



Metropolitan Waterworks Authority Enables Cloud Services with Cisco Solutions

Challenge

Metropolitan Waterworks Authority (MWA) is mainly responsible for producing, transmitting and selling tap water to residents in Bangkok and suburban areas including Nonthaburi and Samutprakarn, while ensuring credibility of high-quality edible tap water. MWA is recognized internationally with ISO 9002 certification for Bangkhen Water Treatment Plant, and it aims to earn ISO 9002 certification for public services at each branch. MWA also operates other businesses and activities that are useful for its core operation for the best interest of the country and people under its mission “To provide quality water supply and service coverage by latest technology and professional workforce for customer satisfaction and confidence”. This is in line with MWA’s vision to be the leading ASEAN water supply provider.

In collaboration with
Intel® Xeon® processor



Executive Summary

- **Customer Name:** Metropolitan Waterworks Authority
- **Industry:** State Enterprise/More than 4,000 employees
- **Location:** Bangkok, Thailand

Challenge

- Transform organization to be 'virtual organization'
- Collaborate with other MWA branches and citizens
- Empower workforce to support department's missions
- Reduce the number of servers and heterogonous platforms

Solution

- Cisco Blade Chassis
- Cisco UCS Server with Intel® Xeon® processor
- Cisco Fabric Interconnect
- Cisco SAN Switch
- Cisco Switch

Results

- Reduce the number of servers in use
- Reduced maintenance cost
- Reduce power consumption
- Accelerated core network speed up to 10 Gbps
- Accommodates server and storage expansion
- Cloud-based services enable MWA to support rapid business growth and help citizens access services and information from anywhere

Transform its organization to be virtual organization and deliver leading services with cutting-edge technology

In 2010, MWA set a goal to transform its organization to become "Virtual Organization" within 2014. Therefore, MWA started to improve and upgrade its information technology systems both internally and externally so as to deliver IT services to its employees at head office and 18 branches. This allowed employees to use IT resources more rapidly and efficiently with reliable connectivity. Such IT transformation made existing CIS (Customer Information System) become more stable, and enabled MWA employees to access the system anytime anywhere. Previously, the expansion and upgrade of storage, memory and CPUs were limited and the problem of resource allocation made employees unable to promptly respond to their business units. This is the reason why MWA needed to "migrate to cloud" with an aim to reduce the number of servers and heterogonous platforms. This migration has enabled MWA to manage a large-scale communication system more efficiently. Moreover, one of MWA's goals is to service more than two million people with VoIP call center, allowing people access information and complete online transactions via online channels, thus visits to MWA branches have been reduced.

External and internal IT challenges

MWA has more than 4,000 employees. Therefore, when there is a change, a conflict occurred between IT department and employees who were still familiar with legacy systems. Previously, business workers could be able to use computers more privately and agile, plus enable to manage tasks personally. But today administrative tasks are under IT department. IT department had to educate employees and assured them that there would not be any negative effects, but helped increase work performance instead.

"MWA believes that leveraging efficient solutions will enhance overall system performance as well as improving and accelerating public services."

Peera Teerawat
Deputy Governor (IT)
Metropolitan Waterworks Authority



In collaboration with
Intel® Xeon® processor



Solution

To migrate to cloud, MWA started transforming its existing infrastructure to accommodate innovative cloud-based services. This included upgrading front-end equipment, changing from LAN-based infrastructure to wireless infrastructure, migrating from LAN security to mobile security and replacing PCs with Virtual Desktop Infrastructure (VDI). After having virtualized, users gained PC experiences with better agility and enhanced security. This was one of the most worthwhile long-term investments for the organization.

MWA started to enhance its infrastructure by three phases. Firstly, the network was upgraded, enabling all IT equipments to support 10 Gbps high-speed connection both at main site and backup site. Secondly, fiber optic links were deployed between head office and branch offices and thirdly, security system was established at all MWA locations. All of these processes were part of strengthening its infrastructure for cloud services.

In MWA's datacenter, MWA has deployed Cisco solutions i.e. Cisco Blade Chassis, Cisco Servers for hosting cloud applications. Ten machines have been installed at the head office, and another ten at DR site for backup. To reduce the use of LAN, Cisco Fabric Interconnect and Cisco SAN switch have been deployed between servers and storage. Cisco switch, which is Virtual Access Core, has helped expand LAN from main site to DR site. Moreover, servers have been virtualized, and core network speed has been increased to 10 Gbps.

Results

Today, virtual organization enables MWA to significantly develop its operation and communications. Employees can be able to communicate and transmit more graphics and images e.g. water meter request by GIS, transmission of audio/video files, and web conferencing. All these applications require massive bandwidth, thus MWA upgraded its network to cope with requirements. Today, MWA has reached 10 Gbps transmission speed, up from previous 100 Mbps and each branch is able to use video conference or WebEx to connect with other branches in order to facilitate customers.

"MWA believes that leveraging efficient solutions will enhance overall system performance as well as improving and accelerating public services. In 2014, MWA will focus on delivering speedy services to citizens. Cisco solutions, which are compatible with EMC storage and VMware technology, help save maintenance costs, reduce the number of servers in use, reduce LAN cabling, free up more space and facilitate management. Moreover, it helps cut power consumption, which is in line with our main policy. Cloud-based services enable MWA to support rapid business growth and help people promptly access services and information from anywhere. MWA emphasizes the significance of technology to be deployed appropriately for the sake of our customers' benefits." says Peera Teerawat, Deputy Governor (Information Technology), Metropolitan Waterworks Authority.

"We are very satisfied with Cisco's expertise and professionalism as well as immediate support and effective IT training delivered by Tangerine Co.,Ltd. Cisco and Tangerine understand our business requirements and can address our demands properly, especially for cloud implementation. This implementation truly accommodates server and storage expansion, including disaster recovery to avoid the failure of main site" added Peera.

"Cisco and Tangerine understand our business requirements and can address our demands properly, especially for cloud implementation. This implementation truly accommodates server and storage expansion, including disaster recovery to avoid the failure of main site"

Peera Teerawat
Deputy Governor (IT)
Metropolitan Waterworks Authority



In collaboration with
Intel® Xeon® processor



Next Steps

By 2013, MWA targets to have its own cloud application and its infrastructure to be accomplished and cloud database is set to be completed by 2014.

Product List

- Cisco Unified Computing System with Intel® Xeon® processor:
- Cisco Blade Chassis (UCS 5100)
- Cisco Server (UCS B200 M3)
- Cisco Fabric Interconnect (UCS 6200)
- Cisco SAN Switch (MDS-9148)
- Cisco Switch (Nexus 5548)



In collaboration with
Intel® Xeon® processor

