White Paper

Vodafone Mobile Connect Enterprise Install Guide

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Contents

VMC Enterprise Install Guide

This document covers the installation of the Vodafone Mobile Connect software on Microsoft® Windows® operating systems in corporate environments. It explains the command line parameters for the installation.

For an introduction into corporate rollouts of VMC, please refer to the "*Standard Install Guide*".

Comparison table of the Vodafone Mobile Connect installation related guides:

	Vodafone Mobile Connect *Standard Install Guide*	**Vodafone Mobile Connect *Enterprise Install Guide* (this document):**
Silent Installation command line parameters for msiexec.exe	✓	
Silent Installation command line parameters for setup_vmc.exe	✓	
Installing the Vodafone Mobile Connect software manually	✓	
Frequently Asked Questions (FAQ) regarding the installation	✓	
Scenarios for IT Administrators		✓
Customisation of Vodafone Mobile Connect user profiles		✓
Using transforms for customisation		✓
ABC (Always Best Connected) configuration settings		✓
Dial-Up: Create a default phonebook		✓
Supported VPN Clients		✓

Scenarios for IT Administrators

A. Installation of Vodafone Mobile Connect 9 on a computer

Certain preparations are necessary before installing the Vodafone Mobile Connect software on a computer to be used by all users of that computer.

1. Create a user profile file and/or a network operator file.

A user profile file can be created by manually installing the Vodafone Mobile Connect software on a computer, along with the first-time device installation for all the devices the users of the computer should use. The resulting MobileConnectProfile.xml file can be used as a template for all users. Consider the start mode of Vodafone Mobile Connect for your installations.

2. Create a Transform file to replace the user profile file, the network operator file and/or the dial-up phonebook in the MSI database.

To replace the file MobileConnectProfile.xml from step 1, the network operator file and/or the dial-up phonebook in the MSI database, a Transform database has to be generated. A tool for creating Transform databases is Orca from Microsoft – see chapter “using transforms for customisation”. Any other tool which can deal with Transform files can also be used.

The steps to install the Vodafone Mobile Connect Software are:

1. Optional - Unattended installation of Microsoft’s Windows Installer 3.1.

This is not necessary for a system with the latest Service Packs and Updates from Microsoft. This is also not necessary if you are using the setup_vmc.exe program for your silent installation, instead of using the installer msiexec.exe.

2. Optional - Unattended installation of Microsoft’s .Net Framework 2.0.

The .Net Framework is not currently part of Windows XP, or is it part of a Service Pack. It therefore has to be installed separately on a Windows XP operating system. This is not necessary if you are using the setup.exe program for your silent installation, instead of using the installer msiexec.exe

In order to perform this installation using the setup.exe program, a parameter in the setup.ini needs to be modified. Please refer to the FAQ section entitled ’How to install the .Net Framework 2.0 silently’.

3. Unattended installation of the Vodafone Mobile Connect 9 software.

The unattended installation of the Vodafone Mobile Connect software using a Transform file is described in the chapters *Command Line Customisation* and *Using Transforms for Customisation*.

B. Vodafone Mobile Connect 9 and Limited Users

The Vodafone Mobile Connect software can be used by limited user accounts (user accounts without administrative privileges). However installation of Vodafone Mobile Connect 9 on a machine requires administrative privileges.

Embedded Customisation using a modified User Profile file

Introduction

When the Vodafone Mobile Connect software is started for the very first time after installation, a user profile XML file 'MobileConnectProfile.xml' is generated. No specific user input is required. This XML user profile can be used as a template: it can be edited and then replaced in the MSI database. To implement the Always Best Connected feature both the MobileConnect Profile and OpCo CCMNC.XML will need to be amended.

Modifications to this file are actioned using a Transform file. Please refer to the section **Using Transforms for Customisation** for more details.

Creating and Authoring a customised User Profile

1. Install Vodafone Mobile Connect 9 on a test computer.

Install the Vodafone Mobile Connect software as described in the *VMC Standard Install Guide*.

2. Perform first-time device installation.

See above for details on adding one or more devices. The device details created will be stored in the MobileConnectProfile.xml file.

Note
First-time device installation overwrites any existing user profile XML files.

3. Save file MobileConnectProfile.xml to be used as a template for further customised installations.

Save the file MobileConnectProfile.xml created by Vodafone Mobile Connect and located in the folder

Windows XP
```
<drive>:\Documents and Settings\<username>\Application Data\Vodafone\Vodafone Connection Manager\UserData
```

Or

Windows Vista
```
<drive>:\Users\<username>\AppData\Roaming\Vodafone\Vodafone Connection Manager\UserData
```

Use this file as a template for your customised installations with Transforms.

4. Edit file MobileConnectProfile.xml.

Optional: Modify certain XML elements to match your requirements.

5. Create a Transform file.

Refer to the chapter "Using Transforms for Customisation".

6. Apply your Transform file to the Vodafone Mobile Connect 9 setup procedure.

Refer to the chapter "Using Transforms for Customisation".

Embedded Customisation using a modified Dial-Up Phonebook file

Introduction

If the feature 'Dial-Up' is set to 'true' in the OpCo XML file, a default dial-up phonebook 'VodafoneMobileConnect.pbk' for managing fixed line dial-up connections is generated during the installation of the Vodafone Mobile Connect software. If there is a OpCo specific phonebook (eg. 20810.pbk in case of France), all entries in this phonebook are transferred to the default dial-up phonebook.The default dial-up phonebook can be edited and then replaced in the MSI database.

Modifications to this file are actioned using a Transform file. Please refer to the section **Using Transforms for Customisation** for more details.

Restriction

Dial-up connections can only be used if the maximum number of enabled modules (see element 'Modules' in the OpCo XML file) is less or equal to five.

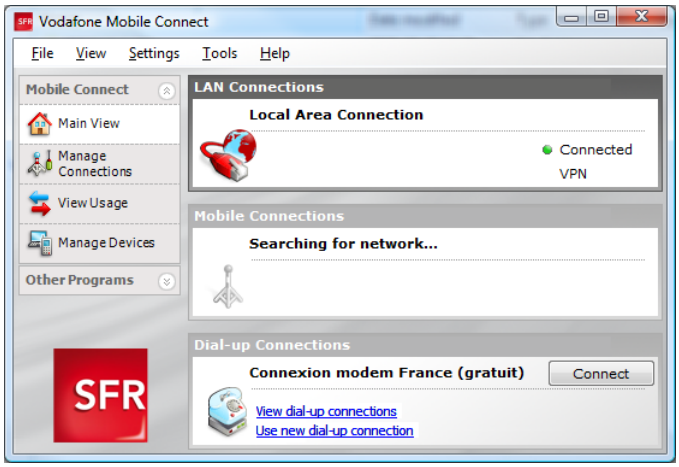
Creating and authoring a customised dial-up phonebook

1. Install Vodafone Mobile Connect 9 on a test computer.

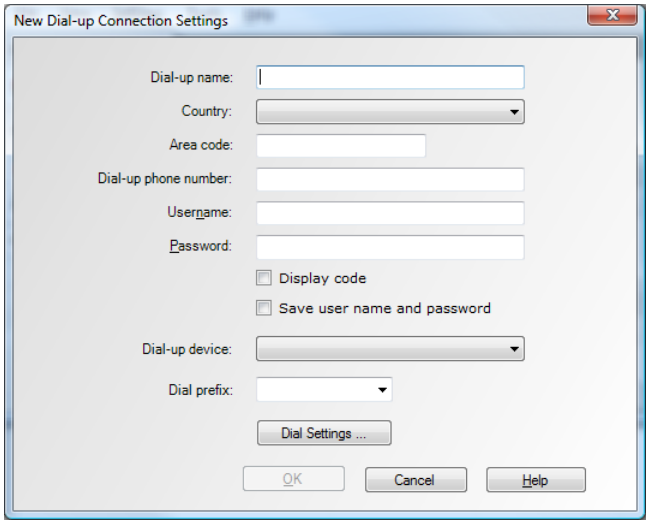
Install the Vodafone Mobile Connect software as described in the *Standard Install Guide*.

2. Create new entries in the phonebook 'VodafoneMobileConnect.pbk'

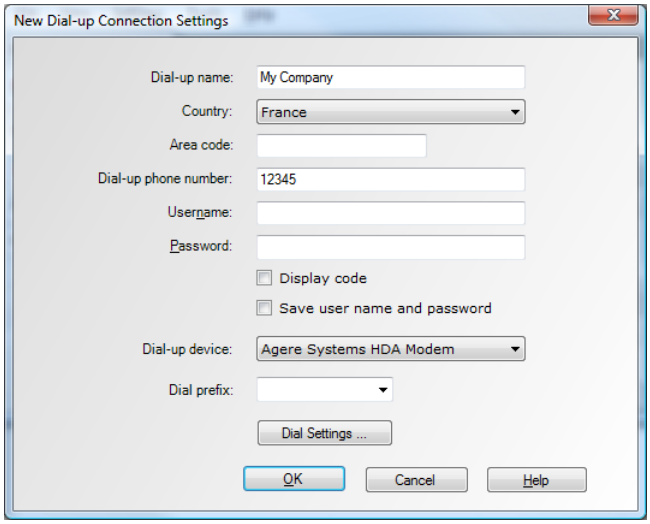
Start the Vodafone Mobile Connect software



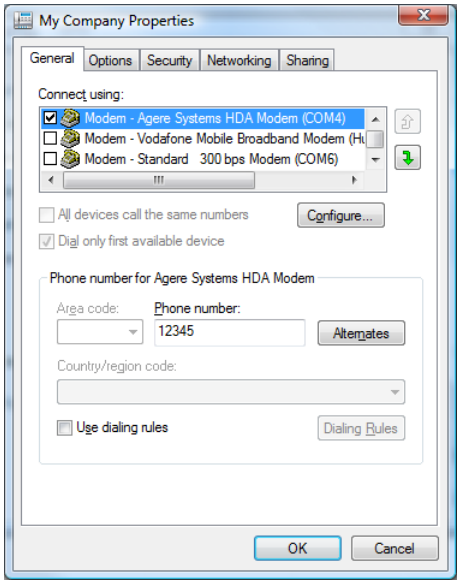
Select "use new dial-up connection" to create a new phonebook entry



Select “OK” to save the new phonebook entry.



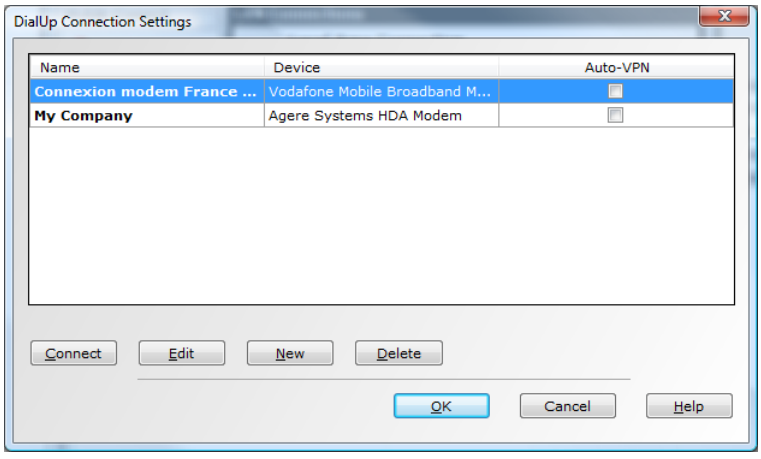
The button “Dial Settings” can be used to enter the system properties of the dial-up connection for additional settings.



Use ”View dial-up connections” in the Vodafone Mobile Connect main view to see an overview of available connections.

The following tasks can be performed here:

- Delete existing phonebook entries
- Modify existing phonebook entries
- Set Auto-VPN for an existing phonebook entry (If Auto-VPN is set, the default VPN client is started automatically after connecting successfully).



3. Protect phonebook entries from modification by the user

The file VodafoneMobileConnect.pbk is located in the folder

Windows XP

```
<drive>:\Documents and Settings\<username>\Application Data\Vodafone\Vodafone Connection Manager\UserData
```

Or

Windows Vista

```
<drive>:\Users\<username>\AppData\Roaming\Vodafone\Vodafone Connection Manager\UserData
```

The Vodafone Mobile Connect software uses some entry attributes which are not supported by the the operation system. Therefore these attributes are saved in the comment value of a phonebook entry:

- OPCO=1 or OPCO=0: If 1, this entry was transferred from the OpCo specific phonebook.
- Auto-Vpn =1 or AutoVpn=0: If 1, the default VPN client is started automatically after connecting successfully.
- Default=1 or Default=0: If 1, this is the default dial-up entry.
- Locked=1 or Locked=0: If 1, only the dial prefix can be modified by the user.

If an attribute is missing its value is set to ‘0’. Atrributes are separated by ‘|’.

To set the attribute ‘Locked’ open file VodafoneMobileConnect.pbk in a text editor and mofify the comment of the entry to locked. The first line of an entry is ‘[entry name]’

Examples:

[My Company1]
...
...

...
UseDialingRules=0
Comment=Default=1|Locked=1
LastSelectedPhone=0
...
...

[My Company2]
...
...

...
UseDialingRules=0
Comment=Locked=1
LastSelectedPhone=0
...
...

4. Create a Transform file.

Refer to the chapter “Using Transforms for Customisation”.

5. Apply your Transform file to the Vodafone Mobile Connect 9 setup procedure.

Refer to the chapter “Using Transforms for Customisation”.

Using Transforms for Customisation

Introduction

A Windows Installer Transform is a database that contains the differences between two MSI databases. A Transform can only be applied to an MSI database which will be installed, not to a product that is already installed on a target machine. Transforms are useful for system administrators to provide variations of a single product without having to modify the original database. Multi-language installations are also performed by a default language contained in the MSI database and several transform files for the localized strings used by each language.

Creating Transforms

The following instructions are describing base steps to perform tasks with Microsoft's 'Orca' software to create Transforms. All tasks can actually be put into one single Transform.

Task: Replace a File - the file 23415.xml should be replaced by a modified file.

Original file	<working folder>\program files\Vodafone\Vodafone Mobile Connect\Opco\23415 United Kingdom\23415.xml
Modified file	23415.xml

For the modified file size, open Windows Explorer, navigate to the modified file, right-click it to display its properties, and then note the file size, e.g. "Size: 4.64 KB (4.756 bytes)". Keep this number in mind, when later creating the Transform.

1. Start Orca.
2. From the File Menu, select Open.
3. Browse to the folder that contains your working copy of the Vodafone Mobile Connect software.
4. Select 'Vodafone Mobile Connect.msi'.
5. Click Open.
6. From the Transform menu, select 'New Transform'.
7. In the left pane, select the 'File' table.
8. In the right pane, select the row which displays the filename '23415.xml' in the third column.
9. Select the column 'FileSize' and enter the file size of your modified file '23415.xml'
10. From the Transform menu, select 'Generate Transform'.
11. Enter a Transform filename and save the Transform.
12. From the Transform menu, select 'Close Transform'.
13. Exit Orca.

These are the basic steps to replace a file using a Transform. For all Opco files, including 23415.xml, an additional step is necessary to replace this file correctly.

9.1. In the left pane, select the 'ISSetupFile' table.
9.2. In the right pane, select the row which displays the filename '23415.xml' in the second column.
9.3. Read the binary stream for file 23415.xml by clicking on to the 'Stream' column
9.4. Select the modified file 23415.xml with the browse button

After generating the Transform, the Transform must be applied to the installation setup package.

1. Open the file setup.ini in an editor, e.g. notepad.exe.
2. Find the [Startup] section and complete the 'CmdLine=' key with the name of your Transform file, e.g. CmdLine=TRANSFORMS=MyTransform.mst
3. Copy the modified file 23415.xml to the location of the uncompressed setup where the original file was stored.
4. Copy the Transform file to the root directory of the uncompressed setup where the files 'Vodafone Mobile Connect.msi' and 'setup.ini' are located.
5. Start the setup, e.g. by double-clicking 'setup_vmc.exe'.

Task: Change a property - a specific property should be modified.

1. Start Orca.
2. From the File Menu, select Open.
3. Browse to the folder that contains your working copy of the Vodafone Mobile Connect software.
4. Select 'Vodafone Mobile Connect.msi'.
5. Click Open.
6. From the Transform menu, select 'New Transform'.
7. In the left pane, select the 'Property' table.
8. In the right pane, select the row which displays the file you want to modify.
9. In the right pane, select the column 'Value' and enter a new value for the property.
10. From the Transform menu, select 'Generate Transform'.
11. Enter a Transform filename and save the Transform.
12. From the Transform menu, select 'Close Transform'.
13. Exit Orca.

Task: Modify a registry key - a specific registry key should be modified.

1. Start Orca.
2. From the File Menu, select Open.
3. Browse to the folder that contains your working copy of the Vodafone Mobile Connect software.
4. Select 'Vodafone Mobile Connect.msi'.
5. Click Open.
6. From the Transform menu, select 'New Transform'.
7. In the left pane, select the 'Registry' table.
8. In the right pane, select the row which displays in the column 'Name' the name of the registry key to be modified.
9. In the right pane, select the column 'Value' and enter a new value for the registry key.
10. From the Transform menu, select 'Generate Transform'.
11. Enter a Transform filename and save the Transform.
12. From the Transform menu, select 'Close Transform'.
13. Exit Orca.

Authoring Transform files

The following example shows how to create a Transform file with the Microsoft 'Orca' tool, in order to replace the sample file MobileConnectProfile.xml and the Opco file 23415.xml from the MSI database. If a user Profile file MobileConnectProfile.xml needs to be modified, the start mode of the Vodafone Mobile Connect software must also be changed. This is achieved by changing the MSI property VMCSTARTMODE for the user account that was used to install Vodafone Mobile Connect.

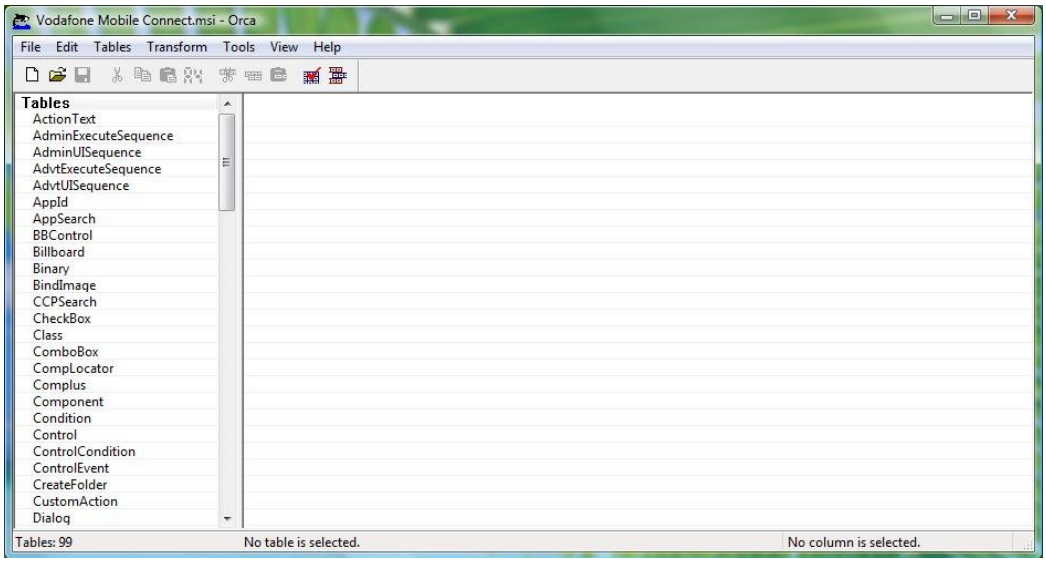
1. Install Microsoft's tool Orca.

Microsoft's tool Orca can be downloaded from the following Web page:
http://support.microsoft.com/kb/255905/EN-US

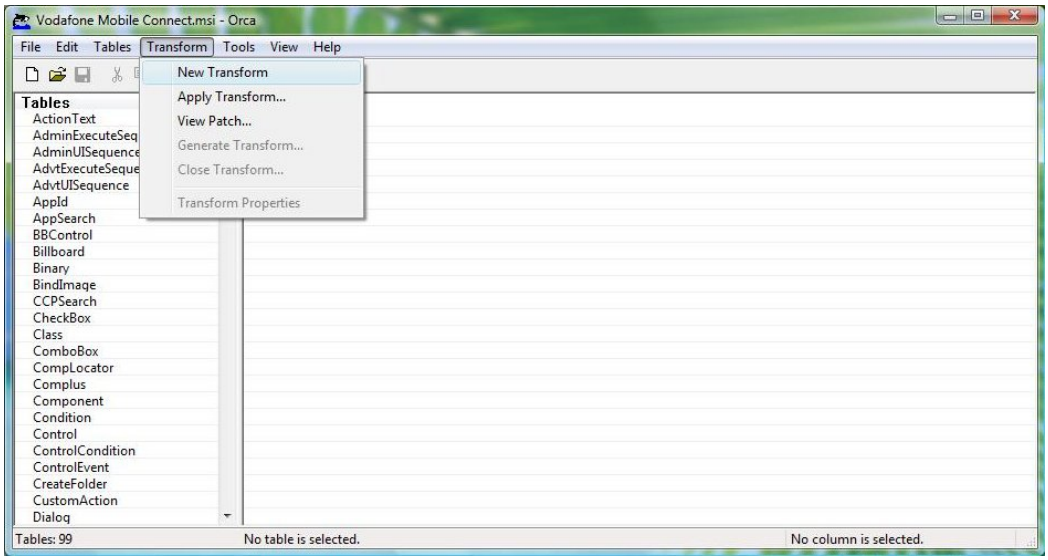
2. Make a copy of the file "Vodafone Mobile Connect.msi" for backup.

3. Open Orca.exe.

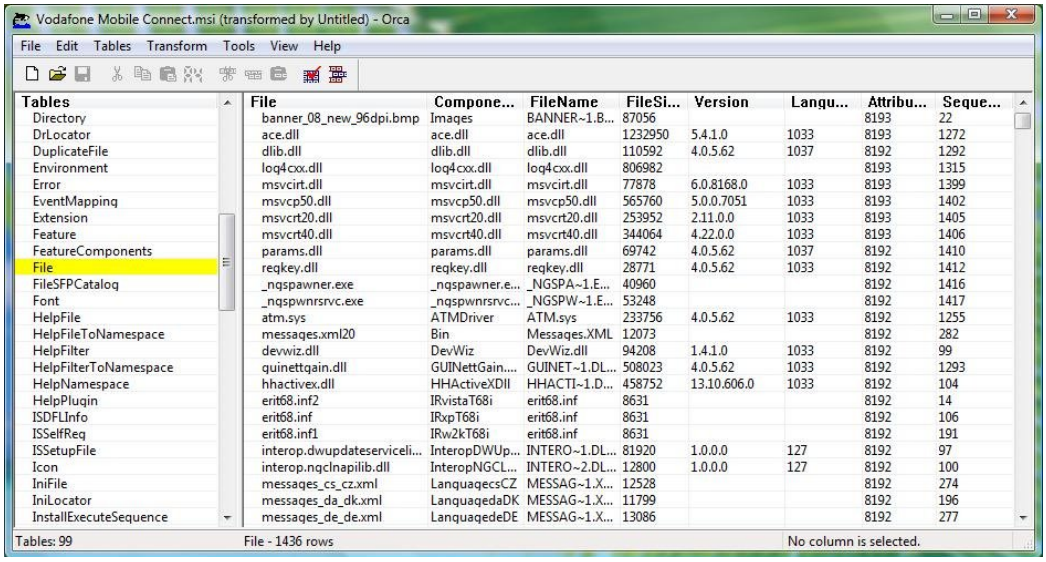
4. From the File menu, select Open and browse to the file "Vodafone Mobile Connect.msi".



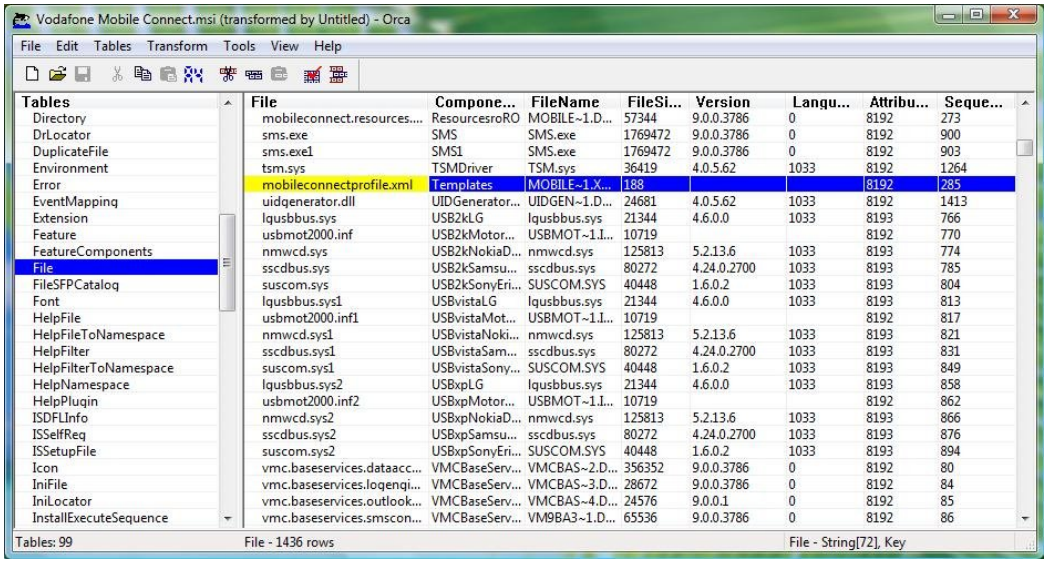
5. From the Transform menu, select New Transform.



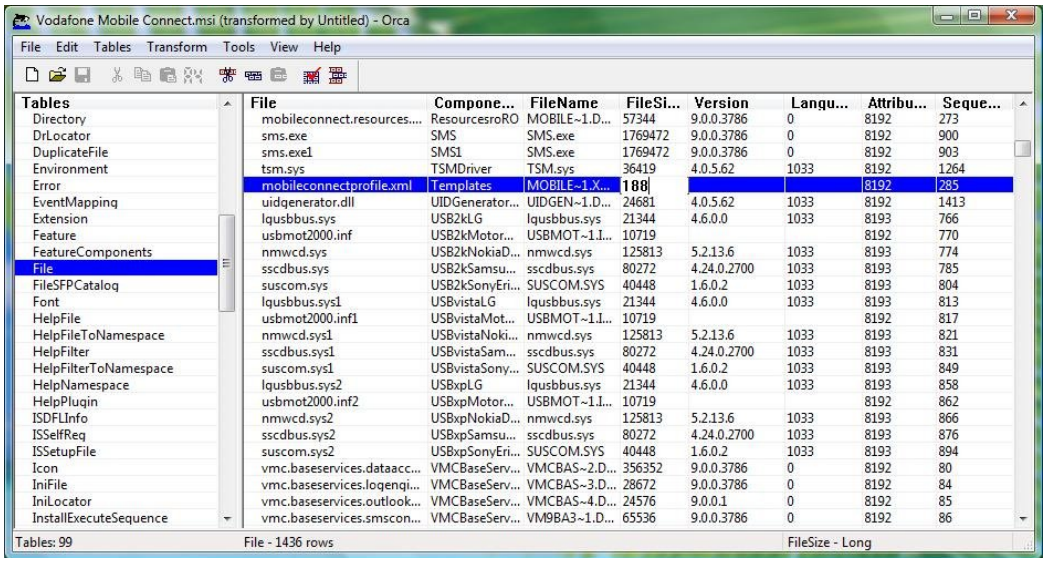
6. In the left pane, select the “File” table.



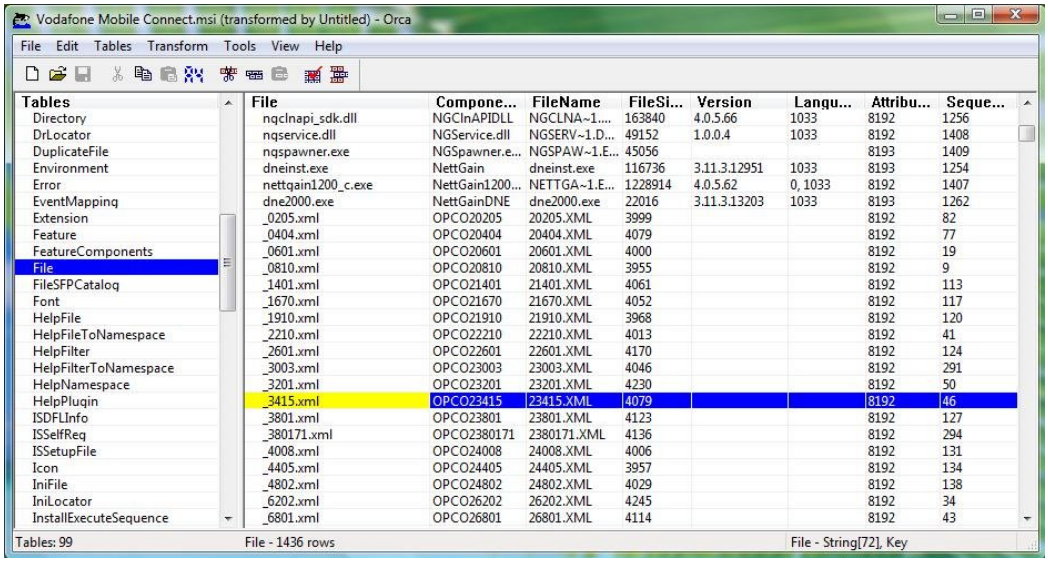
7. In the right pane, select the “MobileConnectProfile.xml” row.



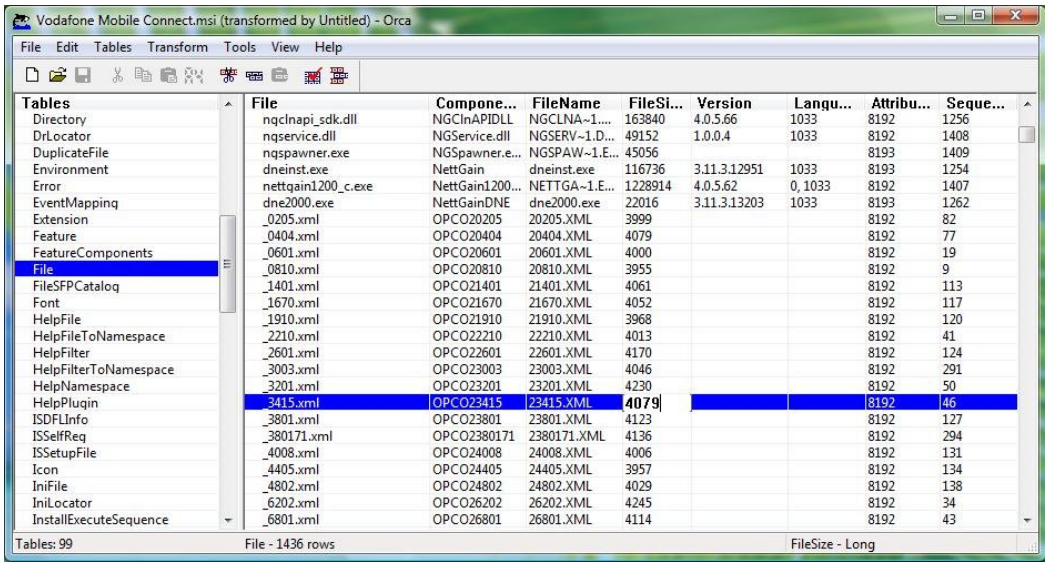
8. Select the column “FileSize” and enter the file size of the new “MobileConnectProfile.xml” file.



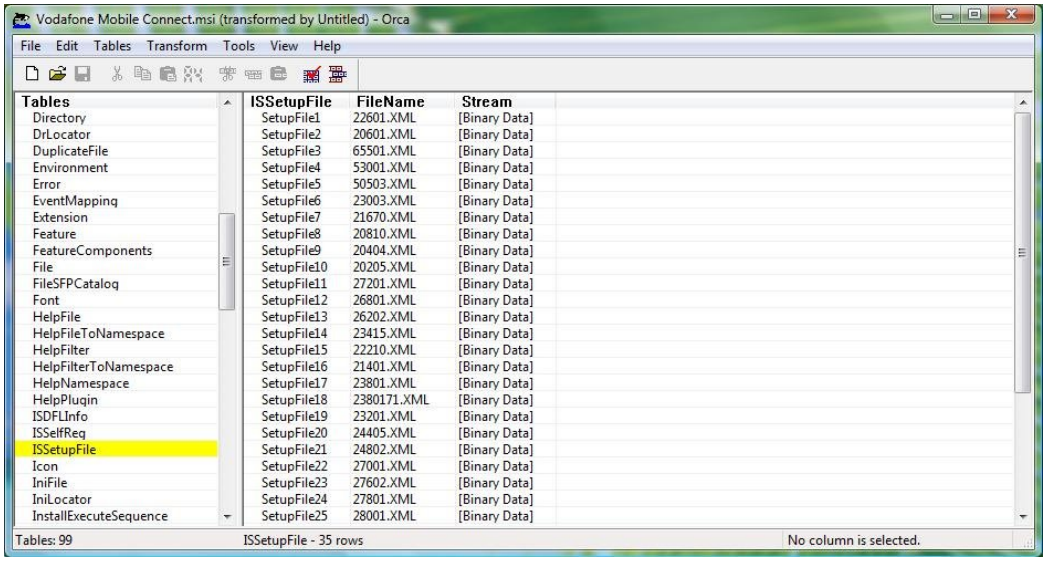
9. In the right pane, select the row which displays filename “23415.xml” in the third column.



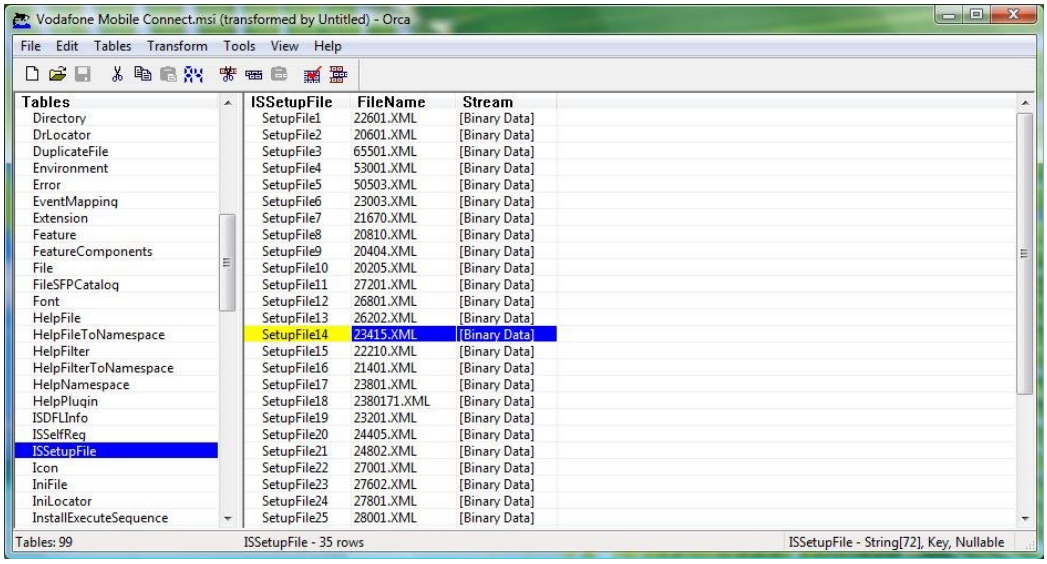
10. Select the column “FileSize” and enter the file size of the new “23415.xml” file.



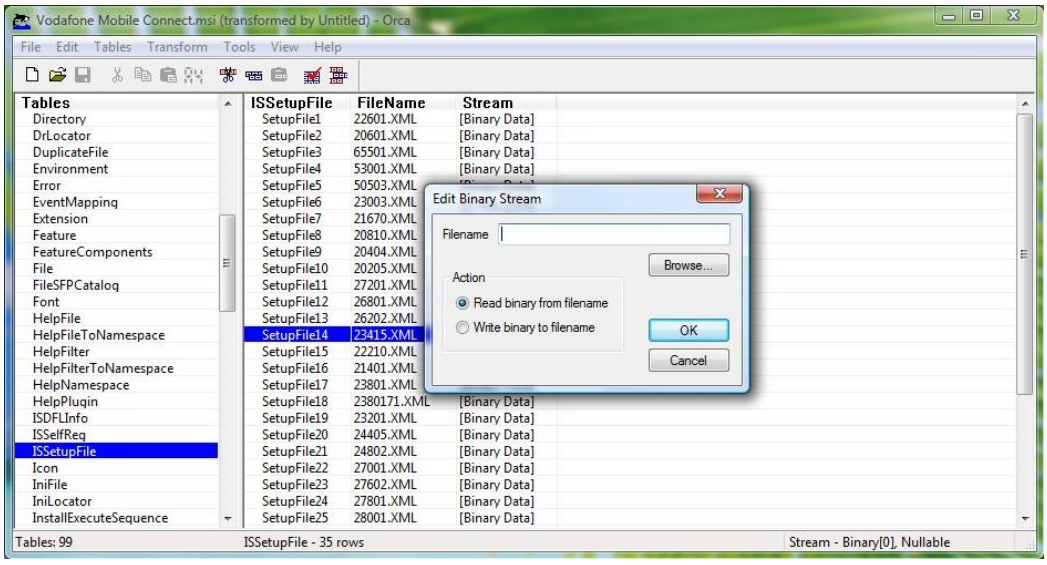
11. In the left pane, select the “ISSetupFile” table.



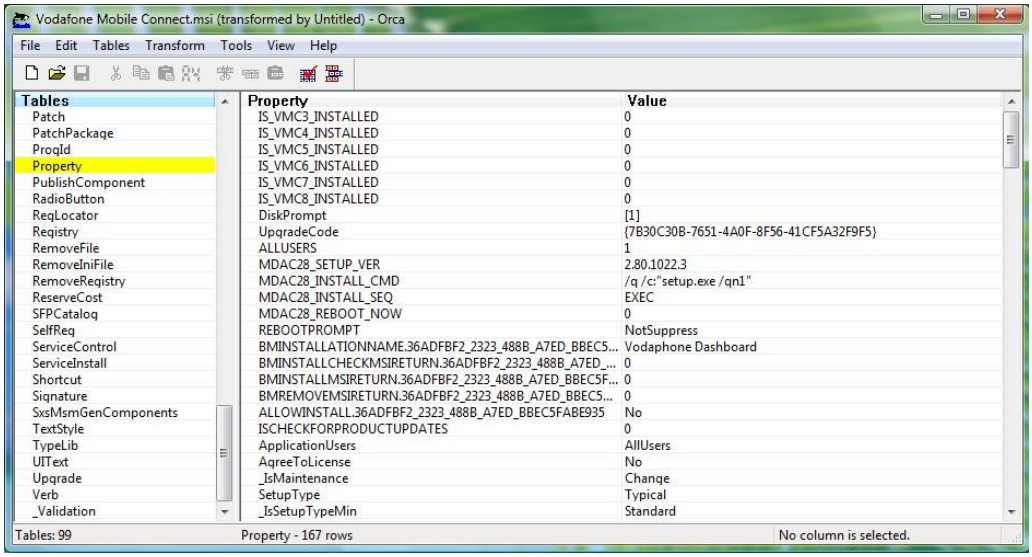
12. In the right pane, select the row which displays the filename “23415.xml” in the second column.



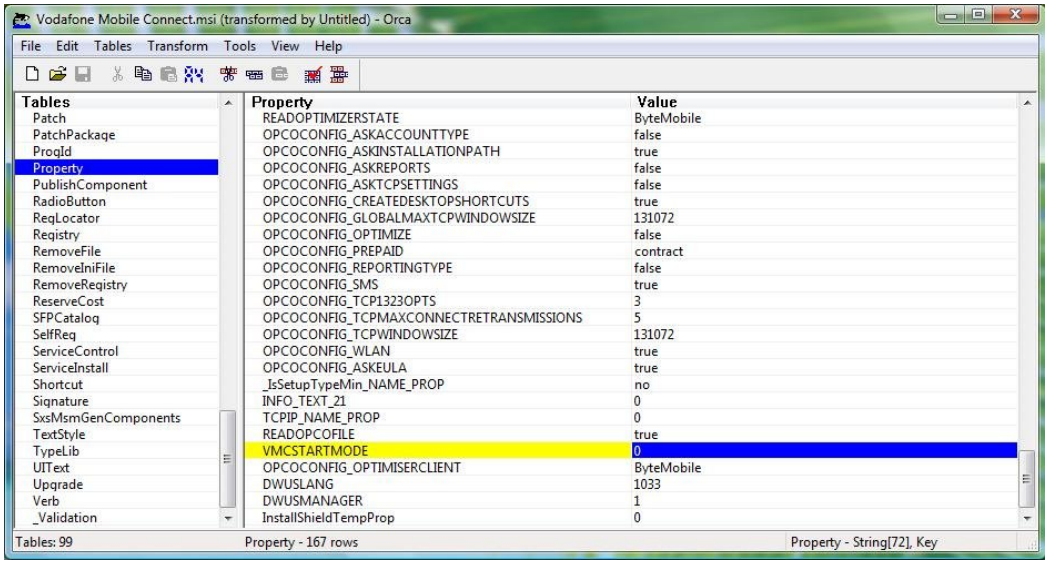
13. Read the binary stream for file 23415.xml by clicking on to the ‘Stream’ column. Select the modified file with the Browse button.



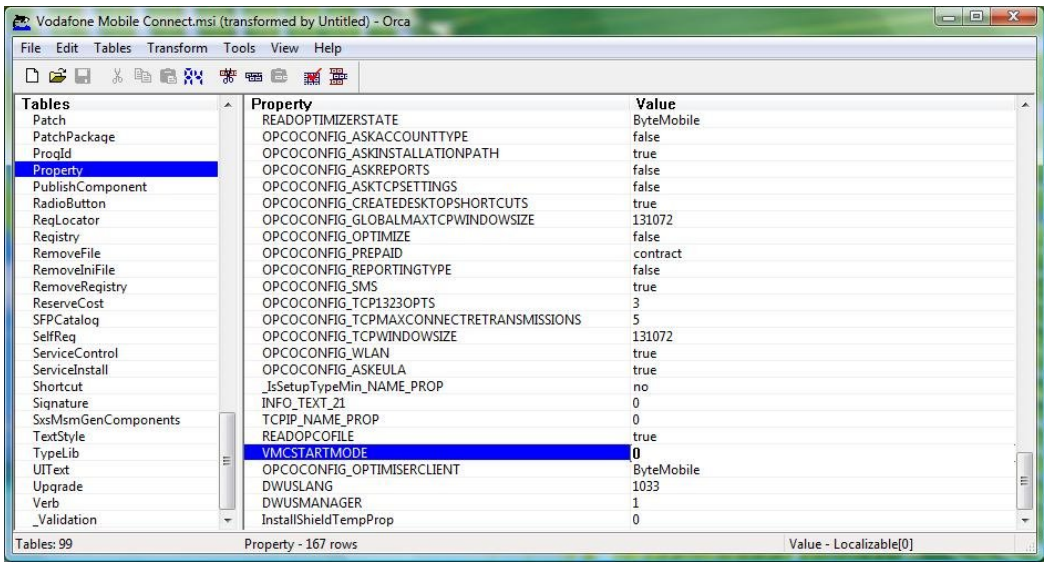
14. In the left pane, select the “Property” table.



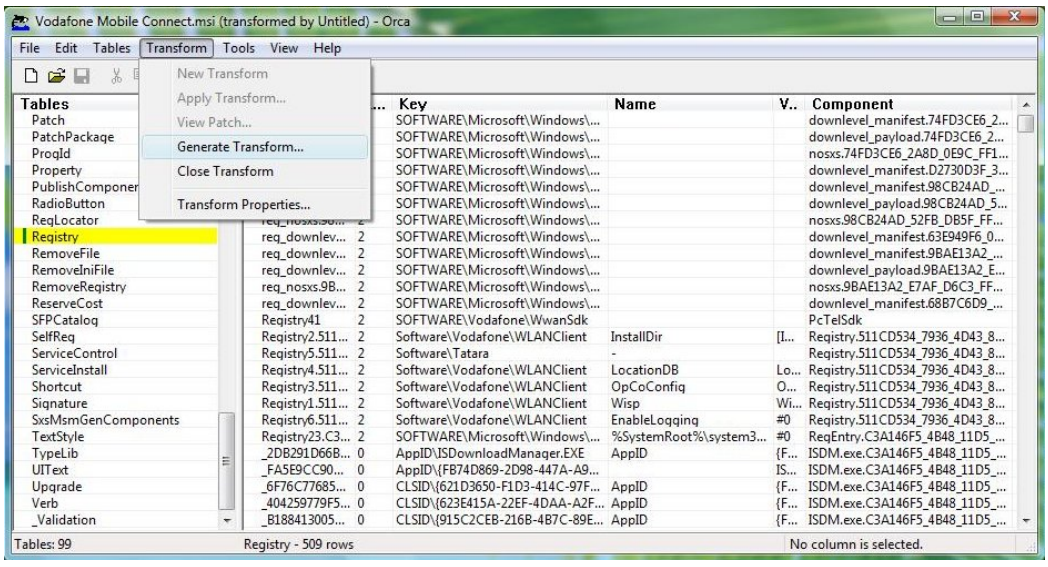
15. In the right pane, select the row which displays the property name "VMCSTARTMODE" in the first column.



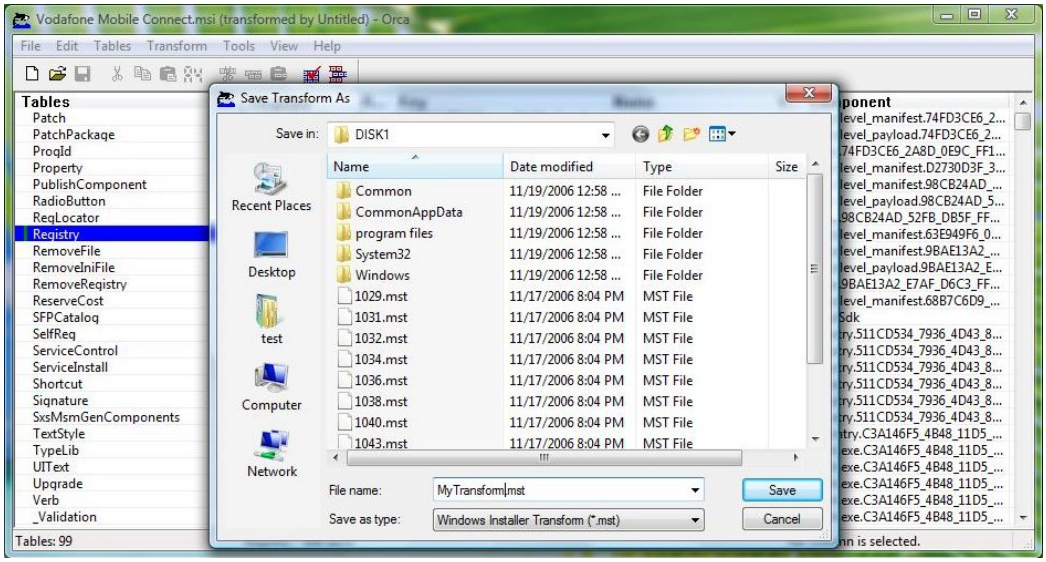
16. Enter the value 2 (Mini-Window) in the column "Value", or 1 (Main window), or 3 (minimized in Windows Notification Area), but <u>not</u> 0 (first-time device installation).



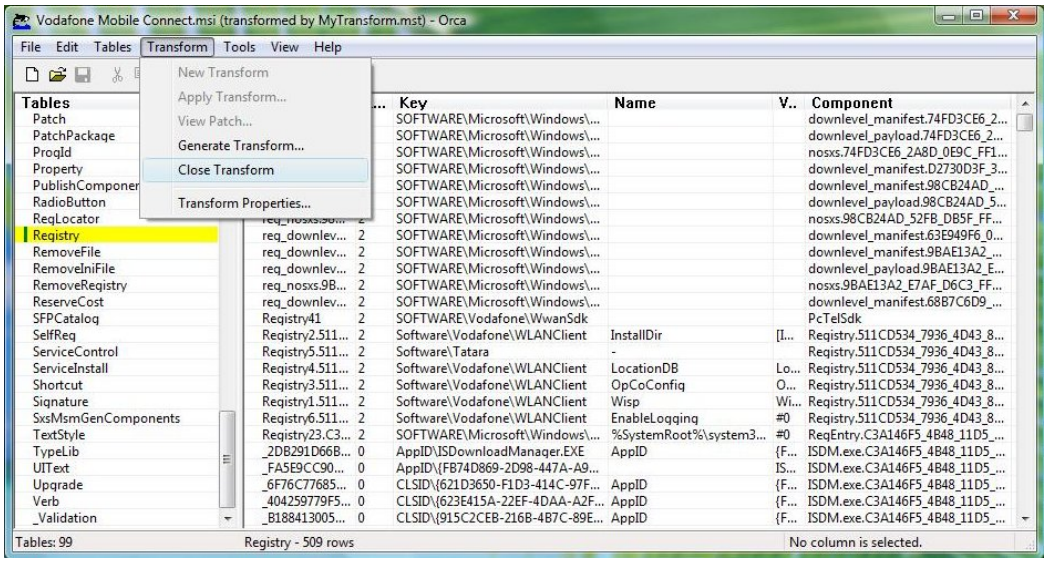
17. Generate a Transform file by selecting "Generate Transform…" from the Transform menu.



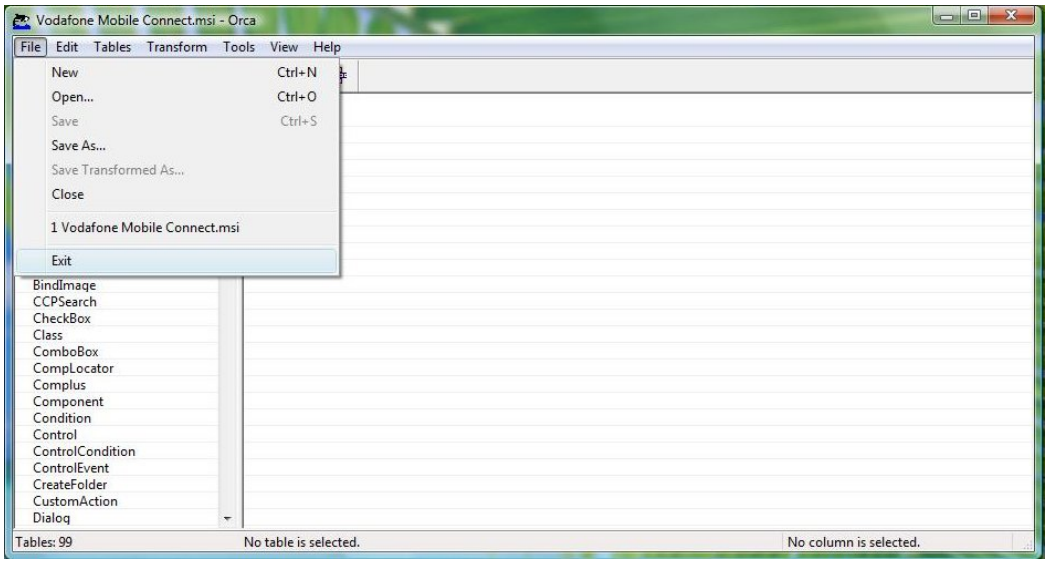
18. Save your modifications.



19. Close the Transform file “MyTransform.mst”.



20. Exit Orca.exe.

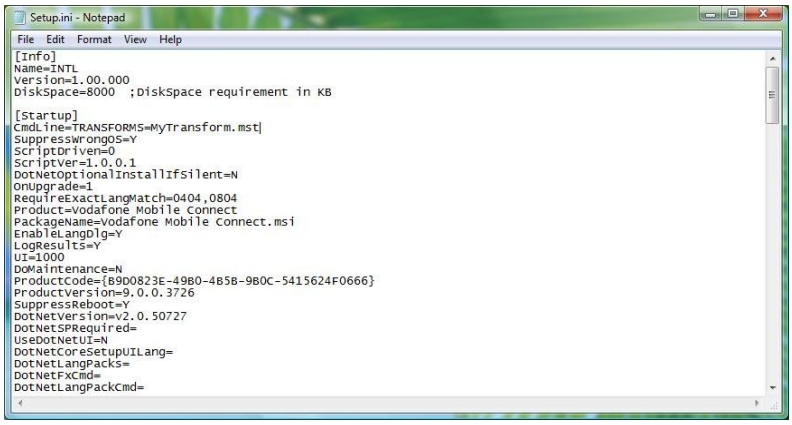


Applying Transform files with setup_vmc.exe

The following steps explain how to apply a Transform file along with an installer database package.

1. Apply the Transform file.

Apply the Transform file by editing the 'setup.ini' file. Open the setup.ini file in an editor - e.g. notepad.exe. Find the [Startup] section and complete the CmdLine key with the name of your Transform file, e.g. MyTransform.mst as in the following example.

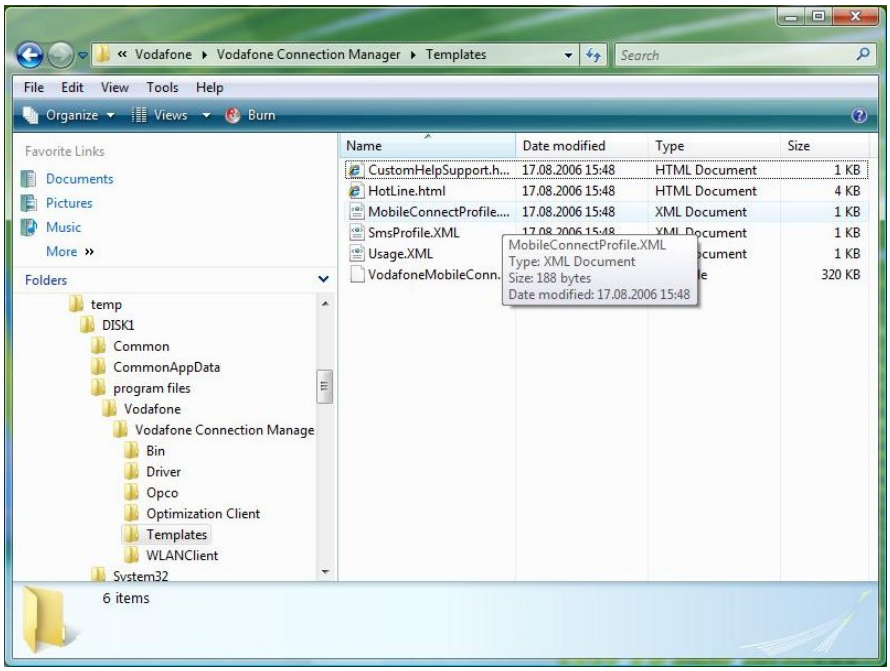


Note

Any Transform file can also be applied by setting the command line parameter TRANSFORMS, either with setup_vmc.exe or with the installer msiexec.exe.

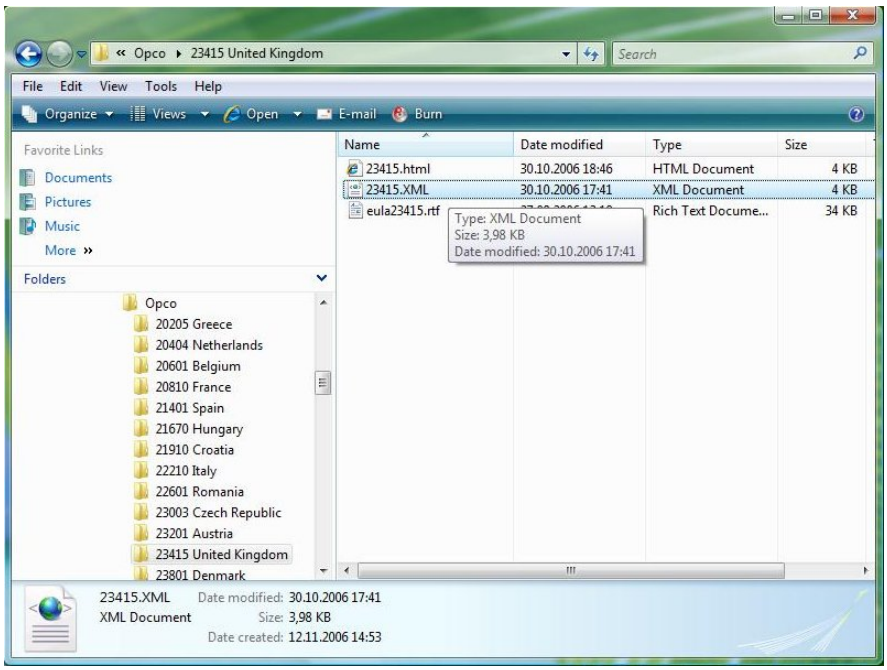
2. Provide the modified file MobileConnectProfile.xml for setup_vmc.exe launcher.

Copy the new file MobileConnectProfile.xml, which should replace the existing one, to the related folder of the source media. For example, navigate to the folder **"DISK1\program files\Vodafone\Vodafone Connection Manager\Templates"**, and replace the existing file **MobileConnectProfile.xml**.



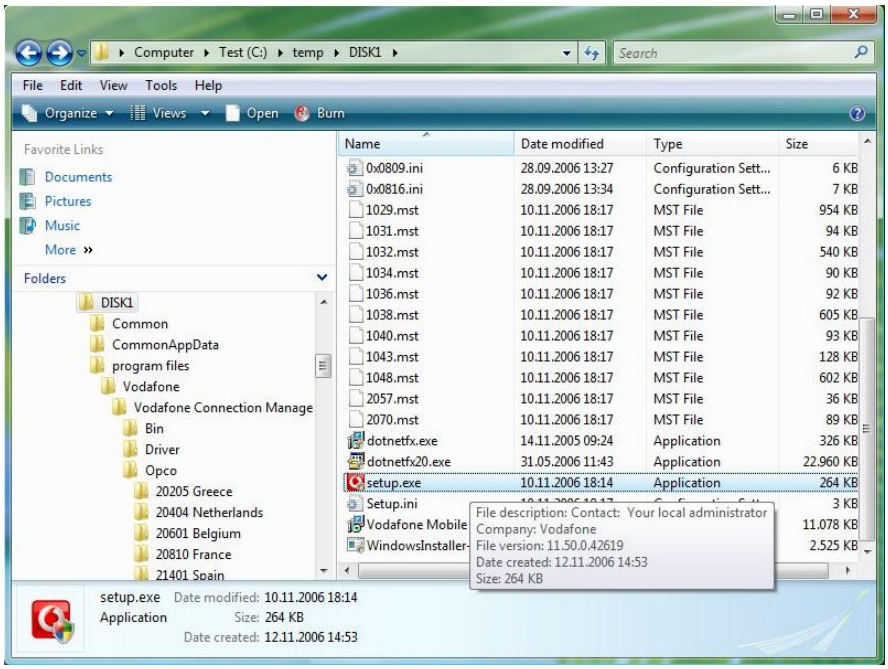
3. Provide the modified file 23415.xml for setup_vmc.exe launcher.

Copy the modified 23415.xml file, which should replace the existing one, to the related folder of the source media. For example, navigate to the folder **"DISK1\program files\Vodafone\Vodafone Connection Manager\Opco\23415 United Kingdom"**, and replace the existing file **23415.xml**.



4. Run Setup_vmc.exe.

Execute setup_vmc.exe, e.g. by double-clicking it in Windows Explorer.



5. Conclusion

The installation process should now use both modified files, MobileConnectProfile.xml and 23415.xml. Also the property VMCSTARTMODE was changed to the value 2.

Using Transform files with Vodafone Mobile Connect Lite

The following steps explain how to apply a transform file along with a compressed installer database package, for instance any Vodafone Mobile Connect Lite variant, because Vodafone Mobile Connect Lite variants are being delivered in a compressed format.
This chapter is limited to those Vodafone Mobile Connect Lite variants which are being launched directly from the device.

1. Create an administrative installation

Please have a look at the example in chapter “Command Line Parameter for Setup_vmc.exe”, however the easiest way to perform an administrative installation is entering the following string into a command window:

```
helper.exe /a
```

After this installation you will have access to the MSI database “Vodafone Mobile Connect.msi”, which is needed for creating transforms.

2. Create a Transform file

In chapter “Authoring Transform files”, there is a detailed example of how to create a transform file. For example just change the property OPCO_PROP in the property table from value “0” to e.g. “26202”, which performs an installation for Vodafone Germany and name this Transform file e.g. “MyTransform.mst”.

3. Apply the Transform file

The file autorun.inf is used to apply the transform. The standard content of this file looks like the following:

```
[autorun]
open=setup_vmc_lite.exe /checkApplicationPresence
icon=setup_vmc_lite.exe
label=VMC Lite 9.4.0.12740
```

To apply the transform file change the content of this file to:

```
[autorun]
open=setup_vmc_lite.exe exe /v “TRANSFORMS=MyTransform.mst” /checkApplicationPresence
icon=setup_vmc_lite.exe
label=VMC Lite 9.4.0.12740
```

Note:
Changing just the property OPCO_PROP can also be done more easily without using a transform file, by specifying the installer property directly in the command line:

```
[autorun]
setup_vmc_lite.exe /v “OPCO_PROP=26202” /checkApplicationPresence
icon=setup_vmc_lite.exe
label=VMC Lite 9.4.0.12740
```

4. Create the ISO image

Place the Transform file “MyTransform.mst” in the same folder along with the modified file “autorun.inf”, the MSI database “helper.exe”, and the setup lite launcher “setup_vmc_lite.exe”.

```
autorun.inf
setup_vmc_lite.exe
helper.exe
MyTransform.mst
```

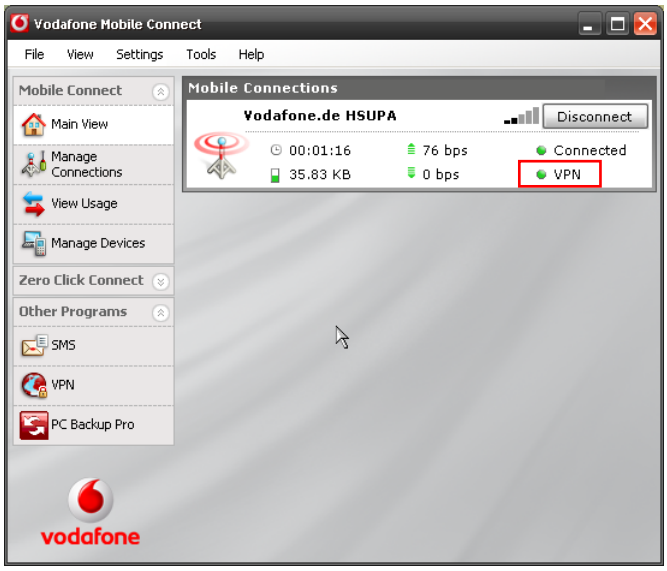
Then use an ISO image creation tool for creating an ISO image, containing these four files.

5. Flash the device

Use the device vendor specific toolset to get the ISO image to the device.

Supported VPN Clients

In Vodafone Mobile Connect 9.4.6, the supported VPN clients are Cisco, Checkpoint and Microsoft VPN. Supported means that if one of them is configured in the software, the VPN will be detected when the configured client is connected and its status will be shown in Vodafone Mobile Connect with VPN indicator. Also, for 'supported' VPN clients, the 'clean disconnect' feature will properly disconnect an existing VPN connection first when disconnecting the physical connection within Vodafone Mobile Connect.



For all other VPN clients, a basic support is implemented in Vodafone Mobile Connect. This means that the path to the VPN client can be chosen in the options and that the VPN client can be started from the Vodafone Mobile Connect main view. However, in such cases the VPN connection will not be detected by Vodafone Mobile Connect, and the software will not show any status for the VPN connection.

VPN configuration

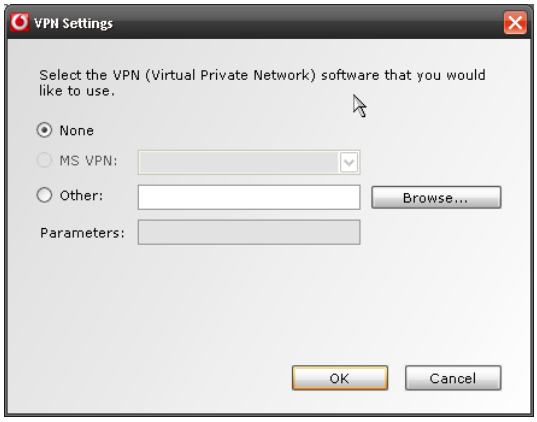
If a VPN client is configured, it is possible to enable this client for use with Vodafone Mobile Connect.
There are two possibilities:

- Using the Vodafone Mobile Connect settings/VPN menu
- Manual configuration by editing the Vodafone Mobile Connect user profile.

In both cases it is required that a working VPN connection exists in Windows.

Configuration

The VPN configuration in Vodafone Mobile Connect can be accessed by going into "Settings/VPN" or, if no VPN is configured yet, by selecting the VPN entry in the Vodafone Mobile Connect main view.



If a Microsoft VPN connection is available in Windows, you will be able to select this connection.
Confirm with "OK", and this configuration will be saved in the Vodafone Mobile Connect user profile.

The following entries can be seen afterwards in the "MobileConnectProfile.XML":

```
<UseMsVPN>true</UseMsVPN>
```

And

```
<MsVpnName>MS VPN</MsVpnName>
```

Where "MS VPN" is the name of the Microsoft VPN connection which has been configured in Windows.

By selecting "Other" Cisco and Checkpoint VPN can be configured.

There are two possibilities:

1) select “Browse…” and navigate to the client applications from Cisco (vpngui.exe) or Checkpoint. After confirming with “OK”, the configuration will be saved in the user profile. In this case Vodafone Mobile Connect can only start the VPN client, detect the VPN connection and show the status. Connect/disconnect of the VPN has to be done via the VPN client.

The necessary entries in “MobileConnectProfile.XML” are:

```
<UseOtherVPN>true</UseOtherVPN>
<Location>C:\Program Files\Cisco Systems\VPN Client\\vpngui.exe</Location>
```

2) The second possibility is to add command line parameters for the VPN clients from Cisco (vpnclient.exe) or Checkpoint (scc.exe). The parameters (for example “-c -sd <Profile Name>”) have to be added in the “Parameters” field of the “VPN Settings” window shown above. <Profile Name> should be replaced with an existing connection name for this client.
The parameters -c -sd are necessary for the ‘clean disconnect’ feature in Vodafone Mobile Connect.

The necessary entries in “MobileConnectProfile.XML” are:

```
<UseOtherVPN>true</UseOtherVPN>
<Location>C:\Program Files\Cisco Systems\VPN Client\\vpngui.exe</Location>
<VpnParam>-c -sd test_connection</VpnParam>
```

Where “test_connection” is an existing connection for this VPN client.

ABC (Always Best Connected)

Always Best Connected enhances the Vodafone Mobile Connect Software. Instead of handling only the mobile network, it can handle all available bearers:

- LAN (Ethernet)
- Mobile Networks (like GPRS, 3G, HSPA)
- WLAN (either public hotspots, WLAN routers or corporate hotspots).

The Always Best Connected features have been built to utilise the core Windows services such as .NET Framework and the Windows WLAN API.

To ensure that the service can be used properly there are some pre-requisites that we advise:

- Windows XP Service Pack 3 or higher (Vista/Windows 7)
- If you are using Windows XP Service Pack 2 then you will need to ensure that the following patches are installed:
  - .NET Framework 2.0 (this is part of the VMC software package)
  - WLAN API Hotfix (KB918997) – language dependant (EN, FR and DE are included)
  - MSXML 6.0 (KB933579) – language dependant (EN, FR and DE are included)
- ABC will not work on Windows 2000, as the mentioned core Windows services are not available on this platform.

In addition, the default Windows WLAN mananger has to be used and it is suggested that you pre-load any WLAN profiles for your corporate WLAN services. Always Best Connected will pick up and use any existing Windows WLAN profiles.

The changes described in the following chapters have to be done in the OpCo.XML file, which can be found at the following location to define the service settings:.
%ProgramFiles%\Vodafone\Vodafone Mobile Connect\Opco\

Example for Vodafone UK:
%ProgramFiles%\Vodafone\Vodafone Mobile Connect\Opco\23415 United Kingdom\23415.XML

To localise the installation to your environment, additional changes are required to the MobileConnectProfile.XML in the templates section:
%ProgramFiles%\Vodafone\Vodafone Mobile Connect\Templates\MobileConnectProfile.XML

Enable/Disable ABC

Certain features offered by the network operator (OpCo), but not wanted by the user, can be de-selected by the user (note: WLAN is not de-selectable). Features in the sense of the installer are Optimisation Software, and SMS.
In this element additional "features" can be configured by the OPCO, e.g. VPN, SavePIN, PowerOn, and so on.

Xml element	value	Comment
ABC	boolean	Feature can be disabled by the user.
DisplayName	string	DisplayName, e.g. 'Always best connected'.
DisableSetting	boolean	Feature can be disabled by the user.

```
<Features>
    <ABC>true</ABC>
    <LAN>true</LAN>
    <WLAN>true</WLAN>
    <SMS>true</SMS>
    <VPN>true</VPN>
    <SavePIN>true</SavePIN>
    <PowerOn>true</PowerOn>
    <DisableSIMdetection>false</DisableSIMdetection>
    <NetworkSearchTimeout>360</NetworkSearchTimeout>
    <DisableCA>false</DisableCA>
    <VoiceClient>false</VoiceClient>
    <UltraCard>true</UltraCard>
</Features>

<AlwaysBestConnected DisplayName="ABCd">
    <DisableSetting>true</DisableSetting>
```

Switching Behaviour

The SwitchingBehaviour tag specifies how Vodafone Mobile Connect should react on changes in connections or availability of bearer types. This section applies to three situations:

- a connect
- a disconnect
- a switch situation (disconnect followed by connect).

The tags PreventWhenVpn, PreventWhenBusy, and PreventWhenNew apply only to the disconnect and switch situations. They allow the OpCo to configure that an automatic switch to a higher prioritised connection will be prevented if there is an established connection, which

- has a VPN connection established through it
- is busy transferring data
- or has just been established for a short time.

The default is 0 minutes.
The PreventWhenVpn and PreventWhenBusy tags are boolean, and the PreventWhenNew tag is numerical and defines the time in minutes how long a connection is considered new.

Xml element	value	Comment
PreventWhenVpn	boolean	Prevent when VPN.
PreventWhenNew	number	Prevent when new.
SwitchingMode	Auto Prompt Manual	This tag allows the OpCo to configure whether a switch to the highest prioritised connection should be made automatically, or whether the user will be prompted or has to do all connect and disconnect operations manually. The possible values for these tags are Auto, Prompt, and Manual.
HasSpecialModeChange	boolean	When changing SwitchingMode from Off to Auto or Prompt, enable LAN and WLAN bearer types. When changing SwitchingMode from Auto or Prompt to Manual, disable LAN and WLAN bearer types..
PromptWhenRoaming	boolean	Prompt when roaming.
PromptWhenVpn	boolean	Prompt when VPN.
ShowNotifications	boolean	This tag specifies whether the user will be notified about a better connection by a balloon tip at the Vodafone Mobile Connect tray icon in case the switching mode is Auto or Manual. For Manual mode, the balloon tip can be clicked in order to perform the switch. A balloon tip is not shown when the switching mode is Prompt. When the global switching mode is Auto, a prompt might still be desirable in certain situations: - in a roaming scenario (for all three situations: connect, disconnect, and switch), - when there is an established connection that has a VPN connection established through it, and this connection needs to be disconnected for a switch to a higher prioritised connection,

```
<SwitchingBehaviour>
    <PreventWhenVpn>false</PreventWhenVpn>
    <PreventWhenNew>0</PreventWhenNew>
    <SwitchingMode>Manual</SwitchingMode>
    <HasSpecialModeChange>true</HasSpecialModeChange>
    <PromptWhenRoaming>true</PromptWhenRoaming>
    <PromptWhenVpn>true</PromptWhenVpn>
    <ShowNotifications>true</ShowNotifications>
</SwitchingBehaviour>
```

Auto VPN

The section AutoVpn allows to configure the default VPN settings for connection profiles. These settings only apply when a corporate anchor point has not been configured. VpnGlobal is the default value for the global setting, where the user tells the software whether he is in a corporate or private scenario. This is only used when a corporate anchor point has been configured. The other subtags of this element define the default value for starting of VPN per connection profile (for the respective bearer types). These values are only used when a corporate anchor point is not configured. Possible values are *True* and *False*, the default is *False*. The setting is independent of the specific VPN client and applies to all VPN clients.

Xml element	Value	comment
VpnGlobal	Boolean	Global VPN Flag
LAN	Boolean	LAN
WWAN	Boolean	WWAN
WebSessions	Boolean	WebSessions
PreferredWlan	Boolean	Preferred WLAN
OtherWlan	Boolean	Other WLAN

```
<AutoVpn>
    <VpnGlobal>false</VpnGlobal>
    <LAN>false</LAN>
    <WWAN>false</WWAN>
    <WebSessions>false</WebSessions>
```

```
    <PreferredWlan>false</PreferredWlan>
    <OtherWlan>false</OtherWlan>
</AutoVpn>
```

Subscription/Licencing

In the OPCO file there is an element called 'Subscription' where a period for refreshing a license check (never) should be specified.

Xml element	value	Comment
Check	Never	How often Vodafone Mobile Connect has to check the subscription of the user to this feature.
Timeout	number	not applicable
Server	string	not applicable
ResultPattern	string	not applicable
LicencePattern	string	not applicable.

```
<Subscription Check="Never" Timeout="30">
  <Server />
  <ResultPattern />
  <LicencePattern />
  </Subscription>
```

National/International

The AlwaysBestConnected element contains 2 objects that prioritise the bearer types: The sub-tag in tag International will be applied for setting the priority when the user is in a roaming situation, whereas the sub-tag in tag National will be used for non-roaming. The National and International elements describe the prioritisation order of bearer types and which of them should be enabled by default. The sections also configure the open-internet anchor points. Each BearerPrio object will contain a new tag DisconnectionBehaviour, both for National and International, which specifies whether and how Vodafone Mobile Connect should disconnect a Mobile or WebSessions connection, when a higher prio LAN or WLAN connection gets connected. The possible values for these tags are Auto, Prompt and Manual.

Xml element	value	comment
National	string	The object National will be applied, when the user is in a non-roaming situation.
International	string	The object International will be applied, when the user is in a roaming situation.
Title	string	Module title string.
Bearer	string	Bearer type string.
Enabled	boolean	Module status.
Index	number	Index of the ServiceModule.

```
<National>
  <AnchorPoint1 Latency="10" ResponsePattern="">
    <Server />
  </AnchorPoint1>
  <AnchorPoint2 Latency="10" ResponsePattern="">
    <Server />
  </AnchorPoint2>
  <Modules Title="At home">
    <Module Bearer="LAN" Enabled="false" Index="0" />
    <Module Bearer="WWAN" Enabled="true" Index="1" />
    <Module Bearer="PreferredWLAN" Enabled="false" Index="2" />
    <Module Bearer="OtherWLAN" Enabled="false" Index="3" />
    <Module Bearer="WebSessions" Enabled="false" Index="4" />
  </Modules>
</National>
<International>
    <AnchorPoint1 Latency="10" ResponsePattern="">
        <Server />
    </AnchorPoint1>
    <AnchorPoint2 Latency="10" ResponsePattern="Vodafone Group Plc">
        <Server>http://www.vodafone.com</Server>
    </AnchorPoint2>
    <Modules Title="Abroad">
        <Module Bearer="LAN" Enabled="true" Index="0" />
        <Module Bearer="PreferredWLAN" Enabled="true" Index="1" />
        <Module Bearer="WWAN" Enabled="true" Index="2" />
        <Module Bearer="WebSessions" Enabled="false" Index="3" />
        <Module Bearer="OtherWLAN" Enabled="true" Index="4" />
    </Modules>
</International>
```

Open Internet Anchor Points vs. Corporate Anchor Point

The Open **Internet Anchor Points** are defined by the Operator in the OpCo.XML file (see introduction to this chapter for the location). These Open Internet Anchor Points are for ckecking the internet access, for instance when using a Public WLAN hotspot.

The **Corporate Anchor Point** will be defined by an IT Administrator in the file MobileConnectProfile.XML. This anchor point is used for checking the corporate intranet via VPN (see section **Auto VPN** above).

Anchor Points

When a connection has been selected by ABC and has been established, it might not be usable. It is to check that the connection does or does not provide access to a corporate intranet.
Vodafone Mobile Connect can be configured to make HTTP requests to specific servers, so that it can check for the reachability of the corporate intranet. These servers are called anchor points. They will be configurable by their URL and must fulfil certain conditions:
- high server availability,
- fast response,
- small data traffic.

Xml element	Value	comment
AnchorPoint1	String	Corporate anchor point.
AnchorPoint2	String	Used if AnchorPoint1 is not available.
Latency	Number	The server must be reachable within the configured latency time, in order to accept the connection as usable.
ResponsePattern	String	The server must send back a response matching the response pattern specified in the OpCo configuration file.
Server	URL	The name of the anchor point. The open-internet anchor point is used to check whether the open internet is reachable and to decide whether to open the standard web browser, in order to show a landing page. Whenever the highest-prioritised established connection changes or a connection is established manually, Vodafone Mobile Connect will issue an HTTP GET request on that connection to the open-internet anchor point. If Vodafone Mobile Connect does not get the expected response, it will open the standard web browser and have it also access the open-internet anchor point. The browser's HTTP GET request might then be redirected to a landing page. In case of a WebSessions connection, the user will be able to purchase a session. In case of a WLAN connection, the user might get a landing page for authorisation. The server address of the anchor point for the open internet can be specified by the OpCo in the configuration file. When no open-internet anchor point has been configured by the OpCo, Vodafone Mobile Connect assumes that the internet is reachable when a connection has been established.

```
 <ABC Subscribed="true" InCorporateSenario="true">
<CorporateAnchorPoint Latency="10" ResponsePattern="ACK">
  <Server>http://myserver/ACK.html</Server>
  </CorporateAnchorPoint>
  </ABC>
```

In this example a server is accessible in the corporate environment where an HTML file is located. This file has the phrase “ACK” in the content of the file.
When the connection is started the software will send a request to the server and if the correct response is received then no further action takes place and the user continues. However, if no response is received the VPN will be started - providing the InCorporateScenario and VpnGlobal tags are set to true.

VPN Settings

VMC software allows the IT manager to define the VPN to be started; this can be set up along with any parameters.

Vodafone Mobile Connect supports a wide range of VPN software:
- Microsoft VPNs: When a Microsoft VPN has been set up on your computer already, it can be selected via the Settings/VPN menu entry.
- Other VPNs: You can set up any executable program file (.exe), batch file (.bat), script file (.cmd) and so on, to act as your VPN program. Example: ‘ipsecdialer.exe’ is the commonly-used VPN application from Cisco.

The VPN settings can be customised in the MobileConnectProfile.XML file.

Xml element	Value	comment
Location	String	Program path / location of the VPN client
ManualProxy	String	Automatically use a manual proxy server when VPN is established and a mobile device connection is in place.
UseMsVpn	Boolean	Use Microsoft VPN client?
MsVpnName	String	Microsoft VPN name
UseOtherVpn	Boolean	Use other VPN client?
OtherVpnName	String	Other VPN name
NoProxyWhenNoVPN	String	Inherit original proxy server settings when VPN is not established. Use no manual proxy server setting when VPN is not established.
VpnParam	String	Additional start parameter for the VPN client

For example:

```
<VPN ManualProxy="false" Proxy="" Port="0" Bypass="false" Script="" NoProxyWhenNoVPN="false">
  <VpnParam>/c</VpnParam>
  <Location>% ProgramFiles%\Cisco Systems\VPN Client\ipsecdialer.exe</Location>
  <UseMsVPN>false</UseMsVPN>
  <UseOtherVPN>true</UseOtherVPN>
  <MsVpnName />
  <OtherVpnName>Cisco VPN</OtherVpnName>
</VPN>
```

Here the location of the already deployed VPN client is defined in the “LOCATION” tag, and the start parameter /c is defined in the “VpnParam” to automatically connect.

Further Information

The Vodafone Business homepage contains software and documentation for all Vodafone data products.

- Vodafone Mobile Connect software downloads
- Data card firmware downloads
- VPN documentation
- FAQ
- How-to's
- Etc…

http://support.vodafone.com

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