



GMSEC Room Alert Adapter

At A Glance

The Room Alert Adapter software in conjunction with AVTECH Room Alert™ devices assists in monitoring computer room environments as well as other building facilities.

Benefits

- Enables 24/7 remote Situational Awareness of environment conditions
- Detects and reports anomalous conditions with immediate alert notifications
- Protects valuable equipment and assets; reduces losses
- Minimizes down time

Features

- Monitors & logs temperature, humidity, power, flood, room entry and more
- GMSEC compliant
 - Monitor, configure, and control AVTECH devices
 - Create automated responses to pre-defined thresholds, e.g. failover

Overview

The GMSEC Room Alert Adapter is a GMSEC-compliant software component that provides an interface between AVTECH Room Alert™ environmental devices and the GMSEC message bus. The Room Alert™ device is available both in a stand-alone box and in a rack-mount box. It supports various sensors including: temperature, humidity, power, flood, etc. The remote sensors can be attached via a wire or wireless. It has a built-in web server that is used to configure the device, set the sensor monitoring levels, and to display the current sensor values. Notification of alerts is available via email, email-to-SMS, SNMP, web page, and more. A Sensor Tower can be used to give visual and audible alerts.



AVTECH Room Alert™ 26W and AVTECH Signal Tower with Audio

GMSEC Features

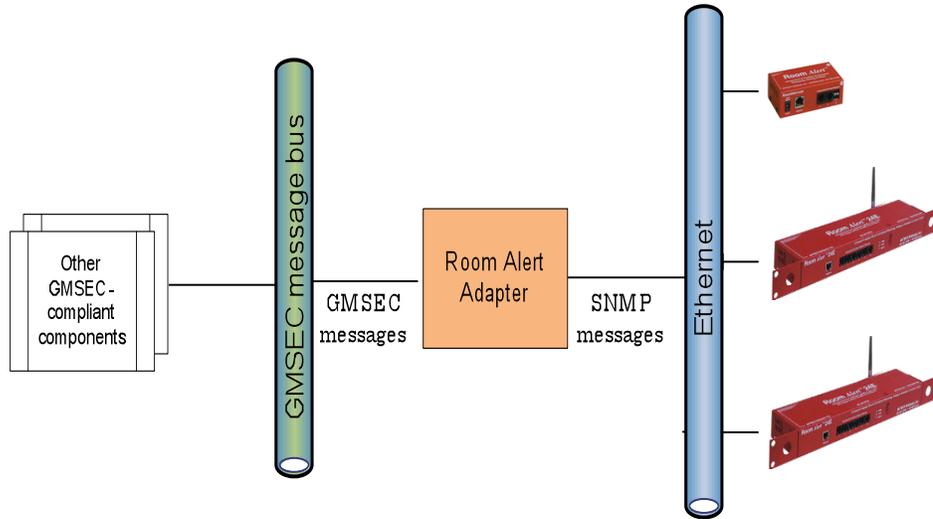
With the use of a GMSEC Room Alert Adapter, the following become available:

1. Parameters from each Room Alert device can be shown on a local display.
2. Alerts and status can be archived & retrieved using a GMSEC-compliant event analysis toolkit (e.g. GREAT).
3. Automatic corrective action, such as failovers, can be defined and implemented with a configurable rule-based component (e.g. CAT).
4. Comprehensive paging and notification capabilities are available using the GMSEC ANSR or Attention Software.

NASA GSFC Mission Services Evolution Center

<http://gmsec.gsfc.nasa.gov>

email: gmsec@nasa.gov



Room Alert Adaptor Architecture Diagram

Summary

The Room Alert devices send and receive information over the network using the Simple Network Management Protocol (SNMP). Likewise, the Room Alert Adapter software component utilizes SNMP messages to communicate with the Room Alert devices. SNMP messages from the devices are translated into GMSEC messages and published on the information bus so that other GMSEC-compliant components can receive and monitor alarms or sensor values issued from the device. The GMSEC Environment Diagnostic Analysis Tool (GEDAT) can incorporate the device information on a centralized display. The Criteria Action Table (CAT) can initiate pre-defined, automatic corrective actions when environment thresholds are violated. The GMSEC Parameter Display (GPD) enables users to quickly create and view a display page consisting of any parameter or telemetric value set, including those from the Room Alert environment monitoring device.

Name	Description	EU Value	Raw Value	Text Value	Units	Attributes	Previous EU Values	Stale
BATAVOLT	Battery A Voltage	no data	no data	no data	METERS		[no data, no data, no data, no data]	false
BATBVOLT	Battery B Voltage	invalid	invalid	invalid	METERS		[invalid, invalid, invalid, invalid, inv.]	false
BATCVOLT	Battery C Voltage	10.0	10	10	METERS	[D]	[10.0, 6.0, 12.0, 17.0, 12.0]	false
BATDVOLT	Battery D Voltage	12.0	12	12	METERS	[RH]	[12.0, 2.0, 2.0, 16.0, 6.0]	false
BATEVOLT	Battery E Voltage	4.0	4	4	METERS	[RL]	[4.0, 9.0, 8.0, 16.0, 7.0]	false
BATFVOLT	Battery F Voltage	1.0	1	1	METERS	[YH]	[1.0, 4.0, 2.0, 18.0, 0.0]	false
BATGVOLT	Battery G Voltage	3.0	3	3	METERS	[YL]	[3.0, 5.0, 10.0, 15.0, 14.0]	false
BATHVOLT	Battery H Voltage	1.0	1	1	METERS	[S]	[1.0, 10.0, 10.0, 18.0, 15.0]	true
BATIVOLT	Battery I Voltage	12.0	12	12	METERS	[Q]	[12.0, 12.0, 0.0, 2.0, 10.0]	false

Name	Description	EU Value	Attributes
BATGVOLT	Battery G Voltage	19.0	[YL]
BATHVOLT	Battery H Voltage	18.0	[S]
BATIVOLT	Battery I Voltage	6.0	[Q]

Name	Text Value	Stale
BATDVOLT	14	false
BATEVOLT	19	false
BATFVOLT	14	false

GMSEC Parameter Display (GPD)

Room Alert Adapter Modes

Alarm Mode – the ability of the Room Alert device to issue an SNMP Trap message when a sensor value is out of range, or a switch is in the wrong setting.

Polling Mode – causes Room Alert Adapter to periodically gather and report the sensor values from the devices.

Demand Mode– allows another GMSEC component to use a GMSEC Directive to request the current value of the sensor.

