

# StarlingX

Open Edge Infrastructure

Intel 开源技术中心 金运通





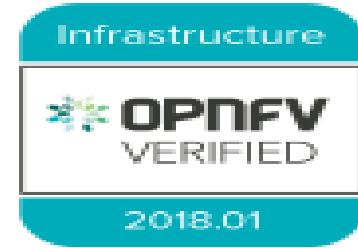
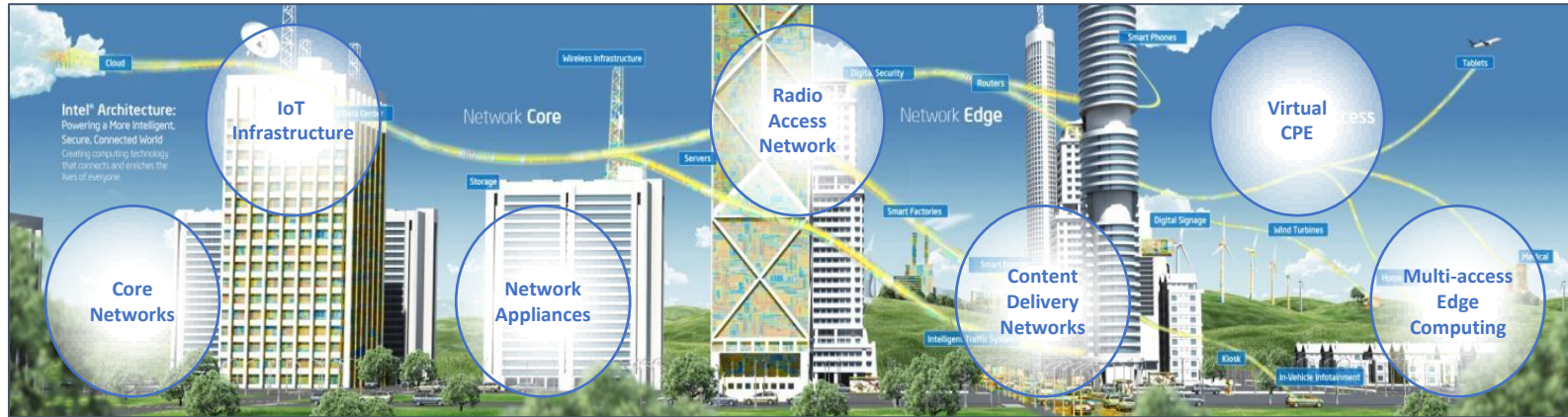
A large flock of birds, likely starlings, is captured in mid-flight against a clear blue sky. The birds are arranged in a dense, circular formation, creating a large-scale pattern. Below the birds, a coastal landscape is visible, featuring a green hillside in the foreground, a sandy beach, and the ocean extending to the horizon. The overall scene is serene and visually striking.

**Intel and Wind River are releasing the source code for Titanium Cloud Release 5 as the initial “seed” code for StarlingX as a new project in the Open Stack Foundation Edge Interest Group**



# Wind River® Titanium Cloud Addresses Key Challenges

## Telco Infrastructure



- Proven, Integrated virtualization platform saves Time-To-Market
- Delivered latency, resiliency and performance for Edge use cases
- Streamlined installation, commissioning and maintenance
- End-to-End security and Ultra-low latency for Edge applications
- 100% compatible with open industry and de facto standards
- Full support for multi-layer HW and SW decoupling

## Energy



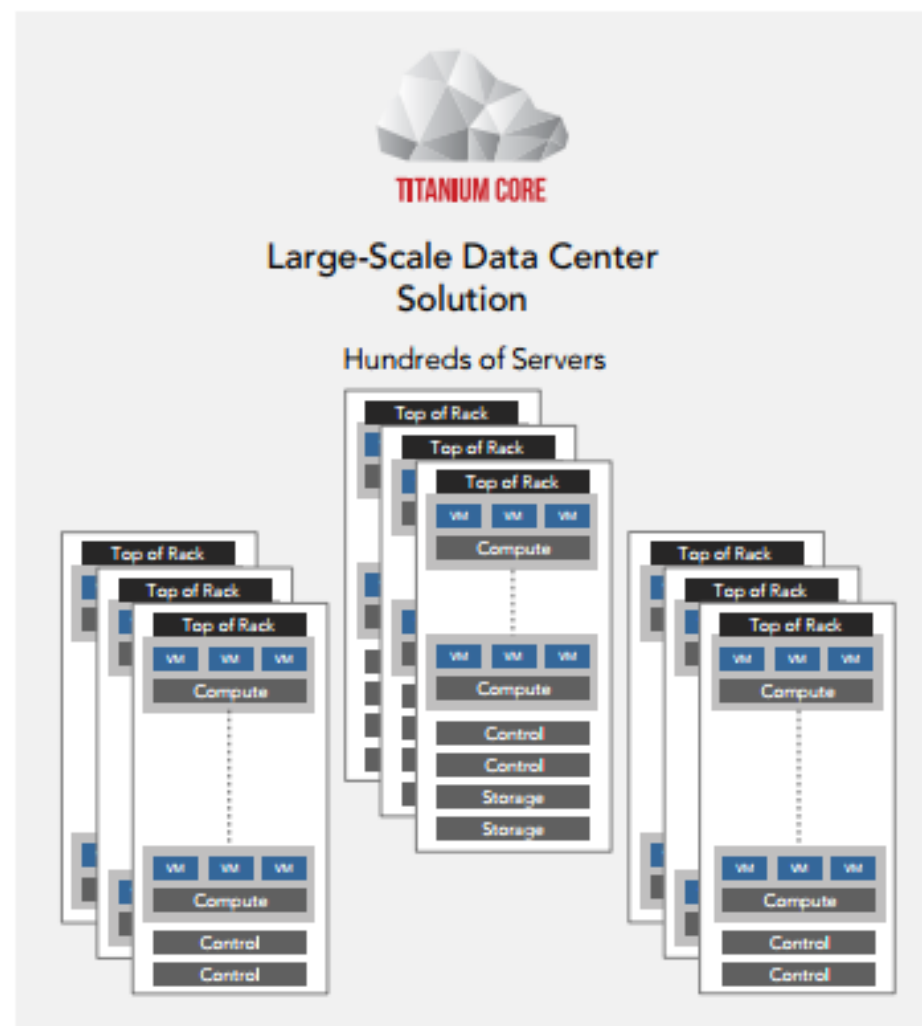
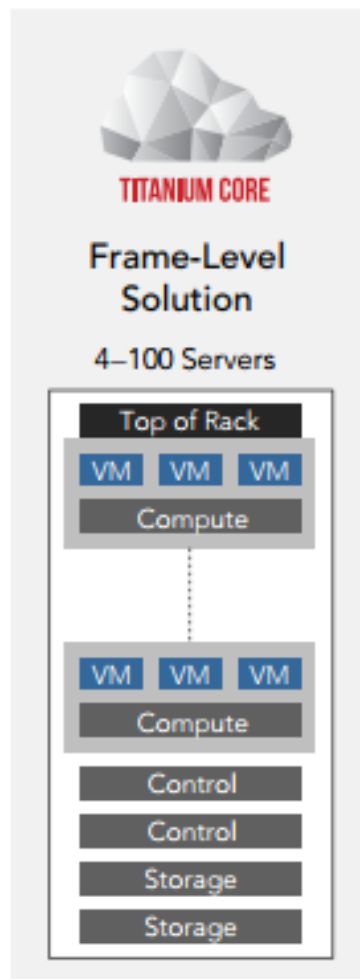
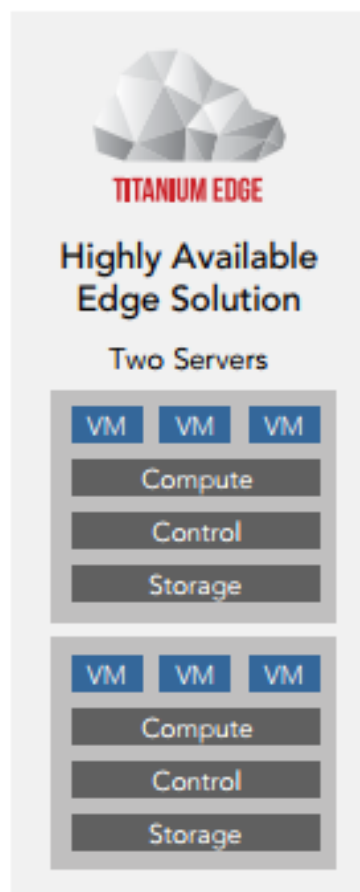
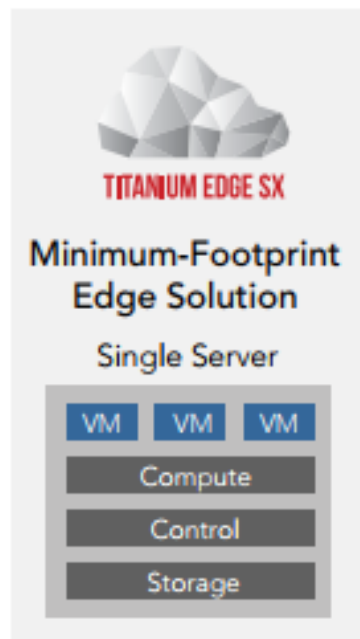
## Smart Buildings



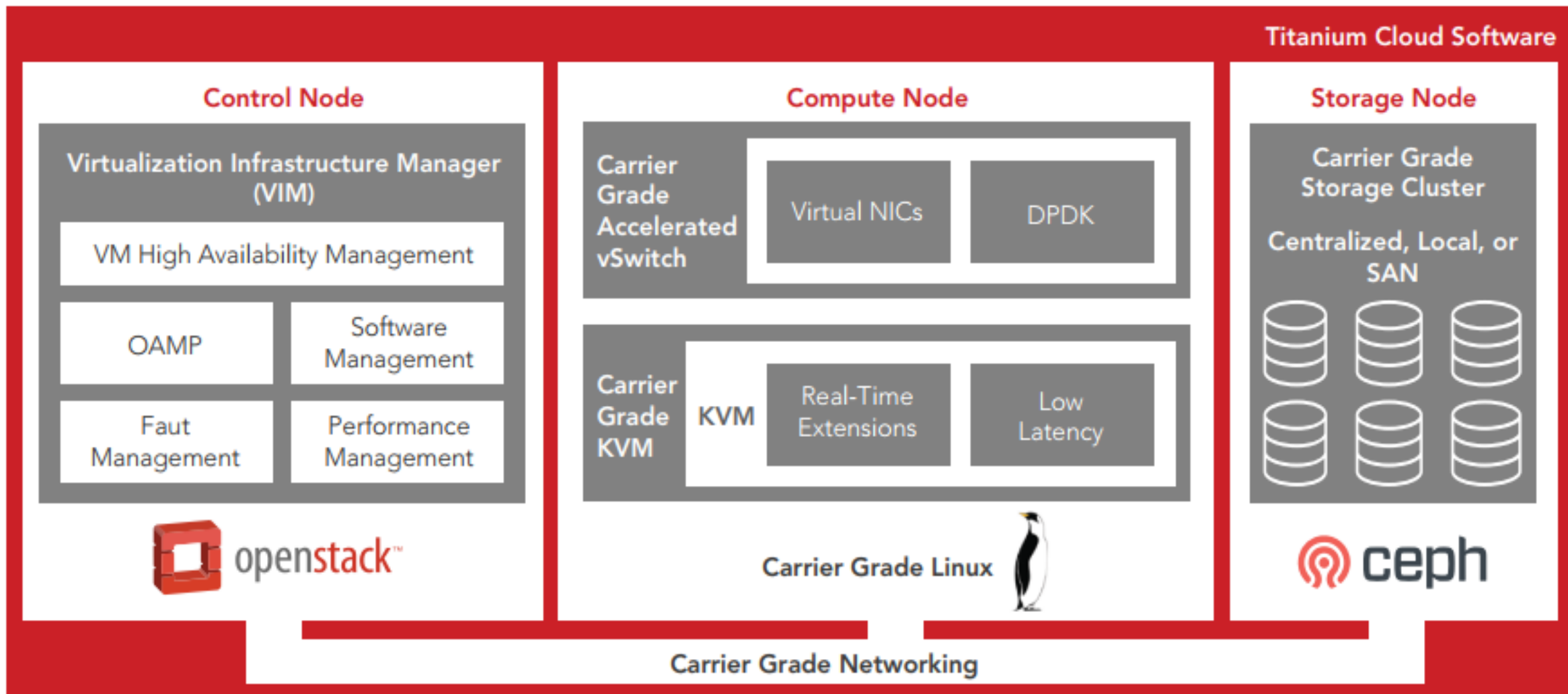
## Manufacturing



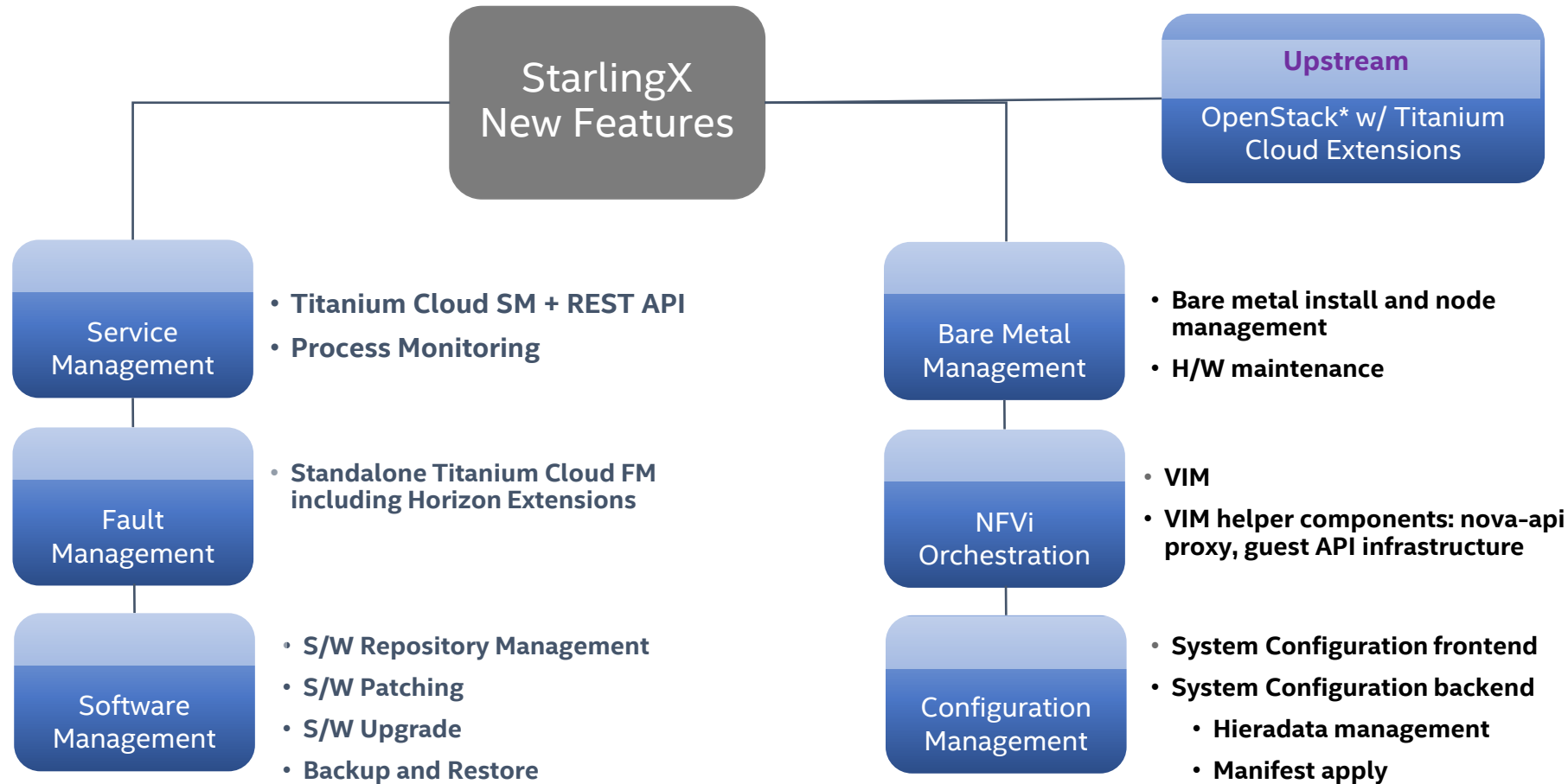
# FULLY SCALABLE SYSTEM-LEVEL ARCHITECTURE



# Titanium Cloud Components



# WIND RIVER® TITANIUM CLOUD CONTRIBUTED PROJECTS



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# StarlingX Code Repo

 **openstack.** OpenStack git repository browser

a fast webinterface for the git dscm

index

Name	Description
<i>openstack</i>	
openstack/stx-clients	StarlingX client libraries
openstack/stx-config	StarlingX System Configuration Management
openstack/stx-fault	StarlingX Fault Management
openstack/stx-gplv2	StarlingX GPLv2 licensed upstream packaging
openstack/stx-gplv3	StarlingX GPLv3 licensed upstream packaging
openstack/stx-gui	StarlingX Horizon plugins for new StarlingX services
openstack/stx-ha	StarlingX High Availability/Process Monitoring/Service Management
openstack/stx-integ	StarlingX Integration and packaging
openstack/stx-manifest	StarlingX source manifest to manage the repositories
openstack/stx-metal	StarlingX Bare Metal and Node Management, Hardware Maintenance
openstack/stx-nfv	StarlingX NFVI Orchestration
openstack/stx-root	StarlingX build source tree root
openstack/stx-tis-repo	StarlingX build support
openstack/stx-tools	StarlingX build tools
openstack/stx-update	StarlingX Installation/Update/Patching/Backup/Restore
openstack/stx-upstream	StarlingX Upstream packaging
openstack/stx-utils	StarlingX Logging and other utilities



## StarlingX Staging

Repositories 34

People 0

Projects 0

Search repositories...

Type: All

Language: All

### stx-libvirt

StarlingX Staging stx-libvirt

C LGPL-2.1 Updated on May 20

### stx-kingbird

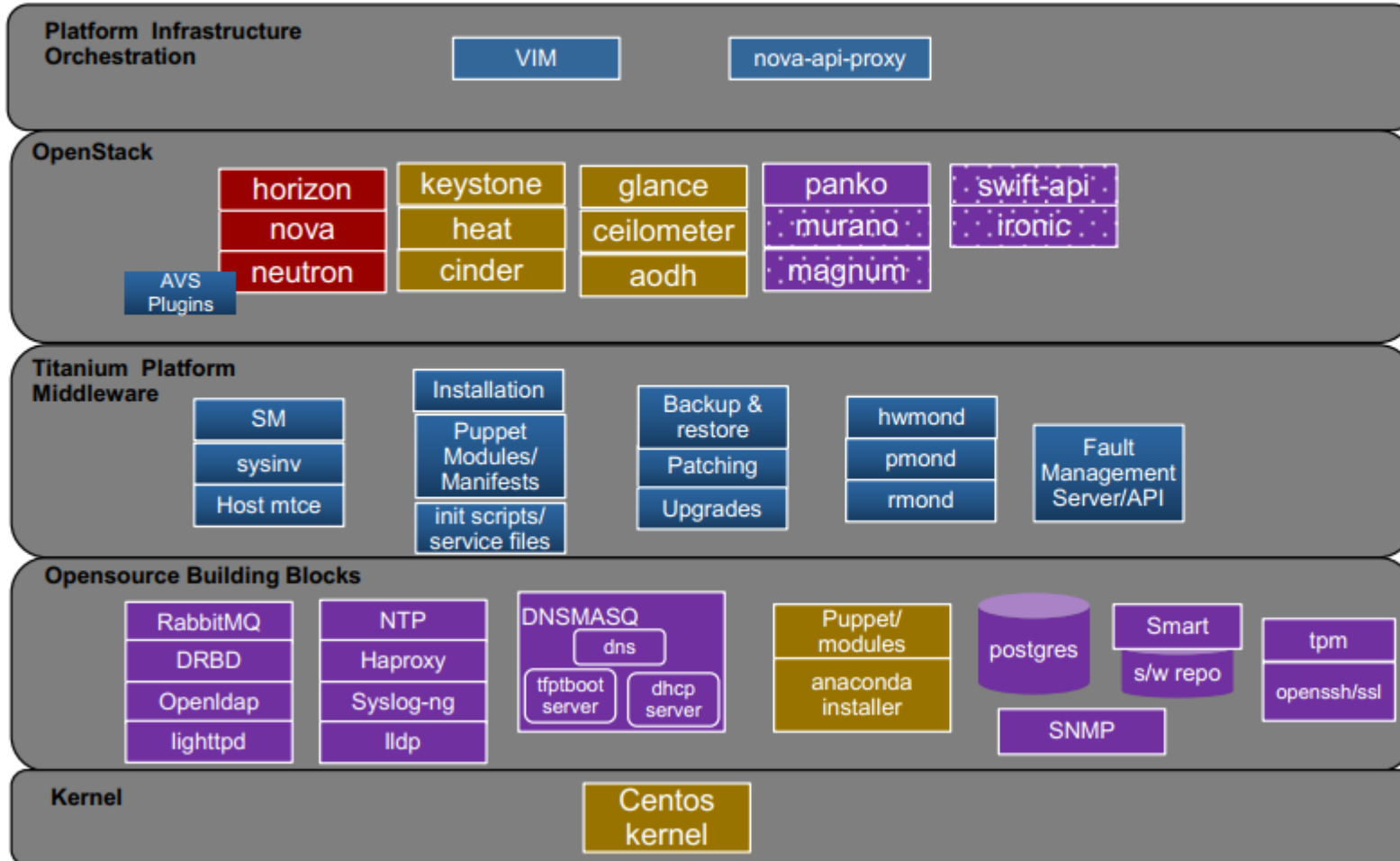
StarlingX Staging stx-kingbird

Python Apache-2.0 Updated on May 20

### stx-keystone



# Controller Node S/W Components



Notes:

- panko, magnum, ironic new for R5
- Dotted components optional



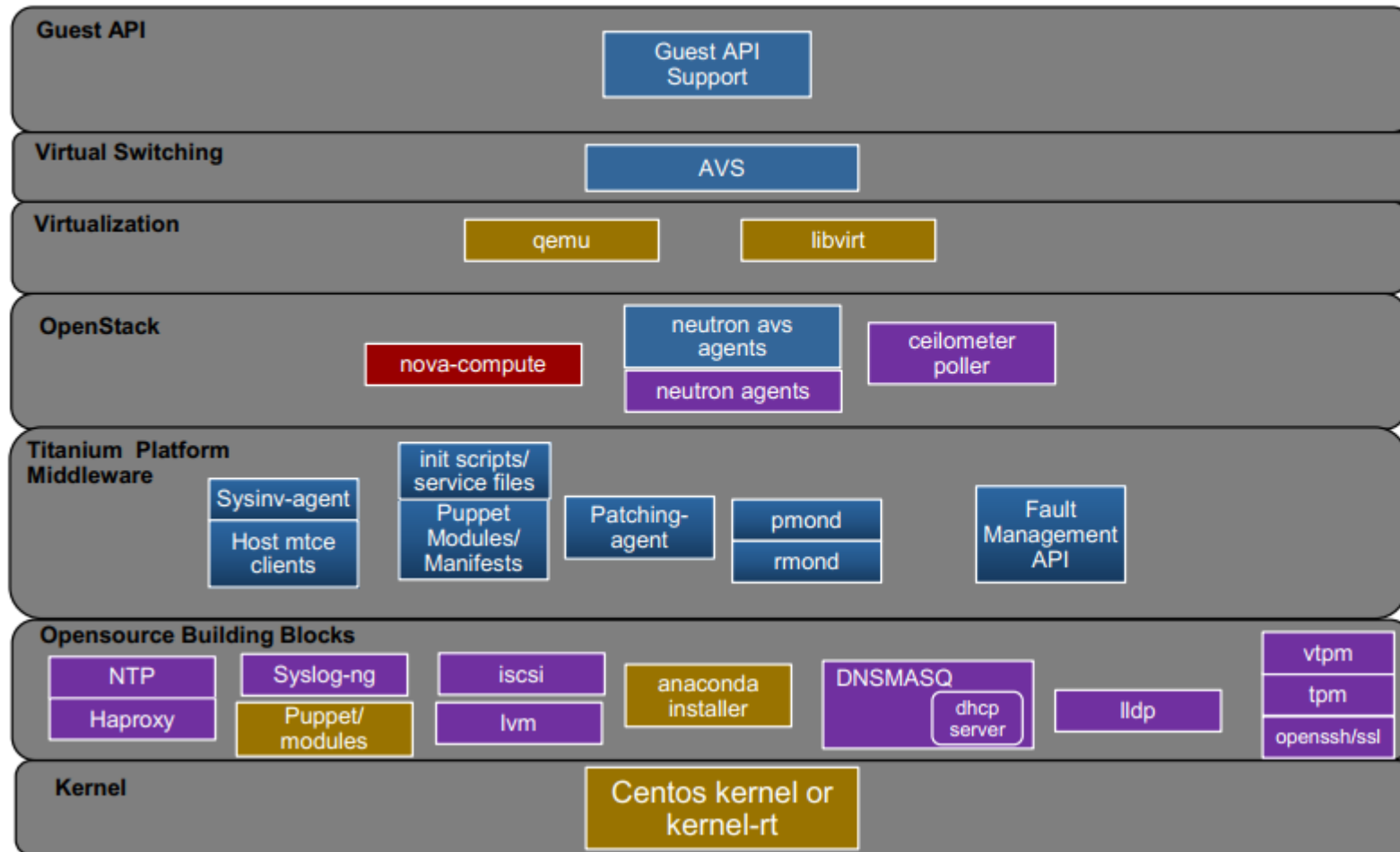
Notes:

- Key subsystems, not an exhaustive list

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# Compute Node S/W Components



Notes:

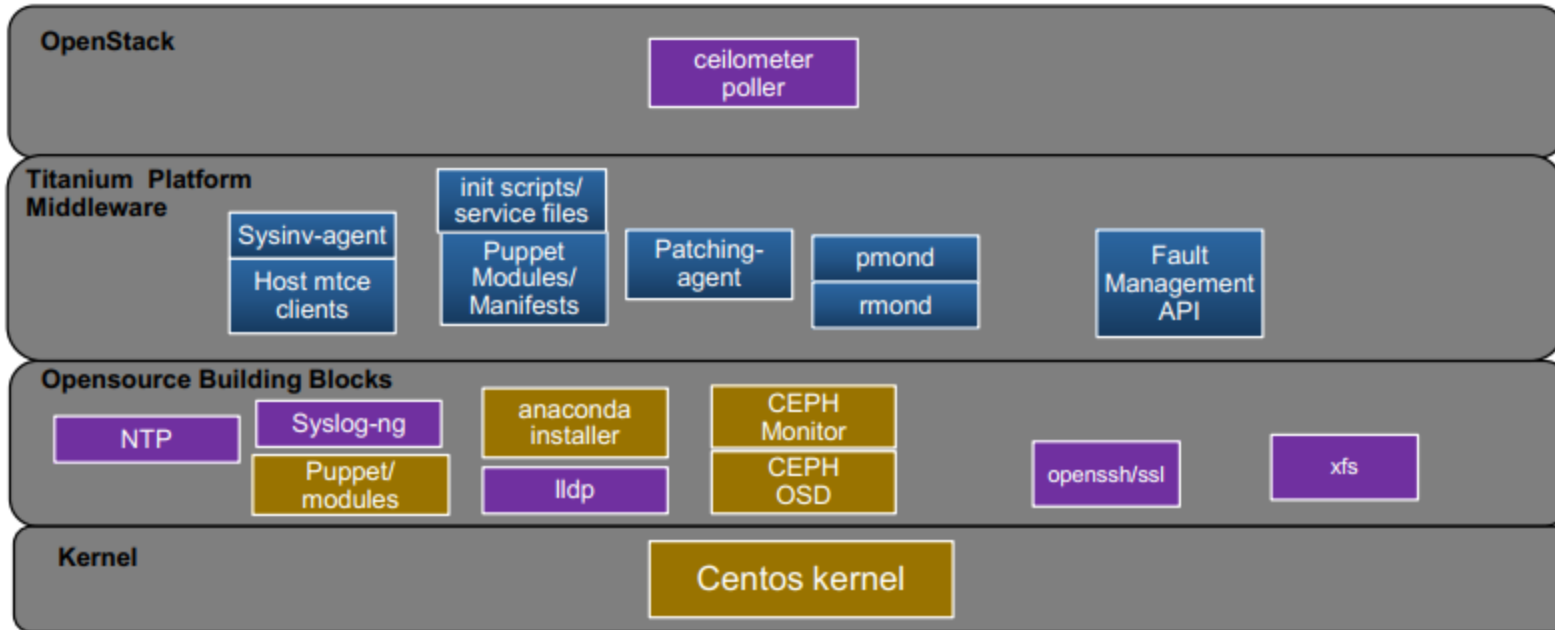
- Support AVS and other extensions

Notes:

- Key subsystems, not an exhaustive list

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# Storage Node S/W Components

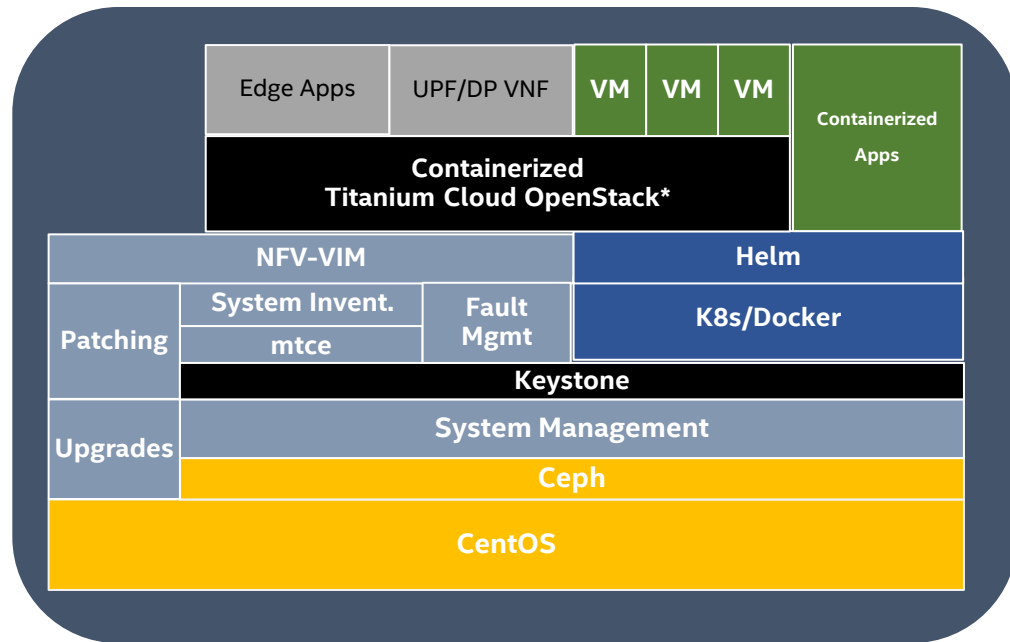


Notes:

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# PROPOSED Q4'18 RELEASE ARCHITECTURE – CONTAINER SUPPORT

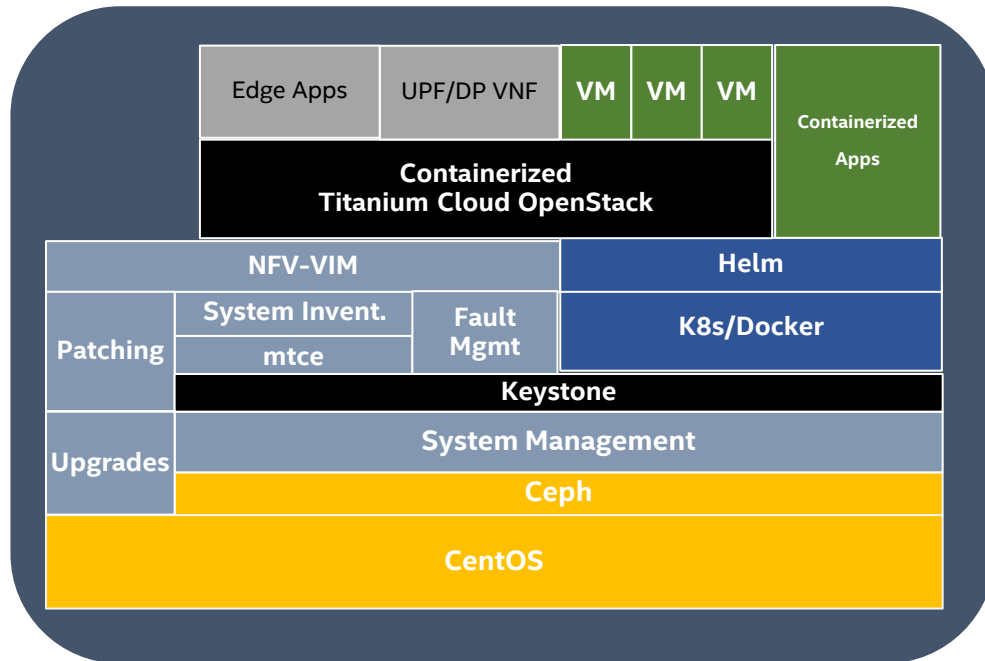


- Current open source component
- Commercial Wind River® Titanium Cloud component (open sourced in StarlingX\*)
- New StarlingX component
- OpenStack\* with Wind River Titanium Cloud patches
- Applications

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# COMPONENTS DESCRIPTION



- Combining OpenStack\* with components from Wind River® Titanium Cloud with new extensions to support k8s with Docker\* runtime
- Keystone runs as a shared service on the platform with Ceph for persistent storage
- Kubernetes\* applications deployed by Helm
  - OpenStack is containerized
  - Calico used for container networking backend
- Retains Wind River Titanium Cloud installation mechanism for bare metal installation
- Deployment for Intel seed will use Puppet for bare metal and Helm for OpenStack and Containerized Apps
- Lifecycle for Intel seed will use existing Wind River Titanium Cloud services for bare metal and K8s for remaining

# JOIN THE COMMUNITY

## Start Here!

- <http://www.starlingx.io/>

## Check us out on GitHub\* and OpenStack \*!

- <https://git.openstack.org/cgit/openstack/stx>
- <https://review.openstack.org/#/admin/projects/?filter=stx>
- <https://github.com/starlingx-staging>

## Join the conversation!

- Mailing Lists: [lists.starlingx.io](https://lists.starlingx.io)
- Freenode IRC: #starlingx

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Thank you

