

CASwell CAR-3080 with CentOS Solution Brief

Verified Intel® Select Solutions for Universal Customer Premises Equipment (uCPE) to handle today's networking workloads and tomorrow's demands with 5G

Overview

Multi-access edge computing (MEC) brings more processing power to the network edge while at the same time offering low latency and high-speed connections for wireless networks and local clouds. But how can enterprises and communication service providers make investing in high-powered edge servers a worthwhile business? Intel Select Solutions like the CASwell CAR-3080 for uCPE with CentOS could be the answer because this system is based on reference design by Intel with verified performance and is ready to be deployed without the need for optimization or spending for expensive software.

CASwell CAR-3080 Intel® Select Solutions for uCPE with CentOS

The CASwell CAR-3080 rackmount appliance, a verified Intel Select Solutions for uCPE with CentOS with real-time extension patch, was developed for the many aspects of multi-access edge computing and can be used for high-end computing with multiple virtual network functionality and software-defined networking while also offering the ability to hold high-capacity storage. As an Intel Select Solution for uCPE with CentOS, the CASwell CAR-3080 brings the powerful performance of Intel® Xeon® D-2166NT processor to the network edge as part of a workload-optimized hardware and software stack that offers verified performance. The compact 1U device platform easily fits into any rackmount cabinet and includes PCI Express 3.0 (PCIe 3.0) for easy upgrades.



The CASwell CAR-3080 is based on the Intel® Xeon® D-2166NT processor with 12 CPU cores supporting Hyper-Threading for 24 parallel threads and equipped with 64 GByte DDR4-2667 main

memory, Intel® SSD DC S4510 with 512 GB and four 10-Gbit Intel Ethernet ports. The Intel Xeon processor D-2166NT comes with integrated Intel® QuickAssist Technology (Intel® QAT). Intel QAT accelerates encrypted data traffic in a secure network, reduces overall data size and lowers storage demands by speeding real-time compression while at the same time offloading the CPU of some of the processing workloads.

Per customer choice the CASwell CAR-3080 can be enhanced almost endlessly with a standard NIC connected by PCIe x16 (can accommodate GPU or FPGA acceleration cards) and three patented NIPs that use PCIe x4/x8 for data transmission and packet acceleration. Each NIP and the NIC can offer up to eight Gigabit-Ethernet ports of their own but are also available in different configurations with 10-GbE, 25-GbE or even 40-GbE ports. Optional bypass switches ensure that the network keeps running even during maintenance or in case of power outages. PoE options are also available when Power over Ethernet is needed besides delivering data — seemingly infinite possibilities of networking configurations!

CentOS is one of the most appealing operating systems right now among professional companies looking for an open and sophisticated Linux platform because it's based on the popular Red Hat distribution while being available free of charge and backed by a big, knowledgeable community. This makes systems like the CASwell CAR-3080 Intel Select Solution for uCPE with CentOS with real-time extension patch one of the best choices for service providers, network operators and enterprises.

Conclusion

With high-end rackmount devices like the CASwell CAR-3080 as an Intel Select Solution for uCPE with CentOS almost every network operator, solution or service provider and enterprises of almost all industry sectors can find their ideal system for multi-access edge computing to not just offer verified high performance to customers and end users but also a ready-to-deploy system to quickly refinance their investments through different use cases and attractive offers for its customer base.

Find out more

CASwell CAR-3080 Intel Select Solution for uCPE with CentOS: <https://www.cas-well.com/products/edge-fog-computing/nfv-servers/car3080-centos.html>

Intel Select Solutions for uCPE: <https://builders.intel.com/intelselectsolutions/intelselectsolutionsforucpe>

Intel Xeon D processor series: <https://www.intel.com/content/www/us/en/products/processors/xeon/d-processors.html>

Intel Network Builders Ecosystem: <https://networkbuilders.intel.com/>

About CASwell

CASwell, Inc. was founded in 2007 by a group of engineers with a desire to create dynamic system solutions for embedded applications. While CASwell is a young company, it has proved itself to its customers with advanced

technology, professional service and superior design and manufacturing capability by delivering a great portfolio of solutions based on Linux®. In 2014, the well-known IPC manufacturer Ennoconn Corporation (subsidiary of Foxconn Technology Group) decided to invest in CASwell, becoming the largest shareholder. CASwell has since become the subsidiary of Ennoconn, a member of Foxconn Technology Group. CASwell is dedicated to providing its customers with an unparalleled one-stop shopping experience for their network security and management needs. Find out more on the official website: <https://www.cas-well.com/>

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