

MAKING THE BUSINESS CASE FOR UNIVERSAL CUSTOMER PREMISES EQUIPMENT

A checklist to guide conversations and decisions on next-generation network solutions

If you're responsible for designing, implementing and maintaining reliable networks that support future growth, you're probably already aware of the technical benefits of moving to universal customer premises equipment (uCPE) – bringing the agility, flexibility and performance of the cloud to the network edge. But, to reach a decision to invest in uCPE, you first need to understand and communicate to the team, its merits. Through five simple questions, this checklist is designed to help you clarify the benefits of uCPE.

1 Do we want to make the most of the opportunities presented by 5G?

- Traditional central offices (COs) don't give us the necessary agility and speed to support services like augmented reality (AR) and virtual reality (VR) at a cost that is sustainable
- The next-generation central office (NGCO), to which uCPE is central, allows us to provision these sorts of services at the edge, and enables seamless transition of the network to 5G
- Using the NGCO, we can cost-effectively provision very low latency applications, such as tactile Internet, automation and connected car, on demand where and when needed

2 Are we interested in increasing revenue?

- uCPE gives us a less costly “try-before-you-buy” approach to managed services upselling
- It enables us to provide value-added services, like integrated firewall, intrusion prevention, and WAN acceleration, without having to procure and deploy costly on-site hardware
- Together with software-defined WAN (SD-WAN), uCPE allows us to provision virtual overlays onto existing physical networks to offer wholesale broadband into places where we do not currently have our own network presence, offsetting any declining Multi-Protocol Label Switching (MPLS) revenues

**3**

How about lowering the TCO of service provision?

- By virtualizing the CO and customer premises equipment (CPE), we can deliver enterprise services at a low total cost of ownership (TCO)¹
- Transitioning fixed-function boxes to virtual network functions (VNFs) running on commercial off-the-shelf (COTS) hardware we can reduce capital expenditure (CAPEX) and ongoing management costs ranging from initial deployment, configuration, post-deployment changes, monitoring, troubleshooting, updates, and upgrades
- On the service side, we can make the delivery and installation of CPE, the commissioning and decommissioning of equipment, and resolving trouble tickets more cost effective

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Do we want to increase business agility?

- uCPE greatly simplifies the management of dynamic operations, making it easier for us to rapidly scale out services and automate post-deployment configuration changes
 - By reducing the time taken to launch and refine services we will be able to respond more quickly to changing customer demand
 - This increased business agility makes it easier for us to differentiate ourselves from the competition and maintain a leading edge
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Do we want to be viewed as a visionary organization?

- 82 percent of our competitors are deploying or plan to execute VNFs on uCPE² located at customer sites. If we want to be leaders, we need to act now
 - Intel offers a range of technologies, including edge-optimized Intel® Xeon® and Intel Atom® system on a chip (SoC) processor technologies, Intel® Optane™ DC persistent memory , and Intel® FPGAs, to support us in the provision of high-performance, cost-effective uCPE
 - And Intel® Select Solutions for uCPE validated reference designs allow us to get to market quickly with a differentiated product
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To read more about the benefits of uCPE, download the eguide: [The A-Z of uCPE](#)

Find the solution that's right for your organization. Contact your Intel representative or visit intel.com/networktransformation

¹ https://www.opnfv.org/wp-content/uploads/sites/12/2018/06/OPNFV_SolutionBrief_VCO_TCO_Web_060818.pdf

² <https://technology.ihs.com/605919/universal-cpe-a-new-market-and-new-deployment-model-for-managed-services>

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