

Installation and Configuration Guide

Data Synchronizer 1.2

Connector for Mobility

August 22, 2012

Legal Notices

Novell, Inc., makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc., makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. See the [Novell International Trade Services Web page \(http://www.novell.com/info/exports/\)](http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2010-2012 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

Novell, Inc.
1800 South Novell Place
Provo, UT 84606
U.S.A.
www.novell.com

Online Documentation: To access the latest online documentation for this and other Novell products, see the [Novell Documentation Web page \(http://www.novell.com/documentation\)](http://www.novell.com/documentation/).

Novell Trademarks

For Novell trademarks, see [the Novell Trademark and Service Mark list \(http://www.novell.com/company/legal/trademarks/tmlist.html\)](http://www.novell.com/company/legal/trademarks/tmlist.html).

Third-Party Materials

All third-party trademarks are the property of their respective owners.

Contents

About This Guide	5
1 Mobility Connector Product Overview	7
1.1 What Is the Mobility Connector?	7
1.1.1 Mobility Connector Capabilities	7
1.1.2 Mobility Connector Components	7
1.1.3 Mobility Connector Configurations	8
1.2 Mobility Connector System Requirements	8
1.2.1 Data Synchronizer System Requirements	8
1.2.2 Mobile Device Requirements	9
2 Mobility Connector Installation	11
2.1 Installing the Mobility Connector	11
2.2 Monitoring the Mobility Connector	11
2.2.1 Using Synchronizer Web Admin	11
2.2.2 Using the Mobility Connector Log File	12
2.3 Managing Initial Synchronization from GroupWise to the Mobility Connector	13
2.4 Configuring Your Mobile Device to Connect to the Mobility Connector	13
2.5 Starting and Stopping the Mobility Connector	14
2.6 Adding Users to the Mobility Connector	14
2.6.1 Adding Users in Synchronizer Web Admin	15
2.6.2 Adding Users with LDAP Groups	15
3 Mobility Connector Configuration	17
3.1 Using Synchronizer Web Admin	17
3.2 Blocking/Unblocking Incoming Devices before Initial Synchronization	18
3.3 Using GroupWise Authentication Instead of LDAP Authentication for Mobile Devices	19
3.4 Enabling a Device Password Security Policy	20
3.5 Controlling the Maximum Number of Devices per User	21
3.6 Controlling Maximum Attachment Size	21
3.7 Binding to a Specific IP Address	22
3.8 Enabling and Disabling SSL for Device Connections	22
3.9 Changing the Address Book User	23
3.10 Changing the Mobility Connector Database Password	23
3.11 Customizing General Connector Configuration Settings for the Mobility Connector	24
3.12 Maintaining the Mobility Connector Database	24
3.12.1 Performing General PostgreSQL Database Maintenance	24
3.12.2 Configuring Automatic Nightly Maintenance	25
4 Synchronization Monitoring and Management	27
4.1 Monitoring Mobility Connector Synchronization Status	27
4.2 Managing Mobile Devices (Resynchronize, Delete, Block, Reset)	31
4.3 Monitoring User Synchronization Status	32
4.4 Monitoring User Synchronization Activity	34
4.5 Blocking Specific Users and Devices after Initial Synchronization	35

4.6	Resetting a Device to Factory Default Settings	36
A	Mobility Connector Troubleshooting	39
B	Documentation Updates	43
B.1	August 22, 2012 (Mobility Pack 1.2.4)	43
B.2	May 23, 2012 (Mobility Pack 1.2.3)	43
B.3	February 28, 2012 (Mobility Pack 1.2.2)	44
B.4	August 4, 2011 (Mobility Pack 1.2)	44
B.5	June 2, 2011 (Mobility Pack 1.1.2)	44
B.6	March 2, 2011 (Mobility Pack 1.1)	45

About This Guide

The Novell Data Synchronizer Connector for Mobility is a bidirectional connector for synchronizing data between GroupWise and mobile devices. It is provided as a component of the Data Synchronizer Mobility Pack, which consists of Data Synchronizer, the GroupWise Connector, and the Mobility Connector.

- ♦ [Chapter 1, “Mobility Connector Product Overview,”](#) on page 7
- ♦ [Chapter 2, “Mobility Connector Installation,”](#) on page 11
- ♦ [Chapter 3, “Mobility Connector Configuration,”](#) on page 17
- ♦ [Chapter 4, “Synchronization Monitoring and Management,”](#) on page 27
- ♦ [Appendix A, “Mobility Connector Troubleshooting,”](#) on page 39
- ♦ [Appendix B, “Documentation Updates,”](#) on page 43

Audience

This guide is intended for Data Synchronizer system administrators who want to provide connectivity between GroupWise and mobile devices.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

Additional Documentation

Novell Data Synchronizer Mobility Pack documentation is available at the [Novell Data Synchronizer Documentation Web site](http://www.novell.com/documentation/datasynchronizer1) (<http://www.novell.com/documentation/datasynchronizer1>):

- ♦ Novell Data Synchronizer Mobility Pack Readme
- ♦ Novell Data Synchronizer installation and administration guides

Novell Data Synchronizer connector documentation is available at the [Novell Data Synchronizer Connector Documentation Web site](http://www.novell.com/documentation/datasync_connectors1) (http://www.novell.com/documentation/datasync_connectors1)

- ♦ Connector Readmes
- ♦ Connector Quick Starts
- ♦ Connector installation and configuration guides

In addition to the Data Synchronizer product documentation, the following resources provide additional information about Data Synchronizer:

- ♦ [Novell Support and Knowledgebase](http://www.novell.com/support) (<http://www.novell.com/support>)
- ♦ [Data Synchronizer Support Forum](http://forums.novell.com/forumdisplay.php?f=939) (<http://forums.novell.com/forumdisplay.php?f=939>)
- ♦ [Data Synchronization Cool Solutions](http://www.novell.com/communities/cool solutions/datasynchronizer) (<http://www.novell.com/communities/cool solutions/datasynchronizer>)

- ◆ [Data Synchronizer Mobility Connector Devices Wiki \(https://vibe.novell.com/vibe/groupwise_mobility_devices\)](https://vibe.novell.com/vibe/groupwise_mobility_devices)
- ◆ [Data Synchronizer Connector Marketplace \(http://www.novell.com/products/data-synchronizer/connectors\)](http://www.novell.com/products/data-synchronizer/connectors)

1 Mobility Connector Product Overview

- ♦ [Section 1.1, “What Is the Mobility Connector?,” on page 7](#)
- ♦ [Section 1.2, “Mobility Connector System Requirements,” on page 8](#)

1.1 What Is the Mobility Connector?

The Novell Data Synchronizer Connector for Mobility transfers user data between GroupWise and mobile devices through a Synchronizer system. It is provided as a component in the Data Synchronizer Mobility Pack, which consists of Data Synchronizer, the GroupWise Connector, and the Mobility Connector.

- ♦ [Section 1.1.1, “Mobility Connector Capabilities,” on page 7](#)
- ♦ [Section 1.1.2, “Mobility Connector Components,” on page 7](#)
- ♦ [Section 1.1.3, “Mobility Connector Configurations,” on page 8](#)

1.1.1 Mobility Connector Capabilities

The Mobility Connector is one of several connectors that synchronize user data through a Synchronizer system in a hub-and-spoke configuration that allows any of the following applications to synchronize data with mobile devices:

- ♦ [Novell GroupWise \(http://www.novell.com/products/groupwise\)](http://www.novell.com/products/groupwise)
- ♦ [Salesforce.com \(http://www.salesforce.com\)](http://www.salesforce.com)
- ♦ [SharePoint \(http://sharepoint.microsoft.com\)](http://sharepoint.microsoft.com)
- ♦ [SugarCRM \(http://www.sugarcrm.com/crm/\)](http://www.sugarcrm.com/crm/)

For instructions about using your mobile device to synchronize GroupWise data through the Mobility Connector, see the [Mobility Connector Quick Start \(http://www.novell.com/documentation/datasync_connectors1\)](http://www.novell.com/documentation/datasync_connectors1).

For more general information, see “[Data Synchronizer vs. the Mobility Pack](#)” in “[Mobility Pack Product Overview](#)” in the *Novell Data Synchronizer Mobility Pack Installation Guide*.

1.1.2 Mobility Connector Components

The Mobility Connector consists of the following components:

- ♦ [“Connector Software” on page 8](#)
- ♦ [“Connector Database” on page 8](#)

Connector Software

When you install the Data Synchronizer Mobility Pack, the Mobility Connector software is installed within the Synchronizer software directory structure:

```
/opt/novell/datasync/syncengine/connectors/mobility
```

The Mobility Connector interacts with the Synchronizer system through the Synchronizer Connector Manager, which connects it to the Sync Engine.

The Mobility Connector performs the following functions:

- ♦ Converting application-neutral formatted data received by the Sync Engine from other applications into a format for mobile devices
- ♦ Converting mobile device formatted data into application-neutral formatted data for use by the Sync Engine.

You manage the Mobility Connector through Synchronizer Web Admin, as described in [“Synchronizer Web Admin”](#) in the *Novell Data Synchronizer System Administration Guide*.

Connector Database

The Mobility Connector uses its own database named `mobility`, in addition to the standard Synchronizer database named `datasync`. The Mobility Connector database contains mobile device settings and images that are not needed by other connectors. It is used for caching user data when the connection to mobile devices is not available.

1.1.3 Mobility Connector Configurations

As described in [“Data Synchronizer Configurations”](#) in [“Mobility Pack Product Overview”](#) in the *Novell Data Synchronizer Mobility Pack Installation Guide*, you might need to set up multiple Synchronizer servers for a variety of reasons. For the Mobility Connector, the most critical reason is quality of service. For example, you might want to set up a separate Synchronizer system with a Mobility Connector specifically for executives in your organization or for other high-profile mobile device users where timely data synchronization is crucial for a specific set of users.

1.2 Mobility Connector System Requirements

You, as the Synchronizer administrator, must ensure that your system meets Mobility Connector system requirements, so that your Synchronizer system and Mobility Connector can function properly.

- ♦ [Section 1.2.1, “Data Synchronizer System Requirements,”](#) on page 8
- ♦ [Section 1.2.2, “Mobile Device Requirements,”](#) on page 9

1.2.1 Data Synchronizer System Requirements

For Synchronizer system requirements, see [“Data Synchronizer System Requirements”](#) in [“Mobility Pack Product Overview”](#) in the *Novell Data Synchronizer System Administration Guide*.

1.2.2 Mobile Device Requirements

The Mobility Connector communicates with mobile devices by using the [Microsoft ActiveSync](http://en.wikipedia.org/wiki/ActiveSync) (<http://en.wikipedia.org/wiki/ActiveSync>) protocol version 2.5. If a mobile device uses a later version of ActiveSync, the device can still successfully communicate with the Mobility Connector because later versions of ActiveSync are backward compatible with version 2.5.

Supported mobile device operating systems include:

- ♦ Android 2.x, 3.x, and 4.1.x
- ♦ Apple iOS 4.x, 5.x, and 6.0
- ♦ Palm webOS
- ♦ Symbian 9.x
- ♦ Windows Mobile 6.x
- ♦ Windows Phone 7

In addition, your mobile device can be used with the Mobility Connector if it can:

- ♦ Connect to Microsoft Exchange 2003 SP2 or later
- ♦ Support [WAP](http://en.wikipedia.org/wiki/Wireless_Application_Protocol) (http://en.wikipedia.org/wiki/Wireless_Application_Protocol)

Your mobile device communicates directly with the Mobility Connector to synchronize data. Some mobile devices require a data plan to accomplish this. Others work successfully with a Wi-Fi connection. Some mobile devices can be configured to use either method to communicate with the Mobility Connector. Your mobile device carrier is not involved in the synchronization process.

NOTE: The Mobility Connector does not work with POP, IMAP, SMTP, or other message transfer protocols. The Mobility Connector does not support BlackBerry devices. Instead, you must use BlackBerry Enterprise Server for GroupWise, as described in “[BlackBerry Enterprise Server](#)” in “[Mobile Devices](#)” in the *GroupWise 2012 Interoperability Guide*.

A user can synchronize data to multiple mobile devices as needed and can use multiple synchronization solutions as needed. For example, the Mobility Connector and BlackBerry Enterprise Server can both synchronize data from the same GroupWise mailbox without conflict.

For the latest information about supported mobile devices, see the [Data Synchronizer Mobility Connector Devices Wiki](https://vibe.novell.com/vibe/groupwise_mobility_devices) (https://vibe.novell.com/vibe/groupwise_mobility_devices).

2 Mobility Connector Installation

- ♦ Section 2.1, “Installing the Mobility Connector,” on page 11
- ♦ Section 2.2, “Monitoring the Mobility Connector,” on page 11
- ♦ Section 2.3, “Managing Initial Synchronization from GroupWise to the Mobility Connector,” on page 13
- ♦ Section 2.4, “Configuring Your Mobile Device to Connect to the Mobility Connector,” on page 13
- ♦ Section 2.5, “Starting and Stopping the Mobility Connector,” on page 14
- ♦ Section 2.6, “Adding Users to the Mobility Connector,” on page 14

2.1 Installing the Mobility Connector

The Mobility Connector is automatically installed as part of the Data Synchronizer Mobility Pack. For instructions, see the [Novell Data Synchronizer Mobility Pack Installation Guide](#).

2.2 Monitoring the Mobility Connector

When you install the Data Synchronizer Mobility Pack, the Mobility Connector starts automatically. You can monitor its functioning by using Synchronizer Web Admin or by using the Mobility Connector log file.

- ♦ Section 2.2.1, “Using Synchronizer Web Admin,” on page 11
- ♦ Section 2.2.2, “Using the Mobility Connector Log File,” on page 12

2.2.1 Using Synchronizer Web Admin

All customization of the Mobility Connector is done through Synchronizer Web Admin:

- 1 Access Synchronizer Web Admin at the following URL:

`https://data_synchronizer_server:8120`

Replace `data_synchronizer_server` with the IP address or DNS hostname of the Synchronizer server.



The screenshot shows a login form titled "Login" with the instruction "Please log in to manage Data Synchronizer:". It contains two input fields: "Username" and "Password", and a "Login" button.

- 2 Specify the Synchronizer administrator user name (such as admin) and password that were established during installation, then click *Login*.



The Mobility Connector should display a status of Running. If it is not running, refer to [Appendix A, “Mobility Connector Troubleshooting,”](#) on page 39 for assistance.

- 3 To monitor initial data flow between your GroupWise system and your Synchronizer system, continue with [Section 2.2.2, “Using the Mobility Connector Log File,”](#) on page 12.
- 4 To monitor mobile device synchronization, see [Chapter 4, “Synchronization Monitoring and Management,”](#) on page 27.

2.2.2 Using the Mobility Connector Log File

You can use the Mobility Connector log file (`default.pipeline1.mobility-AppInterface.log`) to verify that a message sent from a mobile device is received by your Synchronizer system.

- 1 Monitor Mobility Connector activity in the Mobility Connector log file:
 - 1a In a terminal window, enter `su -` to become the root user, then enter the root password.
 - 1b Change to the following directory:


```
/var/log/datasync/connectors
```
 - 1c Display the end of the Mobility Connector log file:


```
tail -f default.pipeline1.mobility-AppInterface.log
```
 - 1d Observe the messages that the Mobility Connector writes out.
- 2 Press Enter several times to create a break in the flow of log messages.
- 3 On your mobile device, send a message to yourself.
- 4 Observe the messages that are being written to the Mobility Connector log file.

You should be able to identify messages that include your user name and indicate that a mail message was received by the Sync Engine.

This test shows that the mobile device is successfully synchronizing data to the Sync Engine. If the message does not appear to be received, refer to [Appendix A, “Mobility Connector Troubleshooting,”](#) on page 39 for assistance.

- 5 In the terminal window where the log file is being displayed, press Enter several times to create a break in the flow of log messages.
- 6 Log in to your GroupWise mailbox, then send a message or other item to yourself.
- 7 Observe the messages that are being written to the Mobility Connector log file.

You should be able to identify messages that include your user name and indicate that a message or other was detected by the Sync Engine.

This test shows that the Mobility Connector is successfully synchronizing application data from the GroupWise Connector. If the message does not appear to be received, refer to [Appendix A, “Mobility Connector Troubleshooting,”](#) on page 39 for assistance.

For more information about tracking data through your Synchronizer system, see “[Flatfile Connector Troubleshooting](#)” in “[Synchronizer System Management](#)” in the *Novell Data Synchronizer System Administration Guide*.

2.3 Managing Initial Synchronization from GroupWise to the Mobility Connector

From your point of view as the Synchronizer administrator, initial synchronization means that GroupWise data has been synchronized to the Mobility Connector and is ready to be synchronized to users’ mobile devices as soon as users configure their mobile devices to connect to the Synchronizer system. By default, two weeks of past calendar items, all future calendar items, and all personal address books except the Frequent Contacts address book are automatically synchronized. Three days of past email is also synchronized from the GroupWise Mailbox folder to the In Box on mobile devices.

When you have added several users to the Mobility Connector at the same time, the Mobility Connector performs initial synchronization for four users at once. First it initializes the user, then it synchronizes GroupWise items, then it synchronizes contacts from personal address books. When it finishes with one of the four users, it starts on another user.

You should complete this initial synchronization before you notify users to configure their mobile devices. Initial synchronization can take a substantial amount of time, depending on the amount of data to synchronize. Occasionally, initial synchronization fails, and troubleshooting is required.

For more information about managing user synchronization and device synchronization, see:

- ♦ [Section 4.1, “Monitoring Mobility Connector Synchronization Status,”](#) on page 27
- ♦ [Section 4.2, “Managing Mobile Devices \(Resynchronize, Delete, Block, Reset\),”](#) on page 31
- ♦ [Section 4.3, “Monitoring User Synchronization Status,”](#) on page 32

2.4 Configuring Your Mobile Device to Connect to the Mobility Connector

Set up an account on your mobile device to synchronize with the Mobility Connector. For assistance, see the Mobility Connector Quick Start on the [Novell Data Synchronizer Connectors Documentation Web site](#) (http://www.novell.com/documentation/datasync_connectors1).

Mobile device configuration for users depends on the type of mobile device in use. For device-specific instructions, see the [Data Synchronizer Mobility Connector Devices Wiki](#) (https://vibe.novell.com/vibe/groupwise_mobility_devices).

As mobile devices connect and synchronize with the Mobility Connector, they are listed on the Mobility Connector Monitoring page in Synchronizer Web Admin, as described in [Section 4.1, “Monitoring Mobility Connector Synchronization Status,”](#) on page 27.

2.5 Starting and Stopping the Mobility Connector

You cannot stop and start the Mobility Connector from the command line. You must use Synchronizer Web Admin.

- 1 Log in to [Synchronizer Web Admin](#).



- 2 On the Mobility Connector line under *Manage Connectors*, click  (Stop) to stop the Mobility Connector.

The  (Stop) icon changes to  (Start).

IMPORTANT: Make sure that the GroupWise Connector is running before you start the Mobility Connector. After you have added users, the GroupWise Connector must be running when the Mobility Connector starts in order for initial synchronization to function properly. In addition, the Mobility Connector needs to access the GroupWise Address Book through the GroupWise Connector.

- 3 Click  (Start) to start the Mobility Connector

2.6 Adding Users to the Mobility Connector

When you add users to the GroupWise Connector, users' mailbox data synchronizes through the GroupWise Connector to the Sync Engine. When you add users to the Mobility Connector, users' mailbox data synchronizes from the Sync Engine through the Mobility Connector to users' mobile devices.

- ♦ [Section 2.6.1, "Adding Users in Synchronizer Web Admin," on page 15](#)
- ♦ [Section 2.6.2, "Adding Users with LDAP Groups," on page 15](#)

IMPORTANT: Add users to the GroupWise Connector before adding them to the Mobility Connector.

2.6.1 Adding Users in Synchronizer Web Admin

After installation, additional user information might have been obtained from your LDAP directory by configuring Synchronizer Web Admin to search additional LDAP containers, as described in [“Searching Multiple LDAP Contexts for Users and Groups”](#) in [“Synchronizer System Management”](#) in the *Novell Data Synchronizer System Administration Guide*.

If only a few users want to synchronize data with mobile devices, you can add these users individually to the Mobility Connector, as described in [“Adding a User to a Connector in Synchronizer Web Admin”](#) in [“Connector and User Management”](#) in the *Novell Data Synchronizer System Administration Guide*.

IMPORTANT: Be sure to add users to the GroupWise Connector before adding them to the Mobility Connector.

2.6.2 Adding Users with LDAP Groups

If you added users to the Mobility Connector by adding LDAP groups, as recommended in [“Planning How to Add Users”](#) in [“Mobility Pack Installation”](#) in the *Novell Data Synchronizer Mobility Pack Installation Guide*, simply add users to the LDAP group in your LDAP directory and the users are automatically added to the Mobility Connector.

3 Mobility Connector Configuration

After you have tested the Mobility Connector's ability to communicate with a mobile device and the Sync Engine, you are ready to refine the configuration of the Mobility Connector to meet your Synchronizer system's needs.

- ♦ [Section 3.1, "Using Synchronizer Web Admin," on page 17](#)
- ♦ [Section 3.2, "Blocking/Unblocking Incoming Devices before Initial Synchronization," on page 18](#)
- ♦ [Section 3.3, "Using GroupWise Authentication Instead of LDAP Authentication for Mobile Devices," on page 19](#)
- ♦ [Section 3.4, "Enabling a Device Password Security Policy," on page 20](#)
- ♦ [Section 3.5, "Controlling the Maximum Number of Devices per User," on page 21](#)
- ♦ [Section 3.6, "Controlling Maximum Attachment Size," on page 21](#)
- ♦ [Section 3.7, "Binding to a Specific IP Address," on page 22](#)
- ♦ [Section 3.8, "Enabling and Disabling SSL for Device Connections," on page 22](#)
- ♦ [Section 3.9, "Changing the Address Book User," on page 23](#)
- ♦ [Section 3.10, "Changing the Mobility Connector Database Password," on page 23](#)
- ♦ [Section 3.11, "Customizing General Connector Configuration Settings for the Mobility Connector," on page 24](#)
- ♦ [Section 3.12, "Maintaining the Mobility Connector Database," on page 24](#)

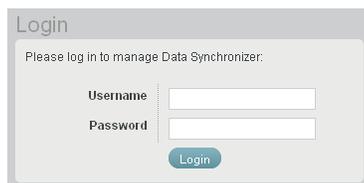
3.1 Using Synchronizer Web Admin

All configuration of the Mobility Connector is done through Synchronizer Web Admin:

- 1 Access Synchronizer Web Admin at the following URL:

`https://data_synchronizer_server:8120`

Replace `data_synchronizer_server` with the IP address or DNS hostname of the Synchronizer server.



Login

Please log in to manage Data Synchronizer:

Username

Password

Login

- Specify the Synchronizer administrator user name (such as admin) and password that were established during installation, then click *Login*.



The Monitor Connector should display a status of *Running*. If you cannot start the Monitor Connector by clicking  (*Start*), refer to [Appendix A, “Mobility Connector Troubleshooting,” on page 39](#) for assistance.

For more information about Synchronizer Web Admin, see “[Configuring Synchronizer Web Admin](#)” in “[Synchronizer System Management](#)” in the *Novell Data Synchronizer System Administration Guide*.

3.2 Blocking/Unblocking Incoming Devices before Initial Synchronization

Initial synchronization of GroupWise data to users’ mobile devices is more efficient if the GroupWise data is completely synchronized to the Mobility Connector before users start connecting their mobile devices to the Synchronizer system. To prevent users from connecting their devices before the Mobility Connector has received all of their GroupWise data, you can block devices from connecting to the Synchronizer system.

If you used the *Block Incoming Devices* option in the Mobility Pack Installation program to prevent users from connecting their mobile devices to your Synchronizer system until you are ready to do so, you must deselect the corresponding option in Synchronizer Web Admin when you are ready for users to connect.

If you did not use the *Block Incoming Devices* option in the Mobility Pack Installation program, you can block and unblock devices at any time in Synchronizer Web Admin.

- In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- Select or deselect *Block Devices*, as needed.



- Click *Save Custom Settings*.
- Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

The Mobility Connector no longer allows users to connect.

- 6 Monitor the initial synchronization process, as described in [Section 4.1, “Monitoring Mobility Connector Synchronization Status,”](#) on page 27.
- 7 When the GroupWise data for all users has successfully synchronized to the Mobility Connector, deselect *Block Devices*, then restart the Mobility Connector.
- 8 Notify users that they can now connect to the Synchronizer system.

After initial synchronization, you might encounter synchronization problems with specific users or devices. For example, a problem with a specific user or device might start to consume an inappropriately large amount of system resources on your Synchronizer server. If this occurs, see [Section 4.5, “Blocking Specific Users and Devices after Initial Synchronization,”](#) on page 35 for assistance with resolving the problem.

3.3 Using GroupWise Authentication Instead of LDAP Authentication for Mobile Devices

By default, the Mobility Pack Installation program configures your Synchronizer system to use LDAP (network) passwords when mobile devices connect to GroupWise mailboxes. After installation, you can configure the Mobility Connector to use GroupWise mailbox passwords instead.

GroupWise authentication can be more intuitive for users. It is especially convenient when users’ LDAP passwords are set to expire regularly, which requires reconfiguration of mobile devices each time LDAP passwords expire. GroupWise passwords do not expire. Device reconfiguration becomes necessary only when users manually change their own GroupWise passwords.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- 2 In the *Authentication Type* field, select *GroupWise*.

The screenshot shows a configuration form with the following fields:

- Authentication Type: ? Idap
- GroupWise POA SOAP URL: ?
- LDAP Server Address: ?
- LDAP Port: ?
- Secure: ?

- 3 In the *GroupWise POA SOAP URL* field, specify the same URL that you used when configuring the GroupWise Connector, as described in [“GroupWise Post Office Agent”](#) in [“Planning a Data Synchronizer System”](#) in the *Novell Data Synchronizer Mobility Pack Installation Guide*.

The Mobility Connector communicates with the GroupWise Post Office Agent to authenticate mobile devices using users’ GroupWise mailbox passwords.

- 4 Click *Save Custom Settings*.
- 5 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 6 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

The Mobility Connector now uses GroupWise authentication instead of LDAP authentication.

- 7 (Conditional) If any users have already configured their mobile devices to use LDAP authentication, notify these users to reconfigure their mobile devices to use their GroupWise mailbox passwords.

3.4 Enabling a Device Password Security Policy

As an administrator, you can control several aspects of the behavior of mobile devices that connect to your Synchronizer system. By establishing a security policy for the passwords that users set on their mobile devices, you help prevent unauthorized access to your Synchronizer system from lost or misplaced devices.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- 2 Select *Enable Device Security Policy*.



The screenshot shows the 'Enable Device Security Policy' configuration page. It includes several settings:

- Enable Device Security Policy:** A checkbox that is currently unchecked.
- Require Both Letters and Numbers:** A checkbox that is currently unchecked.
- Minimum Password Length:** A section with an 'Enable' checkbox (unchecked) and a 'Characters' input field set to 0.
- Inactivity Time:** A section with an 'Enable' checkbox (checked) and a 'Minutes' input field set to 5.
- Reset Device after Failures:** A section with an 'Enable' checkbox (unchecked) and an 'Attempts' input field set to 20.

When you enable the security policy, users are informed of the specific security settings that are in effect when they create their mobile device accounts and set their device passwords. Users are prevented from configuring their mobile devices to connect to the Synchronizer system without following the security policy you establish.

- 3 Set the security policy options as needed for the level of device password security that you want for your Synchronizer system:

Require Both Letters and Numbers: Select this option to require device passwords that include at least one letter, one number, and one special character. Without this security setting, any combination of characters is permitted in device passwords.

Minimum Password Length: Enable this option to specify the minimum number of characters required in device passwords. The minimum value is 1; the maximum value is 18. Without this security setting, the user can set a device password of any length.

Inactivity Time: Enable this option to specify the number of minutes after which a mobile device locks itself when no user activity occurs. Without this security setting, the mobile device does not lock itself in the absence of user activity.

Reset Device after Failures: Enable this option to specify the number of failed password attempts after which the mobile device resets itself to factory default settings. Without this security setting, an external reset command must be sent to the mobile device in order to wipe personal data from it.

- 4 Click *Save Custom Settings*.
- 5 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 6 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

The Mobility Connector now uses the security policy you established whenever a user configures a mobile device to connect to the Synchronizer system.

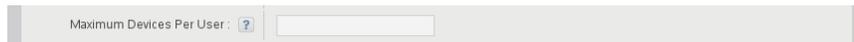
IMPORTANT: After you enable or change the device password security policy, synchronization stops on Droid X and Droid 2 mobile devices. Removing the existing account from the mobile device and re-adding it puts the device password security policy into effect. This is an issue with the Android 2.2 operating system only on those specific devices.

3.5 Controlling the Maximum Number of Devices per User

When a single user has multiple devices, the user's data is duplicated in your Synchronizer system. To control data duplication and improve performance, you can control the number of devices that each user is allowed to connect to your Synchronizer system.

By default, each user can connect with as many devices as he or she wants. When you set the maximum limit, a user who is above the limit is not prevented from connecting with existing devices. However, the user cannot connect with any additional devices until the number of devices is within the limit that you have set.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- 2 In the *Maximum Devices per User* field, set the maximum number of devices that each user can connect with.



To remove an existing limit, specify -1 for an unlimited number of devices.

- 3 Click *Save Custom Settings*.
- 4 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 5 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

The Mobility Connector now limits the number of devices that each user can connect with.

3.6 Controlling Maximum Attachment Size

Synchronizing large attachments to other applications and mobile devices can put a substantial load on the Mobility Connector. To decrease the amount of data that is synchronized to mobile devices, you can control the maximum size of attachments. By default, attachments larger than 500 KB are not synchronized to mobile devices.

When a user receives an item for which attachments have not been synchronized, the item includes a list of the attachments that are on the original item but not on the synchronized item.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- 2 In the *Maximum Attachment Size* field, adjust the maximum attachment size as needed to meet the needs of your Synchronizer system.



- 3 Click *Save Custom Settings*.
- 4 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 5 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

The Mobility Connector now uses the adjusted size for restricting synchronization of attachments.

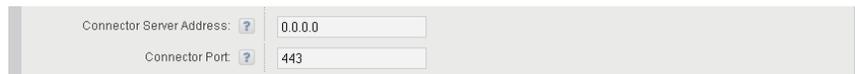
NOTE: The GroupWise Connector also has a setting to control maximum attachment size, as described in “[Controlling Maximum Attachment Size](#)” in “[GroupWise Connector Configuration](#)” in the [GroupWise Connector Installation and Configuration Guide](#).

3.7 Binding to a Specific IP Address

By default, the Mobility Connector uses all available IP addresses on the Synchronizer server. You can reconfigure the Mobility Connector to use only one specific address.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.

In the *Connector Server Address* field, 0.0.0.0 indicates that the Mobility Connector is not bound to a specific IP address.



The screenshot shows a configuration form with two input fields. The first field is labeled "Connector Server Address" and contains the text "0.0.0.0". The second field is labeled "Connector Port" and contains the text "443". Both fields have a small question mark icon to their left.

- 2 Specify the IP address that you want to bind the Mobility Connector to.
- 3 Click *Save Custom Settings*.
- 4 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 5 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

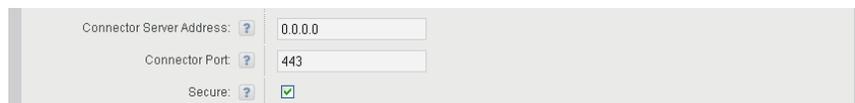
The Mobility Connector now uses only the specified IP address on the server.

3.8 Enabling and Disabling SSL for Device Connections

During Mobility Pack installation, you chose whether to use SSL for connections between the Mobility Connector and mobile devices. The default is to use SSL. You can change the setting after installation as needed.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.

The *Secure* field under *Connector Server Address* indicates whether SSL is currently in use.



The screenshot shows a configuration form with three input fields. The first field is labeled "Connector Server Address" and contains the text "0.0.0.0". The second field is labeled "Connector Port" and contains the text "443". The third field is labeled "Secure" and contains a checked checkbox. All fields have a small question mark icon to their left.

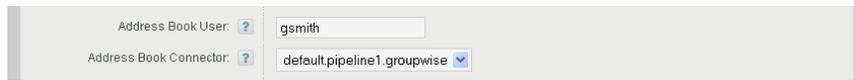
- 2 Click the check box in the *Secure* field to change the setting.
- 3 Click *Save Custom Settings*.
- 4 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 5 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector with the new setting in effect.

3.9 Changing the Address Book User

The Mobility Connector accesses the GroupWise Address Book to obtain contact information for synchronization to mobile devices. The Mobility Connector can obtain the information it needs by logging in as any valid GroupWise user. An initial Address Book user was specified during installation. You might want to change to a different user for whom either more or fewer contacts are visible in the GroupWise Address Book.

NOTE: The Mobility Connector uses this user name only to access and search the GroupWise Address Book. It does not use this user name to access any personal aspects of the specified user's mailbox.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- 2 In the *Address Book User* field, specify the GroupWise user ID of the user whose view of the GroupWise Address Book best meets the needs of your mobile device users.



The screenshot shows a configuration interface with two fields. The first field, labeled 'Address Book User', contains the text 'gsmith'. The second field, labeled 'Address Book Connector', is a dropdown menu currently showing 'default.pipeline1.groupwise'.

The *Address Book Connector* field indicates the application from which contact information is being synchronized.

- 3 Click *Save Custom Settings*.
- 4 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 5 In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector, then click  (*Start*) to start the Mobility Connector.

The Mobility Connector now uses the specified GroupWise user's access to the GroupWise Address Book when providing contact information on mobile devices.

3.10 Changing the Mobility Connector Database Password

To change the Mobility Connector database password, you must change the password for `datasync_user` in two places:

- ♦ PostgreSQL (command on the command line)
- ♦ Mobility Connector (setting in Synchronizer Web Admin)

- 1 Reset the password for the PostgreSQL database:

1a In a terminal window on the Synchronizer server, log in as the `root` user.

1b Enter the following command:

```
psql --user datasync_user mobility
```

1c Enter the current password for the Mobility Connector database.

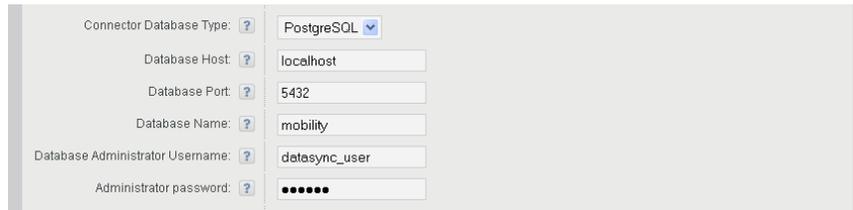
1d Enter the following command at the `datasync>` prompt:

```
ALTER USER datasync_user WITH PASSWORD 'password';
```

Replace *password* with the new password for the Mobility Connector database.

1e Enter `/q` to quit.

- 2 Reconfigure the Mobility Connector to use the new password:
 - 2a In [Synchronizer Web Admin](#), click the Mobility Connector.
 - 2b In the *Administrator Password* field, specify the new Mobility Connector database password.



Connector Database Type: ?	PostgreSQL
Database Host: ?	localhost
Database Port: ?	5432
Database Name: ?	mobility
Database Administrator Username: ?	datasync_user
Administrator password: ?

- 2c Click *Save Custom Settings*.
- 3 Restart the Synchronizer services:

```
rcdatasync restart
```
- 4 (Conditional) If you want to change the Synchronizer database password to match the Mobility Connector database password, follow the instructions in [“Changing the Synchronizer Database Password”](#) in [“Synchronizer System Management”](#) in the *Novell Data Synchronizer System Administration Guide*.

3.11 Customizing General Connector Configuration Settings for the Mobility Connector

All Synchronizer connectors have some general configuration settings in common. The default general settings are typically appropriate for an initial installation of the Mobility Connector. After your Mobility Connector is up and running, you can modify the general connector configuration settings as needed to meet the needs of your Synchronizer system. For instructions, see [“Customizing General Connector Configuration Settings”](#) in [“Connector and User Management”](#) in the *Novell Data Synchronizer System Administration Guide*.

3.12 Maintaining the Mobility Connector Database

The Mobility Connector database is named `mobility`. The default user for accessing the Mobility Connector database is `datasync_user`.

Database maintenance activities for the Mobility Connector database ensure satisfactory performance for mobile device users.

- ♦ [Section 3.12.1, “Performing General PostgreSQL Database Maintenance,”](#) on page 24
- ♦ [Section 3.12.2, “Configuring Automatic Nightly Maintenance,”](#) on page 25

3.12.1 Performing General PostgreSQL Database Maintenance

The Mobility Connector database is a PostgreSQL database. As with any database, the Mobility Connector database requires regular maintenance in order to perform reliably. If you are new to managing a PostgreSQL database, see [“Routine Database Maintenance Tasks”](#) (<http://www.postgresql.org/docs/8.3/interactive/maintenance.html>) on the PostgreSQL Documentation Web site for assistance.

3.12.2 Configuring Automatic Nightly Maintenance

Most items synchronize automatically from GroupWise mailboxes to the Mobility Connector database. As a result, they are readily available when users want to manually synchronize the contents of specific folders. Over time, older items must be cleaned up on a regular basis to prevent degradation in Mobility Connector synchronization performance.

By default, the Mobility Connector automatically cleans up outdated items from the Mobility Connector database between midnight and 6:00 a.m. every day. It cycles through all users and all folders once each day. It checks the user-selected settings for each mobile device to determine the maximum age after which users no longer want items retained on their mobile devices.

You can adjust the time period during which the Mobility Connector performs nightly maintenance, and you can turn off nightly maintenance, if necessary.

- 1 In [Synchronizer Web Admin](#), click the Mobility Connector to display the Mobility Connector Configuration page.
- 2 Click *Edit XML Source*.
- 3 To adjust the time when nightly maintenance occurs:

3a Locate the following lines:

```
<databaseMaintenanceStartHour>0</databaseMaintenanceStartHour>  
<databaseMaintenanceStopHour>6</databaseMaintenanceStopHour>
```

3b Using the 24-hour clock, change the start hour and stop hour as needed for your Synchronizer system.

- 4 (Optional) To turn off nightly maintenance:

4a Locate the following line:

```
<databaseMaintenance>1</databaseMaintenance>
```

4b Change 1 to 0.

IMPORTANT: This is not recommended. Without nightly maintenance, items accumulate in the Mobility Connector database indefinitely and reduce Mobility Connector performance over time.

- 5 Click *Save Custom Settings*.
- 6 Click *Home* on the menu bar to return to the main Synchronizer Web Admin page.
- 7 In a terminal window, restart the Synchronizer services:

```
rcdatasync restart
```
- 8 (Conditional) If the Mobility Connector is not configured to restart automatically along with the Synchronizer services:
 - 8a** In the *Actions* column for the Mobility Connector, click  (*Stop*) to stop the Mobility Connector.
 - 8b** Click  (*Start*) to start the Mobility Connector with the new nightly maintenance settings in effect.

You can see what the Mobility Connector is doing as it performs its nightly maintenance by searching for `MaintenanceMonitor` in the Mobility Connector log file:

```
/var/log/datasync/default.pipeline1.mobility-AppInterface.log
```

If logging is set to Debug, the Mobility Connector logs each item that it deletes. This can result in a very large log file. Without the Debug log level, the Mobility Connector lists the users as it performs nightly maintenance for them. For more information about log levels, see [“Controlling Connector Logging”](#) in [“Connector and User Management”](#) in the *Novell Data Synchronizer System Administration Guide*.

4 Synchronization Monitoring and Management

When you install the Data Synchronizer Mobility Pack, the Mobility Connector starts automatically. You can monitor the synchronization of data to and from mobile devices using Synchronizer Web Admin.

- ♦ [Section 4.1, “Monitoring Mobility Connector Synchronization Status,” on page 27](#)
- ♦ [Section 4.2, “Managing Mobile Devices \(Resynchronize, Delete, Block, Reset\),” on page 31](#)
- ♦ [Section 4.3, “Monitoring User Synchronization Status,” on page 32](#)
- ♦ [Section 4.4, “Monitoring User Synchronization Activity,” on page 34](#)
- ♦ [Section 4.5, “Blocking Specific Users and Devices after Initial Synchronization,” on page 35](#)
- ♦ [Section 4.6, “Resetting a Device to Factory Default Settings,” on page 36](#)

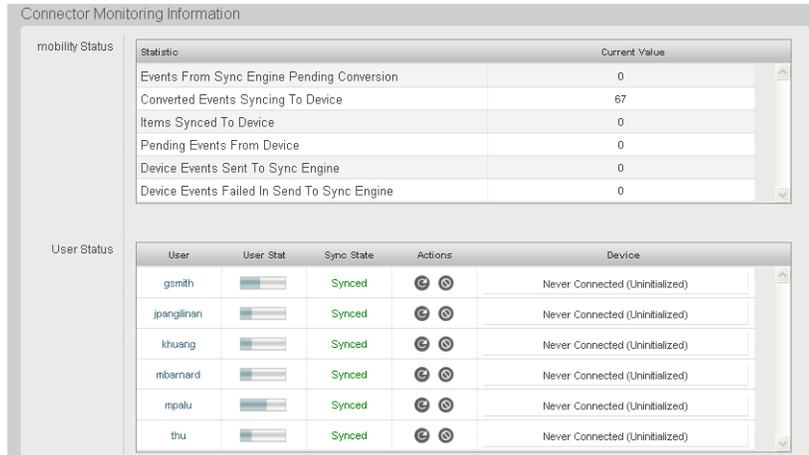
See also [Section 2.2.2, “Using the Mobility Connector Log File,” on page 12.](#)

4.1 Monitoring Mobility Connector Synchronization Status

Mobility Connector synchronization status indicates how well data is flowing from the Sync Engine to the Mobility Connector, from the Mobility Connector to mobile devices, from mobile devices to the Mobility Connector, and from the Mobility Connector back to the Sync Engine. The Mobility Connector synchronization status includes statistics for all users.

IMPORTANT: If you have blocked incoming devices, as described in [Section 3.2, “Blocking/Unblocking Incoming Devices before Initial Synchronization,”](#) on page 18, you must unblock the devices before synchronization can begin.

- 1 In *Synchronizer Web Admin*, click  (*Monitoring*) in the *Actions* column for the Mobility Connector to display the Connector Monitoring Information page.



mobility Status	
Statistic	Current Value
Events From Sync Engine Pending Conversion	0
Converted Events Syncing To Device	67
Items Synced To Device	0
Pending Events From Device	0
Device Events Sent To Sync Engine	0
Device Events Failed In Send To Sync Engine	0

User Status				
User	User Stat	Sync State	Actions	Device
gsmith		Synced		Never Connected (Uninitialized)
jpanglinan		Synced		Never Connected (Uninitialized)
khuang		Synced		Never Connected (Uninitialized)
mbarnard		Synced		Never Connected (Uninitialized)
mpalu		Synced		Never Connected (Uninitialized)
thu		Synced		Never Connected (Uninitialized)

NOTE: If your Synchronizer system services a large number of mobile device users, you might need to wait for this page to display.

Mobility Connector Status Section

In the *Mobility Connector Status* section, statistics are provided for events and items. Items are GroupWise messages, appointments, contacts, and so on. Events are what happens to GroupWise items, such as being added, modified, moved, or deleted.

Statistic	Explanation
Events from Sync Engine Pending Conversion	The total number of events that have been received from the Sync Engine that are awaiting conversion from GroupWise format into mobile device format by the Mobility Connector. Typically, the number of events should be low, or zero. If the number is high, it indicates that the Mobility Connector is backlogged for some reason.
Converted Events Syncing to Device	The total number of events that have been converted from GroupWise format into mobile device format. A single GroupWise item can have multiple events associated with it. Many waiting events transfer to users' mobile devices when the devices connect to the Synchronizer system. However, some events do not transfer to users' mobile devices until users request them, such as by opening a particular folder. Therefore, there are typically a number of events waiting to transfer. After a period of time, depending on device-specific settings, the waiting events are dropped.
Items Synced to Device	The total number of items that are transferred from the Mobility Connector to users' mobile devices. This number indicates the amount of traffic that is passing through the Mobility Connector to users' mobile devices.

Statistic	Explanation
Pending Events from Device	The total number of events that have been transferred from users' mobile devices to the Mobility Connector that are currently waiting for processing by the Sync Engine. Typically, the number of events should be low, or zero. If the number is high, it indicates that the Sync Engine is backlogged for some reason.
Device Events Sent to Sync Engine	The total number of events that users perform on their mobile devices that need to be synchronized to their GroupWise mailboxes through the Sync Engine and the GroupWise Connector. This number indicates the amount of traffic that is passing from users' mobile devices to the Sync Engine.
Device Events Failed in Send to Sync Engine	The number of events that have failed to transfer from the Mobility Connector to the Sync Engine. Make sure that the Sync Engine is running. Check the Sync Engine log (engine.log) for details.

User	User Stat	Sync State	Actions	Device
gsmith	<div style="width: 20%;"></div>	Synced	⊕ ⊖	Never Connected (Uninitialized)
jpanglinan	<div style="width: 20%;"></div>	Synced	⊕ ⊖	Never Connected (Uninitialized)
khuang	<div style="width: 20%;"></div>	Synced	⊕ ⊖	Never Connected (Uninitialized)
mbarnard	<div style="width: 20%;"></div>	Synced	⊕ ⊖	Never Connected (Uninitialized)
mpaku	<div style="width: 20%;"></div>	Synced	⊕ ⊖	Never Connected (Uninitialized)
thu	<div style="width: 20%;"></div>	Synced	⊕ ⊖	Never Connected (Uninitialized)

User Status Section

In the *User Status* section, the *User Stat* column includes a bar that represents the percentage of Mobility Connector processing that each individual is using. Users with the longer bars are using more processing in your Synchronizer system. Mouse over the bar to see the actual percentage for each user. The number indicates the percentage of the total number of events processed during the current up-time that are for the specific user and device.

The *Sync State* column indicates the status of initial synchronization between GroupWise and the Mobility Connector.

Sync State	Sync State Color	Explanation
Queued	Black	The initial synchronization process has not yet started for this user.
Syncing-Init Sync-Validate Syncing-Days	Yellow	The initial synchronization process is in progress. As many as 4 users can be synchronizing at once. As one user is finished, synchronization for the next user starts. After initial synchronization, users can request email in addition to the default of three days.
Synced	Green	The initial synchronization process is complete.
Failed	Red	The initial synchronization process has failed. For failed users, the Sync Engine automatically retries as many as 4 times after all other users have been synchronized. For assistance, see Appendix A, "Mobility Connector Troubleshooting," on page 39.

Sync State	Sync State Color	Explanation
Delete	Yellow	The user is in the process of being deleted from your Synchronizer system. If the user has a large amount of data and attachments in the system, the deletion process can take some time.
Re-Init	Yellow	The user is in the process of being reinitialized. If the user has a large amount of GroupWise data and attachments, the reinitialization process can take some time.
Blocked	Red	The user's device is currently blocked from connecting. This can happen if all devices were blocked during installation or if you blocked individual devices at a later time.

2 (Condition) For users in the *Queued* (black) state, be patient until the status progresses from *Queued* (black) to *Syncing* (yellow) to *Synced* (green).

3 (Conditional) For users in the *Syncing* (yellow) state, refresh the Mobility Connector Configuration page until the status changes to *Synced* (green), then notify users to configure their mobile devices to connect to the Synchronizer system.

4 (Conditional) For users in the *Synced* (green) state, notify the users to configure their mobile devices to connect to the Synchronizer system.

5 (Conditional) For users in the *Failed* (red) state, click  (*Reinitialize User*) in the *Actions* column to reinitialize the user.

Reinitialization deletes the user from the Mobility Connector, adds the user again, then starts the synchronization process over from the beginning.

or

If reinitializing the user does not solve the problem, see [Appendix A, "Mobility Connector Troubleshooting,"](#) on page 39.

6 (Conditional) For users in the *Blocked* state:

If you blocked devices during installation, unblock them, as described in [Section 3.2, "Blocking/Unblocking Incoming Devices before Initial Synchronization,"](#) on page 18.

or

If you blocked individual devices, unblock them, as described in [Section 4.2, "Managing Mobile Devices \(Resynchronize, Delete, Block, Reset\),"](#) on page 31.

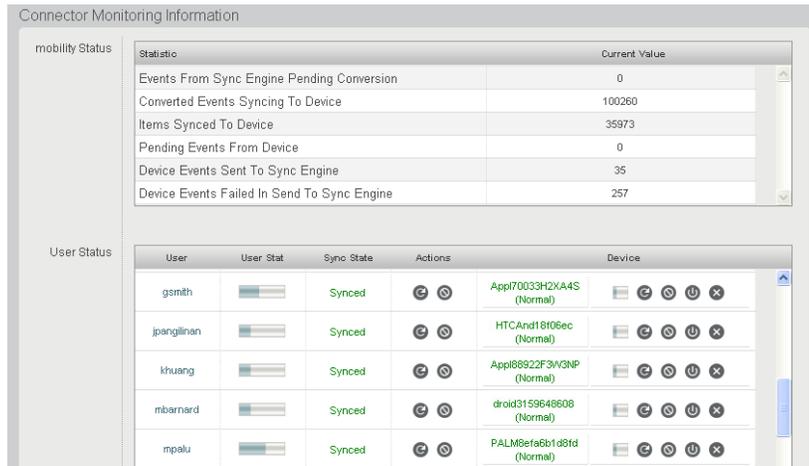
For more details about the statistics available on this page, see TID 7007285: User Stat and Device Stat / Colored Bars in the Mobility Monitoring Page in the [Novell Knowledgebase](http://www.novell.com/support) (<http://www.novell.com/support>).

After users have configured their mobile devices to connect to the Synchronizer system, they can configure their devices to synchronize additional items beyond the default, as listed in [Section 2.3, "Managing Initial Synchronization from GroupWise to the Mobility Connector,"](#) on page 13. For such users, their green status can change to yellow as additional synchronization is performed, return to green when the additional synchronization is finished.

4.2 Managing Mobile Devices (Resynchronize, Delete, Block, Reset)

After users have configured their mobile devices and connected to the Synchronizer system, additional options are available on the Connector Monitoring Information page.

- 1 In [Synchronizer Web Admin](#), click  (*Monitoring*) in the *Actions* column for the Mobility Connector to display the Connector Monitoring Information page.



The screenshot shows the 'Connector Monitoring Information' page. It is divided into two main sections: 'mobility Status' and 'User Status'.

mobility Status

Statistic	Current Value
Events From Sync Engine Pending Conversion	0
Converted Events Syncing To Device	100260
Items Synced To Device	35973
Pending Events From Device	0
Device Events Sent To Sync Engine	35
Device Events Failed In Send To Sync Engine	257

User Status

User	User Stat	Sync State	Actions	Device
gsmith		Synced	 	Appf70033H2YA4S (Normal)     
jpanglinan		Synced	 	HTCAnd18106ec (Normal)     
khuang		Synced	 	Appf88922F3M3NP (Normal)     
mbernard		Synced	 	droid3159648608 (Normal)     
mpalu		Synced	 	PALM8e1a6b1a81fd (Normal)     

NOTE: If your Synchronizer system services a large number of mobile device users, you might need to wait for this page to display.

- Use the options in the *Device* column to manage devices where synchronization is already active:

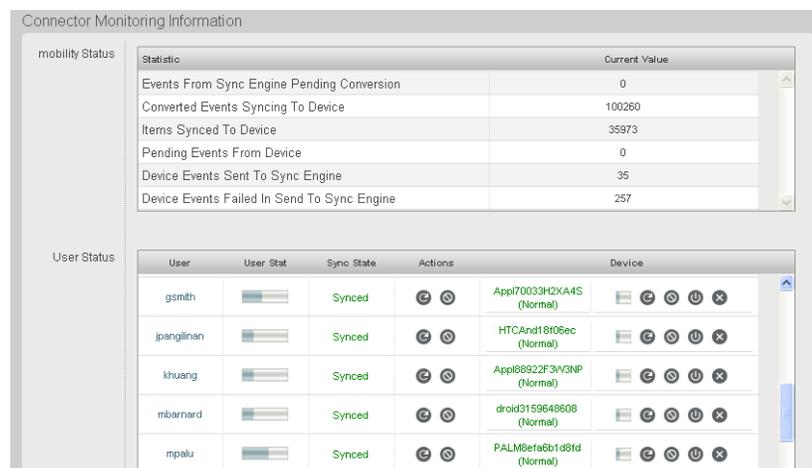
Device Option	Description
 (Resynchronize Device)	<p>Resynchronizes the mobile device, so that synchronization starts over from the beginning. Use this option when the data on a user's mobile device does not match the contents of the user's GroupWise mailbox.</p> <p>A user can accomplish the same thing by removing the account from the mobile device and re-adding it, so that the GroupWise data resynchronizes from the mailbox to the mobile device.</p>
 (Block Device)	<p>Prevents the mobile device from connecting to the Synchronizer system. Use this option when a mobile device is temporarily disrupting your Synchronizer system. See Section 4.5, "Blocking Specific Users and Devices after Initial Synchronization," on page 35 for complete instructions.</p>
 (Reset Device)	<p>Resets the mobile device to factory default settings. Use this option when a user has lost a mobile device.</p> <p>The Mobility Connector sends the Reset command to the mobile device, but different devices respond to the Reset command in different ways. On some mobile devices, this functionality is known as a "kill pill." Regardless of the device-specific functionality, this is a very serious step to take with a mobile device. See Section 4.6, "Resetting a Device to Factory Default Settings," on page 36 for complete instructions.</p>
 (Delete Device)	<p>Deletes the mobile device from the Mobility Connector. Use this option when a user is no longer using a particular mobile device.</p>

- Mouse over a device ID to display a description of the mobile device, along with the date and time when the device last connected to the Synchronizer system.

4.3 Monitoring User Synchronization Status

User synchronization status indicates how well a specific user's data is flowing from the Sync Engine to the Mobility Connector, from the Mobility Connector to the user's mobile device, and from the user's mobile device to the Mobility Connector.

- In [Synchronizer Web Admin](#), click  (Monitoring) in the *Actions* column for the Mobility Connector.



The screenshot displays the 'Connector Monitoring Information' interface. It is divided into two main sections: 'mobility Status' and 'User Status'.

mobility Status: A table showing various statistics and their current values.

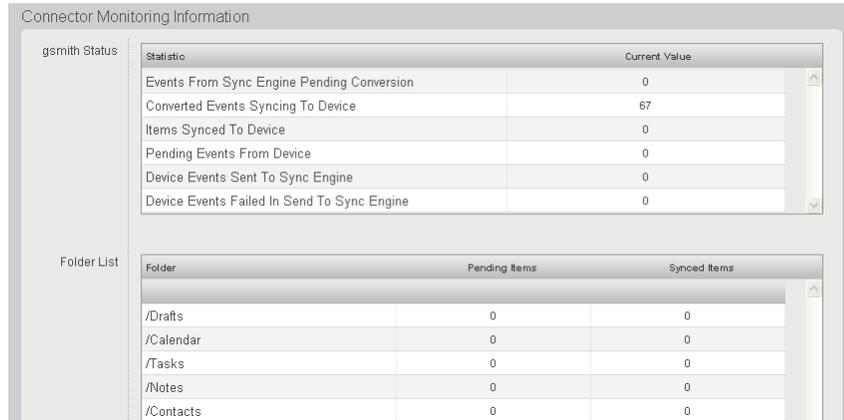
Statistic	Current Value
Events From Sync Engine Pending Conversion	0
Converted Events Syncing To Device	100260
Items Synced To Device	35973
Pending Events From Device	0
Device Events Sent To Sync Engine	35
Device Events Failed In Send To Sync Engine	257

User Status: A table listing users and their synchronization status.

User	User Stat	Sync State	Actions	Device
gsmith		Synced		Appl70033H2XA4S (Normal)  
janglinan		Synced		HTCAnd1810Sec (Normal)  
lhuang		Synced		Appl88922F3W3NP (Normal)  
mbarnard		Synced		droid3159648608 (Normal)  
mpalu		Synced		PALM88e6b1d8fd (Normal)  

NOTE: If your Synchronizer system services a large number of mobile device users, you might need to wait for this page to display.

2 Click a user name to display statistics for a particular user.



3 Review the statistics for the selected user.

The User Status section provides statistics for various events that occur as GroupWise items are added, modified, moved, or deleted on the mobile device.

Statistic	Explanation
Events from Sync Engine Pending Conversion	The number of events for the selected user that have been converted from GroupWise format into mobile device format. A single GroupWise item can have multiple events associated with it. The waiting events transfer to the user's mobile device when the user connects the device to the Synchronizer system.
Converted Events Syncing to Device	The number of events that are transferring from the Mobility Connector to the user's mobile device. A single GroupWise item can have multiple events associated with it. Many waiting events transfer to users' mobile devices when the devices connect to the Synchronizer system. However, some events do not transfer to users' mobile devices until users request them, such as by opening a particular folder. Therefore, there are typically a number of events waiting to transfer. After a period of time, depending on device-specific settings, the waiting events are dropped.
Items Synced to Device	The number of items that have been transferred from the Mobility Connector to the selected user's mobile device. This number should be equal to the total number of items listed in the <i>Synced Items</i> column of the <i>Folder List</i> section. This number indicates the amount of traffic that is passing through the Mobility Connector to this user's mobile device.
Pending Events from Device	The number of events that have been transferred from the selected user's mobile device to the Mobility Connector that are currently waiting for processing by the Mobility Connector. This number should be approximately equal to the total number of items listed in the <i>Pending Items</i> column of the <i>Folder List</i> section.

Statistic	Explanation
Device Events Sent to Sync Engine	The number of events that the selected user has performed on the mobile device that need to be synchronized to the user's GroupWise mailbox through the Sync Engine and the GroupWise Connector. This number indicates the amount of traffic that is passing from this user's mobile device to the Sync Engine.
Device Events Failed in Send to Sync Engine	The number of events that have failed to transfer from the Mobility Connector to the Sync Engine. Make sure that the Sync Engine is running. Check the Sync Engine log (engine.log) for details.

- 4 Review the folder list for the selected user, scrolling as needed to view all of the folders where items are synchronizing to the device.
- 5 (Conditional) If any of the statistics seem to indicate a problem with synchronization for the selected user, see [Appendix A, "Mobility Connector Troubleshooting,"](#) on page 39.

4.4 Monitoring User Synchronization Activity

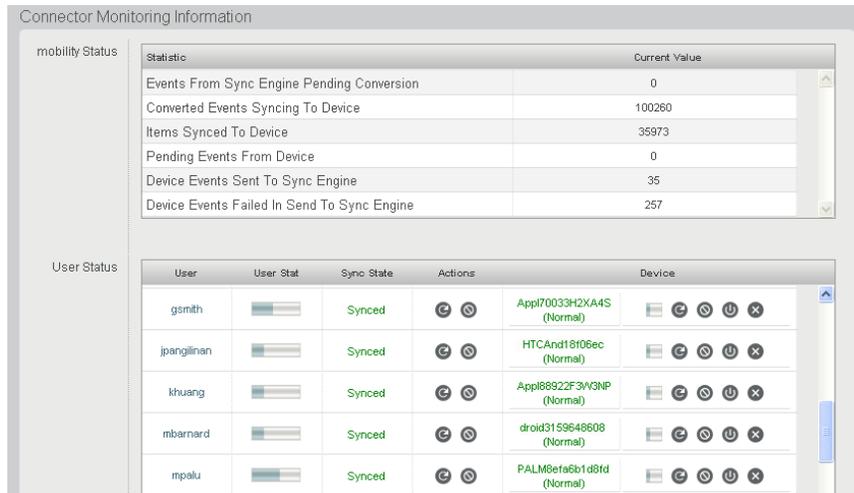
You can check to see when each user last connected to the Mobility Connector. For instructions, see "[Auditing User Synchronization Activity](#)" in "[Connector and User Management](#)" in the *Novell Data Synchronizer System Administration Guide*.

If a user has not connected to the Mobility Connector for 30 days, the nightly maintenance process automatically removes the inactive mobile device from your Synchronizer system. For more information, see [Section 3.12.2, "Configuring Automatic Nightly Maintenance,"](#) on page 25.

4.5 Blocking Specific Users and Devices after Initial Synchronization

As you monitor your Synchronizer system, you might notice that a device or user starts to consume an inappropriately large amount of system resources on your Synchronizer server. This can impact synchronization performance for all Synchronizer users. If this occurs, you can prevent the problem device or user from connecting to the Synchronizer system while you resolve the problem.

- 1 In **Synchronizer Web Admin**, click  (*Monitoring*) in the *Actions* column for the Mobility Connector to display the Connector Monitoring Information page.



mobility Status	
Statistic	Current Value
Events From Sync Engine Pending Conversion	0
Converted Events Syncing To Device	100260
Items Synced To Device	35973
Pending Events From Device	0
Device Events Sent To Sync Engine	35
Device Events Failed In Send To Sync Engine	257

User	User Stat	Sync State	Actions	Device
gsmith		Synced	 	App70033H2XA4S (Normal)     
jpanglinan		Synced	 	HTCAnd18106ec (Normal)     
khuang		Synced	 	App188922F3W3NP (Normal)     
mbarnard		Synced	 	droid3159648608 (Normal)     
mpalu		Synced	 	PALM0eta6b1d8fd (Normal)     

- 2 In the line for the mobile device, click  (*Block Device*) in the *Device* column.



User	User Stat	Sync State	Actions	Device
gsmith		Synced	 	App70033H2XA4S (Normal)     

If you click  (*Block User*) in the *Action* column, it blocks all devices for the user. This is convenient when the user has multiple mobile devices, or when the user's mobile device has multiple device IDs.

You receive the following prompt:

Block this device from communicating with the Mobility Connector?

- 3 Click *Block Device* to block the device so that it can no longer connect to your Synchronizer system.

You receive the following confirmation:

The device "*device_id*" is now blocked.

- 4 Click *OK*.

At this point, *Normal* turns to *Blocked* for the device ID, and  (*Block Device*) turns to  (*Unblock Device*).

- 5 Resolve the problem with the mobile device.

- 6 To unblock the device so that it can connect to your Synchronizer system again, click  (*Unblock Device*).

You receive the following prompt:

Allow this device to communicate with the Mobility Connector?

- 7 Click *Unblock Device*.

You receive the following confirmation:

The device "*device_id*" is now unblocked.

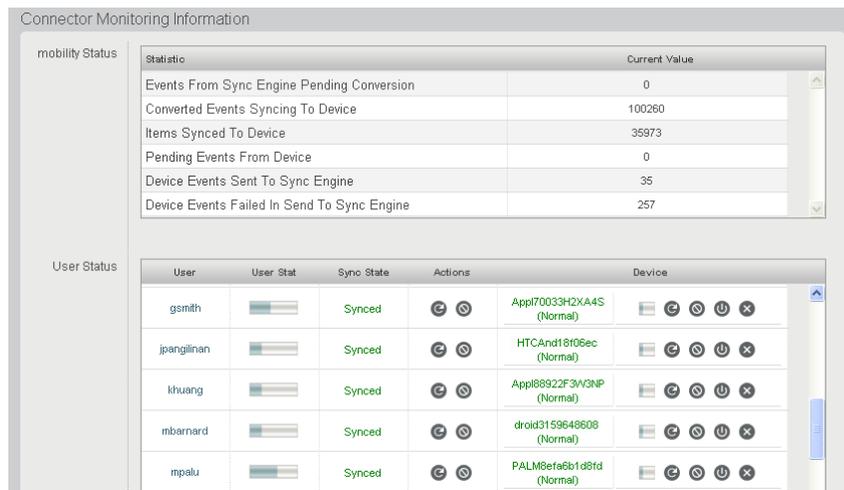
- 8 Click *OK*.

The user can again connect to the Synchronizer system.

4.6 Resetting a Device to Factory Default Settings

If a user loses a mobile device, it is important to wipe all personal data from the lost device as quickly as possible. If the device is recovered, it can be reset and used again.

- 1 In [Synchronizer Web Admin](#), click  (*Monitoring*) in the *Actions* column for the Mobility Connector to display the Connector Monitoring Information page.



mobility Status	
Statistic	Current Value
Events From Sync Engine Pending Conversion	0
Converted Events Syncing To Device	100260
Items Synced To Device	35973
Pending Events From Device	0
Device Events Sent To Sync Engine	35
Device Events Failed In Send To Sync Engine	257

User	User Stat	Sync State	Actions	Device
gsmith		Synced	 	App7003H2XA4S (Normal)    
jpanlinan		Synced	 	HTCAnd18106ec (Normal)    
khuang		Synced	 	App88922F3V3NP (Normal)    
mbarnard		Synced	 	droid3159648608 (Normal)    
mpaku		Synced	 	PALM8efa8b1d8fd (Normal)    

- 2 In the line for the mobile device to reset, click  (*Device Reset*).



User	User Stat	Sync State	Actions	Device
gsmith		Synced	 	App7003H2XA4S (Normal)    

You receive the following prompt:

When you reset the device, all data will be removed.
Are you sure you want to reset the device "*device_id*"
to its factory default state?

- 3 Click *Reset Device* to wipe the user's personal data from the device and reset the device to factory default settings.

You receive the following confirmation:

The reset command has been sent to the device.
When the device "*device_id*" tries to connect,
it will be reset to its factory default state.

- 4 Click *OK*.

At this point, the device ID turns yellow and is marked with the Resetting status. Regardless of how many times the mobile device tries to connect, it always receives the reset command. However, the 🔄 (*Device Reset*) changes to ✖ (*Device Reset Clear*), indicating that the Resetting status can be cleared.

- 5 (Conditional) To put the device back into service, click ✖ (*Device Reset Clear*).

You receive the following prompts:

```
When you clear the reset command, the device will be allowed to connect.  
Are you sure you want to allow the device "device_id" to connect?
```

- 6 Click *Allow Device*.

You receive the following confirmation:

```
The device "device_id" is now allowed to connect.
```

- 7 Click *OK*.

The user must now start over from the beginning and reconfigure the device to connect to the Synchronizer system and start synchronizing data.

A Mobility Connector Troubleshooting

- ♦ [“The Mobility Connector does not start” on page 39](#)
- ♦ [“Initial device synchronization fails” on page 40](#)
- ♦ [“Data does not transfer between the Mobility Connector and a mobile device” on page 40](#)
- ♦ [“Some items never synchronize to the mobile device” on page 40](#)
- ♦ [“Data does not match between the GroupWise mailbox and the mobile device” on page 41](#)
- ♦ [“Address book synchronization fails” on page 41](#)
- ♦ [“Synchronization stops” on page 41](#)
- ♦ [“The specific actions suggested above have not resolved a synchronization problem” on page 41](#)
- ♦ [“Status information on the Mobility Connector Monitoring Information page in Synchronizer Web Admin is not correct” on page 42](#)

See also:

- ♦ [“Working with Synchronizer Log Files” in “Synchronizer System Management” in the *Novell Data Synchronizer System Administration Guide*](#)

The Mobility Connector does not start

Possible Cause: The GroupWise Connector is not running.

Action: Start the GroupWise Connector.

Possible Cause: The Synchronizer services are not running.

Action: Check the current status of the Synchronizer services. If needed, start or restart the Synchronizer services, as described in [“Synchronizer Services” in *Novell Data Synchronizer System Administration Guide*](#). Then start the Mobility Connector.

Possible Cause: A Web server is running on the Synchronizer server. Web servers typically use ports 80 and 443. These ports need to be available for use by the Mobility Connector for communicating with mobile devices.

Action: Stop and disable the existing Web server or other application that is using ports 80 and 443 on the Synchronizer server.

Possible Cause: You manually modified the following configuration file:

```
/etc/datasync/syncengine/connectors.xml
```

You introduced an error in the XML coding.

Action: Review the changes you made to the `connectors.xml` file to make sure that they are correctly coded.

Action: Revert to a backup of the `connectors.xml` file that works correctly, then try the modifications again.

Initial device synchronization fails

Possible Cause: The mobile device fails to connect to the Synchronizer server because you have configured it for a secure SSL connection and the certificate is not working properly.

Action: Try using a non-secure connection. If a non-secure connector works and a secure connection does not work, make sure that the certificate is correctly set up, as described in [“Securing Communication between the Mobility Connector and Mobile Devices \(Mobility Pack Only\)”](#) in [“Synchronizer System Security”](#) in the *Novell Data Synchronizer System Administration Guide*.

Action: See [Data Synchronizer Mobility Connector SSL Issues \(http://wiki.novell.com/index.php/Data_Synchronizer_Mobility_Connector_SSL_Issues\)](http://wiki.novell.com/index.php/Data_Synchronizer_Mobility_Connector_SSL_Issues).

Possible Cause: The Mobility Connector is not getting the information it needs from the GroupWise Connector.

Action: Make sure that the user has already been added to the GroupWise Connector.

Action: Make sure that the user has a valid GroupWise account.

Possible Cause: The user’s GroupWise user ID is different from the user’s LDAP user name.

Action: Set the user’s application user name in the GroupWise Connector to match the user’s LDAP user name. For information about application user names, see [“Adding a User to a Connector in Synchronizer Web Admin”](#) in [“Connector and User Management”](#) in the *Novell Data Synchronizer System Administration Guide*.

Possible Cause: Varied.

Action: Remove the user from the Mobility Connector and the GroupWise Connector, then add the user to both connectors again.

Data does not transfer between the Mobility Connector and a mobile device

Possible Cause: Varied.

Action: Check the Mobility Connector application interface log file, as described in [Section 2.2.2, “Using the Mobility Connector Log File,”](#) on page 12

Action: Check additional Synchronizer log files, as described in [“Working with Synchronizer Log Files”](#).

Action: Remove the user from the Mobility Connector and the GroupWise Connector, then add the user to both connectors again.

Some items never synchronize to the mobile device

Possible Cause: Some events automatically synchronize to mobile devices. Other events do not synchronize to mobile devices unless users request them. The user has not yet requested the optional events.

Action: None. This is normal. The unsynchronized events eventually expire.

Possible Cause: The Mobility Connector might not be transferring the events to the mobile device.

Action: Check the user's synchronization status, as described in [Section 4.3, "Monitoring User Synchronization Status,"](#) on page 32. Observe the *Pending Events from Device* column and the *Items Synched to Device* column to see if progress is still being made.

If events are still transferring to the device, wait while the process completes.

If events are not transferring to the device, restart the Mobility Connector.

Possible Cause: The user's GroupWise mailbox contains a damaged message, or the user's mailbox is damaged. Mailbox damage can cause the GroupWise Connector to synchronize unusable data to the Mobility Connector.

Action: Repair the user's mailbox, as described in ["Maintaining User/Resource and Message Databases"](#) in ["Databases"](#) in the *GroupWise 2012 Administration Guide*.

Possible Cause: Varied.

Action: Remove the user from the Mobility Connector and the GroupWise Connector, then add the user to both connectors again.

Data does not match between the GroupWise mailbox and the mobile device

Possible Cause: Varied.

Action: Resynchronize the mobile device, as described in [Section 4.2, "Managing Mobile Devices \(Resynchronize, Delete, Block, Reset\),"](#) on page 31.

Action: Have the user remove the account from the mobile device and re-add the account on the mobile device.

Address book synchronization fails

Possible Cause: Varied.

Action: Resynchronize the mobile device, as described in [Section 4.2, "Managing Mobile Devices \(Resynchronize, Delete, Block, Reset\),"](#) on page 31.

Action: Have the user remove the account from the mobile device and re-add the account on the mobile device.

Synchronization stops

Possible Cause: Varied.

Action: Resynchronize the mobile device, as described in [Section 4.2, "Managing Mobile Devices \(Resynchronize, Delete, Block, Reset\),"](#) on page 31.

Action: Have the user remove the account from the mobile device and re-add the account on the mobile device.

The specific actions suggested above have not resolved a synchronization problem

Possible Cause: Varied.

Action: Perform the following procedure to start over for a particular mobile device user, similar to rebooting a computer:

- 1 Remove the user's account from the mobile device.
- 2 Remove the user from the Mobility Connector.
- 3 Restart the Synchronizer services.
- 4 Add the user to the Mobility Connector.
- 5 Add the user's account to the mobile device.

Status information on the Mobility Connector Monitoring Information page in Synchronizer Web Admin is not correct

Possible Cause: The Mobility Connector created during installation of the Mobility Pack was deleted and you manually re-added the Mobility Connector.

Action: Manually adding a connector is not currently supported, although Synchronizer Web Admin does allow you to do it. Uninstall, then reinstall, the Mobility Pack, as described in "[Uninstalling the Mobility Pack](#)" in "[Mobility Pack Installation](#)" in the *Novell Data Synchronizer Mobility Pack Installation Guide*

B Documentation Updates

This section lists updates to the *Mobility Connector Installation and Configuration Guide* that have been made since the initial release of the Novell Data Synchronizer Mobility Pack. The information helps you to keep current on documentation updates and software updates.

The information is grouped according to the date when the *Mobility Connector Installation and Configuration Guide* was republished. Within each dated section, the updates are listed by the section title.

The *Mobility Connector Installation and Configuration Guide* has been updated on the following dates:

- ♦ [Section B.1, "August 22, 2012 \(Mobility Pack 1.2.4\)," on page 43](#)
- ♦ [Section B.2, "May 23, 2012 \(Mobility Pack 1.2.3\)," on page 43](#)
- ♦ [Section B.3, "February 28, 2012 \(Mobility Pack 1.2.2\)," on page 44](#)
- ♦ [Section B.4, "August 4, 2011 \(Mobility Pack 1.2\)," on page 44](#)
- ♦ [Section B.5, "June 2, 2011 \(Mobility Pack 1.1.2\)," on page 44](#)
- ♦ [Section B.6, "March 2, 2011 \(Mobility Pack 1.1\)," on page 45](#)

B.1 August 22, 2012 (Mobility Pack 1.2.4)

Location	Change
Mobility Connector Product Overview	
Section 1.2.2, "Mobile Device Requirements," on page 9	Updated the supported versions for several mobile device operating systems.
Synchronization Monitoring and Management	
Section 4.1, "Monitoring Mobility Connector Synchronization Status," on page 27	Added the Sync-Validate state and the Blocked state.

B.2 May 23, 2012 (Mobility Pack 1.2.3)

Location	Change
Mobility Connector Configuration	

Location	Change
Section 3.5, "Controlling the Maximum Number of Devices per User," on page 21	Added instructions for limiting the number of devices per user.
Synchronization Monitoring and Management	
Section 4.1, "Monitoring Mobility Connector Synchronization Status," on page 27	Improved the explanation of the bar graphs.
Section 4.4, "Monitoring User Synchronization Activity," on page 34	Explained that inactive devices are removed after 30 days.
Mobility Connector Troubleshooting	
"Address book synchronization fails" on page 41	Added a new troubleshooting strategy.

B.3 February 28, 2012 (Mobility Pack 1.2.2)

Location	Change
Synchronization Monitoring and Management	
Section 4.4, "Monitoring User Synchronization Activity," on page 34	Explained that inactive devices are removed after 30 days.

B.4 August 4, 2011 (Mobility Pack 1.2)

Location	Change
Mobility Connector Installation	
Section 2.2.1, "Using Synchronizer Web Admin," on page 11	Updated the Synchronizer Web Admin URL.

B.5 June 2, 2011 (Mobility Pack 1.1.2)

Location	Change
Mobility Connector Installation	
Section 2.2.1, "Using Synchronizer Web Admin," on page 11	Updated the Synchronizer Web Admin URL.

Location	Change
Section 3.6, "Controlling Maximum Attachment Size," on page 21	Emphasized that synchronizing large attachments can put a substantial load on the Mobility Connector.

B.6 March 2, 2011 (Mobility Pack 1.1)

Location	Change
Mobility Connector Configuration	
Section 3.3, "Using GroupWise Authentication Instead of LDAP Authentication for Mobile Devices," on page 19	Introduced the new GroupWise authentication functionality.
Section 3.4, "Enabling a Device Password Security Policy," on page 20	Introduced the new security policy settings for controlling mobile device access to your Synchronizer system.
Section 3.6, "Controlling Maximum Attachment Size," on page 21	Described how mobile device users are notified when an item has attachments that are not synchronized because they exceed the maximum attachment size.
Section 3.12.2, "Configuring Automatic Nightly Maintenance," on page 25	Introduced the new Mobility database nightly maintenance functionality.
Synchronization Monitoring and Management	
Section 4.1, "Monitoring Mobility Connector Synchronization Status," on page 27	Described the new <i>User Stat</i> column. Added a link to a TID that provides additional details.
Section 4.5, "Blocking Specific Users and Devices after Initial Synchronization," on page 35	Described the improved functionality for preventing mobile devices from communicating with the Mobility Connector while synchronization issues are being resolved.

