



BlackBerry AtHoc



BlackBerry AtHoc Networked Crisis Communication
Honeywell Notifier
CAP Gateway Installation
and Configuration Guide

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Chapter 1: Honeywell Notifier CAP gateway integration overview

BlackBerry AtHoc deploys a Honeywell CAP Feed Poller agent, which is a periodic job that polls the Notifier Common Alerting Protocol (CAP) gateway every 2 to 5 seconds. There are two agents, which are described in the Implementation section. Polling to Notifier is done by only one agent.

The CAP Gateway produces an Atom feed that contains entries about CAP-captured events.

Each Atom entry has a link to the full CAP payload that includes all of the details about the event.

The BlackBerry AtHoc agent processes the feed, identifies new entries, fetches CAP payloads, and applies business logic to publish the appropriate alert template (scenario.)

For more information about the Atom standard, see http://en.wikipedia.org/wiki/Atom_standard.

For more information about CAP, see <http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2-os.html>.

Chapter 2: Implementation

Complete the following tasks to integrate the Honeywell Notifier CAP Gateway.

Set up the Honeywell Notifier gateway

1. Provide web access to the gateway from the BlackBerry AtHoc system. If the BlackBerry AtHoc system is outside of the local network, open an inbound connection from the BlackBerry AtHoc system to the gateway.
2. Notifier must create event codes for each type of event that is published. This event code is specified in the CAP payload under node `<code>`. Refer to the highlighted notes in Appendix B of this document.

Set up the BlackBerry AtHoc CAP Feed Poller agent

1. Run the stored procedure to enable the CAP Feed Poller agent on BlackBerry AtHoc.
2. On VPS1, provide a source URL in the CAP Feed Poller agent configuration.

Set up the BlackBerry AtHoc CAP Event Processor agent

1. Run the stored procedure to enable the CAP Event Processor agent on BlackBerry AtHoc.
2. On VPS3, update the provider ID for each VPS on which you want to run the CAP Event Processor Agent.
3. On each VPS, complete the processing criteria in the configuration XML.

Set up Health Monitor

1. Run the SQL stored procedure to enable health monitor.
2. Ensure that the polling agent is running. If the polling agent is not running, health monitor displays an error.

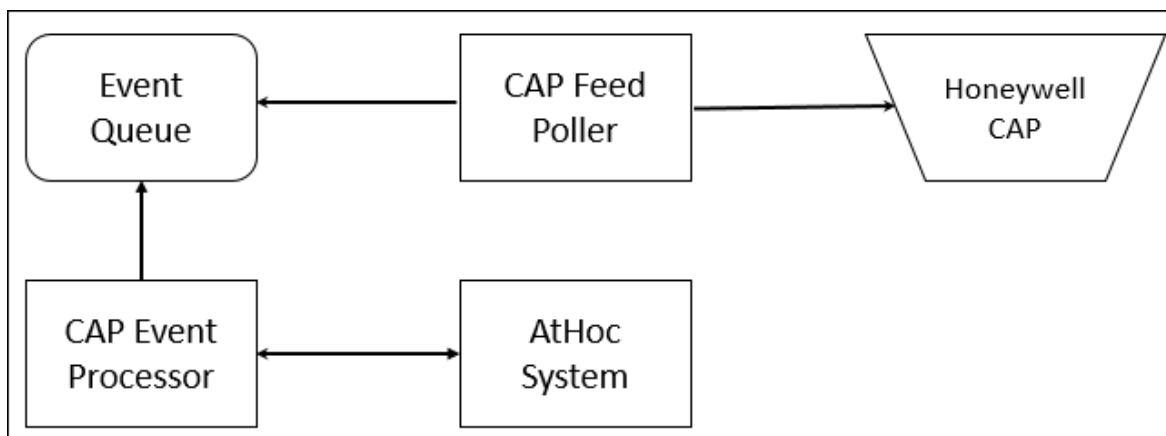
Chapter 3: Business flow

The following steps describe the business flow for integrating the CAP Gateway for Honeywell:


1. The CAP Feed Poller job fetches the index feed and creates a queue entry in the BlackBerry AtHoc database queue.
2. For performance optimization, the polling agent maintains the “last-time-stamp” of the most recent feed entry within the Atom payload (EVT_QUEUE_TAB).
 - Every new feed is first filtered against “last-time-stamp” and only new entries are picked up.
 - In the new entries, de-duplication is done based upon a unique identifier to avoid duplicate alerts. The unique identifier is also linked to published alert attribute `<aid>` within BlackBerry AtHoc for future reference.
3. The CAP Event Processor job running in the background picks up new entries and marks the picked up entries as In Progress.
4. For all entries that are In Progress, the agent determines which alert template (scenario) needs to be published for the incoming event code, based on the configuration of the agent.
5. The alert template (scenario) is published and the event queue entry is marked as Done. If there is an error, the entry is marked as Error.
6. Each agent maintains a debug log, known as the AtHoc Event Viewer, that is used during troubleshooting.

Chapter 4: Set up the BlackBerry AtHoc agents

The following sections describe how to set up the BlackBerry AtHoc Agents.



Set up the BlackBerry AtHoc CAP Feed Poller agent configuration

1. In SQL Server Management Studio, navigate to **Database > ngaddata > Programmability > Stored Procedures**.
2. Run the ENABLE_DISABLE_CAP_FEED_POLLER stored procedure.
3. Log in to the BlackBerry AtHoc management console and switch to VPS1.
4. In the navigation bar, click the  (**Settings**) icon.
5. In the System Setup section, click **Integration Manager**. The Integration Manager screen opens.
6. Click the CAP Feed Poller agent.
7. Provide the source URL in the agent configuration. Edit the XML in the Configuration field as highlighted in the following example:


```

<CapFeedPoller maxDegreeOfParallelism="5">
  <CapFeeds>
    <CapFeed name="Feed1" type="HoneywellCAP"
lastUpdatedLocalDateTime="1/11/2017 12:16:25 PM" pollingInterval="20"
lastPollingTime="1/12/2017 5:55:23 PM"
url="http://10.123.246.21/CapAtomTestFeeds/atomtest.xml"/>
  </CapFeeds>
</CapFeedPoller>
  
```

Set up the BlackBerry AtHoc CAP Event Processor agent configuration

The CAP Event Processor agent is enabled on System Setup (3) organization by default.

If the CAP Event Processor is not enabled, complete the following steps to enable it:

1. In SQL Server Management Studio, navigate to **Database > ngaddata > Programmability > Stored Procedures**.
2. Run the stored procedure `ENABLE_DISABLE_CAP_EVENT_PROCESSOR` once for the system.
3. Change to the System Setup (3) organization.
4. In the navigation bar, click the  (**Settings**) icon.
5. In the System Setup section, click **Integration Manager**. The Integration Manager screen opens.
6. Click **CAP Event Processor**.
7. Edit the XML in the Configuration field as highlighted in the following example:

```
<CapEventProcessor xmlns="" maxDegreeOfParallelism="10"
ignoreDuplicateTimeInterval="30">
  <providers>
    <provider id="2050329">
      <eventRules>
        <eventRule eventType="HoneywellCAP">
          <xpathQuery value="/alert/code"/>
          <eventMappings>
            <eventMapping
eventName="E06995893A7P6150N" scenarioCommonName="ABCD"/>
          </eventMappings>
        </eventRule>
      </eventRules>
    </provider>
  </providers>
</CapEventProcessor>
```

8. Switch to the VPS where you enabled the agent in Step 7.
9. Create an alert template. Copy the common name of the alert template.
10. Go to the Integration Manager, and access the CAP Event Processor agent.

- Update the agent's Configuration with the correct event name, geocode and county (if applicable) and the common name of the new alert template created in Step 9.

Note: The scenario common name and the alert template common name are the same.

View system tasks


The CAP Feed Poller and the CAP Event Processor jobs are displayed on VPS 3 at BlackBerry AtHoc **Settings** > **System Setup** > **System Jobs** as shown in the following figure:



Name	Status	Last Run	Next Run	Interval
AtHoc Connect Update Alert Responses	Automatic	01/20/2017 11:59:04 OK	01/20/2017 12:00:00	00:01:00
AtHoc Connect User-Base Sync	Automatic	01/20/2017 11:52:47 OK	01/20/2017 12:07:44	00:15:00
Auto Delete Users	Automatic	01/15/2017 03:00:02 OK	01/22/2017 03:00:00	7.00:00:00
Auto Disable Users	Automatic	01/14/2017 03:00:02 OK	01/21/2017 03:00:00	7.00:00:00
Cap Event Processor	Automatic	01/20/2017 11:59:28 OK	01/20/2017 11:59:30	00:00:03
CAP Feed Poller	Automatic	01/20/2017 11:59:20 OK	01/20/2017 11:59:30	00:00:10
Delivery Batch Recovery	Automatic	01/20/2017 11:59:29 OK	01/20/2017 11:59:37	00:00:10
Delivery Batch Retry	Automatic	01/20/2017 11:59:29 OK	01/20/2017 11:59:37	00:00:10

Run Health Monitor

Verify on the system if Health Monitor is enabled.

To view the health monitors, complete the following steps:

- Log in to the BlackBerry AtHoc management console.
- Change to the System Setup (3) organization.
- In the navigation bar, click the  (**Settings**) icon.
- In the System Setup section, click **Global System Health**. The System Visibility Console opens.
- Scroll down to the General section.

General	
Create new monitor	
 CAP Events Process / Last tested 09/28/2017 13:43:42	Refresh Disable Delete
 CAP Polling Agent / Last tested 09/28/2017 13:43:42	Refresh Disable Delete

If Health Monitor is not enabled, run the MTR_EVT_QUEUE stored procedure.

Ensure that the polling agent is running. If the polling agent is not running, Health Monitor displays an error.

Run an end-to-end test

1. Check System Jobs to verify that both the CAP Feed Poller and the CAP Event Processor jobs are running.
2. Ensure that an alert template (scenario) is available in BlackBerry AtHoc. The common name should match the alert template common name specified in the configuration. The value in the configuration file maps to Honeywell feeds.

Note: Create the alert template if it has not been created.

3. Trigger an event from Honeywell.
4. Check the event status in the EVT_QUEUE_TAB table in the ngaddata database.
5. Check the Alert Manager in BlackBerry AtHoc for a new alert from Honeywell. The test is successful when you receive the alert from the Honeywell system.

Appendix A: CAP index payload

The following figure shows an example payload expected from Honeywell Notifier CAP Gateway after polling. The sample shows two events and each event has a link to the details CAP payload shown in Appendix B, "CAP details payload".

```
▼ <feed xmlns="http://www.w3.org/2005/Atom">
  <title>Test</title>
  <subtitle>Test</subtitle>
  <id>urn:uuid:1d6ca29d-89f3-4b7d-989f-16bf6bd5fs53</id>
  <updated>2017-01-24T00:06:25Z</updated>
  ▼ <author>
    <name>test</name>
    <email>test@test.com</email>
  </author>
  ▼ <entry>
    <title>Fire in Main Lobby</title>
    <id>123577062</id>
    <updated>2017-01-24T00:06:25Z</updated>
    <summary>Actual</summary>
    <link href="http://10.123.246.21/CapAtomTestFeeds/alert.xml"/>
  </entry>
</feed>
```

Appendix B: CAP details payload

The following example shows the detailed CAP payload for a given event published by Notifier. BlackBerry AtHoc uses the `<identifier>` and `<code>` nodes.

Because there can be multiple CAP gateways, the value of `<code>` should be unique across all gateways.

```
<?xml version="1.0" encoding="utf-8" ?>
<alert xmlns="urn:oasis:names:tc:emergency:cap:1.2">
  <identifier>9e68b7ea-40c8-44e7-b3ca-30f15aff1b7f</identifier>
  <sender>NOTIFIERFireSystems</sender>
  <sent>2013-04-01T12:32:00-00:00</sent>
  <status>Actual</status>
  <msgType>Alert</msgType>
  <scope>Public</scope>
  <code>Fire02</code>
  <info>
    <language>en-US</language>
    <category>Geo</category>
    <event>Fire</event>
    <urgency>Immediate</urgency>
    <severity>Extreme</severity>
    <certainty>Observed</certainty>
    <eventCode>Fire02</eventCode>
  </info>
</alert>
```