Rfc5661bis Effort

Document Status and Next Steps

David Noveck
November 4, 2023
For IETF118 (Prague)
Overview
Slide One of Two

• Work is proceeding, albeit slowly:
  • Need to co-ordinate changes to multiple documents.
  • Limited time to work on these

• New drafts of major documents expected in next month:
  • Security will be first.
  • Will follow up with next draft of rfc5661bis.
  • Expect a major revision of internationalization to respond to external reviews.
Overview
Slide Two of Two

• Major issues:
  • Stalled adoption process for security.
  • Lack of discussion of existing drafts – Need to figure out how to address

• For details, see Next Slide which summarizes the documents in this effort and links to further details.
# Document Status Summary

<table>
<thead>
<tr>
<th>Document</th>
<th>Summary</th>
<th>Status</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rfc5661bis</td>
<td>Adopted but further discussion needed</td>
<td>Slide 5</td>
<td>Slides 6-7</td>
</tr>
<tr>
<td>Internationalization</td>
<td>Adopted and now dealing with external reviews.</td>
<td>Slides 8-10</td>
<td>Slides 11-12</td>
</tr>
<tr>
<td>rfc5662bis</td>
<td>Small set of changes. Should submit soon.</td>
<td>Slide 19</td>
<td>Slide 20</td>
</tr>
</tbody>
</table>

11/6/2023
Rfc5661bis
What’s in Current Draft (-01)

• Adaptation to multi-document structure, explicitly referring to:
  • RFC8178 for extension issues
  • Internationalization addressing all minor versions together.
  • Security addressing security for all minor versions together

• Most errata reports for RFCs 5661 and 8881 addressed.
  • Some “rejected” ones addressed.
  • Only five left to address.
Rfc5661bis
Expected in -02

• Address remaining errata reports.
• Reorganization of treatment of attributes
  • Will be co-ordinated with corresponding changes in security. For details, see Security -- Attribute Classification Changes in -07.
Rfc5661bis
Expected next steps

• Submit -02.

• Need more focused discussion of contents.
  • Mostly on mailing list.
  • May need some interim meetings.
  • Need to ensure that all top-level sections are reviewed.
Internationalization
Document status

• Motivation:
  • Treatment of subject of RFCs 5661 and 8881 do not correspond to implementations.
  • Need a common description for all minor versions since all minor versions take the same approach.
    • Should follow the description in RFC7530.

• Included in current version:
  • Basic rewrite to match RFC7530.
  • Work to adapt to recent IDNA changes.
Internationalization
External Review Results (Slide One of Two)

• Early internationalization review by N. Williams:
  • “On the right track” but really wanted me to write a completely different document. Didn’t do that.
  • Had helpful suggestions regarding client name caching in the presence of case-insensitivity and normalization-related processing.
    • Incorporated those in -06, together with discussion of case-insensitive (and representation-independent) name mapping.
Internationalization
External Review Results (Slide Two of Two)

• Extensive review by J. Klensin
  • Read the document but not closely.
    • Many concerns raised were not relevant to this document.
  • Raised some genuine issues regarding non-opacity of character mapping for LOOKUP
    • Will need to address in -07.
  • Suggested dropping new material regarding case-insensitivity etc.
    • Leaves us with a decision to make. See Next Slide for Details.

• Official ARTART review by A. Gulbrandson
  • “Almost ready” 😊
  • Included a number of easily dealt with suggestions for clarification
Internationalization
Proposed Next Steps

• Submit -07 as soon as I can:
  • **Will** include A. Gulbrandson’s suggestions and addressing J. Klensin’s issue regarding LOOKUP.
  • **Might** include other J. Klensin suggestions, depending on the decision discussed in [Next Slide](#).
Internationalization
Decision to be Made

• Whether to take J. Klensin’s advice re new material.
• Pro:
  • Will simplify the document and possibly the approval process.
• Con:
  • Leaves treatment of case-insensitive fs’s in an unsatisfactory state.
    • Was a bad idea to include them but it is too late to remove them now.
    • Would need a follow-up document later.
• Need to discuss, most likely in an interim meeting.
  • Should schedule after next security draft is done.
Security
Document Overview

• Original Motivation laid out in Next Slide.

• Further motivations/work discovered later:
  • Description of ACLs leaves too much unspecified.
  • Misuse and confusing uses of SHOULD that amount to MAY.

• Document status:
  • Adoption process started but never finished.
  • Need to rectify
Security
Original Motivation

• Lack of threat analyses in all NFSv4 specifications.
• Existing treatment of AUTH_SYS ("OPTIONAL" means of “authentication”)
  • OPTIONAL suggests clients free to use without negative consequences
  • It does no authentication.
  • Does not discuss unfortunate security consequences.
• Need to include connection-oriented security features rather than relying only on encryption provided by auth flavors.
Security
Relevant Drafts

• Draft-dnoveck-nfsv4-security-06
  • Latest official draft (published 7/29/23)
  • Adoption call started soon thereafter but never completed
  • No longer relevant

• Draft-dnoveck-nfsv4-security-07
  • Expected in 1-2 weeks
  • Will request adoption
  • Re-organizes treatment of security-related attributes
  • Changes to attribute classification (See Next Slide for details)
Security
Attribute Classification Changes in -07

• Issue raised in discussion of \texttt{rfc5661bis}.
  • Mode, Owner, Group\_Owner need to be specified as “\texttt{REQUIRED}”, rather than “\texttt{RECOMMENDED}”, meaning \texttt{OPTIONAL}.
  • Will be addressed in next draft of \texttt{rfc5661bis}.
  • However, most of the work to address issue belongs in \texttt{security} and will be in -07
  • Designation of certain Attributes as “Experimental” since there is not sufficient information to create interoperable implementations:
    • Details to be discussed as Consensus Item #58 (see Appendix B)
Security
Next Steps

• Get -07 out.
• Restart adoption process based on 07.
• Begin process of discussion of issues as described in Next Slide.
Security

Issues to be discussed

• Issues are summarized in Appendix A.
  • Table points to where related text appears.
• We will need to focus discussion on specific sets of issues, as the work proceeds.
• Most discussion will be on the mailing list, but interims might be necessary.
• When consensus achieved, new drafts will reflect our decisions:
  • Vestigial text and author asides will be removed.
  • Replacement text will cease being conditional.
Rfc5662bis

Document Status

• Small set of changes.
  • Many suggested by errata for other documents.

• Document not yet submitted 😞
  • Will fix in the next few days
Rfc5662bis

Further Steps

• Once submitted, will discuss on mailing list.
• Expect adoption call fairly soon.