

## CASE STUDY

### Sheltech Ceramics

#### About Sheltech Ceramics

Sheltech Ceramics Limited (SCL), the latest venture of Sheltech Group, started the commercial production of its exclusive line of floor and wall tiles. With a state-of-the-art factory and modern technology, the commercial production of Sheltech Ceramic tiles started in February of 2019. The factory located in Bholas, Bangladesh, is spread out over 60 acres of land and is currently manufacturing more than 10,000 square meters of floor and wall tiles every day. There are two separate administrative and operational buildings with a plethora of factory workspace and over 1500 employees at the facility.



## THE PROBLEM

Before installing Grandstream access points the Sheltech facility had routers that needed to be managed separately. This became inefficient and time-consuming as every time an issue occurred, the IT team at Sheltech had to physically visit the location and configure all the devices manually as there was no network management platform. The routers did not have a great coverage range and employees could not connect to the Wi-Fi properly from many locations at the facility. With more than 1500 employees at the facility, the routers were not equipped to handle many users at once, which resulted in frequent network disruptions and inefficiencies. The routers in place did not have the network throughput to handle the tasks performed by the employees.

## PROVIDED BY EXCEL TECHNOLOGIES LTD.



Excel Technologies Ltd. is one of the leading IT Companies in Bangladesh and started its journey back in 1999. Excel Technologies Ltd. is the most trusted company because of its excellent after-sales service and warranty policies. With experience of more than 24 years and 17 excel+service customer support points available throughout the whole of Bangladesh.

# THE NEED

The Sheltech facility is currently deploying Grandstream unified communications solutions, a UCM6304 IP PBX and WP810 cordless Wi-Fi IP phones. The WP810s are used for regular internal communication throughout the entire premises as well as communicating with the head office in Dhaka. To carry out regular and consistent communication, a reliable and strong network infrastructure is required. The WP810s were used predominantly by the senior management team who had to monitor all production-related tasks. Since the entire operational area was vast, signal-dropping issues were a common occurrence with the previous networking system in place. Excel Technologies recommended Grandstream's networking solutions to overhaul their existing networking setup and use an all-in-one solutions provider for both their UC and networking needs. The primary goal in updating their system was to ensure proper coverage and roaming as all communication within the facility is dependent on the WP810 Wi-Fi Cordless IP Phones. There was a need for a very strong wireless network to ensure that operations happened smoothly without any interruptions. The following points emphasize the need for Grandstream's networking solutions.

## **Powerful Roaming System:**

With more than 70 WP810 Wi-Fi cordless phones already deployed, it was clear that roaming was a core priority to ensure smooth operations and minimal interruptions. The management team that utilized the WP810s are constantly on the move. Considering that the facility is a large manufacturing plant, accurate monitoring of every task is necessary to ensure smooth production.

## **Centralized Management System:**

Sheltech was keen on having all of their solutions by one provider. They have been using Grandstream's UCM6304 and WP810, however, they deployed a different networking setup that was not able to keep up with the roaming requirements of Grandstream's UC solutions.

## **Connection Reliability:**

Continuous network disruptions were a challenge with the previous networking setup, the management team were frequently disconnected from the Wi-Fi which resulted in delays in performing crucial tasks. Additionally, this hindered communication from the facility to and from the head office.

## **Coverage Range:**

Considering the large size of Sheltech's facility, network coverage proved to be poor and unreliable in various parts of the operational building. In multiple areas there was barely any signal available, and communicating over Wi-Fi or other similar devices was a difficult task.

## **User Capacity:**

Around 1500 employees at the facility required continuous and reliable internet connection and the previous networking deployment could not support this many concurrent clients. Many devices used by the employees kept getting disconnected or showed connected but no internet was found due to the poor capacity of the previous deployment.

## **Local Data Server:**

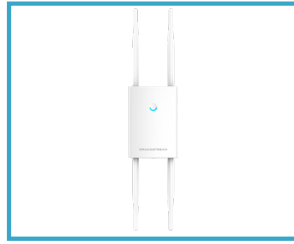
All products and items are stored in a specialized online data center at the warehouse that has a single IP address that is connected locally. With the previous networking setup, the employees had to bring all items to a single location. The router was connected to that IP address and then they must manually make the entry, which proved to be very time-consuming.

With these core problems in mind, Excel Technologies devised a plan that would help resolve the current networking issues and make the new experience satisfactory.

# PRODUCTS DEPLOYED



**GWN7630**  
802.11ac Wave-2 4x4:4  
Enterprise Wi-Fi Access Point  
High-density Indoor Areas



**GWN7630LR**  
Outdoor Long Range Wi-Fi  
Access Point  
Outdoor areas of the facility



**WP810**  
Portable Cordless Wi-Fi IP  
Phone  
Portable IP phone for workers



**UCM6304**  
IP PBX  
Unified Communication &  
Collaboration Solution



**GWN.Cloud**  
Cloud Management  
Platform  
GWN7630 and GWN7630LR  
Management



**GDMS**  
Cloud Management  
Platform  
WP810 and UCM6304  
Management

## WHY GRANDSTREAM?

As mentioned in the previous sections, 70 WP810 Wi-Fi IP Cordless Phones and a UCM6304 IP PBX were deployed, and having these UC solutions connected with Grandstream's access points would eliminate all existing issues and increase efficiency. Therefore, Excel deployed 100 GWN7630 4x4:4 Enterprise Wi-Fi Access Points and 20 GWN7630LR Outdoor Long-Range Wi-Fi Access Points. The GWN7630LR supports 250+ concurrent clients and had a 300-meter coverage range and the GWN7630 supports 200+ clients and had a 175-meter coverage range which made these access points an ideal solution to deal with all the issues.

### Corner to Corner Wi-Fi Signal:

With the data roaming feature and a coverage range of 175 meters and 300 meters respectively for the GWN7630 and GWN7630LR, employees could move around the facility more comfortably and there were no issues of signal dropping throughout.

### Stable Network:

Both the GWN7630 and GWN7630LR had a high network throughput of 2.5Gbps speed to ensure a stable flow of network speed throughout all the connected devices. The 4x4:4 MIMO of the access points played a vital role in delaying speed latency and provided seamless connectivity for tasks like uploading and downloading large files.



# GRANDSTREAM

CONNECTING THE WORLD

## Large User Base:

There are typically 1500+ employees at the Sheltech facility who are all reliant on Wi-Fi to perform their day-to-day tasks and often perform tasks that require a lot of data. This was one of the main reasons to pick Grandstream's GWN7630 and GWN7630LR as the access points for the deployment. The GWN7630 could support 200+ concurrent clients and was deployed in office buildings and high-density user areas. Large open spaces such as cafeterias and attendance grounds were covered by the GWN7630LR which could support more than 250 clients.

## Free-of-cost cloud management:

Another pivotal goal of the deployment was to unify the UC solutions and networking solutions under one service provider. The UC solutions and access points could be managed using the Grandstream Device Management System (GDMS) which provides one of the most advanced central network cloud management systems and is also free of cost.

## Centralized Data Center for Efficiency:

Having a single network for all the devices made it possible to connect all the devices to a single IP address. This enabled the Sheltech team to upload the history and details of all the products at the facility into the local data server from any given place in the manufacturing plant.

## Cost Effective:

Having already deployed the UCM6304 IP PBX and 70 WP810 Wi-Fi IP Phones, creating the new networking infrastructure under the Grandstream brand made the whole solution cost-effective considering the competitive price point and free-of-cost cloud management. Additionally, Grandstream devices are equipped with high-level industry standard fixtures and offer the best value for money.

After deploying the access points, the Excel team trained the IT team personnel at the Sheltech facility and showed them all the best ways possible to operate, troubleshoot, and maintain the new networking setup. The Excel team also conducted an exam to ensure that the IT team at Sheltech was well-educated about operating the new networking system.



## GRANDSTREAM

CONNECTING THE WORLD

## COMPETITORS CONSIDERED

Along with Grandstream, both Unifi and Cambium proposed their solutions to Sheltech. However, the team at Sheltech found Grandstream solutions to be the most optimal, efficient, and advantageous after comparing the proposed solutions. The Sheltech team wanted both their UC and Networking products under one service provider which only Grandstream could provide.

# THE RESULT

The management team at Sheltech Ceramics is thoroughly satisfied with Grandstream's access points as they meet all the requirements that the team was looking for. The IT personnel can control all the access points from one point using GDMS which was not the case earlier. A proper roaming system has helped in connecting all the WP810 Wi-Fi IP phones from any location at the facility with a high coverage range. Many tasks performed by the employees require large amounts of data and the Grandstream access points can keep up with these networking requirements with minimal interruptions. The Sheltech team was so satisfied with the setup and decided to deploy Grandstream access points at the Dhaka headquarters as well. The Excel team deployed 100 GWN7630 access points, 20 GWN7630LR access points, 70 WP810s, and a UCM6304 IP PBX.

The Excel team has constantly stayed in touch with the IT team at Sheltech Ceramics and have gotten constant feedback from the team virtually as well as through physical visits. The feedback provided is summarized below:

- The Sheltech team can now manage the whole system centrally using GDMS. All 120 access points can be managed under one central networking system which was not the case earlier and this made it easy for the IT team to be notified of any issues and diagnose them easily.
- With the entire network under one IP system, the uploading of local product information has never been more efficient. The Sheltech team was able to save a lot of time and financial resources. The product data handling team is thoroughly satisfied as they no longer need to move products from different locations, which proved to be difficult. Anyone could upload the products from anywhere in the operational area.
- No network disruption was reported by the users. WP810 users are constantly on the move and use wireless phones to carry out all conversations amongst themselves and the head office. Barely any signal drop happened when these users moved around the facility with increased efficiency.
- Strong coverage range and increased user capacity of these devices ensured all 1500 employees present at the facility could connect to the Wi-Fi. The employees are now able to carry out all their daily tasks without devices ever letting them down.
- A strong network throughput of 2.33Gbps from the devices combined with their high bandwidth connection, resulted in a great internet usage experience wherein even tasks that required large chunks of data did not bottleneck the system which was previously the case.

Excel Technologies' constant support and regular engagement played a strong role in developing and growing the relationship with Sheltech Ceramics. The management team at Sheltech now believes more in Grandstream than any other networking devices, due to the reliability and stability of the access points. Sheltech has plans to deploy more of Grandstream's access points for new facilities that they have coming up.