

Federated Filesystems (FedFS) Update/Status

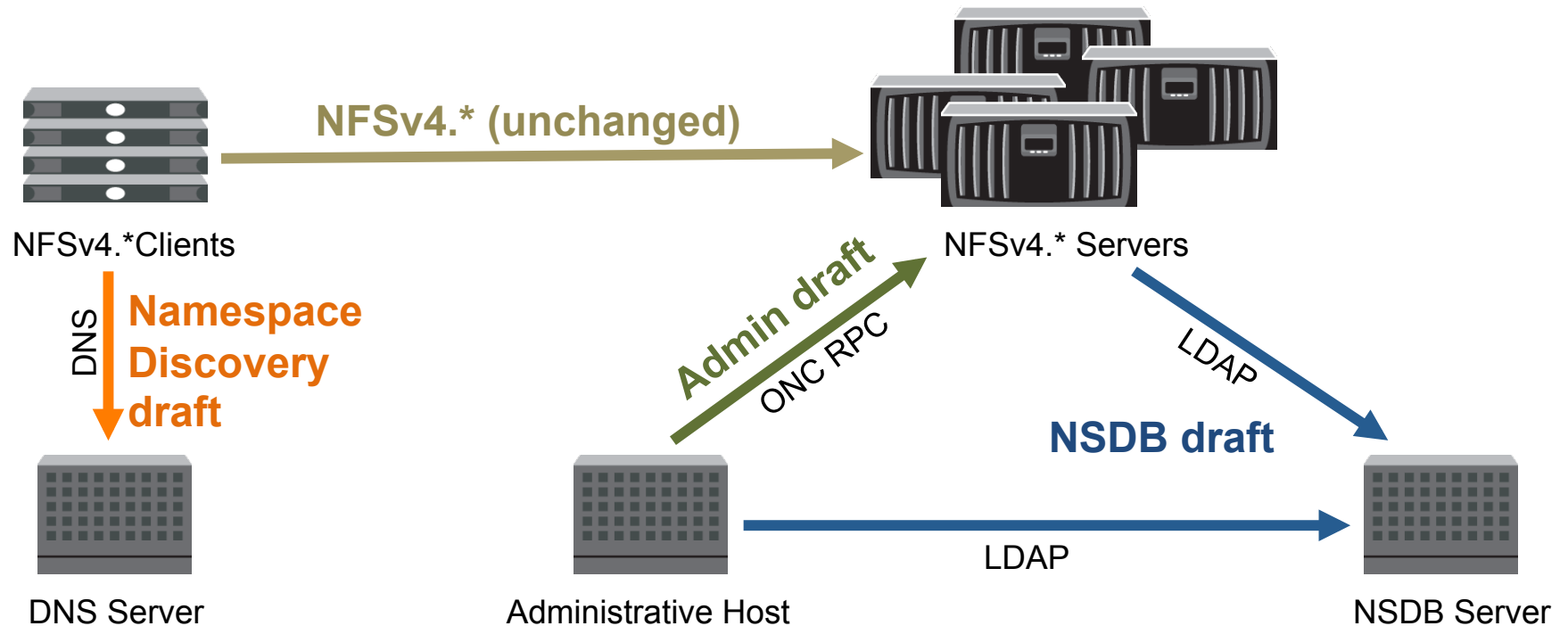
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IETF 78 NFSv4 WG Meeting
28 July 2010

Summary: Four documents

- Requirements for Federated File Systems, RFC 5716
- Top-level Name Space Discovery, **through Last Call**
draft-ietf-nfsv4-federated-fs-dns-srv-namespace (-04)
- NSDB Protocol
draft-ietf-nfsv4-federated-fs-protocol (-06), **new draft**
- Admin Protocol
draft-ietf-nfsv4-federated-fs-admin (-05), **new draft**

Protocols



Namespace Discovery: how a client locates a namespace's root.

NSDB: (a) database management and (b) junction resolution.

Admin: junction management (create/delete/query).

Highlights since IETF 77

- Namespace discovery through Last Call in May
- NSDB and Admin drafts updated in July
 - Discussions continue
- Referrals between Linux and Solaris were successfully tested at Bakeathon in July

Namespace Discovery

draft-ietf-nfsv4-federated-fs-dns-srv-namespace

Summary: A DNS record format for publishing the location of the root of a namespace for an organization

Proposed

Category: Standards Track

Status: Draft from May 2010 (-04), after Last Call
Only cosmetic changes since IETF 77

Next Steps: • Final DNS Directorate Review

Internationalization

- Both NSDB and Admin protocols were modified to be ‘i18n-ready’
 - Removing “:<port>” semantics from strings
- FedFS has no desire for a separate i18n path
- Expect to follow NFSv4.1 (& nfs4bis) lead

NSDB Protocol

draft-ietf-nfsv4-federated-fs-protocol

Summary: Defines the LDAP schema and operations for a Namespace Database (NSDB).

Proposed

Category: Standards Track

Status: July (-06) version includes

- I18n 'readiness'
- Moves NSDB Connection Entry (security param) out of each FSN (i.e., the content of each junction)
- Error conditions, codes, etc.

Next Steps:

- Resolve questions about i18n
- WG Last Call (October?)

Admin Protocol

draft-ietf-nfsv4-federated-fs-admin

Summary: Describes an ONC RPC protocol to create/delete/query a junction on a fileserver.

Proposed

Category: Standards Track

Status: July -05 version includes

- NCE coalescing (FSN (== junction) size)
- Co-existence with other fed namespace schemes
- I18n 'readiness'
- Error conditions, codes, etc.
- Use NSDB for in-cluster mgmt, e.g., *CREATE_REPLICATION* like *CREATE_FSN*

Next Steps:

- Resolve questions about i18n strings (DNS names, paths, etc).
- WG last call (October?).

[Outside Charter]

- Questions on Admin protocol: how could Admin specify a location in NFSv4 projected client-side namespace?
 - e.g., “create junction at <pathname>”
 - Current Admin draft as general as possible: either pseudo-FS, or something else
 - Perhaps useful to be able for an NFS client to say “create junction at <filehandle>”
 - FedFS end of charter does not contemplate modifying NFS client-server protocols
 - Useful to consider an independent NFSv4.2 extension?

Meetings

Open meetings are held each week to resolve issues and review proposals.

- Thursdays, 1:30 – 2:30 PM Eastern
(10:30 - 11:30 AM Pacific)
- Conference Number: +1-888-765-3653
- Conference ID: 2354843