Case Study

National Water Utility Protects Critical Infrastructure

EXECUTIVE SUMMARY

Customer Name: National Water Company

Industry: Utilities

Location: Saudi Arabia

Number of Employees: More than 7000

Business Challenges

- Needed to protect nation's critical infrastructure
- Lacked centralized visibility across its more than 100 locations
- Needed to deliver secure, reliable services to millions of customers

Network Solution

- Next-generation firewall technology
- Advanced network visibility and security analytics
- Industry-leading email security with malware protection

Business Results

- Dramatically reduced network blind spots
- Accelerated incident detection and response
- Enhanced IT and security team efficiency, saving time and costs

Saudi Arabia's National Water Company uses Cisco Security to deliver secure services to millions of citizens

Business Challenges

The National Water Company (NWC) of Saudi Arabia is a government-owned utility provider established to deliver exceptional water and wastewater treatment services in accordance with global best practices. NWC specializes in providing high-quality drinking water to the citizens of Saudi Arabia, as well as ensuring the presence of water and wastewater connections in all households, and preserving natural water resources and the environment. NWC prides itself on providing services that are innovative, efficient, reliable, and environmentally and financially sustainable.

The water utility operates across four major cities in Saudi Arabia, and has between 7000 and 8000 employees, as well as an equal number of contractors. To be a world class water utility, NWC knew that a strong, secure network would be critical for its success. The company also plays an important role in ensuring that Saudi Arabia's critical infrastructure is protected from every angle.

Network Solution

NWC's first exposure to Cisco® Security was with the Cisco Adaptive Security Appliance (ASA), which NWC inherited at each of its 100-plus branch offices from the Saudi Arabian government when the company was formed in 2010. NWC also uses a full suite of Cisco routers and switches at both its branch offices and headquarters.

"Without this solution, you're blind. You don't have a view of what's going on in your network, and you don't know what's happening."

Hakem S. Al Sagri
Senior IT Manager, National Water Company

Today, that infrastructure is being used to support and help enable a comprehensive security platform that protects more than 15,000 devices. It includes Cisco Next-Generation Firewalls, Advanced Malware Protection (AMP), the Cisco Email Security Appliance, and the Cisco Stealthwatch™ solution for network visibility and security analytics. NWC's initial implementation of the Cisco ASA has evolved into Next-Generation Firewall protection complete with FirePOWER™ Services for multi-layered threat defense across all of its branch networks.

Using the Cisco ASA 5525-X and 5545-X with FirePOWER Services, NWC is able to combine advanced, threat-focused firewall technology with value-added features, including malware protection, URL filtering, next-generation intrusion prevention, and application visibility and control, all from a single appliance. This eliminates the cost and complexity of buying and managing multiple solutions, and helps reduce blind spots caused by disjointed, piecemeal security solutions.

Extended Network Visibility

To build on the perimeter security provided by the Adaptive Security Appliance, NWC turned to Cisco Stealthwatch to obtain much-needed visibility across the extended network – including at the network core and edge, and in the data center, branch, and cloud. NWC selected Stealthwatch for its ability to collect flow data and provide insight into all network traffic across each of its locations. In addition to its ability to scale and collect massive volumes of data, NWC also embraced Stealthwatch for its quick analysis of network traffic, and because it can automatically prioritize potential issues for its IT staff.

"When we were evaluating NetFlow analysis solutions, there was no one competitor to Stealthwatch that was comprehensive, fast, and efficient," says NWC's Senior IT Manager Hakem S. Al Sagri. "We would have had to purchase three or four different solutions to get all of the features and performance of Stealthwatch. It gives us a very good indication of what's going on in the network."

Some of the specific features that led NWC to select Stealthwatch include its in-depth traffic monitoring and mapping, and the ability to detect both known and unknown threats.

Advanced Email Security

NWC rounds out its security platform with the Cisco Email Security Appliance for protection against email-based attacks, including spam, viruses, and phishing. NWC appreciates the Email Security Appliance, one of the top products in the industry, for its value-added Advanced Malware Protection solution. NWC also likes the ability to control all of its email appliances (including in the branches) through a single management console, instead of having to go to multiple boxes.

Business Results

Cisco Stealthwatch

With Cisco Security, NWC operates a safer environment for supporting its thousands of employees and better serving its customers. In addition to providing early warnings for a wide range of attacks such as malware and DDoS attempts, Stealthwatch has also helped NWC with concerns over network and application slowdowns.

Product List

Security

- Cisco ASA 5525-X and 5545-X with FirePOWER™ Services
- Cisco Stealthwatch
- Cisco Email Security Appliance C380 with AMP
- Cisco Content Security Management Appliance M380
- Cisco FireSIGHT® Management Center

In the past, NWC would spend days investigating network and security issues, and it would be difficult to determine which team was responsible. Now, the IT teams can quickly determine the cause of the issue and remediate it within just minutes.

"Without Stealthwatch, you're blind," says Al Sagri. "You don't have a view of what's going on in your network, and you don't know what's happening. Stealthwatch makes you see things better and makes you more proactive in isolating incidents. It gives the security operations center (SOC) team more insight so that, before anything even happens, they know what's going on."

Next-Generation Firewalls

"The beauty of the Cisco Next-Generation Firewall is the Layer 7 visibility," says NWC Network and Security Manager Majed A. Alodaib. He explains that NWC's IT team can easily see into the application layer and set and manage policies for various programs, saving the team both time and operational costs.

Al Sagri adds that the Next-Generation Firewall "simply makes life easier." He says the Cisco FireSIGHT® Management Center makes the technology simple and easy to manage.

Email Security with AMP

Regarding the Cisco Email Security Appliance, Alodaib says he appreciates the ability to create very specific, granular email policies with it, and pointed out that this is not possible with competitive products. NWC also finds that many malicious emails are blocked each month based on the AMP add-on feature, another valuable capability that was not available with NWC's previous email security solution.

"The security stakes are high for National Water Company," said Mohammad Alabsi, Cisco Enterprise Country Manager. "They cannot afford to suffer from major incidents. Cisco gives them a comprehensive, integrated solution for effectively detecting and stopping a wide range of attacks before they lead to large-scale issues."

For More Information

Find out more about Cisco Security at cisco.com/go/security.

Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at **www.cisco.com/go/offices**.

C36-738712-00 03/17