Documents that are Part of rfc5661bis Effort

Current Status and expected next steps

David Noveck
IETF116 (Yokohama)
March 30/31, 2023
Document Overview

Statues known and unknown

• **Internationalization** *(Slides 3 through 5)*
  • Has been a working group document
  • No objections/issues ☑; No discussion ☑

• **Rfc5661bis (Slides 6 through 10)*
  • Adoption completed and -00 posted 3/16.

• **Security (Slides 11 through 13)*
  • Needs to proceed with adoption process

• **Rfc5662bis (Slides 14 through 15)*
  • Needs to start adoption process
Internationalization

Motivation

• Need to fix Internationalization in RFCs 5661/8881
  • Was based on Internationalization in RFC3530
    • Never implemented
    • Basically unimplementable
  • Need to start with internationalization as described in RFC7530
• Since this is the same in all minor versions, best done in a single document.
• As pointed out by N. Williams,
  • No existing guidance for internationalized case-insensitive fs handling
Internationalization
Next steps

• Document needs further review
  • Since it probably isn’t perfect
  • Little working group interest in this area

• Troubling experience w review by internationalization team
  • Issues we asked for guidance about were not addressed
  • Review was mostly an unimplementable counter-proposal
  • Some issues with case-insensitive fs’s were raised

• Need to get a meaningful review (Next Slide)
Internationalization
Getting a Meaningful/Useful Review

• Worries:
  • Experience last time 
  • General focus of internationalization review group is in application area.
  • Nico W’s desire to turn internationalization into a working group
    • Fervent opposition to that approach

• Is there a way to do better this time?
  • There had better be; seems unavoidable
  • Not clear who is effectively in charge there; we need to know.
Rfc5661bis

Motivation

• Address errata reports
  • Including some REJECTED ones WG is agreed upon.

• Accommodate NFSv4-wide documents
  • RFC 8178
  • New Internationalization document
  • New security document

• Get rid of other documents which update RFCs 5661/8881
  • E.g. RFC 8434
Rfc5661bis
Changes in -00 (Relative to RFC8881)

• Changes to correct errata report issues
  • A few still left

• Changes to adapt to new document structure
  • Most are done but there are unresolved issues about pNFS security.

• New appendices describing progress of work and things to be discussed
Rfc5661bis
Changes in -00 (Relative to last -dnoveck draft)

• Corrections of typo’s
• Moved discussion of work’s progress to appendices
• Some replacement of “encryption” by “confidentiality”
  • Suggested by C. Lever by we still don’t fully agree.
Rfc5661bis
Possible Controversies to Resolve

• Where is security for pNFS data servers best addressed?
  • Current answer: in rfc5661bis, since NFS security in new document is RPC-based
  • Alternative is security document
  • In either case, data server security for many mapping types is very different from that for metadata server.

• Some remnants of “confidentiality”/”encryption” debate.
  • Combined with disagreement about proper role of RPC with TLS
Rfc5661bis
Further work that needs to be done

• Need to get working group consensus on changes made.
  • Summarized in appendices.

• Issues outlined in Appendix C
  • Proper use of RFC2119 terms
  • Handling of aborts including violations of existing spec
  • Updating discussion of directory delegation.
Security Document
Motivation

• Lack of Threat Analysis in any existing Security Considerations section.
• No attention to security problems in AUTH_SYS
• Approach to confidentiality as OPTIONAL extra
Security Document
Status

• Adoption call started in 10/2022
• Still hasn’t completed.
• Situation needs to be corrected soon
Security Document
Likely issues/controversies to resolve

• How to accommodate existing implementations
  • They cannot be made non-compliant
  • But their security characteristics have to be described accurately.

• How to address current handling of ACLs
  • Currently Leaves far too much to server choices
  • Ill-judged MAYs and hard-to-understand SHOULDs
  • Makes the writing of compliant clients essentially impossible.
Rfc5662bis

Motivation

• Tradition of matching version specs and XDR documents
  • Might not be enough but ...

• Also needs changes derived from errata reports
  • Reports were not explicitly about RFC5662 but were needed nevertheless
Rfc5662bis
Status

• Was supposed to go through adoption process
• But somehow got lost.
• Need to correct now.
### Document Summary

#### Table of Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Latest Title</th>
<th>Status</th>
<th>Work to do (whom)</th>
</tr>
</thead>
</table>
| Internationalization | Draft-ietf-nfsv4-internationalization-03 | Working group document that needs further review. | - Needs to be refreshed soon. (DN)  
- Need a plan for outside review (chairs, AD) |
| rfc5661bis | Draft-ietf-nfsv4-rfc5661bis-00 | Adopted document that needs further discussion. | - Needs a plan for further review (DN)  
- Needs follow in interim meetings (WG) |
| security | Draft-dnoveck-nfsv4-security-05 | Document which needs to be adopted (or not). | - Needs to complete adoption process by end of April (chairs) |
| rfc5662bis | Draft-dnoveck-nfsv4-rfc5662bis-00 | Document which needs to go through adoption process. | - Needs plan for adoption process (chairs) |