



ENKAY CONVERGED TECHNOLOGIES LLP
(A Lalbhai Group Company)

CASE STUDY

“PERFECTING DISASTER MANAGEMENT,
DURING MASSIVE MASS GATHERINGS
THROUGH HIGHLY-RELIABLE & ROBUST
COMMUNICATION SYSTEM”

CUSTOMER

Railways (Public Transport)

INDUSTRY

Transportation

CHALLENGES

- Inefficient communication infrastructure delaying action and response during tragic situations.
- Massive network congestion causing the failure of GSM Mobile and wired communication over phones.

SOLUTION

- Cost effective and onsite mobility solutions to attain 99.99% resiliency of Voice and Data communication.
- Offered data networking solution ensuring seamless data connectivity, connecting railway station, remote rail offices as well as residences.

RESULTS

- During January 2019 Kumbh Mela i.e post implementation of Enkay solution, the railways officials could communicate seamlessly during similar mass gathering and high alert timings.
- Officers at remote locations who are also part of main exchange, could seamlessly connect with officers who are on move or if at their home on 24x7 basis.

BACKGROUND

Kumbh Mela, in Hinduism, is a religious pilgrimage that is celebrated four times over a course of 12 years. The geographical location of Kumbh Mela spans over four locations in India and the Mela site keeps rotating between one of the four pilgrimages on four sacred rivers. It is the largest public gathering and collective act of faith. The Mela draws tens of millions of pilgrims over the course of approximately 48 days to bathe at the sacred confluence of the Ganga, the Yamuna, and the mystical Sarasvati.

On 10 February 2013, during Kumbh Mela, a stampede broke out at the train station in Allahabad, Uttar Pradesh, India, killing 42 people and injuring at least 45. The event was considered a Maha Kumbh Mela, which comes around only once every 144 years. It lasted 55 days and was expected to be attended by 100 million pilgrims, making it the largest temporary gathering of people in the world at that time.

CHALLENGE

One of the main reason in terms of poor disaster management during the stampede in 2013 was inadequate communication infrastructure which delayed action and response causing such a tragic outcome. Mobility is the key factor to improve response and lack of dedicated mobile communication devices with railway hampered seamless communication among all officers who were in or near the station at the time and hence the response.

At the time of stampede, excessive communication resulted in huge network congestion causing the failure of GSM Mobile and wired communication over phones. Even walkie-talkie through Radio communication failed which is specifically used during such mass gatherings. The entire communication got blocked leading to major disconnect amongst railway officials

Following the tragedy, the railways officials were looking for Voice and Data communication solution that is wireless, offering high reliability and is up and running at all times under any circumstances like massive gatherings viz. Kumbh Mela.

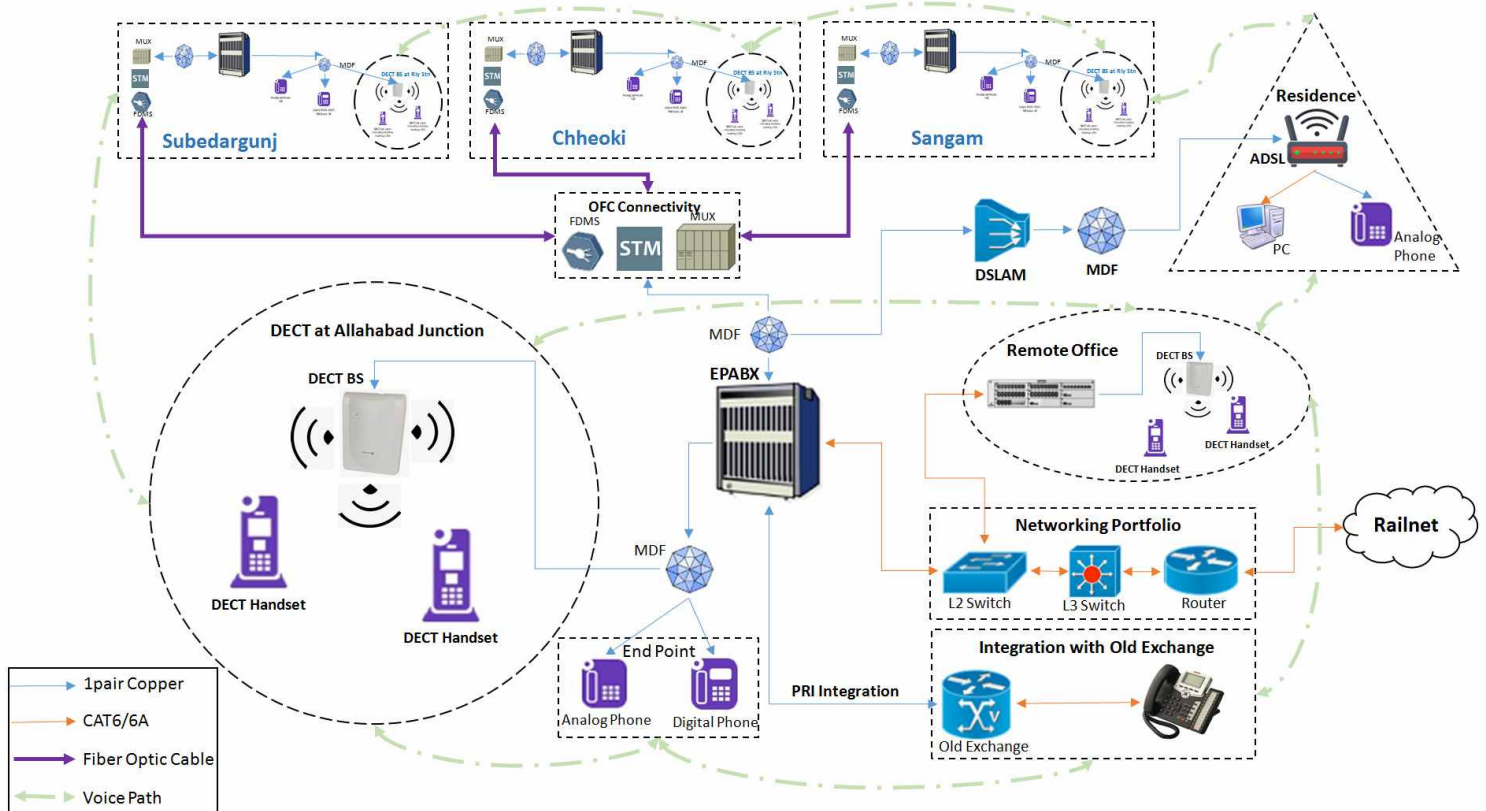
SOLUTION

Enkay team which is well-versed with Railway operations and pain points, proposed Alcatel DECT solution to achieve 99.99% resiliency of Voice and Data communication.

Alcatel-Lucent DECT technology is cost-effective and offers, on-site mobility using IP or TDM network. Frequency on which DECT system operates is different than GSM/ Walkie-talkie so it is not as vulnerable and offers seamless connectivity. It supports long talk and standby times, plus range up to 300 meters (almost 1000 feet) depending upon location and environment. DECT Access Points and Base Stations pair with Alcatel-Lucent DECT handsets for full integration with Alcatel-Lucent Communication Servers, so users are reachable anywhere within the premises and can enjoy all features and facilities similar to desk phones. Alcatel-Lucent's DECT Technology is well suited for harsh and demanding wireless environments, keeping employees connected even when they are away from their desks, in and around the premises and are reachable at all times.

As a part of the data networking requirement, Enkay offered internet/Intranet connections in various parts of railway station and also at the remote offices and residences ensuring seamless and fast data communication over wired line, even when officers move from office to station to their homes.

SOLUTION DIAGRAM



ABOUT ENKAY

A Lalbhai Group company – Enkay Converged Technology LLP designs and executes a wide range of technology solutions for your enterprise – your customers, people and processes, to help you compete in a fast-paced technology landscape.

With 37 years of industry experience, Enkay today, has a significant presence in the enterprise business such as BFSI, healthcare, manufacturing and transportation and enjoys leadership position in hospitality segment. Enkay has been rated among the best in terms of having strong after sales support set up backed by professional SLA.



AV Integration
& Automation



Enterprise
Communication



Network
Infrastructure



Security &
Surveillance

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Further for wider and highly reliable network connection Enkay offered Catalyst Layer 2 and Layer 3 switches and ISR routers. These switches are robust and of latest technology.

Since the Railway residences are located at a distance from the DRM Office, internet connectivity was a concern. To overcome the same, Enkay also deployed IP DSLAM and ADSL router solution which extends Telephone and PC connectivity to residencies over single pair copper connectivity using existing cables laid.

Enkay team also went one step ahead and offered extended connectivity from main station to remote station and offices which are beyond stations boundary enabling faster and better response during emergency.

To enhance OFC Communication, STM-4 with NMS was deployed along with OFC testing equipment to find the exact location of the fault enabling faster repairs.

To give more confidence to Railway authorities, the entire solutions was demonstrated consecutively for 3 days during high traffic timings for both passengers and trains and it worked without any interruption.

RESULTS

The solution was implemented and commissioned just before Kumbh Mela – January 2019. During mela, once again, there was massive congestion in the GSM as well as Radio communication, but the DECT solution deployed by Enkay facilitated the railway officials to communicate seamlessly during such tough time when millions of people were gathered and making entire experience ultimate and remarkable.

Officers now have an access to internet from their office, some parts of station as well as their residences. This turned out to be of great help in terms of getting updated, contacted and making connection.

As officers at remote locations are also part of main exchange, they can seamlessly connect with officers who are on move or if at their home on 24x7 basis.

During the evaluation processes, the railway authorities were not only impressed with Enkay's expertise and understanding the requirement and offering the best-fit solution but also found the solution to be modular and flexible making entire investment successful.