Unmanned Substations are now a reality, thanks to a reliable and secure communication. A number of Electrical Utilities in India are trying to meet the growing demands of power by adding more overhead lines and adding substations. Substantial cost savings result in deploying unmanned substations as compared to the conventional manned substations. This is because of reduced manpower as no operator is needed, lower space due to compact size, lower construction cost due to prefabricated design, low maintenance cost, etc.

Operation of an unmanned substation is practical only if a reliable and secure communication is in place. After rigorous field trials, devices from Viola Systems supplied by PMAS Jaipur have been selected to provide the communication for unmanned substations in the states Haryana, Rajasthan, Assam, and Himachal Pradesh in India. Besides security and reliability more demands are related to remotely configure and operate the unmanned substation, fast deployment, integration with the field RTU’s, protection relays, meters and Autoreclosers, etc.

It is planned to deploy the solution all over the these states within the next three years time frame. PMAS is presently doing the 9 Substations of UHBVN with ABB make Reclosures and 5 Substations of Himachal with Schneider Electric. PMAS is using the M2M Technology by Viola Systems on GPRS over IEC 104 to communicate between the Unmanned Substation and the SCADA. SMS for ON/OFF will be sent from the SCADA Station.