



Telecommunications

Delivering 5G experiences at the edge

etisalat by e&

Using Lenovo Edge Computing solutions, powered by 3rd Gen Intel® Xeon® Scalable processors, to bring 5G speed and connectivity to enterprises, fast.

Powered by



Lenovo

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Who is etisalat by e&?

etisalat by e& is the brand representing the UAE telecoms pillar of e& (formerly known as Etisalat Group), operated by Etisalat UAE in its home market. e& is one of the world's leading technology and investment conglomerates. Founded in Abu Dhabi more than four decades ago as the UAE's first telecommunications company, the Group now operates in 16 countries across the Middle East, Asia, and Africa. e& provides innovative digital solutions, smart connectivity, and next-generation technologies to a variety of customer segments through its business pillars: telecoms, e& life, e& enterprise, and e& capital.

etisalat by e& is the largest carrier of international voice traffic in the Middle East and Africa, and the 12th largest voice carrier in the world.

etisalat by e&'s network is one of the core networks in the Middle East, providing internet connectivity to other telecommunications operators in the region. In key markets such as Saudi Arabia and Egypt, the introduction of mobile broadband services has helped bring affordable internet access for the first time to millions.



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The Challenge

etisalat by e& has a long history of innovation. The company was the first telecom operator in the Middle East and North Africa region to launch a 5G wireless network, enabling customers to enjoy online content and services on their mobile devices like never before. The company's enterprise division pioneered solutions to help businesses and governments use data to create a smarter, safer, and more sustainable world.

To take its services to the next level, the company looked to harness multi-access edge computing (MEC) to deliver real-time performance for 5G-enabled services. This would empower etisalat by e&'s enterprise customers to support edge-of-network use cases—such as augmented reality, autonomous vehicles, predictive maintenance, traffic management, and smart metering—and deliver next-generation services to end users. To realize its vision, etisalat by e& needed to find the right technology partners to bring MEC to market.

Capturing the **growth** **potential** of 5G

etisalat by e& partnered with Lenovo, Intel, Casa Systems, Nearby Computing, and Red Hat to architect a 5G edge solution that includes full capabilities for disaggregated, virtual radio access network (vRAN) and MEC on a single, compact platform. The 5G-edge-in-a-box solution is deployable in a variety of scenarios, from Non-Public Mobile Networks (NPM) to etisalat by e&'s edge and hybrid clouds.

The team made extensive use of the Intel® Smart Edge Open software toolkit to speed up development with reference solutions designed for common network edge and on-premises use cases, powered by a Certified Kubernetes cloud-native stack.

Hardware

Lenovo ThinkEdge SE450
Edge Server powered by
3rd Gen Intel® Xeon® Scalable
processors

Software

Intel® Smart Edge Open
Lenovo Open Cloud
Automation (LOC-A)
Red Hat OpenStack Cloud
NearbyOne orchestration
platform
Casa Systems

Services

Lenovo Installation Services
Lenovo Maintenance Services
Lenovo Professional Services
Lenovo Support Services

The 5G-edge-in-a-box-solution also features Lenovo Open Cloud Automation (LOC-A)—a cloud infrastructure deployment and management solution that will enable etisalat by e& to rapidly deploy, optimize, and manage network functions virtualization (NFV) cloud infrastructure for bare metal servers, containers, and VMs. LOC-A will provision Red Hat OpenShift, the industry’s leading enterprise Kubernetes platform, enabling portability of workloads and consistency of performance, operations, and reliability across hybrid environments.



“For the first time in our industry, we’re able to take the compute capability from the data center and move it directly to the edge. The 5G-edge-in-a-box contains all the network functions and third-party applications needed to deliver new services to the customer on-premises.”

Charles Ferland

VP & GM, Edge & Telco, Lenovo



Working together, engineers from Lenovo, Intel, Casa Systems, NearbyComputing, and Red Hat designed and delivered an all-in-one solution that will enable etisalat by e& to offer exciting 5G and edge solutions and services to its enterprise customers—rapidly and reliably.

Khaled Al Suwaidi, Vice President Core Networks & Platforms, Etisalat UAE, said: “Expanding our cloud to on-premises environments at the edge enables faster data processing while adding resiliency, performance, and enhanced user experiences.

“As an early testing partner, our current deployment of Lenovo’s ThinkEdge SE450 server is hosting a 5G network delivered at the edge and introducing new applications to enterprises. It gives us a compact, ruggedized platform with the necessary performance to host our telecom infrastructure and deliver innovative services to users.”



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“Our enterprise customers want ultra-low-latency services combined with the highest data security standards. Our 5G-edge-in-a-box solution from Lenovo and partners enables us to deliver on these demands.”

Khaled Al Suwaidi

Vice President Core Networks & Platforms,
Etisalat UAE

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Results

Looking ahead, etisalat by e& is planning to install the Lenovo ThinkEdge SE450 servers in street cabinets and at enterprises across the UAE, bringing the computing power normally found in remote data centers much closer to where users create and consume data. This will significantly speed up processing, improving the user experience and enabling a broad range of new use cases for etisalat by e& and its enterprise customers.

Al Suwaidi explained: “The Lenovo ThinkEdge solution will enable us to roll out edge 5G connectivity rapidly, empowering our enterprise customers to work on cutting-edge Smart City, IoT, and Industry 4.0 initiatives. We are excited to play our part in bringing tomorrow’s 5G-enabled services to end users, today.”

- ✓ High processing power at the edge
- ✓ Compact footprint
- ✓ Rugged design
- ✓ Remote manageability

Josep Martí Jufresa, CEO at Nearby Computing, adds: “Deploying 5G networks and edge use cases within minutes instead of days is now possible through the edge orchestration layer brought by NearbyOne, allowing a seamless management and operation of this joint best-in-class solution with Lenovo, RedHat and Casa Systems.”

Commenting on the future, Gibson Ang, Vice President of Technology and Product Management, Casa Systems says: “We’ve reached a key milestone for next-generation edge computing. The innovative 5G-edge-in-a-box solution leverages the true potential of 5G, enabling enterprises to support slicing and streamlining the integration of mobile private networks into business operations. Enterprises can now quickly deliver solutions that demand ultra-low latency and dedicated bandwidth to support their business needs.”



“Our partnership with Lenovo and Intel will help us to provide next-generation services to our enterprise customers.”

Khaled Al Suwaidi

Vice President Core Networks & Platforms, Etisalat UAE

Why **Lenovo**?

etisalat by e& selected the Lenovo ThinkEdge SE450 Edge Server as the core building block for the solution. Designed and built with the unique requirements for edge servers in mind, the ThinkEdge SE450's compact form factor, robust construction, connectivity, and remote manageability mean that it can be deployed practically anywhere.

Powered by 3rd Gen Intel® Xeon® Scalable processors, the Lenovo ThinkEdge SE450 delivers enhanced processing power at the edge—crucial for compute-intensive MEC applications.



How Do You Enable Enterprises to Deliver Next-Generation Services?

Delivering ultra-responsive 5G experiences at the edge
with Lenovo and Intel® technology.

[Explore Lenovo Edge Computing](#)

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