



STORAGE DEVELOPER CONFERENCE

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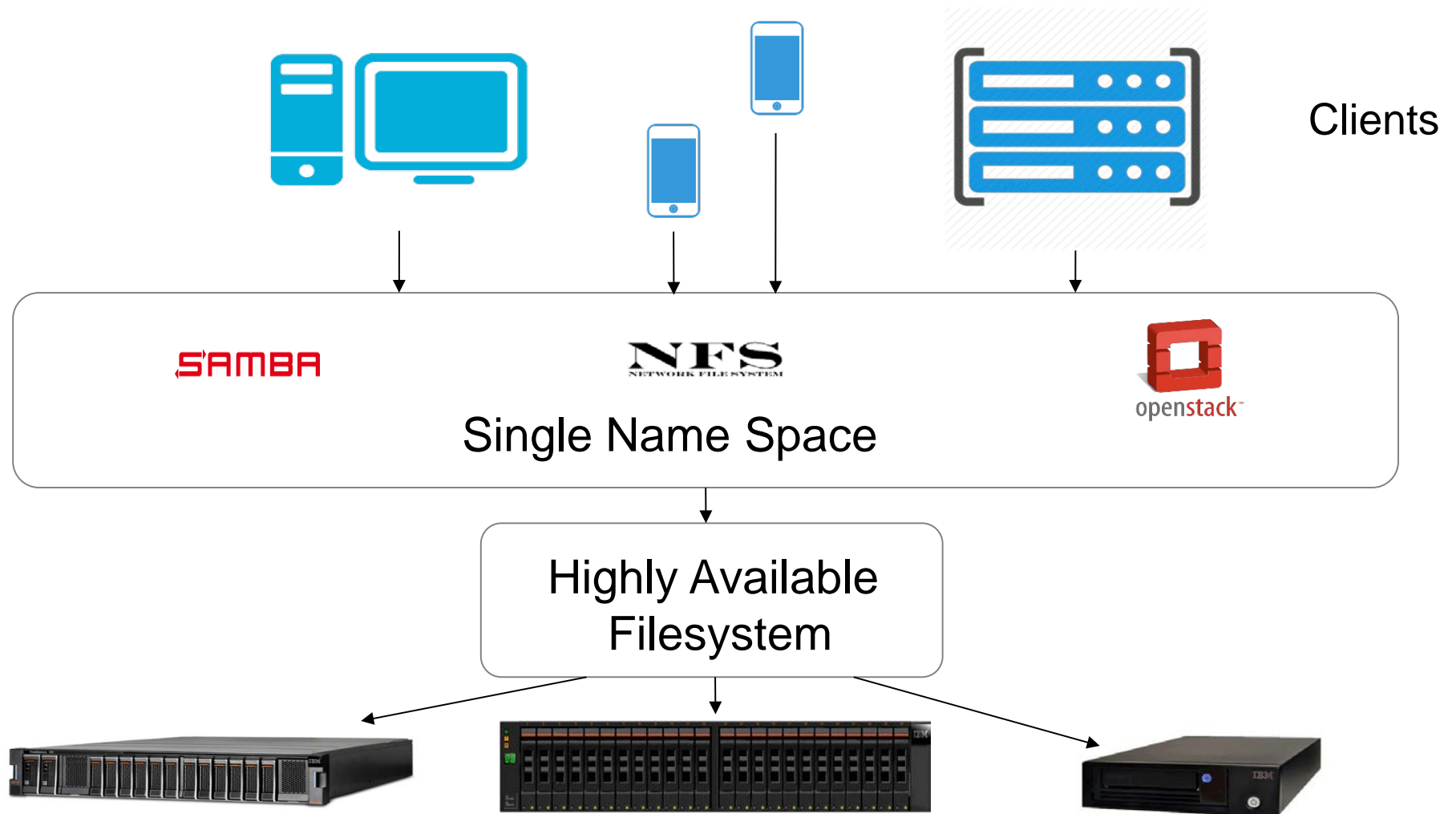
# Assuring Quality when Objects and Files Converge

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# Agenda

- ❑ Scenario Overview
- ❑ Swift on File
- ❑ Use Cases
- ❑ Where to Store
- ❑ How to Store
- ❑ Benefits of Scale Out
- ❑ Limitations
- ❑ Test Considerations

# Scenario Overview



# Swift on File

- ❑ Access same data, both as object and as file.
  - ❑ Swift REST interface.
  - ❑ File (NAS).
- ❑ Access on Scale Out Filesystems:
  - ❑ GlusterFS.
  - ❑ GPFS.
    - ❑ NFS.
    - ❑ SMB.

# Use Cases

- ❑ Analytics.
- ❑ Access through multiple protocols.
- ❑ Data migration NAS to Cloud.
- ❑ Scientific collaboration

# Swift on File, Where to Store

- Policy driven.
  - ┆ Base Swift Policies.
  - ┆ Advanced Filesystem Policies.
    - ┆ Extend filesystem.
    - ┆ Add storage.
    - ┆ Tiering between storage clusters.
    - ┆ Migrating data (on-premise / off-premise).

# Swift on File, How to Store

- ❑ “Objectizer” method.
  - ❑ Manual.
  - ❑ Automated.
- ❑ Path Generation.
- ❑ Same authentication method (File / Object).
- ❑ Access using same users through different access methods.

# Benefits of using scale out filesystems

- ❑ Snapshots.
- ❑ Consolidated Encryption.
- ❑ Consolidated Compression.
- ❑ Tiering (Integrated Lifecycle Management)



# Limitations

- ❑ Only filesystems with extended attributes.
- ❑ Not recommended with native object replication mechanism.
- ❑ Limited authentication mechanisms supported.
- ❑ Last write wins behavior differences.
- ❑ Native geo replication not available.

# Test Considerations

- | Monitor special functionality nodes:

  - | Performance

  - | Resource utilization

- | Assuring correct IP balancing:

  - | Attempt different IP balance methods.

  - | Verify automatic re balancing scaling out.

  - | Multiple subnetworks and VLANs.

  - | Dedicated node groups.

# Test Considerations

- | Swift vs Swift3 API
- | Scale testing tools (ie LDX).
- | High Availability of special functionality
- | Access Control List Management
- | Eventual Consistency
- | Data Integrity

# Questions?

