CASE STUDY

ARUBA LAN DELIVERS LOW-LATENCY, ALWAYS-ON NETWORKING TO THE BIGGEST BRING YOUR OWN COMPUTER GAMING MARATHON IN SA

rAge expo
COMPUTERS | GAMING | TECHNOLOGY

If there's one thing gamers are unforgiving about, it's poor network speed and performance. So, when it came to selecting a networking partner for the biggest gaming event in the Southern Hemisphere, rAge senior project manager, Michael James, says speed and performance were his top considerations and that, thanks to the long-standing partnership with Aruba, the LAN is one aspect of the event that he never worries about.
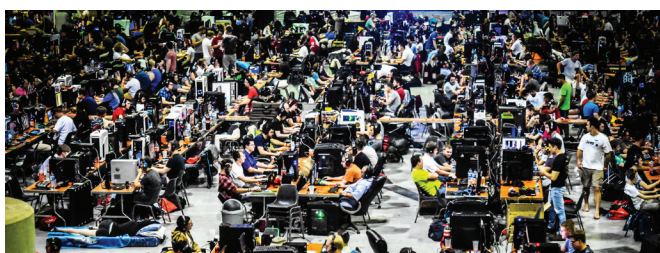
RAGE: REALLY AWESOME GAMING EXPO

The rAge Expo is South Africa's biggest annual gaming, computer and geek culture exhibition. For one weekend a year, thousands of gaming and technology enthusiasts descend on the Expo. Some go to test and buy games and merchandise; others haul their PC rigs, mattresses and good luck charms along for three days of gaming and little sleep, just to be part of the biggest Bring Your Own Computer gaming marathon in the country.

Every year, the rAge LAN attracts between 2,000 and 2,600 gamers, who have come to expect a low-latency, always-on, no-nonsense networking experience – and it's this experience that keeps them coming back every year.

CHALLENGE

In 2009, it become evident to rAge organisers that their existing LAN service provider could no longer meet their requirements.

The situation was complicated by the fact that more than 2,000 machines with different configurations needed to be authenticated and connected to the network, seamlessly – while providing control at the access layer.

They needed a partner who could quickly deploy a large network and who could guarantee that it would work once configured, with little commissioning time. An Expo of this magnitude, which

REQUIREMENTS

- High-speed, high-performance gaming network
- Zero downtime
- 2107 gamers, 268TB traffic, 52 hours
- 2600 ports, one day commissioning

SOLUTION

- Aruba 2530 Access Switches
- Aruba 3810 Distribution Switches
- Aruba 5406R Core Switches
- ClearPass Policy Manager for access control
- AirWave for network management
- Aruba support & services

OUTCOMES

- High availability
- High throughput capacity
- Visibility into network performance
- Ability to modify settings without rebooting network
- Ability to easily on-board, authenticate and register guests & devices

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MICHAEL JAMES
SENIOR PROJECT MANAGER, RAGE

supports non-stop gaming for 52 hours, requires a committed support team who can quickly resolve issues and facilitate hassle-free network connections without the need for domain policies.

"Our previous provider did not have the functionality required to manage such a diverse network," says Erich Blaschczok, NAG LAN Project Manager. "They did not have an enterprise-class solution or the hardware specifications to meet our speed and throughput capacity requirements."

SOLUTION

One of the most important considerations for a LAN of this size is visibility into performance so that issues can be quickly identified – right down to the individual port and switch level – and fixed. Organisers also required the ability to modify settings without needing to bring down the entire network.

"We needed a robust solution that, despite the large amounts of ports required, could be made available in a short timeframe and that provided granular control over all aspects of the network," says Blaschczok.

In the search for a new partner, rAge organisers approached a number of network vendors with a summary of its minimum requirements and a proposed network solution. At the time, Aruba emerged as the best-fit provider, with the right equipment, expertise and enthusiasm.

"When we were discussing options and investigating partners, Aruba kept coming up as the best choice, with the right equipment, software and people. It was an easy decision," says James.

Aruba manages the entire rAge LAN with two products: Airwave Network Management and ClearPass Policy Manager.

With AirWave, Aruba can monitor switches, uplinks and links to the gamers' PCs. It alerts network managers to devices or areas that may experience issues and also provides statistics and bandwidth levels of the network. This allows managers to audit configurations and ensure consistency of the configuration to eliminate user error.

ClearPass allows network managers to easily on-board, authenticate and register guests on the network, through a captive guest portal. It also provides the ability to profile individual devices and measure the amount of data consumed by each device. Crucially, ClearPass also serves as a communication channel to alert gamers and organisers to potential safety issues.

"Two thousand users create a lot of traffic – in just 52 hours, 1,600 gamers created 268TB of traffic, which can overwhelm the hardware – so the network needs to be able to handle everything that's thrown at it. A total of 90 Aruba switches (2 x

5406R chassis; 78 x 2530; 10 x 3810) allowed the routing of all traffic to happen seamlessly, without the end user experiencing any induced lag. We were also able to create large LANs and to simplify configuration for more than 2,600 ports – all in two days and with just one day for commissioning," says Blaschczok. "If any settings needed to be modified, we could do this at the individual port level, without affecting all the other users on that particular switch, and without the need to reboot the device for the changes to take effect."

RESULTS

Since its inception 15 years ago, gamers have come to expect low-latency, always-on networking at rAge. For the past eight years, Aruba has delivered on that without fail, says Blaschczok.

"We always gauge the player experience by how fast the LAN tickets sell out. This year, we sold more than 2,000 tickets in five minutes, a clear indication that the event is held in high esteem. It's easy to see that gamers are happy when you look from an overhead vantage point and see everybody at their tables, happily gaming away. Once you see that they're not at their tables, you know the experience is not as expected," Blaschczok adds.

"Players are willing to forgo home creature comforts and drag their rigs through trial and tribulation to be part of the gaming festival, simply because the awesomeness eclipses all else. The users expect a flawless network performance, of which the highest expectancy is as little latency as possible. The network also needs to provide high levels of throughput and zero downtime," says James.

For James, rAge would not be the success it is, if it weren't for the solution-driven, collaborative approach of the Aruba team. "With so many things needing to happen in such a short timeframe, and with so many variables, there are always challenges. Fortunately, the Aruba support team is very involved in the solution and fully committed to ensuring everything works as expected."

In a normal industry environment, a network of this size would take weeks to deploy. But with the maturity, stability and simplicity of the Aruba technology, along with the hands-on support, James says there is no other partner he'd rather choose for rAge.

"The willingness of Aruba to keep assisting us each year makes the whole event possible. There is nothing they aren't willing to do. It's always a solution-driven relationship and I feel that Aruba is a key ingredient in the tremendous success that rAge is each year," concludes James.