

Overview

With digitalization, software is a key part of all connected devices that request regular software updates (security, fixes, etc.). These updating requirements are becoming universal, applying to a wide range of applications, including airline, car manufacturers, robotics, or even simpler systems such as IoT or automation solutions.

These constant updates create a new challenge for an enterprise that wants to keep up to date but in a controlled and more secure way while simultaneously ensuring availability across the whole organization using a continuous improvement/continuous delivery (CI/CD) environment. Some large enterprises and specialized vertical service providers have already looked at the challenges and are encountering issues when it comes to consolidating diverse appliances.

A collaboration between the enterprise and the CSP is a new way of addressing the challenges, where the uCPE is enabling the CSP to deliver agile networking solution and simultaneously offering a hosting platform to the enterprise to focus on the management of its applications rather than the management of an edge platform.

Enterprise challenges

- Operating and managing widely distributed edge devices from a central point
- Integration of the services deployed on those devices as part of a global infrastructure
- Integration of edge appliance with the CSP-provided networking appliances
- Deployment of centrally managed services

A real-life example

As an example, many automobile repair shops have multiple sites and a growing need for improved communications for the increased digital technology used in automobiles. The U.S. automotive repair and maintenance services industry has about 160,000 businesses nationwide. Automotive service technicians inspect, maintain, and repair vehicles, as well as diagnose and service more complex problems.

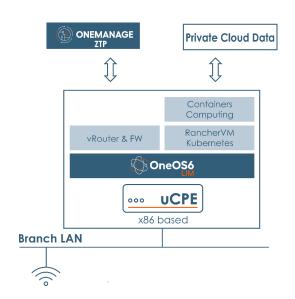
The biggest challenges these shops face are training technicians, staying up to date on diagnostic advances, and keeping up with advances in vehicle technology. Automotive repair companies and independent repair shops struggle with finding the right IT solutions to support these needs with minimal support staff.

To address this challenge, and others, Ekinops developed the a vertical-market centric solution that provides a network infrastructure for fast and more secure access to cloud databases for parts and stocking information, price quoting, repair planning guides, and software repository, access to printers, and WAN management.

In this solution, the Ekinops OVP uCPE integrates all of the networking and security functions that previously required individual hardware devices, using VNFs that can be deployed with redundancy for high reliability. Multi-location auto service businesses can leverage Ekinops OneManage software to centrally distribute VNF-based services and their updates and have everything managed with consistent business policies.

Most cars are now connected with dozens of software functions that require regular updates. Vehicle service and repair shops need continuous and current car manufacturer software updates and patches. Car manufacturers can use Ekinops' vertical-centric solution to distribute and manage VNFs over the cloud to thousands of vehicle service and repair shops around the world.

The flexibility of Ekinops OVP enables service providers to manage the connectivity and uCPEs, or offer a co-managed solution.



Ekinops Open Virtualization Platform (OVP) and OneOS6-LIM

Ekinops OVP is a carrier-grade server platform that utilizes OneOS6-LIM to enable flexible creation and deployment of multiple virtualized services. Ekinops OVP uCPE provides connectivity, virtualization, acceleration, and management functions based on standard protocols and open data models. OneOS6-LIM is the operating system and local virtualization infrastructure (NFVI). OneOS6-LIM is an efficient and lightweight software designed to run a wide range of virtual network functions.





Conclusion

Increasingly complex and disparate technologies are requiring IT and security teams to find agile, cost-effective, and dynamically scalable network and security solutions. Enterprises can no longer afford the capital and operational expenditures associated with the jumble of edge network and security devices. The Ekinops OVP and OneOS6-LIM allow service providers to enable their enterprise customers with automated and programmable solutions, while streamlining IT infrastructure through consolidation.



About Ekinops

Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services. Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.