



# **BlackBerry AtHoc**

## **BBM Enterprise Alerts Installation and Administration Guide**



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# Overview

The BBM Enterprise Alerts plug-in works with the Notification Delivery Service (NDS) to provide crisis communication through BBM-E experiences for BBM Enterprise. The NDS is a dedicated server that processes and delivers alert messages from the NDS host service plug-ins.

## What is BBM Enterprise Alerts?

With BBM Enterprise Alerts, BBM Enterprise users can use BBM-E as the main experience for all organization communication, including crisis communications.

BBM Enterprise Alerts has the following use cases:

- **Alerts:** During an emergency, organizations can target communications to all or a subset of their users with secure, fast, reliable, and prominent communication.
- **Account:** During and after an emergency, organizations can collect information from their user base.

### Share critical safety information during a crisis

BBM Enterprise Alerts is powered by BlackBerry® AtHoc®, a recognized leader in crisis communication. BBM Enterprise alerts provides the following benefits:

- Track the safety status of your personnel.
- Leverage secure and trusted chat from BBM-E for sharing important safety information with employees.
- Conform to high-security government communication standards for sharing critical confidential information.
- Distinguish critical alerts from operational messages with a differentiated in-product experience.
- Improve your incident response and collaboration during weather-related events, man-made emergencies, and critical IT outages.

# Product requirements

This section describes the hardware, software, and network requirements for the BBM Enterprise Alerts plug-in.

## Hardware requirements

- A minimum of Dual-Core Dual CPUs (2 Dual-Core CPUs such as Xeon 51xx family, Xeon E53xx family or X53xx family) 2GHz or higher
- One database server core for each of the two application server cores
- 512 MB per application server core plus 2 GB for Windows 2012
- **Recommended:** Dual, redundant Intel NICs and power supplies
- If using Broadcom NICs, complete the following steps:
  1. Ensure that the latest drivers are installed.
  2. Disable the TCP Chimney feature, as described in the following Microsoft® article: <http://support.microsoft.com/kb/951037>.
- Disk space for storage on a RAID 5, RAID 0+1 or RAID 10 configured disk system. The exact allocation of disks depends on the hardware configuration.

**Important:** These requirements are for a small-scale installation. For a large-scale installation, contact BlackBerry AtHoc support for assistance.

## BBM Enterprise requirements

You can use BBM Enterprise on the following devices:

- Android™ devices running Android™ 4.0 or later
- iOS devices running iOS 7 or later

## Software requirements

- Notification Delivery Service and its prerequisites. For more information and to determine which version of NDS to install, check with your BlackBerry AtHoc Professional Services representative.
- Windows Server 2016 or 2019 Standard Edition 64-bit
- Microsoft SQL Server 2016 or 2019
- AppFabric 1.1 for Windows Server
- Internet Information Services (IIS) Standard Edition, Version 7.0
- Microsoft .NET Framework, Version 4.7.2 or later
- Microsoft ASP.NET 2.0 AJAX Extensions 1.0
- Microsoft ASP.NET MVC 4 Runtime
- Microsoft SQL Server 2012 Native Client
- Microsoft SQL Server System CLR Types
- Microsoft System CLR Types for SQL Server 2012
- URL rewrite module for IIS Module 2
- IIS roles and Windows features:
  - WebServer Roles:

- Common HTTP Features
  - Default Document
  - Directory Browsing
  - HTTP Errors
  - Static Content
  - HTTP Redirection
- Application Development
  - .NET Extensibility 3.5
  - .NET Extensibility 4.7
  - Application Initialization
  - ASP
  - ASP .NET 3.5
  - ASP .NET 4.7
  - ISAPI Extensions
  - ISAPI Filters
- Health and Diagnostics
  - HTTP Logging
  - Request Monitor
  - HTTP Tracing
- Security
  - Request Filtering
  - Basic Authentication
  - Windows Authentication
- Performance
  - Static Content Compression
  - Dynamic Content Compression
- WebServer Management Tools
  - IIS Management Console
  - IIS 6 Management Compatibility
  - IIS 6 Metabase Compatibility
- IIS Features
  - .NET Framework 3.5 Features
    - .NET Framework 3.5 (includes .NET 2.0 and 3.0)
    - HTTP Activation
  - .NET Framework 4.7 Features (All)
  - Windows Process Activation Service
    - Process
    - .NET Environment 3.5
    - Configuration APIs
  - MSMQ
    - MSMQ-Services
    - MSMQ-Server

# Network requirements

- **Firewalls**

BBM-E sends and received messages using HTTPS port 443 for a destination port. This port should be opened on all firewalls (including Windows Firewall) that protect the BBM Enterprise Alerts application servers.

- **Anti virus software**

Anti virus software installed on BBM-E application servers might affect BBM Enterprise Alerts operations if configured incorrectly. Consider uninstalling anti virus software if its behavior is uncertain.

- **Server Clock Synchronization**

All application and database server clocks must be synchronized with the network server time.



# Install and set up BBM Enterprise Alerts

This section describes the basic installation and set up of the BBM-E plug-in for NDS. Contact your BlackBerry AtHoc Implementation Engineer to download the installation package.

## Installation prerequisites

Before you install the BBM Enterprise Alerts plug-in, complete the following tasks:

1. Install and set up NDS V2.9.14 on the machine on which you plan to install the plug-in.
2. An FQDN certificate that contains a unique common name (CN) must be available in PFX file format. White list the CN on the BBM Enterprise server. Contact BlackBerry Security to obtain an FQDN certificate.
3. Stop the AtHoc delivery service. (For upgrades only.)

## Install the BBM Enterprise alerts plug-in files

1. Copy the `AtHoc.Delivery.PlugIn.BBMe_build.zip` file to the NDS server.
2. Right-click the zip file and click **Unblock** to unblock the zip file.
3. Unzip the package into the NDS plug-in folder: `..\Program Files (x86)\AtHocENS\DeliveryServer\Plugins`.

## Install the certificate file

1. Log in to the NDS console.
2. Click the **Utilities** tab.
3. In the **Import System Certificate** section, enter **bbme** in the **Certificate Name** field.
4. Click **Load File**, and navigate to the location on your system where the certificate is stored.
5. Enter the certificate private key.
6. Click **Import**.
7. In **NDS**, navigate to the **Certificate Repository** (`nds.certificate.repository`), and verify that the `Default-bbme` certificate is present.

## Verify the plug-in installation

1. Go to the following folder and run `NdsConsole.exe`:  
`..\AtHocENS\DeliveryServer\Tools\NDSConsole`
2. On the **Testing** screen, verify that the following plug-in shows in the Supported Devices list:

```
<bbme> AtHoc.Delivery.PlugIn.BBMe.BBMePlugIn
```

## Set up the organization account

After you have verified that the BBM Enterprise Alerts plug-in is available in the NDS Console, you set up the account for your organization. You also associate a user that is an initiator or operator who publishes alerts.

1. [Create the organization account](#) for NDS
2. [Create a user](#) and bind the user to the account
3. [Add the user to the account](#)

### Create the organization account

1. In the NDS Console, navigate to **Management > Account**.
2. Click **New Account**.
3. On the **New Account** screen, enter a value for **Display Name** and set following defaults:
  - Status: **Active**
  - Enable anonymization: **Selected**

### Create a user

You can create a new user in the NDS Console and then customize the user profile for branding, billing, and tracking purposes.

1. In the **NDS Console**, navigate to **Management > User**.
2. On the **User Management** screen, click **New User**.
3. On the **New User** screen, enter a Login Name.
4. Enter and confirm the password associated with the user.

**Note:** This login name and password are used to configure the delivery gateway in the BlackBerry AtHoc management system.

5. In the **Status** field, select **Active**.
6. Optionally, add a description.
7. Click **Save**.

### Add the user to the account

You must add the user to the organization account, which is known as binding the user to the account.

1. In the **NDS Console**, click **Management > Account**.
2. Select the account, then right-click the **Login Name** of the user that you created in [Create a user](#).

**Note:** This login name is used to configure the delivery gateway in the BlackBerry AtHoc management system.

3. Select **API** to add the user with an API role.
4. Select the account, then click the **Account Resource** tab.
5. Select the **Support** option in the row with the bbme DeviceType.
6. Click **Save**.

## Configure the BBM Enterprise Alerts plug-in for NDS

This section describes how to configure the BBM Enterprise Alerts plug-in for the NDS server.

1. Customize the `nds.plugins.bbme` plug-in key:
  - a. In the **NDS Console**, navigate to **Management > Configuration**.
  - b. Click **Save**.
2. Restart `AtHocDeliveryService`.

## Configure the BBM Enterprise Alerts plug-in settings

1. In the **NDS Console**, click **Management > Configure**.
2. In the **left pane**, select **nds.plugins.bbme**.
3. In the **Value** field, update the following attribute values, as appropriate for your setup:
  - **<bbmeURL>**—Enter the URL of your BBME server.
  - **<responseURL>**—Enter the URL of the server where the response service is installed, followed by **/R**. If you are using a load balancer, enter the URL of the load balancer.
  - **<requestPerSec>**—Enter the number of requests that can be sent to the BBME server by the NDS application servers, per second. The maximum is 100 for all servers. (If you are using two application servers, set this value to 50.)
  - **<maxTasksPerExecution>**—Enter the maximum number of delivery tasks BBME can process in a single batch. The default is 200.
  - **<maxBacklot>**—Enter the maximum number of outstanding delivery tasks BBME can process at any time. The default is 1000.
  - **<minBatchSize>**—Enter the minimum available batch size that BBME can offer to NDS before capacity is available. The default is 10.
  - **<taskTimeout>**—Enter the time (in seconds) that a task remains active before the system retries the task. The default is 300 seconds (5 minutes.)
  - **<configKey>**—Enter **BBMePlugIn**.
  - **<selfTestInterval>**—Enter the frequency of the connection test, in seconds, with the BBME server.
4. Click **Update**.

## Customize the BBM Enterprise Alerts configuration for each account

You can use the default BBM Enterprise Alerts configuration for all accounts or you can add customized configurations for each account, as needed.

1. In the **NDS Console**, navigate to **Management > Account**.
2. Record the Account ID for the account that needs a customized BBM-E account configuration. You will need this ID in Step 4.
3. In the **NDS Console**, navigate to **Management > Configuration**.
4. On the list of plug-in keys, click **New Configuration** and enter the following information into the fields:
  - **New Key:** **nds.plugins.bbme.accountConfig**
  - **AccountId:** Enter the Account ID that you saved in Step 2.
  - **Device Type:** Insert the string **bbme**.
  - **Value:** In **<OrgId>**, enter the ID number of the organization where users are registered in BBME.
5. Click **Save**.
6. Verify that the custom configuration was added:
  - a. The NDS Console configuration has the added configuration listed under **nds.plugins.bbme.AccountConfig**.
  - b. The **AtHoc Event Viewer** displays a message that a new configuration was uploaded.

## Test the configuration

After installing and configuring the BBM-E plug-in, verify that it works.

1. Open the **NDS Console** and click **Testing**.

2. Send a test alert to yourself, using the default template file:
  - a. Select **Send Single Alert**.
  - b. Enter the title and body text and add response options.
  - c. Select **Device** and enter **bbme**.
  - d. In the **Address** field, enter your email address.
  - e. In the **AccountId** field, enter the account ID that was setup for BBM Enterprise Alerts.  
  
For more information about how to create an account, see [Create the organization account](#).
  - f. Click **Send Alert**.
3. Go to the **Monitoring** page.
4. Click **Refresh** to see the new alert status.
5. Check the **Sent** status for errors.
6. Check your BBM-E device for the test message.

# Configure the BlackBerry Messenger device


Configure the BlackBerry Messenger device in the Settings section of the BlackBerry AtHoc management system to enable BlackBerry AtHoc to publish alerts through BBM-E.

## Configure a BlackBerry Messenger device on the BlackBerry AtHoc application server

Log in to the BlackBerry AtHoc management system and check the Delivery Gateways section to verify that the BlackBerry Messenger device gateway is installed. If it is installed, skip this section.

1. Log in to the BlackBerry AtHoc application server as an administrator.
2. Navigate to the following folder: `<IWSAlerts Install Path>\ServerObjects\Tools` and run the `AtHoc.Applications.Tools.InstallPackage.exe` file.
3. On the **Configure Device Support** screen, select **BlackBerry Messenger**.
4. Click **Enable**.
5. On the **Installation Complete** window, click **OK**.
6. Click **Close**.

## Configure the BlackBerry Messenger delivery gateway

1. Log in to the BlackBerry AtHoc management system as an administrator.
2. In the navigation bar, click .
3. In the **Devices** section, click **BlackBerry Messenger**.
4. On the **BlackBerry Messenger** page, click **Copy default settings**.
5. Enter the username and password that you created in [Create a user](#).
6. Click **Save**.

## Create users in the BlackBerry AtHoc management system

In order to send BBM-E messages to end users, you must ensure that those users exist in the BlackBerry AtHoc management system.

**Note:** You must have End User Manager privileges to create users.

1. Log in to the BlackBerry AtHoc management console as an End User Manager.
2. In the navigation bar, click **Users**.
3. Click **Users**.
4. On the **Users** screen, click **New**.


**Note:** Fields marked with an asterisk (\*) on the New User screen are required.

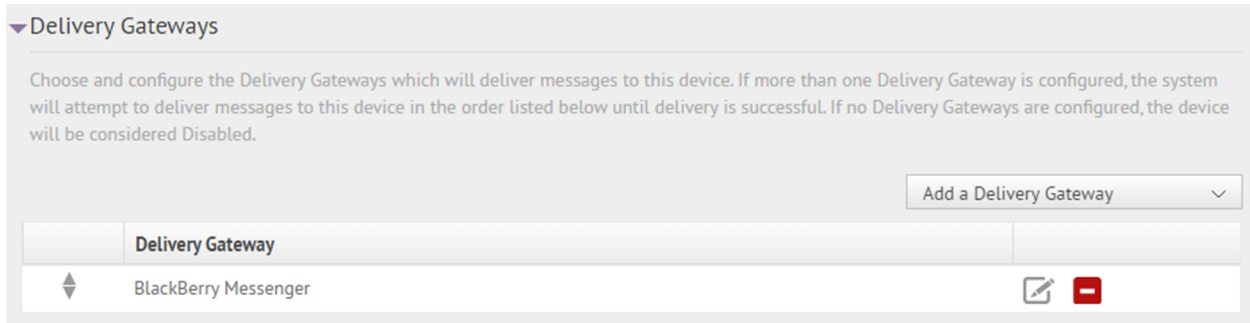
5. On the **New User** screen, in the **Basic Information** section, enter the following details about the user:
  - Username: The name the user is assigned by the system. Usernames are frequently imported from external systems and cannot be edited later.
  - First Name and Last Name


- Display Name: The name used to refer to the user within the system, such as bsmith or Jack Jones. This field can be edited later by the end user.
  - Any custom fields added by the administrators, including details such as CPR certification status, Emergency Community membership, or special skills.
6. In the **Online Addresses** section, in the **BBM-E** field, enter the user's email address. This address must be the address used to receive BBM-E messages.
  7. In the **Distribution List Membership** section, specify the distribution lists the user is a member of.  
**Note:** Required memberships are provided by default and cannot be deleted. If you do not have management permissions for a group, the group is read-only.
  8. In the **Advanced Information** section, which is configurable for each system, complete any required fields plus any of the non-required fields you want to include in the account details for the user.
  9. Provide a password that meets the displayed rules, if required.
  10. Click **Save**.

The details of the new user then appear in summary form on the screen.

## Enable the BBM Enterprise device

1. Log in to the BlackBerry AtHoc management system as an administrator.
2. In the navigation bar, click .
3. In the **Devices** section, click **Devices**.
4. On the **Devices** screen, on the **Personal Devices** tab, click **BBM-E**.
5. On the **BBM-E** page, click **Edit**.
6. In the **Delivery Gateways** section, click **Add a Delivery Gateway > BlackBerry Messenger**.




7. In the **BlackBerry Messenger** delivery gateway row, click .
8. By default, the configuration XML appears in the **Configure Gateway** window. If the configuration XML is empty, complete the following steps:
  - a. Delete the text in the **Configuration XML** field.
  - b. Copy the following into the field:

```
<Configuration><DeviceType>bbme</
DeviceType><data><replyTo>alerts@company.com</
replyTo><from>alerts@company.com</from></
data><DeviceExtensions><DeviceOptions Type="LongText"><AlertContent
  Locale="en_us" Type="LongText" /></DeviceOptions></DeviceExtensions></
Configuration>
```

9. Click **Submit**.
10. Click **Save**.
11. Click **More Actions > Enable**.

# Create and publish a BBM Enterprise Alerts alert template

To confirm that the BlackBerry Messenger device is installed correctly on the BlackBerry AtHoc management system, create a template and send a test message.

1. Log in to the BlackBerry AtHoc management system as an administrator.
2. Click **Alerts > Alert Templates**.
3. Click **New**.
4. On the **New Template** screen, in the **Alert Template** section, enter a template name and description.
5. Select a folder from the **Folder** list.
6. Select **Available for Quick Publish**.
7. In the **Content** section, enter the title and content of the alert.
8. In the **Target Users** section, click the **By Users** tab, and add a user to send a test message to.
9. In the **Target Users** section, click **Select Personal Devices**.
10. In the **BlackBerry Messenger** section, select **BBM-E**.
11. Click **Options**.
12. On the **Personal Devices Options** window, from the **BlackBerry Messenger Template** list, select the BBME template.
13. Optionally, in the **BlackBerry Messenger** content section, select to send both the title and body of the alert, or custom text.
14. Click **Apply**.
15. In the **Schedule** section, change the **Alert Duration** to 15 minutes.
16. Click **Preview and Save**.
17. On the preview page, review the settings and selections.
18. Click **Save**.
19. Click .
20. On the **Home** page, in the **Quick Publish** section, find the alert template you created.
21. Click **Publish**.
22. On the **Review and Publish** screen, click **Publish**.

## Verify the published alert

After you publish the test message, verify that the alert was published successfully to the syndication feed.

1. Open **BBME** on your device.
2. Look for the alert in the **Chats** list.
3. Tap the alert to view the details.

# Tools for monitoring, troubleshooting, and managing BBM Enterprise Alerts

This section describes tasks and tools for monitoring, troubleshooting, and managing the BBM Enterprise Alerts plug-in.

## Tracking the life cycle of delivery tasks

Using the NDS database logging feature, BBM Enterprise Alerts tracks task life cycle in the ngdeliverylog database and in the TaskLifeCycle and TaskLifeCycleHistory tables. This feature provides valuable troubleshooting and reporting information.

BBM Enterprise Alerts tracks the following life cycle task states:

Code	Description	Notes
400	Task initiated	—
410	Request Out	—
430	Sent	—
435	Failed before sending	Error code/message
439	Failed to send	Error code/message
970	User responded	Response code from response service

To configure life cycle tracking, update the BBM Enterprise Alerts plug-in.

Under the <queueControlInfo> section, a new set of configuration keys are introduced to control the life cycle logging feature (default values are shown):

```
<!--turn on/off task life cycle logging-->  
<logTaskLifeCycle>true</logTaskLifeCycle>  
<!--interval in second to purge log records in memory to batch and save to  
database, Default: 1-->  
<logPurgeInterval>1</logPurgeInterval>  
<!--batch size in number of records to purge each time and save to database.  
Default: 2000, Max: 2000 -->  
<logPurgeBatchSize>2000</logPurgeBatchSize>
```

## BlackBerry AtHoc health monitor

BBM Enterprise Alerts constantly reports its health status to BlackBerry AtHoc, and you can monitor the status using BlackBerry AtHoc Health Monitor. For more information about the BlackBerry AtHoc Health Monitor, see "[Monitor system health](#)" in the *BlackBerry AtHoc System Settings and Configuration* guide.



## BlackBerry AtHoc log files

BlackBerry AtHoc provides a log file for you to use when monitoring system health and troubleshooting errors.

**BlackBerry AtHoc event log:** BBM Enterprise Alerts logs all errors and event information in the BlackBerry AtHoc event log. Use the BlackBerry AtHoc event log viewer to monitor the error messages. Use verbose mode to log detailed information. For more information about the event log viewer, see "[Specify system setting options](#)" in the *BlackBerry AtHoc System Settings and Configuration* guide.

# BlackBerry AtHoc Customer Support Portal

BlackBerry AtHoc customers can obtain more information about BlackBerry AtHoc products or get answers to questions about their BlackBerry AtHoc systems through the Customer Support Portal:

<https://www.blackberry.com/us/en/support/enterpriseapps/athoc>

The BlackBerry AtHoc Customer Support Portal also provides support via computer-based training, operator checklists, best practice resources, reference manuals, and user guides.

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