Overture 65vSE
Open Platform for Virtualization at the Service Edge

The Overture 65 Virtual Service Edge (vSE) is the industry’s first open Carrier Ethernet platform for hosting virtual network functions at the service edge.

The Overture 65vSE is the newest member of the Overture 65 series. It allows communication service providers (CSPs) to instantly deploy on-demand virtualized network functions (VNF) at the customer premise to simplify operations and unleash new service innovation. By decoupling hardware from software, the Overture 65vSE enables a completely programmable network that dramatically accelerates service creation, activation and assurance.

ONE PLATFORM FOR ANY MANAGED SERVICE
The Overture 65vSE combines Carrier Ethernet access with the benefits of virtualization, openness and software-defined services. The result is one platform for both services and network access.

As an open, general-purpose compute platform, the Overture 65vSE is specifically designed for managed services delivered on the customer premise. It can host multiple combinations of software-based virtual network functions (VNFs) that may be required for a given service. With modular interfaces and a 100% programmable architecture, the 65vSE allows the CSP to deliver a complete managed service portfolio using a single platform instead of the multiple appliances currently required.

RADICALLY IMPROVED SERVICE VELOCITY
The Overture 65vSE increases service velocity by combining Carrier Ethernet access and virtualization to introduce new service offerings via software. CSPs can rapidly move from service definition to deployment, allowing them to react to new market opportunities and proactively test the market with innovative new service ideas. With the 65vSE in place at the customer premise, new services can be installed or upgraded remotely in minutes with no shipping charges or on-site technician.

TRULY OPEN
The Overture 65vSE decouples hardware from the networking software in a truly open system so that the CSP can leverage best-of-breed suppliers for the VNFs. A carrier-grade platform based on Intel x86 micro-server technology, the Overture 65vSE is able to take advantage of many off-the-shelf software components and hardware expansion via standard PCIe, SATA and USB interfaces. The 65vSE comes pre-loaded with Overture’s state of the art Ethernet Access Device (EAD) software and can host additional VNFs.

PRODUCT SNAPSHOT
- Host multiple VNFs in one box
- Accelerate service creation, activation and assurance
- Decrease inventory and management costs
- Optimize service flexibility
- Eliminate trucks rolls

The Overture 65vSE is redefining the service edge – fewer inventory headaches, fewer truck rolls, fewer integration challenges, less staff training and, ultimately, lower operational costs.
WHEN TO HOST VIRTUAL NETWORK FUNCTIONS AT THE SERVICE EDGE

<table>
<thead>
<tr>
<th>MOTIVATION</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Performance</td>
<td>Distributing functions can increase scale and processing power. Some functions (e.g. URL filtering) affected by bandwidth and delay may impact the customer experience.</td>
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<tr>
<td>Feasibility</td>
<td>Some virtual functions, such as WAN optimization, service testing, end-to-end security and QoE monitoring may be more appropriate at the service edge.</td>
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<td>Cost</td>
<td>Locating certain virtual functions at the service edge may save access network bandwidth requirements and eliminate redundancy requirements, thereby reducing costs.</td>
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<tr>
<td>Security</td>
<td>Due to policy or data sensitivity, certain security functions are more effective if located at the service edge.</td>
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SOFTWARE PLATFORM

• MEF CE 2.0 Compliant Ethernet Access Device via built-in virtual network function
• Virtualization platform comprising
  - Linux KVM/QEMU Hypervisor
  - Optimized Virtual Switch
  - OpenStack Support for integration with Ensemble Service Orchestrator
• Software can be used at Service Edge and Aggregation Sites

TECHNICAL SPECIFICATIONS

SYSTEM HIGHLIGHTS

• 1RU ETSI/ANSI compatible form factor supporting field upgrades and servicing
• Rack or wall mount options
• NEBS compliant for CPE
• Multi core Intel x86 architecture
• 4GB – 32GB Memory
• Upgradable SSD for Linux OS and virtual network functions
• Remote update of BIOS and OS
• Dying gasp on the WAN interfaces
• 1588v2 PTP

INTERFACES

• Built-in
  - Up to 6 x GigE, including
  - up to 4 SFP optical
  - USB 2.0 (Type A host)
  - PCIe Gen2
  - mPCIe Gen2
• Expandable Interface Card Options
  - Ethernet over Copper (bonded G.SHDSL)
  - Ethernet over TDM (T1/DS3)
  - Ethernet over SONET/SDH
• Wireless Broadband
  - 3/4G Wireless via mPCIe slot with external antennas
  - WiFi via mPCIe slot with external antennas
• Bulk Storage
  - Via internal SATA or eSATA

POWER AND ENVIRONMENTAL

• AC or -48V DC options
• -5C to 40C operation with resilient (N+1) active/intelligent cooling
• Consumption: 50w – 100w, configuration dependent

Overture 65vSE

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