

Innovative smart grid IoT technology reduces power outages and improves productivity

SUMMARY

Tata Communications helped India Power Corporation Limited (IPCL) to upgrade their electrical infrastructure by setting up a smart grid solution with IZO™ private cloud at the center. The solution implemented (i.e) IoT enabled smart meters in distribution transformers lead to a resilient connectivity. In addition, monitoring and alerts has also been made possible by IZO™ private cloud which aided IPCL cut down power outages by 20%.

***ISG**

Digital Case
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CASE STUDY

India Power Corporation Limited (IPCL), with a goal to reduce power outages and gain more control on the operations of their grid, teamed up with Tata Communications to set up a smart grid solution with IZO™ private cloud that could take advantage of IoT technology. This made their grid more efficient, cost effective and provided them with a complete and real-time view of their operations.

The robustness and resilience of the IZO™ private cloud service implemented by Tata Communications was crucial for IPCL. The smart grid solution integrated IoT devices and smart meters with transformers in their distribution network. This gives IPCL the ability to take preventive action before an outage as field engineers can actively monitor the grid and receive system alerts in case of parameter deviations. Some of the Important aspects of the solution include the use of:

- IoT devices to monitor inputs like phase voltage, total active power, and more
- SIM-based GPRS to transfer operating parameters into the cloud solution

As a result, a 20% reduction in power outages, a 3% reduction in aggregated transmission and commercials loss was achieved. According to ISG, this smart grid solution implemented by Tata Communications makes it a standout example of infrastructure and connectivity design for digital success in specific operating conditions.



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