



## GAMESYS STREAMLINES ONLINE GAME DEVELOPMENT WITH PRIVATE CLOUD

### Summary

**Company:**

Gamesys Group

**Industry:**

Media and Entertainment

**Business Challenges:**

Streamline online gaming from inception to production while accelerating the development and release of software into these environments.

**Technology Solution:**

- MX204 Universal Routing Platform
- QFX5100 Switch
- EX4600, EX4300, and EX3400 Ethernet Switches
- SRX5400 Services Gateway
- Contrail Networking
- Contrail Device Manager
- Junos Space Network Management Platform
- Professional Services

**Business Results:**

- Empowered developers with automated, full-stack infrastructure deployment
- Enabled faster time-to-market for new features and games
- Automated global network, security, and cloud provisioning
- Embraced NetOps to bridge the divide between development and operations

Gamesys was born in 2001 with just a handful of developers. Jackpotjoy was launched in 2002, and along the way, the online gaming company has grown to more than 1300 employees across 19 offices worldwide. Through its subsidiaries, Gamesys Group currently offers bingo and casino games using brands which include Jackpotjoy, Virgin Games, Botemania, and others. Gamesys is supported by a private cloud, with Juniper Networks routing, switching, security, and orchestration at the foundation.

### Journey to the Private Cloud

“Our technical mission is to simplify and accelerate the development and operation of our platforms,” says Roberto Pullicino, head of production engineering at Gamesys Group. “Our infrastructure contributes directly to our technical mission to simplify the creation of new ventures and reduce the time and effort to enter new markets.”

Gamesys started its journey to the private cloud three years ago. Business was growing exponentially. Different data centers, operated under different processes based on region, added complexity and hindered easy scalability. To deliver a consistently great online gaming experience to millions of people, Gamesys needed an agile infrastructure that was resilient, stable, and high performing.

As the company shifted toward DevOps and microservices, the network team wanted to empower developers.

“A few years ago, the wall between our developers and operations was thick and high,” says Pullicino. “Developers had to throw everything over the fence.”

*“We’ve gone from days to hours to provision infrastructure. Automating the setup of infrastructure is a huge benefit from the developer’s point of view.”*

- Clinton Grech, network architect, Gamesys Group

An agile cloud for development, testing, and production systems would help developers innovate and get new games and features into the hands of fans faster. “We wanted the ability and scope to make sure that developers could consume infrastructure in a simpler, easier way,” says Pullicino. “We wanted to adopt a NetOps paradigm to help increase our end-to-end efficiency.”

Gamesys also wanted investment protection. As Pullicino explains, “We didn’t want to repeat a data center refresh every few years. We wanted to take it a step further. We began to look at a software-defined approach to our data centers.”

## Building a Private Virtual Cloud

The Gamesys team began moving to a private virtual cloud. To create its cloud platform, Gamesys turned to Red Hat OpenStack for cloud computing and Juniper Networks for routing, switching, security, and service orchestration as the network foundation.

Today, the Gamesys Adaptive InfrAstructure (GAIA) private cloud spans the company’s data centers in London, Malta, and Gibraltar. The cloud platform supports the online game development life cycle, from the incubation of a new feature to development, testing, and production. Working in a single, synergistic environment, Gamesys developers leverage the same tools across all phases, speeding development. Gamesys has the agility and flexibility to grow and meet requirements for ultra-fast product delivery, which is the standard for the gaming industry.

The GAIA cloud hosts a total of 60 different projects, with 950 networks and more than 3000 virtual machines.

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- Roberto Pullicino, head of production engineering, Gamesys Group

“With our private cloud, based on Juniper networking, we have streamlined our architecture, ensured our environments are the same from development to production, and reduced the cost of development and time-to-market,” says Pullicino.

Already a Juniper customer, the team re-architected its data center network to a spine-and-leaf fabric using Juniper Networks® QFX Series Switches and EX Series Ethernet Switches. Juniper Networks MX Series 5G Universal Routing Platforms serve as the cloud gateway, which is managed by Juniper Contrail® Device Manager. Juniper Contrail Networking™ provides dynamic network policy and control, simplifying orchestration of the virtual overlay network. Juniper Networks Junos Space® Network Management Platform is used as the main monitoring tool for the cloud network infrastructure. Juniper Networks SRX Series Services Gateways provide perimeter security at each data center location.

## A NetOps Journey

A flexible private cloud enabled Gamesys to develop games more rapidly and work toward a continuous integration/continuous delivery (CI/CD) practice. A full-stack development infrastructure, which used to take days or even weeks to deliver, is now provisioned in a few hours.

“A couple of years back, the network infrastructure was totally invisible to the development teams,” says Clinton Grech, network architect at Gamesys. “Today, it’s drastically different.”

Grech once spent his time manually configuring VLANs on switches and performing other network tasks as required by the developers. The versatility of Contrail Networking, using network policies and network port functions, enabled the network team to write OpenStack Heat Orchestration Templates, wrapped in Ansible code, to deploy complex load balancers and dedicated environments for the development teams. Developers can provision their own requests through Ansible playbooks.

“We’ve gone from days to hours to provision infrastructure,” Grech says. “Automating the setup of infrastructure is a huge benefit from the developer’s point of view.”

Automation enables Gamesys developers to focus on the delivery of features for the online patrons of Jackpotjoy, Virgin Games, and all the other brands. “We’ve seen dramatically faster time-to-market from the inception of an idea to release into production,” says Grech.

The development team welcomed the agility of NetOps. “We were able to give the developers the control they always wanted,” says Grech. To help the team crush the infrastructure learning curve, the network team identified and collaborated with champions from each development team. “The developers contributed enhancements to our automation code,” he says. “We have a strong partnership.”

Automation also helps Gamesys stop cyberattacks faster. The security operations center uses playbooks to automatically respond to distributed denial of service (DDoS), credential-stuffing, malicious IP addresses, and other attacks.

The network team has gotten a crash course in NetOps. “It was a journey of almost three years,” says Grech. “Automation is not an easy journey, but it’s very rewarding once you’ve done it.”

Grech is happy to not spend time configuring VLANs anymore. “Nowadays I am focused on expanding our cloud infrastructure,” he says. “With a private cloud and automation, I have more time to do more strategic and interesting work.”

## Collaboration with Trusted Partners

Gamesys worked with the UK team at Infradata, a network and security services provider, as well as Juniper Professional Services on the multiyear project.

Infradata managed the installation and commissioning of data centers in Malta, Gibraltar, and London. "Infradata handled the network design, configuration, and deployment, so we could focus on the software side," says Pullicino. "Our relationship with Infradata has grown from strength to strength."

Following the GAIA private cloud, Infradata carried out similar work to support the platform migration for the New Jersey operation of TropicanaCasino.com. The project included installing and commissioning a data center in the U.S. in a mere five days, a job significantly accelerated by automation.

With a private cloud, Gamesys can continue to innovate in online gaming, bringing thrills and surprises to millions of players.

## For More Information

To find out more about Juniper Networks products and solutions, please visit <http://www.juniper.net>.

## About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

### Corporate and Sales Headquarters

Juniper Networks, Inc.  
1133 Innovation Way  
Sunnyvale, CA 94089 USA  
**Phone: 888.JUNIPER (888.586.4737)**  
**or +1.408.745.2000**  
**Fax: +1.408.745.2100**  
**[www.juniper.net](http://www.juniper.net)**

### APAC and EMEA Headquarters

Juniper Networks International B.V.  
Boeing Avenue 240  
1119 PZ Schiphol-Rijk  
Amsterdam, The Netherlands  
**Phone: +31.0.207.125.700**  
**Fax: +31.0.207.125.701**

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