

Value Labs Reduces Network Complexity and Builds a Future-Proof Infrastructure that Meets All Business Requirements

Summary



Company: Value Labs

Industry: IT

Challenges:

- Reduce operational costs
- Improve security.
- Increase service levels to the business from growing security threats
- Implement wireless connectivity with secure guest access

Network solution:

- EX Series Ethernet Switches
- WLC Series Wireless LAN Controllers and WLA Series Wireless LAN Access Points
- SRX Series Services Gateways and MAG4610 Junos Pulse
- SmartPass and Ringmaster

Results:

- Reduced operational costs through network simplification and standardization.
- Provided full wireless connectivity with secure guest access.
- Increased technical performance.
- Created a future-proof network ready to meet all business requirements.

Client synopsis

Value Labs originally had a LAN infrastructure, operating from different data centers and providing connectivity across the business to its 5000 employees across the globe. As a business practice, Value Labs benchmarks itself annually against peers and competitors in the industry to ensure that it is as efficient as possible in key business areas. During one benchmark exercise, it became clear that the network, although offering acceptable performance for the time being, was aging and couldn't support the growth the business was anticipating. The existing network was also complex to run and manage. Total cost of ownership is a key performance indicator for Value Labs, and the company saw the cost to support a growing network infrastructure growing. It also wanted to increase its IT service level and improve the time-to-market for delivering new solutions to the business. One of the business requirements was to

provide wireless access in meeting rooms, which could be used by both staff and visitors. However, security is paramount, so guest access had to be managed separately from the main network to prevent any security breaches.

Situation

Since the existing network infrastructure was being run fairly cost-effectively but was not sustainable on a long-term base, Value Labs used this as its benchmark for the new solution. Standardization was viewed as an effective way to reduce complexity in the network and lower operational costs. Above all, the solution needed to be scalable and provide a high level of redundancy and security. Once the decision was made to replace the network infrastructure, Manoj, Value Labs' Executive Vice President, went through a detailed selection process "We started with a feasibility study to determine exactly which technologies would stand the test of time with us, as well as help us

“Datacipher was very responsive to our requirements .”

“We are building technology, not for today, but for the next five years to come and even further out. We wanted to be ahead of the market needs, and together with Juniper, we’re able to deliver that path into the future.”

- Manoj TK, Vice President, Value Labs

reduce complexity and improve our security,” says Manoj. “Following this, we had discussions with a number of vendors, including Juniper Networks, who partnered with Datacipher for this project. We liked the fact that Juniper and Datacipher clearly worked together so well. The people we met were very professional and it gave us the confidence we needed.” A proof-of-concept was run with two vendors to determine the technical capabilities of the proposed infrastructure and also fully understand the migration implications. This was done in an environment similar to the Value Labs production environment in order to provide as close to a “real life” experience as possible. Gert Lemmens, IT Process owner IT office, comments: “We felt the price/performance ratio which Juniper offered was the best value solution for us. We had also been very impressed with the individuals involved in the proof-of-concept, as they were very solution-minded professionals. This made a difference for us, as we felt confident we would work well together.”

Solution design

The implementation of the new network took a phased approach, with the core network in the data centers moving over first, followed by a phased replacement of 1,000+ edge devices. A dual-core environment supports connectivity over the MPLS network and facilitates communication between the various locations and data centers. In the previous environment, two separate switches were used to provide communication between the office and industrial network

traffic. These have been replaced by Juniper Networks® EX Series Ethernet Switches (the EX4500, EX4200, EX3300, and EX2200 models), where a single switch can provide this dual functionality.

Multiple switches are still used, primarily to provide redundancy. “Reducing the number of elements in a network directly translates to reduced complexity and therefore operational savings, which is what we were looking for, as well as reduced capital expenditure,” Manoj says. IPsec VPN over the Internet provides full failover capabilities, while Juniper Networks SRX Series Services Gateways (the SRX5400 and SRX1400 models) provide the firewall functionality. As Suresh explains: “All network traffic has to pass through the core, so full security and redundancy is very important.” Wireless connectivity for all of Value Labs’ meeting rooms in the various locations was included in the project as well. The wireless implementation needed to be separate from the internal network so that guest access could be accommodated without compromising security. Juniper Networks WLC Series Wireless LAN Controllers (WLC8R and WLC800R models) support about 128 WLA522 Wireless LAN Access Points to provide seamless connectivity. Juniper Networks SmartPass is used to provide dynamic access control over all users and devices on the network, while Juniper Networks Ringmaster is used for network management. In addition, a large community of mobile users is supported through a high-quality and stable SSL VPN implementation, managed through Juniper Networks MAG4610 Junos® Pulse Gateway. All switching, routing, and security network elements, as well as the wireless implementation, are managed

through Juniper Networks Junos operating system. Having a single operating system reduces the time necessary to deploy new services, and it reduces network operational expenses. “Junos OS provides standardization. When we look at scalability and future upgrades, this can all be done in a more cost-effective manner. We are able to operate and manage the entire environment remotely,” Manoj says.

Business Result

Value Labs has experienced some performance improvements which, although not visible to the users, mean the system runs more smoothly. The network segregation between the office-based and industrial parts of the business has helped to improve security and redundancy, and Manoj TK feels the infrastructure is far more robust and able to cope with future business requirements. “This project was very much about risk avoidance,”. “Having an unsustainable, difficult-to-manage environment put us at risk of network downtime which could potentially cost millions. Our business-critical systems have to be available at all times, and we feel this infrastructure gives us this, and more.” Commenting on the user impact of the network redesign, Suresh says: “With an IT-driven project like this,

the ultimate measure of success is the number of complaints we receive from our end users. I’m really pleased to say that we didn’t receive a single complaint throughout the entire migration process. There was no unannounced downtime, and clear communication was used to update users so that they knew exactly when equipment would be replaced. The one visible element of the migration has been the introduction of wireless access. This has been greatly appreciated; especially the secure say that we didn’t receive a single complaint throughout the entire migration process. There was no unannounced downtime, and clear communication was used to update users so that they knew exactly when equipment would be replaced. The one visible element of the migration has been the introduction of wireless access. This has been greatly appreciated, especially the secure guest access provision.”

About Datacipher

Datacipher is offering network design and strategy, Implementation, System integration services, security practices and specialized in providing Professional Services Consulting and Certified Training. Datacipher has extended Training & Services Delivery to multiple regions in APAC i.e., India, Australia & New Zealand Singapore and Philippines.

Datacipher is recognized with Award by Juniper Networks for World Wide Highest Customer Satisfaction in 2015, also in APAC by Juniper for three years in a row 2015, 2014 and 2013 as a JNAEP Partner of the year Datacipher Instructors are awarded as Best Trainers by Juniper Networks for 2007-2015 almost every year Quality is our obligation and we ensure 100% delivery commitment. We consider our success is our Technical Capability. We have highly experienced Engineers with a passion to deliver Services and trainings and access to latest cutting edge technologies. We focus on building the best Testing labs with all latest devices and access methods to ensure certainty in delivery. These are some of the key points that helped us to stay focused in our pursuit of achieving quality and Excellence.

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