



Infrastructure

Telecommunications

Client

Government of India Enterprises
(Bharat Sanchar Nigam Limited)
Nortel Networks

Location

Various Locations, India

Telecom GSM Network Rollout

Project Highlights

- Implement Telecom and total site infrastructure
- Install, commission, and integrate 1500 BTS into GSM network in Orissa and North East states of India
- Obtain permitting for SACFA (siting and frequency) from Central Authority of Government of India, electricity connections from State Electricity Boards, and municipality permissions in large number of cities/towns
- Conduct site survey, layout & design, and prepare site documents for 1500 GSM sites
- Complete acceptance testing and hand over of 1500 GSM sites to principal customer, BSNL

Project Description

This project entailed site survey, layout and design, site infrastructure work and telecom implementation for GSM based network of BSNL in the states of Orissa and North East States (Assam, Meghalaya, Mizoram, Tripura, Manipur, Nagaland, and Arunachal Pradesh). Site infrastructure work involved civil work for foundation for tower/equipment, erection of ground-based and roof-top towers, pre-fab shelter, and electrical work and related wiring. Telecom implementation included antennas, feeders/accessories and installation, commissioning, and integration of 1500 BTS into the network. The project was awarded by BSNL to Nortel Networks. Projects of this nature are highly challenging due to a number of third party dependencies and vast distribution project site.

CH2M HILL obtained various mandatory permissions from government authorities: Permitting for SACFA from Central Authority of Government of India; electricity connections from State Electricity Board; and municipality permissions from respective Municipal Corporations in a large number of cities/towns.

Site specific documents to include design and technical reports were prepared for 1500 GSM sites. Acceptance testing involving measurement of all technical parameters were conducted for 1500 GSM sites and these were handed over to principal customer, BSNL.

With the completion of this project mobile telecom services were made available to very large area of both the states including rural and undeveloped areas, improving the quality of service to a large extent.