



## Case study

# A leading Romanian telecommunications provider expands multi-site data center capacity with modular Vertiv™ power, cooling and infrastructure solutions



## Background

The customer is one of the leading Romanian telecommunications providers delivering nationwide connectivity and digital services. To meet rising demand, the company operates mission-critical data centers where high availability, efficiency, and scalable growth are essential.

## Challenge

As network demand grows, the customer needed a modular, scalable data center architecture that could be deployed across multiple sites across three major Romanian cities with minimal disruption, while enabling phased investment and long-term reliability.

## Solution

In collaboration, Tema Energy and Vertiv designed and implemented a modular data center solution leveraging Vertiv's end-to-end portfolio of power, cooling, and infrastructure solutions to support scalable, resilient and efficient operations across multiple sites.

At the heart of the infrastructure is the [Vertiv™ Containment](#) solution, which separates hot and cold air and tightly controls airflow. This layout is designed to improve cooling efficiency and establish consistent conditions across data halls and sites, making the overall architecture easier to replicate and scale.

Built on this standardized layout, power distribution is delivered through [Vertiv™ PowerBar Track](#), a scalable busbar track system with tap-off boxes that enables capacity to be expanded or rebalanced without reworking core electrical infrastructure. This supports phased deployment and simplifies growth as layouts evolve, helping the customer scale more predictably while reducing complexity and downtime risk during expansions.



### Company Profile:

Leading Romanian telecommunications provider delivering mobile, fixed, and digital services.

**Industry :** Telecommunications

**Region:** Romania



Continuous power protection is delivered through [Vertiv™ Liebert® APM Plus](#) and [Vertiv™ Liebert® APM2](#) modular uninterruptible power supply (UPS) systems. Given the criticality of the sites, additional [Vertiv™ Liebert® EXS](#) UPS units support the cooling system in a 1+1 redundant configuration, helping maintain continuity of thermal operation and overall availability.

To support day-to-day operations and performance optimization, [Vertiv™ PowerIT monitored rack power distribution units \(PDUs\)](#) provide real-time visibility into power consumption at the rack level, helping operators track loads, improve capacity planning, and support efficient growth.

Highly efficient cooling is provided through [Vertiv™ Liebert® CRV row-based systems](#) matched to the containment layout. Depending on the individual site requirements, the units are deployed in either a direct expansion (DX) configuration with dedicated condensers, or a chilled water (CW) configuration supported by the [Vertiv™ Liebert® HPC-S air-cooled chiller](#) with integrated free cooling. This maintains a consistent design approach across sites while adapting to local requirements and operating conditions.

Beyond the design and implementation, Vertiv supports the customer's ongoing operations through service and maintenance delivered by local authorized service partners since 2020.

## Outcome

The customer now operates a scalable, resilient and energy efficient data center foundation across multiple sites, built on a standardized, modular architecture that can be designed to support future growth with reduced disruption.

By integrating Vertiv™ Containment with row based cooling and free cooling chiller technology where deployed, the solution is designed to improve airflow management, stabilizes operating temperatures and delivers significant energy savings. The modular power train, combining Vertiv™ PowerBar Track, UPS protection and rack level monitoring, improves deployment flexibility and enhances visibility into power usage at both rack and room level, supporting ongoing operational optimization. This foundation is backed by ongoing service and maintenance delivered through local authorized service partners, supporting long-term performance and uptime.



**Vertiv™ Aisle Containment**

“As computing power demands continue to grow exponentially, modern data center architecture must deliver efficiency at every level—from power distribution to thermal management. Our project reflects exactly this principle. In collaboration with Vertiv, we delivered an advanced solution built around state-of-the-art technologies, including modular UPS systems, scalable power distribution, and high-efficiency cooling systems. All components were configured as a cohesive, modular infrastructure designed to support high availability, operational efficiency, and sustained performance.”

— **Ștefan Taciuc,**  
Sales Director -  
Critical Infrastructure for Tema Energy