

## **Instructions to NRFC Authors How to Write a Standard V1.0**

### **Status of this Memo**

This memo provides information for the NIH architecture community. This memo does not specify an NIH architecture standard of any kind. Distribution of this memo is unlimited.

### **Abstract**

This document is a guide for NIH IT and architecture standards writers. It defines those characteristics that make standards coherent, unambiguous, and easy to interpret. The goal is easily understood standards and a more streamlined standards review process, resulting from good standards writing.

All novice standards writers must read this document prior to writing and submitting a proposed standard. Experienced standards writers must review this document periodically to keep their skills current and to keep abreast of changes concerning writing standards.

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## 1 Introduction

This document provides direction for authors of standards, so that the standards are effectively communicated to NIH stakeholders. It is incumbent upon all authors to write standards effectively not only to streamline the standards process, as described in NRFC0001 "NIH Architecture Standards Process," but also to ensure the standard can be effectively implemented.

## 2 The Role of the NRFC Editor

The NIH Request for Comments (NRFC) Editor is responsible for ensuring the quality of documents prior to a formal review by the NIH and its governing bodies. However, authors retain ultimate responsibility for effectively communicating a proposed standard. Furthermore, authors are responsible for making changes to the documents and resubmitting to the NRFC Editor in cases where editorial or substantive changes are required.

## 3 Changing Standards Content and Document Ownership

Finally, because the content of a standard may change overtime as NIH gains experience with a standard, authors of change also have a significant role to play in updating a standard effectively. Furthermore, authoring a standard does not denote ownership of a standard. Because proposed standards and approved NIH standards are the intellectual property of NIH they may be changed at any time through the Architecture Standards Process.

## 4 Plain Language

Authors must apply the principles of Plain Language when submitting standards documents for review and approval to ensure the standards are communicated effectively. For guidance on using Plain Language, visit the NIH Office of the Director (OD) website at <http://execsec.od.nih.gov/plainlang/index.html>.

## 5 Internal Organizational Reviews

Authors must submit proposed standards to their organizations and management using their internal organizational standard operating procedures (SOP) and regulations prior to submission to the Office of the Chief Information Technology Architecture (OCITA) in the event the organization requires such a review. OCITA will not submit documents to an IC for review on the behalf of an author.

## 6 "Should" versus "Shall"

Authors must be cognizant of "to-be" verbs in standards documents. Specifically the terms **shall**, **must**, and **will** denote mandatory requirements for the effective implementation of a standard. The terms **may**, **should**, and **would** denote optional requirements for implementation. Authors must follow this convention when drafting standards documents. Furthermore, documents that contain primarily non-mandatory "to-be" verbs may not be accepted as standards at all but may be relegated to the informational category of documents.

## 7 What goes in a standard?

A standards document should include declarative statements that describe the standard and its attributes. Such statements may include background information, parameters, variables, interface requirements, assumptions, constraints, dependencies, and preconditions for implementing the standard.

Generally speaking a standards document should not include unresolved questions, disputes, opinions, commentary, decision-analysis and justification, or process requirements and dependencies.

Recognizing that decision-analysis and justification are important considerations for approving a standard, this information should be extracted into a document supplement. Content that describe a process or approach may be extracted into a best community practice, an informational NRFC, or an experimental NRFC, depending on the specific purpose of this content. Authors should seek specific guidance from OCITA in these cases.

Authors must use the "NRFC Template" (NRFC0009) when submitting standards, best community practices, or other NRFCs.

## 8 Dependencies between Standards

If a proposed standard references and depends on another standard, then the referenced standard must be approved prior to the referencing standard being approved. References to draft standards that imply or infer their approval is not acceptable.

This process ensures that the referenced document will be available to the general public during the referencing document's approval process. It also ensures that the preconditions for implementing the standard are in place for a successful implementation.

There may be rare cases in which multiple standards documents are routed through the approval process together. However, in these cases the authors must notify the NRFC Editor of the dependencies and must ensure that the documents are approved together.

## 9 Non-Standard Documentation

Authors who wish to publish ideas, recommendations, or implementations should consider other tracks for architecture documents in the NRFC series. These include best community practices, informational NRFCs, and experimental NRFCs. NRFC0001 "The Architecture Standards Process" describes the purpose and administration of these documents in detail.

## 10 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.

Thornton, S. (August 2004). "NRFC Template" (NRFC0009). OCITA.

## 11 Contact

To contact the NRFC Editor, send an email message to [EnterpriseArchitecture@mail.nih.gov](mailto:EnterpriseArchitecture@mail.nih.gov).

## 12 Security Considerations

This NRFC raises no security issues.

## 13 Changes

Version	Date	Change	Authority	Author of Change
0.1	8/18/2005	Original Document	N/A	Steve Thornton
0.2	10/28/2005	Minor copy edits from Chief Architect	Jack Jones	Steve Thornton
1.0	11/15/2005	Approved	NRFC0001	Steve Thornton

## 14 Author's Address

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