Samsung Deploys IPScan to Mitigate Network Access Control Risks

A Case Study

Ensuring Network Integrity

Samsung is a global leader in electronics with one of the most recognizable brands in the world, with 64 subsidiaries, hundreds of global locations, and close to 200,000 employees worldwide. In order to compete effectively in an innovation-led marketplace with other industry giants such as Sony, Motorola, and Nokia, Samsung relies on its global IT organization to provide the information and communications infrastructure needed to support rapid innovation, aggressive marketing, operational efficiency, and intelligent executive planning. Samsung is particularly sensitive to the need to safeguard confidential and mission critical information while maintaining an uninterrupted flow of communications and transactions worth tens of billions of dollars.

During an assessment of its IT infrastructure, Samsung IT discovered that its manual systems for managing IP addresses and Ethernet security was leaving a back door wide open for malicious attacks and unintentional disruptions to its network. The assessment found that:

- Samsung employees and anyone else with knowledge of the company's TCP/IP information could easily compromise network security by taking advantage of a loosely managed pool of over 150,000 IP addresses, most of them deployed in easily discernible static IP address blocks.
- Corporate Headquarters had very low visibility and very little control over fundamental Ethernet and IP access to the network.
- Network teams at locations around the globe were spending significant amounts of time and personnel resources unsuccessfully attempting to keep up with the pace of change of IP address changes. Primitive tools like Excel were still the primary method for tracking IP addresses and the processes in use were not only time-consuming, but inaccurate and could lag days to weeks behind in documenting updates.
- IT did not possess any method to enforce access policy on a real-time basis, making even timely IP address management unable to respond to threats.
- The various manual methods they were using did not give Samsung IT the ability to enforce access policy over user behavior, reporting could not possibly be updated on a real-time basis, and IT was left partially in the dark about what devices were attached to their network and what the users of those devices were doing.
- Duplicate IP address conflicts threatened to cause serious damage to communications by potentially causing critical infrastructure components such as routers, servers and gateways to go off the network.

The San Diego, CA campus of Samsung America, a Samsung Group subsidiary, was a prime example of the challenges in managing the network's Ethernet and IP layer security. The San Diego campus has 2,000 IP addresses on a campus of 4 buildings being managed by a local IT team. "Our IT team had no effective control over user access, with employees

changing their IP addresses, visitors connecting to the network with unregistered addresses, and unauthorized devices being hooked up to the network", said Raul Espinoza, Director of Networks for Samsung America, "Rogue devices connected to the network could easily compromise our virus security, and there was the risk that a duplicate IP address could bring down access to a critical database"

IPScan Delivers Complete Control over Network Access Privileges

Samsung Group chose ViaScope's IPScan solution to manage its vast and geographically dispersed pool of IP addresses. IPScan was the only solution to meet Samsung's requirements for:

- Real-time, network-wide monitoring and reporting on all device IP addresses
- Immediate blocking of and alerting on any attempts to:
    o Change IP addressing for a device
    o Connect to the network with a duplicate or unregistered IP address
- Scalability to meet the needs of the global network, with full visibility from corporate headquarters
- Flexibility to manage both static and dynamic IP addresses, as well as secure access at both the IP and Ethernet MAC address layers
- Full audit trail with time stamping and change tracking of every device's network access history, accompanied by sophisticated reporting capabilities

"The security and integrity of the network is critically important to Samsung's business. IPScan is the only solution that gives us complete enforcement control over all Ethernet and IP network access privileges," said Espinoza. "In addition, IPScan's full auditing & reporting capabilities means that we can document that our access control processes are sound."

Rapid Deployment and Streamlined Operations

Due to its easy to deploy architecture and non-intrusive monitoring operation, the Samsung network team was able to rapidly deploy the IPScan solution. "The San Diego network team was able to deploy IPScan and see every rogue device on the network within a few hours," said Espinoza. "From there, we were easily able to identify and block unauthorized IP address changes by tracing the MAC addresses, in real-time. After a few weeks of fine tuning, IPScan was operating in automated mode, fully meeting Samsung's newly defined global network access control policies, with minimal operator intervention required." Policies are defined centrally at the IPScan Console software, and pushed down to distributed IPScan probe appliances that perform automated blocking and alerting functions. Network managers are able to view additional information on all of their IP & MAC addresses, such as associated employee names and physical locations of the access point - all of which are stored in a searchable database. Using the IPScan console, Samsung is now able to set and enforce policies on specific devices at every location. When visitors are on site and request access they are assigned an IP Address that is automatically set to expire at the end

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of the day. The Samsung team has locked all unused IP addresses so that unauthorized users cannot gain entry through open ports into the network. In addition, Samsung's management has been able to take advantage of the powerful auditing & reporting capabilities of IPScan. IT asset management is now as simple as running a report from the console and printing it out. Reports can be run based on physical office location, geography, department, or even worldwide, with complete accuracy in a fraction of the time it would normally take to generate those reports. This depth of reporting helps management to more effectively manage assets, comply with regulatory standards, and ensure that all network access is completely secured.

Bottom-Line Benefits

Samsung has seen tremendous benefits in its advantages from IPScan. Most importantly, IPScan mitigates against costly security breaches and address conflict-induced communications disruptions. IPScan also streamlines IT operations, allowing Samsung's network teams to effectively manage a large pool of network assets, addresses, and to provide the comprehensive reporting needed for regulatory compliance. "IPScan has already given us a tremendous return on our investment, just in terms of the manpower saved in network operations," said Tony Lee, CIO of Samsung America. "But the real value of this solution is having the control to ensure secure access only into our network. You can't put a price on that level of assurance." Finally, in addition to its security and operational benefits, IPScan enables Samsung IT to deliver faster response times to internal customer change requests, empowering Samsung employees to more rapidly deliver technology and services to the market.

Conclusion

By deploying ViaScope's IPScan network access control solution, Samsung has gained visibility and control over its Ethernet and IP-layer network assets, processes, and security, resulting in increased risk mitigation, operational efficiency, and business responsiveness. For more information on ViaScope solutions and IPScan, please visit the ViaScope website at http://www.viascope.com.

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