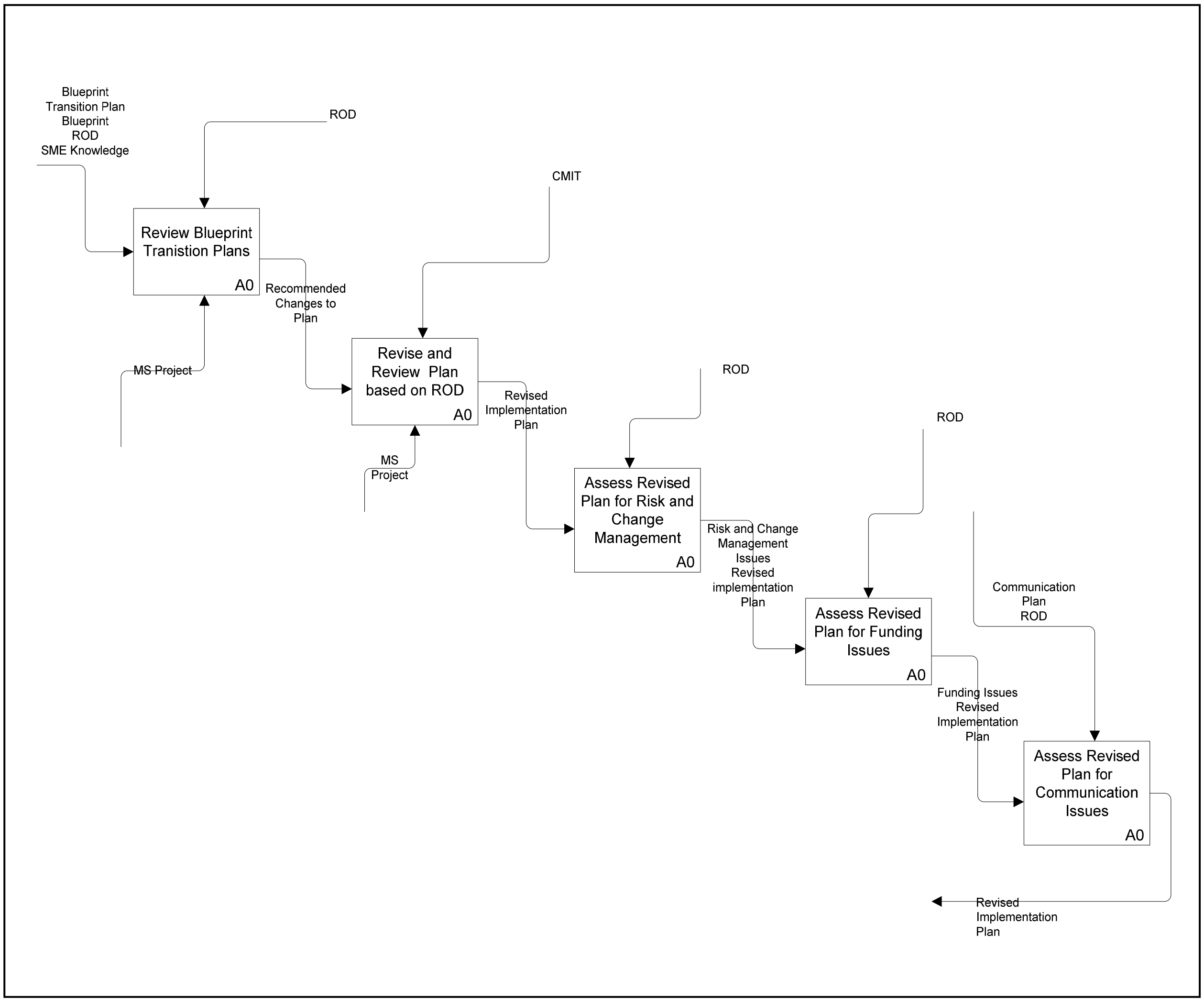


Figure 4

Task 3: ***Develop Funding Strategy.*** See Figure 5.

Activities:

1. Analyze plan for costing issues
2. Research estimates for activities
3. Investigate asset reuse
4. Work with budget planning for source funding
5. Develop funding strategies for activities

Task Outputs:

- Funding Strategy

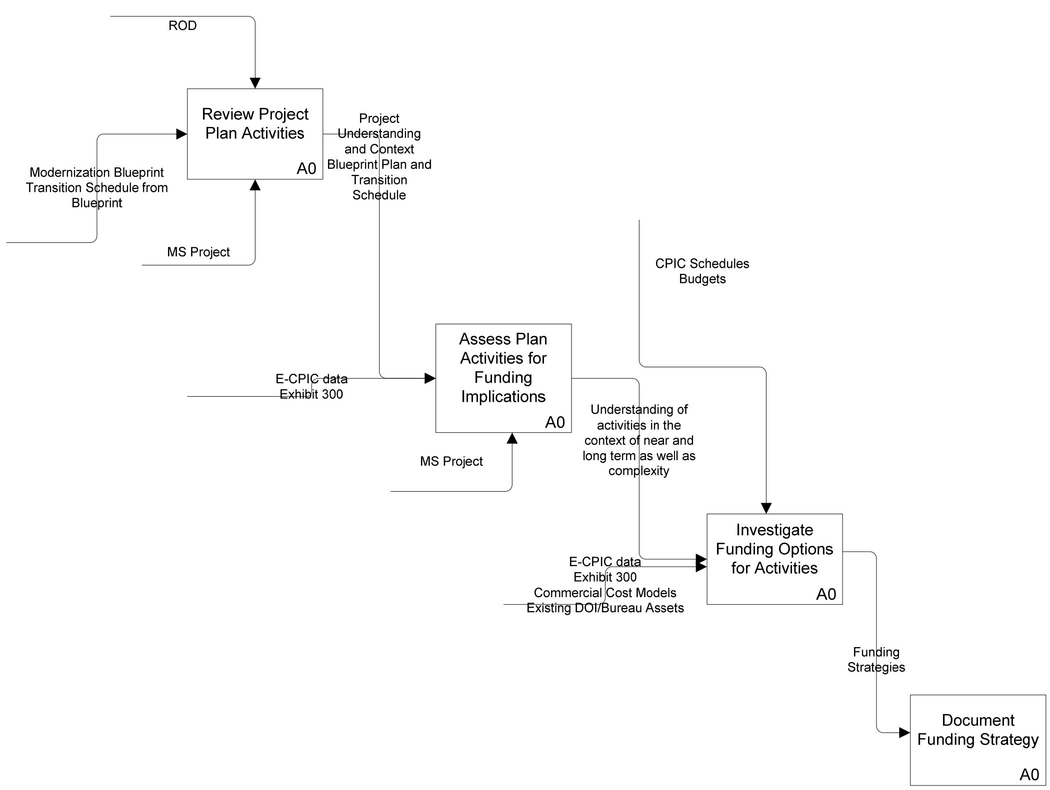


Figure 5

Task 4*: Develop Communications Plan.* The Core Team's Communications Plan is critical for keeping key stakeholders informed of the evolution of the effort. Additionally, it is important to communicate the strategy to other business modernization efforts to ensure compatibility and cooperation. See Figure 6.

Activities:

1. Develop Communication Strategy
2. Develop Communication Plan
3. Implement Communications Plan
    a. Develop Business Focus Area Modernization Website

Task Outputs:

- Communication Plan

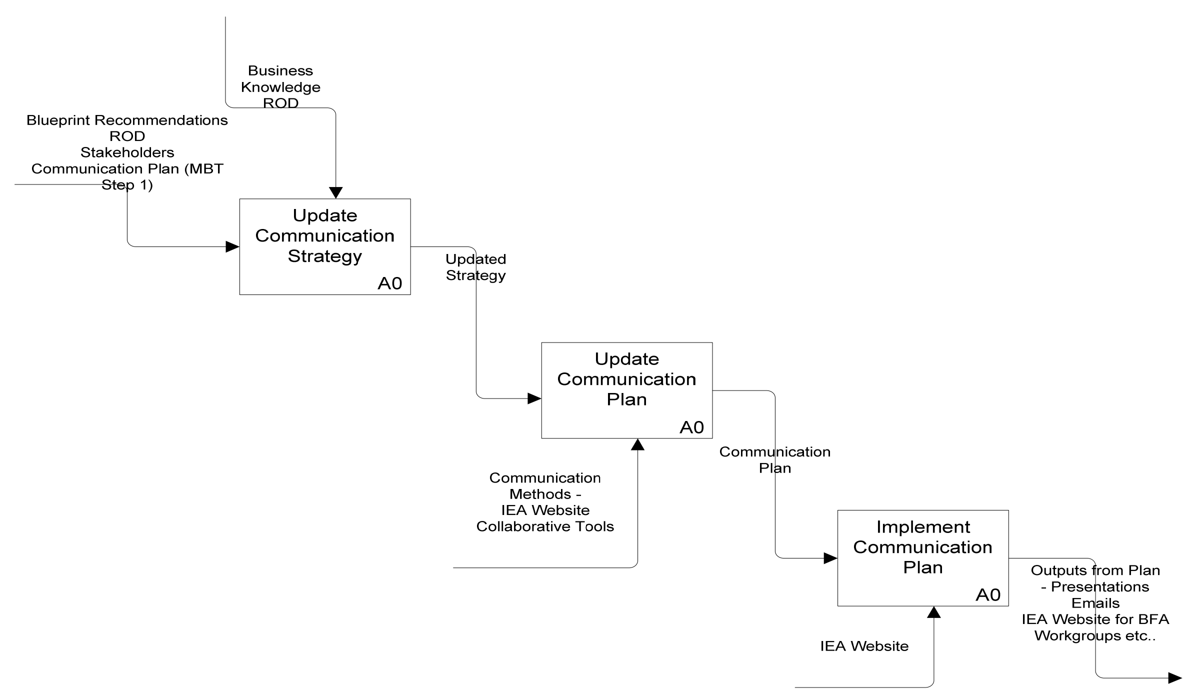


Figure 6

Task 5: *Develop Risk and Change Management Strategies*. See Figure 7.

Activities:

1. Analyze project implementation plan for risk and change management issues
2. Document change and risk management issues
3. Develop strategies for change and risk management issues
4. Build plan with alternatives to address change and risk issues
5. Update communications strategy based on change management and risk issues

Task Outputs:

- Risk Capture Table
- Risk Management Plan
- Change Management Plan

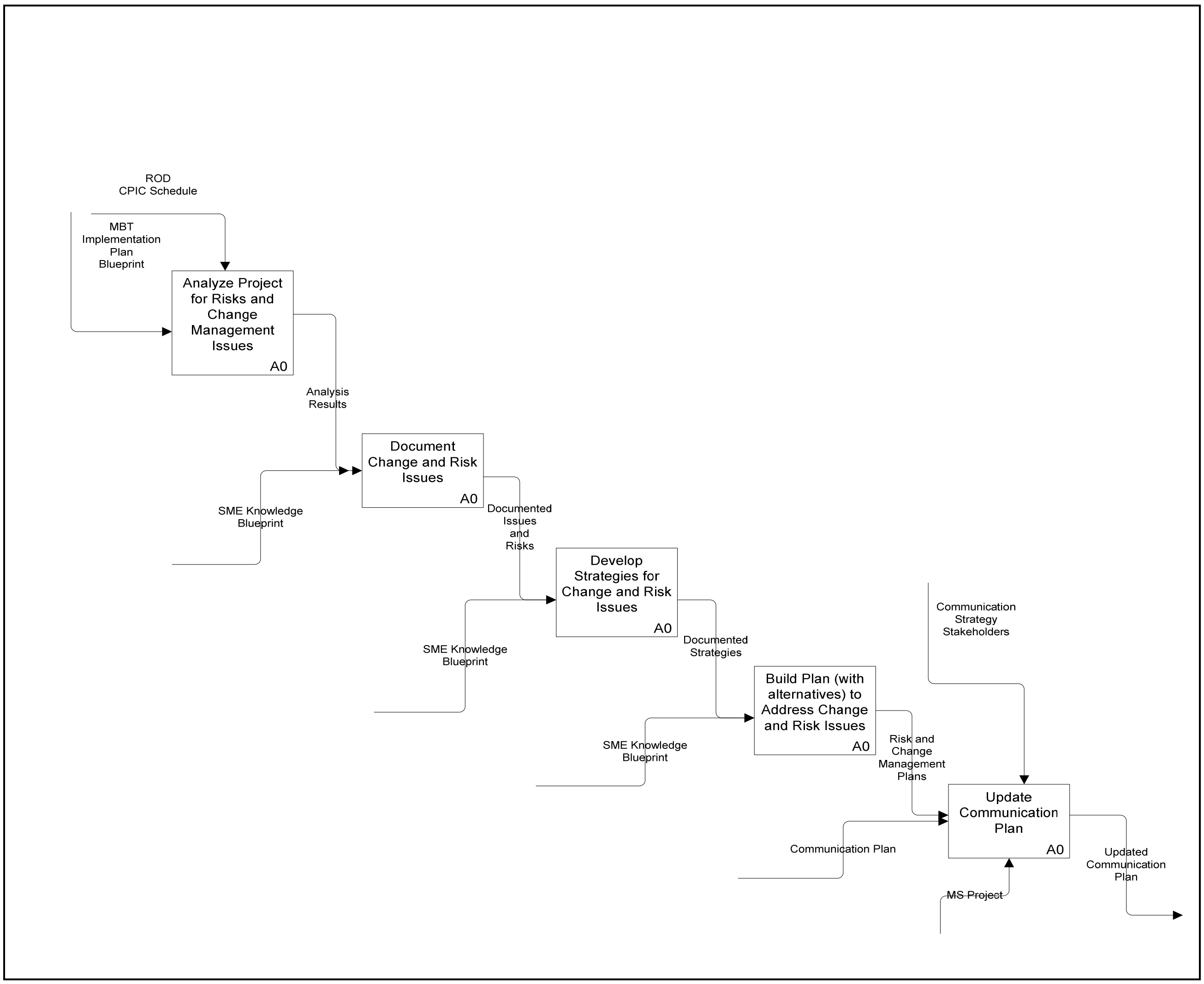


Figure 7

Task 6: ***Brief IBAT, IRB, ARB, on Program Plan, Program Status, Funding Strategy, Resource Strategy.*** The objective of Task 6 and its sub-activities is to have the plan reviewed by the governance and decision-making organizational groups. See Figure 8.

Activities:

1. Prepare presentation materials for review
   a. Project Objectives and Activities
   b. Funding Strategy
   c. Project Risks
   d. Communication
2. Present materials to governance boards
3. Address issues identified by governance boards
4. Present materials to IRB
5. Revise existing project plans based on IRB comments

Task Outputs:

- Presentation Materials for Governance

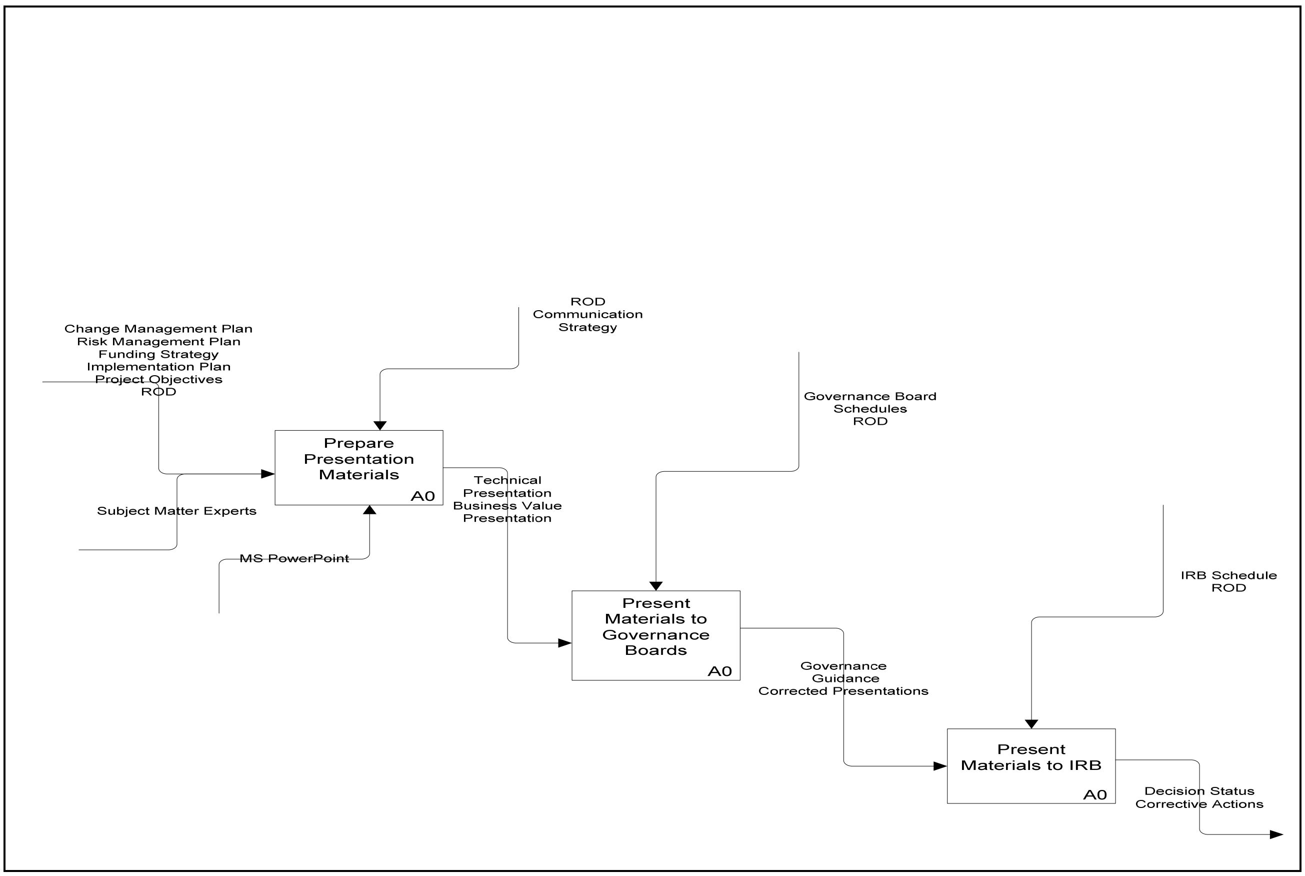


Figure 8

4 Step Participants: (Use Bullets)

- **Executive Sponsor: Person – Executive representative from the business**
- **Enterprise Architect: Person - skills for data, application, business and technology**
- **Solution Architect: Person – skills for developing IT solutions to improve cost estimations and provide sound engineering design to support the recommendations.**
- **Subject Matter Experts (SME)**
- **Core Team: Persons – with business expertise**
- **Communications Support: Person**
- **Access to budget and capital planning skills**

5 Dependencies:

The Core Team must be formed and functioning effectively. The ROD from MBT Step 5 is critical to understanding the business priorities. MBT Step 7 is a required step that must be completed before any other steps in the implementation phase can be started.

6 Step Deliverables:

Core Team Charter and Roles and Responsibilities: This work product defines the scope, authority and mission of the Core Team along with its roles and responsibilities.

- **TEMPLATE :** Core Team Charter and Roles and Responsibilities Blank (MSWord Format)
- **TEMPLATE :** Core Team Charter and Roles and Responsibilities Blank (PDF Format)

Communication Plan: This work product defines the stakeholders and a supporting communication strategy. It should identify the customization of the message to the type of stakeholder as well as the format, timeframes or critical milestones where the communication needs to occur.

- **TEMPLATE :** Sample Communication Plan (Excel format)

Project Plan: This work product defines the detailed implementation plan.

- **TEMPLATE :** Sample Project Plan (MS Project Plan format)

Change Management Plan: This work product needs to communicate the change management issues required to facilitate the implementation of the plan.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type:** MSWord format)

Presentation Materials for Governance: This work product needs to communicate the risks associated with the implementation plan.

- **TEMPLATE :** Sample Presentation (PowerPoint Format)

Risk Management Plan: These work products help document the risks associated with the implementation plan and the options for managing such risk.

- **TEMPLATE :** Risk Management Plan (MS Word Format)

- **TEMPLATE :** Risk Management Plan (PDF Format)
- **TEMPLATE :** Risk Capture Table (Excel format)

Funding Strategy: This work product needs to articulate the specific funding strategies for the series of recommendation within the plan.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type:** MS Word**)**

7 Communications Considerations:

This Step is largely a project planning (activities, risk, change, funding) and communication process. It is meant to create the understanding needed to develop a plan and resource requirements to support the implementation of the prioritized recommendations from the MBT Step 5 Record of Decision). Its communication strategy will need to address the governance bodies, subject matter experts, user community and all external and internal stakeholders.

8 References:

Step 8:

Conduct Business Process Reengineering

Version 1.0, February 2005

1 Step Description/Objectives:

Step 8, *Business Process Reengineering* or BPR is the discipline of first analyzing and then redesigning current business processes and their components in terms of their effectiveness, efficiency and added value contribution to the objectives of the business. The Conduct Business Process Reengineering Step is intended to gather and refine business requirements in support of a modernization effort for a defined business focus area (BFA). The BPR Step begins with planning activities that include the formation of the BPR team, the creation of a BPR scope document, and an examination of existing blueprint artifacts that relate to a given BFA. During a facilitated BPR workshop, the BPR team examines the current and future business process models and refines the models as needed. Using information gathered during the BPR workshop, the team updates the BFA BRM Hierarchy Diagram with any additional function/activities identified; updates the Target Conceptual Data Model with any data subject areas or entities; updates the Conceptual Data Model to Business Function Matrix with any additional BRM to DRM mappings; updates the Target Conceptual Data Entity Stewardship Matrix; and updates the Integrated Target Services and Systems Model. Findings and recommendations resulting from the BPR workshop are formally presented to the IBAT/ARB. If deemed appropriate, the refined and documented business requirements will form the foundation for the development of a formal business case in the follow-on Step.

2 Step Purpose:

Step 8 is performed for one or more of the following purposes:

- To further refine and validate information and business requirements in support of BFA modernization objectives
- To select which functions and/or processes within the scope of the BFA effort need further analysis
- To identify and document the shortcomings and inefficiencies of current business processes
- To identify which functions and/or processes are performing well and are candidates for inclusion in the future state.
- To identify potential opportunities for functions and/or processes harmonization across departments, geographic locations, Bureaus, etc.
- To identify potential opportunities for enabling technologies / services to automate functions and/or processes in the future state.
- To provide the basis for sizing the effort required to understand and assess the current environment and/or redesign the future environment

Impact of Not Performing this Step

If Step 8 is not performed, then:

- The shortcomings and inefficiencies of current business processes will not be documented risking the automation of inefficient processes by any newly procured services/system.
- Opportunities for improvement (e.g. horizontal services, enabling technologies, reduction of cross-departmental inefficiencies, etc.) may be missed.

- The existence of services and/or systems automating similar existing processes across the enterprise will not be examined resulting in the development and/or procurement of redundant and possibly incompatible services/systems.
- Responsibility and accountability for the implementation of process changes may be difficult to establish and assign.
- Individual processes will not have a known baseline performance for future measurement of performance improvement, wherefore it will be virtually impossible to directly quantify any cost reduction, cycle time improvement, or performance improvement achieved by the newly procured services/system.
- It will not be possible to identify tactical "quick" wins and prioritize other improvement opportunities.

3 Tasks to Perform Step:

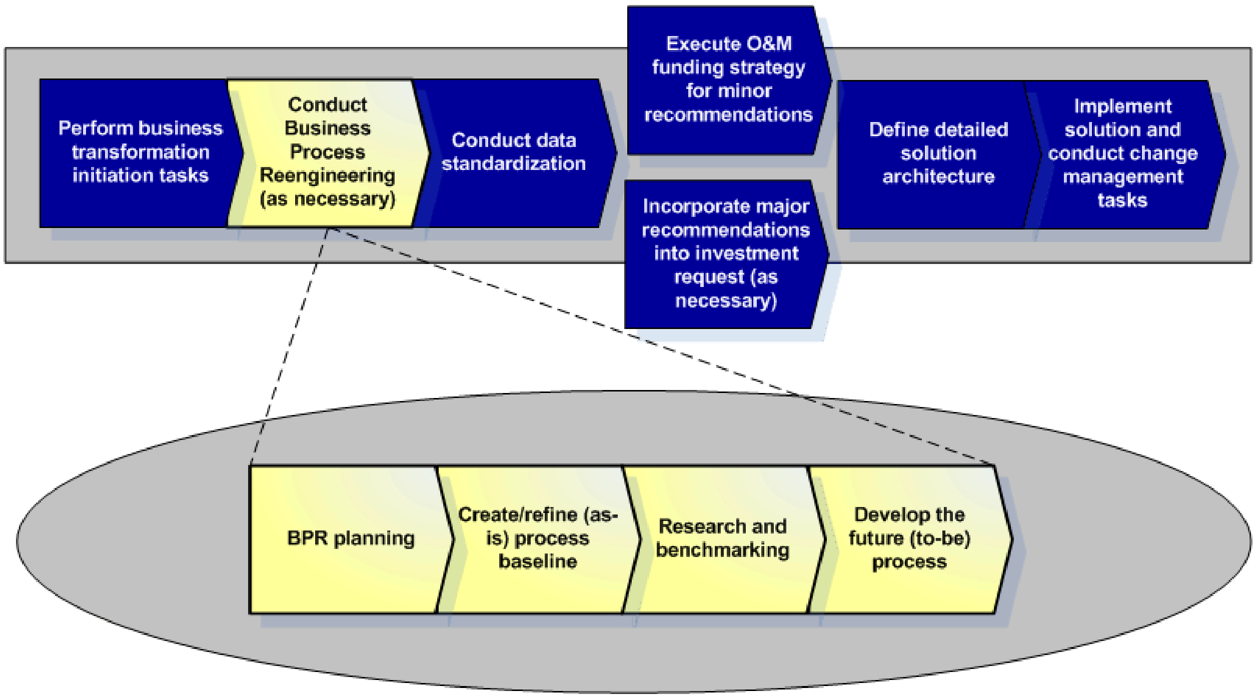
Step 8 starts with the following inputs:

Inputs:

- BFA (Business Focus Area) Vision Document
- BFA SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis
- BFA As-Is Value Chain
- BFA Target Value Chain
- BFA IDEF0 Activity Models (if any)
- BFA BRM (Business Reference Model) Hierarchy Diagram
- BFA Conceptual Data Model
- BFA Conceptual Data Model to Business Function Matrix (level 5 business functions to entity)
- BFA Conceptual Data Entity Stewardship Matrix
- BFA Integrated Services and Systems Model
- BFA Data Standards Document

Detail:

There are four major tasks with associated sub-activities involved in performing this Step:



Task 1: *BPR Planning*. The BPR Step begins with planning activities that include the formation of the core modernization implementation team(s) with representatives from sponsor business areas, the creation of a BPR scope document, and an examination of existing blueprint artifacts that relate to a given BFA. This Task is largely an examination of existing artifacts and formal establishment of the BPR team.

Activities:

1) Establish the BPR team, conduct kickoff workshop, and document core team membership and contact information.
   a) Project Sponsor
   b) Project Proponent
   c) Team BPR Facilitator
   d) Core Subject Matter Experts
   e) Other Teams or groups the project will need to work with or interview during the project, including other BPR teams, oversight committees, etc.
2) During the kickoff workshop, determine and document how much time core team members are expected to devote to the project (how may hours per week).
   a) How often will the team hold meetings?
   b) Where will meetings be held?

   c) How will information be communicated between team members (changes to diagrams, comments, etc.)?

3) During the kickoff workshop, determine and document BPR Charter & Scope.
   a) Describe the business issue or problem that justifies the project from a "process" perspective and document this within the BPR Scope.
   b) Examine existing BFA process artifacts for the conceptual diagram of the current process and clearly delineate the process boundaries for that which is in scope for the BPR effort.
4) During the kickoff workshop, discuss and document BFA project budget considerations with the project sponsor.
   a) Is travel involved, how much, when and approximate expected costs?
   b) Are there software or hardware requirements to consider?
   c) Does the team plan to utilize the Business Process Transformation Lab? What are the estimated fees associated with consultants involved?
   d) What other resources will be required?
   e) Other anticipated expenses?

Task Outputs:

- BPR Team Roster Document
- BPR Scope / Charter Document

Task 2: ***Create / Refine (As-is) Process Baseline*****.** Before the BPR team can proceed to redesigning the process, they should understand and formally document the existing process.

Activities:

1) Examine and update (if necessary) existing BFA process artifacts
   a) Examine existing BFA process artifacts to ensure they adequately identify resources associated with the process from start to finish. Ensure they include existing automated applications and the role they play in the process.
   b) Examine existing BFA process artifacts to identify who does what, when, why, how, and what the products, roles, responsibilities, etc. are.
   c) Examine existing BFA process artifacts to ensure existing application / systems included within the scope of the BFA effort are documented.
2) Create the business process map for the current normalized (As-Is) process. In some cases, IDEF0 Function / Activity models will exist for a BFA and this step will largely be an examination and validation of existing artifacts. More than likely, the team will need to normalize existing process models and validate mappings of activities to data subject areas (Inputs / Outputs), systems (Mechanism), and strategic goals / objectives (Controls).
   a) Gather what materials exist and review these to identify candidate business activities - ideally, using teams of two or more to produce initial lists. These lists should then be combined and reviewed to produce a consolidated list of candidates.

b) Potential analysis questions:

   i) What are the major tasks performed in the department / major responsibilities of the people in the area? (Careful not to get bogged down in detail.)

   ii) What are the major inputs and outputs from the area (interfaces)?

   iii) What function deals with specific inputs and outputs?

   iv) What are the major events that the business responds to and what functions deal with these (including the temporal events)?

   v) What management, planning and control activities are there?

b) The review of existing material will potentially uncover data as well as process requirements. A Business Activity name follows a Verb-Noun construct, e.g., Design Products, Create Leads, Negotiate & Settle Claims, Manage Vendors. Activities can be identified by picking key verbs out of the material; information entities (e.g. data subject areas and data entities) can be identified by picking key nouns out of the material.

c) To derive activities from interview notes, take verbs and list them under the appropriate activity group (Note: Not all verbs will be at the same level of detail). Expand each verb to a full activity name. Repeat verbs if they appear with different nouns. Repeat until there are no more verbs in the interview notes. There are often inconsistencies across an organization in the terms/labels used for information entities. Consequently, there will be inconsistencies in the terms/labels used for activities. When lots of documents have been reviewed, some degree of consolidation will be required to eliminate duplicates and synonyms.

d) To derive activities from High-level Events, take one event and give a general name for the activity used to handle the event. Look at the activities that handle the event and decompose them if appropriate.

e) For a given information entity (e.g. data subject area or data entity), understand what triggers its creation, a change in its attributes, the creation of new relationships and its death / archive.

f) Relate activities to Mission, Goals and Objectives - ensure the business strategy is supported by the business activity model.

g) If previously developed process models exist, these may have been produced as outputs from individual development or business process reengineering projects. As such, they may be at a very detailed, implementation-dependent level and will not have taken a cross-enterprise view. They may also have been defined based on organization boundaries rather than logical activities. The currency of these models requires to be checked. However they can still be very useful.

h) There may be more than one process map for the existing process, if so, the team will create and validate these with the business community and stakeholders and develop an accepted normalized version of the process. .

2) Group / classify similar activities. The consolidated list of candidate business activities is reviewed and similar activities are grouped. Activities are similar if they manage similar assets/data. This is the start of process normalization.

   a) Start with a single statement of the Enterprise or Business Area. Write a single statement describing the activities of the business area being studied. Begin with the name of the enterprise as the "root".

   b) Break this "root" into 4-8 more detailed statements/activity groups, ensuring all aspects of the parent root are covered by these sub-activities.

   c) Progressively break down each of the activities with more detail. Write sub-activities in their natural logical order (but not dependency).

   d) Break down each of these sub-activities into new child activities etc. If ‘business scenarios’ have been developed as part of previous Business Architecture deliverables, these will be valuable inputs. Business scenarios describe ways that work processes are carried out in a business activity. They usually define the set of steps followed in an activity and actions taken by people with assigned roles in the activity.

e) There will be a tendency to group activities by organizational boundaries or implementation characteristics. Those classifications must be challenged. It may be helpful to remove implementation characteristics from the activity and restate it more logically.

f) The development of the activity model is an iterative process. Functional decomposition is 100% top-down in theory! - However it is usually easier for people to think bottom-up and then to merge the lower-level decompositions into larger model. In reality, the model will be developed using a combination of top down / bottom up / middle out analysis. Iterate and revise the higher-level names and structure if necessary

3) Remove redundant activities. Each activity is reviewed to identify and remove redundancies. Redundancies can be resolved by changing the classification scheme, i.e., the activity groups, or by creating a new group. This task is critical to identify opportunities for sharing across an enterprise.

4) Extend and refine the baseline model (as necessary). In this activity, the previously developed baseline model is extended and refined, based on input from representatives of all parts of the business, within the engagement scope. The cross-enterprise nature of the work product means that the objective is to produce a model that represents the requirements of all the business areas. As this requires a degree of cross-enterprise agreement, the best approach is to use facilitated, modeling workshops, attended by representatives from all parts of the business concerned. These representatives must have a strategic, and not just a tactical / operational, view.

a) Use the baseline model, (if developed) as a starting point. Review each candidate business activity group (and decomposed activities) with the business participants. The areas of focus should be:

i) Does each business area have the same view, or perspective, of this activity? (i.e. does it mean the same thing to different people?)

ii) Are there any major activities that are missing?

iii) Is there any overlap between the activities?

b) Check for completeness. Ensure all aspects of a parent activity are covered by the child sub-activities (i.e. the collective definitions of each child completely describe the parent activity). Also ensure that all the sub-activities belong under the parent activity. The Business Activity Model is one of the foundations of the Enterprise Architecture. As such, it is important that it is developed with a degree of rigor. The definitions should be complete and unambiguous. Even when the engagement is being carried out on a subset of the enterprise, it is important that where possible, definitions are created which could equally apply to other parts of the organization.

c) Use the Conceptual Data Model (either built as part of this engagement, or pre-existing) to cross check business activities. Identify all entities created by an activity. Make sure that one activity exists to create each entity. Regroup/expand activities and information entities if necessary to create a 1:1 relationship between activities and information entities. You should also consider the activities performed for each role that has been defined.

d) When doing the modeling, it is important that the team do not restrict themselves solely to the activities of the enterprise as they stand today, (although these will tend to dominate the modeling activity). A visionary approach should also be adopted; identifying the activities that are required to support future goals and objectives. For example; "If there is currently no need for market research, will this still be the case in 5 years?" These documented future requirements will form the foundation for To-Be model development.

e) Theoretically, activity analysis should continue until every activity is decomposed into leaf-level activities. For Enterprise Architecture this is not practical and of questionable value - you should focus on why you are doing this. Low level decomposition is normally tackled as part of detailed analysis. The number of business activities defined will vary with the level of detail, scope of the engagement and complexity of the business. Controlling the level of detail in the functional decomposition is important. Sufficient detail is required to perform activity/information clustering. A decomposition is too detailed if an activity

i) Describes document handling

ii) Describes conditional situations, e.g., Handle Claims Under $50

iii) Describes how something is performed, e.g., Open and Scan Mail

iv) Does not produce at least one clear result or output

5) Validate the As-Is models with business owners and Subject Matter Experts. It is essential that the completed model have support from the highest level sponsor possible so that it can be used across the business in follow-on efforts. Consider producing a short summary presentation covering the findings of the activity and use the issue/solution to gain support for the model's further use. The BFA process model should be reviewed by the major business representatives that have been involved in its development. A set of "quality criteria" for the business activity model should be used. Using the quality criteria, the business representatives (or whoever is responsible for agreeing the sign/off / acceptance of the work product), should review the activity model. Potential criteria are as follows:

a) The functional decomposition covers all the major areas that are important to the business.

b) The activities are distinct and do not overlap.

c) The names and descriptions of the activities are clearly understood and recognizable by the all areas of the enterprise.

d) The model represents the functional and process requirements of the enterprise.

Task Outputs:

- Normalized As-Is IDEF0 model(s)
- Updated BFA BRM Hierarchy Diagram (if applicable)
- Updated Conceptual Data Model (if applicable)
- Updated BFA Conceptual Data Model to Business Function Matrix (if applicable)
- Updated BFA Conceptual Data Entity Stewardship Matrix (if applicable)
- Updated BFA As-Is Integrated Services and Systems Model (if applicable)

Task 3: *Research and Benchmarking*. After the creation of normalized process models, the next step is benchmarking and analysis. “Benchmarking is the comparing of both the performance of the organization’s processes and the way those processes are conducted with those relevant peer organizations to obtain ideas for improvement.” The peer organizations need not be competitors or even from the same industry. Innovative practices can be adopted from anywhere, no matter what their source.

Activities:

1) Research & Benchmarking Activities

a) Evaluate internal activities against other organizations and companies and compare the results especially in the e-Gov initiatives.

b) What are the differences and similarities, and why do they exist?

c) If there are processes or portions of processes discovered during this phase that are eligible for consideration here, the Team needs to make those recommendations and illustrate them in the business case as possible opportunities for the BFA.

d) Present recommendations to BPR Team, Subject Matter Experts, Sponsor(s)

Task Outputs:

- Recommendations and Findings for Process Improvement Document

Task 4: ***Develop the Future (To-Be) Process*****.** Having identified the potential improvements to the existing processes, the development of the To-Be models is done using the various modeling methods available, bearing in mind basic principles of process design. The goal of To-Be process design is to produce one or more alternatives to the current situation, which satisfy goals of the enterprise. To-Be process design is still more of an art than a true engineering discipline. In some respects, the development of the future (To-Be) process model roughly follows the documentation of the normalized As-Is processes. As with As-Is process development, it is necessary to elicit comments from domain experts and to group and normalize collected activities. When developing the To-Be processes, however, it may be an impediment to innovation to use domain experts knowledgeable with the As-is processes. Mayer[1] describes an object-state transition approach to process design that examines the end process first to fundamentally shift the perspective of domain experts into thinking "out-of-the-box". Mayer also provides eight basic principles of process design which have been observed to result in better process designs. The following seven principles draw from Mayer and include elements of Rummler & Brache's seven deadly sins of process improvement[2].

1) Examine best practices. Baseline process models and benchmarks provide measurement and comparison to industry/government best practices. Benchmarking may also involve the examination of similar processes outside the line of business.

2) Perform operations assessments. Operations assessment is a methodical process of analyzing how employee skill sets, business processes, and existing information systems function. The result is a comprehensive assessment of how effectively a company uses resources and how well its operating units perform.

3) Assess customer alignment. Customer alignment assesses the value of business activities as they pertain to customers to ensure that an organization is closely aligned with its customers' specific needs.

4) Analyze the solution from end-to-end. End-To-End Solutions Analysis examines an entire process to discover more effective and efficient ways of handling it. Examine business processes across all functional and organizational boundaries (including customers, suppliers, and business partners) to provide a holistic view and maximum flexibility in optimizing the process.

5) Eliminate Non-Value-Added Activities by identifying and eliminating any activities that do not provide value to either internal or external customers.

6) Perform Time Compression to reduce process time and overlap activities whenever possible. Speeding up business cycles can reduce costs and increase customer satisfaction that translates into increased revenue.

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[1] Mayer, Richard J., Dewitte, Paula S., "Delivering Results: Evolving BPR from art to engineering", 1998

[2] Rummler, G.A., Brache, A.P., "Improving Performance: How to Manage the White Space on the Organizational Chart", Wiley, 1995

7) Organize Around Outcomes. Organize and measure people and processes around goals and outcomes not as series of intermediate steps

Activities:

1) Develop the Future (To-Be) Process
   a) Building on the research from the benchmarking and best practices activities, the As-Is should be developed into a To-Be model and validated by the team and business community for further suggestions, recommendations or changes. (IDEF0 and optionally IDEF3 for To-Be process)
   b) Identify and document risks associated with implementation of the automated processes.
   c) Identify and document process improvement (from baseline to target) based on metrics identified and documented in the benchmarking activity.
   d) Identify and document the expected ROI for implementation.
   e) Identify and map the new process to Subject Function Area identified by subject function code (identify changes in roles and responsibilities that may be created by changing the process and so the Subject Function Areas can be updated to meet the business requirements).
   f) Validate the To-Be with business owners and Subject Matter Experts.

Task Outputs:

- Normalized To-Be IDEF0 and optionally IDEF3 model(s)
- Updated BFA To-Be Integrated Services and Systems Model (if applicable)
- Updated BFA Data Standards Document (if applicable)
- Recommendations and Findings Presentation (includes documented process improvements and expected ROI for implementation).

4 Step Participants: (Use Bullets)

- **Core Team Representative: Person,Org**
- **Interviewer: Person,Org**
- **Note Taker: Person,Org**
- **Subject Matter Expert: Person,Org**
- **Stakeholder: Person,Org**
- **Process Owners: Person,Org**

5 Dependencies:

The core blueprint team must be formed and must have already met to identify a list of stakeholder types, stakeholder instances, and to have assigned priority levels to each of the stakeholder types. The high priority stakeholder types will be the core focus of this Step.

6 Step Deliverables:

BPR Team Roster Document: The BPR Team Roster document will be created before the BPR kickoff workshop and updated as needed. It will document core team membership and contact information. It will contain Project Sponsor, Project Proponent, Team BPR Facilitator, Core Subject Matter Experts, and other Teams or groups the project will need to work with or interview during the project, including other BPR teams, oversight committees, etc. The document will contain key contact information such as email, phone, and geographic location to facilitate BPR

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

BPR Scope / Charter Document: The BPR Scope / Charter Document will be finalized during the BPR kickoff workshop and describe the business issue or problem that justifies the project from a “process” perspective. The document will clearly delineate the process boundaries for that which is in scope for the BPR effort. The document will document BFA project budget considerations and anticipated expenses..

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Updated BFA BRM Hierarchy Diagram: The creation, refinement, and normalization of the As-Is Process Baseline may result in the discovery and/or consolidation of existing level 4 & 5 function/activities. These updates will be captured in DEAR.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Updated BFA Conceptual Data Model to Business Function Matrix: The creation, refinement, and normalization of the As-Is Process Baseline may result in updates to the DRM to BRM mapping. These updates will be captured in DEAR.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Updated BFA Conceptual Data Entity Stewardship Matrix: The creation, refinement, and normalization of the As-Is Process Baseline may result in updates to the DRM entity to Stewardship Matrix. These updates will be captured in DEAR.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Updated BFA As-Is Integrated Services and Systems Model: The creation, refinement, and normalization of the As-Is Process Baseline may result in updates to the As-is Integrated Services and Systems Model. An As-Is Integrated Services and Systems Model diagram will have already been created by the core team. Following additional interviews, the diagram and its contents may need updating.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Normalized As-is IDEF0 Model: The IDEF0 function/activity and IDEF3 process models will be captured within DEAR. The BPR effort has standardized on IDEF0 and IDEF3 notation of function/activity and process modeling respectively. FIPS 183[3] describes the IDEF0 modeling language (semantics and syntax), and associated rules and techniques, for developing structured graphical representations of a system or enterprise.

IDEF0 is a method designed to model the decisions, actions, and activities of an organization or system. IDEF0 models help organize the analysis of a system and promote good communication between the analyst and the customer. IDEF0 is useful in establishing the scope of an analysis, especially for a functional analysis. As a communication tool, IDEF0 enhances domain expert involvement and consensus decision-making through simplified graphical devices. As an analysis tool, IDEF0 assists the modeler in identifying what functions are performed, what is needed to perform those functions, what the current system does right, and what the current system does wrong. Thus, IDEF0 models are often created as one of the first tasks of a system development effort.

The primary strength of IDEF0 is that the method has proven effective in detailing the system activities for function modeling, the original structured analysis communication goal for IDEF0. Activities can be described by their inputs, outputs, controls, and mechanisms (ICOMs). Additionally, the description of the activities of a system can be easily refined into greater and greater detail until the model is as descriptive as necessary for the decision-making task at hand. In fact, one of the observed problems with IDEF0 models is that they often are so concise that they are understandable only if the reader is a domain expert or has participated in the model development. The hierarchical nature of IDEF0 facilitates the ability to construct (AS-IS) models that have a top-down representation and interpretation, but which are based on a bottom-up analysis process. Beginning with raw data (generally interview results with domain experts), the modeler starts grouping together activities that are closely related or functionally similar. Through this grouping process, the hierarchy emerges. If an enterprise's functional architecture is being designed (often referred to as TO-BE modeling), top-down construction is usually more appropriate. Beginning with the top-most activity, the TO-BE enterprise can be described via a logical decomposition. The process can be continued recursively to the desired level of detail. When an existing enterprise is being analyzed and modeled (often referred to as AS-IS modeling), observed activities can be described and then combined into a higher level activity. This process also continues until the highest level activity has been described.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Recommendations and Findings for Process Improvement Document: Recommendations and findings for process improvement will be formally documented and used as a key communication device as well as forming the foundation for follow-on work in the creation of the normalized To-Be process model(s).

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Normalized To-Be IDEF0 Model: The IDEF0 function/activity and IDEF3 process models will be captured with DEAR.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)

[3] Federal Information Processing Standards (FIPS) Publication 183, "Integration Definition for Function Modeling (IDEF0)", 1993

- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Updated BFA To-Be Integrated Services and Systems Model: The creation of the To-Be process models may result in updates or changes to the To-Be Integrated Services and Systems Model. .

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Updated BFA Data Standards Document: Both the As-Is process modeling and To-Be process modeling may result in updates to the documentation of data standards. The Data Standards Document will be a simple report generated from DEAR. .

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Recommendations and Findings Presentation (includes documented process improvements and expected ROI for implementation): The final recommendations and documented process improvements and ROI will be documented and delivered as a formal presentation..

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

7 Communications Considerations:

Stakeholder pre-read presentations will be distributed to internal and external stakeholders. Work in progress and interim work products will be placed in a collaborative environment (e.g. QuickPlace Teamroom) to facilitate communication among the BPR participants and stakeholders. Diagrams and reports related to the BPR effort will be periodically generated from DEAR and made accessible to BPR participants and stakeholders.

8 References:

1. Cook, Melissa A, "Building Enterprise Information Architectures: Reengineering Information Systems", Prentice Hall 1996
2. Crawford, Jeanne, “BLM BPR Activity Outline”, BLM Enterprise Architecture (BEA), 2003
3. Federal Information Processing Standards (FIPS) Publication 183, “Integration Definition for Function Modeling (IDEF0)”, 1993
4. Mayer, Richard J.,Dewitte, Paula S., and Painter, Michael K., “IDEF Family of Methods for Concurrent Engineering and Business Reengineering Applications”, Knowledge Based Systems Inc., 1992
5. Mayer, Richard J., Dewitte, Paula S., “Delivering Results: Evolving BPR from art to engineering”, 1998
6. Rummler, G.A., Brache, A.P., “Improving Performance: How to Manage the White Space on the Organizational Chart, Wiley, 1995
7. Sherr, A.L. “A New Approach to Business Processes”, IBM Systems Journal 32:1, 1993

8. Subramanian Muthu, Larry Whitman, and S. Hossein Cheraghi, "Business Process Reengineering: A Consolidated Methodology", Proceedings of the 4th Annual International Conference on Industrial Engineering Theory, Applications, and Practice, 1999

Step: 9

Conduct Data Standardization

Version 1.0, February 2005

1 Step Description/Objectives:

Step 9, *Conduct Data Standardization,* is intended to reduce the life cycle cost of data through data integration, standardization and the identification and use of authoritative data sources. Documenting data in a structured way will promote the understanding and meaning of data. A data standard provides the framework for how data will be formatted for implementation within systems and in the data exchanges between systems. This task relies on the identification of data by data stewards or communities of practice and on the functional community that will eventually implement and use standardized data.

2 Step Purpose:

Step 9 is performed for the following purposes:

- To identify priority data that are important to the Department especially data that are shared across systems and organizations.
- To enhance interoperability among DOI information systems by promoting data structures and data exchanges that are based on a common understanding of data.
- To identify and reuse quality data.
- To expose data standards to a broader DOI community and seek collaborative input from that community on how shared data is best defined and structured.
- To provide database schemas and data exchange standards that are based on standardized data.

Impact of Not Performing this Step

Step 9 is the primary output of the Data Resource Management and Standardization Program and the data product of the Enterprise Architecture. This step is designed to incrementally improve data sharing and interoperability within and without DOI. If Step 9 is not performed:

- Data exchange will continue to be problematic and costly
- Data will not be aligned with the enterprise architecture
- Data integrity, quality, and consistency will not improve

3 Tasks to Perform Step:

Step 9 starts with the following inputs:

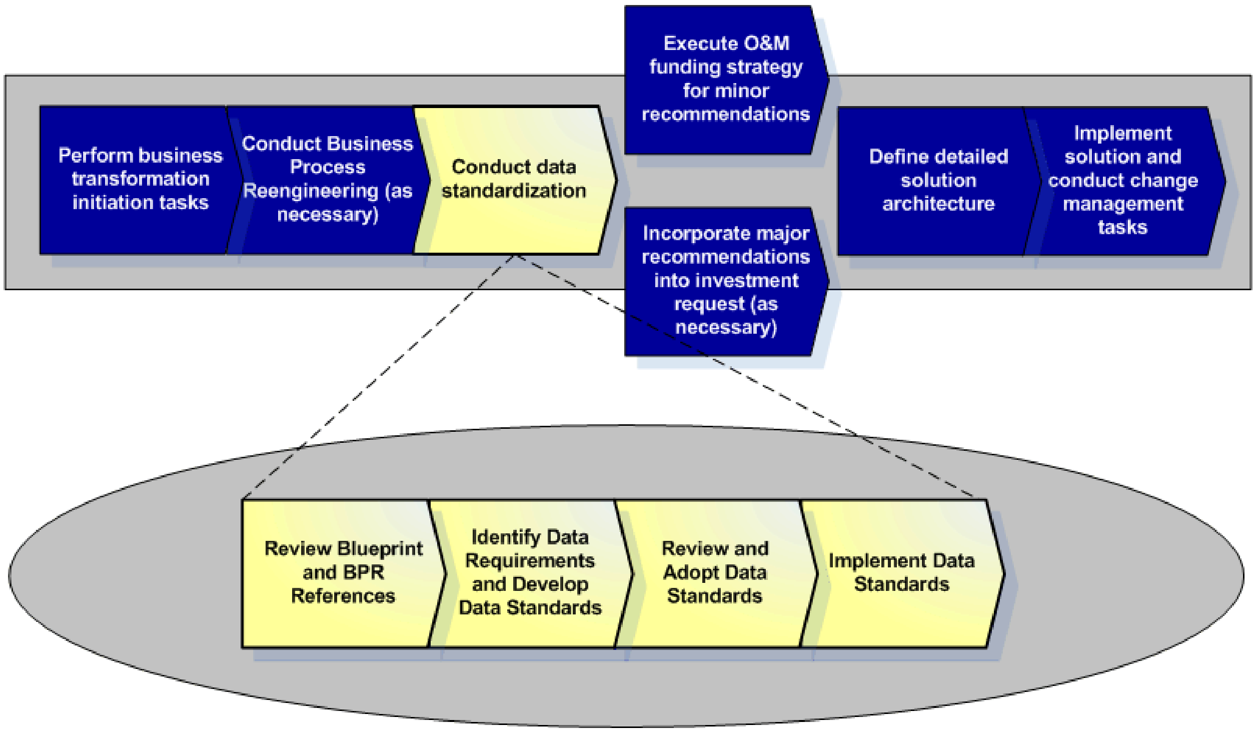
Inputs:

- Modernization Blueprint Data and Data Exchange Requirements
- BPR References
- Current Version of the Interior Data Reference Model

- Other Information Requirements
- IDEF0 Activity Models

Detail:

Within this step, there are four major tasks:



Task 1: *Review Blueprint and BPR References*. The Modernization Blueprints provide a basis for developing and prioritizing data requirements. Within the Goals and Objectives and the Findings sections of the blueprint is information that relates to improvement opportunities in data and data exchange. Specific data requirements are developed and/or projects initiated for the discovery and documentation of data requirements that satisfy the findings of the blueprint. The resulting data requirements are formatted in the form of one or more logical data model diagrams using the DOI standard IDEF1X modeling method, and an accompanying metadata dictionary in the Popkin SA tool, or in some other compatible format.

Activities:

1. Create logical data model diagrams based on the data requirements in the Goals and Objectives and in the Findings sections of the Modernization Blueprints.

Task Outputs:

- Logical data model diagrams with metadata dictionary

Task 2: *Identify Data Requirements and Develop Data Standards*. This task applies information engineering structure and provides an initial review of data that will be proposed as a DOI standard. There are two primary objectives involved with this task:

1. The development of data standard proposal packages based on the identification, collection, validation, design, and documentation of data requirements. During this task, the data requirements gathered from sources such as the Modernization Blueprint and reverse engineered systems are formatted and structured based on a prescribed template according to the draft Department Procedures for Data Standardization. A logical data model diagram and detailed information exchanges that are in harmony with the Interior Data Reference Model (IDRM) is a mandatory product of this task.
2. The initial functional coordination of new data standards, modification to existing data standards, archiving of existing data standards, and the preparation and submittal of a data standard submission package. The developers of a proposed DOI data standard are responsible for conducting a preliminary coordination among a community of practice, a business process, a functional community, with IS managers, and with the one or more DOI Data Stewards who have purview over the proposed data standards. This is an iterative process that may require frequent contact with stakeholders.

   Such coordination typically centers on the logical data model(s) containing the proposed standards. Suggested changes and harmonization of similar concepts are typical. Many model and definitional changes may occur and changes to relationships within the logical data model are possible.

   This step serves these purposes:

- It serves as a validation mechanism for the proposed data standards by having varying levels of expertise with similar information needs review the proposed data standard
- It provides a way to review the proposed data standard in advance of a formal review. This may reduce the rework and possible delays that could result had such coordination not taken place.
- The coordination ensures that the proposed data standards do not already exist and that they comply with the guidance set forth in this manual.
- The coordination also ensures that the logical data model associated with the proposed data standard is functionally integrated with the DOI DRM.

This process results in a functionally coordinated proposed data standard.

Activities:

1. Collect and identify data requirements
2. Validate data requirements
3. Identify existing data standards for reuse
4. Develop logical data models
5. Document data element metadata
6. Conduct Initial functional coordination
7. Prepare proposal package

Task Outputs:

- Data Standard Proposal package

Task 3: *Review and Adopt Data Standards*. This task addresses the specific subtasks involved with reviewing proposed data standards for completeness, semantic correctness, and functional fit within the DOI community. It culminates with a proposed data standard that is either accepted as a DOI standard, tabled, or rejected. The data standard proposal package is formally distributed throughout the DOI data community for comment. The comments are collected, reviewed, and a response is prepared. Agreed-upon changes are reflected in the proposal package model and metadata and a final resolution document is distributed. The DOI DRM is updated with the adopted data standards and a new release of the IDRM is prepared and issued.

Activities:

1. Perform a technical review of the proposal package to ensure compliance with technical and completeness requirements.
2. Conduct the formal review process.
3. Perform comment resolution.

Task Outputs:

- Adopted or rejected DOI Data Standards
- Possible changes to a proposal package for resubmission
- Comment Resolution Document

Task 4: *Implement Data Standards*. Once a data standard has been established, it can only provide tangible benefit if it is used throughout DOI systems and data exchanges. There are two primary objectives of this task:

Activities:

1. Integrate the data standard into the IDRM and disseminate knowledge about that data standard to the data community. This provides an updated version of the IDRM, with new or modified associations with other Enterprise Architecture products, such as mappings between entities and the BRM. This also ensures that the DOI data community is notified of a newly adopted or modified data standard.
2. Provide the data standard in the form of database schemas, xml standards, information exchange packages, and listings of authoritative sources.

Task Outputs:

- An extended/updated IDRM
- XML Tags and Schemas
- Information Exchange Packages
- Physical database schemas

4 Step Participants: (Use Bullets)

- **DOI Data Architect: Person**
- **Principal Data Stewards: Person**
- **Bureau Data Architects: Person**
- **Business Data Stewards: Person**
- **Subject Matter Experts: Person**
- **Database Administrators: Person**
- **Data Reference Model Steering Group DRMSG): Org**
- **Functional Representatives: Person**

5 Dependencies:

Data stewards must be identified and performing their role. A repository tool is required to manage and disseminate data. This step is based on the recommendations of a Modernization Blueprint that has been approved by the IRB.

6 Step Deliverables:

Logical Data Model: This work product is an artifact that documents data requirements in an IDEF1X or equivalent diagram with associated metadata and definitions. The DOI preferred format is a fully attributed IDEF1X logical data model. Data requirements are based on goals and objectives and findings of the Modernization Blueprint.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: IDEF1X Model for Popkin SA or ERwin**)

Data Standard Proposal Package: This work product is a package of three primary products:

A fully attributed logical data model:

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Adobe pdf Diagram or Popkin SA diagram**)

An excel spreadsheet containing the Target Information Exchange Matrix:

- **TEMPLATE:** Hyperlink to Template (**Deliverable Type: MS Excel**)

An excel spreadsheet containing Entity metadata:

- **TEMPLATE:** Hyperlink to Template (**Deliverable Type: MS Excel**)

An excel spreadsheet containing Data Element metadata:

- **TEMPLATE:** Hyperlink to Template (**Deliverable Type: MS Excel**)

An cover page containing submitter and point of contact information and principle steward information:

- **TEMPLATE:** Hyperlink to Template (**Deliverable Type: MS Word**)

Comment Resolution Document: This document provides the tool for the documentation of the formal Data Standard Review process.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

Implemented Data Standards: This work product is the data standards that are implemented in the databases, file structures, data exchanges, and as authoritative sources of data. This work product also provides to the DOI community the notification and dissemination of knowledge about adopted data standards and associated authoritative sources where applicable. Tangible work products:

1. XML Tags: This product consists of data entity and data element names that have been formatted for inclusion into XML files and schemas. The XML tags are typically formatted as part of the standardization process and are subject to formal review as part of the data standard proposal package.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Excel**)

2. XML Schemas: This product is a collection of XML Tags that are placed into a single XML Schema file for use in defining standard data exchanges.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

3. Information Exchange Package: An Information Exchange Package represents a set of data that is transmitted for a specific business purpose. It is the actual data exchange instance (such as an XML instance) that delivers the payload or information. An Information Exchange Package typically contains a collection of artifacts that describe the structure and content of a data exchange including, for example, an XML Schema, purpose and scope statements for the exchange, timing, and security dependencies.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: n/a**)

4. Physical Database Schemas: The constructs for data storage and/or the encoding for data exchange that are implemented to process data standards.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: n/a**)

7 Communications Considerations:

Primary communication regarding data standardization occurs as part of the Data Resource Management Program itself. Communication within this step is primarily focused on two points:

- The communication that must occur before the final development of a Data Proposal Package takes place within the Data Steward community and often crosses functional and organizational domains. This is a crucial step to coordinate and resolve data issues to the greatest extent possible prior to submitting a proposal package for formal review.
- Communication that markets newly adopted data standards to the DOI data community. This is necessary to ensure that data standards are infused into systems and data exchanges.

8 References:

- Draft Department Procedures for Data Standardization
- Policy: Draft Department Manual for Data Resource Management

Step 10A:

Execute Funding Strategy for Minor Recommendations

(Guidance document for Step 10A: Execute Funding Strategy for Minor Recommendations (Download not yet available)

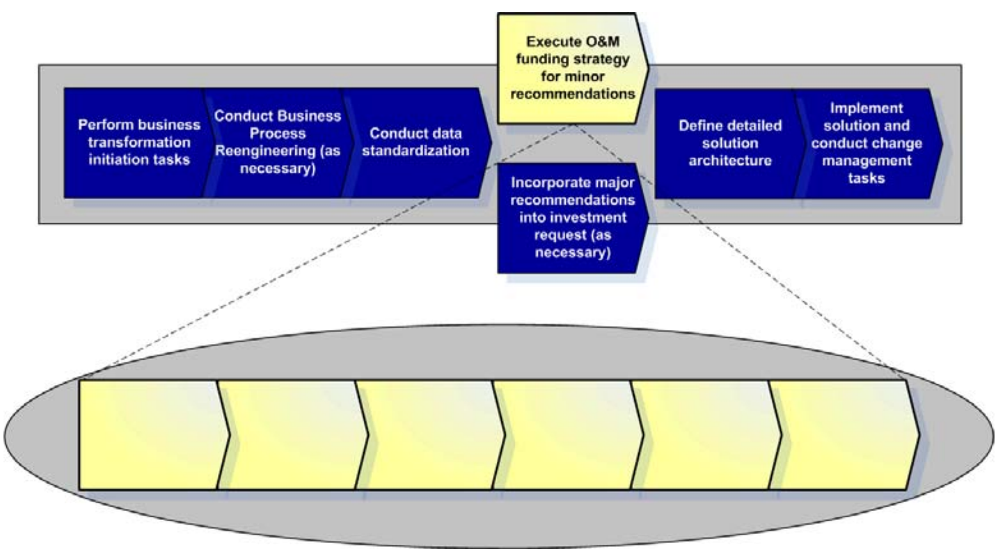
The purpose of this step is to

Determine how existing dollars can be leveraged for minor modernization changes.

Step objectives

Initiate any needed investment changes through program management processes to incoporate minor modifications.
Gain funding from existing sponsorship for minor recommendations.

Who needs to be involved	*Key work products*
Core Team Enterprise architect Investment Review Board (IRB) Portfolio management Portfolio owners	Capital Planning and Investment Control (CPIC) Pre-Select Documents (Investment Proposals) Capital Planning and Investment Control (CPIC) Pre-Select Presentation to the Invest Review Board (IRB) Exhibit 300
Step inputs	***Relationship to other steps***
Existing Funding Strategy Final Modernization Blueprint Business Process Reengineering (BPR) Results	This Step is required to obtain funding for future steps.



Step 10B:

Incorporate Major Recommendations Into Investment Request (as necessary)

Version 1.0, February 2005

1 Step Description/Objectives:

Step 10B, *Incorporate Major Recommendations Into Investment Request (as necessary),* is an optional step that is only performed when you have recommendations that cannot be carried out using O&M funding for existing systems and investments (in other words, a new investment is required). During this step, you will create the documents required to get an investment started in the CPIC process, including the OMB Exhibit 300. **It is vital to synchronize this task with the budget process (you must complete this step prior to the annual Budget Call to Bureaus in April) to avoid unnecessary delays in implementing the blueprint.** This step is intended to provide input to the CPIC process, not to replace any portion of it.

Objectives:

- Formally define and initiate any needed investments through the CPIC process
- Gain funding and sponsorship for major recommendations

2 Step Purpose:

Step 2 is performed for the following purposes:

- Secure needed funding for the recommended changes in the modernization blueprint

Impact of Not Performing this Step

Step 2 creates the necessary investment documents to initiate new projects that implement the blueprint. If Step 2 is not performed:

- Funding will not be secured or will be delayed
- Implementation of the blueprint will fail or be delayed
- Any minor recommendations dependant on these projects will also fail or be delayed

3 Tasks to Perform Step:

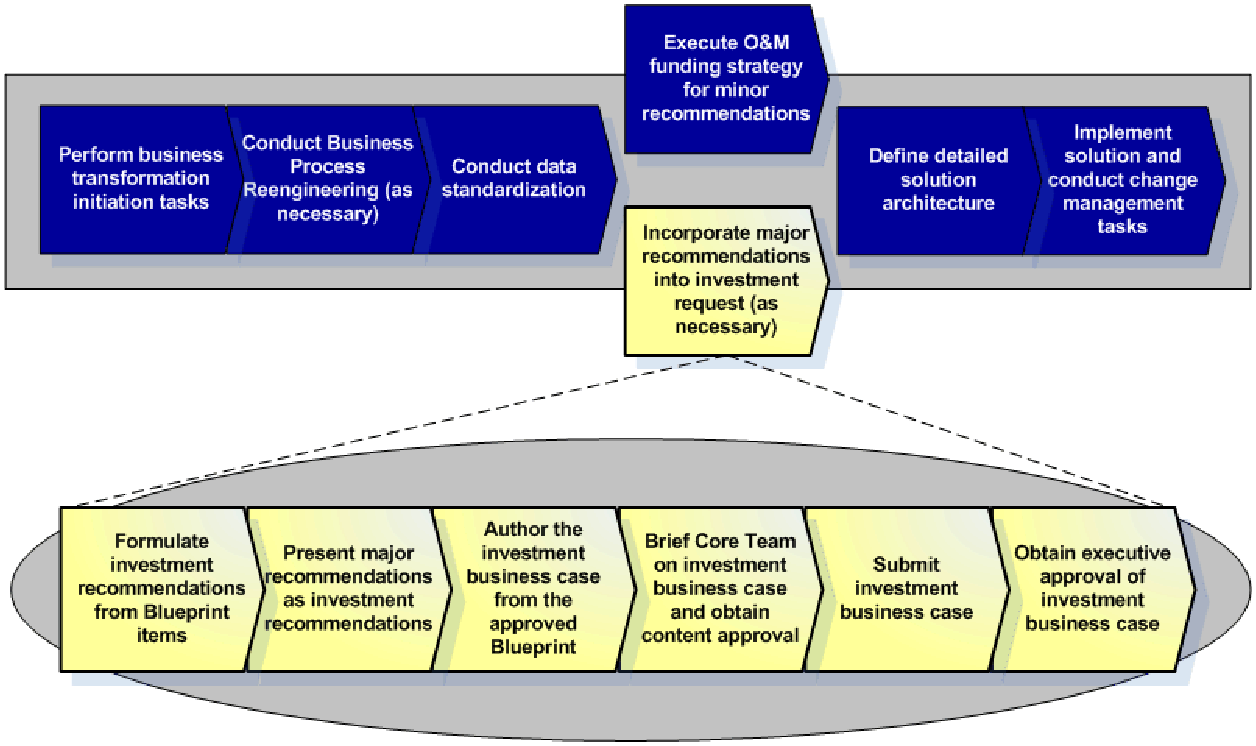
Step 2 starts with the following inputs:

Inputs:

- Final Modernization Blueprint
- Modernization Blueprint Presentation: Recommendations and Findings

Detail:

Within this step, there are six major Tasks, each associated with sub-activities:



Task 1: ***Formulate CPIC pre-select recommendations from Blueprint items funded outside of O&M.*** You will work with the Portfolio Owner to complete investment proposals to implement the recommendations in the Blueprint. Each proposal contains a reduced set of the information required to create an OMB Exhibit 300 and follows the same format, with some sections being reserved. You will need to complete the sections describing the business purpose of the investment, its data and technologies. At this stage it is acceptable to be somewhat vague, as not all the details are known. You are simply seeking approval to proceed further.

Using the prioritized recommendation list, create as many investment proposal documents as are necessary to implement the recommendations. There may not be a one to one correspondence between investments and recommendations; an investment proposal may combine several recommendations or a single recommendation may require several investments to properly implement. Or you may only need a single capstone investment to cover all recommendations. The information required for an investment proposal will be contained in the blueprint. Your agency or DOI CPIC personnel should be able assist you in the creation of these documents, as well as deciding how many to create.

Communication:

None Required.

Activities:

1. Complete investment proposals by completing the sections that describe the business purpose of the investment, its data and technologies.
2. Create as many investment proposal documents as are necessary based on the information in the Modernization Blueprint.

Task Outputs:

- CPIC pre-select Documents (Investment Proposals)

Task 2: ***Present major recommendations as pre-select candidates to IRB.*** Using the existing Modernization Blueprint presentation and Investment Proposals, create a briefing describing the proposed investments that will implement the Blueprint's recommendations. Clearly identify dependencies between the investments. As the IRB has already approved the recommendations, gaining approval for the Updated Investment Proposals should be relatively straight forward.

Present the briefing to the IRB and await approval or feedback on the Updated Investment Proposals.

Communication:

As a part of this task, you will communicate with the IRB

Activities:

1. Create briefing, describing proposed investments necessary to implement the Blueprint's recommendations (identify dependencies between recommendations).
2. Present briefing to IRB.
3. Collect feedback.

Task Outputs:

- IRB Briefing
- Updated Investment Proposals

Task 3*. Author the Exhibit 300 from the approved Blueprint.* Using the Modernization Blueprint and additional information from DEAR, work with the Portfolio Owner to expand the approved Investment Proposal to a full Exhibit 300. The Exhibit 300 is a complex document that incorporates many sections and requires input from many sources. There are many resources available to help you with this task. For a list, see the DOI CPIC web site at http://www.doi.gov/ocio/cp/index.html. The Exhibit 300 changes from year to year - please consult this site and your CPIC personnel to assist you.

Communication:

Communicate as needed. You may require assistance from various offices within DOI or the Bureaus to create the sections.

Activities:

1. Use approved Investment Proposal to create a draft Exhibit 300.

Task Output:

- Draft Exhibit 300

Task 4*. Brief Core Team on Exhibit 300 and obtain content approval.*

Communication:

Internal with Core Team

Activities:

1. Brief the Core Team on the previously created Exhibit 300.
2. Allow a period for feedback and incorporate appropriate feedback into the Exhibit 300.

Task Outputs:

- Updated Draft Exhibit 300

Task 5*. Submit Exhibit 300 to CPIC.* Once you have the internally approved Exhibit 300, the Portfolio Owner will submit it for the CPIC process. This process will involve reviews by DOI, its CPIC Support contractor(s), and the OMB. Since you have used the information in the Blueprint, your Exhibit 300 should receive a strong score. You may be asked to revise the 300 based on these evaluations. If so, incorporate these revisions. This process can take several months to more than a year to complete.

Communication:

You will communicate to submit the draft 300.

Activities:

1. Submit internally approved Exhibit 300 for CPIC process.

Task Outputs:

- Updated Draft Exhibit 300

Task 6*. Obtain approval of Exhibit 300.* This task is simply a milestone indicating that your Exhibit 300 has been approved.

Communication:

None required.

Activities:

None required.

Task Outputs:

- Approved Exhibit 300

4 Step Participants: (Use Bullets)

- **Core Team: Org**
- **Enterprise Architect: Person**
- **Investment Review Board: Org**
- **Portfolio Owner: Person**
- **Portfolio Management: Org**

5 Dependencies:

The Blueprint must be created by the team and approved by the IRB. The recommendations must be correctly categorized as to whether they require new investments. The Portfolio Owner must be ready and willing to implement the recommendations in the Modernization Blueprint. **Tasks one through four must be completed prior to April or there may be a one year delay due to synchronization with the budget cycle.**

6 Step Deliverables:

CPIC Pre-select Documents (Investment Proposals) – A subset of the Exhibit 300 containing the business justification for the investment.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Word Document**)
- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: PDF Format**)

IRB Briefing – Briefing describing mapping between Blueprint recommendations and Investment proposals.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: PowerPoint Presentation**)

Draft and Final OMB Exhibit 300 – Document required for OMB approval of IT Investment.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Word Document**)
- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: PDF Format**)

7 Communications Considerations:

This Step, *Incorporate Major Recommendations Into Investment Request (as necessary),* involves communication with the IRB and IT Capital Planning personnel. Other communication will be completed as needed to complete the Exhibit 300.

8 References:

DOI CPIC web site at http://www.doi.gov/ocio/cp/index.html.

Step 11:

Define Detailed Solution Architecture

Version 1.0, February 2005

1 Step Description/Objectives:

Upon acceptance of the business case (OMB Exhibit 300) or acceptance and execution of the recommended O&M funding strategy, the solution architecture may be defined and implemented. The Step consists of the formation of an integrated product team, the definition of a detailed solution architecture, the validation of the defined architecture against enterprise architecture principles, best practices, and conceptual architectures, concurrence on the architecture by the core team, and finally acceptance of the proposed architecture by the IBAT/ARB prior to implementation. This Step description document establishes the standard set of work products approved for creation on all new application and reengineering projects.

While this Step sets forth an approach and associated work products for the creation of a solution architecture, it's equally applicable to the specification, implementation, and execution of service components within the context of a service oriented architecture (SOA).

Successful service-oriented, component-based architectures will ensure that information technology (IT) capabilities are managed in a structured enterprise-wide technology and business process lifecycle. The DOI's component-based architecture will focus reuse efforts on large business level components in a collaborative environment that includes system owners, capital planners and enterprise architecture.

In support of SOA, the DOI has adopted the FEA Service Component Reference Model (SRM) for use in discovering DOI-wide business and application service components in IT investments and assets. The SRM, as implemented by the DOI, is a service component-based framework that provides a "leverage-able" foundation to support the reuse of business services, service components, and federated business systems - independent of business function and technology.

Fundamentally, the role of enterprise architecture in detailed system design is that of oversight and support. The solution architecture team will facilitate the transfer of BPR models, functional requirements, and enterprise architecture guidance to the development team. The solution architecture team will also provide recommendations and comments on the final design prior to construction and execution. The following table[1] expands on the notion of component granularity to include ROI.

Level of Granularity	Definition	ROI
Federated Business Component	A set of cooperating system-level components federated to resolve the business need of multiple end users often belonging to different organizations. Can be expressed as an IT 300 exhibit or a federation of IT 300 exhibits.	High
Business Component System	A set of cooperating business components assembled together to deliver a solution to a business problem. Can be expressed as an IT 300 exhibit.	High
Business Component	Represents the implementation of an autonomous business concept, business service, or business process. It consists of all the technology elements (i.e., software, hardware, data) necessary to express, implement, and deploy a given business concept as an autonomous, reusable element of a large information system. It is a unifying concept across the development lifecycle and the distribution tiers. Normally not expressed as an IT 300 exhibit, but as a sub-component of a larger business component system.	Medium
Distributed Component	The lowest level of component granularity. It is a software element that can be called at run-time with a clear interface and a clear separation between interface and implementation. It is autonomously deployable. Normally not expressed as an	Low

[1] Taken from Service Component-Based Architectures Version 2.0, FEAPMO, June 2004.

	IT 300 exhibit. A distributed component provides low ROI for capital planning purposes.	
Language Class	A class in an object-oriented programming language to build distributed components. This is NOT considered an SRM component. Normally not expressed as an IT 300 exhibit. A language class provides very low ROI for capital planning purposes.	Very Low

To be effective, enterprise architecture should focus at a higher level of service component granularity. Proper system design documentation and notation will facilitate effective identification, assembly, and usage of service components across the enterprise. Service component aggregation will also facilitate rapid building and implementation of system components in support of a given initiative or line of business. Currently the DOI EA Repository (DEAR) is configured to model and support component granularity from federated business components down to the level of distributed components. The DEAR tool itself, Popkin Systems Architect (SA), is capable of support component granularity down to object-oriented language classes.

2 Step Purpose:

Step 11 is performed for one or more of the following purposes:

- To define the detailed solution architecture
- To ensure that the solution architecture is in compliance with DOI enterprise architecture principles, best practices, and conceptual target application architectures

Impact of Not Performing this Step

If Step 11 is not performed:

- There is increased implementation risk due to ill-defined requirements that may result in the implementation of a system that does not conform to set enterprise architecture standards
- There is a lessened likelihood of cost savings due to reusable components, shared infrastructure, and leveraged assets

3 Tasks to Perform Step:

At a minimum, Step 11 starts with the following inputs:

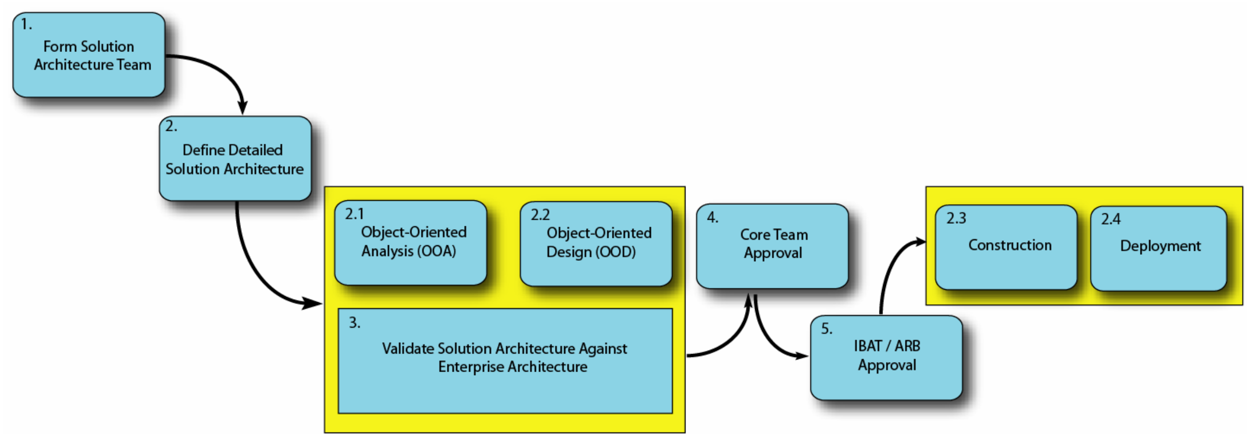
Inputs:

- Business Focus Area (BFA) Conceptual Data Model
- BFA Integrated Services and Systems Model
- BFA Data Standards Document
- BFA Recommendations and Findings for Process Improvement Document from Step 8 – Conduct Business Process Reengineering (BPR)
- BFA Exhibit 300 (if applicable)
- BFA-related documents such as requirements and normalized processes from Step 8 – Conduct Business Process Reengineering (BPR)

Detail:

Within this step, there are five major tasks, each with associated sub-activities:

Note: Task 3, “Validate solution architecture against the enterprise architecture”, should be viewed as an oversight and coordination task between the Integrated Project Team (IPT) and the Core Team across the tasks that make up the definition of the detailed solution architecture.



Task 1: *Form Solution Architecture Team*.

Activities:

1. Form Solution Architecture Team(s) with representatives from sponsor business areas.

Task Outputs:

- Solution Architecture Team Roster Document

Task 2: *Define Detailed Solution Architecture.* This task and associated work products are applicable to new business applications and existing applications developed in object-oriented languages. To establish the context for the proposed standardized work products, the following is a brief summary of major design phases within an object-oriented methodology.

Activities:

1. Conduct Object-Oriented Analysis (OOA).

Object-oriented analysis (OOA) is concerned with developing software engineering requirements and specifications that are expressed in a system's object model (which is composed of a population of interacting objects), as opposed to traditional data or functional views of systems. OOA can yield the following benefits: maintainability through simplified mapping to the real world, which provides for less analysis effort, less complexity in system design, and easier verification by the user; reusability of the analysis artifacts which saves time and cost; and depending on the analysis method and programming language, productivity gains through direct mapping to features of Object-Oriented Programming Languages. Some aspects of the OOA may have been developed as part of the BPR Task. The foundations of OOA, in any event, will have been laid by the BPR Task and the BPR Task outcomes will form the foundation of OOA use cases and functional requirements. Most standard OOA work products are supported by the DEAR modeling tool, Popkin System Architect. In cases where the party responsible for a given WP may not use Popkin SA, third-party conversion tools such as Meta Integration Bridge have been shown to allow the sharing model artifacts between Popkin SA and other vendor tools such as Rational XDE.

The following work products are associated with the OOA step of Task 2:

OOA WP Name	WP Description	Tool	Responsible	Usage

OOA WP Name	WP Description	Tool	Responsible	Usage
User Requirements	**A description of the business requirements for an application, including the capabilities and features it must support. These requirements must be from a business perspective.**	**MS-Word**	**Solution Architecture Team**	**Reqd**
System Context Diagram	**A graphical depiction, supported by text, that shows the desired system as a single component or process and identifies the interfaces between the system and external entities.**	**Popkin SA (Project)**	**Solution Architecture Team**	**Reqd**
Use Case Scenarios	A text description of the most prevalent course of events that a user performs in his or her work. It gives the facts of a real situation a user has to deal with and gives details about how a particular Step is conducted.	MS-Word	Developer	Reqd
Use Case Diagrams	Graphical depiction of the functional requirements of the system. These are developed by the developer from the use case text scenarios / narratives and reviewed by the solution architecture IPT.	Popkin SA (Project)	Developer	Reqd
Use Case Narratives	Textual descriptions of how the system must behave from a user's point of view; they do not describe how the system works internally or its internal structure or mechanisms; they do not describe any aspects of the user interface implementation itself.	MS-Word	Developer	Reqd
Nonfunctional Requirements	**A specification of the qualitative and other nonfunctional requirements or conditions that the system must satisfy.**	**MS-Word or MS-Excel**	**Solution Architecture Team**	**Reqd**
Application Security Group Structure Requirements	A description of the required security structure and data regarding users, groups, rights, etc.	MS-Word	Developer	Reqd
Analysis Object Model	A Class Diagram focused on defining the problem domain by understanding what aspects of a business model are to be included in the system, not how.	Popkin SA (Project)	Developer	Reqd
Class Descriptions	A brief textual definition for each core business model Class.	MS-Word or MS-Excel	Developer	Reqd
User Interface Mockups	A graphical depiction of the user interface screens, reflecting the data presented, style, and navigational options.	MS-Word	Developer	Reqd
Data Elements	A depiction of data element definitions, data types and sizes, domains, standard DOI business names, and other metadata about the data elements and entities.	DEAR	Developer	Reqd
Architectural Decisions	A record of important decisions about any aspect of the architecture including the structure of the system, the provision and allocation of function, and adherence to standards. Although this work product is initially created during Analysis and maintained during Design, all Architectural Decisions must be resolved by the end of Design.	MS-Word or MS-Excel	Developer	Reqd
Requirements Matrix	A tracking matrix which details all the requirements of the system, including their type, priority, status, etc.	MS-Word or MS-Excel	Developer	Reqd
Test Strategy	A high-level description of major testing Tasks and approach to be used to ensure that the critical attributes of the system are tested adequately.	MS-Word	Developer	Reqd
Glossary	A definition of acronyms and terms encountered during the project.	MS-Word or MS-Excel	Developer	Optional

2. Develop Object-Oriented Design (OOD).

Object-oriented design (OOD) is concerned with developing an object-oriented model of a software system to implement the identified requirements from the Object-Oriented Analysis (OOA). OOD can yield the following benefits: maintainability through simplified mapping to the problem domain, which provides for less analysis effort, less complexity in system design, and easier verification by the user; reusability of the design artifacts, which saves time and costs; and productivity gains through direct mapping to features of Object-Oriented Programming Languages. The vast majority of these work products will be maintained in a project-level encyclopedia (Popkin SA) separate from the enterprise DOI repository (DEAR).

The following work products are associated with the OOD step of Task 2:

OOD WP Name	WP Description	Tool	Responsible	Usage
Design Object Model	A class Diagram focused on how a system will be constructed and implemented.	Popkin SA	Developer	Reqd
Service Descriptions	A collection of information that defines the purpose of a service, along with detail on how to interact with it.	MS-Word	Developer	Reqd
Conceptual Data Model	A conceptual model of the data, business definitions and relationships for all internal and external system data components. This will include sharing of common data resources and common enterprise data subject areas ensure data consistency between DOI applications.	DEAR	Developer	Reqd
Sequence Diagrams (Business, User Interface [UI] and Persistence versions)	Graphical representations of the internal behavior of the system; they show how objects collaborate by sending messages and returning responses to each other.	Popkin SA	Developer	Reqd
State Transition Diagrams	Graphical depictions of the behavior or lifecycle of a single class; they describe states that may be attained and how receipt of external stimuli (events, messages, responses) cause a change in state. Typically only created for classes with significant dynamic behavior.	Popkin SA	Developer	Reqd
View Navigation Flow Diagram	A graphical representation of the flow of control among the Application Interface components of the system.	Popkin SA	Developer	Reqd
UI Specifications & Navigational Detail	A description of all Application Interface components (this is applicable to all types of Application Clients [including, but not limited to, those created with JSPs, HTML, Java Swing, etc.] and Application Agents [servlets]) including a depiction of screen appearance, input fields, session data usage, exception handling, and navigational destinations.	MS-Word	Developer	Reqd
Enterprise Information and Data Stores Definition	A graphical and text representation of the major data sources used by the system. For each source, it includes a description plus detail on the characteristics of the source, such as transactional requirements, performance/availability, sharing/locking, security, etc.	MS-Word	Developer	Reqd
Physical Data Model	A representation of the physical organization of data in a graphic format. For the relational database, the physical data model defines primary and foreign keys and constraints.	Popkin SA	Developer	Reqd
Persistence Design Specifications	A description of how all of the persistence services will be fulfilled for the system. For each service, it contains detail on the Persistence Contract (input), associated Persistence Object, return/result (Persistence Object Façade), data source specifics such as table/columns or file/field locations, and custom query info.	MS-Word	Developer	Reqd
Operational Model	A representation of a network of computer systems, their associated peripherals and the	Popkin SA	Developer	Reqd

OOD WP Name	WP Description	Tool	Responsible	Usage
	systems software, middleware, and application software that they run; it is the physical view of the system.			
Component Model	A high-level representation of the entire software hierarchy that describes the responsibilities, interfaces, and collaboration of components.	Popkin SA	Developer	Reqd
Application Resource Descriptions	A description of resources (property files, etc.) used by an application, including their purpose, contents, and physical (file) names.	MS-Word	Developer	Reqd
Detailed Test Plan	A description created for each level of testing identified as necessary in the Test Strategy. Each plan identifies the scope of testing for that level, functions/features to be tested, the testing Steps to be performed, and the personnel responsible for each Step.	MS-Word & MS-Project	Developer	Reqd
Acceptance Test Plan	A description of the steps the customer will use to verify that the constructed system satisfies the stated requirements. The plan describes clearly and fully how to set up the test and the acceptable system behaviors in response to the test.	MS-Word & MS-Project	Developer	Reqd
Deployment Plan	A description of the organization, strategy, resources, and methods used to deploy the new application at customer sites. It provides a detailed schedule of events, expected project duration, persons responsible, and event dependencies required to ensure successful cut-over to the new system.	MS-Word & MS-Project	Developer	Reqd

3. Begin Construction.

Construction is focused on implementing the system design via source code and other types of components. Object-oriented programming languages (OOPLs) are the natural choice for source code implementation of an Object-Oriented Design because they directly support the object notions of classes, inheritance, information hiding, and dynamic binding. Testing of individual components is performed to ensure that the components operate as expected. Many of the tools associated with the construction step will be project specific. At the time this document was created, no standard application development and deployment environment existed across the DOI. Construction work products are included in this method paper for completeness, but actual system construction would not take place until **after** Step 11.

The following work products are associated with the OOC step of Task 2:

Construction WP	WP Description	Tool	Responsible	Usage
Build Procedures	A description of how to generate an executable copy of the system. This may include such items as which files are required, which links must be in place, which libraries are accessed, and the sequence of steps required to generate the system, etc.	MS-Word	Developer	Reqd
Source Code	The actual implementation of the system design in the chosen programming language(s).	Project-Dependent	Developer	Reqd
Deployable Components	The primary software deliverables for a system	Project-Dependent	Developer	Reqd
Test Specification	A set of documents that define and describe the actual test architecture	MS-Word	Developer	Reqd
Operations Guide	A depiction of the processes required in order to support the system in the production environment. Includes details regarding normal operation	MS-Word	Developer	Reqd
Help Manual	A description of the system’s functions	MS-Word	Developer	Reqd
Backup and Recovery	A description for backing up the application data	MS-Word	Developer	Reqd

Construction WP	WP Description	Tool	Responsible	Usage
Plan				

4. Deploy.

Deployment is focused on validating that the system is functionally correct and operationally sound, preparing the operational environment, and implementing the system into the production environment. Deployment work products are included in this method paper for completeness, but actual system deployment would not take place until after Step 11.

The following work products are associated with the Deployment step of Task 2:

Construction WP	WP Description	Tool	Responsible	Usage
Test Results	A description of the outcomes of a specific test execution, and comparison of the actual test results to the expected results from the test case. It identifies and documents any variances that indicate further analysis is required..	MS-Word	Developer	Reqd

Task 3: *Validate Solution Architecture Against Enterprise Architecture*. This task is to ensure oversight over the object-oriented analysis and design steps that are part of the "Define Detailed Solution Architecture" task (Task 2 above). Validation needs to continue after the Core Team and Business Architecture Team (IBAT)/Architecture Review Board (ARB) approvals of the detailed solution architecture on to the construction and deployment steps of Task 2.

Task Outputs:

- Systems Development Compliance Document / Matrix

Task 4: *Submit Solution Architecture for Core Team Approval*. After the performance of analysis and design under the oversight of the solution IPT, the solution is submitted to the Core Team for review and approval.

Task Outputs:

- none

Task 5: *Submit Solution Architecture for IBAT/ARB Review*. After Core Team approval, the detailed design is submitted to the Interior Business Architecture Team (IBAT)/Architecture Review Board (ARB) for review and approval. If approval is granted, system construction and deployment occurs.

Task Outputs:

- Recommendations and Findings Presentation

4 Step Participants: (Use Bullets)

- **Core Team Representative: Person,Org**
- **Chief Technology Officer: Person,Org**
- **Interviewer: Person,Org**
- **Note Taker: Person,Org**
- **Stakeholder: Person,Org**
- **Other: Person,Org**

5 Dependencies:

TBD.

6 Step Deliverables:

Solution Architecture Team Roster Document: The Solution Architecture Team Roster document will be created as part of the Define Detailed Solution Architecture Step and updated as needed. It will document core team membership and contact information. It will contain Project Sponsor, Project Proponent, Core Subject Matter Experts, and other Teams or groups the project will need to work with or interview during the project.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

User Requirements Document: The User Requirements Document contains a description of the business requirements for an application, including the capabilities and features it must support. These requirements must be from a business perspective.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

System Context Diagram: A graphical depiction, supported by text, that shows the desired system as a single component or process and identifies the interfaces between the system and external entities.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Nonfunctional Requirements Document: A specification of the qualitative and other nonfunctional requirements or conditions that the system must satisfy.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Systems Development Compliance Document / Matrix: A list of required and optional systems analysis, design, construction, and deployment documents. The Solution Architecture Team will verify the creation, the format, and location of required documents and ensure source models from DEAR are made available to the Core Team as required.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)

- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

Recommendations and Findings Presentation: The final system design recommendations and findings will be documented and delivered as a formal presentation to the IBAT/ARB.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Put Type Here**)
- **SAMPLE :** Hyperlink to Sample (**Deliverable Type: Put Type Here**)

7 Communications Considerations:

TBD.

8 References:

1. Mayer, Richard J., Dewitte, Paula S., “Delivering Results: Evolving BPR from art to engineering”, 1998
2. Rummler, G.A., Brache, A.P., “Improving Performance: How to Manage the White Space on the Organizational Chart, Wiley, 1995

Step 12:

Implement Solution and Conduct Change Management Tasks

Version 1.0, February 2005

1 Step Description/Objectives:

Step 12 is intended to bring the designed and approved solution into production and to coordinate the change management Tasks that are essential to a smooth implementation. This Step relies heavily on the implementation specialists that are either supplied through professional services relationships, or have been trained and are working internally. The implementation specialists will provide technology and change management expertise in this final Step of implementing the business transformation.

2 Step Purpose:

Step 12 is performed for the following purposes:

- To acquire the physical materials necessary to configure and implement the solution as designed and approved
- To communicate the intent and impact of the solution to a wide community of business owners, business staff, and administrators
- To construct and implement new policies to smoothe the transition to the new solution
- To train business owners and business staff on the new solution and on any new skills that they must possess

Impact of Not Performing this Step

Step 12 is the culmination of all of the prior planning and investment Steps. This Step is where the experts implement a new solution and work with the business community to transform the business around its new processes and solution. If Step 12 is not performed:

- No solution will be implemented
- The business will not be transformed to the target state
- Existing analysis work will become “shelf-ware”

3 Tasks to Perform Step:

Step 12 starts with the following inputs:

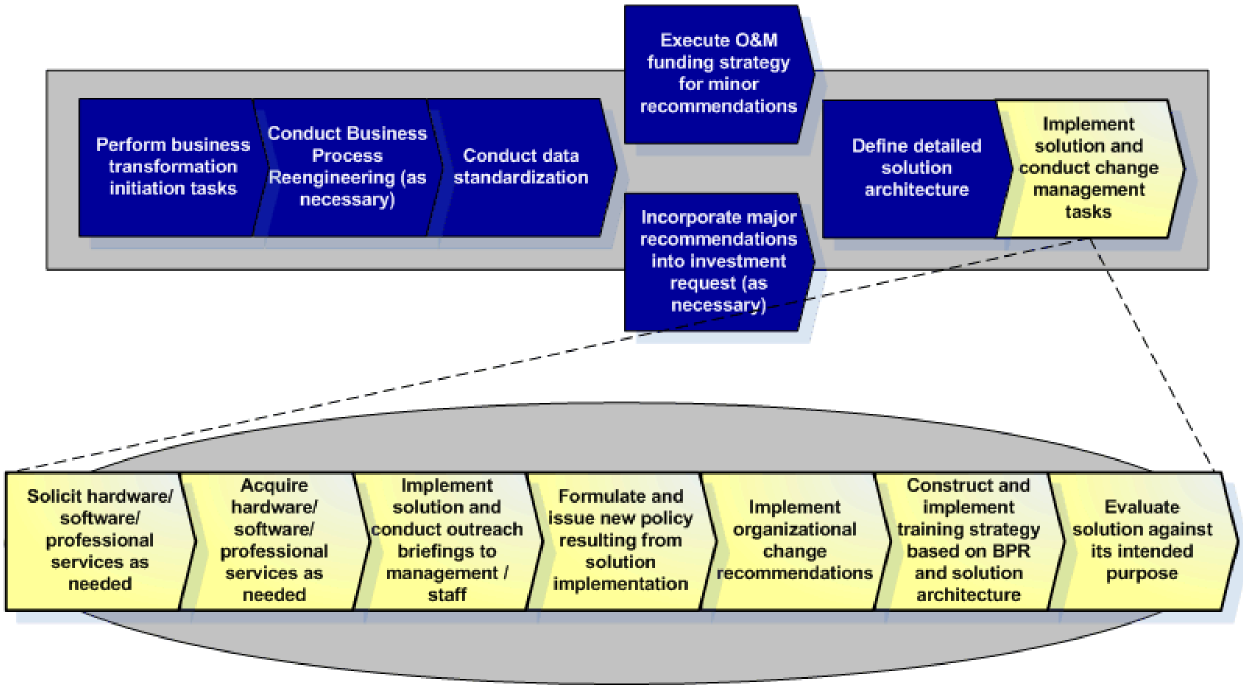
Inputs:

- Final OMB 300
- Detailed Solution Architecture
- Interior Data Reference Model
- Business Rules Document
- IDEF0 Activity Models
- Existing solutions documentation

- Integrated Target Services and Systems Model

Detail:

Within this Step, there are seven major Tasks, each with associated sub-activities:



Task 1: *Solicit hardware/software/professional services as needed*. The investments steps (Steps 10A and 10B) have provided the financial authority to move forward with acquiring the resources necessary to implement the solution. The Solution Architecture Step (Step 11) gave the team the details necessary to make smart acquisition decisions. This Task focuses on moving the solution implementation forward by soliciting the necessary resources. This Task is largely completed in conjunction between the Core Team, and the Procurement/Acquisition organization.

Activities:

1. Work with the Core Team and the Procurement/Acquisition organization to develop a strategy for acquisition.
    a. Determine whether all products and services will be acquired together (in a package)
    b. Determine whether a Request for Information is necessary
    c. Determine whether the acquisition will be a designated for small business, 8A, or made widely available
2. Work with the Core Team and the Procurement/Acquisition organization to develop and issue the Request for Proposal (RFP)
    a. Include specifics from the Detailed Solution Architecture and from the Modernization Blueprint. This will ensure that bids are compatible with the enterprise architecture
3. Evaluate proposals from vendors

   a. Evaluation criteria will need to contain items from the Detailed Solution Architecture as well as from the Modernization Blueprint

4. Make an acquisition decision based on the evaluation of the proposals

Task Outputs:

- Request for Proposal (RFP)
- Proposal Evaluation Criteria

Task 2: *Acquire hardware/software/professional services as needed*. Once the necessary resources have been solicited in the previous Task, the team is ready to acquire those resources and move forward.

Activities:

1. Evaluate proposals from vendors
   a. Evaluation criteria will need to contain items from the Detailed Solution Architecture as well as from the Modernization Blueprint
2. Make an acquisition decision based on the evaluation of the proposals

Task Outputs:

- Evaluated Proposals
- Selected Proposal

Task 3: *Implement solution and conduct outreach briefings to management / staff*. Once the products and services have been acquired, it is time to implement the solution. This Task is very much determined by the professional services team and the nature of the solution. The outcome of this Task is a solution that is in production and ready to be used by the business area. The specifics around how to implement that solution should be the first order of business for the professional services group once their services have been acquired. This Task also focuses on communicating the impacts and benefits of the solution to the affected management and staff.

Activities (specifics are dependent on the professional services team and the nature of the solution itself):

1. Install hardware and software in development environment
2. Interview users and leverage the architecture to determine configuration and interface requirements
3. Obtain sign-off on solution requirements
4. Configure solution and construct interfaces (leveraging Detailed Solution Architecture)
5. Move the solution into the test environment
6. Perform stress and integration testing
7. Perform user acceptance testing
8. Move the solution into production environment

9. Perform release testing
10. Announce solution release

Specific Outreach Activities:

1. Work with the Core Implementation Team to develop a list of impacted organizations. Determine a schedule for meeting with each of the organizations or components of those organizations
2. Develop a series of briefings to discuss the impacts of the solution, the benefits of the solution, the expected changes due to the solution, and the resources available for training and troubleshooting
3. Brief management teams first and collect their feedback. Incorporate feedback into the briefing.
4. Brief impacted staff, with management voicing support. Having the management vouch for your briefing is a good way to leverage leadership to gain traction.

Task Outputs:

- Final Solution Requirements Document
- Implemented Solution
- Enterprise Level Solution Presentations

Task 4: ***Formulate and issue new policy resulting from solution implementation***. This Task overlaps slightly with the solution implementation. The focus of this Task is to leverage the authority of executive leadership to author new policy that would ease the transition to the new solution. The key to this Task is identifying the new policy items that are critical to the solution's success in the organization. Once the new policy items have been identified, timing the release of the policy statements is also important so as not to add to the confusion of the implementation.

Activities:

1. Work with the Core Team to develop a list of needed new policies resulting from the solution implementation
2. Analyze the list of new policies and limit to the fewest necessary items
3. Draft new list of policies and send through the leadership ranks for review and re-authoring
4. Establish a timeline for the release of the new policies
5. Release the approved new policies according to the established timeline

Task Outputs:

- Policy Memo(s)

Task 5: ***Implement organizational change recommendations***. This Task is focused on implementing the organizational elements of the change recommendations. Within the Modernization Blueprint is a series of findings and recommendations. Some of the recommendations are focused specifically on the organization and its people. This Task implements those recommendations. This Task should be coordinated with the solution implementation Task so that completion dates are in sync.

Activities:

1. Work with the Core Team using the established program plan to determine the key milestones for implementing these change recommendations
2. Establish an even closer working relationship with the executive management and business area leadership to discuss the organizational and Human Resources related elements of the solution
3. Leverage the authority of the executive management and business area leadership resources to communicate the organizational and Human Resources related changes.
4. Implement the changes based on the timetable in the program plan. Implementation dates should be synchronized with the dates for the solution implementation release.

Task Outputs:

- None

Task 6: *Construct and implement training strategy based on BPR and Solution Architecture*. This Task focuses on the training of management and staff. This Task should coincide with the release dates of the solution implementation and should also be complementary to Task 3: "Conduct outreach briefings for management / staff". The outreach sessions are designed to raise awareness and establish expectations for the solution. The training within this Task is designed to establish a working understanding of the solution and the new processes once the solution is released.

Activities:

1. Work with the Core Team to identify the audiences that need training
2. Leverage the Business Process Reengineering (BPR) results, the Detailed Solution Architecture, and the Final Solution Requirements Document to develop a training strategy for the solution
3. Implement the training strategy by providing several focused training sessions.
   a. Management overview sessions
   b. Management sessions that address staff processes
   c. Staff sessions that walk through new processes and the solution
4. Solicit feedback from the training sessions and provide additional sessions if necessary

Task Outputs:

- Training Strategy/Curriculum

Task 7: *Evaluate solution against its intended purpose*. The final Task of Step 12 is the evaluation of how well the solution has performed against its intended purpose. The Modernization Blueprint detailed the need for the solution, and the specific requirements for the solution were documented later in the Methodology. This Task is intended as a check point to ensure that the business has been transformed according to the approved will of the business community.

Activities:

1. Review the Modernization Blueprint recommendation intentions
2. Review the Detailed Solution Architecture and the Requirements documents

3. Review the solution in the context of the Requirement documents and mandates

Task Outputs:

- None

4 Step Participants: (Use Bullets)

- **Core Team Representatives: Person**
- **Professional Services Team: Org**
- **Executive Management: Person**
- **IEA Analyst: Person**
- **Solution Owners: Person**
- **Acquisition/Procurement Organization: Org**
- **Business Owners: Person**
- **Training Specialists: Person**

5 Dependencies:

The Detailed Solution Architecture must be complete and the funding strategy for the solution must be in place. Specifically for funding, the investment process must have approved the spending of funds or the O&M funds must be available. Also, executive management and business area leadership must believe in the solution and be willing to assist in the sponsorship of the solution and its communications.

6 Step Deliverables:

Request for Proposal: This work product is a description of the solution that is required from the vendors who are bidding to deliver the solution. The requirements within the work product should be derived from the Detailed Solution Architecture and the Modernization Blueprint.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

Proposal Evaluation Criteria: This work product is a scoring mechanism for evaluating the vendor proposals. The criteria should be derived from the Request for Proposal which should be derived from the Detailed Solution Architecture and the Modernization Blueprint.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Excel**)

Final Solution Requirements Document: Based on the Detailed Solution Architecture, the Modernization Blueprint, and the Request for Proposal, this work product is created to articulate the design and configuration requirements to the Core Team.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

Implemented Solution: This work product is the installed hardware, the configured software, and the implemented interfaces that make up the solution itself.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: n/a**)

Enterprise Level Solution Presentations: This work product is a presentation or series of presentations that are designed to communicate the impacts and benefits of the solution implementation. The intention of these presentations is not to train the audience, but to familiarize the audience with the solution and its benefits.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS PowerPoint**)

Policy Memo(s): This work product is a memo or series of memos from executive management that detail the policy changes that are necessary based on the solution being implemented. These policy changes are essential, in some cases, to having a smooth transition from legacy processes and solutions to the target state processes and solutions.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

Training Strategy/Curriculum: This work product captures the strategy for the management and staff training sessions, and also documents the curriculum for what will be taught to each audience.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

7 Communications Considerations:

Communication is a key component to this Step as there are Tasks that are designed for outreach and training. In any implementation cycle, there is a fear of the unknown. This fear can evolve into a lack of trust that the solution will be successful. This risk can be combated by Tasks that are designed to maximize communication flow. The following Tasks involve key communication points:

- Conduct outreach briefings for management / staff
- Formulate and issue new policy resulting from solution implementation
- Implement organizational change recommendations
- Construct and implement training strategy based on Business Process Reengineering (BPR) and solution architecture

8 References:

Step 13:

Maintain the Blueprint and the Architecture

Version 1.0, February 2005

1 Step Description/Objectives:

Step 13 provides the business area with a recurring process for keeping their architecture and Blueprint current. During the business transformation implementation Steps, and in years following the implementation, there will be forces that will necessitate changes to the architecture and the Blueprint. In some cases, those forces will require a new Modernization Blueprint or a new analysis task to create another IEA analysis product. However, in many cases, there will be smaller architecture modifications that impact the existing Blueprint and the existing architecture artifacts. This Step is intended to handle such cases through an appendix to the existing Blueprint and updated architecture artifacts.

2 Step Purpose:

Step 13 is performed for the following purposes:

- To provide architecture analysts and the business leadership a process to keep the business area's architecture documentation current
- To provide an outlet, other than lengthy new analysis efforts, to maintain documentation and make smaller revisions to items that have already been reviewed, approved, and published
- To provide a mechanism to keep the governance team involved with continuing to review and approve a business area's architecture decisions

Impact of Not Performing this Step

Step 13 provides a continuing mechanism for keeping the architecture current. Without this Step, there is no official way to modify documents and artifacts that have been reviewed and approved by the governance teams. The existence of this Step allows for a living architecture.

If Step 13 is not performed:

- The architecture documentation will become stale and out of date
- Architecture modifications will be made without the review and consent of the governance teams
- There will be confusion and delay over small issues that could have been changed through this standardized Step

3 Tasks to Perform Step:

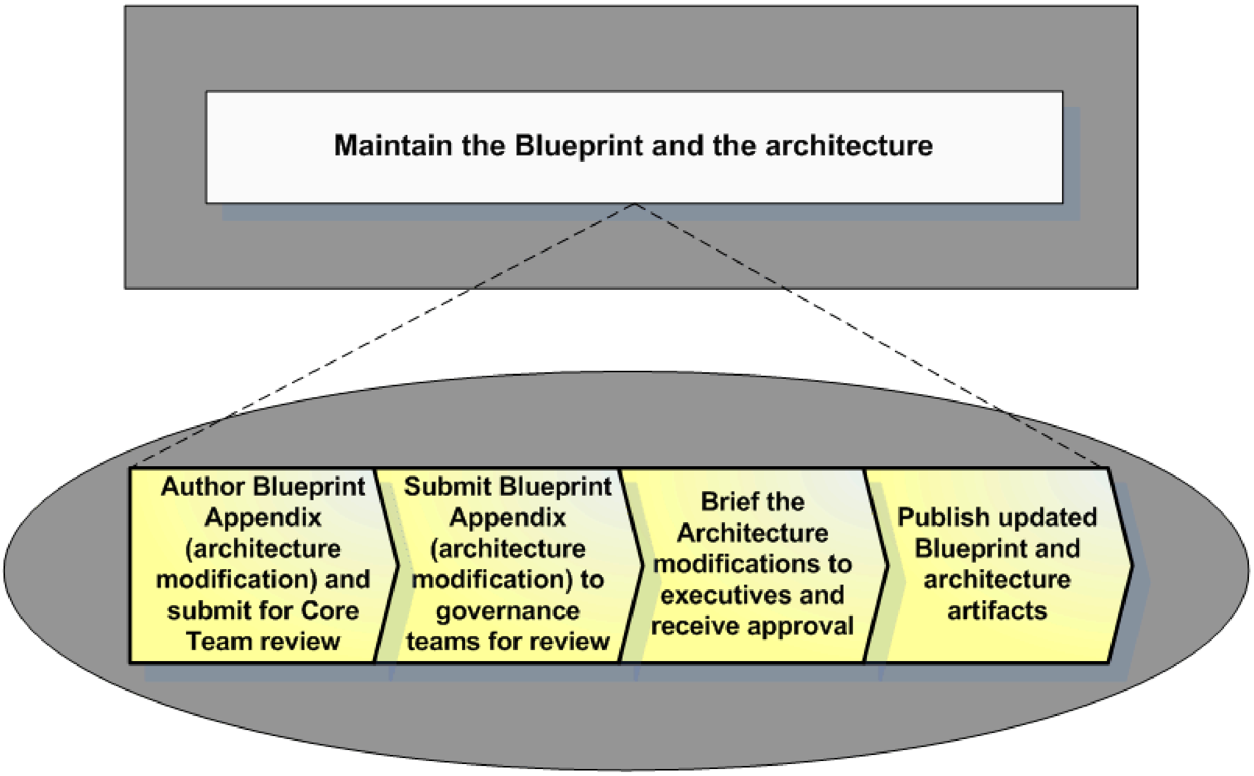
Step 13 starts with the following inputs:

Inputs:

- All architecture artifacts covered in the Methodology for Business Transformation
- Modernization Blueprint

Detail:

Within this Step, there are four major Tasks, each with sub-activities:



Task 1: ***Author Blueprint Appendix (architecture modification) and submit for Core Team review***. This Task is focused on capturing the small architecture changes that are required in the form of a Blueprint Appendix that details the impacts and consequences. The Appendix is intended to be reviewed by the governance teams and approved for incorporation into an updated Blueprint.

Activities:

1. Meet with the Core Modernization Blueprint Team (Core Team) and the business area leadership to list the changes that are needed within the architecture
2. Document the architecture changes, the consequences of not making the change, and the required time frame for the changes in an Appendix
3. Review the Appendix with the Core Modernization Blueprint Team and incorporate feedback from the review

Task Outputs:

- Blueprint Appendix (architecture modification)

Task 2: ***Submit Blueprint Appendix (architecture modification) to IBAT/ARB for review***. This Task takes the internally reviewed Blueprint Appendix and presents it to the governance teams: Interior Business Architecture Team (IBAT) and Architecture Review Board (ARB). The governance teams will be briefed on the Appendix contents and presented with the document for further review and acceptance.

Activities:

1. Review Blueprint Appendix and distill the most critical elements for governance review
2. Prepare a briefing that includes the most critical changes from the Blueprint Appendix
3. Review the briefing with the Core Modernization Blueprint Team (Core Team)and incorporate feedback from the review

Task Outputs:

- Architecture Modification Briefing

Task 3: ***Brief the Architecture modifications to IRB and receive approval (if necessary)***. This Task is only performed for architecture changes that are significant in scope and/or impact the existing Record of Decision for this Blueprint. If this is the case, the Investment Review Board (IRB) is briefed and the architecture changes are made if approval is attained.

Activities:

1. Work with the Core Modernization Blueprint Team and the governance teams to determine if any of the architecture modifications are significant enough to brief to the Investment Review Board
2. If it is determined that the IRB should be briefed, then leverage the existing Architecture Modifications Briefing to create a briefing appropriate in length and context for the IRB audience
3. Brief the Investment Review Board and obtain a decision on the architecture modifications request

Task Outputs:

- Architecture Modification Briefing for IRB

Task 4: ***Publish updated Blueprint and architecture artifacts***. Once the architecture modifications request has been approved by the governance groups, the modifications themselves must be completed. This Task focuses on updating the architecture artifacts and the enterprise level architecture artifacts based on the Blueprint Appendix.

Activities:

1. "Check-out" the impacted business area architecture artifacts and make modifications
2. Review the modifications with the Core Modernization Blueprint Team and publish updated artifacts
3. Review the modifications with the Core Modernization Blueprint Team and publish the updated Blueprint and architecture work products
4. Check-out" the impacted enterprise level architecture artifacts and make modifications
5. Review the modifications with the Enterprise Level Artifact Administrators and publish updated artifacts

Task Outputs:

- Updated Architecture Artifacts
- Re-published Blueprint
- Updated DOI Enterprise Artifacts

4 Step Participants: (Use Bullets)

- **Core Modernization Blueprint Team Representatives: Person**
- **Interior Business Architecture Team: Org**
- **Architecture Review Board: Org**
- **Enterprise Architect: Person**
- **Investment Review Board: Org**
- **Enterprise Level Artifact Administrators: Person**

5 Dependencies:

Other than already having completed architecture artifacts and documentation, there are no dependencies to completing this Step.

6 Step Deliverables:

Blueprint Appendix (architecture modification): This work product is am Appendix that captures the architecture changes that have been proposed for the business area. The document details the architecture changes, the consequences of not making the change, and the required timeframe for the changes

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

Architecture Modification Briefing: This work product is a briefing that captures the most critical elements of the Architecture Modifications Document. This briefing is intended for the governance teams that will be reviewing the architecture modification request.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS PowerPoint**)

Architecture Modification Briefing for IRB: This work product is a briefing that captures the most critical elements of the Architecture Modifications Document, in a length and level that is appropriate for the Investment Review Board.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS PowerPoint**)

Updated Architecture Artifacts: This is a collection of architecture artifacts that have been updated based on the Architecture Modification Document, have been reviewed by the Core Modernization Blueprint Team, and have been incorporated back into DEAR.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Various SA Artifacts**)

Republished Blueprint: This is a new release of the Modernization Blueprint, complete with the approved Appendix that captures the new architecture information.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: MS Word**)

Updated DOI Enterprise Artifacts: This is a collection of enterprise level architecture artifacts that have been updated based on the Architecture Modification Document, have been reviewed by the Enterprise Level Architecture Administrators, and have been incorporated back into DEAR.

- **TEMPLATE :** Hyperlink to Template (**Deliverable Type: Various SA Artifacts**)

7 Communications Considerations:

There are no critical communications considerations within this Task.

8 References: