



# Network security in the era of digital transformation

Accelerated digital transformation? Increased use of connected objects? Growth of applications and data beyond the network perimeter?

With the digital changes' acceleration, methods for securing the network must evolve and be able to rely on an intelligent & latest generation infrastructure.

Alcatel·Lucent  
Enterprise



# Network security: accelerating the pace of digital change

Digital transformation is further changing cybersecurity requirements for all businesses and organizations. This means greater complexity, increased use of connected objects, blurring boundaries, and all at an accelerated pace.

**Networks are becoming more strategic than ever.** As the network infrastructure becomes more stressed, it is essential to automate as many processes as possible to reduce the workload of IT teams, improve productivity, reduce human error and increase security.

The Alcatel-Lucent Enterprise approach to security ensures that digital interactions are effective and compliant with industry standard regulations.

**Alcatel-Lucent Enterprise guarantees that its solutions are secure by design.**



**OmniSwitch**  
LAN Connectivity



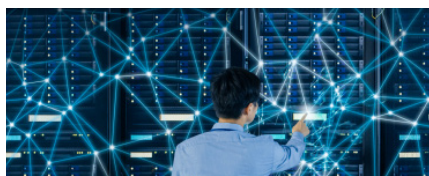
**OmniAccess Stellar**  
WLAN Connectivity



**OmniVista**  
Network management

## Digital Age Networking

A safe and secure environment with digitalisation



### Autonomous Network

An Autonomous Network that easily, automatically, and **securely connects people, processes, applications, and objects.**



### IoT

**Secure and efficient onboarding of IoT** devices using segmentation techniques that minimize the risk of having the entire network being compromised.



### Business Innovation

Business Innovation through workflow automation simplifying the creation and roll-out of new **automated digital business processes** to enhanced productivity and enable new revenue streams.



### An autonomous network

- **Short Path Bridging** technology for higher throughput and redundancy
- **Automation** of network changes

### Reduction of the attack surface thanks to the connected objects' containerisation

- **Virtual network segmentation** for connected objects
- **Automatic quarantine** when unusual behavior is detected

### Reporting and visibility into network integrity and performance

- **Visibility** on all your connected objects
- **Real-time analysis** of critical data and applications of your infrastructure

### Intelligent management of access policies

- Unified and simplified **management of access policies and security rules** via our network management system - available on-premise or in the cloud.

### Advanced analytics that improve trust & facilitate network monitoring

- Identification of habitual behavior patterns and **detection of abnormal trends**
- **Anomaly notification** system

### Securing traffic with MACsec encryption

- **MACSec exchange encryption** - IEEE 802.1AE - end-to-end

Equipment & network solutions developed in compliance with the **most stringent global security standards**

- **Secure software development** best practices, processes, and tools:
  - **Hardened operating system**, secure diversified source code - regularly audited
  - Rigorous **product security** requirements
  - Periodic **validation and quality of security testing** before release
- **Random compilation memory zone** (ALE Software Layout Randomization) - Unique safety function on the market
- Built-in **Denial of Service (DoS)** protection

## A dedicated Product Security Incident Response Team

manages requests, investigations and reporting vulnerabilities or technical issues impacting our products and solutions.



## Managing Third-Party Software Vulnerabilities

Alcatel-Lucent Enterprise PSIRT works with third-party **coordination centers such as CERT-IST, NVD, US-CERT** to manage vulnerabilities notices reported on third-party software embedded or used in ALE products and solutions. The reports are referred to with a unique CVE number (Common Vulnerabilities and Exposures After).

Each issued CVE is analyzed by ALE teams to **provide an adjusted risk score** that reflects the effective impact on our products.

## Alcatel-Lucent Enterprise Standards, Regulatory Compliance & References

