CASE STUDY:
Fortune 500 Manufacturer Streamlines WiFi Operations Through Cisco ISE Implementation

THE RESULT:

CTC Technologies, Inc. was able to help the Company:

- Initially implement Cisco ISE in 54 manufacturing locations across the globe, and another 15 to 20 business offices - supporting 10,000 employees

- Execute a stage two deployment of Cisco ISE in over 50 more global locations, supporting over 15,000 employees

- Successfully integrate Cisco ISE with existing network components, including PKI, Active Directory, secure VLANs using Cisco Layer 2 switches, and Checkpoint firewalls

- Elimination of problems with preshared keys through a unified network access protocol, regardless if the end user was on a mobile phone, barcode scanner, tablet, or desktop computer

- Standardize network access for each global site despite the varying wireless schemes in each country, which dramatically helped employees who traveled between global sites

- Best result: Achieved ROI of the total Cisco ISE implementation in less than one year, saving over $100,000 per year in operational expenditures and over 2,500 to 3,000 of man-hours per year

**Disclaimer: Because of the sensitive nature of this company's work, we do not print its name or the name of any workers in this case study. We do, instead, use terms like "Fortune 500 Company, The Company, Global IT Director, etc." to refer to the subjects in this case study.

By implementing a network access control solution for a Fortune 500 Manufacturing Company's 120 global locations, CTC Technologies and their team were able to help streamline their wireless operations, implement a more simplified Mobile Device Management (MDM) policy, and integrate a variety of security mechanisms to help strengthen the integrity of all the networks involved in the overhaul.

Why CTC Technologies Chose Cisco Identity Services Engine (ISE)

A well-established working relationship and a strong background in Cisco ISE implementations is what sparked this Fortune 500 Manufacturer to choose CTC Technologies as their provider for architecture, consultation, implementation, and support.

Having worked with CTC Technologies over the spam over a couple of decades, this Fortune 500 Company new exactly who to choose as their IT vendor when their wireless network's processes and security standards started to become less and less efficient.

The CTC Technologies team of engineers already had a head start as they had previously helped with a large wireless access point refresh, making them familiar with the existing architecture of the Fortune 500 Manufacturer's North American plants. However, the scale of this particular project was global, and the fully implemented solution needed to eventually support over 15,000 employees spread across 120 locations across the globe.

After the initial audit, the global scope of the solution and the stated needs/problems of the Fortune 500 Manufacturer, it was decided that Cisco Identity Services Engine (ISE) would be the chosen direction for the transformation of the Company's wireless network.

TECHNOLOGIES

THE PROBLEMS:

As mobile devices became more common and the reliance on WiFi became more business-critical, the Company started experiencing these problems:

- As a global manufacturer, the ability to track products throughout all points inside of each warehouse all the way to the point of sale is key to maintaining business operations. The Company relies on consistent, secure wireless access to do this.

- The Company was previously using WPA2, which involved arduous, labor-intensive processes and had known security vulnerabilities.

- Many of the Company's wireless processes were "gerryrigged" and were built on-the-fly without a cohesive standard across each of the global manufacturing locations and offices.

- The ubiquity of smartphones and mobile devices added another layer of complexity, especially for those who traveled between global locations. Wireless access become a problem since some locations had their own wireless scheme.

- The opportunity cost of doing security tasks such as refreshing passwords across the network using the old methodology was equivalent to somewhere between 2,500 to 3000 man-hours, which equated to over $100,000 per year in labor costs. These costs would also continue to grow as the company grew in size, and was no longer a scalable option.

THE SOLUTIONS:

At a high-level CTC Technologies overhauled the wireless operations of the Company in two stages, by helping them:

- Navigate the complexities of Cisco ISE. Their internal IT did a few trial and error runs to see if they could implement it on their own, but the complexity of the global network came with high opportunity costs for coming up with a cohesive strategy.

- Seamlessly implement Active Directory and PKI infrastructure, then pushing it out globally, to simply network access from laptops and desktops.

- Seamlessly implement MobileIron specifically for smartphone and tablet access across all global networks.

- Harmonize their disparate network components, including the previously mentioned PKI Infrastructure, MobileIron, and Active Directory, along with secure VLANs with the Cisco network using Layer 2 switches and CheckPoint firewalls.

- Configure highly-granular rule sets for network access with the ability to target specific areas inside of each manufacturing site or business office. For example, limiting network access based on the physical presence of the device on the manufacturing floor versus the lobby.

- Execute a "stage two" deployment of Cisco ISE to a total of 120 global locations, where the Cisco ISE solution is currently used by over 15,000 employees

TECHNOLOGIES

ABOUT CTC TECHNOLOGIES:

CTC Technologies, Inc. is a US-based information technology solutions provider offering a wide range of IT expertise focused on network security, application delivery and IT infrastructure. Our goal is to provide industry leading IT solutions to help your organization improve network performance, mitigate risk and operate efficiently.

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THE AFTERMATH:

The Global IT Director who was tasked with overseeing the project's success and evaluating the efficacy of the solution, reiterated that the Company experienced the following qualitative and quantitative results:

- Overall successful implementation and support of the Cisco ISE wireless network access solution in two stages across 120 locations across the globe.

- Ability to access a team of engineers on-demand without needing to hire and onboard an in-house team - while also enabling the current IT team to stay focused on keeping the Company's operations flowing smoothly.

- Elimination of the opportunity costs associated with closing an entire plant floor down to update passwords and other security protocols due to the implementation of Cisco ISE and a centralized, standardized wireless management plan.

- Despite the moderate capital expenditure, the newly deployed Cisco ISE solution saved between 2,500 and 3,000 in hours per year, which ended up being an estimated $107,000 in annual operational savings.

- Based on the operational savings, the deployed Cisco ISE solution paid itself off in under 12 months while overall increasing security, decreasing operational costs, and streamlining network maintenance and access for the Company's global operations.