整合式5G資料運算平台

5G Data Center in a Box

Lanner Electronics

Fred Chang

Lanner

Leader in Advanced Next-Gen
Network Edge Revolution

About Lanner Electronics

Lanner

1

World-leading Provider for Network Appliances and Edge Computers

20+

Tier -1 customers

Strong Collaboration = Satisfied Customers

35+

Ecosystem Software Partners

DNA IT+OT+CT

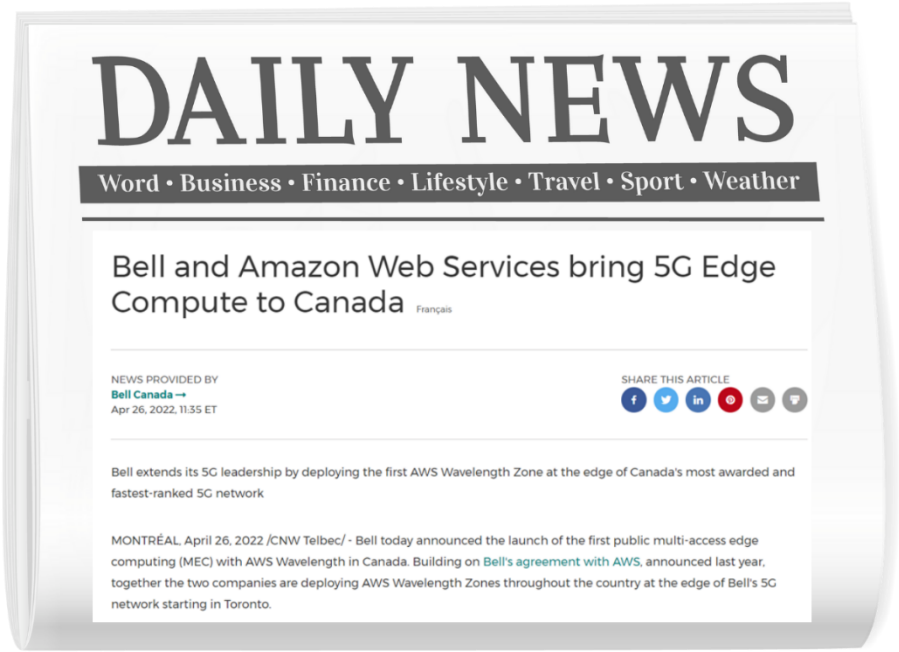
Network Security / Whitebox Solutions / 5G MEC Open RAN / Edge Computing
To bring the best expertise in the industry

365x24

Availability and Reliability Consideration
Optimal System workload
IO throughput performance


Data Center In a Box
Telecom Transformation

Data Center in a Box: A Use Case in North America



DAILY NEWS

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Bell and Amazon Web Services bring 5G Edge Compute to Canada Français

NEWS PROVIDED BY
Bell Canada →
Apr 26, 2022, 11:35 ET

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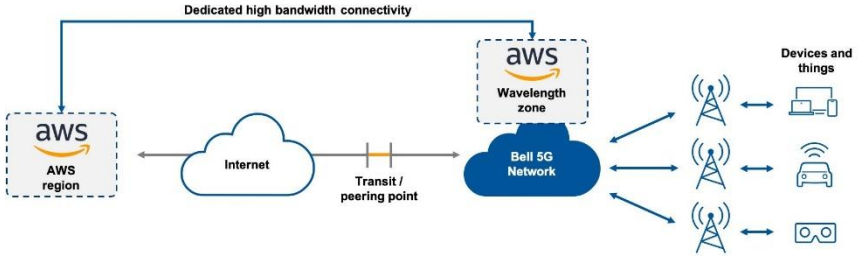
Bell extends its 5G leadership by deploying the first AWS Wavelength Zone at the edge of Canada's most awarded and fastest-ranked 5G network

MONTRÉAL, April 26, 2022 /CNW Telbec/ - Bell today announced the launch of the first public multi-access edge computing (MEC) with AWS Wavelength in Canada. Building on Bell's agreement with AWS, announced last year, together the two companies are deploying AWS Wavelength Zones throughout the country at the edge of Bell's 5G network starting in Toronto.



Bell Public MEC with AWS Wavelength embeds AWS compute and storage services at the edge of the Bell 5G network, closer to mobile and connected devices where data is generated and consumed.

This enables software developers and businesses to take full advantage of the high speed and low latency of Bell's 5G network and the cloud with AWS to build innovative, low-latency solutions that leverage real-time visual data processing, augmented/virtual reality (AR/VR), artificial intelligence and machine learning (AI/ML), advanced robotics, and much more.

Data Center In a Box: The CoSP's Benefits

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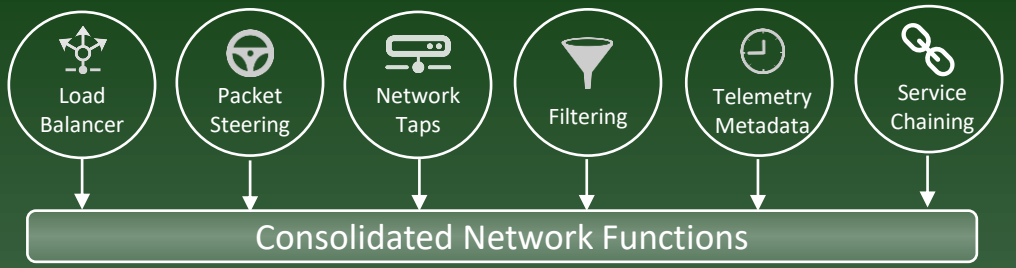
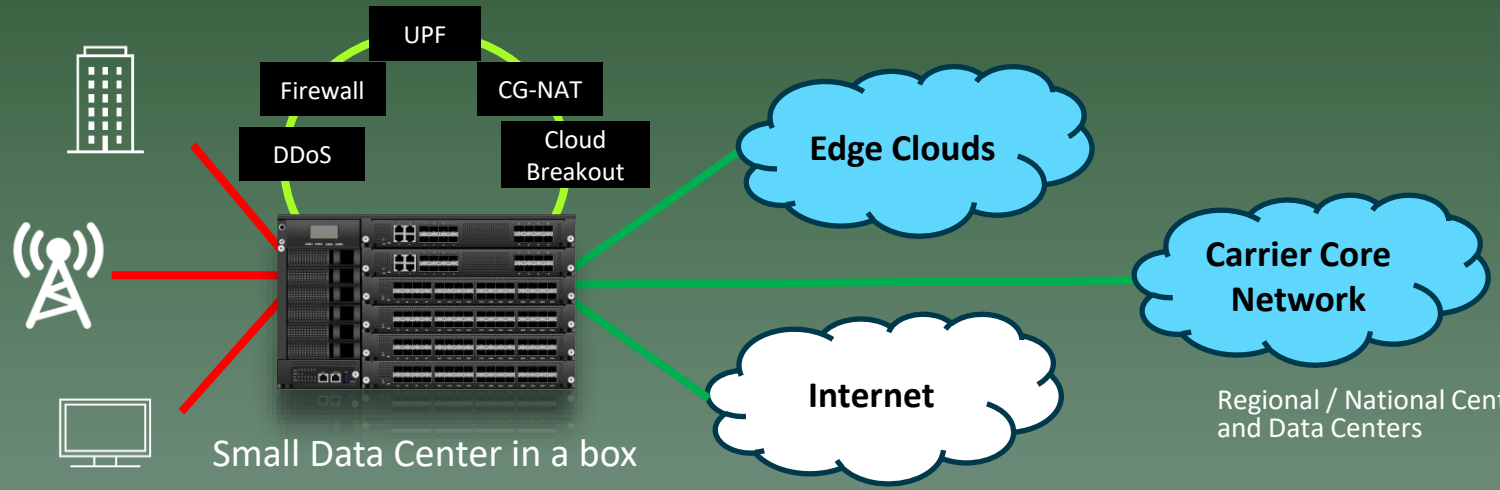
1. Fewer Hardware
2. Lower Operating Cost
3. More Value-added Services





1. Fewer Hardware

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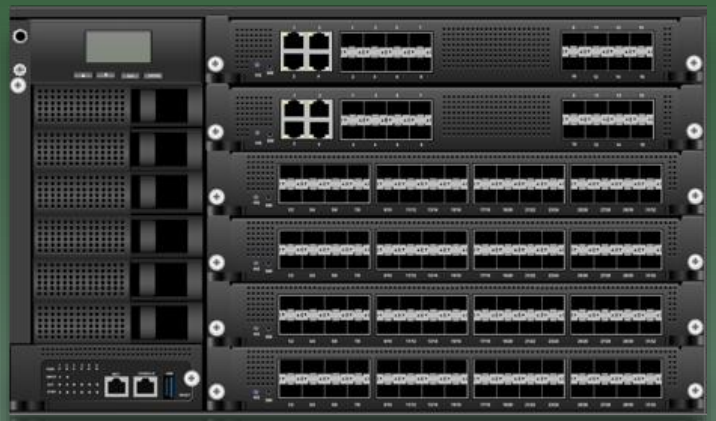
Powered by intel. XEON

Ethernet Switch

Compute | Storage | Networking | Management



Lanner HTCA Edge Server

Programmable Edge

Legacy silicon relies on legacy protocols

Carrier Edge needs programmable networks not based on legacy protocols

- Adaptable to support new features
- Software defined for automation

Better Visibility

Tofino provides programmable telemetry in silicon

Provide visibility into the performance of platform and VNFs

- In-band Network Telemetry (INT) for VNF performance
- Monitor the operational performance of the network

Scalable Architectures

Collapse multiple appliances on Tofino

Scalable network, compute and applications

- NoviFlow uses the network to scale across multiple virtual machines, blades or platforms

2. Lower Operating Cost

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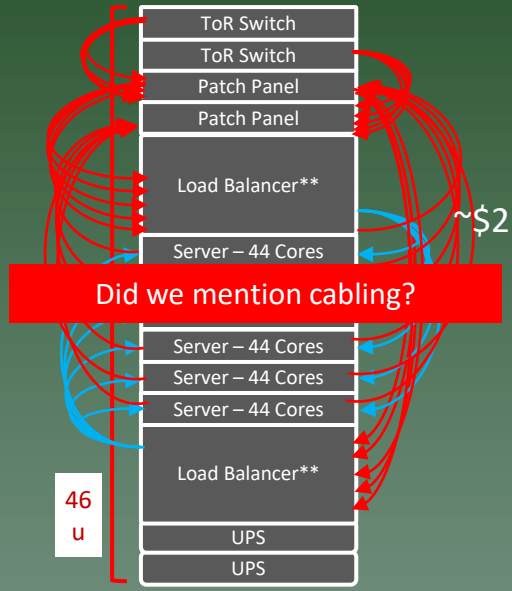
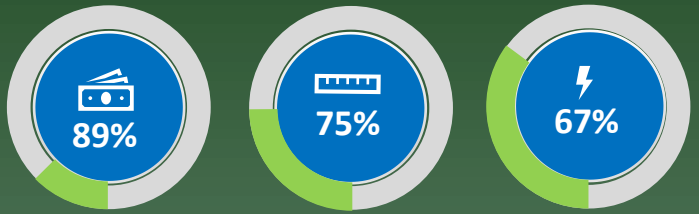
Traditional Architecture



~$2.1 M USD*

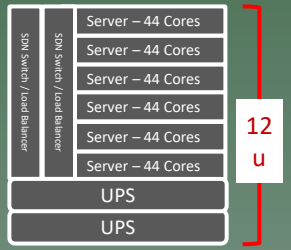
Total Cost

Lanner HTCA Architecture



Lower TCO | Space Efficiency | Power Efficiency

~$236 K USD*



Total Cost

HTCA Edge Server

* List Prices ** "Sandwiched" configuration, single point of failure

3. More Value-added Services

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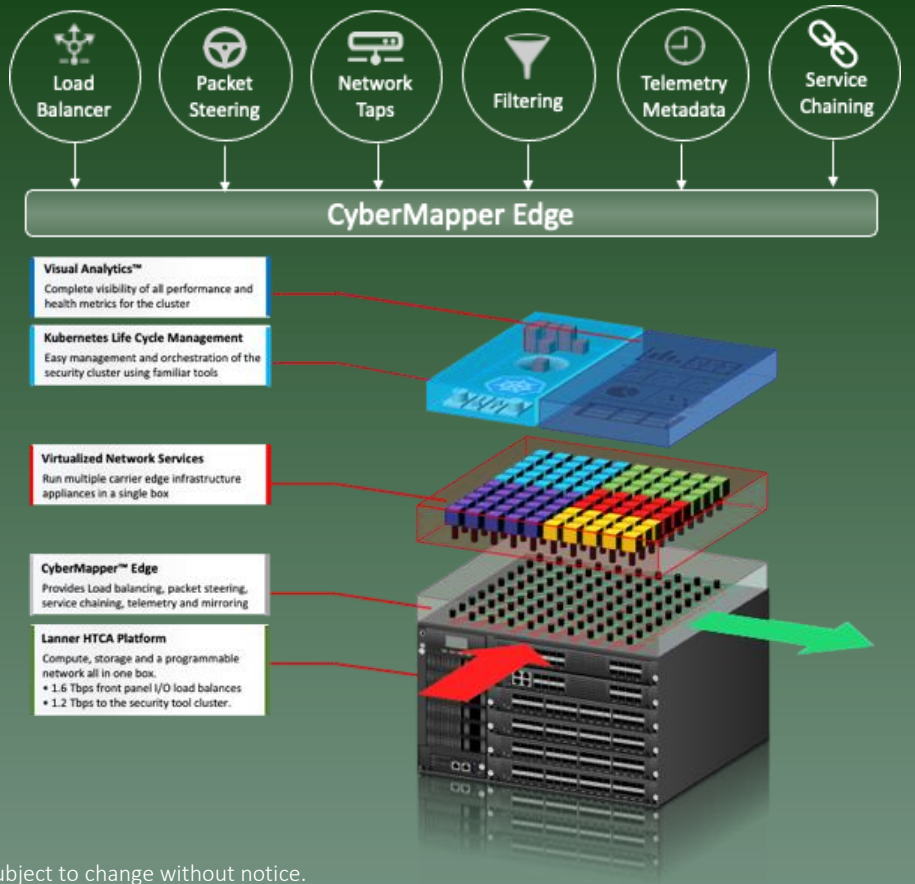
Firmware/Drivers
- Lanner/Intel

Operating System Software
- RHEL
- Ubuntu/CENTOS

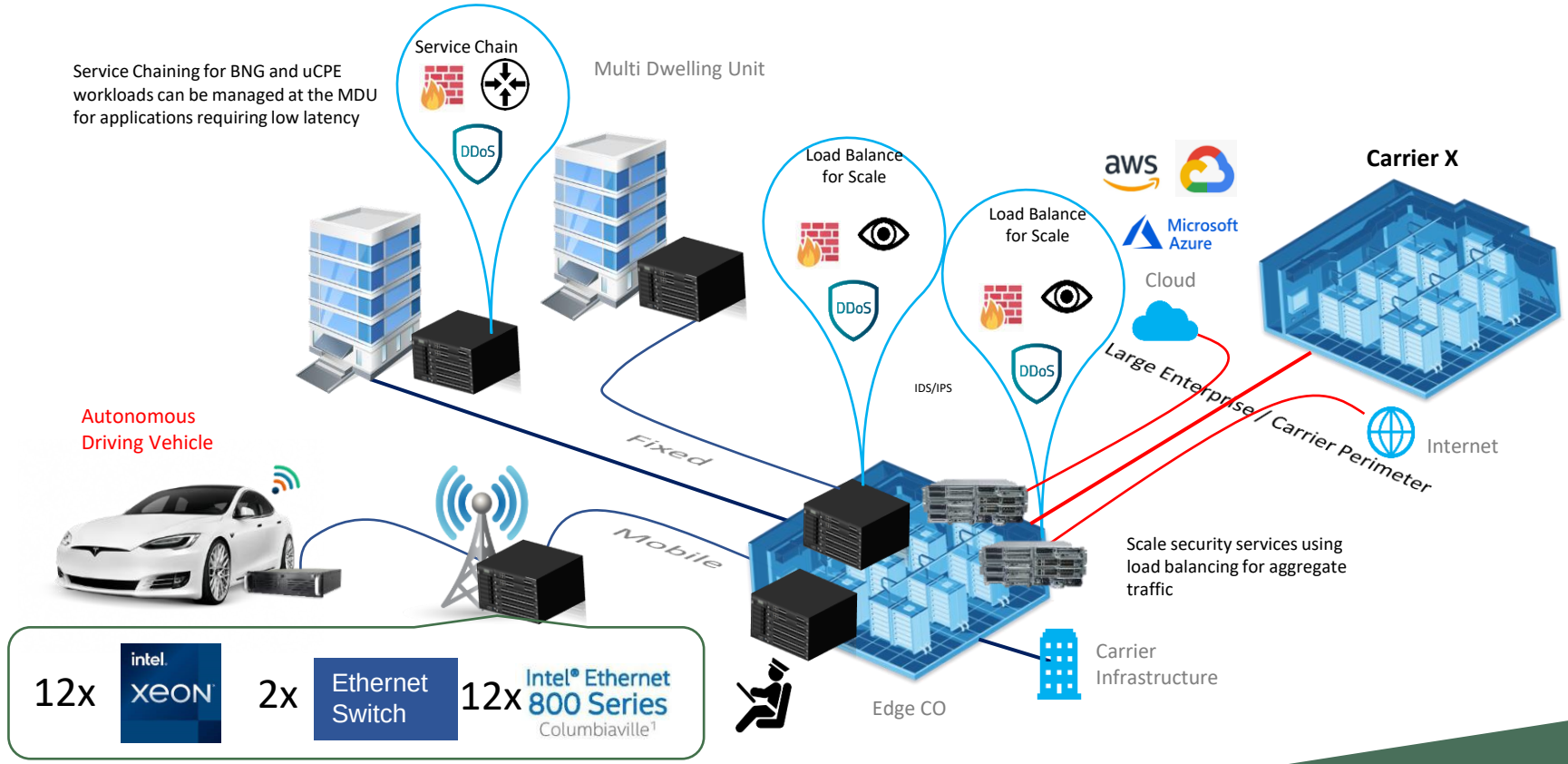
Virtualization Software
- Kubernetes
- KVM

Orchestration Software
- Red Hat OpenShift
- Foreman/Ansible

VNF/CNF Software (payloads)
- DDoS Prevention
- FW/CGNAT
- Load Balancing
- …



Data Center In a Box: Deployment Scenario



Whitebox Solutions & Ecosystem Software Partners

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Lanner WHITEBOX SOLUTIONS™

OSS / BSS Orchestration

verizon, blueplanet, ADVA, silver peak, Netcracker, UBiqube, Brain4Net

VNF

SD-WAN & Routing

VERSA NETWORKS, eKINOPS, silver peak, JUNIPER NETWORKS, ENEA, WIND

Security

FORTINET, TREND MICRO, dispersive

MEC/SD-Switch

NoviFlow, Prodapt, lagopus, NTT

vBNG / vCGNAT

netElastic systems

Open RAN

MAVENIR, Radisys

Assurance

EXFO, ACCEDIAN, CREANORD

NFVI

ADVA, ENEA, WIND, Telco Systems, Red Hat, openstack, kubernetes, CentOS, ubuntu

White Box Platforms


uCPE


MEC


HCI


RAN


Wide Temp

Data Center In a Box: Key Takeaways

CapEx

- Lower TCO
- Less Space 46U vs 12U
- Performance Scalability
- Interoperability
- Upgradability

OpEx

- Zero-touching Provisioning
- Power Saving
- Subscription-based Software
- Remote Chassis Monitoring
- Virtual Lab Testing

Thank You

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www.lannerinc.com