

# *Hytera PoC Solution Enhances Learning Environment at the American School of Dubai*



## Introduction

The American School of Dubai occupies a very large campus with over 2,000 students, so a reliable communications system with full geographic coverage was essential to ensure the smooth running of the school and to enhance the safety of staff and pupils. Hytera supplied its HyTalk Push-to-Talk over Cellular (PoC) solution with PoC terminals to provide wide area coverage, voice and video transmissions, and real-time location-based tracking.

## The Background

The American School of Dubai (ASD) was established in 1966 as a not-for-profit educational establishment offering lessons based on the US curriculum to early learning, elementary, middle, and high school students. It is one of the oldest international schools in Dubai and now has more than 2,000 students.

### User Name

American School of Dubai

### Time

2022

### Industry

Education

### Products

- Hytera HyTalk PoC Management Platform
- PNC380 PoC Hand Portable Terminals
- PNC370 PoC Hand Portable Terminals





In 2010, ASD moved to the purpose-built, 23 acre Al Barsha campus, a one million square foot, wireless, state-of-the-art facility in a residential area of Dubai. The campus includes 100 classrooms, two libraries, a 630-seat performing arts theatre, black box theatre, band and choir rooms, five art studios, four purpose-built science and computer labs and a wide range of world-class athletics facilities.

## The Challenge

A high quality, reliable communication system is essential for the smooth running of such a large educational establishment. ASD's key requirement was for a wide area communication solution that would deliver good coverage over the whole of the campus and its many facilities.

ASD also wanted managers to have the ability to monitor the whole team even when not on campus, so as to provide more efficient operations and to enhance the safety and security of both staff and pupils.

Another essential requirement was that the solution needed to be able to support multi-department collaboration, so as to deliver seamless communications between security guards, the health office, IT department, maintenance department and so on. The solution needed to support 10 channel talk groups operating simultaneously on a daily basis.

A major challenge facing any potential communications supplier was the fact that ASD was not able to obtain the necessary frequency licence for a two-way radio network, although such a system was considered to be too expensive anyway.





## The Solution

Hytera proposed a Push-to-Talk over Cellular (PoC) solution based on its HyTalk cloud-based PoC management platform and 55 PNC380 and PNC370 handheld PoC radio terminals. PoC provides two-way radio style push-to-talk communications including one-to-many group calling, individual, broadcast and emergency calling.

PoC operates over existing 2G, 3G and 4G cellular mobile networks and Wi-Fi networks, and unlike two-way radio networks, in the case of the PNC380, it has the advantage of being able to support video calling and streaming and other rich multimedia data services.

As the PoC solution works over cellular mobile networks full coverage is available over the entire campus and across the rest of Dubai, as well as the wider UAE region. Hytera configured the PoC terminals before sending them to ASD, so all the customer had to do was insert the mobile sim card and the devices worked straight out of the box.

Hytera also helped ASD create the different talk groups and allocate each department the features and applications they required on their devices. Talk groups were set up for the administrative staff, facilities staff, IT department, PTSA (Parent, Teacher, Student Association), maintenance department, health office, and the security guards.

The client also wanted to ensure that the PoC terminals could switch seamlessly between Wi-Fi and 4G without dropping the call or video transmission, so Hytera designed a network auto switch to enable this to happen.



## Products

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## The Benefits

### Cost Reduction

The Hytera HyTalk cloud platform means the customer can simply rent the PoC service on a yearly basis without the need for any network infrastructure investment. The PoC solution also got around the problem of not being able to obtain radio spectrum licences.

### Nationwide Communications

By using the existing mobile 4G network and the customer's Wi-Fi network, coverage is ensured both indoors and outdoors. This makes it much easier to manage the smooth operation of the school's many classes and activities on a daily basis. ASD is not limited to a few voice channels, as is the case with many two-way radio networks, and it can create as many talk groups as it requires.

### Staff Monitoring

The in-built GPS location technology in the PoC terminals supports outdoor positioning, so supervisors can locate users in real-time. This makes it much easier to find people and get in touch with the right staff members to relay instructions or communicate tasks. It also makes it quicker to locate them if there is an incident and help needs to be sent.

### Rugged and Robust

The PNC380 in particular is highly rugged and can withstand a lot of hard use as it comes with an IP67 rating, so it is fully protected from dust and is water-proof up to 1 metre for 30 minutes. The radio also meets the MIL-STD-810G standard to withstand 1.5-meter drop.

Hytera's PoC solution provided a simple way to solve the American School of Dubai's communications issues, in particular how to cost-effectively provide coverage throughout the large campus area and its buildings. It also facilitates better interdepartmental communications via the multiple talk groups, which in turn improves the efficiency of daily operations. The GPS location tracking makes it easy to find people and enhances the safety of everyone who works or studies at the school.



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