Smooth Sailing: Port of Visakhapatnam streamlines its communication channels

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Indian ports are likely to handle about 1,032 million tonnes (mt) and 2,495 mt of cargo by 2011-12 and 2019-20 respectively, as per recent Maritime Agenda 2010-2020 estimates.

Keeping in mind the business opportunities offered by such growth, the Port of Visakhapatnam (POV) upgraded its limited communications infrastructure to one that facilitated a fast and streamlined flow of information. The company wanted to create a communications network that could be used by all workers involved in various business processes.

tele.net takes a look at the port’s telecom-related initiatives so far...

Background

POV is located on the eastern coast of the country, almost midway between Kolkata and Chennai. It is also a deepwater port in the outer harbour. The port serves the fairly large hinterland of Andhra Pradesh, Jharkhand, Bihar, Odisha, Madhya Pradesh, eastern Maharashtra, Tamil Nadu and, to some extent, Karnataka.

The port was ranked second in terms of cargo throughput among all the major ports in 2009-10. Notably, it enjoyed the top position from 2000-01 to 2006-07.

The port has 25 berths (with draughts ranging from 8 metres to 17 metres) – one container berth, six liquid berths, two iron ore berths and 16 multi-purpose berths. Currently, projects worth Rs 41 billion are being undertaken at the port. Targeted to be completed this year, these projects will add a total capacity of 62 mt at the port.

Legacy system

Initially, POV used a relatively simple communications infrastructure. Plain old telephone systems (POTSs) and emails were used for external communication. As the port’s operations were not widespread then, its telecom needs were relatively simple and its communications network comprised telephone lines, email and “dumb” terminals offering restricted usage.

Considering the fast evolving business requirements, POV realised that its limited telecom infrastructure was not adequate to meet its business requirements. There was a need for a robust and flexible infrastructure.

The shift

The company planned to implement an integrated and transparent communications infrastructure that would enable the flow of information on a real-time basis. As a first step, POV opted for several wide area network technologies, including digital loop carrier (DLC) (local loop), integrated services digital network (ISDN) and the internet.

The use of ISDN provides the port with several benefits. It offers high bandwidth, which permits users to download data faster and stream voice, data and video content easily.

DLC (local loop) connectivity provides POV with reliable and high speed connectivity as compared to the inadequate connectivity provided by the old dial-up connection.

For last mile connectivity, the port utilises optic fibre connectivity and radio frequency technology. Optic fibre was chosen as it offers high bandwidth, which makes it easy for it to be used over longer distances as compared to other mediums such as copper cable.

For securing its network, POV has several solutions in place. Security audits are performed, which systematically evaluate the safety of the company’s information system by measuring how well it conforms to a set of established criteria. Similarly, firewalls protect the resources of the port’s network from users belonging to other networks.

With regard to enterprise applications, VOIP, video/audioconferencing and email are widely used. The port also uses the internet as a strategic tool to reach out to its customers and vendors. Information on the company's financials, recent initiatives, etc. is available on the website. Users can track their containers on the website or via GPRS-enabled mobile handsets.

Challenges and benefits

POV did not face any major challenges while implementing the new infrastructure. The improved telecom system has helped the port to efficiently manage the flow of information, increase network security and reach out to its customers in a better and more efficient manner.

Net, net, the deployment of new technologies has helped POV to ensure business continuity and prepared it to accommodate the ever-increasing requirements of its customers.