

Resource for:



iSOL

iSCADA-Based Solar Operations Logistics

Compiled By:

DEVICES  **WORLD**

Operations

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Why iSCADA?

iSCADA has been designed as a end-to-end solution for you. iSCADA takes care the data acquisition, up to the point of delivering it to you; and everything in between. The uniqueness of the iSCADA system is that it is a hosted service. What does this mean? Being a hosted service, the system provides the following value-add and benefits:

1. iSCADA monitors your energy consumption for 24 hours a day, every day of the year. Compared to a hiring a technician just to ensure all is well, iSCADA is very cost effective. It allows your manpower to attend to other important matters.
2. The data finds you. Yes, you no longer need to seek the information. With iSCADA's automated Escalating Alert system, data and alerts will be configured to be delivered to you. This can be via SMS or e-mail.
3. Devices World will maintain a server that will collect the data from all of your sites. Your organization does not have to purchase and maintain a server or a PC just for the monitoring system.
4. There is no software to be installed. iSCADA employs the Software as a Service, SaaS concept. The software runs on the server. As a client, you will only need a browser to view the data.
5. Whenever new software is installed on our servers, you will automatically get the benefits and enjoy all the new features. There is no additional cost for you or your organization.
6. As there is no software installed on your PC, you will never have to worry about the software being obsolete. There will be no cost for software upgrades for the simple reason that the software is on our server.
7. Being a hosted, internet based, service, you can access iSCADA from anywhere. All you will need is a PC with internet access.
8. The iSCADA system has been designed to check that all gateways are working. If a gateway, does not report back to the system within a pre-set time frame, iSCADA will send out alert messages. The clear benefit is that the system works for us, rather than the other way around.

More importantly, Devices World is committed to engineering excellence. Devices World is the owner of the Intellectual Property of iSCADA. This system has been designed by us for you and installed by us. We recommend that you subscribe to the Full Care Managed Service for Devices World to maintain your iSCADA system.

Benefits of iSCADA

Benefits

Data Any Where

Why worry about work when you are at home? Do you want to leave the office freely to attend to important business meetings?

iSCADA provides an efficient and cost-effective means to collect data from any site and transmit it over the Internet/Intranet. iSCADA is a hosted solution and this means that you do not need to install any software to view the data. All you need is just a computer and internet connection and the data is at your fingertips anywhere, anytime!

Data Any One

Do you want to receive first-hand reports and alerts? How about a system that delivers data to many users, instead of to just a few users?

iSCADA released you from the confines of the control room. Your valuable data at iSCADA is delivered via the Internet directly to their rightful places - desktops of your engineers, the managers, decision makers, conference rooms, even site offices of maintenance contractors.

Data Any How

How about a system that alerts you, instead of you needing to check it often? Do you want your team to be notified of any failures, 24 hours a day, every day of the year?

With iSCADA, alerts can be delivered with minimum delay to your preferred choice of communications. It could send you an SMS or an email, when the data is fresh. This gives you and your organization more time to attend to the alert.

Critical information is delivered in real-time online, via mobile alerts, in customizable reports, and summarized using clear & precise statistical analysis.

How the system works

Embedded Internet Gateway devices with built-in data loggers are installed at strategic locations within each facility. Each device is capable of monitoring up to 15 points, and more can be easily expanded, in groups of 15, when required.

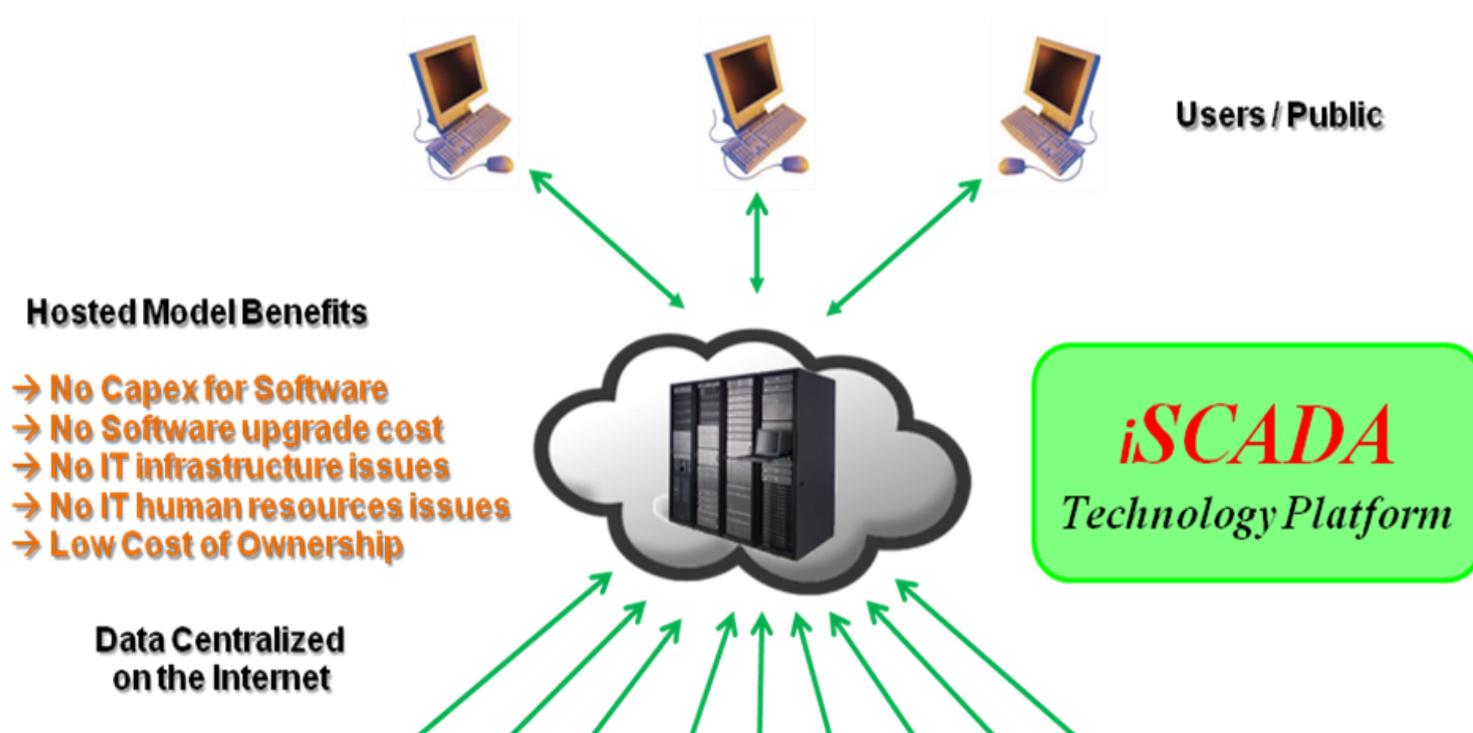
The Gateway transmits site data to a managed iSCADA server in Cyberjaya (NTT data Centre) via the Internet using 3G or GPRS connectivity. The central server constantly supervises all remote locations and alerts the operator when any site fails to communicate with the server regularly.

All information, including consumption, analogue data, performance statistics and Maximum Consumption Levels are available to any authorized user via the web. This platform is highly scalable to incorporate monitoring of any number of sites and systems in the future.

Main Features

- Information from all systems and all locations are displayed on one screen from a single login to the server. The user does not have to connect individually to each system or location.
- The Escalating Alert feature ensures that managers are not troubled by mundane operational alerts and at the same time, ensures that unresolved issues are reported to them immediately.
- Able to produce online consolidated reports for all systems and all sites.
- Able to produce automatic, real time Key Performance Indicators KPIs for all systems and sites. This provides better control and transparency in the maintenance management process.

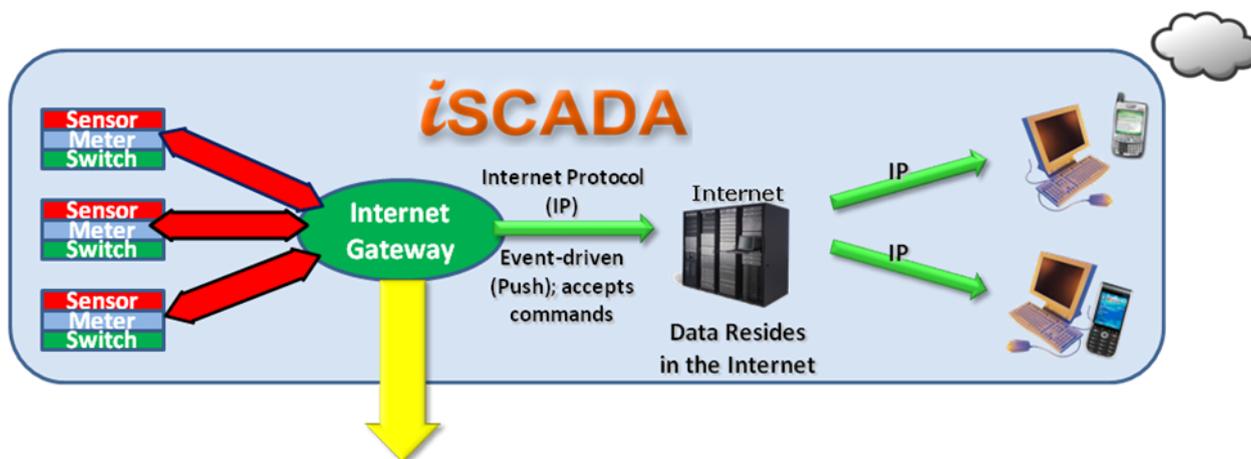
iSCADA Hosted, End-to-End IP



Solar Operations Logistics monitoring (iSOL)

Solar Plants require constant monitoring to ensure optimal production of energy and smooth, safe operations. With so many different devices needing to be monitored and data analysed, it becomes essential to have an efficient, easy to use system to monitor and view all the devices active in a Solar Plant.

Devices World has developed the iSOL with that exact purpose in mind. Utilizing the versatile and extensive iSCADA platform, Devices World aims to provide Solar



- Accepts data directly from device (sensor/switch/meters)
- Converts data into TCP-IP packet
- Secures data through encryption
- Transmits data into internet (via LAN, WAN, GPRS, etc.)
- Accepts user commands from user via internet link
- Executes command / provides feedback on execution
- 'Virtual' gateway can be configured to accept data directly from existing monitoring system (subject to development)

Plant operators with a system that supplies them with an effective and useful overview of their plant and the devices that reside therein.

iSOL monitors the status of all inverters, panels, Distribution boxes, and other machines that are essential to a solar plant's operations. It can give you Total, Daily, and Peak energy produced for the entire plant, right down to individual panels. It can provide Potential Yield estimation using historical data as well as display estimated Avoided CO2 emissions. It can even display current and estimated Ambient Temperature at the plant site.

[Insert Screenshot of summary panel]

In addition to the overall status of the Solar Plant, iSOL is also able to provide maintenance information for each device that is hooked up. Information such as last servicing date, next schedule service date, emergency contacts in the event of failure or running malfunction, and efficiency levels can all be monitored and displayed by the iSOL.

[Insert screenshot of maintenance panel]

iSOL can provide minute to minute data, giving the customer a live view of their plant and an up to date read out of production. In the case of multiple plants being monitored, iSOL can even do comparisons between plant productions.

[Insert screenshot of comparison example/live data]

iSOL is a cost efficient, highly accurate, extremely user friendly system for Solar Plant Monitoring. Devices World is proud to be able to provide the iSOL to any Solar Plant in need of plant overview, monitoring, and maintenance.