Reporting Live From Eyjafjallajökull

Posted by Advantech B+B SmartWorx

The Challenge

Sensors aren’t always placed in locations that make data networking connectivity easy. One rather extreme example would be the slopes of Iceland’s Eyjafjallajökull volcano, which is capable of making ground travel in the area extremely hazardous. In extreme events, like the eruptions of 2010, Eyjafjallajökull can emit so much ash that it disrupts air travel all over Europe.

The Icelandic Meteorological Office observes Eyjafjallajökull with a wide array of sensors ranging from seismographs and GPS units to flow meters and thermometers. They can’t control the volcano, but they can make informed predictions about its behavior.

Between lava flows, ash fall and earth tremors, installing and maintaining a data communications cable run on a live volcano would be a very expensive proposition. The Icelandic Meteorological Office needed a wireless solution that could do its job in a very tough environment.

The Solution

The Icelandic Meteorological Office connected their remote sensors to B+B cellular routers. The B+B routers provide

SE300 Series Smart Switches for Traffic Control

Installing fully managed switches all throughout a traffic management system can be prohibitively expensive. One of our customers realized that their application didn’t actually
Ethernet connections anywhere there’s cellular service as well as ample bandwidth, even for applications that require video. They will connect both LANs and individual devices. Dual SIM card holders provide network redundancy. And with their rugged specifications, B+B routers can keep doing their jobs when the going gets tough – even when Eyjafjallajökull decides to make it things even harder.

Instead, they installed Advantech B+B SmartWorx SE305-T smart switches, which support Modbus/TCP to communicate with SCADA software and SNMP to communicate with NMS (Networking Management System).

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