



## REMOTE PROJECTS—BOOSTING SITE PRODUCTIVITY WITH I.T.

As a contractor on major infrastructure works, Structural Systems regularly undertakes projects in highly remote locations. The isolation of these projects can create significant difficulties for their site teams compared with those projects closer to large cities, and one of the main tools used to address this is high-quality communications.

In the worst cases, remote sites suffer from:

- No usable mobile phone coverage;
- No landline phones; and
- No internet.

In recent years SSL has employed a suite of technologies to overcome these handicaps, enabling its remote sites to operate at high levels of productivity irrespective of location.

In a typical remote site, the following technical solutions are used:

### **Access the 3G mobile network**

At the closest location to the site with usable mobile reception, high-gain antennae are set up to establish multiple full-time connections.

### **Beam signals into site**

A microwave point-to-point link is used to connect the site office with the reception tower, possibly several km away.

### **Direct data network access**

Data routers link directly into the SSL data networks via 3G without VPN overhead.

### **Unified whole-site comms**

A long-range cordless phone system with >5km range is linked into the 3G network, giving multi-line capacity plus walkie-talkie and broadcast functions in the one handset.

### **Site server**

Fast, reliable access to all project data & email is provided by a local, site-based file server.

### **Real-time data replication**

Full synchronisation of all site-based and office-based project data is undertaken in real-time, between all SSL sites and offices.

### **Backup**

Backup of all project data and email is done at the main hub sites, minimising the cost and complexity of each site-based installation.



The result of implementing these systems at SSL's remote sites is that many of the obstacles of isolation can be overcome, leading to greatly improved productivity. Site staff have instant access to the same job resources as office staff, and updates to project documents are replicated to all locations around SSL Group within minutes.

SSL continues to improve the solutions employed at its remote sites as technologies evolve and costs change, moving from satellite links on earlier projects to the 3G-based links used today.