DELL Technologies

BT, Dell Technologies partner to offer new managed services to enterprise customers

Case study: BT delivers network flexibility with uCPE and the Dell EMC Virtual Edge Platform

BT is one of the world's leading providers of communications services and solutions, serving multinational customers in 180 countries. It offers its enterprise customers a comprehensive portfolio of managed network services, which have evolved to include the latest uCPE solutions from Dell Technologies. These developments coincide with the increasing importance of the "edge" as it becomes the focal point where data is generated, aggregated, processed and forwarded as part of their customers' digital transformation.

"There's a real desire from customers to develop a strategy for their network edge that takes advantage of developments in analytics, machine learning, and IoT to deliver real business benefits. Very often, a key element of that strategy is based around deploying platforms that can give them more flexibility," said Brian Lappin, head of product management for BT's Dynamic Network Services. "It's a growing challenge for our customers and one where we know we can support them globally."

"We support a lot of multinational customers with very distributed networks," Lappin said. "So, when looking to expand our range of managed edge solutions, we needed a partner of scale that can support our global footprint effectively and one with an established and recognized edge portfolio that matched the growing importance of the technology in the market. Dell Technologies ticked all of those boxes."

BT is utilizing the Dell EMC Virtual Edge Platform (VEP) as part of BT's Dynamic Network Services portfolio. The Dell EMC VEP is an open uCPE platform that supports a wide variety of virtual network functions (VNFs). It simplifies the customer network environment by eliminating the need for dedicated hardware devices for each customer network function.

The need for consolidation, flexibility and agility

BT's introduction of uCPE into its portfolio delivers several benefits for customers. One, it enables the consolidation of hardware platforms into one that supports multiple services for customers, including the ability to deploy new services quickly and cost-effectively.

"Currently, each network service runs on a dedicated hardware platform, creating a complex environment with multiple hardware platforms, each running one service," Lappin said. "In this environment, we must develop, design and test each hardware platform to ensure proper integration before they can be deployed into our systems. We also must set up specific distribution and logistics services for each hardware platform. This complexity adds significant cost and time to deliver new services to customers."

BT's customers have great flexibility once the uCPE device is deployed at the customer site. Adding a new service will typically require the VNF to be downloaded and installed on the existing uCPE platform at the customer location. This eliminates new hardware deployments and truck-rolls to the customer location — decreasing overall costs and accelerating new service deployments.

The uCPE platform plays a crucial role in the edge strategy

"BT has adopted the Dell EMC VEP 4600 and 1405 for its managed services offering. These VEPs provide the flexibility BT needs to provide their customers the services required to efficiently run their business," according to Kevin Gray, head of 5G and service provider marketing for Dell Technologies.

"The VEP supports multiple services on an open platform to enable BT the capability to serve customers with the services they require efficiently and cost-effectively," Gray said. "It's one platform supporting multiple services."

The Dell EMC VEP 4600 and 1405

The Dell EMC VEP provides BT with a single uCPE platform that can host a variety of VNFs, including SD-WAN, IoT and others. If a BT customer wants to add a new VNF, a simple software download to deploy the VNF is all that is required.

"When you can disaggregate the hardware elements and leverage VNFs, it eliminates a lot of the risks associated with managed services since the uCPE platform is versatile enough to run a variety of VNFs," Lappin said. "With the addition of a suitable hypervisor, VNFs can be taken down and/or replaced with new ones if necessary. It's a flexible software environment that's pay-as-you-go."

"It allows us to move towards an environment where we can de-risk technology choices by reducing the commitment customers are required to make," Lappin said. "The customer can change or alter strategy as they go, as opposed to having to wait for assets to deprecate. It's about being able to repurpose things for different uses."

BT also sees uCPE and Dell Technologies' broader edge portfolio as playing a vital role in the evolution of a customer's edge strategy. As the edge continues to evolve, BT is taking the opportunity to offer new options that are tailored to their customers.

For example, one of the fastest-expanding use-cases at the edge is in the manufacturing sector. Manufacturing factories rely on software-integrated machinery that can collect data, monitor metrics like output and system diagnostics, and connect to a central console for remote management.

Use case: leveraging the edge in manufacturing

BT is experiencing significant customer interest in evolving edge use cases. One example is QIO Technologies, a leader in the manufacturing sector. QIO Technologies focuses on digital transformation and brings IoT technology and augmented analytical applications to factories for better production management and efficiency.

BT's Edge capability and QIO Technologies IoT solution runs on the customer site to monitor factory equipment and ensure it's running at peak performance in terms of reliability, maintainability and energy efficiency. The solution notifies the appropriate personnel if something is not working correctly and signals when maintenance is required on the machinery. The solution helps to ensure the factory is running a maximum efficiency and helps to improve the overall life of the factory equipment by ensuring proper maintenance is kept.

QIO Technologies has extensive background working for companies that make factory systems, so they understand the full range of connectors and the multitude of proprietary protocols. The connectors enable data to be collected to power a suite of artificial intelligence (AI) algorithms that optimize maintenance and energy. This data, along with the AI capabilities, provide very prescriptive guidance to ensure factory machines are maintained and obtain the highest Energy Efficiency Index score.

"One strength of Dell Technologies includes its broad range of portfolio options that can be leveraged to support innovative edge use cases. The uCPE allows us to address some of the smaller local processing requirements that are required at the edge," Lappin said. "As edge computing requirements scale up, the Dell Technologies portfolio also can then be used to scale up to address the increased scale requirements."

The edge drives future innovations, services.

Lappin says BT will continue to support its customers as they seek to address the potential benefits that can be gained at the edge.

"We're starting to see more edge use-cases," he said. "Customers are looking to service providers to supply connectivity securely to support these use cases. By working with Dell Technologies, we believe we are ideally positioned to do that."

The relative novelty of technologies such as SDN, SD-WAN, and edge, leaves plenty of room for BT's platform to grow, according to Lappin, as customers continue to embrace the dynamic nature of a software-defined service.

"We're still in the relatively early days of disaggregating hardware from the software," he said. "I think we'll start to see a shift in terms of customers looking for this type of service because of its flexibility and the importance of the edge to their strategy. And we'll see a shift in how software vendors build their product, as they focus more on the software itself, as opposed to a combined software-hardware capability."

As such, the edge will prove to be a significant longer-term driver for new services, especially as more use-cases develop.

Lappin concluded that "It's a growing and evolving market. Some factors will drive uptake around how our customers increasingly want to use data created at the edge to support their digital strategy. Fueling that will be the increase of data at the edge and the new applications out there that can analyze and use that data."