

# **Rfc5661bis Effort**

*Document Status and Next Steps*

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**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

| Document             | Summary  | Status                       | Next Steps                   |
|----------------------|--|------------------------------|------------------------------|
| Rfc5661bis           | Adopted but further discussion needed          | <a href="#">Slide 5</a>      | <a href="#">Slides 6-7</a>   |
| Internationalization | Adopted and now dealing with external reviews. | <a href="#">Slides 8-10</a>  | <a href="#">Slides 11-12</a> |
| Security             | Adoption Process Sidetracked. Need to rectify. | <a href="#">Slides 13-16</a> | <a href="#">Slide 17-18</a>  |
| rfc5662bis           | Small set of changes. Should submit soon.      | <a href="#">Slide 19</a>     | <a href="#">Slide 20</a>     |

# 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 *rfc5661bis*.
  - Mode, Owner, Group\_Owner need to be specified as “**REQUIRED**”, rather than “**RECOMMENDED**”, meaning **OPTIONAL**.
  - Will be addressed in next draft of *rfc5661bis*.
  - However, most of the work to address issue belongs in *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.