

# Mobile Classifier Installation Guide

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# 1 INTRODUCTION

The Mobile Classifier Service is an Internet Information Service (IIS) hosted Windows Communication Foundation (WCF) web service which is the server component for the Mobile Classifier app.

The Mobile Classifier app running on mobile and tablet devices uses this service to access Microsoft Exchange and/or Office 365 mailboxes and provide Classifier functionality on the mailbox contents.

This guide is to aid administrators in installing and configuring the Mobile Classifier Service in both production and evaluation environments.

**Note:** Throughout this document, Administration Guide means Administration Guide or Administration Server Guide depending upon whether you are using the Administration Console or Administration Server environment.

## 1.1 Mobile Classifier Service Overview

The Mobile Classifier Service is a proxy server that allows the Mobile Classifier app running on mobile and tablet devices to access Microsoft Exchange and/or Office 365 mailboxes and provide Classifier functionality on the mailbox contents.

The Mobile Classifier Service does not store users' credentials or mailbox contents within the service. A user's credentials and mailbox contents are only stored on the device running the Mobile Classifier app. The user's credentials are stored on the device in an encrypted form. They are never stored unencrypted on the device.

The Mobile Classifier Service will generally be communicating with devices across the public internet so it is heavily recommended that a secure HTTPS channel is used for the Mobile Classifier Service as this secures all communication between the Mobile Classifier Service and devices.

Figure 1 below shows an overview of a production Mobile Classifier environment.

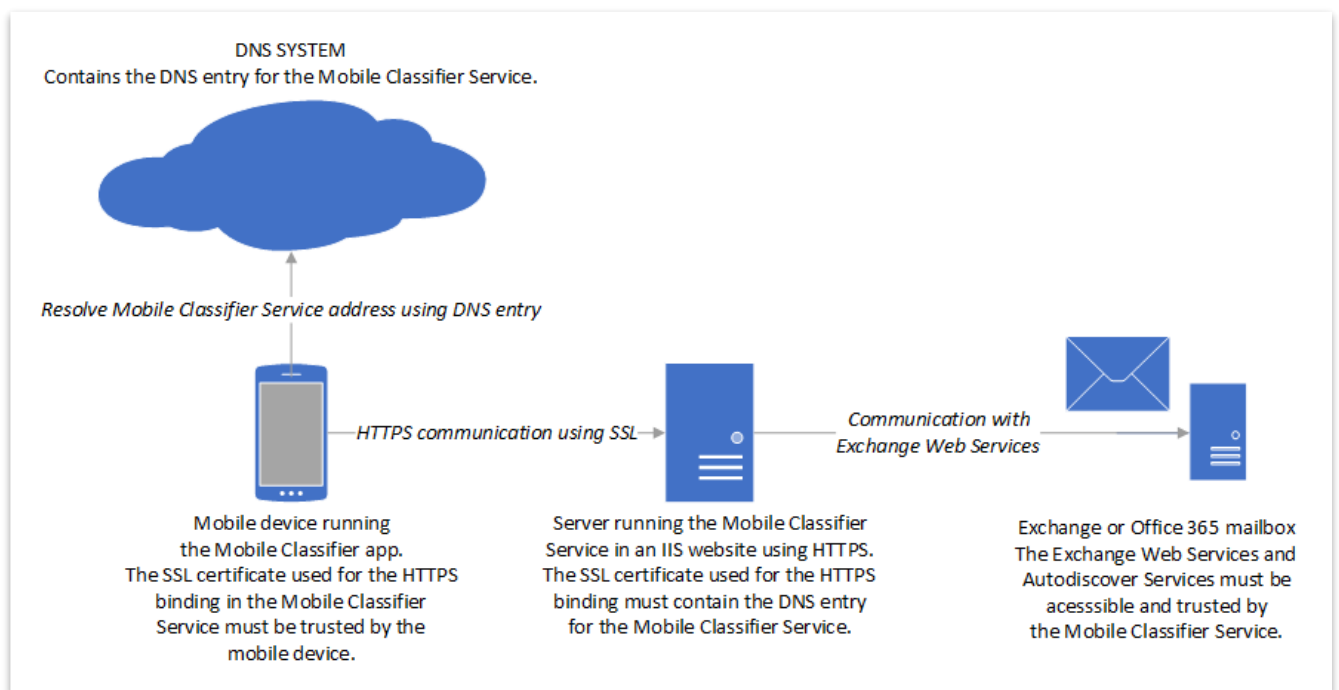


Figure 1 - Overview of a Production Mobile Classifier Environment

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## 2 MOBILE CLASSIFIER SERVICE INSTALLATION

### 2.1 Pre-requisites and System Requirements

#### 2.1.1 Software

##### 2.1.1.1 Supported operating systems

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**Note: 64 bit Versions Only**

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- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016

##### 2.1.1.2 Microsoft .Net Framework

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**Note: Both .Net 3.5 SP1 and 4.5 are required**

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- Microsoft .Net 3.5 SP1
- Microsoft .Net 4.5 / .NET 4.6 with Windows 2016

HTTP activation IIS component must be installed with either .NET 4.5 or .NET 4.6 (not .NET 3.5).

##### 2.1.1.3 Web Server (IIS) Windows Server Role

The Web Server (IIS) Windows Server role must be installed and configured to support .Net 4.5 WCF services. See [Configuring Internet Information Services 7.0 for Windows Communication Foundation](#) for more information.

For best performance, it is recommended that the “Dynamic Content Compression” feature is enabled for the Web Server (IIS) role.

Dedicated 64 bit IIS Web Site configured to use a secure HTTPS channel on port 443.

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**Note: Other web applications requirements can conflict with the Mobile Classifier Service requirements so it is recommended that the Mobile Classifier Service does not share a website with other web applications and that a dedicated website is created for the Mobile Classifier Service prior to installation.**

**Note: It is recommended that the Mobile Classifier Service uses a secure HTTPS channel. The Mobile Classifier Service will be passing sensitive information such as usernames, passwords and email messages between itself and the Mobile Classifier app running on a mobile/tablet device. The use of a secure HTTPS channel is required in a production system to ensure all communications between the Mobile Classifier Service and the Mobile Classifier app running on a mobile/tablet devices are encrypted.**

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#### 2.1.2 Microsoft Exchange/Office 365

Mobile Classifier Service requires mailboxes to be hosted on Microsoft Exchange and/or Office 365.  
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The following versions of Microsoft Exchange are supported:

- Exchange 2010 SP2
- Exchange 2010 SP3
- Exchange 2013
- Exchange 2013 SP1
- Exchange 2016

## 2.2 Installation Instructions

Run the Mobile Classifier Server installer’s setup.exe and follow the instructions to install Mobile Classifier. Select the IIS website to install the Mobile Classifier Server into. Please bear in mind the [Web Server \(IIS\) Windows Server Role](#) section which recommends the IIS website you choose should be dedicated to the Mobile Classifier Service.

An IIS Application Pool called “MobileClassifierWCFService” is created during installation.

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**Note: The Mobile Classifier Service installation does not support command line or silent installation.**

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## 2.3 Post-Installation Instructions

### 2.3.1 Make the Mobile Classifier Server IIS Website Available

Devices running Mobile Classifier need to communicate with this Mobile Classifier Service for the app to function. You will need to make the Mobile Classifier Service IIS website available to the networks where these clients are located; in the majority of cases, this requires the service to be made available to the Internet.

### 2.3.2 Supported Email Domains

The Mobile Classifier Service limits which email domains are allowed to communicate through it. As such, you must manually add a list of email domains you wish to support through the following registry entry.

Name	HKLM\SOFTWARE\Boldon James\Mobile Classifier Service\MobileClassifierDomains
Type	REG_MULTI_SZ
Data	This is a Multi-String registry entry where each supported email domain must be entered as a separate entry.

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**Note: Wildcard domains are not supported and an entry is required for each email domain and subdomain you make available through the Mobile Classifier Service.**

**Note: This registry entry has default dummy values which are created when the Mobile Classifier Service is installed for the first time. These default dummy values should be removed and replaced with the email domains you wish to support.**

**Note: This registry entry is not removed when the Mobile Classifier Service is uninstalled and is not overwritten if it is present when the Mobile Classifier Service is installed. This allows the configured email domains to be maintained during a reinstallation of the Mobile Classifier Service.**

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### 2.3.3 DNS Entries

Devices running the Mobile Classifier app will use a DNS entry to find the location of the Mobile Classifier Service. This DNS entry is of a set format and uses the hostname “mobileclassifier” and your organisation’s email domain name. The DNS entry should point to the IP address or DNS entry for the location the Mobile Classifier Service IIS website is made available in [Make the Mobile Classifier Server IIS Website Available](#).

A DNS entry is required for each email domain you make available through the Mobile Classifier Service.

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**Note: The Mobile Classifier Service does not support wildcard domains and a DNS entry is required for each email domain and subdomain you make available through the Mobile Classifier Service.**

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For example, a company with the email domain “emaildomain.com” would require a DNS entry for “mobileclassifier.emaildomain.com” which points to the IP address or DNS entry where the Mobile Classifier Service has been made available.

If this company also has the email domains “subdomain.emaildomain.com” and “differentemaildomain.com” then DNS entries would also be required for “mobileclassifier.subdomain.emaildomain.com” and “mobileclassifier.differentemaildomain.com”.

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**Note: In a closed evaluation environment it is possible not to use DNS entries but for a production environment it is strongly recommended.**

See section [Mobile Classifier Evaluation](#) for more details on evaluation environments.

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### 2.3.4 SSL Certificate Requirements

As stated in [Web Server \(IIS\) Windows Server Role](#) it is strongly recommended that the Mobile Classifier Service uses a secure HTTPS channel to ensure all communication between the Mobile Classifier Service and the Mobile Classifier app on the device is encrypted.

The SSL certificate used for this secure HTTPS channel on the Mobile Classifier Service website binding in IIS must meet certain criteria for the Mobile Classifier app on the device/tablet to trust it.

- The SSL certificate must contain the subject or subject alternative names for the DNS entries created in [DNS Entries](#).
- The SSL certificate must be issued by a Public Key Infrastructure keychain and/or trusted certificate authority that is trusted by all of the devices running the Mobile Classifier app.

These criteria are required to ensure that that the device running the Mobile Classifier app trusts the Mobile Classifier Service. In a production environment, both criteria must be met to ensure that the Mobile Classifier app trusts the Mobile Classifier Service for a particular email domain.

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**Note: In a closed evaluation environment it is possible not to use a secure HTTPS channel and instead use an unsecured HTTP channel. For a production environment, it is strongly recommended that a secure HTTPS channel must be used.**

See section [Mobile Classifier Evaluation](#) for more details on evaluation environments.

### 2.3.5 Classifier Configuration

The Mobile Classifier Service requires access to a Classifier configuration and a Single-Click enabled policy to operate.

The Classifier configuration and policy in use and the location of this Classifier configuration are defined through registry settings. More details about these registry keys can be found in the "Configuration Deployment" section of the "Administration Guide" manual supplied with Classifier Administration.

The identity of the application pool used for the Mobile Classifier Service must have permissions to:

- Read from the Classifier configuration location.
- Write to the Windows Event Log to allow the creation of audit and diagnostic information.

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**Note: An IIS Application Pool called "MobileClassifierWCFService" is created during installation. This App Pools identity is "ApplicationPoolIdentity" by default.**

**Note: Changes to Classifier configuration do not take effect in the Mobile Classifier Service until after a restart or recycle of the website where Mobile Classifier Service is installed.**

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### 2.3.6 Exchange/Office 365 Exchange Web Services and Autodiscover Requirements

The Mobile Classifier Service uses Exchange Web Services (EWS) to access a user's mailbox. The EWS address for the mailboxes Exchange or Office 365 system must be available to the Mobile Classifier Service.

The Mobile Classifier Service uses the Exchange or Office 365 Autodiscover service to find the EWS address for a mailbox. The Exchange or Office 365 Autodiscover service should be configured so the Mobile Classifier Service can resolve the correct EWS address for the Exchange server and/or Office 365 system hosting mailboxes.

If the EWS address obtained from the Autodiscover service is using a secure HTTPS channel then that EWS address SSL certificate must be trusted by the server running the Mobile Classifier Service.

## 2.4 Uninstallation Instructions

Using Windows "Programs and Features" under Control Panel, select "Boldon James Mobile Classifier Service" and click "Uninstall".

## 3 MOBILE CLASSIFIER EVALUATION

In a production environment, it is strongly recommended that the Mobile Classifier Service is configured to communicate using a secure HTTPS channel and the devices running the Mobile Classifier app find the service using DNS entries.

In a closed and controlled evaluation environment, it is possible to configure the Mobile Classifier Service to not use a secure HTTPS channel and configure the Mobile Classifier Service location within the Mobile Classifier app. These allow evaluation of Mobile Classifier without the SSL certificate and DNS entries requirements.

**Note: Not using a secure HTTPS channel and DNS entries for the Mobile Classifier Service is not supported by Boldon James for production environments and is strongly discouraged.**

### 3.1 Evaluation without a Secure HTTPS Channel

To configure the Mobile Classifier Service without a secure HTTPS channel requires the Mobile Classifier Service website to be configured to use an unsecure HTTP binding. We recommend this binding is on port 80.

To use an unsecure HTTP binding also requires two changes to Web.config file in the Mobile Classifier Service installation folder.

**Note: By default, the Mobile Classifier Service installation folder is “C:\Program Files\Boldon James\Mobile Classifier WCF Service”.**

Browse to the Mobile Classifier Service installation folder using Windows Explorer.

Open the Web.config file in the “MobileClassifierWCFService” folder using a text editor such as Notepad. The Web.config file contains XML data and you will be altering two values to allow an unsecured HTTP channel.

#### 3.1.1 Set "MobileClassifierSecureBinding" binding “security mode”

Using your text editor find the "MobileClassifierSecureBinding" binding section as shown in Figure 2 below and change the “security mode” from “Transport” to “None”.

```
</system.webServer>
<system.serviceModel>
  <bindings>
    <webHttpBinding>
      <binding name="MobileClassifierSecureBinding" crossDomainScriptAccessEnabled="true" maxReceivedMessagesize="8388608">
        <security mode="Transport">
          <transport clientCredentialType="None"/>
        </security>
      </binding>
    </webHttpBinding>
  </bindings>
  <extensions>
    <behaviorExtensions>
      <add name="MobileClassifierServiceExtension" ...
```

Figure 2 - “MobileClassifierSecureBinding” binding “security mode”

#### 3.1.2 Set the “MobileClassifierServiceBehavior” behaviour “httpGetEnabled”

Using your text editor find the "MobileClassifierServiceBehavior" behaviour section as shown in Figure 3 below to change the value for the “httpGetEnabled” from “false” to “true”.

Save the Web.config.



```
<behaviors>
  <serviceBehaviors>
    <behavior name="MobileClassifierServiceBehavior">
      <serviceMetadata httpGetEnabled="false" httpsGetEnabled="true"/>
    </behavior>
  </serviceBehaviors>
```

Figure 3 - "MobileClassifierServiceBehavior" behaviour "httpGetEnabled"

### 3.1.3 Apply the changes to the Mobile Classifier Service

Restart the Mobile Classifier Service web site in IIS to apply those changes.

The Mobile Classifier Service can now be accessed using an unsecured HTTP channel.

## 3.2 Evaluation without DNS Entries for the Mobile Classifier Service

Using Mobile Classifier Service without DNS Entries created for the email domains as detailed in the section [DNS Entries](#) requires the Mobile Classifier Service DNS entry, hostname or IP address entered manually into the Mobile Classifier app on a device.

If the Mobile Classifier Service is configured to use a secured HTTPS channel then a subject name or alternative subject name on the SSL certificate must match the DNS entry, hostname or IP address entered manually into the Mobile Classifier app on a device. This is required so the device running the Mobile Classifier app trusts the Mobile Classifier Service. Without this trust, the device running the Mobile Classifier app will not be able to access the Mobile Classifier Service.

If the Mobile Classifier Service is configured to use an unsecured HTTP channel then no trust is required between a device running the Mobile Classifier app and Mobile Classifier Service.

## 3.3 Configuring the Mobile Classifier app in an Evaluation Environment

**Note: Devices running the Mobile Classifier app must be able to communicate with the Mobile Classifier Service in the evaluation environment. We recommend using a WIFI network to enable this communication. The Mobile Classifier Service must be available to the devices on the WIFI network for the evaluation to work.**

The Account Settings in the Mobile Classifier app contain an Advanced Settings option which can be configured to allow the use of an

- Unsecured HTTP channel
- Enter the location of the Mobile Classifier Service manually

The Advanced Settings option is available when initially configuring the mailbox and account information in the Mobile Classifier app on first use. It is the "Advanced Settings" option as shown in Figure 4 below.

**Note: "Advanced Settings" must be configured before entering the Mailbox, Username and Password into the Mobile Classifier app.**

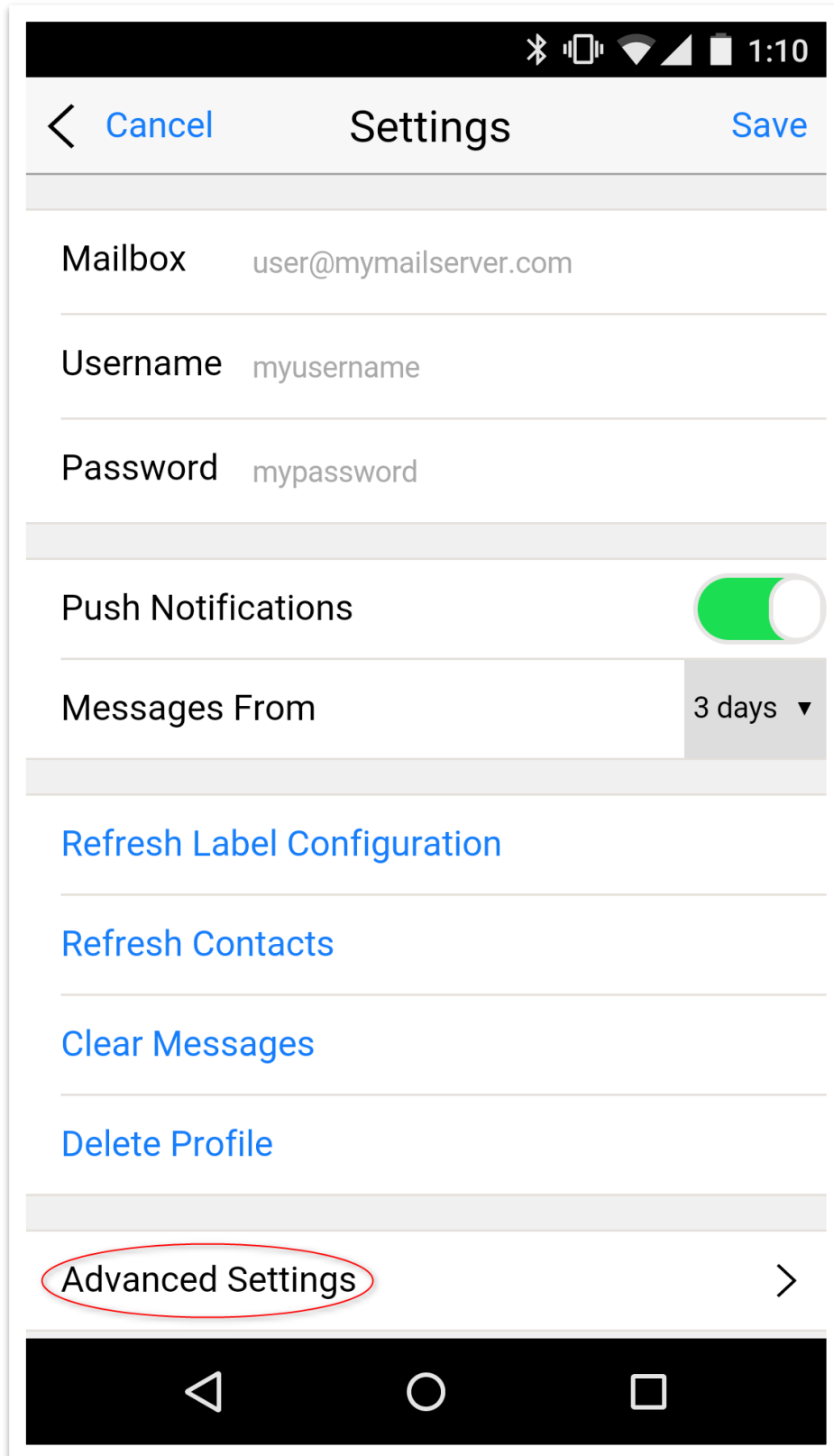


Figure 4 – Mobile Classifier app “Advanced Settings” option

Tapping the “Advanced Settings” option opens the “Advanced Settings” dialog as shown in Figure 5 below.

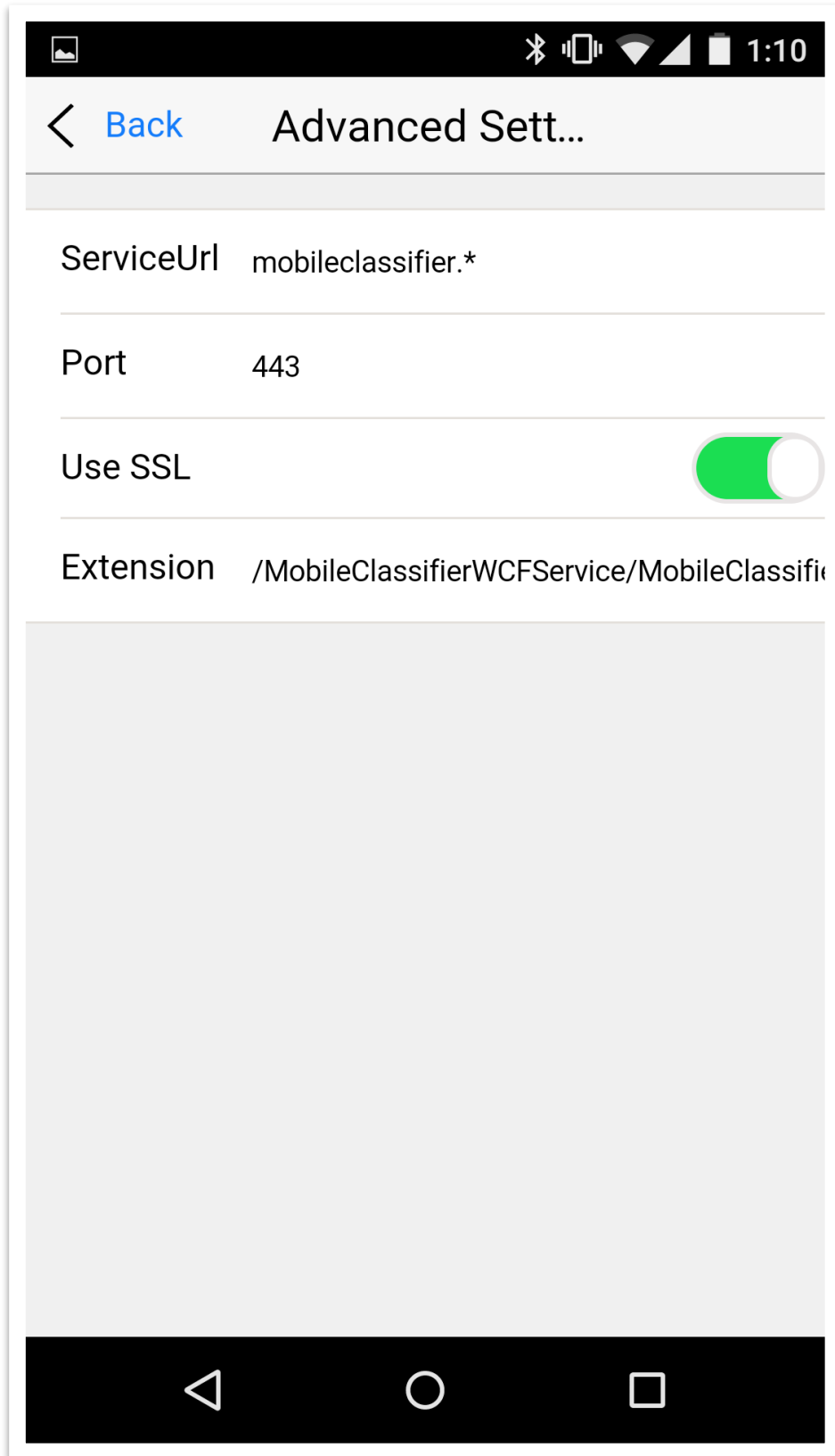


Figure 5 - Mobile Classifier app “Advanced Settings” dialog

### 3.3.1 Configure the Mobile Classifier app to use a unsecured HTTP channel

Using the “Advanced Settings” dialog as shown in Figure 5 above.

- ❑ Change “Use SSL” option to disabled. Figure 5 above shows this setting currently enabled.

- ❑ Change the “Port” option to the port number your Mobile Classifier Service unsecured HTTP channel is available on. This is normally port 80 but may be different in your evaluation environment.

### 3.3.2 Configure the Mobile Classifier app to use a Mobile Classifier Service without DNS entries

Using the “Advanced Settings” dialog as shown in Figure 5 above.

- ❑ Change “ServiceURL” option to the DNS entry, hostname or IP address where the Mobile Classifier Service is available.

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**Note: If the Mobile Classifier Service is configured to use a secured HTTPS channel then a subject name or alternative subject name on the SSL certificate must match the DNS entry, hostname or IP address entered manually into the Mobile Classifier app.**

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### 3.3.3 Applying and Using “Advanced Settings” in the Mobile Classifier app

After changing the “Advanced Settings” settings as detailed in [Configure the Mobile Classifier app to use an unsecured HTTP channel](#) and [Configure the Mobile Classifier app to use a Mobile Classifier Service without DNS entries](#) select tap the “< Back” option to save your changes. Enter your Mailbox, Username and Password into the setting page and tap the “Save” option to connect to your mailbox through your evaluation environment.