

# Case Study Of Ministry of Home Affairs Government of India

## Abstract

TDM over IP (TDM/IP) is viable approach. TDM/IP is a means of emulating TDM circuits over next-generation IP infrastructure. This technology was developed to address the shortcomings of VoIP, particularly its lack of support for TDM signaling and protocols, as well as issues concerning QoS.

A case study shows how a (TDM/IP) system serves Ministry of Home affairs (MHA), Government of India. Maksat's MMS and TDM/IP equipment deployed with security devices of Ministry at different locations.

## Challenge

*" We were looking for a reliable and secure system to connect all our offices in the city to provide voice services. Actually, we were using a leased line from local PSTN company and fed up with the down time and their service." Officer [MHA] said.*

Establishing a Wireless TDM/IP network was really challenging. Ministry was looking for a advance and reliable system with the major concern of Stability, Security and better services. Security and system stability were seen as key factors along with the requirement for an infrastructure that could grow with the client's and the industry's demanding requirements.

## TDM/IP

TDM/IP is not Voice over IP (VoIP). With VoIP you can't transfer the feature of one exchange to another but with TDM/IP it is possible.

VoIP is best suited to transporting one voice call over the network. TDM over IP can be used for different services, not just voice, and you can also transport multiple circuits. It is clear that TDM/IP service is attractive for the access side of the network for transporting multiple services across a network.

Both are meant for different services and do not compete in the network. There are many similarities and differences between two.

Wireless and TDM/IP provide low cost solution for transporting TDM services.. It is simpler than VoIP, and can be complementary where VoIP is too complex or expensive to use. TDM/IP delivers quality of service indistinguishable for the end user.

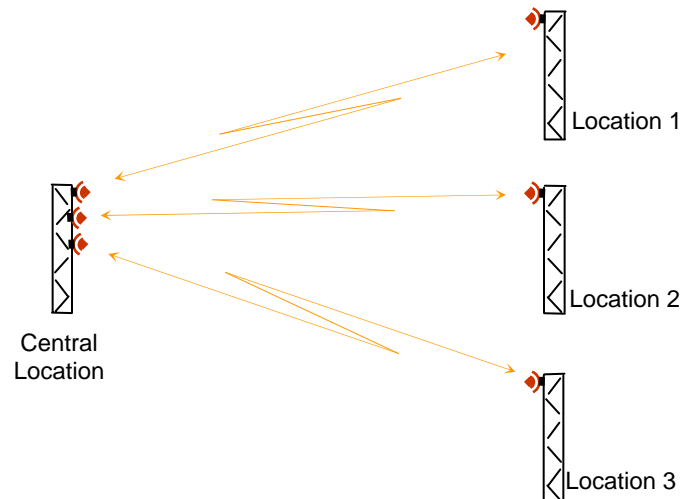
TDM/IP is also ideal for the enterprise looking to reduce network expenses without compromising features of their existing PBX and TDM equipment. This evolutionary approach maximizes investment protection by running all TDM traffic – irrespective of protocols or signaling – transparently over networks.

## Solution

### ***Maksat MMS with OFDM Technology and TDM over IP equipment.***

After getting the order from MHA through a open tender, Management decided to stay with Maksat MMS and TDM over IP Equipments. The solution offers advanced technology and collaboration services. MMS is connected to departments security devices through TDM over IP equipment.

**Network Diagram**



TDM/IP is also ideal for the enterprise looking to reduce network expenses without compromising features of their existing PBX and TDM equipment. This evolutionary approach maximizes investment protection by running all TDM traffic – irrespective of protocols or signaling – transparently over Ethernet/MPLS/IP networks.

One become reliable on a carrier while using leased line and have to face down time issues. Because fiber is not feasible in every case, TDM/IP with wireless technology is good solution for such cases.

Please see the diagram below:

*“ We were able to cut our PSTN bills with no down time on network. We are happy with the performance of the equipment and services of Maksat. Maksat Technologies bid price for the tender was exactly one third of the nearest bidder. So, we have saved a lot of money” ,Officer MHA said.*

Maksat MMS is pre Wi-max Technology With the features like XR of -97 dBm (best in the industry), Watchdog timer, Bandwidth management tool and inbuilt router with operational temperature of -40o C to +80o C.

*“ TDM/IP network is up and running successfully from last 9 months and looked after by just 2 people. So, the maintenance cost of the running network is very low. ”*

**Benefits**

Wireless connectivity of EPBX system from all the branches of ministry in local city, made it possible to avoid the down time and save PSTN bills. Officer can consult their senior’s colleague in other branches and take fast decisions and receive day to day updates without compromising on the security. and save PSTN bills. Officer can consult their colleges in other branch and take fast decisions and receive day to day updates without compromising on the security.

**System at Each Location**

