

# Achieve new growth with CloudCampus

*The rise of technologies like cloud computing, big data, and artificial intelligence are forcing enterprises and industries to adapt to a new economic paradigm. Business and verticals like education, government, manufacturing, finance, and transportation are going digital, with IT greatly boosting enterprise productivity. In this scenario, network efficiency determines operating efficiency and competitiveness.*

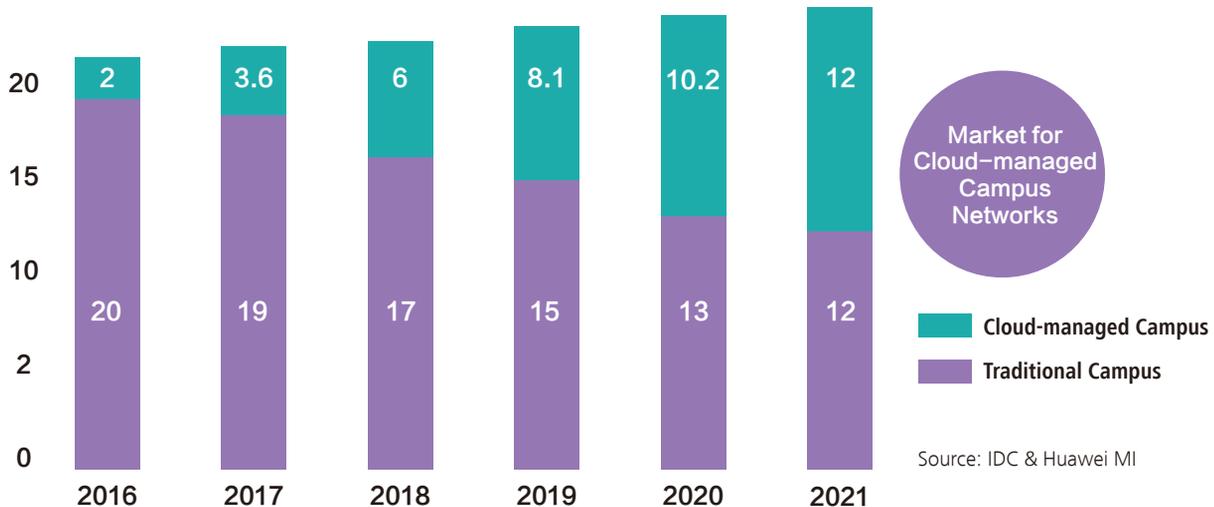
By Wang Bo, Xu Dehui, and Zhang Li

**T**raditional campus networks no longer meet enterprise requirements for fast network deployment and efficient operations and maintenance (O&M), with the OPEX of large-scale campus networks accounting for as much as 73 percent of TCO.

Changes to networks and provisioning new services are the two biggest problems for enterprises.

IDC and Huawei estimate that over the next five years, the number of enterprises purchasing cloud network management services will continue to grow. Enterprises can shift focus from operating network assets or deploying and maintaining campus networks themselves. The CAGR of the market for cloud managed campus networks will increase by more than 45 percent to be worth US\$12 billion by 2021, representing a field where telcos can cultivate B2B services.

25 (billion US\$)



Huawei's CloudCampus solution is designed to reduce the high O&M costs of campus networks, provide open network capacities, and enable campus networks to offer diverse VAS, creating service value for telcos.

## A question of management

Huawei's CloudCampus adopts a cloud management platform to centrally manage all campus networks and enable remote O&M, marking a shift away from distributed management and on-site O&M. Telcos can thus provide efficient campus management and maintenance solutions.

Huawei CloudCampus applies cloud management technology to implement centralized multi-tenant management and support millions of network elements, so telcos can take full advantage of their high-performance network platforms to expand campus network services.

Efficiency and cost are also key factors that telcos consider when they provide campus network services for enterprises. Huawei's CloudCampus solution enables cloud-based campus network planning, deployment, optimization, and preventive maintenance inspection (PMI), helping carriers reduce TCO by over 80 percent.

The Huawei CloudCampus solution adopts all-cloud architecture to support template-based network planning and design, and provides an application orchestration wizard. IT personnel don't need extensive training, thanks to the simplified service and network

design. Automated deployment tools on the cloud deliver fast Wi-Fi network deployment in enterprise campuses, and implement plug-and-play of all-cloud managed devices including WLAN APs, switches, and firewalls. Services can be provisioned quickly after onsite personnel install hardware devices and power them on.

A cloud management platform manages servers in widely dispersed campuses, pools network device resources, enables elastic resource scalability to improve resource utilization, and automatically optimizes networks. Service orchestration in resource pools are drag and drop, lowering skill requirements for IT personnel and ensuring fast service provisioning. The cloud management platform supports geographical information system (GIS) maps and floor plans to enable live networks anytime, anywhere, greatly reducing response time and improving quality of service. The cloud-based PMI tool allows for remote one-click network inspections, cutting onsite workloads and improving routine inspection efficiency.

Huawei's CloudCampus solution introduces the first management model in which one set of products supports and can switch between both local and cloud management, protecting customer investment in live networks.

## All Wi-Fi access

Currently, enterprise networks are moving towards all Wi-Fi access, requiring at least five years of network transformation, a golden period for telcos to provide cloud network

services. The Huawei CloudCampus solution offers Wi-Fi coverage solutions for scenarios with high room densities, high user densities, or IoT appliances.

Huawei's Distributed Wi-Fi Solution provides ubiquitous coverage, while its APs have small-angle directional antennas, improving Wi-Fi coverage performance by 30 percent in high-density coverage scenarios such as stadiums. Huawei's industry-leading IoT-converged APs combine Wi-Fi coverage with other types of wireless technologies such as RFID, ZigBee, and Bluetooth, greatly reducing the TCO of wireless network construction.

## New business models

Self-operated cloud management platforms help telcos maximize service revenues. In the traditional enterprise market, carriers mainly sell broadband leased lines. To avoid purely acting as pipe providers and create more value, telcos can deploy Huawei's CloudCampus to transform to selling VAS as the solution supports various business models and offers both leasable and sellable cloud management platforms.

The open cloud management platform provides big data VAS, letting telcos extract value by responding to enterprise business

requirements and improving user experience. Analyzing data like user behavior and locations enables the cloud management platform to provide quality awareness, free mobility, and network optimization, further improving user experience and increasing customer loyalty.

Telcos' digital transformation goals lie in developing diverse, new services and building new partnerships. Huawei's CloudCampus solution provides a platform with open network capacities and APIs for interconnecting with third-party apps, providing enterprises with self-operated SaaS such as customer flow analysis, e-schoolbags, and precision marketing. The solution also helps carriers build a business ecosystem of enterprise services.

Based on cloud architecture, Huawei's CloudCampus solution realizes intelligence and helps enterprises accelerate digital transformation. In the cloud era, enterprises will embrace the cloud to create new business models and improve user experience and efficiency.

The CloudCampus solution builds a cloud-based, integrated and open network management platform and provides user-centric Wi-Fi coverage to offer an ultra-simple B2B platform for telcos to achieve success in the enterprise market. 

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