



Energy | Monitoring Power Availability and Quality Across India Using Datonis



Smart Manufacturing



Smart Grid



Smart City



Smart Health



SECTOR

Energy



CUSTOMER PROFILE

Prayas Energy Group, a **Non-Governmental, Non-Profit organisation** based in Pune, India – that works to protect and promote public interest in the energy sector.

The group has made significant contributions to the **Indian energy sector** and has established its credibility among the various actors in the sector through its comprehensive and analytically sound approach to achieve lasting impacts through improvement in governance, prevention of gross inefficiencies, and optimizing resource use.



BUSINESS REQUIREMENTS

The customer wished to monitor power quality and availability in hundreds of villages and small towns across India. This data would be made available to everyone via a freely accessible website. This information could then be used to understand the real power situation across India. This could then impact the manner in which power is generated and distributed across the country.

The main business requirements for this initiative were:

- To build a **low cost, energy monitoring appliance**. This appliance would sample power quality, i.e voltage and power interrupts and transmit this data to the cloud via 2G/3G networks.
- The appliance would need to accurately measure fluctuations and transmit data about the measured voltages every minute to the cloud.
- As this data is used for energy advocacy, it was vital to have accurate measurements and **never lose a single data packet**.
- The device needed to be plug and play and be **rugged** enough to handle the challenges posed by rural India.



THE CHALLENGE

There were several challenges faced.

- Since this data would be in the public domain, **accuracy and authenticity** of this data was of paramount importance. It should be able to withstand scrutiny.
- It is challenging to build an appliance that can withstand a wide range of voltage fluctuations from as low as 90v to as high as 320v. Since the device would be installed in remote locations, its **resilience** was of paramount importance.
- The device would have to deal with poor network coverage and have the **ability to store and re-transmit** data if networks were not available, which is often the case in rural India. The device could store up to 30 days of data.
- The platform that deals with the data should be **readily available and highly reliable** and never lose a packet of data.



SOLUTION

Altizon provided an end-to-end solution for the customer that included Design for Manufacture Service for building the connected device and the Datonis platform that acted as the IoT platform for these connected devices.. The Datonis platform was provided to the customer in a SaaS mode.

- The connected device consisted of a **smart connected energy meter** that was rated to accurately measure voltage.
- The **connected energy meter** had a **SIM card** slot and was compatible with all service providers in India.
- It was **plug and play** so you could simply plug it in and it would work.
- The customer was given a **secure** account on Datonis and access the Datonis Application API to access the data being transmitted by the energy meters.
- The **customer built their portal** that would visualise this data in a manner that made business sense to them.



OUTCOME

The customer has now gone live in the first phase with over 100 connected village and and going through a phased rollout of this project. To view this data please visit

<http://www.watchyourpower.org>

To learn more about this initiative, please visit the Energy Supply Monitoring Initiative (ESMI) page

<http://www.prayaspune.org/peg/publications/item/61-electricity-supply-monitoring-initiative.html>

Operational Dashboard



ABOUT ALTIZON

Recognized as **Gartner 2015 Cool Vendor**, Altizon is the **world's first Industrial Internet Platform** company focussed on making Enterprises Internet of Things(IoT) ready.

Our flagship product - the **Datonis IoT Platform**, helps you build your IoT product in weeks by providing device connectivity kits, a device management layer, a highly-scalable, real-time, big-data analytics engine and alerting and monitoring services.

Datonis easily integrates with your existing IT systems to provide a seamless transition between your IoT devices and your IT infrastructure management tools. Datonis is available both in a SaaS as well as in a Hosted model.

We help you build your smart connected devices with the

- **Most Comprehensive Support for Industry 4.0**
- **Industry leading Stream Analytics and Event Rule Engines**
- **Best DIY Enterprise Dashboards**
- **Go Mobile, Go Cloud solutions**
- **Enterprise grade Scalability and Security**

CONNECT EVERYTHING



Connect Seamlessly
Collect & Transfer Data Securely
Manage Devices

OWN YOUR DATA



Create visualizations
Build applications using API'S
LOB Integration

PROCESS EVERYTHING



Define structure
Get insights
Generate alerts & notifications
Store data securely

DEPLOY ANYWHERE



SaaS model
Cloud hosting & support
Private cloud/On-premise



CONTACT US

Contact us at sales@altizon.com to avail this offer.

Phone (India): +91 959 544 5145

Phone (US): + 1 650-319-8863 **FREE**



ADDRESS

INDIA OFFICE

Office No.1, 1st floor,
Revati Arcade II,
Baner Road, Pune,
Maharashtra – 411045,
India

US OFFICE

720 University Ave,
Suite 200 Palo Alto,
CA 94301
USA

