

Driving Efficiency in Telecom Operations



Case Study

Telecom Industry

With about 980 million wireless users, India's mobile market trails only that of China. But despite impressive growth rates, the telecom sector continues to be immensely competitive and many telecom service firms are struggling because of costly spectrum auctions and rock bottom tariffs.

Telecom Towers are critical for providing connectivity and allied telecom services. More than hundred thousand towers located across India help bring connectivity, at affordable prices, to the poorest of poor, creating a positive impact on Indian economy.

Telecom towers in India are not owned by telecom service provider/operators. Telecom infrastructure service providers build, own, operate and maintain these telecom towers for them. This model enables the telecom operators to convert their capital expenditure to a fixed and predictable operational expenditure allowing them to divert precious capital towards core activities.

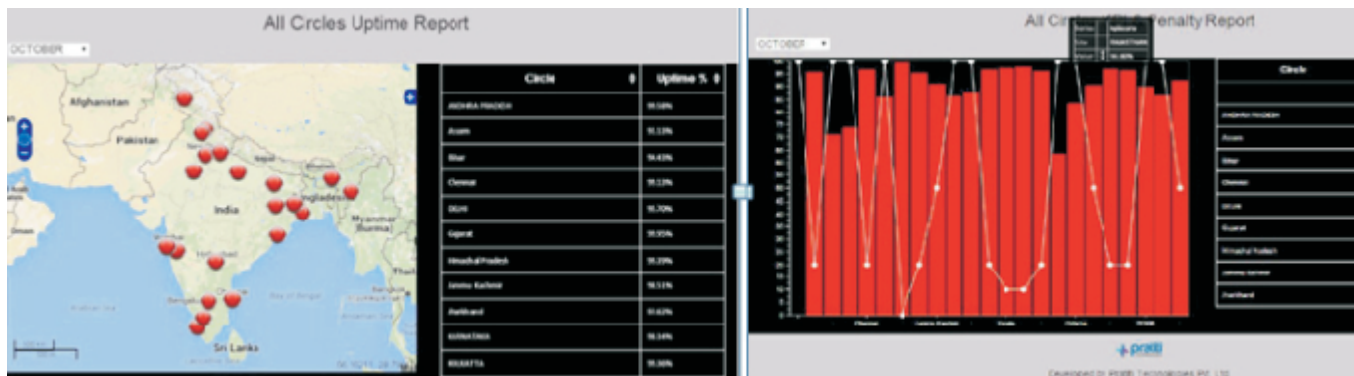
Business Challenge

Telecom switches installed at telecom towers have vital information on tower status, server status etc. However, third party Operation and Maintenance (O&M) providers do not have real-time access to this information, thus delaying their response to site issues.

O&M firms are compensated based on performance and uptime of a telecom tower. Operation and maintenance teams have no data log regarding actual uptime of the telecom tower. Data provided in spreadsheets by telecom companies is open to human interpretations creating disputes and issues over actual performance of telecom towers.

At site, generator and battery backup is provided to ensure 24*7 operation of the telecom tower. Till now O & M Teams have no real-time visibility of utilization and upkeep of the tower. There is no ready information about actual diesel consumed by these generators or health of the batteries.

All the data required for operation and maintenance of the telecom towers and related infrastructure is dispersed and is being updated and maintained manually. On field teams are always in a fire fighting mode due to lack of correct and timely information.



The Solution:

Pratiti Technologies and a leading O&M player partnered to develop technology to resolve these business challenges. The solution used insightBiz – Pratiti's Analytics Services.

The sensor and connector at site collected data on logical state of the devices. The platform leveraged deployed devices and sensors from multiple vendors and provided, a monitoring application, a mediation gateway, a trouble ticketing system and big data analytics.

The architecture is scalable, reliable, flexible and secured by way of security and confidentiality framework. The platform also provides instant Email and SMS to concerned person giving alerts, alarms and reports tremendously aiding the preventive and corrective maintenance effort

- Technology leverages latest IoT platform which provides scalability to collect / receive data from thousands of telecom towers
- It provides flexibility to receive data in various formats / protocols – MQTT, TCP, HTTP/HTTPS and OSS logs
- J2EE based application platform with micro services architecture
- Business Intelligence application to mine through data received and create meaningful business intelligence like uptime, KPI, fault density, etc
- Adhoc analytics capability to carry out various analytics for improvement in business outcomes
- Bigdata capability to crunch huge data received from telecom towers with high velocity and create meaningful structured information

Benefits

Telecom companies and O&M teams have hugely benefitted with this innovative solution. The real-time data inform of interactive charts, maps provide simple and actionable visual information, now made visible for immediate corrective action by maintenance teams.

The solution provides better insights into business performance with customized reports indicating specific performance parameters giving teams ability to trace root cause. Teams can now get real-time information about status of the tower, tremendously aiding their ability to react to take corrective actions in case of a cluster or server going down.

Ticketing system introduced with the solution gave management the visibility to occurrence of an incident and time taken for the corrective action. This tremendously aided the planning process reducing firefighting in O&M teams.

The solution gave visibility to vital tower battery parameters, enabling preventive maintenance. Amount of diesel consumed in a generator could now be monitored.

Complete data visibility gives the O&M client, the confidence to take informed decisions. They can now evaluate business scenarios and do predictive analysis with analytics that is built into the solution. The Analysis results in significant savings in terms of capital and operational expenditure.

The solution has resulted in not only improving the performance of the asset, but also reduced failure rates, response and restoration time, has improved the network up time and also revenues for our O&M Client.

Services We offer



**Connected
Services**



**Enhanced
Customer
Experience**



**Digital
Corporate**



**Product
Development
(PLM)**



Global Headquarters

100, NCL Innovation Park,
Dr. Homi Bhabha Road,
Pune 411008, India
contact@pratititech.com
+91 90960 03210

United States

Cupertino, CA
contact-americas@pratititech.com
+1 (214) 714 0750