Barcode
essentials™

Barcode Essentials
Synchronization Explained

Barcode Essentials synchronization and troubleshooting information.

Contents

Purpose

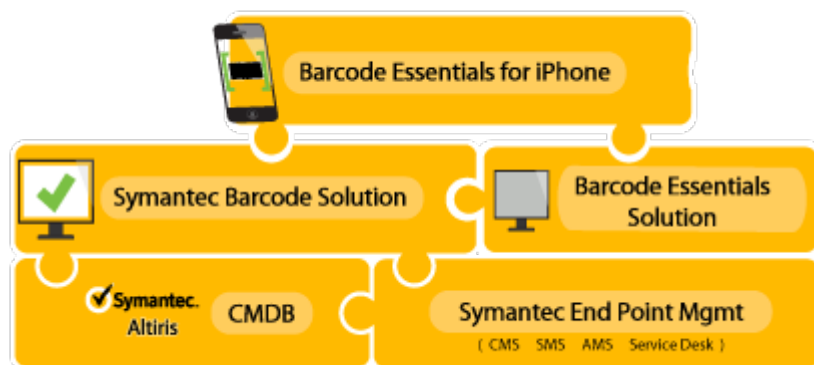This document provides additional information on Barcode Essentials™ for iPhone synchronization. It also provides answers to some frequently reported issues and questions.

Overview

Synchronization is the method by which Barcode Essentials for iPhone app connects to the Symantec CMDB.

Symantec Barcode Solution and Barcode Essentials Solution must be installed on the same Symantec server. Barcode Essentials for iPhone app must be installed on all iOS devices that will be used for asset management activities.

Symantec Barcode Solution can be used to configure profiles, custom synchronization templates, manage changes to asset data, generate and view reports. Symantec Barcode Solution also provides a console application, where you can perform all asset workflows and updates.

Barcode Essentials for iPhone device licensing is managed by the free Barcode Essentials Solution installed on the Symantec Management platform. It is available for download here: http://www.barcodeessentials.com/GetStarted/Downloads.aspx.

More information on licensing is available here: http://www.barcodeessentials.com/Licensing.aspx

Synchronizing a Device

Barcode Essentials offers three synchronization options:

1. **Sync** will upload your changes, then download the last-approved version of each resource from CMDB again. Resources on your device may be added or removed if the profile has changed. After synchronization the content on your device will match your sync profile.

2. **Upload Only** will upload your changes, and retain all current data on the device, so you can continue using it. The last-approved version of CMDB is not downloaded to the device.

3. **Download Again** discards all changes on the device, and retrieves the last-approved version of each resource from CMDB again. After synchronization the content on your device will match your sync profile.

The Sync and Download again options perform a delta sync, i.e. only differences are synced. If you change profiles or synchronize for the first time, it may be slow as every resource in the profile must be synchronized from the CMDB.

Synchronization Modes

A synchronization profile allows the administrator to specify the resources that will sync and download to the device. When a device uploads new or changed resource information to the server during synchronization, the data can be handheld in one of two modes, as specified by the profile:

- Upload Verification Mode
- Upload Non-Verification Mode
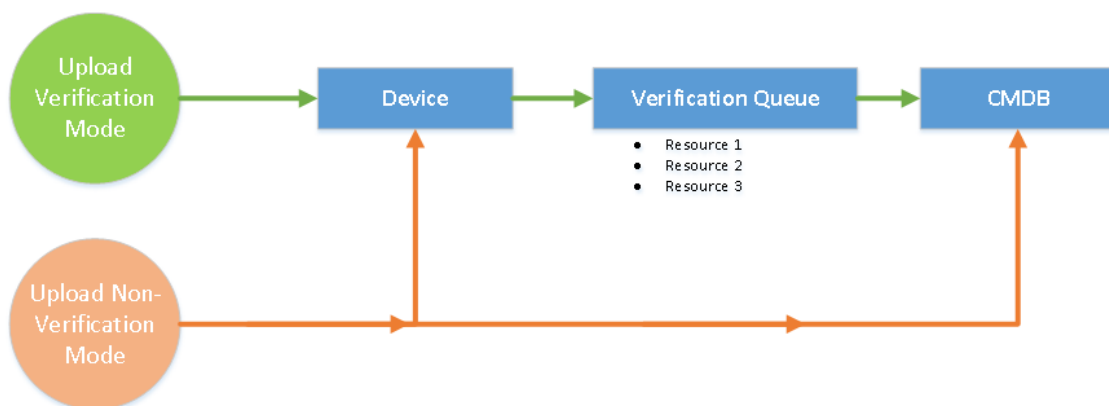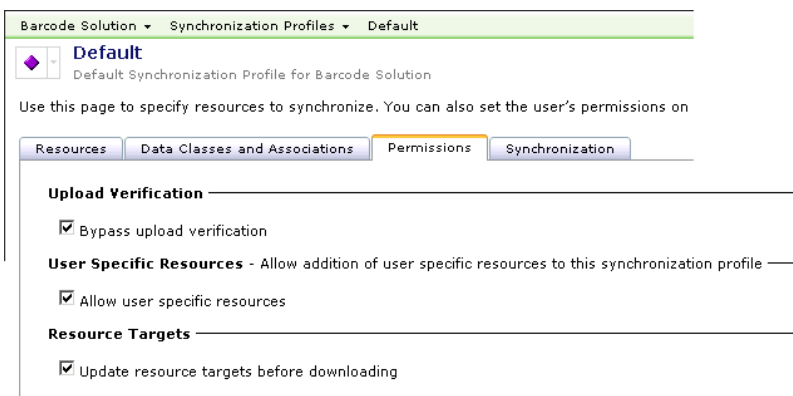
Upload Verification Mode

In this mode, all new and updated data, uploaded by a device will be held in a verification queue in Symantec Barcode Solution. The administrator will need to approve and accept these changes before they are integrated into the CMDB. They will not be available at the next sync, untill they are approved. If the changes are rejected then the asset details will be uneffected in the CMDB.

Configuring Upload Verification Mode in the Synchronization Profile

1. Navigate to Symantec Barcode Solution and select your synchronization profile.
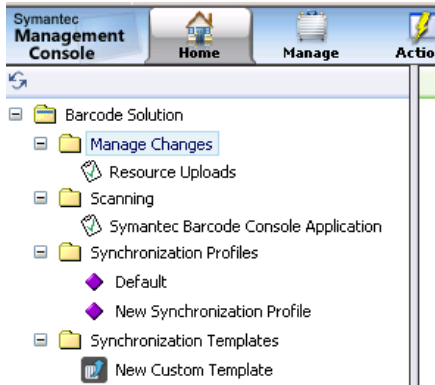
2. Click the **Permissions** tab and scroll to the bottom of the page. Select or clear the checkbox **Bypass upload verification**.
3. Save the synchronization profile.

- By default, "Bypass upload verification" is not selected, i.e. resource verification is enabled. Anything you upload from the device will appear in the Resource Uploads queue.

- Select the "Bypass upload verification" checkbox, i.e. resource verification is disabled. Anything you upload from the device will be added to the CMDB live, without verification. This could mean some resources may have incorrect details or values.

Verifying Resource Uploads

If a profile is in the 'Upload Verification Mode' ('Bypass upload verification' option is not selected in the screen), as a Symantec administrator you will need to approve and/or reject the changes that are uploaded.

More information on using this feature in Symantec Barcode Solution is available on the Symantec site, and is not covered in full detail in this document.

- Navigate to **Home > Service and Asset Management > Barcode > Manage Changes > Resource Uploads**.
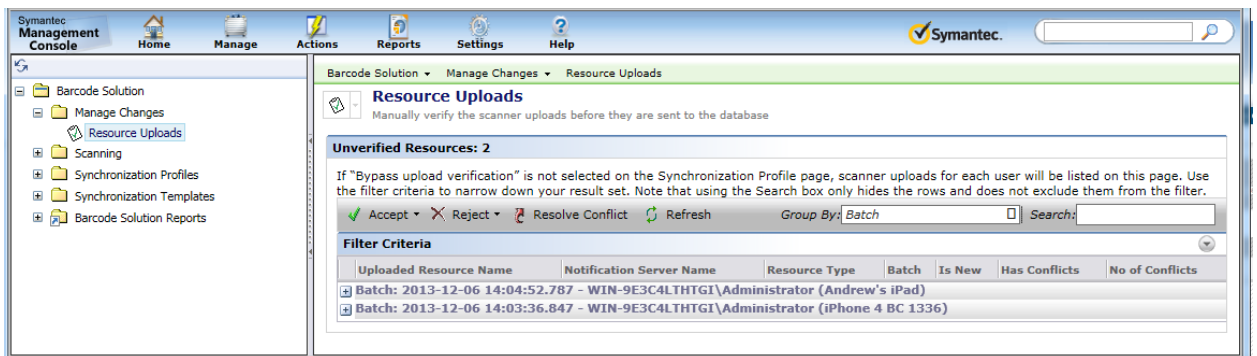
Under the Filter Criteria section you will see, all resources that have been updated from all devices synchronized to this server.

As an administrator you can approve and reject these resource updates. You also have the option to resolve conflicts relating to a specific resource.

- If you approve the changes it will be updated to CMDB.
- If you reject the changes the information will be lost.

Direct or Upload Non-Verification Mode

If a profile is in direct mode ('Bypass upload verification' option is checked in the screen), then once the devices are synced with the server, the resource updates are directly integrated into the CMDB and available to all solutions immediately.

Comparing Sync Behaviour with Symantec Barcode Console Application

This section only applies if you believe Barcode Essentials synchronization is not operating correctly, and you wish to complete some diagnostic tests.

The first diagnostic step for synchronization related errors is to reproduce the steps attempted on Barcode Essentials for iPhone, on Symantec Barcode Console Application.

This comparison is useful because both Barcode Essentials and Symantec Barcode Console Application synchronize data in exactly the same way with the server. The test will help determine whether a problem is related to Barcode Essentials Solution, or to Symantec Barcode Console Application which is part of Symantec Barcode Solution.

- Navigate to **Home > Service and Asset Management > Barcode**. In the tree click **Barcode Solution > Scanning > Symantec Barcode Console Application**.

If Symantec Barcode Console Application exhibits the same behaviour as Barcode Essentials, contact Symantec support. The issue is within Symantec Management Platform, CMDB or Symantec Barcode Solution, and not the Barcode Essentials app.

Resource Targets and Membership

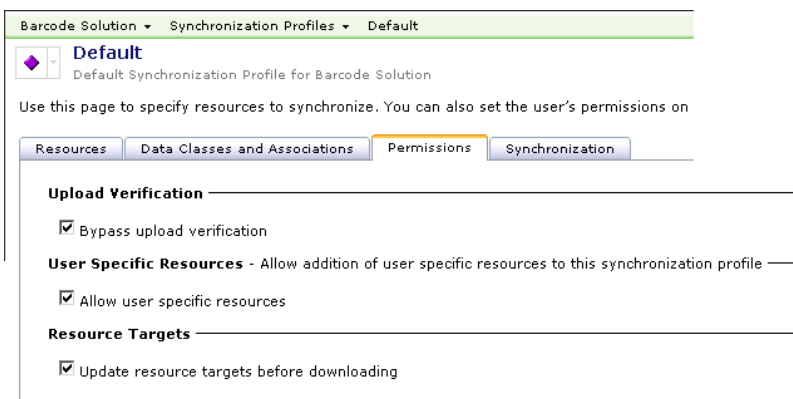## Configuring 'Update resource targets before downloading'

This feature applies to Symantec Barcode Solution 7.5 and above only.

To ensure that the profile will always check and access the latest resources within the resource target, you can configure the 'update resource targets before downloading' option.

 'Update resources targets before downloading' is enabled by default. If enabled, the profile will update the resources targets and then proceed to synchronization with the device.

In some cases this may cause additional processing load on the server when a device starts to synchronize. If this load is undesirable, the feature can be disabled:

1. Navigate to your profile, select the **Permissions** tab.
2. Clear the **Update resource targets before downloading** checkbox.
3. Save the profile.

Configuring Resource Membership

As an administrator you can determine the frequency by which resource membership (groups, filters and targets) is updated. These settings will determine how often the cache is updated and could help in resolving certain synchronization behaviours.

To check the resource membership:

- Navigate to **Settings > All Settings**. In the tree, select **Settings > Service and Asset Management > Resource and Data Class Settings > Resource Membership Update**.

- Update the Delta and Complete Update schedules.

For more information on Resource Targets, refer to Symantec documentation.

Troubleshooting

Some asset data from my sync profile appears to be missing on the device.

There could be a number of reasons why data included in your sync profile may appear to be missing from your device.

1. Upload Verification Mode

You may appear to lose data, if 'Bypass upload verification' is enabled on your profile, see *Upload Verification Mode*). This is because changes you have made on your device require administrator approval before they are integrated into the CMDB. Until they are approved, your device will always be returned to the last-approved state for each resource in your profile, which means new resources you created will be removed from your device, and edits you have made will be returned to their last-approved state from CMDB.

To change this behaviour:

*   Check the resource uploads queue and approve any resources. See *Verifying Resource Uploads*, or

*   Disable the 'Bypass upload verification' option. See *Configuring Upload Verification Mode in the Synchronization* Profile.

2. Synchronization Option

The availability of a resource on your device can depend on the synchronization option you select. See *Synchronizing a Device*. To retain your changes on the device after synchronizing, only use the '**Upload Only'** option on the device. Now you can continue using the asset data inclusive of your changes after sync completes.

3. Resource Membership

Confirm the Resource Membership settings to check if the CMDB cache is current. See *Resource Targets and Membership*.

4. Check whether Symantec Barcode Console Application exhibits the same behaviour, see *Comparing Sync Behaviour with Symantec* Barcode Console Application.
5. For all other errors &, exceptions, please check the Altiris log.

For any further assistance on Barcode Essentials, please contact http://www.barcodeessentials.com/Support.aspx. For any other Symantec management platform or CMDB error please contact Symantec support.
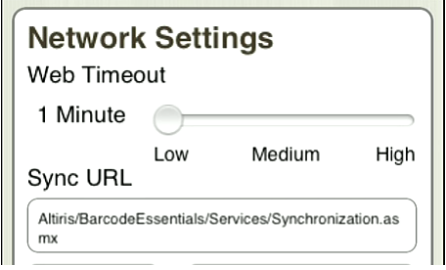
My iPhone reports a timeout while synchronizing with the Symantec Server. What should I do?

You might experience timeouts depending on many factors:

*   Network/Wi-Fi connectivity and speed

*   Server infrastructure processing capability

*   The complexity of resource targets specified in the synchronization profile

*   The number of resources included in your synchronization profile

*   Other errors or exceptions on the server

You can try one or more of the following items to resolve the timeout issue:

1. Check whether Symantec Barcode Console Application exhibits the same behaviour, see *Comparing Sync Behaviour with Symantec* Barcode Console Application.
2. Check your wireless network to ensure that the devices have reliable connectivity with the server. If the connection is weak or drops, it may affect the download of resources.
3. Check the Barcode Essentials timeout settings.

• To configure the timeout on the Barcode Essentials app, flip to the back page > tap **Options**. • Under the Network Settings Section, slide the Web Timeout slider to High. • This will increase the timeout period to 10 mins.	**Network Settings** Web Timeout 1 Minute ○——————— Low Medium High Sync URL Altiris/BarcodeEssentials/Services/Synchronization.asmx

4. Check your server resource allocation for high database activity.

If the synchronization profile contains a large number of resources with multiple references to different data classes and associations, it may cause performance issues with the server.

   • You can also optimize your profile to use only the required number and type of data classes and associations.

   • You can also create multiple profiles with a limited number of resources for faster download and upload of data.

5. Disable the 'Upload resource targets before downloading' option in the profile and check if the timeout reoccurs. See *Configuring 'Update resource targets before downloading'*.
6. Have your system administrator check the Windows server Event Log for errors relating to IIS.
7. Check the Altiris Log for errors/exceptions. If you notice any errors with Symantec Barcode Solution or any other Symantec component, please contact Symantec support.

Although we may not be able to assist you directly, if you notice any specific Symantec Barcode Solution errors or exceptions, please e-mail the Altiris log to support@barcodeessentials.com and we can attempt to determine a solution based on our past experience.

Contacting Support

For further help with questions on product features or licensing, check the Barcode Essentials FAQ at http://www.barcodeessentials.com/Support/FAQ.aspx or contact support via http://www.barcodeessentials.com/Support.aspx.

Information in this publication is subject to change without notice.

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