Trellis™ Critical Insight

Real-time Monitoring and Visualisation For Critical Infrastructure

VERTIV™

Benefits

- Collect real-time data from all the equipment, sensors or systems in single or multiple data centres or remote locations, as well as from multiple vendors

- Visualize monitored data in ways appropriate to each user using a range of dashboards, trends, logs and standard views

- Create user-customized views (e.g. floor plans or room views)

- Receive notifications locally and remotely of alarm events using email, SMS and SNMP traps

- Take control of connected equipment using apparatus control parameters like set points, on/off switches. Or allow *Trellis* Critical Insight to provide automated control based on measured parameters and control logic or algorithms

- Generate reports on energy consumption and other operational metric

- Install on a desktop, single server across multiple servers in numerous locations or use a cloud hosted instance

The Trellis™ Critical Insight application is a multi-language, multi-user application that connects operators to their critical infrastructure equipment and systems over the internet or a proprietary intranet.

Trellis Critical Insight is an application that can be installed on a single server, distributed over several servers or hosted by Vertiv. This application provides centralised monitoring and control of the distributed and disparate sensors. In addition to monitoring equipment and systems in your single data centre, multiple remote sites or combinations of central and remote locations.

The solution automatically collects performance and alarm data from multi-vendor critical infrastructure equipment using industry standards protocols and automatically makes this data available in a variety of formats to provide the information that data centre operators and managers need for their daily jobs.

The solution provides the user an ability to adjust any control parameters of the attached equipment like set points, thresholds, on/off, or the ability to configure control algorithms to allow the solution to automatically control the equipment. These automatic controls could provide automated enabling of cooling units in response to thermal loads, automatic opening of doors in response to alarm conditions. *Trellis* can be configured to respond to parameters, either measured or logical combinations, by controlling specified equipment.

Trellis Critical Insight includes predefined user profiles with corresponding rights and restrictions. These determine user access to the various system windows and functions. The profiles and their associated users can easily be added, modified or deleted.

The *Trellis* Critical Insight solution is available in three versions:

Trellis Critical Insight Enterprise Server is tailored for mid-to-large sized installations and offers the following capabilities:
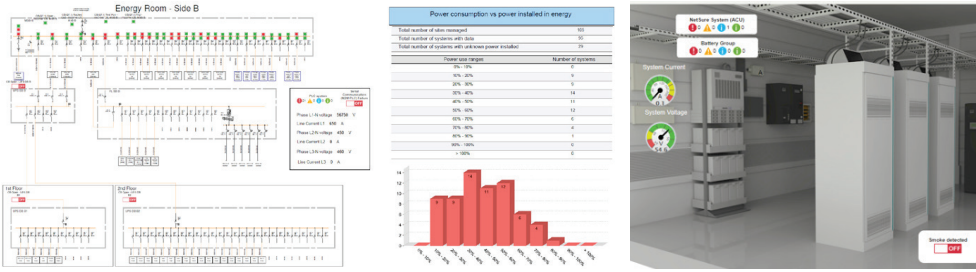
- Monitoring thousands of sites
- Alarms via SMS and email
- Manual or automatic equipment control
- Pre-configured SNMP and web services to 3rd parties
- Graphical navigation
- Server based application
- SSL encryption
- Unlimited number of users

Trellis Critical Insight Enterprise Cloud has the same capabilities as above but delivered from a cloud instance hosted by Vertiv.

Trellis Critical Insight Essentials, ideal for small-to-medium installations, offers the following capabilities:

- Monitoring hundreds of sites
- Monitoring and alarming
- Laptop/desktop installation

Features	Critical Insight Enterprise	Critical Insight Essentials
Graphical Navigation (Static maps, Google maps and OpenStreetsMaps)	•	•
Customizable Site View	•	•
Monitoring and control of Multi-Vendor Power Equipment, Thermal equipment	•	•
Monitoring and control of Site Access Equipment	•	•
Monitoring of Webcams	•	•
Protocols supported	SNMP, Modbus, YDN23, Siteweb, EEM	SNMP, Modbus, YDN23, Siteweb, EEM
Number of concurrent equipment monitoring polls	Unlimited	Unlimited
Number of Concurrent User Connections to Monitored Equipment	Unlimited	5
Alarm Management	•	•
Alarm reports	Unlimited	Alarm history limited to 1 million
Alarm Notification	Email, SMS and SNMP	Email, SMS and SNMP
Messaging Between Users	•	•
Adaptable Reports	•	•
Number of Sites	More than 2500	Up to 255
Language support (English, Spanish, Russian)	•	•
Web Environment	•	•
Browser Support	IE, Firefox, Safari, Chrome	IE, Firefox, Safari, Chrome
OS support	Windows 2012 R2 Essentials/Standard/Datacenter (x64) or Windows Server 2016 Standard (x64)	Windows 8.1 Enterprise/Professional (x64) or Windows 10 Enterprise/Professional (x64) or Windows 2012 R2 Essentials/Standard/Datacenter (x64) or Windows Server 2016 Standard (x64)
Application distributed across multiple servers	•	—
Multi-User	Unlimited numbers of users	Unlimited number of users
User Management	•	•
Number of user profiles	Unlimited	Unlimited
Statistics	•	•
Communication Media	TCP/IP, PSTN, GSM, GPRS, 3G	TCP/IP, PSTN, GSM, GPRS, 3G
SSL	•	•
Interface to External Systems	ARS Remedy, SNMP, TCP/IP, Web Services	ARS Remedy, SNMP, TCP/IP, Web Services
Database	Oracle 12c Standard Edition 2 / Enterprise	Oracle XE Edition
Web Server	Apache Tomcat	Apache Tomcat

User Interface

The user can choose from the following options:

- Geographical view with configurable maps
- Standard or custom site views
- Equipment reports showing status, alarms or chosen properties

Customised views can be created combining images, elements in the library and Widgets (gauges, panels, switches, etc.).

Monitoring and Alarm Management

Trellis™ Critical Insight application provides an ability to monitor different multi-vendor equipment using a selection of protocols. The data monitored includes performance data and alarm conditions, they can be performed on a defined polling cadence or pushed from the equipment in the case of an alarm condition. The measured data and alarm conditions can be visualized as a dynamic overlay on custom graphics.

Alarms are shown in a real time alarm view of existing and prior alarms, performance metric from before the alarm and resolved alarms. The system can be configured to send an SMS to one or more users when an alarm is detected, as well as calling a specified user if the SMS is not acknowledged. When active alarms are not attended or resolved within a configurable time, the application can also send emails to predefined users.

Equipment Control

Remote commands and configuration parameters can be sent to connected equipment, permitting full remote management of the connected equipment at the remote location.

Statistics Management

All data collected by *Trellis* Critical Insight can be used to produce statistics for any period of time defined by the user, with configurable times between measurements. Statistics are stored in a database capable of generating graphics in real time and the data can be exported to other applications, such as Microsoft Excel and CSV.

Report Generator

Trellis Critical Insight provides an ability to generate reports with the collected information.