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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?

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!