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# OpenEdge for Server, Switches & Access Peripherals – Both Wireline and Wireless

What Does Convergence Look Like in a SDN/NFV/Cloud Ecosystem?



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## What is OpenEdge?

### OCP Accepted Specification: OpenEdge Chassis

OCP Accepted:

- All aspects of the design are open and contributed
- Multiple OCP members are interested in supplying or integrating

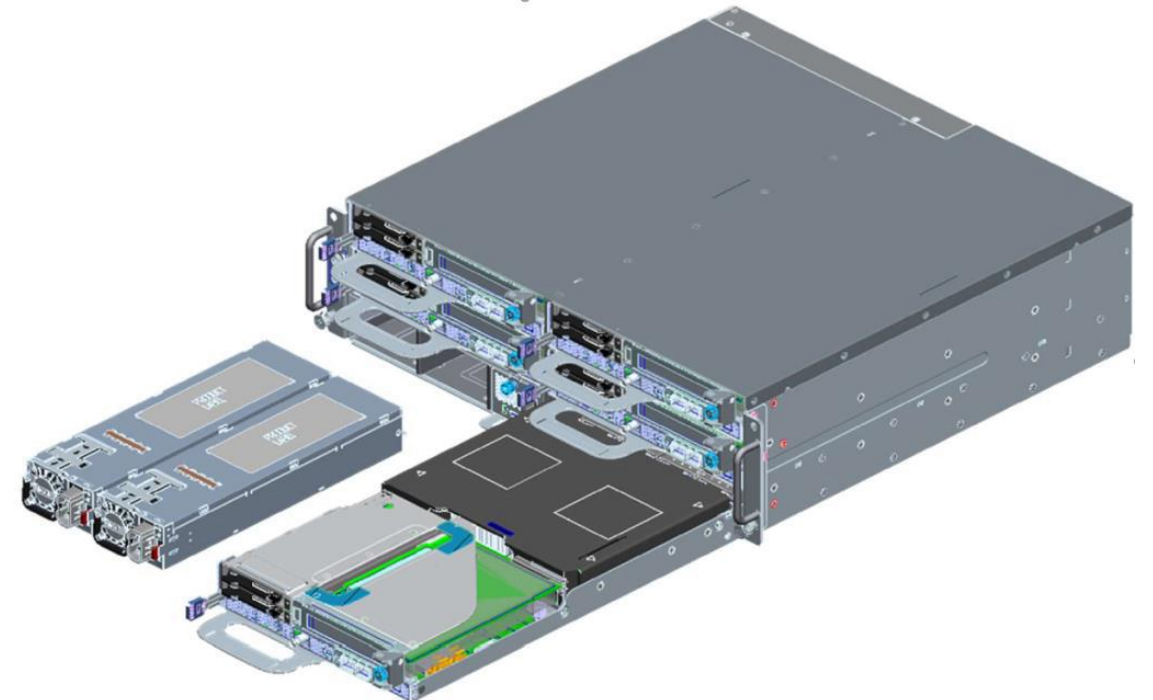
Edge Chassis:

- Does NOT try to extend a complex bus among computers ~~ATCA~~
- Power and management LAN are shared through RMC
- Meets requirements for CO and CS deployments
- Provides a way to adopt OCP without deploying a whole rack

With 1RU and 2RU Server Sleds

- Modest compute in 1RU x ½ width
- Compute + GPU in 2RU x ½ width

But with the chassis providing power and management to 5 slots ...





## What is OpenEdge?

# OpenEdge is a General Purpose Chassis for Edge Cloud and...

### **Obviously OpenEdge is well specified to provide Edge Cloud Infrastructure**

- Can be deployed in existing places and spaces without facility retrofits
- Provides 2 kinds of server types today

### **But Edge Cloud can gain from more than just servers**

- Common chassis solves scale down
- very small deployments can be encumbered from minimum necessities
- Switching is also desired – both traditional as well as new “fronthaul switches”
- Wireline has peripheral requirements in OLTs
- Wireless has peripheral requirements in eNB and gNB components

### **All these additional components need power and management connections**

- Operations simplification, as power and chassis remain in place through server and switch refresh cycles.
- Since management is plug+play, automated discovery and onboarding is well enabled.
- OpenRMC provides RedFish compatibility at the chassis level, simplifies node integration & provides pass-through access

## What is Next for OpenEdge?



What Else  
Could I Do?

- Compute
- GPU + Accelerators
- Switches
- Access
- Other?



## What is Next for OpenEdge

### Open Programmable PON

Adopts OpenEdge 1RU sled

16 ports 10/25G PON

4 x 100G uplinks

System is non-blocking

### Fronthaul Switch

Again in the OpenEdge 1RU sled

16 Ports 10/25 GE

4 x 100G uplinks

Timing

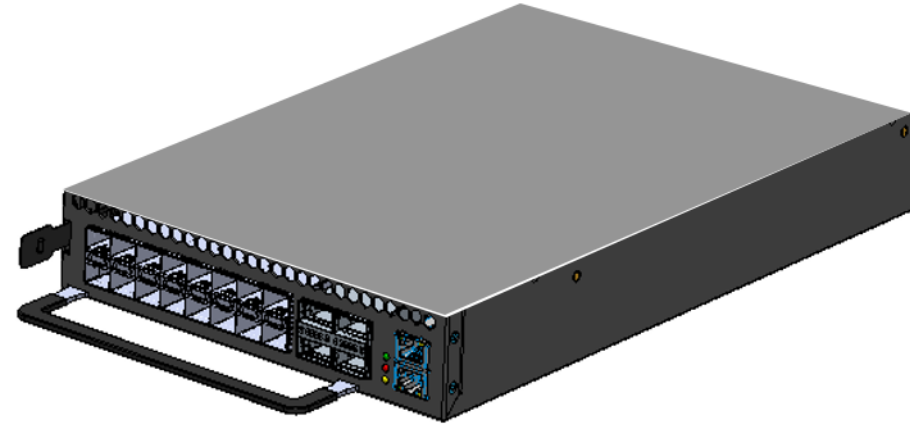
System is non-blocking

### “TOR” Switch

16 Ports 40/100GE

10/25 breakout to servers

Flexible uplinks



## What is Next for OpenEdge

### Open Spec Servers

Nokia Open Edge Server Spec

OCP Open Edge Base Spec

- Meet ONF SEBA use case
- Meet both O-RAN and OTII use cases

Single Socket

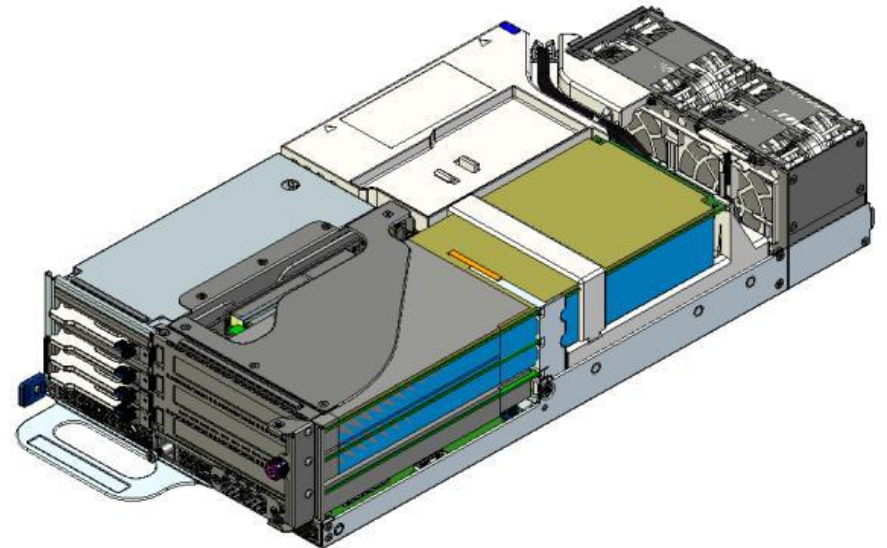
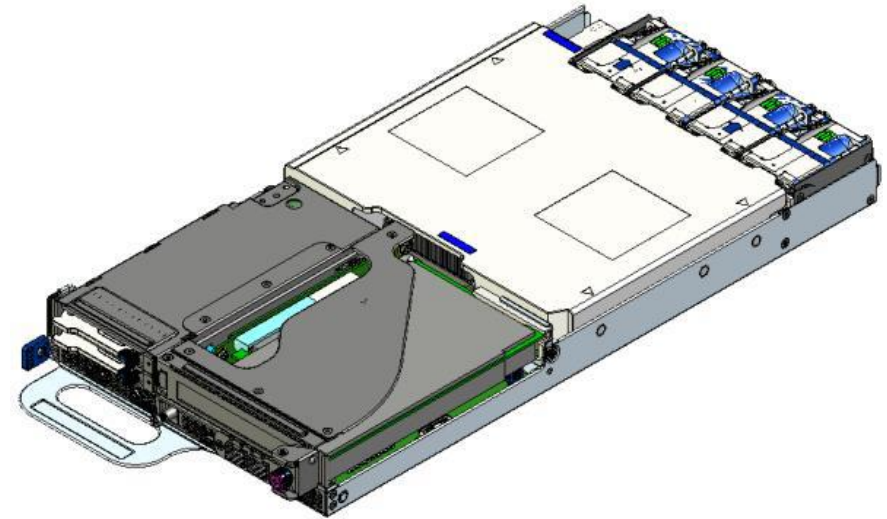
Focus on Power Efficiency

Scale up and Down

CPU variety

Focus on common operations “surface”

- Open BMC
- Open BIOS
- TPM



## How Does OpenEdge enable Convergence?

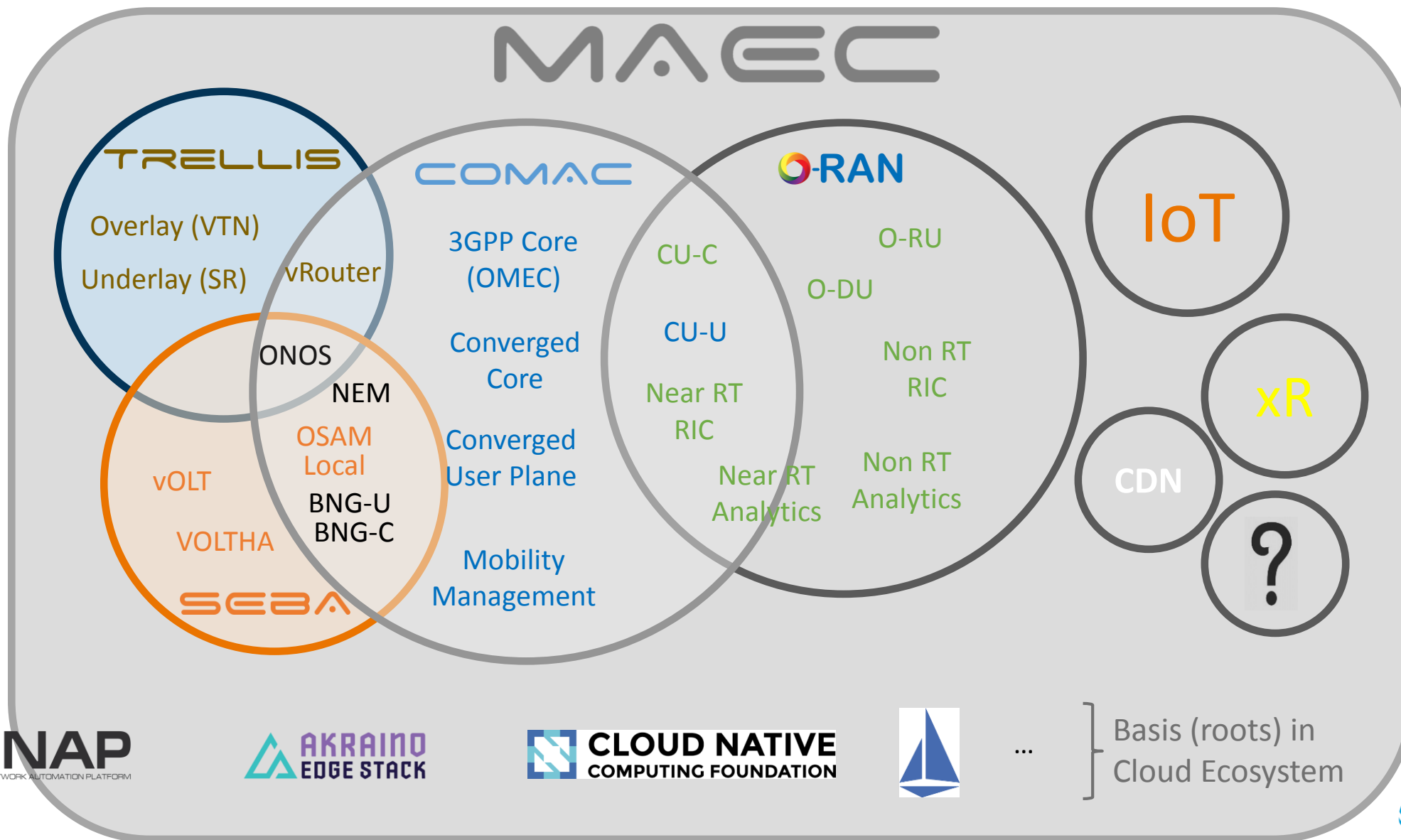


MAEC

### **Multi-Access Edge Cloud**

- White Box Infrastructure
- Disaggregation
- Virtualization
- Cloudification
- Orchestration

## How Does OpenEdge lead to Convergence?





## Open Edge Requirements

### To be a vibrant Ecosystem ...

Multiple Suppliers for the Chassis

Multiple sleds with different functions

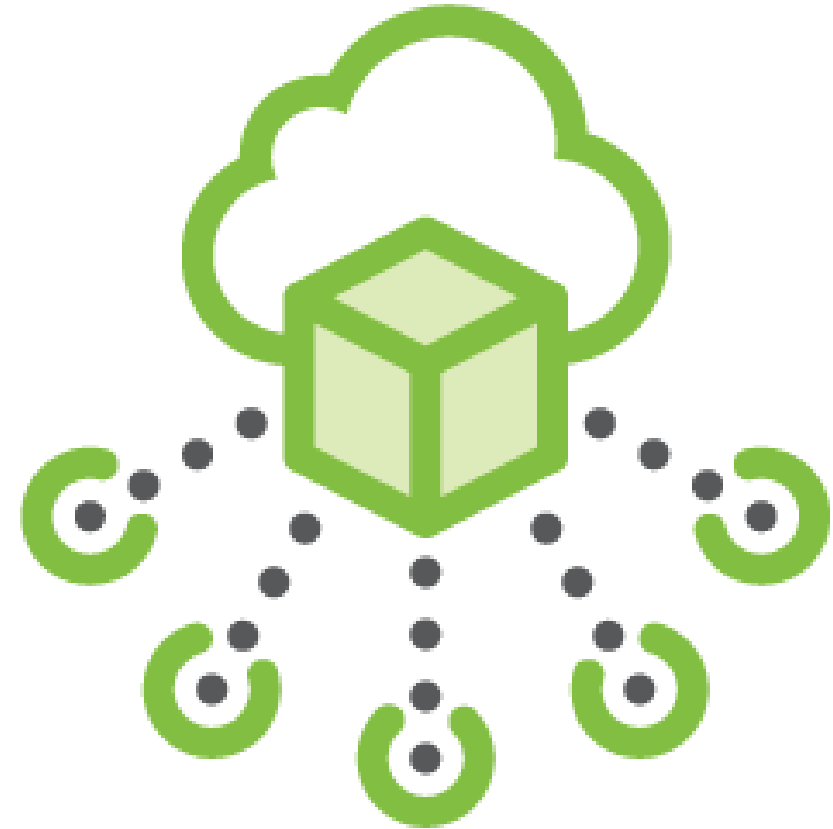
System Integrators that can compose multi-supplier solutions

Open, Common RMC – Common BMC on like products

Common physical “UI” like lamp colors and meanings

It must also meet your needs...

### We Need Your Contributions!





**AT&T**