

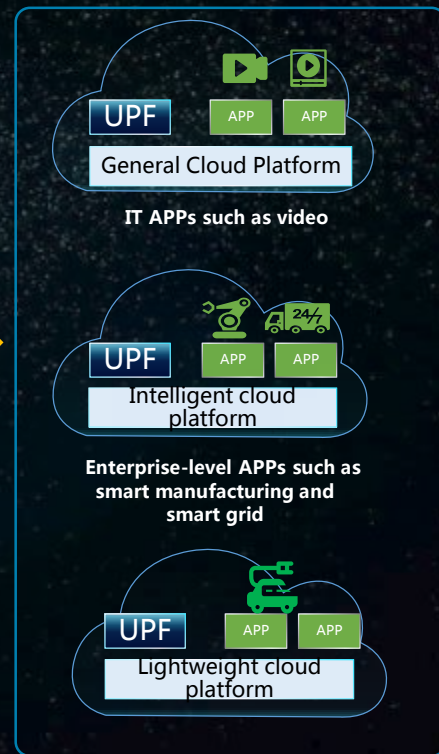
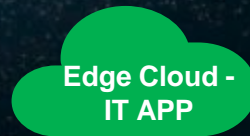
NFVI Reference Architecture and Implementation for Edge Computing

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Edge Cloud

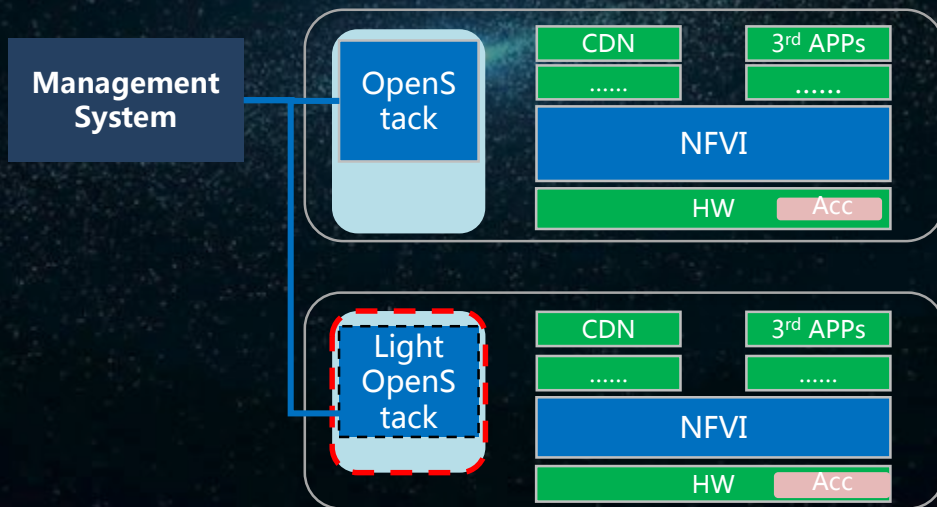
- Converged deployment enables convenient and unified management and improves efficiency
- Converged deployment can provide multiple service methods
- Converged deployment can naturally support ICT convergence
- **The management of platform** needs to choose different solutions according to different locations
- **The technology of platform** needs to take into account the demands of both IT and CT



Edge cloud converged deployment of VNFs and APPs

NFVI for Edge Cloud

The edge cloud needs to be deployed in different locations and provide services to both VNFs and multiple 3rd-party applications. The edge NFVI should provide a variety of abilities such as **flexible configuration, dynamic scaling, intelligent orchestration, and heterogeneous computing.**



NFVI for Edge Cloud

Local resource management

- independent management of resource pools

Flexible configuration

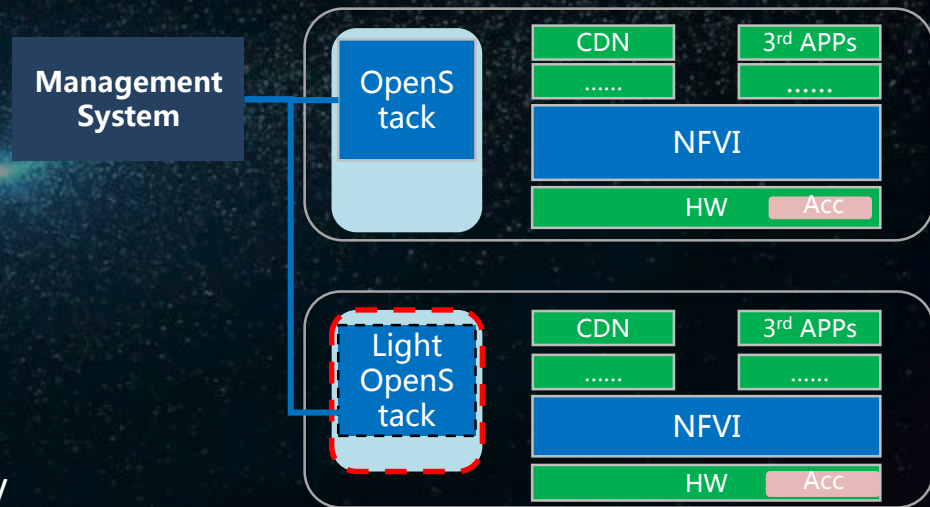
- Overcommit/non-overcommit
- multiple configuration of Large page memory

Multiple capabilities

- Compatible with multiple storage services
- Real-time protection of service processing
- Compatible with hardware acceleration
- Strong isolation

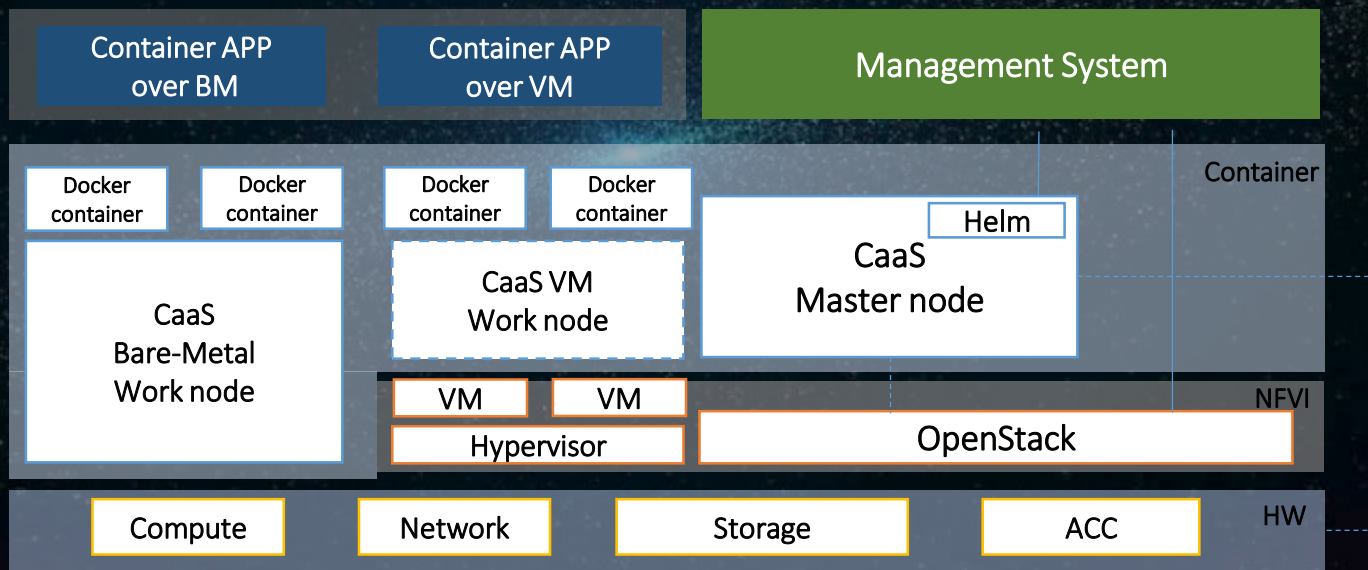
Improve resource utilization

- lightweight-OpenStack, retaining only necessary components
- Hypervisor remote solution, reducing edge node resource overhead



Container

The fast and lightweight characteristics of containers make it one of the important technologies for building edge cloud.



Architecture?

Platform capabilities ?

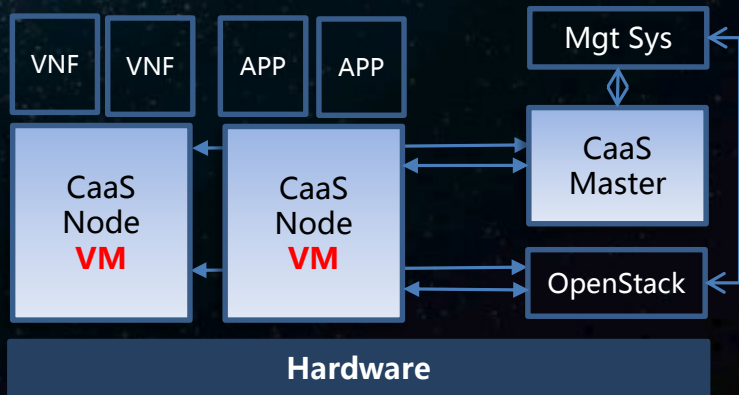
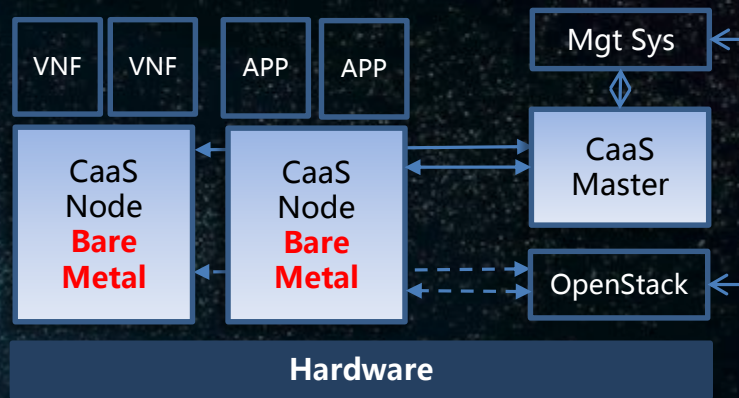
Deployment method ?

Container runtime?

Container for Edge Cloud

Resource isolation and security between VNF and APP

- Resource allocation of VNFs and APPs under the same physical machine
- Resource allocation of VNFs and APPs under the same virtual machine?
- Network isolation of different tenants
- Security software (such as selinux / apparmor)
- Secure container solutions such as kata to meet the security isolation of edge multi-tenant deployments?



THANKS!

CNTT Edge Stream Contribution

- › All interested members of the CNTT community are encouraged to contribute to the work of the CNTT Edge Stream
- › Please join the team in: <https://github.com/orgs/cntt-n/teams/ref-edge/members> and start contributing (Idea , Use cases ,...)
- › Or, talk to us if you need more information

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