AlarmPoint Systems

AlarmPoint Mobile Gateway for HP Network Node Manager i-Series Software

Validation Date
November 3, 2009
Version 2.2.1

Contents

1. Introduction

Welcome to the AlarmPoint Mobile Gateway for HP NNMi integration guide. This document describes how to install and configure the AlarmPoint Mobile Gateway for HP NNMi integration. The intended audience for this document is experienced HP consultants, system administrators, and other technical readers.

1.1 Summary

AlarmPoint is an interactive alerting application, designed to capture and enrich important events, to route those events to the right person on any communication device, and to give that person the ability to solve, escalate, or enlist others to resolve the events remotely. AlarmPoint allows you to take critical business information and contact the right people via voice phone, SMS, two-way pagers, instant message, and email.

Through integration modules, the AlarmPoint System can become the voice and interface of an automation engine or intelligent application – a management system, such as HP Network Node Manager i-series Software. When NNMi detects a network incident that requires attention, AlarmPoint places phone calls, sends pages, messages, or emails to the appropriate personnel, vendors, or customers.

The AlarmPoint System is also persistent, escalating through multiple devices and personnel until someone accepts responsibility or resolves the request. Once contacted, the AlarmPoint System gives the notified person instant two-way communication with HP NNMi. Responses are executed immediately on NNMi, enabling remote assignment and resolution of the incident.

This integration supports creating, viewing, and updating NNMi incidents through the use of the AlarmPoint Mobile Gateway, AlarmPoint Integration Agent, and Web Service Calls.

You will need to modify this configuration to suit your particular business requirements and adjust it to suit your expected loads. The default integration features loading list values directly from NNMi; in a high-volume production system, this can significantly affect performance. Consider your expected volume of requests to the Mobile Gateway, and your server capacity when designing your own integration.

1.1.1 Benefits

With the AlarmPoint Mobile Gateway, the appropriate technician can create, view, and update NNMi incidents directly via a mobile device's web browser. Information about NNMi incidents can be displayed on the mobile device and updated in real-time.

The benefit is that this process is immediate and may be done remotely – providing users with an efficient method of handling NNMi issues from any mobile device. In addition, the NNMi integration can be updated to notify AlarmPoint Users on their mobile device with a link to the mobile view of the incident, allowing the user to update the Incident remotely.

1.1.2 Overview

The following is an overview of the procedures for the AlarmPoint Mobile Gateway for NNMi integration:

1. Install the Web Services Library on the AlarmPoint Integration Agent and Webservers.

2. Install Mobile Gateway on the AlarmPoint Webserver.

3. Install the NNMi Integration Service.

4. Enable the AlarmPoint and Web Service capabilities for NNMi Users.

5. Define an Event Domain and Integration Service in AlarmPoint.

6. Validate the installation of the Mobile Gateway.

7. Optimize and extend the functionality of the Mobile Gateway.

1.1.3 Architecture

The integration consists of two main software components:

- **NNMi**: HP NNMi software.
- **AlarmPoint**: Umbrella term for the AlarmPoint Node, Webserver, Integration Agent and Mobile Gateway.
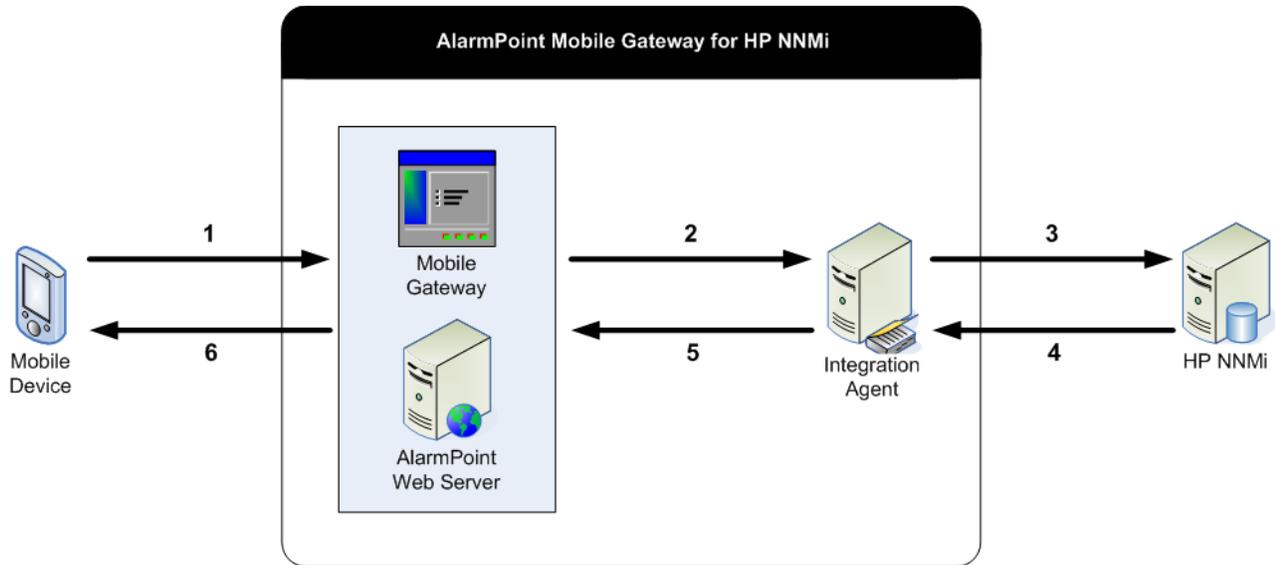
The following steps provide a general description of how a Mobile Gateway integration works (the numbers correspond to the figure above):

1. A User sends a request from a mobile device to the AlarmPoint Mobile Gateway.
2. The Mobile Gateway processes the request and relays instructions to the AlarmPoint Integration Agent.
3. The Integration Agent communicates via a Java Wrapper, which interacts with Axis2 Java Service Stubs making requests to NNMi.
4. The response is sent back to the Integration Agent though the Java Wrapper.
5. The Integration Agent processes the response and sends it back to the Mobile Gateway.
6. Rendered results are sent back to the mobile device.

1.2 System Requirements

The following products must be installed and operating correctly prior to configuration:

- HP NNMi software version 8.13
- AlarmPoint 4.0 (patch 004 or later)
  - All AlarmPoint browser pages have been designed to work with BlackBerry Handheld Software v4.2.x. The browser-accessible pages may not display properly on mobile devices with other software versions.
- AlarmPoint Integration Agent 4.0 (patch 002 or later)

1.2.1 Operating Systems

The following operating systems are supported by this integration:

- Microsoft Windows 2003 64-bit (validated)

- Sun Solaris 10 (SPARC) (validated)

- HP Itanium HP-UX 11 iv3 (validated)

- Linux Redhat AS/ES 4.6 or later (validated against Redhat ES 5.2)

Note: *For a list of operating systems and other system requirements for AlarmPoint and the AlarmPoint Mobile Gateway, refer to the* AlarmPoint Installation and Administration Guide*, and the* AlarmPoint Mobile Gateway Guide.

1.3 Conventions & Terminology

This section describes how styles are used in the document, and provides a list of definitions.

1.3.1 Conventions

Some instructions appear in the following format: **MENU > OPTION**; for example, **File > Open** means click the **File** menu, and then click the **Open** menu option.

Words in **bold** typically reference text that appears on the screen.

Words in `monospace` font represent the following:

- text that must be typed into the computer

- directory and file names

- code samples

1.3.1.1 Directory placeholders

- The location to which you install AlarmPoint is referred to throughout this document as `<APHOME>`.

- The location to which you install the AlarmPoint Integration Agent is referred to as `<IAHOME>`.

For example, the `opt/alarmpointsystems/alarmpoint/webserver` folder in a default Unix installation, or the `C:\Program Files\AlarmPointSystems\AlarmPoint\webserver` folder in a default Windows installation, would be referred to within this document as `<APHOME>/webserver`.

Except where specifically noted, directory paths in this document are given in Unix notation; Windows users may need to adjust the paths for their operating system.

1.3.2 Terminology

With respect to the AlarmPoint System, the following definitions apply:

Term	Meaning
AlarmPoint Application Server Node	The core AlarmPoint application, consisting of various components that process events and perform notifications

Term	Meaning
AlarmPoint Notification Server Node	Delivers notifications to a person in a variety of ways (pager, phone, e-mail, etc.)
AlarmPoint System	Umbrella term for all AlarmPoint software components
AlarmPoint Web User Interface	Browser-accessible interface for controlling AlarmPoint components and information
AlarmPoint Integration Agent	A flexible JavaScript processing engine that allows third-party management systems to expose their functionality to mobile and web-based users, while leveraging the AlarmPoint infrastructure to provide high security and fault tolerance
AlarmPoint Mobile Gateway	An additional AlarmPoint module that provides AlarmPoint Users with web-based access to systems (e.g., NNMi) from mobile devices via a consistent, secure, authenticated, audited, and redundant access point
Management System	A synonym for HP NNMi software
User Guides	The AlarmPoint documentation suite, which includes the *AlarmPoint Installation and Administration Guide*, the *AlarmPoint Developer's Guide & Scripting Reference*, the *AlarmPoint User Guide*, and the *AlarmPoint Java Client User Guide*

2. Installation

This chapter provides information about installing the core components for the AlarmPoint Mobile Gateway for HP NNMi integration. Components may be installed in any order.

2.1 AlarmPoint System

This integration requires the following AlarmPoint applications:

- AlarmPoint: Consult the *AlarmPoint Installation and Administration Guide* for installation instructions and details or, if you are installing the AlarmPoint Express for HP NNMi integration bundle, the *AlarmPoint Express for HP NNMi Quick Start Guide*.

Note: *When installing AlarmPoint, you must select the option to install the AlarmPoint Webserver.*

- AlarmPoint Integration Agent: installation instructions for the AlarmPoint Integration Agent are described in detail in the *AlarmPoint Integration Agent Guide*. The following section provides a short summary of the required information and process.

2.1.1 Installing the AlarmPoint Integration Agent

The following instructions guide you through a Windows installation of the AlarmPoint Integration Agent. For more information about the settings described in this section, or instructions for installing via the console mode, refer to the *AlarmPoint Integration Agent Guide*.

Introduction and License Agreement

The first screen of the installer provides basic version details and navigation instructions for the installer. Click **Next** to continue to the licence agreement. After reading the license agreement, select the **I accept...** option, and then click **Next** to accept the conditions and continue.

Choose Install folder

Unless your company requirements do not allow the installation of any application software under the default folder, accept the default settings. Otherwise, specify the folder in which you want to install AlarmPoint, and note its location.

Note: *The location to which the AlarmPoint Integration Agent is installed is referred to throughout this document as* `<IAHOME>`.

Configuration

The Integration Agent installer will prompt you to enter the following configuration information for the AlarmPoint Webserver and the Integration Agent:

- **AlarmPoint Web Server Host**: IP address or hostname of the AlarmPoint Web Server to which the Integration Agent will send heartbeats.
- **AlarmPoint Web Server Port**: Port of the AlarmPoint Web Server to which the Integration Agent will send heartbeats.
- **Integration Agent Host**: IP address or hostname of the server on which the AlarmPoint Integration Agent will be installed.

- **Integration Agent Port**: Port on which the Integration Services will listen for requests (port must not be in use; default is 8081).

- **Admin Port**: Port to which IAdmin (i.e., the command-line tool for administering the AlarmPoint Integration Agent) will connect (port must not be in use and must be different from the Integration Agent port; default is 8082).

- **Clear the remaining check boxes**: the remainder of the options on this page of the installer are not required by this integration.

Pre-Installation Summary

The Integration Agent installer displays a summary of the specified installation locations and prompts you to confirm your choices.

When the installation is complete, close the installer.

2.2 HP NNMi Software

Consult the HP NNMi Installation Guide for installation details.

2.3 Integration Components

This section describes the installation processes required for the integration components.

2.3.1 Integration Archive File

Extract the `AP-MG-HP-NNMi` archive to access the integration components. The following shows the notable files and folders (bolded) in the archive:

```
.-- components
| |-- alarmpoint
| | `-- mobilegateway
| |    |-- hpnnmi
| |    | |-- <JSP files>
| |    | `-- includes
| |    `-- lib
| |       `-- alarmpoint-nnmi.jar
| `-- alarmpoint-integration-agent
|   `-- hpnnmi
|      |-- hpnnmi.js
|      |-- hpnnmi.xml
|      `-- lib
|-- documentation
| `-- AP-MG-HP-NNMi.pdf
|-- version.properties
`-- release-notes.txt
```

2.3.1.1 Component Description

The following table describes some of the notable integration components:

Component Name	Description
alarmpoint.nnmi.jar	Contains the Web Services Library, Java Wrapper, and Axis2 Java Service Stubs which are used by the Mobile Gateway to interact with HP NNMi

Component Name	Description
hpnnmi.js **hpnnmi.xml**	The JavaScript and XML service configuration files that define the service on the Integration Agent
mobilegateway	Contains all of the JSP files and images that make up the interface for the Mobile Gateway

2.3.2 Installing the Web Services Library

To enable Web Service calls between the AlarmPoint and NNMi servers, you must copy the JAR file into the AlarmPoint Mobile Gateway library folder. If you have installed more than one web server, install the JAR file into the library folder for each one.

Source File:

```
AP-MG-HP-NNMi/components/alarmpoint/mobilegateway/lib/alarmpoint.nnmi.jar
```

Destination Directory:

```
webserver/webapps/mobilegateway/WEB-INF/lib
```

Note: *After copying the files, restart the AlarmPoint Webserver.*

2.3.3 Installing the Mobile Gateway JSP Files

To enable NNMi for the Mobile Gateway, you must copy the folder containing the JSP files into the AlarmPoint Mobile Gateway. If you have more than one web server, copy the hpnnmi folder into the mobilegateway/jsp folder on each one.

Source Folder:

```
AP-MG-HP-NNMi/components/alarmpoint/mobilegateway/hpnnmi
```

Destination Directory:

```
<APHOME>/webserver/webapps/mobilegateway/jsp
```

2.3.4 Installing the Integration Service

To enable the NNMi integration service, you must copy the folder containing the Integration Agent files into the AlarmPoint Integration Services folder and modify the nnmi.js and IAConfig.xml files. If you have more than one Integration Agent providing the nnmi service, repeat the following steps for each one.

To install the integration service:

1. Copy the AP-MG-HP-NNMi/components/alarmpoint-integration-agent/hpnnmi folder from within the extracted integration archive to the following destination directory:

    ```
    <IAHOME>/integrationservices
    ```

2. Open the IAConfig.xml file found in <IAHOME>/conf and add the following line to the "service-configs" section:

    ```
    <path>hpnnmi/hpnnmi.xml</path>
    ```

3. Open the `hpnnmi.js` file in `<IAHOME>/integrationservices/hpnnmi/` and locate the `var host = "localhost"` and `var port = "80"` variables; replace `localhost` with your HP NNMi server's IP Address, and `80` with the port on which web services are running on the HP NNMi server.

4. Restart the Integration Agent.

   • On Windows, the Integration Agent runs as a Windows Service; on Unix, it runs as a Unix daemon.

3. Configuration

Before you can begin using the integration, you must configure HP NNMi and AlarmPoint. This chapter explains the configuration processes required for each product.

3.1 HP NNMi

Configuring NNMi for the integration requires the creation of a Web Services Client, and a Web Services User to log into the Mobile Gateway. Configuring a Web Services Client allows notification responses to update the NNMi incidents appropriately.

To create a Web Services Client:

1. Launch the NNMi Console, and log in as a user with the Administrator role.

2. Under the Configuration workspace, click **User Accounts and Roles**.

3. On the Account Mapping – User Accounts and Roles page, click **New**.

4. On the Account Mapping page, in the **Account** drop-down list, select **New**:
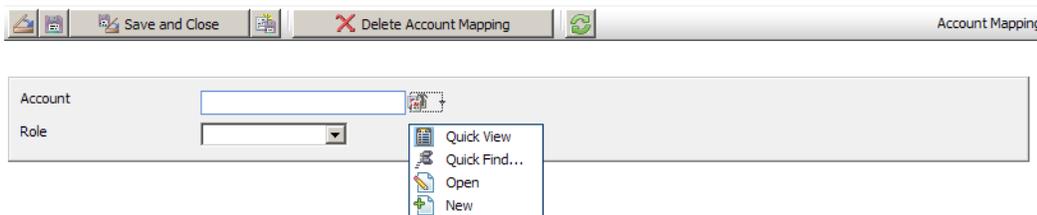
5. On the User Account page, specify the **Name** and **Password** for the Web Services Client User:
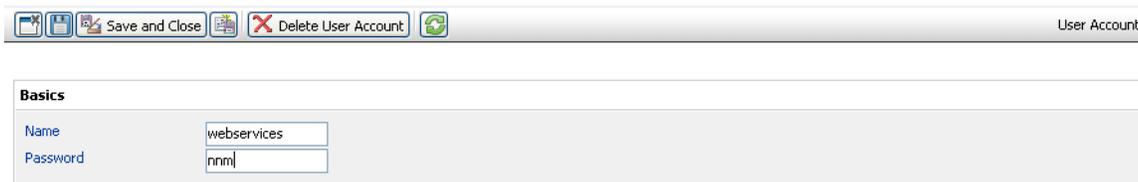
6. Click **Save and Close**.

   • The "webservices" user is now specified in the Account field on the Role page.

7. In the **Role** drop-down list, select Web Service Client.

8. Click **Save and Close**.

   • The Web Service Client will now allow AlarmPoint responses to update NNMi incidents using Web Service Calls. The webservices user is listed on the User Accounts and Roles page:
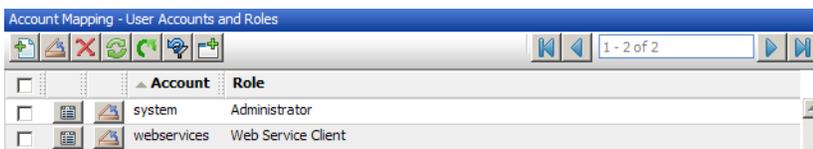
3.2 Configuring AlarmPoint

Configuring AlarmPoint requires the following steps:

- Define an Event Domain
- Define an Integration Service
- Define Custom Fields
- Create a Mobile Gateway User

3.2.1 Defining an Event Domain

This integration is set up to use a default Event Domain of "hp_nnmi"; it is strongly recommended that you use this default Event Domain. The Event Domain name must match the domain variable specified in the `hpnnmi.xml` file installed on the Integration Agent. The AlarmPoint Webserver must be running to perform this portion of the integration.

Note: *If the "hp_nnmi" Event Domain is already configured in AlarmPoint (for use with the AlarmPoint for HP NNMi Integration), skip this section.*

To define an Event Domain:

1. Sign on to AlarmPoint as a Company Administrator, and click the **Developer** tab.
2. On the Event Domains page, click **Add New**.
3. Enter the following information into the form:
   - **Name**: hp_nnmi
   - **Description**: HP NNMi Integration
   - **Script Package**: HP Network Node Manager i-series

Note: *If you have not installed the AlarmPoint for HP NNMi integration, or the AlarmPoint Express for HP NNMi bundle, the Script Package should be set to "default".*

4. Click **Save**.

3.2.2 Defining an Integration Service

This integration uses a default integration service of "HPNNMI"; it is strongly recommended that you use this default integration service. For the installation to be successful, the integration service name must match the service specified in the `nnmi.xml` file installed on the Integration Agent.

To define an Integration Service:

1. In AlarmPoint, on the Event Domains page, click the **hp_nnmi** Event Domain.
2. On the Event Domain Details page, in the Integration Services area, click **Add New**.
3. Enter the following information into the form:
   - **Name**: HPNNMI
   - **Description**: HP NNMi Integration Service
   - **Path**: hpnnmi/menu.jsp

4. Click **Save**.

3.2.3 Defining Custom Fields

The Mobile Gateway uses custom fields defined in AlarmPoint to hold the login information for NNMi. By default, the custom fields are "HP NNMi Login" and "HP NNMi Password"; it is strongly recommended that you use these default field names.

Note: *These custom fields are optional and do not need to be defined for the Mobile Gateway to function.*

To define the custom fields:

1. In AlarmPoint, click the **Admin** tab.

2. In the Administration menu on the left side of the screen, click **Custom Fields**.

3. Click **Add New**.

4. Enter the following information info the form:

   • **Field Name**: HP NNMi Login

   • **Type**: Text

5. Click **Save**.

6. Click **Add New**.

7. Enter the following information into the form:

   • **Field Name**: HP NNMi Password

   • **Type**: Password

8. Click **Save**.

Note: *For more information about custom fields see the* AlarmPoint Installation and Administration Guide.

3.2.4 Creating a Mobile Gateway User

The Has Mobile Access check box on the User Details page determines whether a User can log into the Mobile Gateway. You can grant access to an existing User by selecting the Has Mobile Access check box, or create a new User and select the check box while adding them.

If you are using the AlarmPoint Express for HP NMMi integration, only the Super/Company Administrator can log in to the Mobile Gateway; you will need to enable the Has Mobile Access feature for the Administrator.

To allow the Company Administrator to access the Mobile Gateway:

1. In AlarmPoint, click the **Users** tab, and then click **Find Users**.

2. On the Find Users page, click **All**.

3. In the list of returned Users, click **Administrator, Company**.

4. On the Details page, select the **Has Mobile Access** check box.

   • If you defined the custom fields, enter the **HP NNMi Login** and **HP NNMi Password** information into the custom fields.

5. Click **Save**.

Note: *For more information about Mobile Gateway Users see the* AlarmPoint Mobile Gateway Guide.

4. Software Component Validation

It is recommended that the applications be run in the following order:

- HP NNMi
- AlarmPoint Application and Notification Server Nodes
- AlarmPoint Integration Agent

Consult the respective manuals for details on starting these applications.

Note: *All AlarmPoint browser pages have been designed to work with BlackBerry Handheld Software v4.2.x. The browser-accessible pages may not display properly on mobile devices with other software versions.*

4.1 Query for an Incident

The following validates that the Mobile Gateway, Integration Agent and HP NNMi are properly configured.

Note: *The Mobile Gateway page has a default URL of* `http://<AP-WS-IP>:8888/mg`, *where* `<AP-WS-IP>` *is the IP address of the AlarmPoint Webserver where the Mobile Gateway is configured.*

To query for an incident:

1. Log in to the Mobile Gateway using root/tree as the Username/Password.

- If more than one Integration Service is available, select the **HPNNMI** service.
2. If prompted, enter the NNMi login credentials, and then click the **Query Incidents** menu item:
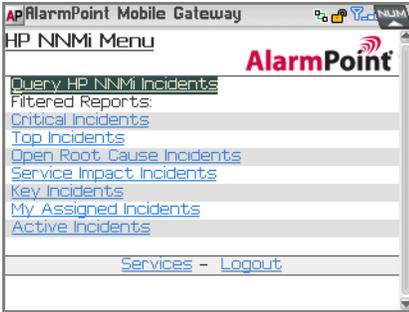
AlarmPoint provides the following default search filters (note that "Active" in the following list refers to incidents that are either In Progress or Registered):

- **Critical Incidents**: returns all Active incidents with a Severity of "Critical"

- **Top Incidents**: returns all Active incidents with a Priority of "Top"

- **Open Root Cause Incidents**: returns all Active incidents with a Nature of "RootCause"

- **Service Impact Incidents**: returns all Active incidents with a Nature of "ServiceImpact"

- **Key Incidents**: returns all Active incidents with a Nature of "ServiceImpact" OR "RootCause"

- **My Assigned Incidents**: returns all Active incidents with an "AssignTo"value that matches the logged in User's AlarmPoint User ID

- **Active Incidents**: returns all Active incidents

3. On the Query Incidents page, enter the search criteria in the fields provided:
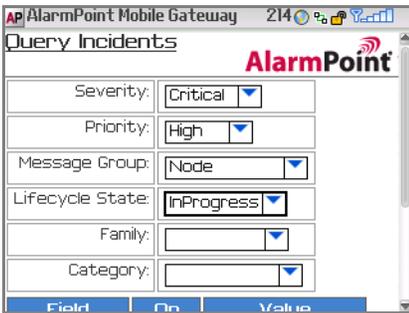
4. Click **Submit** to list all incidents matching the search criteria:
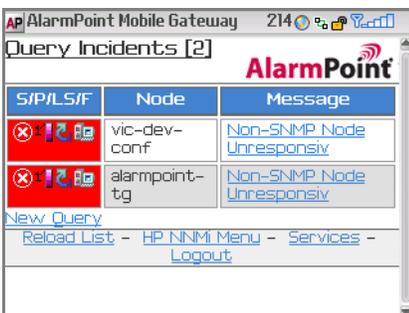
5. Click the link in the **Text** column for an incident to view its details:

- You can view the available options for the incident in the drop-down list at the top of the screen:
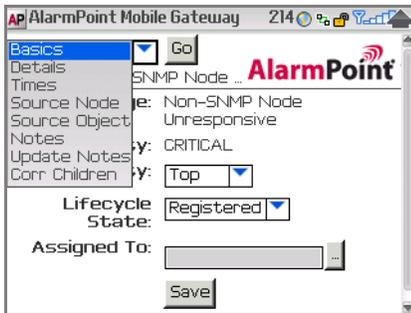
6. To resolve the issue, select **Basics** from the drop-down list, and then click **Go**.

7. On the Basics page, in the **Lifecycle State** drop-down list, select **Closed**, and then click **Save**:
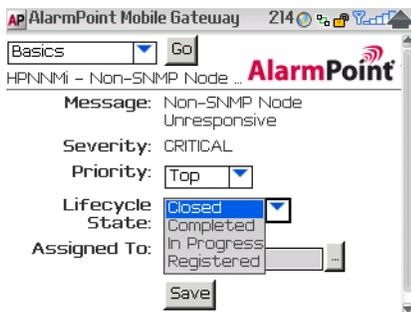
- AlarmPoint displays the updated incident details:

8. Log in to HP NNMi and view the Notes field for the incident to confirm that it was acknowledged:
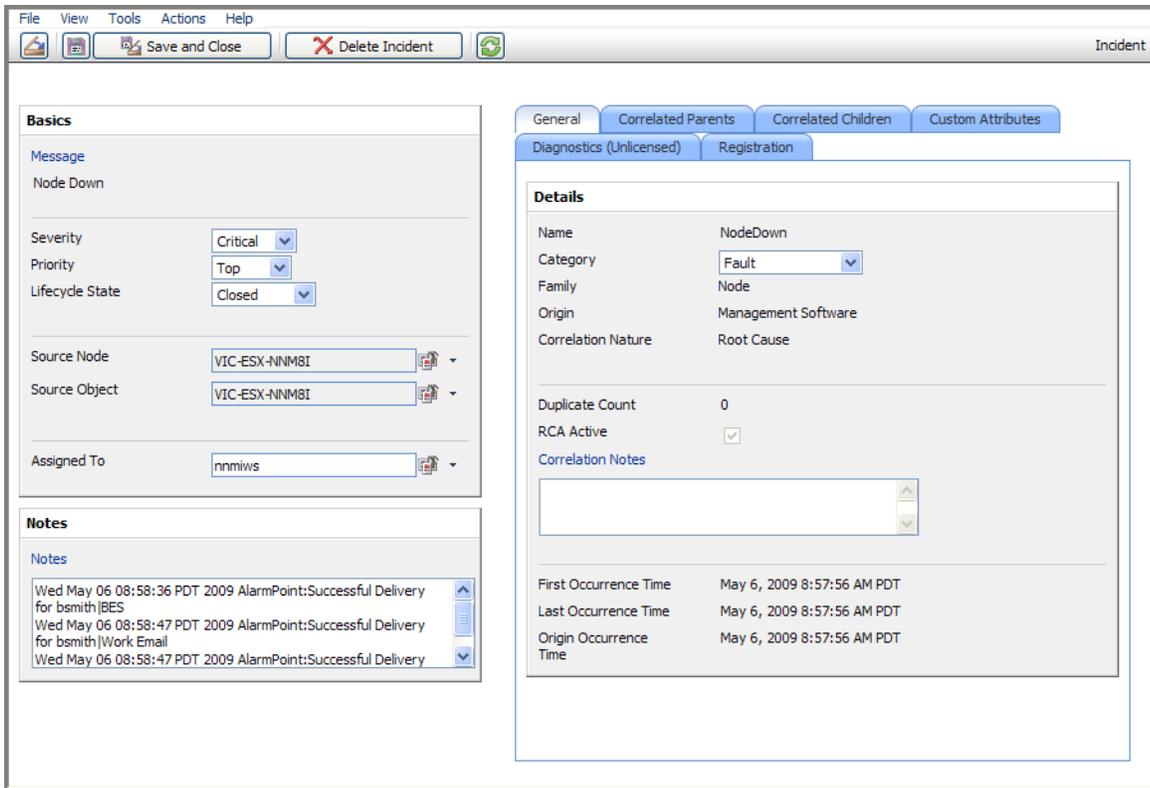
4.1.1 Incident Color Codes

AlarmPoint color-codes the incidents in the list according to the following criteria:

- **Red**: unassigned incidents with a Severity of "Critical"
- **Orange**: unassigned incidents with a Severity of "Major"
- **Yellow**: unassigned incidents with a Severity of "Minor"
- **Light blue**: unassigned incidents with a Severity of "Warning"
- **Green**: unassigned incidents with a Severity of "Normal"
- **Pink**: incidents of any Severity that are owned by the User currently logged into Mobile Gateway
- **Light yellow**: incidents of any Severity that are owned by another User

These colors are defined in the `hpnnmi/listEvents.jsp` file. The following figures illustrate how the different colors would appear in the list of returned incidents:
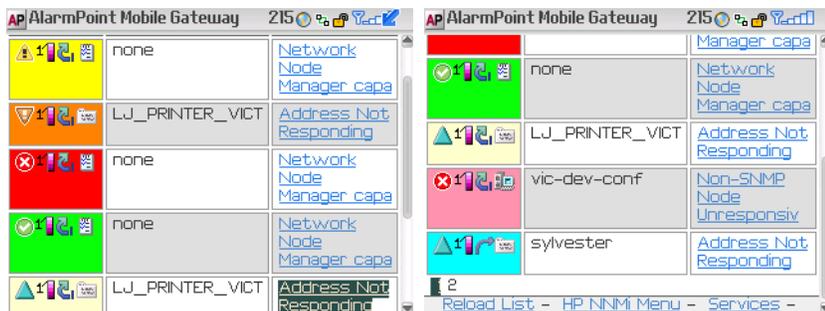
5. Optimizing and Extending the Integration

This section describes some of the available methods you can use to optimize or extend the AlarmPoint Mobile Gateway for HP NNMi Integration.

5.1 Adding Incident Details

You can add additional read-only content to the details displayed on the Mobile Gateway by modifying the `eventContent.jsp` file in the `<APHOME>\mobilegateway\hpnnmi\includes` folder.

The first step in adding new content is to determine what information is available from the getIncident web service call. (For more information on how to do this, refer to the NNMi Developer's Toolkit Reference or other NNMi developer documentation available from HP.) It is also important that you know what the return type is for the attribute you are requesting from the "event" object. For the information to be displayed in the Mobile Gateway, you must return a string; depending on the attribute you want to add, you might have to call the toString() method, or cast it to a string using String.valueOf().

Open the `<APHOME>\mobilegateway\hpnnmi\includes\eventContent.jsp` file, and locate the section to which you want to add the new detail:

```
else if ( tab.equalsIgnoreCase( "Details" ) )
{

  fields.add(new FieldImpl(FieldType.READONLY, "Name", event.getName()));
  fields.add(new FieldImpl(FieldType.READONLY, "Category",
getHPObjectSuffix(event.getCategory())));
  fields.add(new FieldImpl(FieldType.READONLY, "Family",
getHPObjectSuffix(event.getFamily())));
  fields.add(new FieldImpl(FieldType.READONLY, "Origin",
event.getOrigin().toString()));
  fields.add(new FieldImpl(FieldType.READONLY, "Correlation Nature",
event.getNature().toString()));
  fields.add(new FieldImpl(FieldType.READONLY, "Duplicate Count",
String.valueOf(event.getDuplicateCount())));
  fields.add(new FieldImpl(FieldType.READONLYBOOLEAN, "RCA Active",
String.valueOf(event.getRcaActive())));

}
```

The following figure illustrates how the above information is displayed on the Mobile Gateway:

For this example, assume that you want to add the SourceNodeUuid as a read-only field type to the incident details displayed in the Mobile Gateway. Note that the SourceNodeUuid value is a string, so you do not have to cast it:

```
else if ( tab.equalsIgnoreCase( "Details" ) )
{

  fields.add(new FieldImpl(FieldType.READONLY, "Name", event.getName()));
  fields.add(new FieldImpl(FieldType.READONLY, "Category",
getHPObjectSuffix(event.getCategory())));
  fields.add(new FieldImpl(FieldType.READONLY, "Family",
getHPObjectSuffix(event.getFamily())));
  fields.add(new FieldImpl(FieldType.READONLY, "Origin",
event.getOrigin().toString()));
  fields.add(new FieldImpl(FieldType.READONLY, "Correlation Nature",
event.getNature().toString()));
  fields.add(new FieldImpl(FieldType.READONLY, "Src Node Uuid",
event.getSourceNodeUuid()));
  fields.add(new FieldImpl(FieldType.READONLY, "Duplicate Count",
String.valueOf(event.getDuplicateCount())));
  fields.add(new FieldImpl(FieldType.READONLYBOOLEAN, "RCA Active",
String.valueOf(event.getRcaActive())));

}
```

With the addition of the bolded line above, the incident details page should now resemble the following:
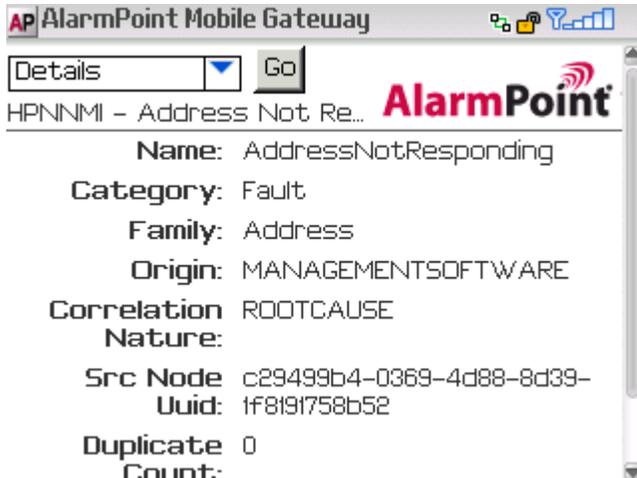
5.2 Creating a URL Alias

The `urlAlias.jsp` page in the Mobile Gateway is used to drive directly from an AlarmPoint notification to the Create Incident or Update Incident screens. It supports the following parameters:

Name	Description
newIncident	If this parameter is set, a new incident will be created and you will be taken to the Create Incident Mobile Gateway screen. If it is not set, you will be taken to the Update Incident Mobile Gateway screen for the specified incident.
IncidentID	The incident number of the incident to update. If the newIncident parameter is not set, this field must be set to a valid incident number.
Field Name	The name of an API Caption of a field for the incident. For each parameter set, it will update the field on the incident with that value

For example, if you wanted to load the incident with the current Event's incident_id and update the assignee to be the current User, you would modify the following section in the BES/HTML email portion of the presentation and subscriptionPresentation scripts:

```
...
$responseinfo = $responseinfo & "  title=\u0022" & $choice & "\u0022>" & $choice & "</
a></li>"
  ENDFOR
...
<add code here>
...
$responseinfo = $responseinfo & "</ol></div>"
ELSE
...
```

Code to insert:

```
$hasMobileAccess = $person.hasMobileAccess
$accessibleServices = @person::getAccessibleIntegrationServices($event.domain)
$hasAccessToSample = $accessibleServices::contains("HPNNMI")
$AlarmPoint_URL = "http://localhost:8888"
```

```
# Enables View Incident as a response action; this allows the user
# to view the incident in the Mobile Gateway
IF ($hasMobileAccess && $hasAccessToSample)

  @urlAlias = @event::createURLAlias()
  @urlAlias::setTarget($AlarmPoint_URL & "/mg/jsp/hpnnmi/urlAlias.jsp")
  @urlAlias::setHost($AlarmPoint_URL)
  @urlAlias::setTimeout(3600)

  $cfvUser = @person::getCustomFieldValue("HP NNMi Login")
  $cfvPass = @person::getCustomFieldValue("HP NNMi Password")
  IF ( (!EMPTY ($cfvUser) && $cfvUser != "") && ( !EMPTY ($cfvPass) && $cfvPass != "") )
    @urlAlias::setParameter("nnmiUser", $cfvUser)
    @urlAlias::setParameter("nnmiPass", $cfvPass)
  ENDIF
  @urlAlias::setParameter("username", "superadmin")
  @urlAlias::setParameter("Incident_ID", $event.incident_id)
  $alias = @urlAlias::activate()

  $count = $count + 1
  $responseinfo = $responseinfo & "<li id=\u0022eml_response_item" & $count & "\u0022
class=\u0022response\u0022>"
  $responseinfo = $responseinfo & "<a id=\u0022eml_response_link" & $count & "\u0022
class=\u0022response\u0022"
  $responseinfo = $responseinfo & "  href=\u0022" & $alias & "\u0022"
  $responseinfo = $responseinfo & "  title=\u0022View Incident\u0022>View Incident</
a></li>"
ENDIF
```

Note: *For more information about the URL Alias script object method, see the* AlarmPoint Developer's Guide &
Scripting Reference.

5.3 Uninstalling

To uninstall the Mobile Gateway Integration, remove all installed Mobile Gateway files. Refer to the *AlarmPoint Mobile Gateway Guide* for complete details.

For instructions on removing an AlarmPoint deployment, refer to the *AlarmPoint Installation and Administration Guide*.

6. Configuration Variable Reference

This section outlines and describes the configuration variables available in the Mobile Gateway and Integration Agent.

6.1 Mobile Gateway Configuration Variables

The `hpnnmi/configuration.jsp` file installed on the Mobile Gateway contains the following configuration variables::

Variable	Type	Description	Default Value
RESULTS_PER_PAGE	int	Defines how many results should be displayed on each page of the incidents lists	10
NUM_SEARCH_FIELDS	int	Defines the number of rows of search elements	2
MAIN_MENU_COUNTS	boolean	Enables the queries on the home page to be run	false
TRUNCATED_VIEW	boolean	Defines whether to show lists of highly truncated data in a compact form, or full data in a multi-line (widescreen) form. See "Truncated View Options", below, for a list of available settings.	true
MAX_MESSAGES_DEFAULT	String	Defines the maximum number of messages to retrieve from HP NNMi	200
HPNNMI_USER_NAME_FIELD	string	Defines the name of the custom field in AlarmPoint containing the NNMi login user name	"HP NNMi Login"
HPNNMI_PASSWORD_FIELD	string	Defines the name of the custom field in AlarmPoint containing the NNMi login user password	"HP NNMi Password"
MAIN_MENU_OPTIONS	map	Defines what queries should be displayed on the homepage	Critical Top Open Root Cause Key My Assigned Active

6.1.1 Truncated View Options

The following code snippet lists the truncated view values and their default settings:

```
MAX_SUMMARY_NODE_IN_CHARACTERS = 5;
MAX_SUMMARY_MESSAGE_IN_CHARACTERS = 25;
```

7. Contact Us

You can access the AlarmPoint Systems Web Site at http://www.alarmpoint.com. From this site you can obtain information about the company, the products, support and other helpful information. You may also access the Customer Support Site at https://connect.alarmpoint.com. In this protected site you will find current product releases, helpful hints, patches, release notes, a helpful product knowledge base, trouble ticket submission areas and other helpful tools provided by AlarmPoint Systems, Inc.

AlarmPoint Systems, Inc.

4457 Willow Road, Suite 220
Pleasanton, CA 94588

Phone: 925-226-0300

Fax: 925-226-0310

Email: support@alarmpoint.com

Website: http://www.alarmpoint.com

Hewlett-Packard Company

3000 Hanover Street
Palo Alto, CA 94304-1185 USA

Phone: 650-857-1501

Fax: 650-857-5518

Support: www.hp.com/go/hpsoftwaresupport

Website: www.hp.com/go/nnmi

8. Copyright

AlarmPoint Systems, Inc. and HP produced this integration document to assist customers with joint HP/AlarmPoint Systems implementations. HP and AlarmPoint Systems have made every effort to ensure that the information contained in this document is accurate, but do not guarantee any accuracy now or in the future. AlarmPoint Systems™ and AlarmPoint® are a trademark and registered trademark, respectively, of AlarmPoint Systems, Inc. in the United States, United Kingdom and other jurisdictions. All other trademarks are the property of their respective owners.