



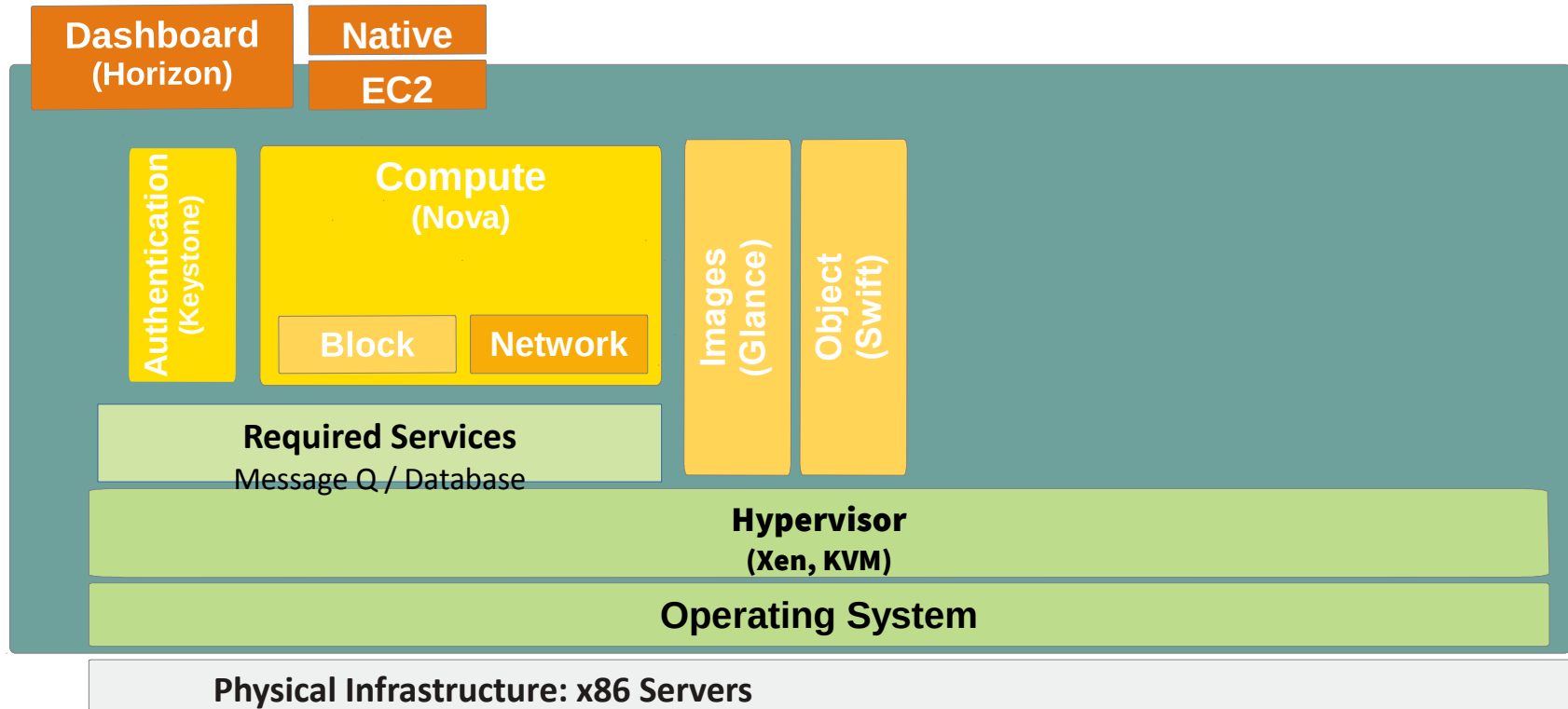
# SUSE OpenStack Cloud 7 and Beyond

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# OpenStack Then ... 2012



OpenStack components

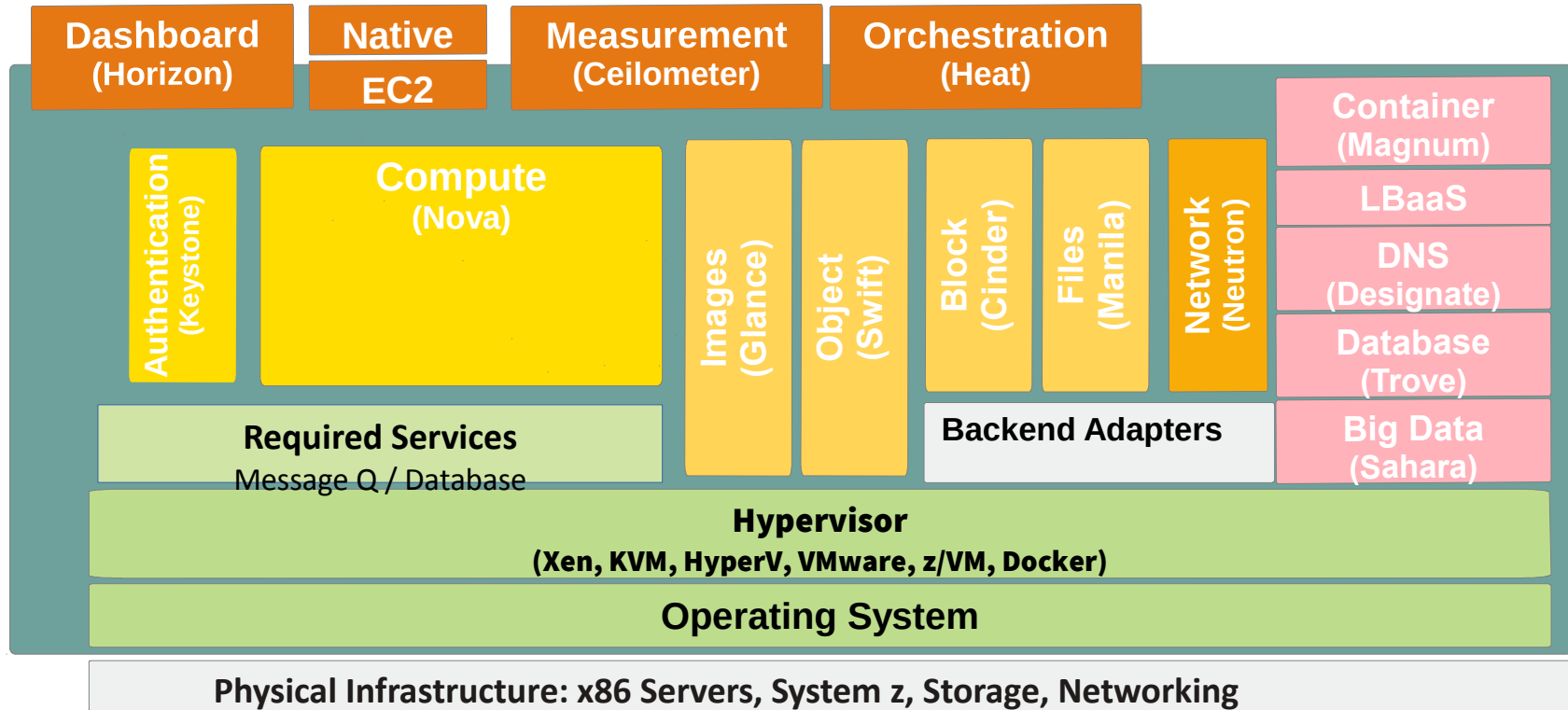
Required Components

Storage

Network

APIs

# OpenStack Now



OpenStack components

Required Components

Storage

Network

APIs

Services

# SUSE OpenStack Cloud 2016 Themes

- Base Evolution and Enhancements
- New or Expanded Services
- Operational Enhancements

# Base Evolution and Enhancements

- OpenStack Newton
- SLES 12 SP2
- Continued UX enhancements

# OpenStack Newton Highlights - Keystone

- LDAP back end performance enhancements thru mapping
- First time Token validation caching to increase initial access
- Support for encrypted credentials at rest increasing system security.

# OpenStack Newton Highlights - Horizon

- Horizon and Horizon Plugins access Keystone Token from JavaScript
- More responsive UI through direct CORS calls to other OpenStack Services.
- Support for custom configs
- Support for managing neutron L3 agent hosts from admin dashboard.
- Admin dashboard Floating IPs panel has been added to Horizon.

# OpenStack Newton Highlights - Heat

- Convergence mode as default engine
- Addition of Conditional statements
- Inclusion of external resources
- Implemented Yaql



# OpenStack Newton Highlights - Nova

- API Policy default values in code
- Live migration enhancements
  - Performance improvement through CPU throttling and use of post-copy
  - API for list/show of live migrations
  - Evacuate and live-migrate test destination hosts against original filter requests
- Scheduler enhancements:
  - Support for CPU thread policies to control guest placement
  - Disk space filtering to prefer hosts with most available disk space
- Get Me a Network

# OpenStack Newton Highlights - Networking

- Support for QoS features for ports and networks
- vlan-aware-VMs feature to launch VMs on a single port
- Performance improvement when using Openvswitch
- Improved performance for High Availability requests

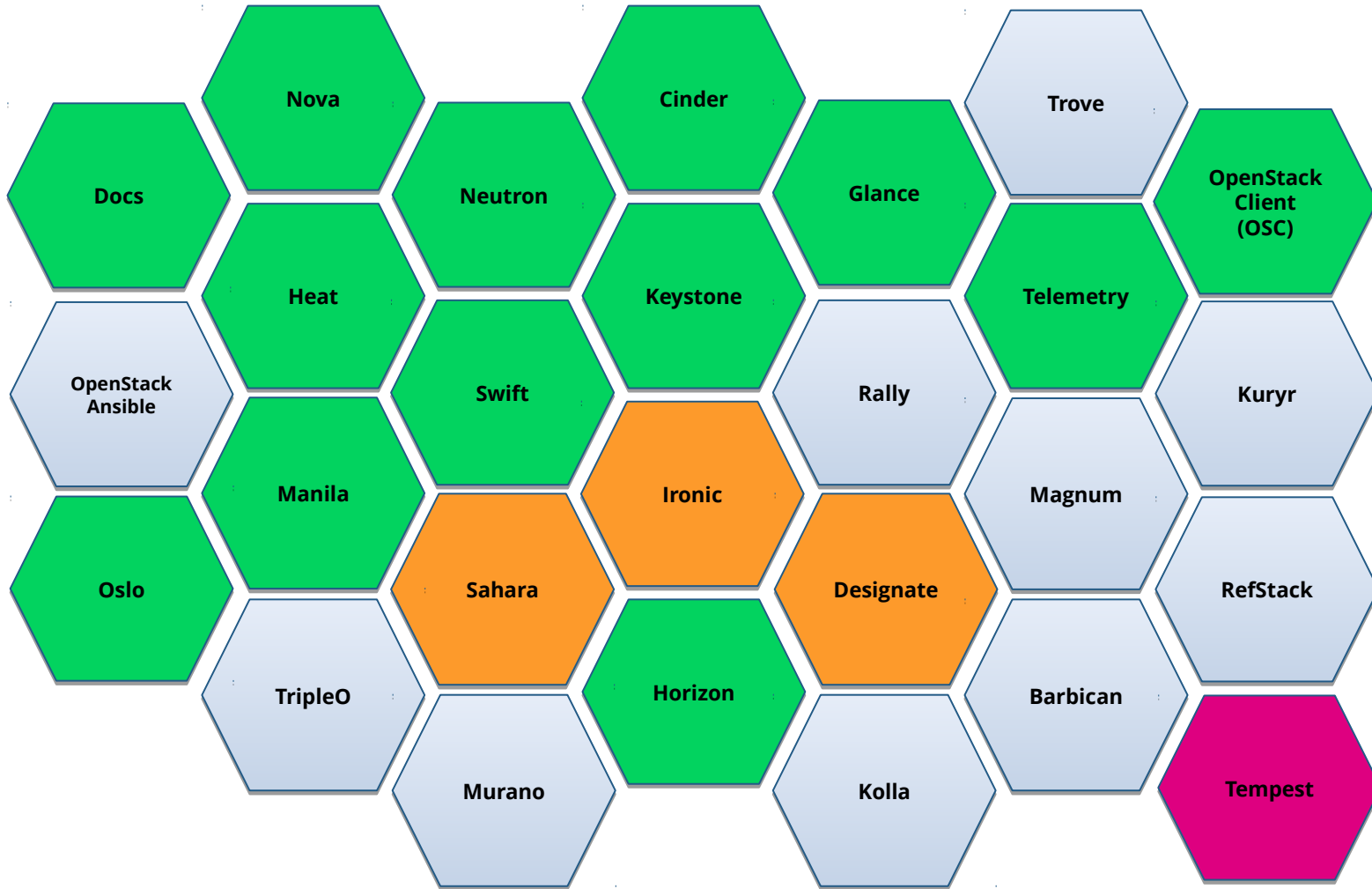
# OpenStack Newton Highlights - Cinder

- Pool weighting to balance/optimize data placement
- Delete volumes and snapshots with single command
- Wider range of supported drivers and services

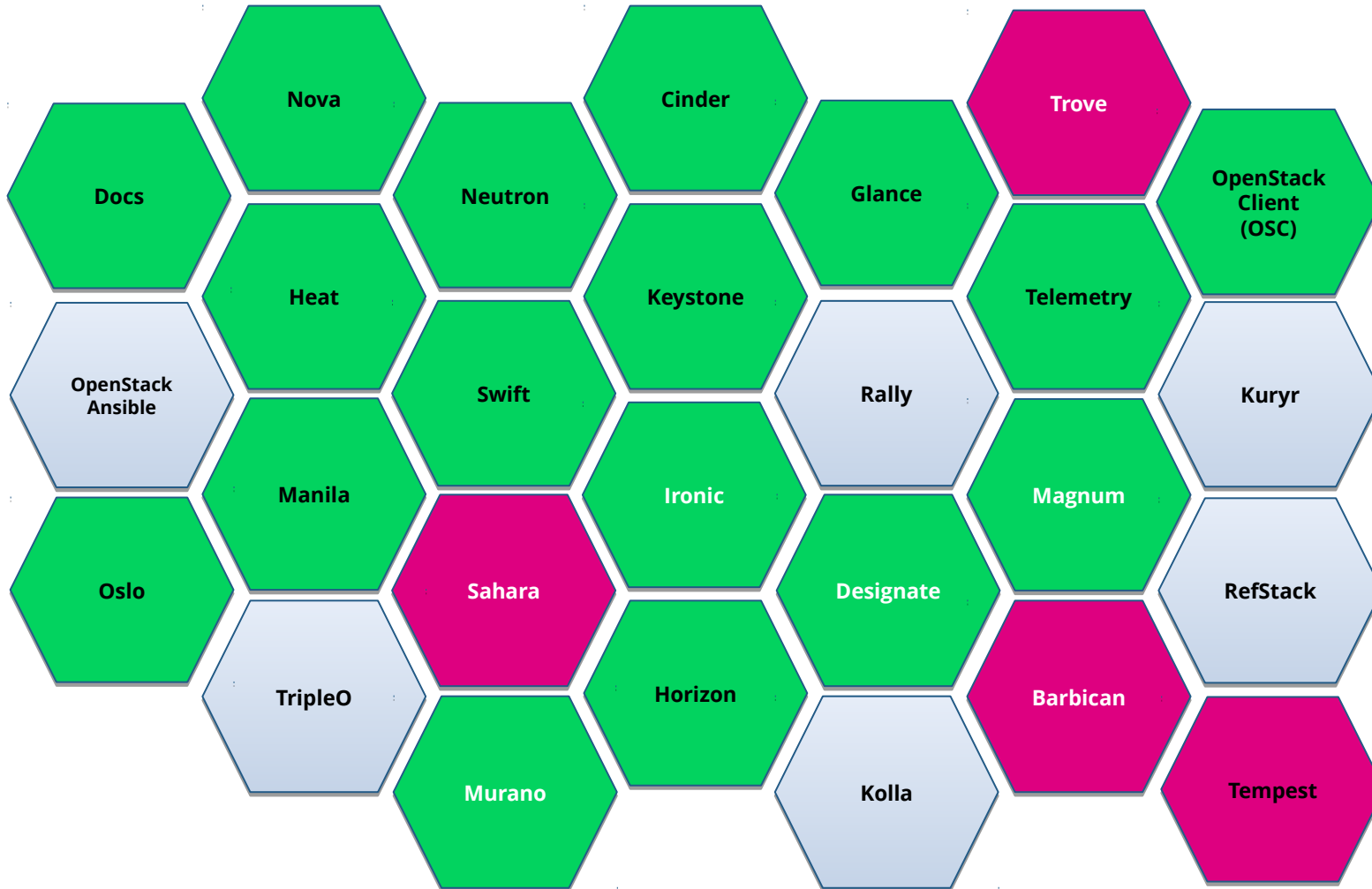
# OpenStack Newton Highlights - Telemetry

- Support for Magnum to capture bay statistics
- New meters to enable cache management:
  - Memory bandwidth statistics based on Intel CMT
  - Meters monitoring cache misses
- Message batch processing
- Composite rules using and/or constructs

# Project coverage: SUSE OpenStack Cloud 6



# Project coverage: SUSE OpenStack Cloud 7



# SUSE OpenStack Cloud 7 - New or Expanded Services

- Magnum support for Docker orchestration
- Manila Integration with CephFS
- z/VM Control Plane
- Self-service physical server deployment
- Cloud Foundry Integration
- Service catalog
- Partner support
  - Plugin integration
  - Deployment integration

# SUSE OpenStack Cloud 7 - Operational Enhancements

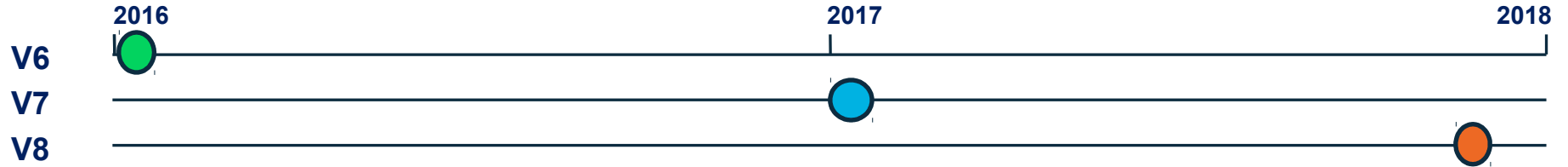
- Live (non-disruptive) Upgrade
- Post-GA (subject to change)
  - Multi-data center deployment
  - Virtual Machine HA
  - Day 2 management
    - Network reconfig
    - Central Logging and log visualization



# Install Framework Upgrades

- Increased scalability
- Configuration support:
  - Magnum and Kubernetes
  - Ironic
  - Sahara
  - Murano

# SUSE OpenStack Cloud



## SUSE OpenStack Cloud 6

### Base Evolution and Enhancement

- OpenStack Liberty release
- SLES 12 SP1 all nodes

### New or Expanded Services

- IBM z/VM support
- Docker tech preview
- Shared file system support
- Distributed Virtual Routing
- Database as a Service tech preview

### Operational Enhancements

- Domains
- Backup and restore of cloud config
- Improved installation wizard
- High availability for compute nodes

## SUSE OpenStack Cloud 7

### Base Evolution and Enhancement

- OpenStack Newton release
- SLES 12 SP2 support
- Continued UX enhancements

### New or Expanded Services

- Magnum & Kubernetes support for Docker container orchestration
- Manila integration with CephFS
- Cloud Foundry integration
- Physical server as a Service
- Service Catalog
- Manage from IBM z/VM (post-GA)

### Operational Enhancements

- Non-disruptive upgrade
- Post-GA
  - Cloud Monitoring
  - Multi-data center deployment
  - Virtual Machine HA
  - Network reconfiguration

## SUSE OpenStack Cloud 8

### Base Evolution and Enhancement

- OpenStack Pike release
- SLES 12 SP3

### New or Expanded Services

- Aarch64 compute nodes

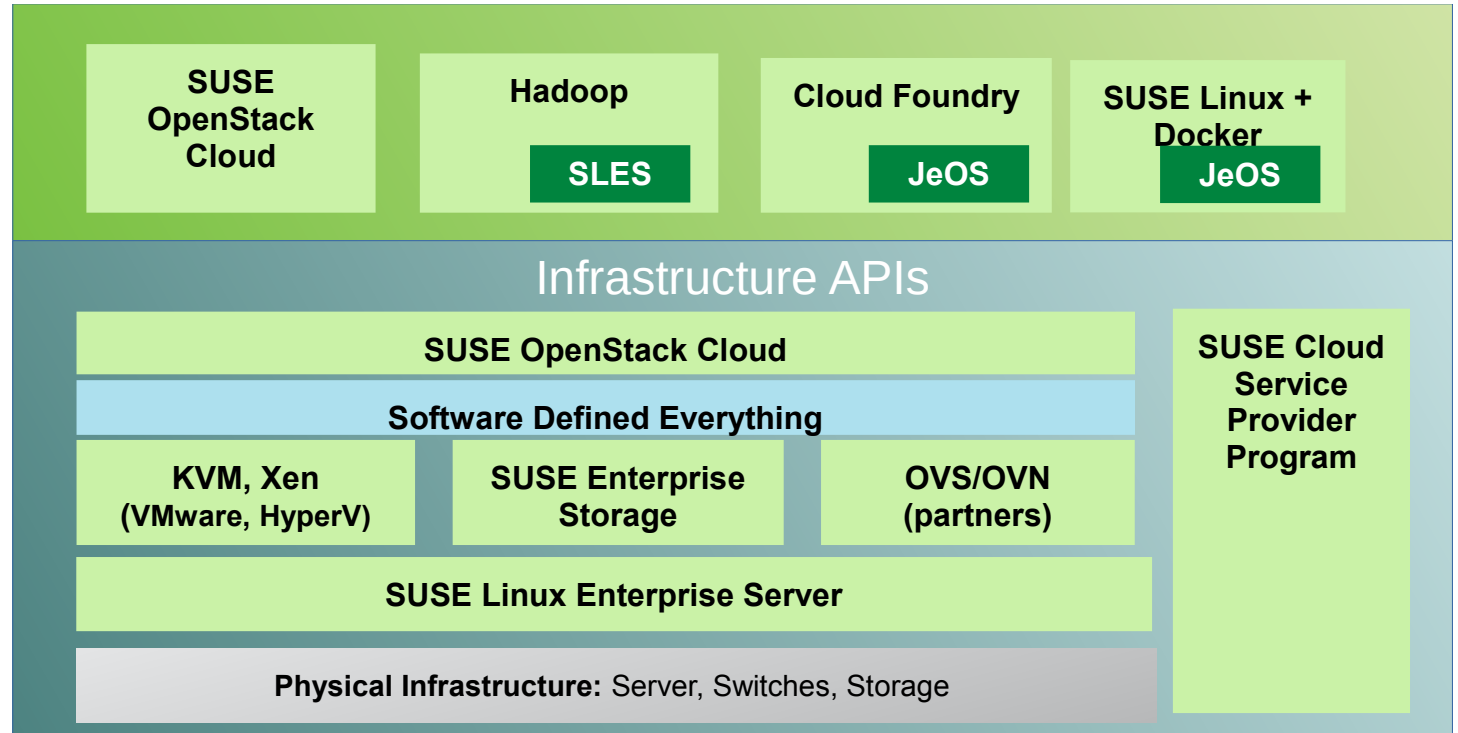
### Operational Enhancements

- Centralized log handling and analysis
- Improved service orchestration
- Containerized OpenStack services

# SUSE Portfolio for the Future

## Management

- SUSE Manager
- SUSE Studio
- Kiwi
- Machinery
- SaltStack
- SUSE OpenStack Cloud





We adapt. You succeed.