Guidelines for RFC Changes

Purpose of this document is to provide an insight to making recommendations for changing and/or clarifying an RFC. The following is a review of the Internet Standards process and revising a specification.

Overview of the Internet Standards Process (taken from RFC 1602 & RFC 1800)
A "standards action" process must be approved by IESG.

1. **Proposed Standard:**
   - Complete, credible specification.
   - Demonstrated utility.
   - Typically, standards action is initiated by a recommendation to the IETF Area Director.
   - The document that is to enter or advance in the Internet standardization process shall be made available as an Internet draft.
   - It shall remain as Internet Draft for a period (at least two weeks) before submission to the IESG with a recommendation for action.
2. **Draft Standard:**
   - Multiple, independent, interoperable implementations.
   - Limited operational experience: works well.
   - The transition from proposed standard to draft standard can only be by action of the IESG.
   - The protocol has been a proposed standard for at least six months (and less than 2 years), and there has to be at least 2 independent and interoperable implementations.
3. **Standard:**
   - Demonstrated operational stability.
   - "The real thing".
   - The transition from draft standard to standard can only by action of the IESG.
   - The protocol has been a draft standard for at least four months (and less than 2 years).

Overview of revising a specification (taken from RFC 1602)

- A specification can be revised as it advances through the standards track. At each stage, the IESG shall determine the scope and significance of the revision to the specification, and, if necessary and appropriate, modify the recommended action.
- Minor revisions are expected, but a significant revision may require that the specification accumulate more experience at its current maturity level before progressing.
- If the specification has been changed very significantly, the IESG may recommend that the revision be treated as a new document, re-entering the standards track at the beginning.
- Generally, the desired changed will be "batched" for incorporation at the next level in the standards track. However, it is possible to correct the RFC

immediately (if the change does not represent a change in overall function of the specification, an example: important typographical error). In such case, the IESG or RFC Editor may be asked to republish the RFC with corrections, and this will not reset the minimum time-at-level clock.

Refined Syntax (taken from RFC 1442)
Some macros allow an object's syntax to be refined, ex. MODULE-COMPLIANCE macro. However, not all refinements of syntax are appropriate. In particular, the object's primitive or application type must not be changed. Further, the following restrictions apply:

	Restrictions to Refinement on			
Object Syntax	**range**	**enumeration**	**size**	**repertoire**
INTEGER	(1)	(2)	-	-
OCTET STRING	-	-	(3)	(4)
OBJECT IDENTIFIER	-	-	-	-
BIT STRING	-	(2)	-	-
IpAddress	-	-	-	-
Counter32	-	-	-	-
Gauge32	(1)	-	-	-
TimeTicks	-	-	-	-
NsapAddress	-	-	-	-
Counter64	-	-	-	-

(1) The range of permitted values may be refined by raising the lower-bounds, by reducing the upper-bounds, and/or by reducing the alternative value/range choices.
(2) The enumeration of named-values may be refined by removing one or more named values.
(3) The size in characters of the value may be refined by raising the lower-bounds, by reducing the upper-bounds, and/or by reducing the alternative size choices.
(4) The repertoire of characters in the value may be reduced by further sub-typing.

Revising Object Definitions (taken from RFC 1442)
Object definitions are used when describing managed objects. An object definition may be revised in any of the following ways:

1. A SYNTAX clause containing an enumerated INTEGER may have new enumerations added or existing labels changed.
2. A STATUS clause value of "current" may be revised as "deprecated" or "obsolete". Similarly, a STATUS clause value of "deprecated" may be revised as "obsolete".
3. A DEFVAL clause may be added or updated.
4. A conceptual row may be augmented by adding new columnar objects at the end of the row.
5. Entirely new objects may be defined, named with previously unassigned OBJECT IDENTIFIER values.

Notes:

1. *Changing the descriptor associated with an existing object is considered a semantic change, as these strings may be used in an IMPORTS statement.*
2. *If an object has the value of its STATUS clause changed, then the value of its DESCRIPTION clause should be updated accordingly.*
3. *If any non-editorial change is made to any clause of an object assignment, then the OBJECT IDENTIFIER value associated with that object assignment must also be changed, along with its associated descriptor.*

Revising Notification Definitions (taken from RFC 1442)

Notification definitions are used when describing unsolicited transmissions of management information. A notification may be revised in any of the following ways:

1. A REFERENCE clause may be added or updated.

Notes:

1. *If the semantics of any previously defined notification are changed then the OBJECT IDENTIFIER value associated with that notification must also be changed.*
2. *Changing the descriptor associated with an existing notification is considered a semantic change, as these strings may be used in an IMPORTS statement.*
3. *If an object has the value of its STATUS clause changed, then the value of its DESCRIPTION clause should be updated accordingly.*

Information to be provided when proposing for clarifications/changes:

- Time-frame: A time frame should be given for the group to review the changes proposed. This time-frame should be minimum of two weeks.
- Information regarding to the possible impacts of the proposed change to the progress of the standard should be provided.
- Detailed information as to why the change/clarification is proposed should be provided.

Process for reaching agreements for clarifications

It is the responsibility of the person proposing the change/clarification to follow through with the request. If the time-frame given has passed, and there were no responses to the proposal, the submitter should remind the group that the no response to the proposal can be interpreted as a valid change/clarification to the RFC. The acknowledgment from the RFC editors and/or the WG advisor is required.

Proposal has to get approval through e-mail. The decisions that are made during the meetings are not final, and they must be conveyed to the mailing list to verify WG consensus.

Process for formalizing the clarifications

Once the clarification/change is approved, the final form will be distributed to the mailing list, and put onto the ftp-out.external.hp.com site. This final form will be distributed by the RFC editor.

The following historical information will also be apart of the clarification results and will be placed at the ftp site along with the clarification.

- Original clarification/change proposal;
- Responses to the clarification/change proposal;
- Final status of the clarification/change proposal;
- Any votes that were given during the proposal decision state.