



Abstract

A case study shows how a line of sight broadband wireless network system successfully serves a Company. Maksat's MMS is deployed in Bajaj Hindustan Limited (BHL) at 8 locations mostly in rural area's of Uttar Pradesh. These sites include corporate office at Noida with manufacturing plants at Gola, Palia, Kinoni, Billai, Budana, Thana Bawan and store at Sitapur.

Our Client

The Shishir Bajaj group flagship's Bajaj Hindustan Limited, manufactures sugar and its allied products and cement. The company recently invested in a new sugar mill's with an eye to emerging as the leader in sugar industry. The company was incorporated in 1931 at Mumbai. It is one of the largest producers of sugar in India. The company is currently engaged in the production of sugar and industrial alcohol, with sugar plants in the cane-rich area of Uttar Pradesh.

Challenge

Manufacturing companies (Non-IT) face many challenges, especially when it relates to technology. The importance of providing workers and officers with current technology while addressing such issues is an ongoing struggle for Non-IT Manufacturing companies around the world.

Bajaj Hindustan was looking for a solution with latest technology to connect their Manufacturing plants at different locations (rural area) with corporate office's at Noida and Mumbai. Centralization of all operations was basic idea behind this connectivity plan. High data rate connectivity was required to run the applications like *Centralized Server, Voice and Video conferencing*. Where as *long distance between manufacturing plants in rural areas*, was it-self a major challenge, including *one-to-one redundancy* of connectivity solution.

This will not only save the time to access the latest records but also cut the operational cost of the BHL. It will help the top management to take fast decisions and improve the productivity of employees, which will finally increase the profits of Baja Hindustan Ltd.

Solution

MakSat MMS Bridge & Router with OFDM Technology and long range connectivity.

The administration recognized several advantages to a wireless network, chief among them easy to maintain. Cost and infrastructure were also factors.

"We wanted to connect all the locations at less cost, and mostly in areas where it might be difficult to provide wired solution," Manager (BHL) said. In many locations, like Kinoni and Billai, installing wired connectivity would have been expensive, time-consuming and or even not possible. Wireless technology was not only easier and more cost-effective to install, but also more convenient. So, Bajaj Hindustan selected MMS wireless Technology of Maksat Technologies to implement the connectivity solution.

The administration was also impressed with the ease of installation and long range connectivity. "Implementation was easy," said BHL officials, "And we were surprised by how strong and complete the coverage was in the rural areas. Where it is difficult even to access the sites by road. When we measured signal strength and data through put at the different locations, we discovered that we had very good connectivity like local LAN, even at the link of 62 Km between Sitapur and Gola or 75 km between Gola and Khember Khera."

Kushagra Bajaj operates from Bajaj Bhawan in Mumbai or Bajaj Bhawan in Noida, both super swank offices overflowing with the latest gadgetry in communications. He rarely camps at his mills; at any time, he can call a conference of all the general managers of Bajaj Hindusthan's factories through the radio frequency network. "I am not interested in the day-to-day running of my factories; I leave it to a professional team. And, believe me, I have hired the best," he says

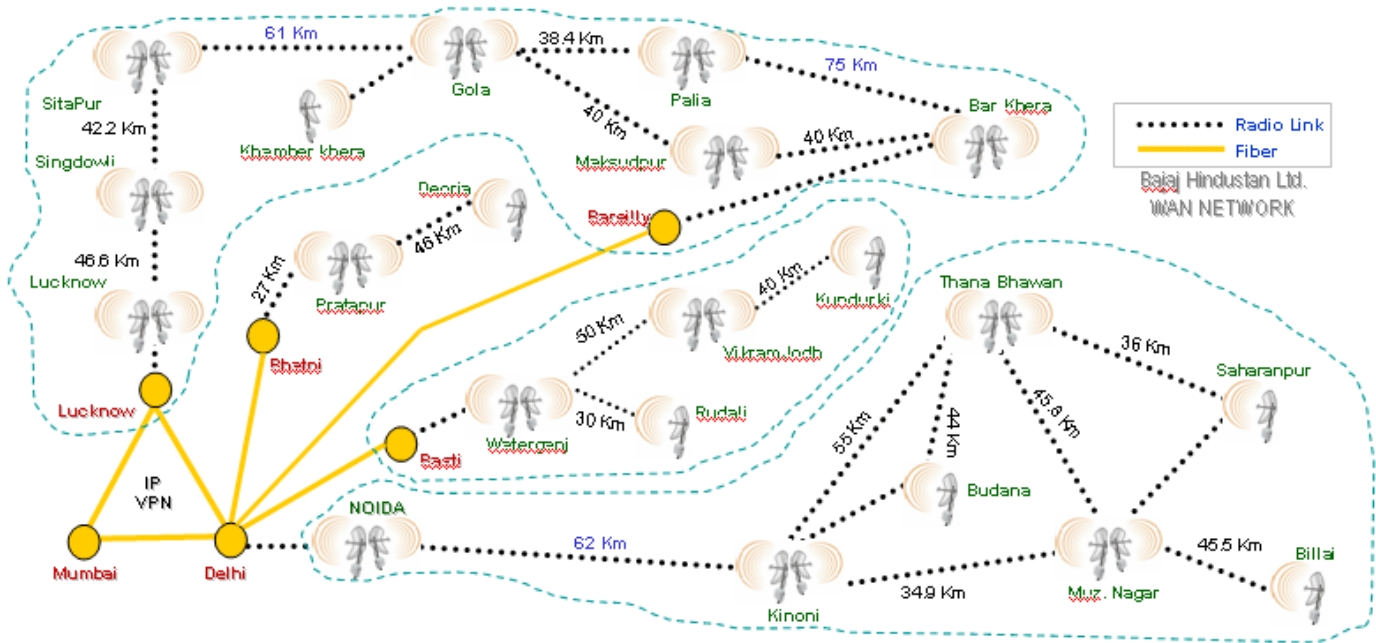
(from BusinessWorld magazines).

MakSat MMS is a pre Wi-max Technology with the features like XR of (-)105 dBm (best in the industry), Watchdog timer, Bandwidth management tool and inbuilt router with operational temperature of (-) 40 C to (+)80 C. MMS wireless network also provides the BHL with a safer level of security not typically found in other wireless products. MMS's 128-bit encryption up to 3 keys, deliver the highest security available in the industry.

Network was divided into three parts: Lucknow, Noida and Mumbai. Gola, Palia and Sitapur are connected to Lucknow, where as Billai, Thana Bawan, Kinoni and Budana connected to corporate office in Noida. BHL head office in Mumbai, Lucknow and Noida is connected through VPN provided by Bharti Infotel Ltd.

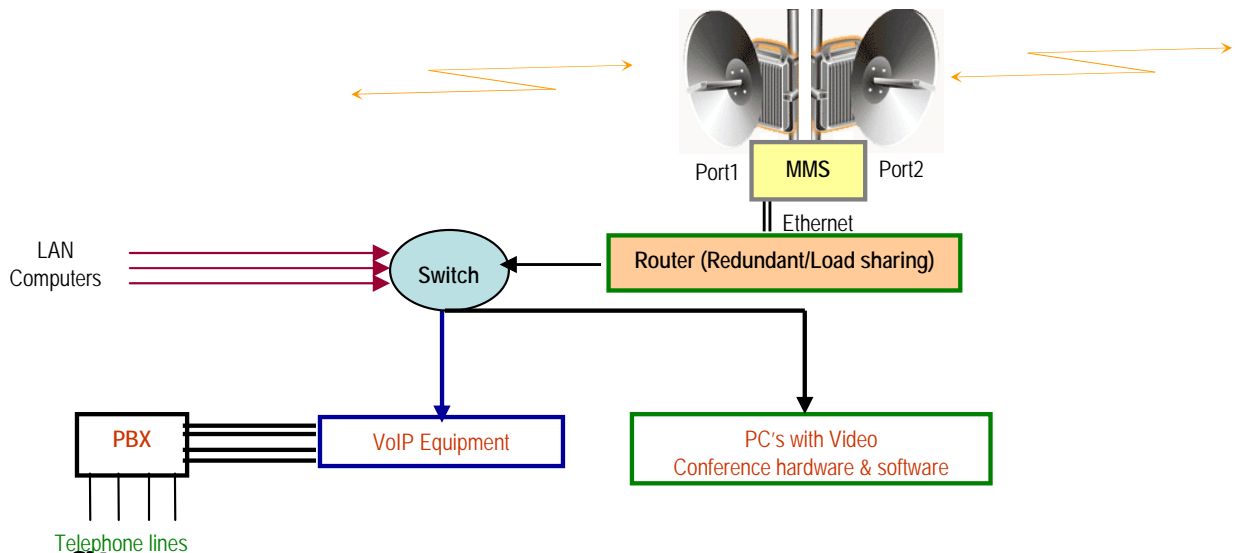


For more detail see diagram below :



WIRELESS

MakSat MMS equipment is connected to switch through router. Each site is connected with redundancy link. The router provides load sharing on the redundancy links. In case one link faces any difficulties the load is shifted to another link by router. The system at each location is shown in figure given below:



The Benefits

Centralization of operations with Wireless connectivity made it possible to take fast decisions and access the day to day records of production and available stock available at different plants. Voice services helped to access the remote sites where PSTN service is poor or even not available. All manufacturing locations including offices at Noida and Mumbai are available through local EPBX system, at no any extra cost. Video conferencing helps in day to day meetings between top level management at different units or locations. It has improved the performance of the employee's and finally increased the total production of all the units of Bajaj Hindustan.

BHL management is happy with the results of connectivity project and now planning to connect their local cane collection centers with the respective manufacturing plants.