NFSv4.1 Trunked Hosts Discovery

IETF80, Prague
Pranoop Erasani
pranoop@netapp.com
Problem

- pNFS provisions for multipathing
  - GETDEVICEINFO provides for list of servers on the same
- However, Vanilla NFSv4.1 does not
- Trunking is the second best feature of NFSv4.1
- Could provide huge performance benefit for servers with multi-homed configuration
- Today, explicit configuration is needed
Problem (Cont’d)

- Today, explicit configuration is needed
- Servers know what IP’s can be trunked
  - Policies
  - Etc.,
- Servers know how they could be trunked
  - ClientId Trunking
  - Session Trunking
  - Connection Trunking
- However, user has to explicitly provision clients to mount those IP’s
  - As cluster grows bigger, becomes a complex manageability problem
Proposal

- Obviously, a new FS attribute for hinting alternate trunked hosts for each filesystem
- But, fs_locations_info4 has a similar purpose
  - Points to alternate locations
- fs_locations_info4 needs to be extended to hint trunking relationships
  - An explicit tag of TRUNKED would tell clients to start using the addresses immediately
- Have a general idea of changes
- If there is enough interest, personal draft will be provided