Controllis | Better Power Anywhere

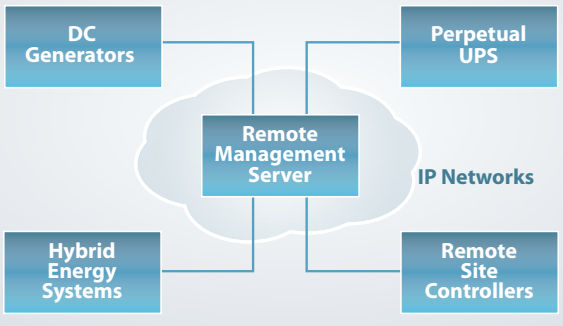
Remote Management Server

RMS

Overview

The Remote Management Server is the central management server and database at the heart of the Controllis remote control system. The Remote Management Server is used to monitor and control remote assets, systems and devices connected to any remote Controllis controller. Communication with remote controllers is via terrestrial, wireless or satellite and utilises the Controllis proprietary low bandwidth protocol to save backhaul costs for the system user. The Remote Management Server can be located in a corporate data network, defence installation or on a cloud computing server.

Controllis remote control system product family



User Benefits

Using the Remote Management Server to manage remote asset provides users with significant benefits in terms of better system resilience, improved security, lower maintenance costs and longer asset life. Better system resilience and improved security can provide commercial users such as telcos with a powerful marketing tool for their own service to win and retain high value government and corporate accounts, leading to higher revenue. Lower maintenance costs and longer remote asset life reduce overheads for all types of users, whether defence or civilian. To find out how a Controllis solution can help your business or agency, contact us today.

Remote Management Server Key Roles

The Remote Management Server performs a number of key roles within the Controllis remote control system environment. These roles include:

- Remote element provisioning
- Alarm monitoring, recording and alerting (via visual, audio, SMS and email)
- Maintenance event and history recording
- Remote site heartbeat monitoring
- Geographic tracking of mobile remote devices
- Predictive maintenance scheduling
- Video imagery and data recording from remote sites
- Image interpretation and analysis from remote sites
- Remote link data security and encryption pairing
- Facilitating the use of non fixed IP address SIMs
- Link bonding to aggregate reliability and bandwidth

New Device Provisioning

New Controllis remote control system devices are easily provisioned into the Remote Management Server either by importing an already populated file in bulk or via the provisioning GUI. Provisioning a new device takes a few moments and locks in the geographic location for static devices. Whether it is a Remote System Controller, Remote Power Controller, or Remote Embedded Controller device, the key operating range parameters and alarm thresholds are provisioned and locked in. Once provisioned the remote device becomes an active element in the Remote Management Server, its status is continually monitored and any alarms generated reported. Provisioning also creates the beginning of individual device Maintenance & Alarm Records in the Remote Management Server SQL database.

Alarm Monitoring

The Remote Management Server reports alarms associated with individual Controllis remote control system connected devices. The alarms show up immediately on the Site Navigator. The user can quickly ascertain whether the alarm is Minor, Major or Critical via the site status monitor and take appropriate action to deal with the alarm. All alarms can also be sent to external parties via email or SMS.

Mechanical Device Maintenance

Another key role of the Remote Management Server is to provide instructions and predictions on when components on a monitored remote mechanical device such as a generator, pump, or engine require servicing. This is achieved because each Controllis remote control system controller records and tracks actual run time of the remote device and records it in the Remote Management Server database. In the case of engines or generators monitored parameters include fuel & oil levels, air, fuel and oil filter conditions, critical engine and fluid temperatures and any security issues. All alarm and maintenance records on each individual remote device are recorded in the Remote Management Server SQL database. This database is a lifetime repository of data for each individual remote component. Over time this information can be mined to provide larger scale users with valuable information on the performance reliability and economy of remote devices. The data may also be used to assess the longer term performance and quality of work of in-house and third party maintenance organisations and staff.

Remote Management Server Specifications

Maximum number of remotely managed Controllis remote control system elements	Limited by IP link capacity to the server
Tranport Protocols	TCP/IP, UDP/IP
Management Protocols	HTTP, SNMP v1, v2trap, Data Cybernetics Narrow Bandwidth Management Protocol
File Transfer Protocols	FTP, TFTP, SSH, SCP, SFTP, TELNET
Data Security	Forward Secrecy: SHA-1 Authentication, Diffie-Helleman Key Exchange with Ephemeral Keying.
	Diffie Helleman Key Size: 1024 bits.
	Data Secrecy: ARC4 (1024 bit Ephemeral Keying), AES (128 & 256 bit keying supported).
	Additional Data Secrecy: Blowfish, DES, 3DES and Idea available on request.
Core Application Languages	Java, ANSI C, POSIX
Database Technology	MySQL
Compatable OS	All mainline Linux, Unix and Solaris releases are supported. Release versions for Win32 and Win64 platforms available on request.
Hardware Recommendations	Processor: Single or Dual Intel® Xeon® 5600 series or equivalent
	RAM Recommendation: 8GB or greater
	Disc Size: 500GB or greater
Hardware Redundancy Recommendations	RAID 1 Disc Mirroring. Dual drives; one primary running as active drive, one secondary acting as an immediate mirrored backup drive. Recommended to also include third drive as redundancy against RAID controller failure.

Controllis Limited
Phone: **+44 (0) 1223 393 516**
Email: **sales@controllis.com**
Website: **controllis.com**