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# DMFUG 2019

DMF7 for GPFS

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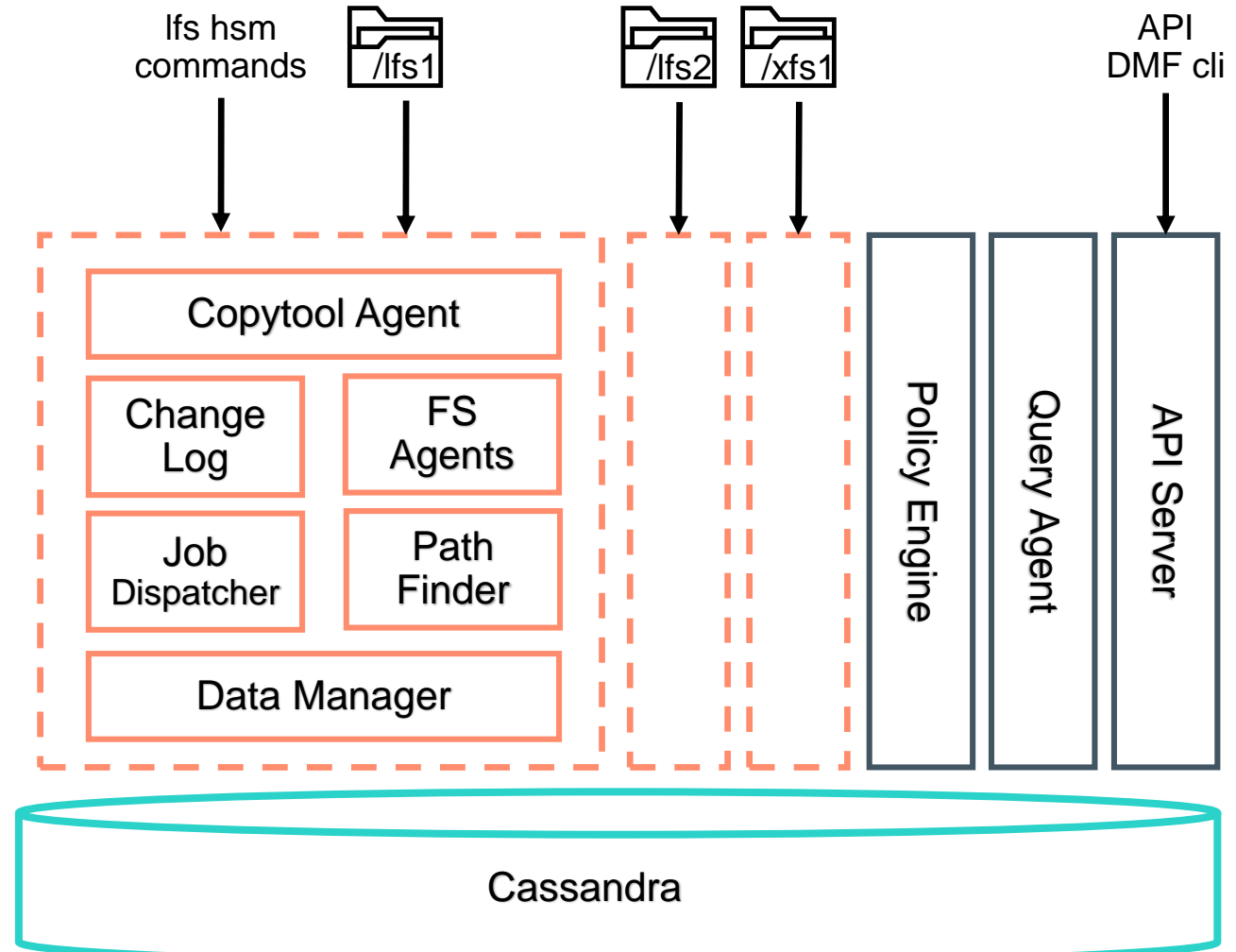
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# Solution Scaling & Extensibility

## Unified Scalable Front-End

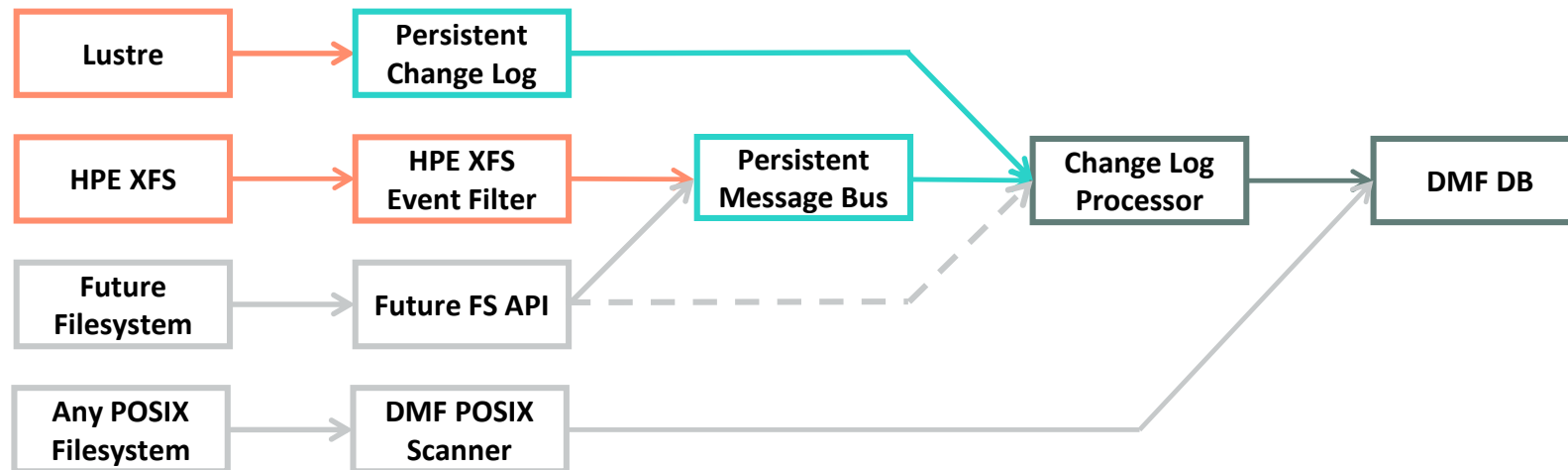
- DMF 7 has a unified scalable front end for filesystem interaction
- Same Query and Policy engine for the all filesystem types
- Same DMF CLI for all filesystem types
- Any filesystem with some kind of changelog or event stream and an HSM API can be supported
- Can support non-HSM filesystems with enhanced "dmarchive" capability



# DMF 7 ChangeLog

- For HPE XFS:
  - Use DMAPI events to drive filesystem change log and filesystem reflection
  - Removes the need to scan the filesystem to drive the policy engine
  - Removes the need to backup (e.g. xfsdump) the filesystem to preserve the namespace

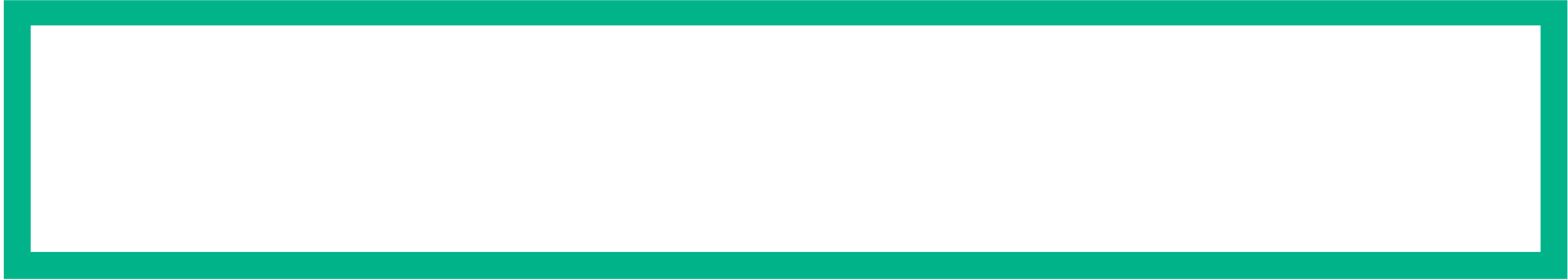
- For Lustre:
  - Natively process Lustre persistent change log via API
  - Policy engine and filesystem reflection directly out of DMF7 scale out database without needing RobinHood
- Others filesystems support:
  - Makes the DMF front-end filesystem independent
  - Persistent message bus use depends on filesystem API
  - Any POSIX filesystem can be simply re-scanned at any time
  - Unified DMF policy engine for all filesystem types



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# Data Management | **Spectrum Scale Integration** GPFS

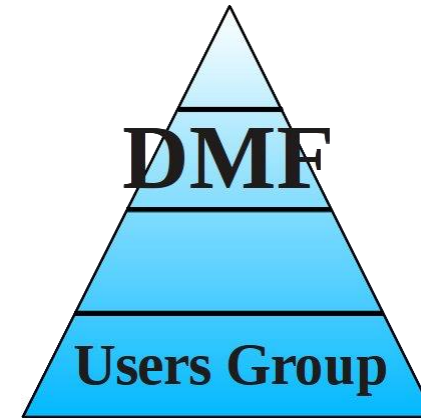
- Pluggable front-end in DMF 7 enables new filesystem integration
- GPFS has both DMAPI and Lightweight Events (LWE) support for HSM
- DMF 7 will initially use DMAPI
  - Allows for code re-use between XFS and GPFS
- Initial release with DMF 7.2
- Requires:
  - GPFS 4.2.X and newer
    - All current engineering work on GPFS 5
  - Filesystem mounted with DMAPI enabled
  - DMF7 cluster mounts GPFS via native client
  - No other HSM or DMAPI consumer
  - Initially supporting only simple GPFS filesystem without add-ons



# DEMO



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**Thank You**