

# REDIMadrid Utilizes GenieATM to Maximize DDoS Protection for Universities in Madrid

**20 th of January 2022.** REDIMadrid, a major network infrastructure based in the Madrid Region (Spain), managed by the IMDEA Software Institute and dependent to the Madrid Regional Government, is using GenieATM to provide automated DDoS protection for the networks of public universities in Madrid.

As one of the most technologically advanced regional research networks in Europe, REDIMadrid currently provides high-speed network services for research, educational and innovation institutions. It currently interconnects 16 independent universities and research centers in the city of Madrid, serving over 290,000 users.

## Attacks in DDoS networks

A DDoS (distributed denial of service) attack is a malicious attempt to disrupt traffic on a server, service or network, overwhelming the target or its surrounding infrastructure with a flood of traffic.

DDoS attacks have been prevalent among sectors such as gaming, telecom, finance, and technology. Driven by the pandemic in 2020, schools are becoming DDoS attack targets as online learning boomed. According to Kaspersky, attacks on education networks saw dramatic increase between January and June of 2020 to as much as 350%. Low barrier to entry, vulnerability of academic networks, and increased amount of valuable and confidential data, are some of the possible reasons that attract cybercriminal activities.

## The role of REDIMadrid

As the network service provider for top academic and research institutions, it is crucial for REDIMadrid to adopt the highest level of network security possible - one that is scalable and

adaptive to evolving DDoS threats. They decide to turn to Genie Networks to achieve this goal through the help of Axians, their regional ICT solutions partner.

REDIMadrid has a GenieATM6000 deployed in its datacenter in Madrid, monitoring network traffic flowing through research institutes, universities, and innovation centers across the city at up to 40Gbit/s upstream bandwidth. REDIMadrid integrates GenieATM's insightful traffic analysis data with their self-developed dashboard via API. With GenieATM's detection engine, normal traffic baselines can be machine-learned adaptively for each university to identify network anomalies in real-time. When an anomaly is detected, the system automatically sends out alerts to trigger a mitigation mechanism (including REDIMadrid's self-developed mitigation tool, depending on each university's preference) to scrub the affected traffic. Network administrators can get a full glance of their traffic statistics via GenieATM's in-depth traffic reporting and deep dive into an anomaly event with the Traffic Snapshot feature.

The GenieATM solution not only ensures business continuity by minimizing downtime from DDoS attacks, but also provides REDIMadrid with comprehensive visibility over the network traffic across their datacenter and academic institutions. This means total control on network security and capacity planning for all network areas, resources, users, and applications - without compromising CapEx and performance.

### About REDIMadrid

Formed in 2003, REDIMadrid is a network infrastructure that enables high-speed data exchange between research, university and innovation institutions in the Madrid Regional Government and provides connection with other national and international research networks through RedIRIS.

REDIMadrid is an initiative of the Madrid Regional Government and currently the entity responsible for its management and development is the IMDEA Software Institute.

### **About Axians**

Axians is a global brand of VINCI Energies, one of the five largest integrators worldwide with a turnover of 2.6 million euros, more than 12,000 employees and presence in 25 countries. Axians España, with a successful history of more than 30 years, is the undisputed leader in integration services around ICT in Spain. With the recent incorporation into the VINCI Energies group, it now plays a differential role in the Digital Transformation scenario, with unified solutions in the Energy, Industry and services markets, and in the lines of innovation linked to IoT, Industry 4.0 and Smart Cities. The proven presence of VINCI Energies in these markets is key to the development of Axians' strategy.

### **About Genie Networks**

Genie Networks is a leading provider of intelligent networking and security solutions that help customers to optimize the performance, security, and cost of their network operations to stay ahead in the ever-changing digital landscape.

### **More information:**

Blanca Gutiérrez  
Communication Manager  
Instituto IMDEA Software  
[blanca.gutierrez@imdea.org](mailto:blanca.gutierrez@imdea.org)  
686 574 819 / 680 990 672