



Alarm.com
An Introduction

Confidentiality and Acknowledgements

Confidentiality Statement

All information contained in this document is provided in confidence and shall not be published or disclosed wholly or in part to any other party without the expressed prior written permission of Bold Technologies. It shall be held in safe custody at all times. These obligations shall not apply to information which is published or becomes known legitimately from sources other than Bold Technologies.

Acknowledgements

The information contained in this document represents the current view of Bold Technologies on the issues discussed as of the date of publication. Bold Technologies must continuously respond to the changing market conditions; therefore, it should not be interpreted to be a commitment on the part of Bold Technologies. Bold Technologies cannot guarantee the accuracy of any information presented after the date of publication.

This paper is for informational purposes only. The system descriptions and diagrams contained within should be used as guidelines only. Each Manitou installation may require modifications to meet specific requirements. BOLD TECHNOLOGIES MAKES NO WARRANTIES, EXPRESS OR IMPLIED IN THIS DOCUMENT.

Windows and SQL Server are registered trademarks of the Microsoft Corporation in the United States and other countries.

Intel, Intel Pentium and Intel Xeon are trademarks or registered trademarks of the Intel Corporation or its subsidiaries in the United States and other countries.

Copyright

© 2018 - Bold Technologies. All Rights Reserved.

Registered Office: 421 Windchime PL, Colorado Springs, CO 80919 USA

Overview

Alarm.com offers cloud based services for remote control, home automation and monitoring services. Many well-known security companies offer the Alarm.com service.

All Alarm.com services are sold through authorized security professionals who install, monitor and support the system. Signals from the security system are sent over Alarm.com's dedicated secure cellular connection; in the event of an emergency, the signal is instantly sent to a Central Monitoring Station.

Alarm.com has approached several prominent alarm monitoring software providers to facilitate direct signaling to the automation software platforms. Alarm.com is currently integrated with the Manitou software platform from Bold Technologies, as well as Stages from SGS and MASTermind from MAS.

The Alarm.com integration into Manitou was completed using the UniversalConnector from Bold Technologies. The UniversalConnector is a software receiver for non-traditional transmissions that converts SMS, Email, ODBC database, FTP, TCP, GPRS, RSS, UDP and simple files into regular signals that are delivered into Manitou. The signals can then be professionally monitored as any other alarm. The UniversalConnector is sold with various "Connector" options. The Alarm.com integration requires the UniversalConnector with the TCP Connector.

The Data Map for the integration of Alarm.com into Manitou using the TCP Connector is found at the end of this document.

Features

- Integration with Manitou is through the UniversalConnector with a TCP Connector.
- UniversalConnector replaces the receiver.
- Alarm.com panel will send zone and event code information.
- Alarm.com panel will also send a URL to pass video clips, etc.
- Alarm.com signals will present in Manitou to be professionally monitored as any other alarm.
- Alarm.com panels will also report into a SurGard System III or an OH2000; the UniversalConnector offers an alternative path
- In the event the Alarm.com signal fails through the UniversalConnector, it is backed up by a phone line (configured by the Alarm.com dealer).
- UniversalConnector can be configured to support failover and load balancing options available with Alarm.com.
- Data Map is documented to streamline implementations for Bold customers interested in the integration.

Considerations

- The Alarm.com panel is UL-listed, and the Manitou automation software is UL-listed; however, the UniversalConnector is not UL-listed. As the UniversalConnector replaces the receiver (which is traditionally UL-listed), there may be some UL considerations for Bold users.
- ‘Best practice’ for this integration is that two UniversalConnectors are setup to support redundancy. This will require two machines and two configurations of the UniversalConnector.
- Alarm.com panels can be configured to support either failover or load balancing. Either of these configurations can be supported when two instances of the UniversalConnector are setup in accordance with the recommended best practice.
- Alarm.com personnel strongly recommend that a VPN is setup with each Alarm.com panel. Bold users that are interested in this should contact their Alarm.com representative.

Pricing

- Bold users should contact their Alarm.com representative for pricing related to Alarm.com products.
- To support this integration from a Bold/Manitou perspective, Bold users will be required to purchase the UniversalConnector with a TCP Connector.
- ‘Best practice’ for this integration is that two UniversalConnectors are setup to support redundancy. This configuration will require additional charges.
- Please contact your Bold Technologies Account Representative for detailed pricing information.

Alarm.com Integration with Bold MediaGateway

The sample XML/JSON strings shown below were used to create the data mapping:

```
<?xml version="1.0"?><Packet ID="9876" SDNIS="0000"><Signal EvType="CID" Event="E601"
/></Packet>
```

```
<?xml version="1.0"?><Packet ID="9876" SDNIS="0000"><Signal EvType="CID" Event="E609">
<Tag>Operator viewed clip #123123123</Tag></Signal></Packet>
```

```
<?xml version="1.0"?><Packet ID="9876" SDNIS="0000"><Signal EvType="CID" Event="E134">
<URL>http://www.alarm.com/partners/partners_hardware.aspx</URL></Signal></Packet>
```

From the MediaGateway server, click on the MediaGateway Console icon on the desktop:

A: Create a Connector

Expand the MediaGateway > Administration > Universal Connector nodes:

- Click on Connector, enter the password and click OK.
- Click the Add button, the Add a new PBX Server dialog box will display.
 - Connector Type: select TCP from the dropdown list
- Connector Device Name: enter a descriptive name.
- Click OK.

Below is an example of the Connector settings, the Port # may be different – speak with the installer that configured your Alarm.com system:



The screenshot shows the 'TCP' connector configuration window. It contains several fields and checkboxes for setting up a TCP connection. The 'IP Type' is set to 'TCP' and 'Connection Type' is set to 'Listen'. The 'Host Name' is 'LOCALHOST' and the 'Port' is '10087'. The 'UDP Send' is '13002'. The 'Begin Message Value' and 'End Message Value' are both empty. The 'Heartbeat / No Activity (Secs)' is set to '30' and '120'. The 'Relative path/filename' is empty. The 'Map File Name to Fieldset' checkbox is checked. The 'Response Directory' is empty. The 'User Name' and 'Password' fields are empty. The 'Input Directory' is empty. The 'Default Packet' is set to 'Raw'. The 'Max Connections' is '0'. The 'Ack Message' is 'OK'. The 'Save File to Response Directory' checkbox is checked. The 'Stop Processing After Saving File' checkbox is checked. The 'Process Send Results' checkbox is checked. The 'Driver Type' is set to 'Raw'.

Save the record.

Alarm.com Integration with Bold MediaGateway

B: Create The Data Mapping

Expand the MediaGateway > Administration > Universal Connector node

- Click on Data Mapping, enter the password and click OK.
- Click Add, the Add New Field Set dialog displays.
- Name: enter a descriptive name.
- Click OK.

Formatting Tab:

The screenshot shows the 'Formatting' tab of the Universal Connector configuration. At the top, there are buttons for 'Add' and 'Remove', a dropdown menu set to 'ALARMCOM', a 'Mapping Type' dropdown set to '>XML/JSON', and a 'Test Studio' button. Below these are two tabs: 'Formatting' (selected) and 'Pre-processing'. The 'Formatting' section includes a 'Total Number of Fields' input set to '3', a 'Separator' dropdown set to '(NONE)', a 'Signal Type' dropdown set to 'Signal', and an 'Event Type' dropdown set to 'CID'. There are four checkboxes: 'Add subject to start of final signal' (unchecked), 'Add current message body to final signal' (checked), 'Add attachment contents to final signal' (unchecked), and 'Add filename to final signal' (unchecked). To the right of these checkboxes are two buttons with green arrows. Further right are two input fields: 'Packet Root Node' set to 'Packet' and 'Signal Root Node' set to 'Packet/Signal'. At the bottom is a table with columns: Order, Label, Operation, Field, and Value.

Order	Label	Operation	Field	Value
1	ID	Mapped Field	Transmitter ID	
2	Event	Mapped Field	Event code	
3	URL	Mapped Field	URL	

Pre-Processing Tab:

The screenshot shows the 'Pre-processing' tab of the Universal Connector configuration. At the top, there are buttons for 'Add' and 'Remove', a dropdown menu set to 'ALARMCOM', a 'Mapping Type' dropdown set to '>XML/JSON', and a 'Test Studio' button. Below these are two tabs: 'Formatting' and 'Pre-processing' (selected). The 'Pre-processing' section includes a 'Regular Expression' input field and a 'with' dropdown menu. To the right of these are two buttons with green arrows. At the bottom is a table with columns: Order, Label, Operation, Field, and Value.

Order	Label	Operation	Field	Value
1	ID	Mapped Field	Transmitter ID	
2	Event	Mapped Field	Event code	
3	URL	Mapped Field	URL	

Save the record.

Alarm.com Integration with Bold MediaGateway

C: Create The Line Driver

Within the MediaGateway > Administration node:

- Click on Line Drivers, enter the password and click OK.
- Scroll to the bottom of the list to locate the row that begins with an '*'.
 - Line Driver: select the 'Connector' created in step A.
 - Description: enter an appropriate description .
 - Status: 'green' - enabled, 'grey' - disabled.
 - Line Function: select Universal Connector from the list.
 - Properties: right click, choose Properties – the Function Properties dialog box opens:
 - Name:
 - Field Set:
 - Receiver:
 - Line:
 - Menu:
 - Lookup:



Save the record.

Reload and Restart all Drivers

Status Lights should be “green.”