Office of the Chief IT Architect
NRFC0016 / STD0009
Category: Standard

S. Thornton
OCIO
February 2006

Enterprise Architecture Exception Process v1.0

Status of this Memo

This document specifies an NIH Enterprise Architecture exception process, and requests discussion and suggestions for improvements. Please refer to the current edition of the "National Institutes of Health Enterprise Architecture Standards Process" (NRFC0001/BCP0001) for the standardization state and status of this protocol. Distribution of this memo is intended for the NIH community.

Table of Contents

1 Introduction 2
2 Scope 2
3 Process Definition 2
3.1 Classifying Requests 2
3.2 Decision Criteria 3
3.3 Schedule 4
3.4 Requestor Responsibilities 4
3.5 Technical Owner 4
3.6 Business Owner 4
4 Appeals Procedure 5
4.1.1 Process Failures 5
4.1.2 Questions of Applicable Procedure 6
5 Architecture Exception Request Form 6
6 Disposition, Limitations, and Record Keeping 6
7 Contact 6
8 Security Considerations 7
9 References 7
10 Changes 7
11 Author's Address 8
Appendix A: Architecture Exception Request Process A-1
Appendix B: Architecture Exception Request Form B-1

1 Introduction

According to the principal principle, "The NIH Enterprise Architecture applies to all aspects of the NIH Information Technology (IT)." However, business requirements may necessitate an exception. The architecture exception process is designed to accommodate these needs.

This document describes this process. Specifically, the document includes:

- submission requirements for an exception request
- approval workflow
- general guidelines for decision-makers

This process does not include process exceptions to the Architecture Standards Process. See NRFC0001 “Architecture Standards Process” for a description of this process.

For the remainder of this document the term exception process refers to the process whereby stakeholders may request an exception to the NIH Enterprise Architecture.

2 Scope

This process applies to any NIH IT system, element, or practice, as described in the NIH Enterprise Architecture Policy, that varies from the approved NIH Enterprise Architecture. These include but are not limited to data, applications, security, integration, collaboration, systems management, network and telecommunications systems, elements, practices, and protocols.

The approved NIH Enterprise Architecture is available for review at http://enterprisearchitecture.nih.gov.

3 Process Definition

See Appendix A to review the steps associated with the exception process.

3.1 Classifying Requests

The Chief IT Architect will use his/her discretion to classify all exception requests as either “major” or “minor” and will formulate a recommendation for approval or disapproval.

The decision authority for major exception requests is the Architecture Review Board (ARB). Examples necessitating a major exception request are:

- The total remediation cost for the exception exceeds ten percent of the project value. [1]
- The total remediation cost exceeds $1 million.[1]
- The exception will introduce a product, technology, or practice not currently in use at the NIH or is not categorized as "Tactical" or "Strategic" in the architecture.
- The exception violates an NIH Enterprise Architecture principle.
- The exception does not comply with the data standards for a system for which it creates, updates, or deletes data.

Most other exception requests will be considered minor. The decision authority for minor exception requests is the NIH Chief Information Officer (CIO).

3.2 Decision Criteria

The CIO, who approves all minor exception requests, and the ARB, which approves all major exception requests, will use the same general decision criteria when approving or disapproving a request. Likewise, the Chief IT Architect will use the decision criteria when formulating a recommendation for approval or disapproval.

Specifically, the CIO or the ARB must determine whether the benefits associated with implementing the exception request outweigh any negative impacts to the NIH community, based in part on the information provided by the requestor in the "Architecture Exception Request Form (see appendix B, "Architecture Exception Request Form"). In exercising this discretion, the decision-makers will consider:

- The impact of not granting the exception
- The technical merit of the exception
- The collateral impact to other systems and business processes
- The impact to the NIH Enterprise Architecture
- Alternatives to granting the exception
- Precedent setting effects

Decision-makers should also consider the NIH Enterprise Architecture principle "Technology Components," which states:

> "The NIH Enterprise Architecture supports leading edge technologies to meet mission-differentiating needs and requires mature, proven interoperable technologies in support of service environments. Technical diversity that does not tie to business needs is discouraged."

[1] **Remediation cost** is determined by calculating the estimated net present cost in today's dollars for the NIH to accommodate the exception for the estimated lifecycle of the exception, including the cost to reverse the effects of the exception. Considerations in calculating the cost would include adjusted costs for labor, systems, and services, to all impacted systems, organizations, and the public.

The decision-makers may approve or disapprove all or a portion of a request, based on the complexity of the system for which the exception is requested.

The ARB will develop a consensus in reaching its decision.

3.3 Schedule

The process to review and approve/disapprove "minor" exception requests takes approximately 10 business days. For major exception requests the ARB shall meet once per month. However, the Chief IT Architect may use his/her discretion to convene an emergency ARB meeting to consider major exception requests or to poll the ARB remotely via email.

A decision not to convene an emergency session of the ARB may be appealed by the requestor to the ARB chairperson, who will be the final decision authority on convening an emergency session for the purpose of considering an architecture exception request.

3.4 Requestor Responsibilities

The requestor has several important responsibilities in the architecture exception process. First, the requestor is responsible for documenting the information supporting the exception request, using the "Architecture Exception Request Form" (see appendix B). This information outlines the justification for the exception and is critical to the decision-making process.

Second, the requestor is responsible for obtaining the approval of the business owner and the technical owner, using the "Architecture Exception Request Form" (see appendix B).

Finally, the decision authority (Chief IT Architect, CIO, or ARB) may ask the requestor to present the exception request to the decision authority on a scheduled basis, prior to approving or disapproving the request or prior to making a recommendation for approval or disapproval. The purpose of such a presentation should be to clarify information provided on the form or to request supplemental information that the decision authority may require to make an informed decision.

3.5 Technical Owner

The technical owner must approve all exception requests proposed by the requestor prior to review by the Office of the Chief IT Architect (OCITA). The technical owner is the individual responsible for supporting the impacted business process with information systems solutions.

3.6 Business Owner

The business owner must approve all exception requests proposed by the requestor prior to review by the Office of the Chief IT Architect (OCITA). The business owner is an individual at the director level or above who manages the business process that the system supports or will

support. For the purpose of this process a director is an individual who is a director of an office, division, or IC.

4 Appeals Procedure

The requestor may appeal a decision concerning a minor exception request by the CIO to the ARB. The ARB decision is final with respect to the question of whether or not the exception shall be granted. There is no appellate authority for the ARB's decision not to grant approval for a minor or major exception request.

All appeals must include a detailed and specific description of the facts of the dispute.

All appeals must be initiated within two months of the public knowledge of the action or decision to be challenged.

At all stages of the appeals process, the individuals or governing bodies responsible for making the decisions have the discretion to define the specific procedures they will follow in the process of making their decision.

In all cases a decision concerning the disposition of the dispute, and the communication of that decision to the parties involved, must be accomplished within a reasonable period of time.

4.1.1 Process Failures

This document sets forward procedures to ensure openness and fairness in the exception process. OCITA is the principal steward organization for this process, and it is OCITA that is charged with ensuring that the required procedures have been followed, and that any necessary prerequisites for an action have been met.

If an individual should disagree with an action taken by OCITA in this process, that person should first discuss the issue with the Chief IT Architect. If the Chief IT Architect is unable to satisfy the complainant then the OCITA as a whole should re-examine the action taken, along with input from the complainant, and determine whether any further action is needed. The OCITA shall issue a report on its review of the complaint to the ARB.

Should the complainant not be satisfied with the outcome of the OCITA review, an appeal may be lodged with the ARB. The ARB shall then review the situation and attempt to resolve it in a manner of its own choosing and report to the NIH Chief Information Officer (CIO) on the outcome of its review.

If circumstances warrant, the ARB may direct that an OCITA decision be annulled, and the situation shall then be as it was before OCITA rendered the decision. The ARB may also recommend an action to OCITA or make other recommendations as it deems fit. However, the ARB may not preempt the role of OCITA by issuing a decision premature to OCITA's opportunity to render a decision.

The ARB's decision is final with respect to the question of whether or not any exception request is approved or disapproved.

4.1.2 Questions of Applicable Procedure

Further recourse is available only in cases in which the processes are claimed to be inadequate or insufficient to the protection of the rights of all parties in a fair and open process. Claims on this basis may be made to the IT Working Group (ITWG). The NIH CIO shall acknowledge such an appeal within 10 business days and shall at that time advise the petitioner of the expected duration of the ITWG's review of the appeal. The ITWG shall review the situation in a manner of its own choosing and report to OCITA on the outcome of its review.

The ITWG's decision upon completion of their review shall be final with respect to all aspects of the dispute.

5 Architecture Exception Request Form

OCITA will only accept requests submitted using the "Architecture Exception Request Form" (see appendix B). The form will also be made available for download online at http://enterprisearchitecture.nih.gov.

Requestors must refer to the form instructions when completing and submitting the form. Partially completed forms or submissions received in other formats will not be considered.

For form assistance, contact enterprisearchitecture@mail.nih.gov or visit http://enterprisearchitecture.nih.gov. The enterprise architecture team will respond within one week.

6 Disposition, Limitations, and Record Keeping

OCITA will notify the requestor via email concerning the disposition of an exception request, including the results of the decision authority's deliberations.

A decision authority shall not grant an exception request for longer than one calendar year from the approval date. OCITA will maintain copies of approved exception requests on the NIH portal and will notify a requestor one month prior to an exception's expiration date.

7 Contact

To contact the NRFC Editor, send an email message to enterprisearchitecture@mail.nih.gov.

8 Security Considerations

This NRFC raises no security issues.

9 References

Thornton, S. (March 2005). "Enterprise Architecture Standards Process"(NRFC0001). OCITA. This memo documents the process used by the NIH community for the creation of standards for information technology (IT). It defines the steps in the standardization process, the requirements for promoting a document through the steps, and the types of documents used during this process.

10 Changes

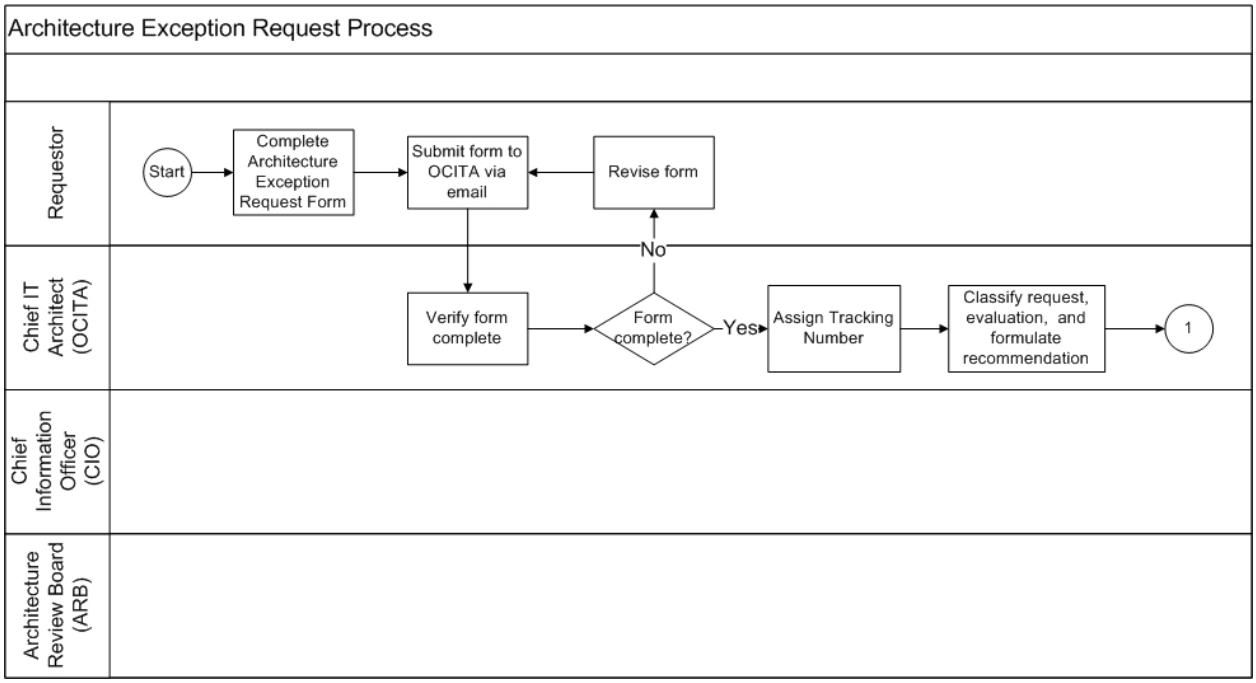
Version	Date	Change	Authority	Author of Change
0.0	5/4/2005	Original document	N/A	Steve Thornton
0.1	8/16/2005	Revisions from OCITA	N/A	Steve Thornton
0.2	10/28/2005	Revisions from Chief Architect	Jack Jones	Steve Thornton
0.3	11/21/2005	(1) Section 3.1 clarified what constitutes "minor" request. (2) Section 3.2 clarified Chief IT Architect should use decision criteria; clarified information gathering responsibilities for form. (3) Section 3.3 added appellate authority for ARB emergency session. (4) Section 3.4 added a reference to	Steve Thornton	Steve Thornton

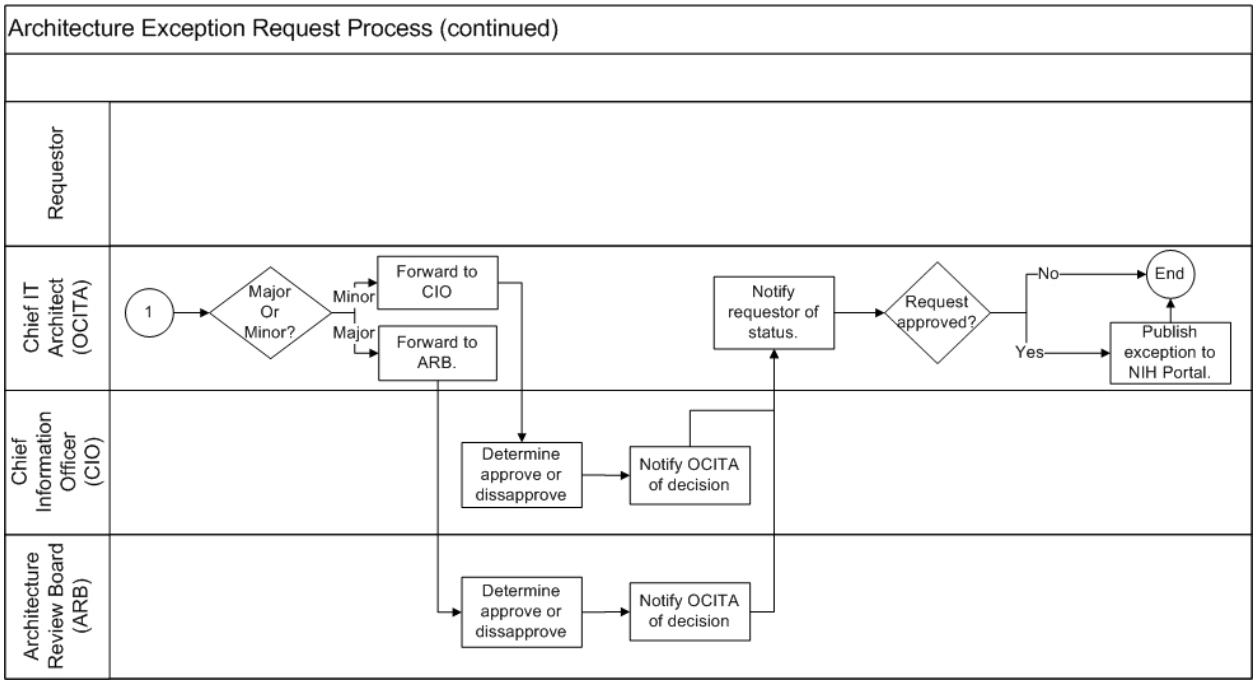
Version	Date	Change	Authority	Author of Change
		form; clarified presentation. (5) Section 3.6 clarified "director." (6) Section 4 (new) added appeals procedures. (7) Section 5 (old section 4) clarified use of form. (8) Added appendix B (form).		
1.0	2/3/2006	(1) Modified scope statement to match NIH Enterprise Architecture Policy. (2) Revised track to standards track. (3) Annotated ARB approval.	Architecture Review Board meeting (1/25/2006)	Steve Thornton

11 Author's Address

Steve Thornton
National Institutes of Health
10401 Fernwood Road
Bethesda, Maryland 20817
Phone: 301-435-8190
Email: thorntst@mail.nih.gov

Appendix A: Architecture Exception Request Process





Appendix B: Architecture Exception Request Form

1 Form Instructions

Please refer to the following instructions when completing and submitting the form:

- Complete all applicable sections of the form. An asterisk (*) denotes a mandatory field. Incomplete forms will be returned to the requestor. Thereafter, the process will begin again.
- Route the request through the technical owner and business owner for approval or disapproval.
- Submit the completed form with necessary approvals to OCITA at enterprisearchitecture@mail.nih.gov. You will receive notification of receipt within two business days.

2 Help

For assistance with this form, to ask a question, or to provide feedback, contact enterprisearchitecture@mail.nih.gov or visit http://enterprisearchitecture.nih.gov. The Enterprise Architecture team will respond within two business days.

3 Requestor Information

*	6.1	Name:	Last: First:
*	6.2	Phone: (no dashes)	
*	6.3	E-Mail:	
*	6.4	IC:	
*	6.5	Date:	
	6.6	Comments:	

4 Description

*	7.1	Emergency Request:	No
*	7.2	Describe Exception:	
	7.3	Product Name:	
	7.4	Vendor Name:	
	7.5	Product Version:	
	7.6	Impacted Data Element(s):	

	7.7	Other Impacted Element/Component:	
*	7.8	Describe the requirements that led to the selection of the exception, instead of the architecture-compliant technology(s) (gap analysis):	
*	7.9	Compare the way the exception meets the requirements that the architecture-compliant technology(s) does not.	
*	7.10	Proposed Implementation Date:	
*	7.11	Describe the expected lifetime of the exception:	
*	7.12	Describe the plan for migrating from the exception to the NIH architecture-compliant technology(s).	
	7.13	Comments:	

5 System Impacts

*	8.1	Impacted Environments:	Select all that apply:	
			☐ Production ☐ Development	☐ Testing ☐ Stand Alone System
	8.2	System(s) to be Modified by the Exception:	Comments:	
	8.3	Impacted Upstream Production Systems:	Comments:	
	8.4	Impacted Downstream Production Systems:	Comments:	
	8.5	Impacted Systems That Are in Planning or Development:	Comments:	
	8.6	Comments:		

6 Business Impacts

*	9.1	Describe the business justification or positive impacts to the NIH as a result of implementing this exception versus the architecture-compliant technology: (Example: how will business processes improve?)	

	9.2	Describe negative impacts to the NIH as a result of implementing this exception: (Example: is a manual work-around required by implementing this exception?}	
*	9.3	Estimate the total cost of the exception (see note below):^^	
*	9.4	Estimate the total project cost:	
*	9.4	Compare the total cost of the exception to the total cost of the architecture-compliant technology(s).	
	9.5	List other organizations or stakeholders impacted by this exception:	
	9.6	Comments:	

^^For the “estimated total cost of the exception” consider the full lifecycle of the technology, including additional training, support, maintenance, integration and retirement costs. Attach supporting documentation.

7 Risk Management

*	10.1	Describe risks associated with implementing this exception: (Include technical risks and risks to the NIH.)	
*	10.2	Describe the risk mitigation plan for each risk:	
*	10.3	Describe risks to the NIH, if the exception is not implemented:	

8 Additional Justification

	11.1	Describe any additional justification not referenced elsewhere in this document:	

9 Technical Owner Information and Approval

*	12.1	Name:	Last: First:
*	12.2	Phone: (no dashes)	
*	12.3	E-Mail:	
*	12.4	IC:	
*	12.5	Approval:	Select One: Disapprove

*	12.6	Date:	
	12.7	Comments:	

10 Business Owner Information and Approval

*	13.1	Name:	Last: First:
*	13.2	Phone: (no dashes)	
*	13.3	E-Mail:	
*	13.4	IC:	
*	13.5	Approval:	Select One: Disapprove
*	13.6	Date:	
	13.7	Comments:	

11 Tracking Information

(To be completed by OCITA personnel only)

14.1	Tracking Number:	
14.2	Date Received:	
14.3	Emergency Request:	No

12 Chief IT Architect Information and Recommendation

15.1	Name:	Helen Schmitz
15.2	Phone:	(301) 496-2328
15.3	E-Mail:	schmitzh@mail.nih.gov
15.4	Request Classification	Minor
15.5	Recommendation:	Select One: Disapprove
15.6	Date:	
15.7	Comments:	

13 CIO Information and Approval

16.1	Name:	Jack Jones
16.2	Phone:	(301) 402-6759
16.3	E-Mail:	jonesjf@mail.nih.gov
16.4	Approval:	Select One: Disapprove
16.5	Date:	
16.6	Comments:	

14 ARB Information and Approval

17.1	Approval:	Select One: Disapprove
17.2	Date:	