

## RECLOSER MONITORING AND CONTROL

#### YOUR CHALLENGE

Electricity providers are under pressure to consistently improve service quality and minimise outages as mandated by public procurement contracts. Circuit reclosers are considered an essential device to maintain maximum continuity of service, with their ability to sense and interrupt currents in the event of a fault. Decentralised reclosers operate in isolation and are programmed to trip and reset without the need for connectivity networks, while centralised reclosers are connected to a central control room and allow much greater visibility and control over a grid.

While providers often use a variety of both types, the problem with decentralised reclosers is once tripped they often transition to a lockout state, which means engineers need to travel to restore functionality, causing lengthy outages and costing the provider money. With many providers operating over wide and remote geographies, smart grid management using SCADA controlled centralised reclosers is increasingly desirable. The challenge with centralised reclosers is getting

connectivity that is reliable enough to support always on control, as in many remote areas cellular connectivity is intermittent and not fit for purpose.

#### **OUR SOLUTION**

IP over satellite provides the most reliable and cost-effective option to remotely monitor and control centralised reclosers in areas where terrestrial connectivity is unreliable. Inmarsat's BGAN M2M service is used on tens of thousands of reclosers around the world and has been trusted as the industry standard by electricity providers for over ten years.

The BGAN M2M service operates on Inmarsat's L-band network, which was created for government and emergency applications and is as reliable as satellite gets. L-band is the ideal satellite network for recloser monitoring control as it provides up to 99.9% uptime, in any continental location aside from the far poles, even in adverse weather conditions such as heavy rain, where other types can struggle.

The service features robust and compact terminals such as the Hughes BGAN 9502 which are easy to install and can withstand hostile environmental conditions with a lifespan up to or exceeding ten years. With a low monthly data usage and long lifespan of the hardware, the total cost of ownership for the service is minimal compared to the cost of dispatching technicians to resolve issues and benefit of achieving a higher continuity of service.

Our global partner network are experts in utilising our BGAN M2M service to build and support the right solution for your smart grid needs – no matter where you are located. To learn how we have helped customers such as California utilities in the United States, Cemig in Brazil and Ergon Energy in Australia please read our case studies or get in touch directly.

# BGAN M2M FOR RECLOSER MONITORING AND CONTROL IS FOR YOU IF:

- You want to implement a smart grid, with a centralised recloser control system.
- Your electrical grid is located in a remote area without reliable cellular connectivity.
- You want your customers to have the best possible experience and you want to exceed your service quality indicators.

### **BENEFITS**

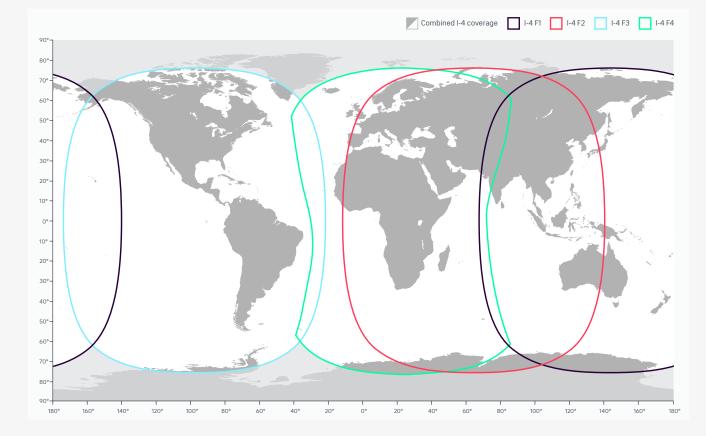
- **Operational expenditure**savings no need to send
  engineers to manually reset
  decentralised reclosers.
- **Deliver against service quality indicators** proven ability
  to increase uptime for your
  customers and to ensure
  you are delivering on your
  contracted responsibilities.
- Increased visibility and control with a smart grid you can reroute or fix load flow issues quickly and efficiently.

### **FEATURES**

- **Reliability:** L-band satellite and terrestrial global network, with 99.9% availability.
- **Performance:** Standard IP at a rate of up to 448 kbps with a low latency of 800 milliseconds.
- **Practicality:** Installs in 30 minutes. Simple for field teams to configure, integrate and conduct maintenance on.
- Economy: Low-cost terminal, low data rate billing plans without reconnection fees.
- **Size:** Notebook sized terminals with a long field life.

#### BGAN M2M COVERAGE

This map is for general information purposes only and no guarantee is given of accuracy or fitness for a particular use. Coverage is subject to change at any time.



#### CONTACT US

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