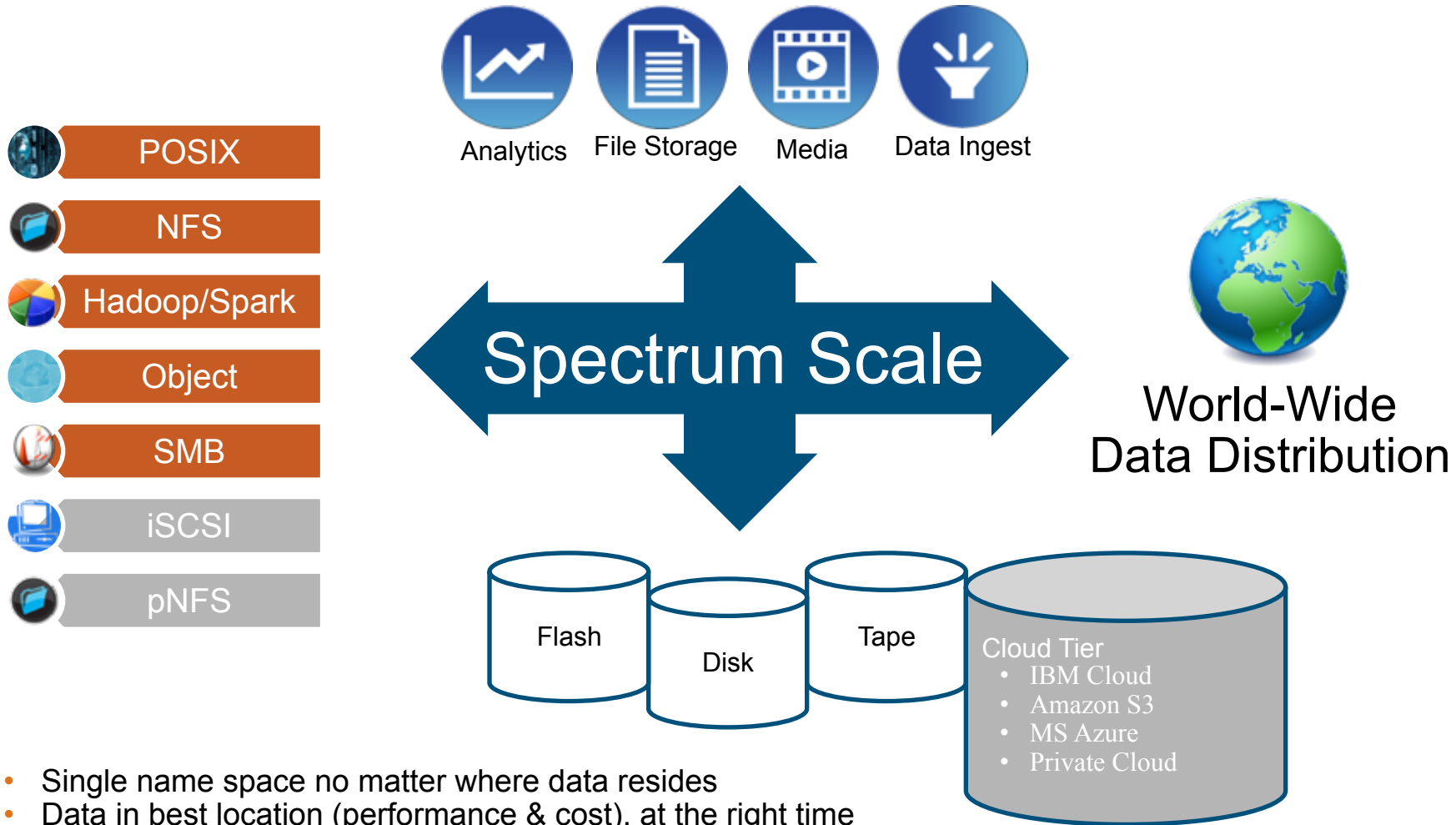


IBM Spectrum Scale and OpenStack

Spectrum Scale

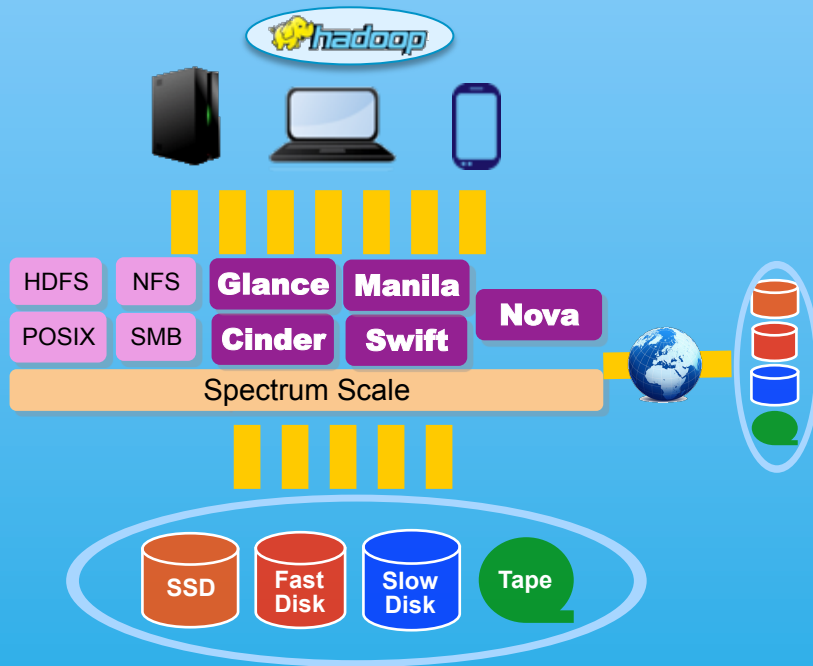
One solution for all of your data needs



- Single name space no matter where data resides
- Data in best location (performance & cost), at the right time
- Multi-tenancy
- All in software

*Future Capability

IBM Spectrum Scale and OpenStack



- Avoid vendor lock-in with true Software Defined Storage and Open Standards
- Seamless performance & capacity scaling
- Automate data management at scale
- Extreme scale and performance
- Enable global collaboration

Help clients perform data management at scale



Business: I need virtually unlimited storage



An open & scalable cloud platform



Operations: I need a flexible infrastructure that supports both object and file based storage



A single data plane that supports Novak Cinder, Glance, Swift, Manila as well as NFS, et al.



Operations: I need to minimize the time it takes to perform common storage management tasks



A fully automated policy based data placement and migration tool



Collaboration: I need to share data between people, departments and sites with low latency.



Sharing with a variety of WAN caching modes

Results

- Converge File and Object based storage under one roof
- Employ enterprise features to protect data, e.g. Snapshots, Backup, and Disaster Recovery
- Support native file, block and object sharing to data

Spectrum Scale with OpenStack Features

- Images can be shared across OpenStack projects with zero data movement
 - E.g., Quickly provision Glance images via Cinder
- Manila supports NFS today, with POSIX support on the roadmap
- Cinder support natively uses thin clones with copy-on-write
- Swift support replaces 3-way replication with Spectrum Scale Native RAID data protection (erasure coding)
- All projects benefit from and enterprise features such as efficient snapshots, automatic policy-based tiering between different classes of storage, backup, disaster recovery, encryption, etc.

Spectrum Scale 4.1.1 OpenStack Support Matrix

Project	OpenStack Version in which Feature was Introduced
Nova/Glance	Havana
Cinder	Havana
Manila	Kilo
Swift	Icehouse (see Marketplace link below)

OpenStack Marketplace

- <https://www.openstack.org/marketplace/distros/distribution/ibm/ibm-spectrum-scale-for-object-storage>

Cinder Support

- <https://wiki.openstack.org/wiki/CinderSupportMatrix>
- Spectrum Scale drivers listed as IBM GPFS and IBMNAS (for NAS connectivity)