

45th IETF

NFSv4 WG

3:30 - 5:30 pm

NFSv4 WG Agenda

- **Welcome & Intro** *Callaghan* (5 min)
- **Overview of Updates to Spec** *Shepler* (10 min)
- **Implementing File Sharing/Locking** *Shepler* (10 min)
- **Stuff I'm Working on (ACL's etc)** *Noveck* (15 min)
- **Security** *Eisler* (5 min)
- **Open discussion** *Pawlowski* (70 min)
- **Wrapup** *Pawlowski* (5 min)

Suggested Topics

- Protocol extensibility/layering
- Scalability issues
- Reliability and failover
- File attribute handling
- Caching by clients and proxies
- File and record locking
- Access control lists
- Compound operations
- Security
- User identification
- Latency and bandwidth issues
- NFS over the Internet
- Internationalization
- Migrating users to v4

NFSv4 Working Group

- **Co-chairs**
 - **Brent Callaghan (Sun)**
 - **Brian Pawlowski (Network Appliance)**
- **Document Editor**
 - **Spencer Shepler (Sun)**
- **Mailing List & Archives**
 - **`nfsv4-wg-request@sunroof.eng.sun.com`**
 - **`http://playground.sun.com`
`/pub/nfsv4/nfsv4-wg-archive`**
- **Documents**
 - **Change Control Agreement: RFC 2339**
 - **Design Considerations Doc: RFC 2624**
 - **`draft-ietf-nfsv4-00.txt`**
 - **NFS & RPCSEC_GSS: RFC 2623**

NFSv4 Working Group Charter

The objective of this working group is to advance the state of NFS technology by producing a specification for NFS version 4 which will also be submitted as an Internet standard. NFS version 4 will emphasize the following core features:

- **Improved access and good performance on the Internet.**
 - The protocol will be designed to perform well where latency is high and bandwidth is low, to adapt to the presence of congestion, to scale to very large numbers of clients per server, and to transit firewalls easily.
- **Strong security with negotiation built into the protocol.**
 - The protocol may build on the work of the ONCRPC working group in supporting the RPCSEC_GSS protocol. The permission model needs to scale beyond the current flat integer UID space.
Additionally NFS version 4 will provide a mechanism to allow clients and servers to negotiate security and require clients and servers to support a minimal set of security schemes.

- **Better cross-platform interoperability.**
 - The protocol will feature a filesystem model that provides a useful, common set of features that does not unduly favor one filesystem or operating system over another.
- **Designed for protocol extensions.**
 - The protocol will be designed to accept standard extensions that do not compromise backward compatibility.

The NFS version 4 protocol will emphasize, but not be limited to these core features. Additional improvements will be considered if they are considered reasonable, useful, and do not conflict with the core features.

NFSv4 Milestones

(proposed)

- Sep 99 Begin Interoperability testing of prototype implementations
- Dec 00 Submit NFS version 4 to IESG for consideration as a Proposed Standard
- Jun 00 Conduct final Interoperability tests
- Aug 00 Submit NFS version 4 to IESG for consideration as a Draft Standard