

NFSv4 State Of The Union

IETF nfsv4 Working Group activity in 2016-2017

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Program Agenda

- 1 ➤ RFCs published
- 2 ➤ Working Group activity
- 3 ➤ Personal drafts
- 4 ➤ What's in store

nfsv4 Working Group Charter

NFS Version 4 is the IETF standard for file sharing

- Maintenance of RFCs
- RFC5664bis
- NFSv4.2
- NFSv4 Multi-Domain Access for FedFS

nfsv4 Working Group Personnel

NFS Version 4 is the IETF standard for file sharing

- Transport Area Director
 - Spencer Dawkins
- Working Group Chairs
 - Spencer Shepler
 - Brian Pawlowski
- Working Group Secretary
 - Tom Haynes



NFS RFCs Published In 2016

NFSv4.2, RPCSEC GSSv3

RFCs 7861 (November 2016)

RPCSEC GSS v3

- Proposed Standard RFC
- Updates RFC 5403 to add new features
 - Multi-principal authentication
 - Security label assertions
 - Structured privilege assertions
 - Channel binding

RFCs 7862 and 7863 (November 2016)

NFS version 4 minor version 2

- Proposed Standard RFC
- Introduces only optional features
 - Offloaded clone, copy, and file initialization
 - Sparse files: hole seeking and punching, sparse read
 - Security labels

RFC 7931 (July 2016)

NFSv4.0 migration fixes

- Proposed Standard RFC
- Updates RFC 7530
- Support for Transparent State Migration in NFSv4.0
 - Uniform client ID strings
 - Callback update without purging a lease
 - Merging migrated state into an existing lease

RFC 8000 (July 2016)

Multi-domain Namespace Deployment

- Proposed Standard RFC
- Server deployment guidance
 - Manage authentication in multiple realms
 - ID mapping
 - FedFS

A woman with long brown hair and glasses is sitting at a wooden table in a cafe. She is wearing a brown leather jacket over a blue patterned scarf and a grey sweater. She is holding a black smartphone to her ear with her right hand and looking down at a newspaper or magazine on the table with her left hand. The background is a bright, modern cafe with large windows and other people sitting at tables.

nfsv4 Working Group Activity

NFS Versioning, NFS/RDMA

Working Group Documents

Awaiting publication

- RFC-Editor's queue
 - draft-ietf-nfsv4-scsi-layout
- IESG Processing
 - draft-ietf-nfsv4-rfc5666bis
 - draft-ietf-nfsv4-rpcrdma-bidirection

Working Group Documents

Active documents

- Active
 - draft-ietf-nfsv4-migration-issues
 - draft-ietf-nfsv4-versioning
 - draft-ietf-nfsv4-rfc5667bis
 - draft-ietf-nfsv4-umask
 - draft-ietf-nfsv4-xattrs

Working Group Documents

Active documents

- Expired
 - draft-ietf-nfsv4-rfc5666-implementation-experience
 - draft-ietf-nfsv4-flex-files

A woman with long brown hair, wearing glasses and a brown leather jacket over a blue patterned scarf, is sitting at a wooden table in a cafe. She is holding a black smartphone to her ear with her left hand and looking down at a newspaper or magazine on the table with her right hand. The background is a bright, slightly blurred cafe interior with other tables and chairs. The text "Personal Internet-Drafts" is overlaid in white on the left side of the image.

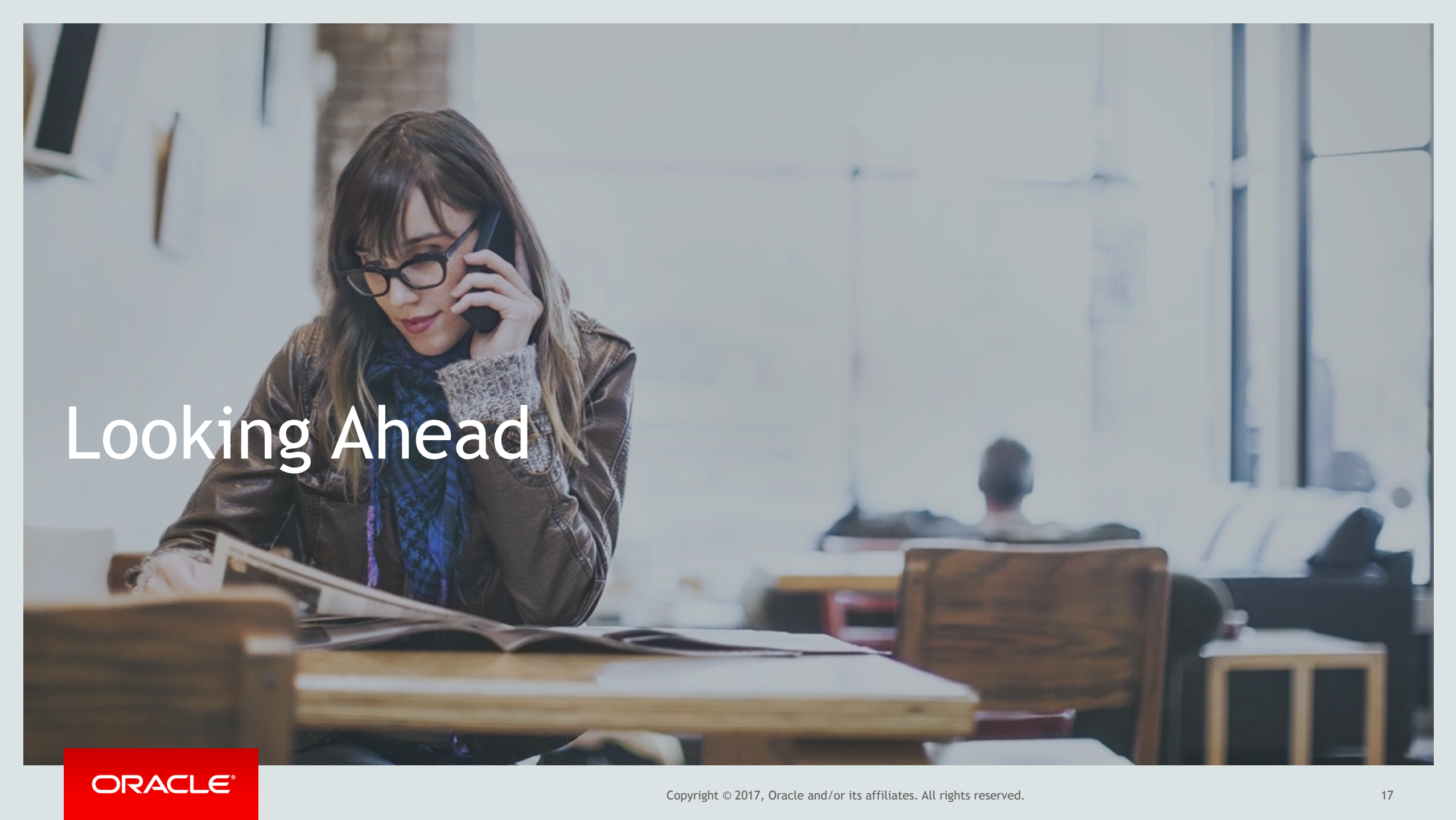
Personal Internet-Drafts

Personal Internet-Drafts

- Recently submitted
 - draft-andros-nfsv4-client-multipath-discovery
- Refresh-only
 - draft-cel-nfsv4-federated-fs-nce
 - draft-cel-nfsv4-federated-fs-security-addendum

Personal Internet-Drafts

- NFS/RDMA related
 - draft-cel-nfsv4-reminv-design
 - draft-cel-nfsv4-rpcrdma-cm-pvt-msg
 - draft-cel-nfsv4-rpcrdma-version-two
 - draft-dnoveck-nfsv4-nfsulb
 - draft-dnoveck-nfsv4-rpcrdma-rtissues
 - draft-dnoveck-nfsv4-rtrext
 - draft-dnoveck-nfsv4-rpcrdma-xcharext

A woman with long brown hair and glasses is sitting at a wooden table in a cafe. She is wearing a brown leather jacket over a blue patterned scarf. She is holding a black smartphone to her ear with her left hand and looking down at an open newspaper on the table with her right hand. The background is a bright, slightly blurred cafe interior with other tables and chairs. The text "Looking Ahead" is overlaid in white on the left side of the image.

Looking Ahead

IETF Working Group Meetings

Recent and upcoming

- Meetings in 2016
 - IETF 95, Buenos Aires, April 3-8
 - IETF 96, Berlin, July 17-22
 - IETF 97, Seoul, November 13-18
- Meetings in 2017
 - IETF 98, Chicago, March 26-31
 - IETF 99, Prague, July 16-21
 - IETF 100, Singapore, November 12-17

Expected 2017 Activity

- Publication of new RFCs
 - RFC 5666bis (RPC-over-RDMA Version One)
 - rpcrdma-bidirection
 - RFC 5667bis (NFS binding to RPC-over-RDMA V1)
 - pNFS SCSI Layout

Expected 2017 Activity

- Progress on
 - NFSv4 versioning, xattr, umask
 - RPC-over-RDMA Version Two and extensions
 - NFSv4.1 multipath

Q & A

Safe Harbor Statement

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