Commercial Software Licensing

CHAPTER 11:

Software Implementation Service Agreements

Prepared by DoD ESI | January 2013
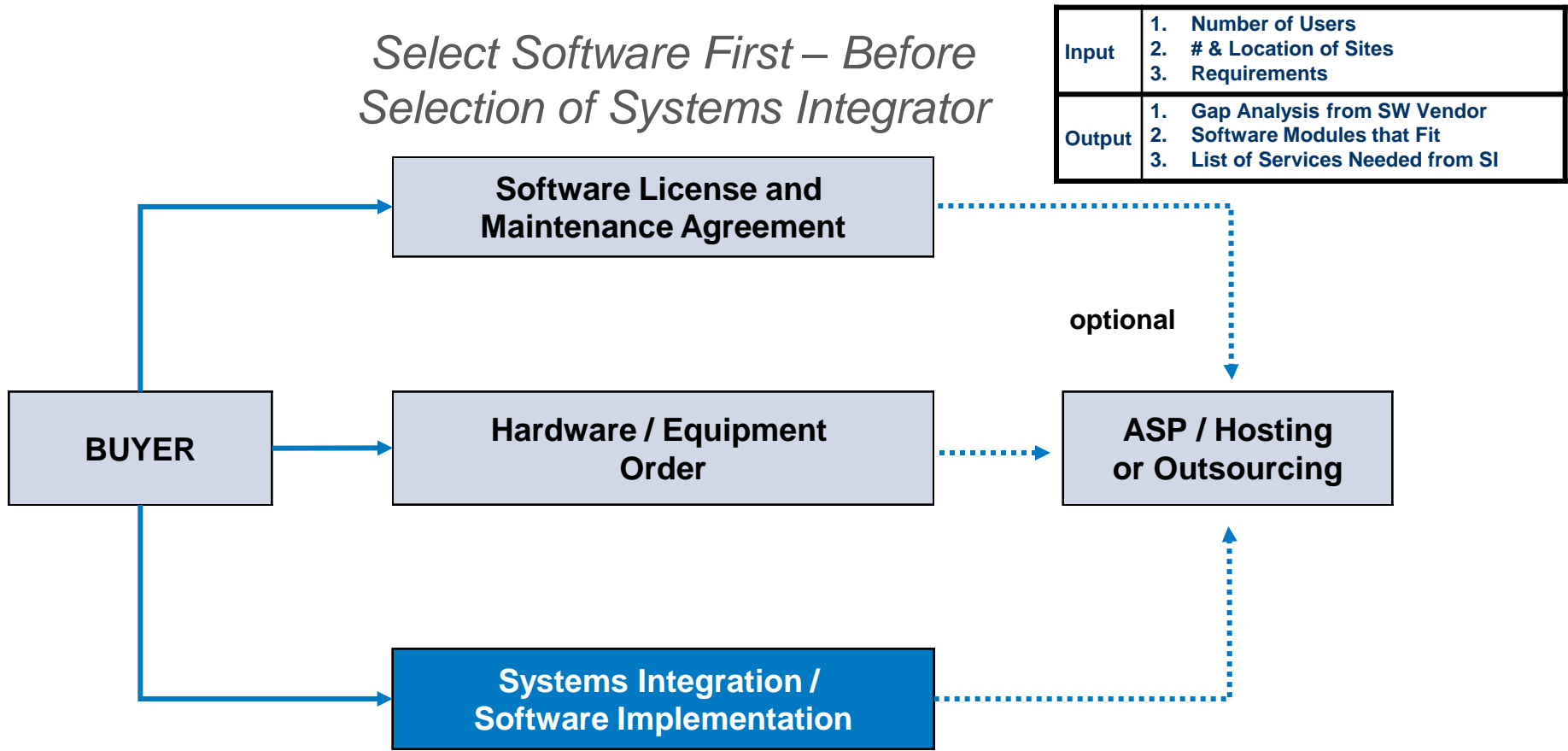
Chapter Overview

- The government uses three primary agreement types for services:
    - *Fixed Price (FP).*
    - *T&M (Time and Materials).*
    - *Cost Plus.*

- This chapter focuses primarily on Fixed Price agreements.

- Each type has pros and cons; the government prefers fixed price arrangements in most cases.

- Cost predictability is the biggest factor favoring fixed price arrangements.

- Cost predictability is driven by certainty of project scope/requirements.

Key Contract Elements
Commercial-off-the-shelf (COTS) Software Program

Commercial Software Licensing:
Implementation Service Agreements

Select Software First – Before Selection of Systems Integrator

Input	1. Number of Users 2. # & Location of Sites 3. Requirements
Output	1. Gap Analysis from SW Vendor 2. Software Modules that Fit 3. List of Services Needed from SI

BUYER

Software License and Maintenance Agreement

Hardware / Equipment Order

Systems Integration / Software Implementation

ASP / Hosting or Outsourcing

optional

Enterprise Software / COTS that requires configuration, implementation, and interfaces

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Software Implementation Models
Enterprise Software

**Software Seller,
System Integrator,
& Customer**

- Most Common Model
- Most Successful Model

**System Integrator
& Customer**

- Least Successful Model

**Software Seller
& Customer**

- Least Common Model
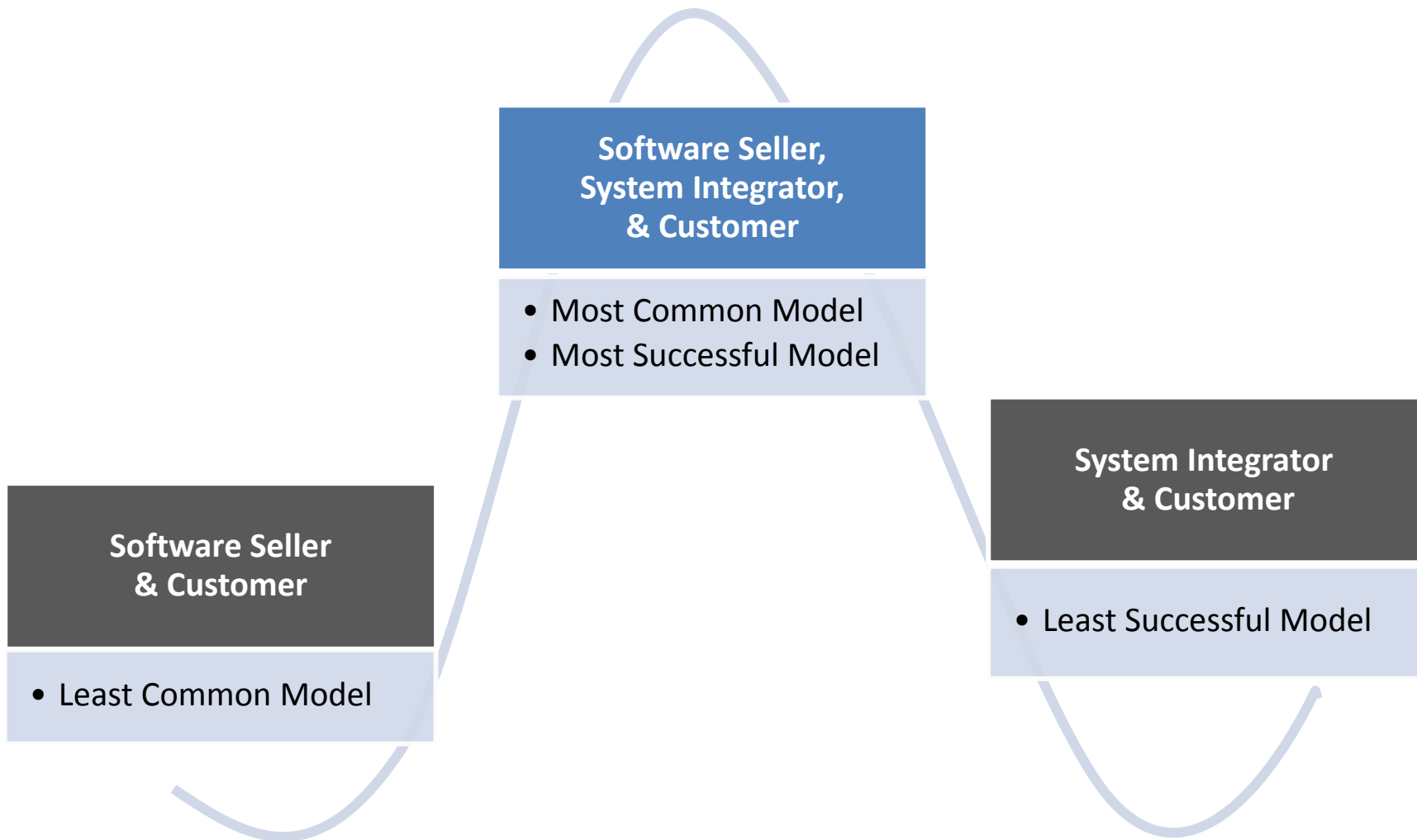
System Integration Services
For Typical Commercial-off-the-shelf (COTS) Software

User

Reports

Secure Access

Hardware & Networking

Data Migration/
Conversion

Interfaces

Software

Data Base

Legacy Systems

Extensions / Bolt-On Apps

Business Process Reengineering	**Configuration or Development**	**Security & Controls**	**Testing**	**Post-Implementation Support**
Requirements Development	Project Management			
	Change Management / Training / Communications			

Support / Preparation / Participation in OSD Reviews / Milestone Decisions / Oversight / Certifications / Regulatory Compliance

Software Implementation
Capabilities & Requirements

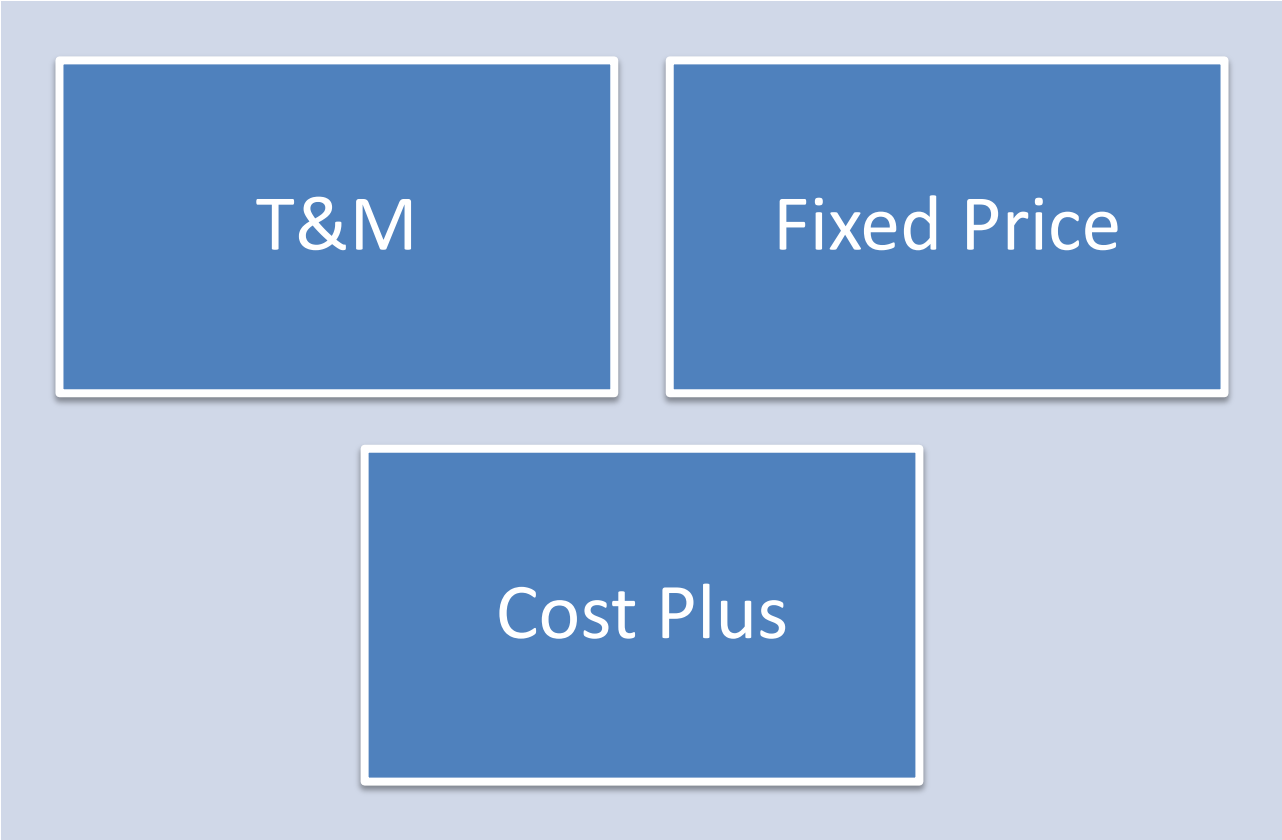| *Requirements are met by the COTS Software*	**Adoption of Best Practices as Directed by Standard *(out-of-the-box)* Functionality of COTS/ Enterprise Software**		
	Reports (non-standard)	**Interfaces** (to/from continuing systems)	**Data Conversions** (from retiring systems)	**Extensions** (functions not covered in COTS solution)

Pricing Strategies

High   **Buyer Risk**   Low

Cost Type	Time & Materials	Hybrid	Firm Fixed Price	Performance Based Pricing

Low   **Seller Risk**   High
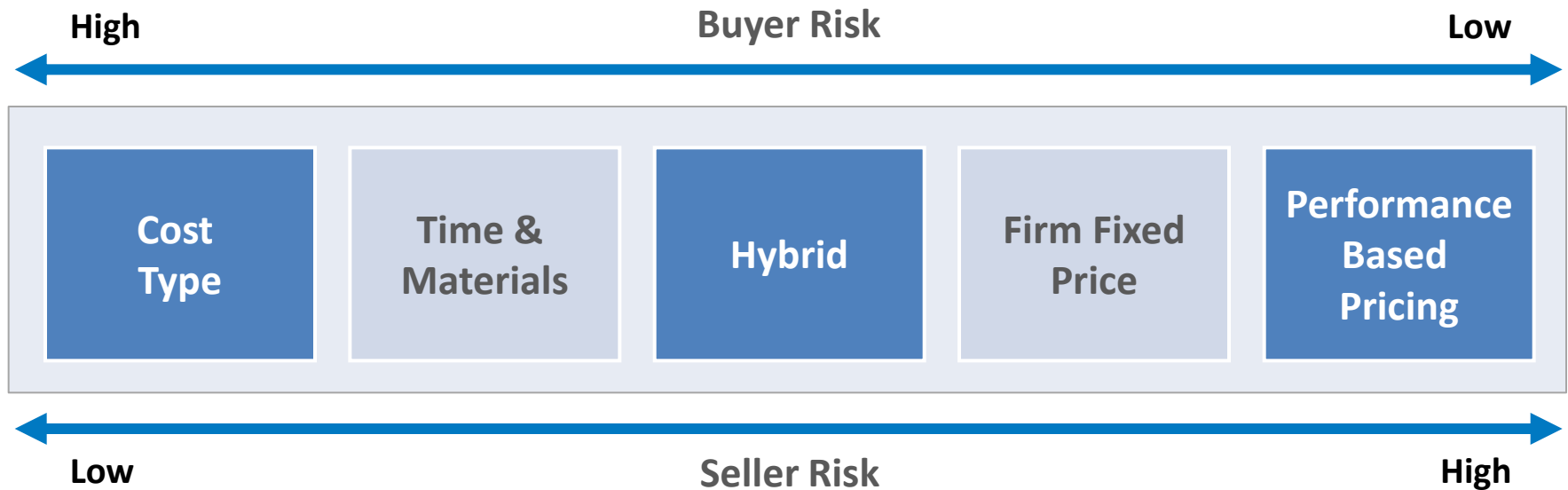
Source: Information Technology Project Management, Fourth Edition
Used in Masters Program at Villanova University

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Solution-Based Pricing

Risk Bearer

Vendor

Buyer

Performance Based Scenarios

Performance Based

Fixed Price

T&M or Cost-Type

- Vendor is accountable for end results as defined in established metrics

- Pre-configured Task Orders are tied to methodology

Requirements and/or solution definition are unclear.

Both need and solution are clear and repeatable.

Buyer has set metrics & can quantify the results desired.

Software Implementation Contract Types

T&M

Fixed Price

Cost Plus

Enterprise Software Implementation
Fixed Price vs. T&M

Fixed Price

- A fixed dollar amount for creating specific Deliverables in a fixed time period.
- Price is calculated by Contractor with significant contingency.
- Robust change order process keeps scope and price under control.
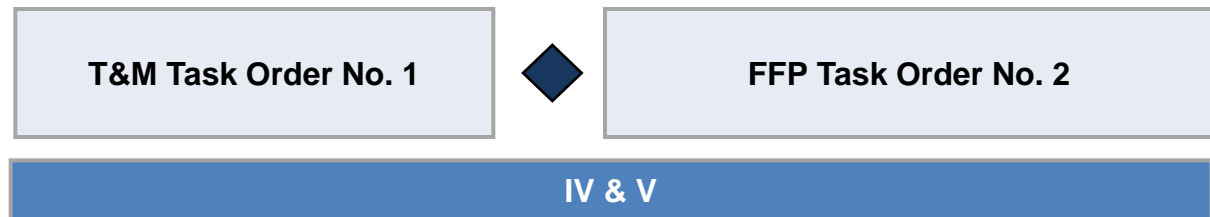- Provides the best assurance of delivery and price within a specific time.

T&M

- An estimate of time and price is provided, and all time is reimbursed at agreed-upon rates.
- Only actual time is charged.
- Change orders are usually not necessary.
- Has a reputation for cost overruns and failed projects.

Pricing Tied to Project Phases

IMPLEMENTATION

RFQ / RFP / SOO

Phases follow a proven methodology

Award

Preparation → **Blueprint**

FFP Task Order No. 1

Build → **Transition / Cutover** → **Go Live**

FFP Task Order No. 2

**Option with Fixed Unit,
Not-To-Exceed,
or +/- XX% Pricing for
Design thru Go-Live***

HYBRID PRICING

T&M Task Order No. 1   **FFP Task Order No. 2**

IV & V
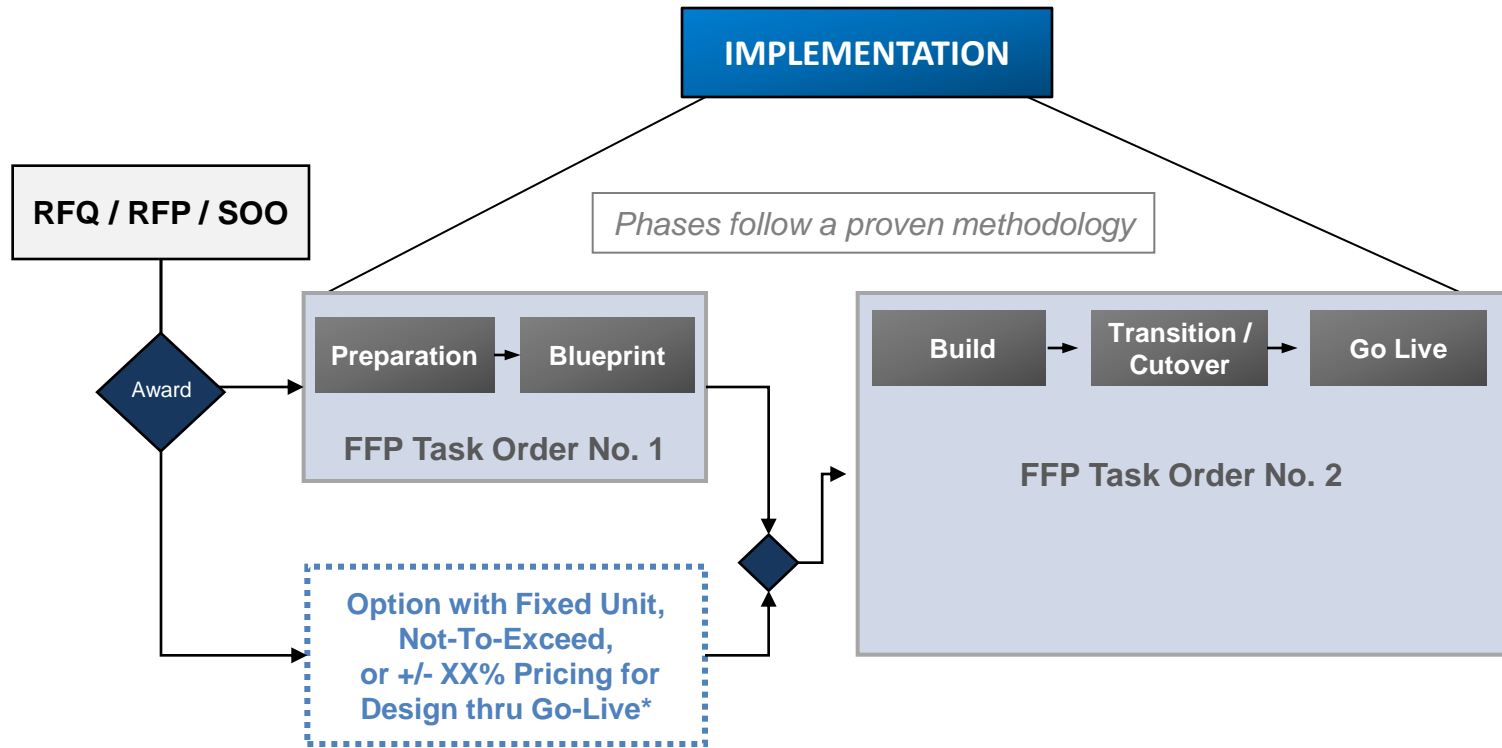
RFQ=Request for quote, RFP=Request for proposal, SOO=Statement of objectives, FFP=Firm Fixed Price

Price for Performance Table
Tied to Methodology

Methodology Phase:	Blueprint	Baseline Price Tables Aligned With Methodology		
Services to be Performed by Contractor	**Deliverable(s)**	**Duration (or due date)**	**Acceptance Criteria**	**Payment Upon Acceptance**
Perform Process & Functional Gap Analysis and Document Proposed Resolutions.	Detailed Gap Analysis Report including proposed resolutions.	4 weeks.	The documented deliverable shall conform to the format and structure of the sample attached as Attachment D-6.	$42,500

Sample Performance-Based Holdback

Deliverable	Deliverable Price	Payment Upon Acceptance	10% Holdback	Performance Scorecard Summary	Payment Based on Performance Scorecard
Change Management Plan	$100,000	$90,000	$10,000	Exceeds.	$15,000
				Meets.	$10,000
				Does not meet.	$0

Government Duties

Avoid Assumptions

- Assumptions are a common cause for confusion, failure, delay and avoidable change orders.
- Force clarity of buyer duties and scope conditions as early as possible.
- Establish list of expected buyer duties in RFQ/RFP and obtain bidder validation or expansion of list in proposals (including government personnel needed—by role and cost).
- Identify buyer duties, by milestone or deliverable, and across all phases.
- Don't expect vendors to volunteer resolution of assumptions—they've been used for many years.

Examples of Language to Use

- "Provide a Project Manager who will … (or) Provide staff resources who …"
- "Provide all hardware, software …" (or) "Provide office space, telecommunications, …"
- "Provide documentation of business processes …" (or) "Document data and database file structure …"
- "Perform data and file cleanup on legacy systems…" (or) "Stage legacy system data for conversion …"
- "Conduct User Acceptance test …"
- "Limited hosting is restricted to hardware, security, connectivity, networking aspects of IT environment."

Milestone	Services to be Performed by Contractor	Deliverable	Detailed Deliverable Description	Buyer's Duties

Managing Contractor Assumptions

Effective Assumption Management

- Include in RFP (Section L – Instructions) that Contractor identify all Assumptions, Deviations, and Exceptions (ADEs) to the RFP in a specific section of the Proposal Price/Cost Volume.

Guidelines

- Instructions include statement that ADEs appearing anywhere else in the proposal will not be considered part of the Proposal/Offer and therefore not meaningful nor binding in any way.

- Require Contractors to identify Technical, Schedule and Cost impact on awarded contract of any Assumptions that are not met, Exceptions that are not granted, and Deviations that are not approved.

- Include statement that the Government reserves the right to include the Cost impact of any ADEs in the evaluated price.

- Include Statement that Government reserves the right to adjust Technical and Management scores during the evaluation for the additional risk posed by ADEs.

Phased Approach
Price Tied to Methodology

	PROJECT PHASES					
Threads	1.0 **Plan & Analyze**	2.0 **Design**	3.0 **Build**	4.0 **Deliver**	5.0 **Operate**	**Total**
Project Management	$114,735	$285,701	$437,789	$126,581	$47,491	$1,012,297
Value Realization	$94,082	$42,595	$81,228	$35,080	$35,661	$288,646
Strategy & Operations	$163,918	$712,069	$1,927,378	$574,632	$396,257	$3,774,255
Technology	$58,573	$255,540	$956,439	$236,489	$151,049	$1,658,089
Security & Controls	$27,955	$130,457	$424,655	$74,547	$37,273	$694,888
People	$62,765	$138,454	$494,223	$155,049	$96,161	$946,652
Total	**$522,028**	**$1,564,817**	**$4,321,712**	**$1,202,378**	**$763,892**	**$8,374,826**
Duration in Months	**1.5**	**3.5**	**5.5**	**2.0**	**2.0**	**14.5**

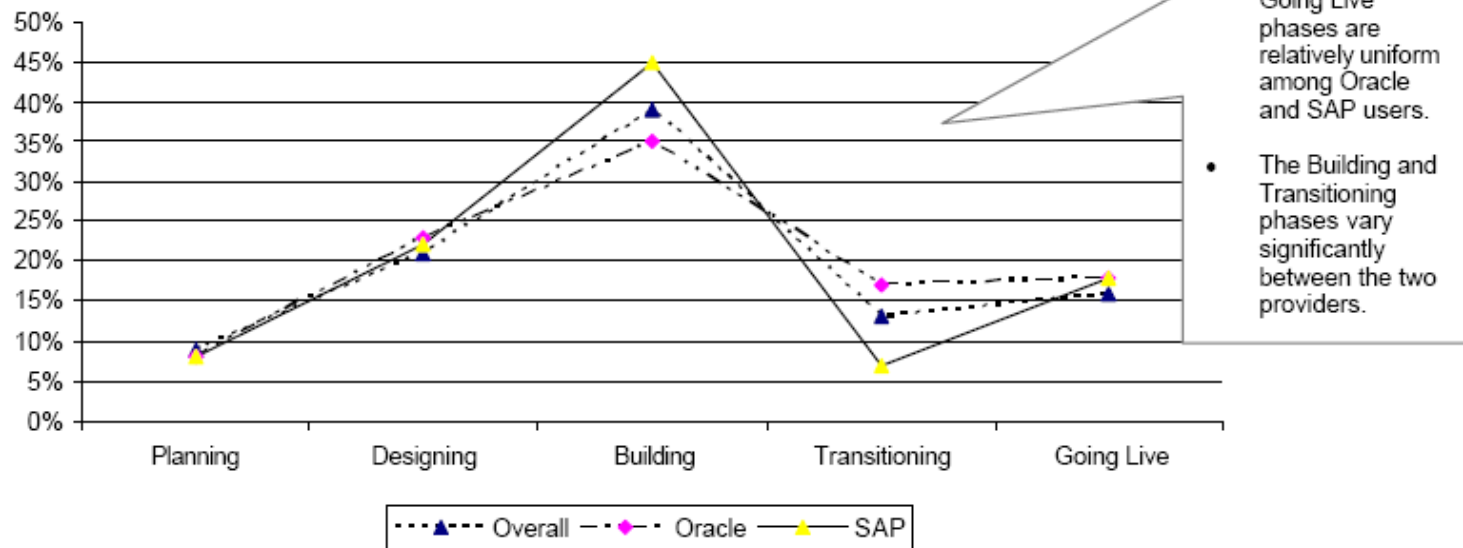| FACTOR	SCOPE / QUANTITY
End Users	2000
Commands / Sites	1
Business Processes	5
Sub-Processes	50
Instances	1
RICE (Reports, Interfaces, Customizations, Enhancements)	5 Reports, Interfaces, Customizations, each at low, medium & high complexity; 1 Enhancement at low, medium & high complexity.

Results From The Enterprise Resource Planning (ERP) Spending Pulse Survey | Survey
EPR SPENDING TRENDS

Cost Along the Pipeline

The single largest integration service costs occur in the building phase…

What Percent of Total Integration Service Costs Were
Allocated to Each Phase of the Integration Methodology?

- The Planning, Designing, and Going Live phases are relatively uniform among Oracle and SAP users.

- The Building and Transitioning phases vary significantly between the two providers.

Legend: Overall, Oracle, SAP

Fixed Pricing Menu for Variable Scope

**Where quantity of RICE is not nailed down,
use unit pricing tied to complexity level definitions.**

R.I.C.E Pricing Table		
	Complexity		
	Low	Medium	High
Reports & Forms	$3,592.52	$6,286.91	$8,083.17
Interfaces	$3,592.52	$10,777.56	$21,555.13
Conversions	$7,668.88	$23,006.63	$46,013.27
Extensions & Workflow	$9,580.06	$29,937.68	$80,232.98

Price includes creation of technical specification, coding, documentation and unit testing.

Fixed Pricing Menu for Variable Scope

Driver Item	Basis	Scope/Criteria
Enhancements (Low)	1	Additional code triggered by package provided tools that will not alter upgradeability. Includes workflow programs.
Enhancements (Medium)	1	Medium = extension to sub-process to include specific client capabilities and requirements.
Enhancements (High)	1	High = whole sub-process that must be designed and coded because it is not supported by package.
Interfaces (Low)	5	Low = batch interface using flat file in or flat file out with error reports.
Interfaces (Medium)	5	Medium = live interface with middleware and batch error reports.
Interfaces (High)	5	High = live interface with middleware and error alerts and data translation tables.
Conversions (Low)	5	Low = flat file records from legacy with no translation to Enterprise Resource Planning (ERP) package.
Conversions (Medium)	5	Medium = flat file from legacy with data translation and multiple ERP record destinations.
Conversions (High)	5	High = legacy data must be combined with other data in intermediate programs to fabricate the ERP package data required.
Reports (Low)	5	Reports include forms such as purchase order or invoice. Low = small modification to existing ERP package report or form.
Reports (Medium)	5	Medium = extensive modification to ERP package provided report or form.
Reports (High)	5	High = build from scratch report or form which may require intermediate processing of data to produce.

Scope and Budget Management

Effective Scope and Budget Management

- Requires discipline and leadership to "stay the course", prevent scope creep.

Guidelines

- Well defined scope via requirements, SOO, and contract terms *(marriage of project management and contract).*
- Senior leadership who will make the tough decisions to stick to the original Scope *(Commit to adoption of the new way, rather than doing things just because "that's the way we've always done it").*
- Both sides must be ready to say "NO!" to unnecessary changes.
- Business Process Reengineering *(BPR)* occurs up front.
- Phased pricing mapped to methodology *(modular contracting).*
- Enforce Bonus and Penalty Pricing *(tied to a Quality Assurance Surveillance Plan—QASP).*

Roadmap for Success with a FP Contract

Requirements $\rightarrow$	Competition $\rightarrow$	Scope & Budget Management
Do you know what you need?	*Who has the best experience to deliver this solution for you?*	*How will you mitigate the amount of changes to your baseline scope and price?*

• Mission
  • Goals
  • Vision
  • Challenge
• Financial Justification
  • Business Case
• SOO / Requirements
• Project Charter
	• Market Research
	• RFP / SOO
	• Evaluation
	• Contract
	• Buyer Duties Clearly Defined
		• Leadership
		• Firm Requirements
		• Buyer Duties Fulfilled
		• Contract Management
		• Project Management
		• Communications

Requirements

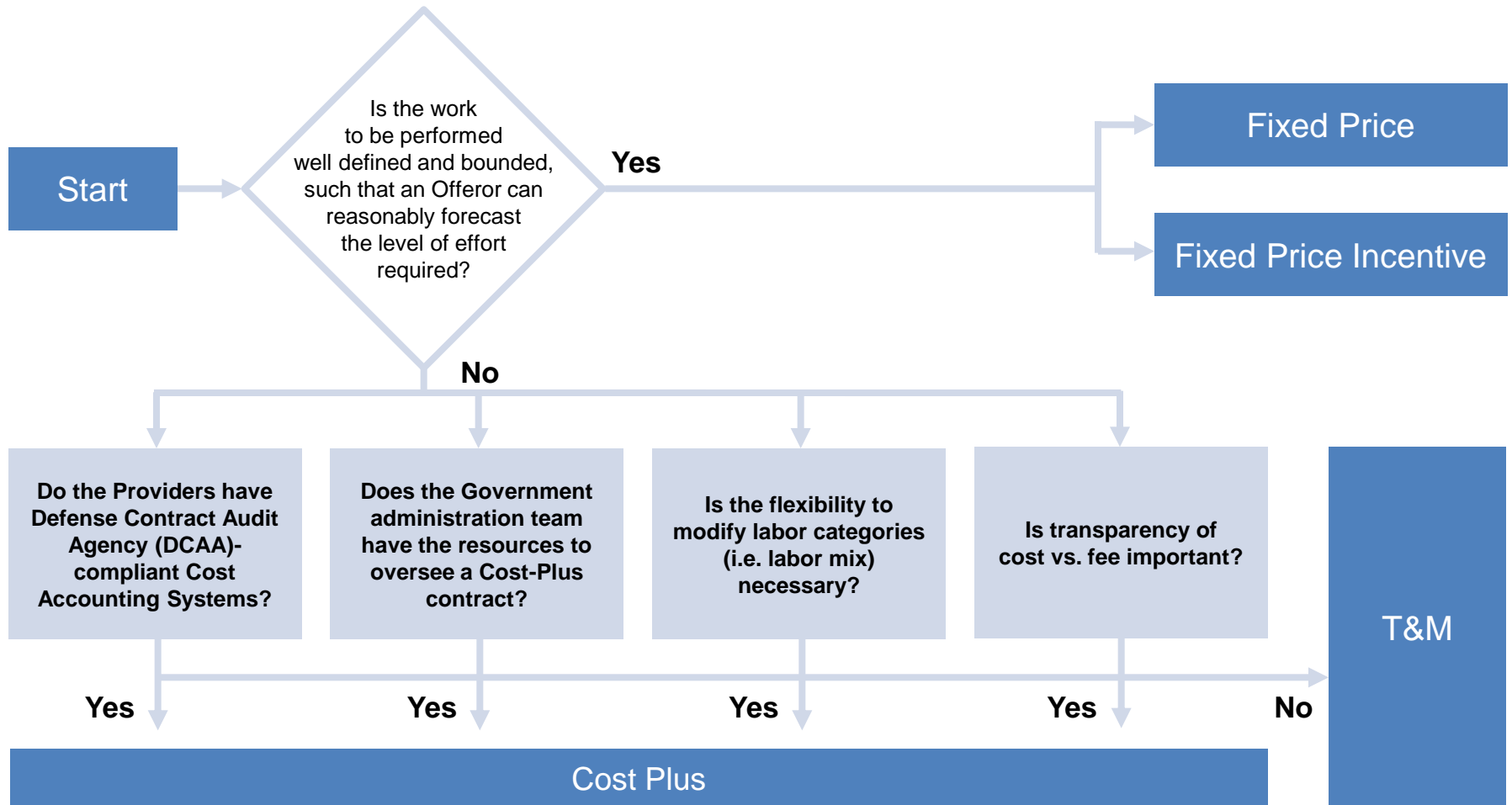## Define Requirements According to Outcomes

- Commercial buyers define content of requirements by the outcome of the work.
- "If you don't know your requirements, maybe you should slow down and think about whether you should be buying anything."
- Leave it to vendors to propose "how to do it."
- This allows vendors to bring forth expertise, experience, and proprietary approaches *(e.g. methodologies)*.

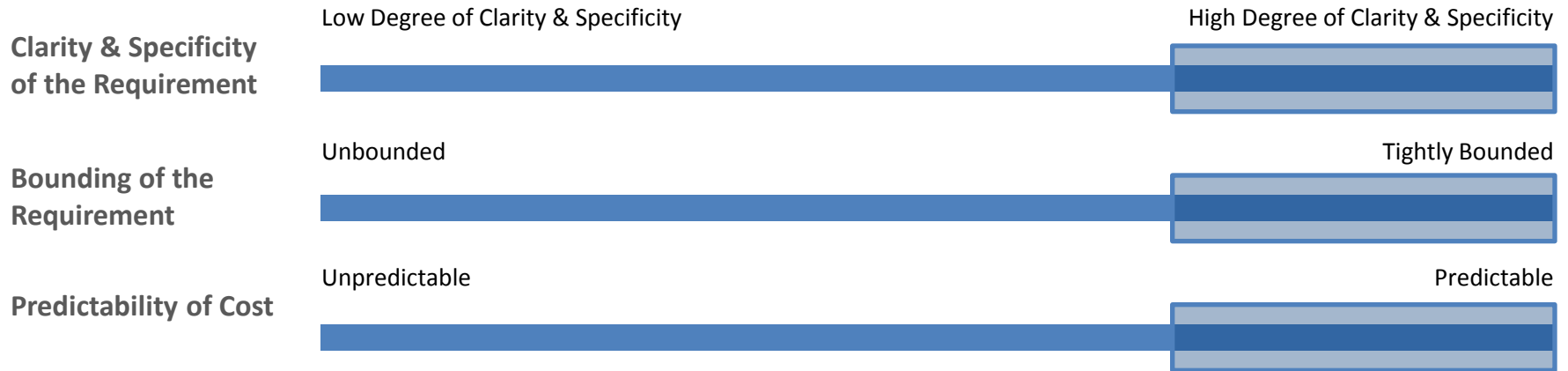# Determination Decision Process
High-Level Contract Type

Following this decision-tree helps determine the optimal contract type for an IT services requirement.

When to Use Fixed-Price Contract Type
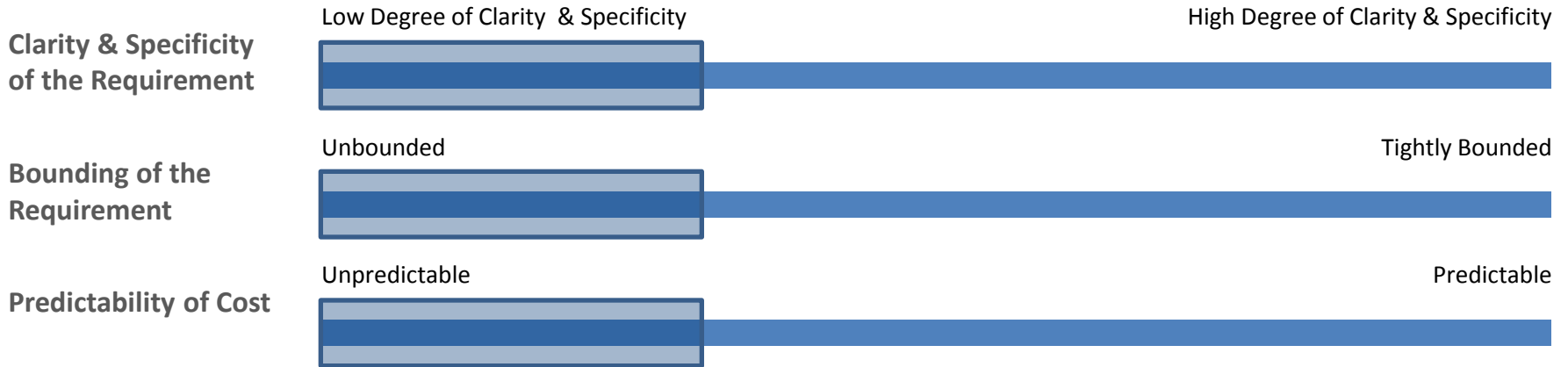
CONSIDERATIONS

Optimal Zone

Clarity & Specificity of the Requirement

Low Degree of Clarity & Specificity — High Degree of Clarity & Specificity

Bounding of the Requirement

Unbounded — Tightly Bounded

Predictability of Cost

Unpredictable — Predictable

RESULTS

Risk to IT Buyer & to the Contractor

Risk to IT Buyer — Risk to the Contractor

Incentive to Control Cost

Minimal Incentive — Significant Incentive

Cost Transparency

Minimum Transparency — Maximum Transparency

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Drawbacks to T&M Contract Type

CONSIDERATIONS

Optimal Zone

Clarity & Specificity of the Requirement

Low Degree of Clarity & Specificity   High Degree of Clarity & Specificity

Bounding of the Requirement

Unbounded   Tightly Bounded

Predictability of Cost

Unpredictable   Predictable

RESULTS

Risk to IT Buyer & to the Contractor

Risk to IT Buyer   Risk to the Contractor

Incentive to Control Cost

Minimal Incentive   Significant Incentive

Cost Transparency

Minimum Transparency   Maximum Transparency

Key Considerations by Contract Type

Situation	Potential Contract Type	Considerations
▪ Well-defined requirement. ▪ Bounded as to scope, timeframe, and performance.	**Fixed Price**	▪ If requirements are not well defined this can, in fact, be the riskiest type for the Government. ▪ Technical, functional, and performance requirements must all be well-defined.
▪ Unbounded, ill-defined requirements. ▪ One or more dependencies that cannot be predicted and can impact the Contractor's cost. ▪ Desire for flexibility to move costs among labor categories and offshore development centers (ODCs). ▪ DCAA-compliant Contractors. ▪ Sufficient contract administration resources.	**Cost Plus**	▪ Appropriate when requirement cannot be well defined or several dependencies exist that make proposing a Fixed Price challenging. ▪ Requires the Government contract administration team to be trained and equipped to manage a Cost-Plus type contract. ▪ Only Contractors with DCAA-compliant cost accounting systems can propose this approach. ▪ Enables flexibility to move costs among labor categories and various ODCs such as equipment, travel, etc.
▪ Unbounded, ill-defined requirements. ▪ One or more dependencies that cannot be predicted and can impact the Contractor's cost.	**Time & Materials**	▪ Most challenging contract type in terms of approvals; substantial justification is required. ▪ In general, labor categories and hours ordered must be performed, and little (*if any*) flexibility exists to change them. ▪ Easiest to cross the line into personal services.

Discussion Guide

Name the three types of software implementation service agreements available to the government.

Discuss the pros and cons of each agreement type from the perspective of the government.

Discuss the pros and cons of each agreement type from the perspective of the contractor.

Discuss the strengths and weaknesses of the government's preferred agreement type as it relates to definable scope and certainty of requirements.