



Pivot Intelligent Edge for Universal Customer Premises Equipment (uCPE) Implementations

Pivot Intelligent Edge is verified as an Intel® Select Solutions for uCPE on ADVA Ensemble Connector.

Universal customer premises equipment (uCPE) is an emerging category of network functions virtualization (NFV)-based edge computing and service provisioning systems that enable service agility for enterprise clients. Pivot Technology Services has launched its Pivot Intelligent Edge based on the Intel Select Solutions for uCPE, a reference design that combines the powerful Intel® Xeon® D processor with an optimized software stack.

Pivot Intelligent Edge is a solution that delivers virtualized networking services to branch offices and remote facilities. Utilizing the Intel Select Solutions for uCPE provides a reference design that incorporates NFV systems architecture requirements.

Configuration and Specification

Pivot Intelligent Edge is a verified Intel Select Solution for uCPE that leverages the following hardware components:

Item	Description
Server Name	DellEMC Virtual Edge Platform 4600 (VEP4600)
Processor	Intel® Xeon® D-2100 (4,8 and 16 core)
Memory	4 DIMM slot (up to 64GB in standard configuration, upgradable to 128GB)
NICs	4x 1GE, 2 x 10GE 2 X expansion slots. Expansion card options: 4X10Gb DA/SFP+, 2X10 Gb DA/SFP+ with 2X 1Gb, 4X1Gb, WiFi
Intel® Quickassist (Intel® QAT)	Yes (except for 4 core)
Storage	2x M.2 SATA (up to total 960GB in standard configuration, upgradable to 1.92TB)
Operating System	ADVA Ensemble Connector based on CentOS Linux (see https://builders.intel.com/docs/networkbuilders/intel-select-solutions-for-ucpe-adva-ensemble-connector-configurations.pdf for complete software stack)
Other Hardware Features	Power supplies: Standard configuration: 16 core (2 PSU), 8 core (1 PSU), 4 core (1 PSU) Fans: Standard configuration: 16 core (5 fans), 8 core (4 fans), 4 core (4 fans)

	<p>USB ports: 2X -USB type A receptacle (female) ports supports USB 3.0 1X –Micro USB type B receptacle (female) port, available for console port</p> <p>Console ports: 2X –Serial: one for CPU and one for BMC</p> <p>Management ports: 2X -10/100/1000Base-T: one for CPU and one for BMC</p> <p>Power input: AC: 100 to 240 VAC, 50/60 Hz</p>
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ABOUT THE PRODUCT

Pivot Intelligent Edge redefines remote office connectivity with highly scalable virtualization of SD-WAN, routing, WAN acceleration, firewall and other network services, delivering them via software as opposed to closed, dedicated appliances. Pivot deploys NFV services on Universal Client Premises Equipment (uCPE), optimized on Dell VEP4600 hardware and Intel technology in conjunction with the high performance Adva Ensemble Connector. This reduces capital expenses for network hardware, accelerates provisioning and deployment, and enables elastic scalability and automation of network services.

Pivot Intelligent Edge delivers intelligent services to the network edge by offering low total cost of ownership and power draw in a high-performance x86-based space-efficient platform. The Intel Select Solution provides a reference design and verification of performance.

Pivot Intelligent Edge allows enterprises to standardize their network hardware platforms and then, separately, streamline their network and security software feature requirements across all location types instead of overpaying for a hardware and software combination to get a desired feature or performance.

Key features for enterprise customers include the ability to:

- eliminate dedicated appliances for routing, security and other branch network functions
- unlock the full value of your investment in enterprise networking software agreements
- introduce virtualization and automation at the branch level
- reduce technician visits to remote facilities
- place virtual machines and containers at the network edge
- take the first step to moving to a “branch-in-a-box” concept.

PRODUCT PHOTOGRAPHY



Key Benefits

Key benefits of investing in Pivot Intelligent Edge based on Intel Select Solutions for uCPE include:

Faster evaluation: Intel Select Solutions for uCPE combine tight hardware and software specifications to eliminate guesswork and speed decision-making. IT managers can focus their search on key value-added elements and select an optimal solution quickly.

Fast and easy deployment: Intel Select Solutions for uCPE feature pre-defined settings and rigorous system-wide tuning for efficient pre-deployment testing. IT staff know what to expect up front, which speeds time to service delivery and increases confidence in solution performance.

Workload-optimized performance: Intel Select Solutions for uCPE configurations are designed by Intel and its partners to deliver to a performance threshold for the workload and are built on the latest Intel architecture technology including Intel Xeon D processors.

Intel® Xeon® Processor D-2100 Product Family

The Intel Xeon processor D-2100 product family is based on the Intel Xeon Scalable processor architecture and is optimized for low power consumption and high-density solutions, integrating essential network, security, and acceleration capabilities into the platform. Intel Xeon D processor-based solutions enable CommSPs to bring intelligent services to the network edge by offering low total cost of ownership and power draw, and delivering space-efficient commercial off-the-shelf servers. Key features include:

- Enhanced memory: Up to 512 GB of DDR4 ECC
- Enhanced accelerators: Integrated Intel® QuickAssist Technology (Intel® QAT) for accelerated compression and encryption/decryption
New extensions: Intel® Advanced Vector Extensions 512 (Intel® AVX-512), a specialized instruction set for outstanding compute performance
- Enhanced networking: Up to four integrated 10 GbE Intel Ethernet adapters

Conclusion

With Pivot Intelligent Edge based on the Intel Select Solutions for uCPE reference design, Pivot is able to deliver a differentiated platform with validated software from an ecosystem of a large number of tested and optimized virtual network functions (VNFs). This verified uCPE solution will help their customers to deliver new services to branch locations and remote offices.

Learn More

Pivot Intelligent Edge web page: <https://www.pivotts.com/solutions/edge-transformation>

Intel Select Solutions web page: <https://builders.intel.com/intelselectsolutions>

Intel Xeon D processor family: <http://www.intel.com/xeond>

Intel Select Solutions are supported by the Intel Builders Program: <https://builders.intel.com>

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