

# **Enterprise Install Guide: Vodafone Mobile Broadband**



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## Introduction

This document covers the installation of the Vodafone Mobile Broadband 10.5.3 Software application on Microsoft® Windows® operating systems in corporate environments. It covers scenarios for IT administrators, customisation, and the rollout of the application using transform files.

For an introduction to corporate rollouts of the Vodafone Mobile Broadband application, please refer to the Standard Install Guide.

Comparison of the guides covering installing the Vodafone Mobile Broadband application:

	Vodafone Mobile Broadband Standard Install Guide	Vodafone Mobile Broadband Enterprise Install Guide (this document):
<i>Overview of available application variants</i>	✓	
<i>Silent installation command line parameters for msiexec.exe</i>	✓	
<i>Silent installation command line parameters for setup_vmb.exe</i>	✓	
<i>Installing the Vodafone Mobile Broadband application manually</i>	✓	
<i>Frequently Asked Questions (FAQ) about installation</i>	✓	
<i>Corporate Setup Package</i>		✓
<i>Customisation Files</i>		✓
<i>Customisation Examples</i>		✓
<i>Supported VPN Clients</i>		✓
<i>ABC (Always Best Connected) settings for automatic connection management</i>		✓
<i>Using Transforms for customisation</i>		✓

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## Network Device Types

Wide Area Network (WAN) devices (external or embedded in the PC) provided by Vodafone are using Microsoft's Network Driver Interface Specification (NDIS) for Windows operating systems to operate with network interface cards (NICs).

Additionally all modern Vodafone USB Devices use a concept called **QuickStart**. These QuickStart USB devices rely upon Microsoft's RNDIS (Remote NDIS) networking interface which is an extension of the NDIS architecture and expose a HTTP Webserver between the device and the user's PC. All of the device command and control activities are performed via HTTP APIs.

The Vodafone Mobile Broadband Software supports NDIS 5.1, NDIS 6.0, NDIS 6.20, and RNDIS on all supported Windows platforms.

For a list of supported network devices and operating systems please refer to the related Vodafone Mobile Broadband Release Notes.

There are some minor limitations for QuickStart USB devices in the ability for customisation of the Vodafone Mobile Broadband Software described in this document, please take a look at the customisation examples below.

## Full Compressed Setup Package

The Full Setup Package is provided as a compressed release and comprises the following files.

File	Description
<i>setup_vmb.exe</i>	Setup Launcher application
<i>Autorun.inf</i>	Autorun configuration file
<i>Package.ini</i>	Configuration file
<i>Data\vmbssetup.exe</i>	Setup Launcher containing all program files

## Prerequisites for Vodafone Mobile Broadband

If .Net Framework 4.5.1 is not installed it will be downloaded during the installation of VMB. When downloading the .Net Framework 4.5.1 during the installation of VMB an internet connection is needed.

**Important** – when using the 'Full' variant directly from the MSI database file, you need to ensure that all the application prerequisites are installed on the target computers before installing or rolling out Vodafone Mobile Broadband. The application will not run at all, or not properly, if this step is omitted.

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For supported operating systems please refer to the Vodafone Mobile Broadband ReadMe.

### Microsoft .Net Framework 4.5.1

The .NET Framework 4.5.1 is not part of the Windows 7 operating system, and it is not installed by default.

## Customisation Files

Vodafone Mobile Broadband works with a user profile file named MobileBroadbandProfile.xml. This file is generated for each user during run-time. The setup package includes only a template user profile file which contains certain common settings in the folder <installdirectory>\templates. However this template user profile file is used as a starting point when creating an actual user profile file.

If certain settings for all users are required, then the standard template user profile file can be replaced by a different one during the setup process by using Microsoft's Transform mechanism.

In addition of the user profile file MobileBroadbandProfile.xml, there are two other profile files, one for VMB's SMS application named SmsProfile.xml, and one for VMB's Dial-Up feature named VodafoneMobileBroadband.pbk.

The Phonebook (file extension \*.pbk) is an 8-bit ASCII-encoded text file that contains the names and settings for the demand dial connections. Please refer to the following url for valid key/value pairs:

<http://msdn.microsoft.com/en-us/library/ee808180.aspx>

At least all Operator (OpCo) specific XML customisation files, like 23415.xml, Opco-23415.xml, (e.g. for Vodafone UK) can be replaced by modified ones.

These customisation files and of course all other files can be replaced during the setup process using Transform files.

### Customisation using a modified User Profile file

When the Vodafone Mobile Broadband application is started for the very first time after installation, a user profile XML file **MobileBroadbandProfile.xml** is generated for the current user. This happens automatically without any user interaction or input. User profile files are being created regardless of actual used network devices. Such a XML user profile e.g. created during a test installation of VMB can then be used as a template for customised installations: it can be edited and then replaced in the MSI database using Transforms, overwriting the standard template file.

Modifications to this file are made using a Transform file. Please refer to the Using Transforms for Customisation chapter for more details.

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## Important Note

Before using this generated file MobileBroadbandProfile.xml in a setup via Transform, please replace all encrypted passwords with the related unencrypted passwords, because the encryption algorithm is specific for each Windows machine and Windows login account, otherwise the complete generated file will be dismissed. If clear text passwords cannot be distributed due to any reason, then you can optionally use the interactive method to prompt for the user/password data using parameters UseAuthentication and RequestAuthentDetails set to true and not to store the unencrypted password in file MobileBroadbandProfile.xml. If you are going to use the interactive method, then you have to leave the password parameter in file MobileBroadbandProfile.xml empty.

## Creating and Authoring a customised User Profile

### 1. Install Vodafone Mobile Broadband 10 on a test computer.

Install the Vodafone Mobile Broadband application as described in the 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 MobileBroadbandProfile.xml file.

#### Note

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

### 3. Save the MobileBroadbandProfile.xml file to be used as a template for further customised installations.

Save the MobileBroadbandProfile.xml file created by the Vodafone Mobile Broadband application and located in the folder

Windows XP
<code>&lt;drive&gt;:\Documents and Settings\&lt;username&gt;\Application Data\Vodafone\Vodafone Mobile Broadband\UserData</code>
Windows Vista and Windows 7
<code>&lt;drive&gt;:\Users\&lt;username&gt;\AppData\Roaming\Vodafone\Vodafone Mobile Broadband\UserData</code>

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

### 4. Edit the MobileBroadbandProfile.xml file.

Optional: Modify XML elements as you require.

### 5. Create a Transform file.

Refer to the Using Transforms for Customisation chapter.

### 6. Apply your Transform file to the Vodafone Mobile Broadband 10 setup procedure.

Refer to the Using Transforms for Customisation chapter.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Customisation using a modified Dial-Up Phonebook file

VMB feature 'Dial-Up' depends on a COM port for the used network device and common QuickStart USB devices do not expose COM ports and therefore cannot make use of VMB's 'Dial-Up' feature.

If the 'Dial-Up' feature is set to 'true' in the OpCo XML file, a default dial-up phonebook called **VodafoneMobileBroadband.pbk** is generated during installation of the Vodafone Mobile Broadband application, in order to manage fixed-line dial-up connections. If there is an Operator specific phonebook (e.g. 20810.pbk in the 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 made using a Transform file. Please refer to the section Using Transforms for Customisation for more details.

Creating and authoring a customised dial-up phonebook

### 1. Install Vodafone Mobile Broadband 10 on a test computer.

Install the Vodafone Mobile Broadband application as described in the Standard Install Guide.

### 2. Create new entries in the phonebook VodafoneMobileBroadband.pbk

- Start the Vodafone Mobile Broadband application, switch to **Advanced View**.
- Then select either the **Status** or the **Priorities** tab.
- Open the **Connection Settings** window either by selecting the default connection in the Status view or by clicking the **Add Settings** button for Dial-up connections in the Priorities view.
- Select **New** 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.
- Click the default connection in the Status view, or the **Add Settings** button for Dial-up connections in the Priorities view, to perform one of the following tasks:
  - 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 once a connection has been opened).

### 3. Protect phonebook entries from modification by the user

The **VodafoneMobileBroadband.pbk** file is located in the folder

Windows 7

```
<drive>:\Users\<username>\AppData\Roaming\Vodafone\Vodafone Mobile  
Broadband\UserData
```

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

The Vodafone Mobile Broadband application uses some entry attributes which are not supported by the operating system. These attributes are therefore saved in the 'comment' value of a phonebook entry:

- **OPCO=1 or OPCO=0** If 1, this entry was transferred from the Operator specific phonebook.
- **Auto-Vpn =1 or AutoVpn=0** If 1, the default VPN client is started automatically once the connection is open.
- **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, the credentials and the device can be modified by the user.

If an attribute is missing, its value is set to '0'. Attributes are separated by '|'.

To set the **Locked** attribute, open the VodafoneMobileBroadband.pbk file in a text editor, and modify 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 Using Transforms for Customisation chapter.

#### 5. Apply your Transform file to the Vodafone Mobile Broadband 10 setup procedure.

Refer to the Using Transforms for Customisation chapter.



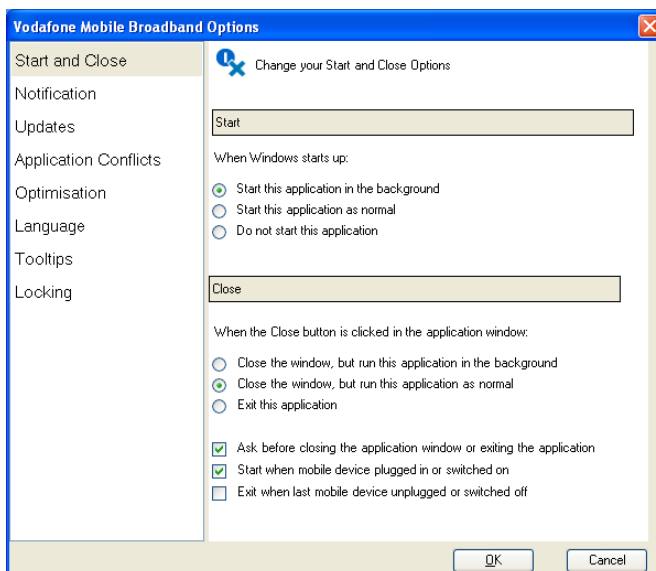
Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Customisation Examples

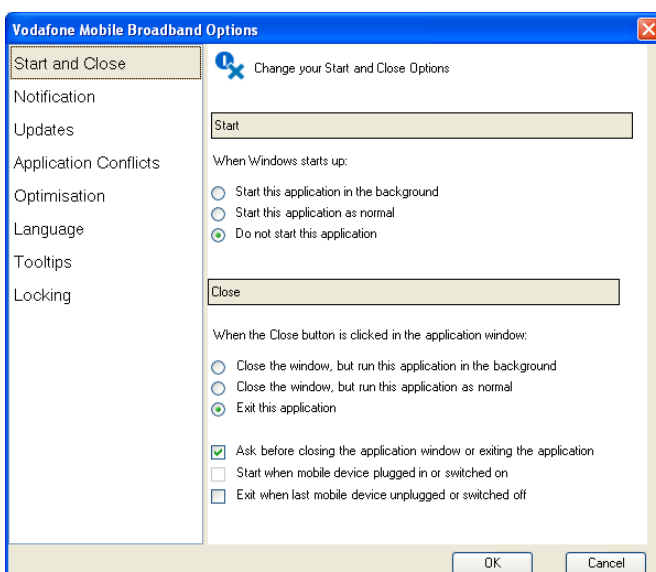
A good starting point for finding the correct xml element to be set for a certain task is to install VMB on a test machine and then to set the required setting from within the GUI. After exiting VMB, the modifications can then be viewed in the file MobileBroadbandProfile.xml, when compared to a saved file MobileBroadbandProfile.xml.

### Start/exit settings

In order to check the default settings for the **Start and Close** options, start VMB and switch to **Advanced View**, then click the **Application Button** to open the drop down menu. Then click on **Options** to open the **Vodafone Mobile Broadband Options** windows. Click on option **Start and Close** in the left hand navigation area to display the current settings.



The default settings may be **Start this application in the background** for start option and **Close the window, but run this application as normal** for close option.



The default settings should be changed to **Do not start this application** for start option and **Exit this application** for close option.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

### Which File to modify?

If these changes should be applied for all OpCos, then we must modify the template file [MobileBroadbandProfile.xml](#), otherwise we have to change the OpCo file for one or more OpCos, the OpCo file for Vodafone UK for instance is [Opco-23415.xml](#).

### What xml element to modify

The default xml elements in the file [MobileBroadbandProfile.xml](#) for the **Start and Close** options are:

```
<Gui Start="InBackground" Exit="None">
...
</Gui>
```

The default xml elements for the **Start and Close** options in the OPCO file are:

```
<Misc Start="InBackground" Exit="None">
...
</Misc>
```

The start value **InBackground** means **Start this application in the background** because of user logged on, whereas the exit value **None** means **Close the window, but run this application as normal**.

Default settings:

Xml element/attribute	Value	Description
<i>Gui/Start</i> <i>Misc/Start</i>	InBackground	Start this application in the background
<i>Gui/Exit</i> <i>Misc/Exit</i>	None	Close the window, but run this application as normal

The start value **DoNotStart** means **Do not start this application**, whereas the exit value **DoNotStartNewInstance** means **Exit this application**.

Required settings:

Xml element/attribute	Value	Description
<i>Gui/Start</i> <i>Misc/Start</i>	DoNotStart	Do not start this application
<i>Gui/Exit</i>	DoNotStartNewInstance	Exit this application

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

<i>Misc/Exit</i>		
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To change for instance the **Start and Close** options for **Vodafone UK**, please do the following:

1. Open file Opco-23415.xml and add or change the xml element **Gui** to

```
<Misc Start="DoNotStart" Exit="DoNotStartNewInstance">
```

...

```
</Misc>
```

2. Perform the steps described in chapter **Using Transforms for Customisation** of this document.

#### Note 1

The VMB installer creates a registry key:

```
HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Run:MobileBroadband="[INSTALLDIR]Bin\nMobileBroadband.exe /silent"
```

This key starts the VMB service when Windows starts up, and the service checks what it should do next according to the XML files you have configured.

The Start & Close settings can be configured via the XML, but the registry key can only be changed by using Transforms during installation.

If the registry key has been set to "Run", VMB always starts at Windows Logon. Then, during the initial start-up phase, VMB checks the Start & Close settings.

If the XML setting says "Do not start...", VMB will immediately exit without the end-user seeing any user interface.

If the XML setting says "Start in Background...", VMB starts but keeps the UI hidden.

The mobilebroadband.exe process may be visible in the Windows Task Manager for 10 to 15 seconds after Windows Logon, before it terminates due to the "Do not start..." setting. However, an end-user won't notice this, as no UI appears.

If the registry key "Run" hasn't been set at all, then VMB must be started manually after Windows Logon.

The registry key still remains even when "do not start..." has been set, for various reasons e.g. because HKLM keys may not be removed or created by standard users without proper permissions.

#### Note 2

Start and Exit settings for QuickStart devices cannot be customised, default value for both Start and Exit is always "InBackground".

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## Not installing feature SMS

The feature SMS can be excluded from the installation by using the installer property REMOVE. The feature being removed must be listed in the Feature table of the msi database. The value of this property is list of features delimited by commas.

### Command Line Example:

Removing feature SMS by first installing VMB via

```
setup_vmb.exe /s /b"%LOCALAPPDATA%\Vodafone" /v"/qb /norestart"
```

And then removing SMS via

```
setup_vmb.exe /s /b"%LOCALAPPDATA%\Vodafone" /v"REMOVE=SMS /qb /norestart"
```

Or via calls to msixec.exe

```
msiexec.exe /I "Vodafone Mobile Broadband.msi" TRANSFORMS=2057.mst /qb /norestart
```

And then removing SMS via

```
msiexec.exe /I "Vodafone Mobile Broadband.msi" TRANSFORMS=2057.mst REMOVE=SMS /qb /norestart
```

### Note

QuickStart devices are using the WebUI for managing the SMS functionality, so any customisation of VMB's SMS feature does not apply when using QuickStart devices.

## How to disable features?

Certain features can be set in the OpCo file using xml node element <Features>.

Xml element with default value	Description	Supported Devices
<ABC>false</ABC>	Should Always Best Connected be enabled in VMB software? If 'Yes' the software will display the ABC function in the main view. ABC provides best connectivity at any time.	All devices.
<DialUp>false</DialUp>	Dial-Up allowed? Tell VMB how to deal with the corresponding Dial-Up service module. If true, establishing Dial-up connections is allowed.	All devices exposing COM ports (QuickStart devices do not use COM ports).

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

<code>&lt;DisableCA&gt;&gt;false&lt;/DisableCA&gt;</code>	Should management of conflicting applications be disabled in VMB software? If not VMB will inform the user about other application(s) using the same device.	All devices.
<code>&lt;LAN&gt;&gt;true&lt;/LAN&gt;</code>	Should LAN be enabled in VMB software? Tell VMB how to deal with the corresponding LAN service module. And even if this switch is off, you can use LAN. Eg. the LAN service module only provides an indication whether a LAN connection is established or not. "Should LAN be enabled in VMB software? If set to 'true' this will provide a VMB software interface to check LAN connectivity.	All devices.
<code>&lt;SavePIN&gt;&gt;true&lt;/SavePIN&gt;</code>	If SavePIN is 'true' the PIN will be saved in the software and used automatically when the SIM is used.	Not for QuickStart devices.
<code>&lt;SMS&gt;&gt;true&lt;/SMS&gt;</code>	Should SMS module be enabled in VMB software? If set to 'true', the VMB software will provide a SMS client.	Not for QuickStart devices i.e. set to false for QuickStart devices.
<code>&lt;VPN&gt;&gt;true&lt;/VPN&gt;</code>	Should VPN indication be enabled in VMB software? If set to 'true', this will provide a VMB software interface to the preferred VPN client (subject to VPN client support).	All devices.
<code>&lt;WLAN&gt;&gt;true&lt;/WLAN&gt;</code>	Should management of Wi- Fi be enabled in VMB software? If set to 'true', this will provide a VMB software interface to native Windows Wi-Fi features, subject to OS support. And even if this switch is off, you can use WLAN.	All devices.

### How to automatically start a VPN?

The setting `<AutoVPN>>true</AutoVPN>` is attached to each APN xml element in Opco files (these are nnnnn.xml and Opco-nnnnn.xml), listed in the `<APNs>` area. The default value for xml

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element <AutoVPN> is false and VPN itself has to be enabled as a feature of VMB within the <Features> xml element.

#### **File Opco-nnnnn.xml:**

```
<Features>
  <VPN>true</VPN>
</Features>
```

#### **File nnnnn.xml:**

```
<APNs SwitchMarketSegment="true">
  <APN Account="Unknown" Apn="" HomeOP="" Name="" Pass="" DNS="" DNS2=""
I="0" User="">
    <AutoVPN>false</AutoVPN>
  ...
</APN>
</APNs>
```

#### **Note**

This customisation is available for all devices.

### **Using Locks**

There are two things to do, first add or amend xml element <Locks> in template file MobileBroadbandProfile.xml, and second set installer property LOCKINGCODE either via command line or per Transform modifying the property table of the msi database.

Example: Three items should be locked: Usage, Updates, and ManageDevices

File: MobileBroadbandProfile.XML

```
<Locks>
  <Locks>Usage Updates ManageDevices</Locks>
</Locks>
```

See below for a list of available locks.

Set command line installer property LOCKINGCODE or modify **Property Table** via Transform. After installation of VMB the locking code is stored without encryption in registry hive HKLM\SOFTWARE\Vodafone\VMB:LockingCode.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

Command line example:

msiexec.exe /i "Vodafone Mobile Broadband.msi" LOCKINGCODE=500503 TRANSFORMS=...

Locks available

Member Name	Description	Supported Devices
<i>None</i>	No locks	All devices.
<i>Startup</i>	Startup: (Broadband Options / Start and Close)	All devices.
<i>Notification</i>	Notification: (Broadband Options / Notifications)	All devices.
<i>Language</i>	Language: (Broadband Options / Language)	All devices.
<i>ConnectionDisplay</i>	ConnectionDisplay	Not available for QuickStart devices.
<i>Usage</i>	Usage: (Usage Ribbon)	Not available for QuickStart devices.
<i>AccountType</i>	AccountType: (Account Type)	Not available for QuickStart devices.
<i>VPNsettings</i>	VPNsettings: (Main Ribbon, switching group)	All devices.
<i>ManageConnections</i>	ManageConnections: (Connections Ribbon)	Not available for QuickStart devices.
<i>ManageDevices</i>	ManageDevices: (Devices Ribbon)	Not available for QuickStart devices.
<i>CustomProgram</i>	CustomProgram: (Program Ribbon)	Not available for QuickStart devices.
<i>ApplicationConflicts</i>	Application Conflicts: (Broadband Options)	All devices.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

All	All settings	All devices.
-----	--------------	--------------

### Feature Application Conflicts

This feature cannot be hidden from VMB's GUI, it is only possible to lock it using the following lines.

```
<Locks>
```

```
  <Locks>ApplicationConflicts</Locks>
```

```
</Locks>
```

#### Note

This customisation is available for all devices.

### Suppressing Account Type dialog

The Account Type dialog does not appear if there is just one so-called allowed Market Segment for a certain OpCo. Hence the easiest solution for not showing the Account Type dialog would be to make sure there is just one allowed Market Segment. Each Market Segment is mapped by one physical subfolder under the related OpCo root folder (subfolder of the installation directory) and each Market Segment folder may contain a configuration file named MarketSegment.xml.

Check all configuration files MarketSegment.xml for a given OpCo and make sure that only one of them has got

```
<MarketSegment Access="Allowed" ...
```

and all others must have

```
<MarketSegment Access="Denied" ...
```

That way, the Account type dialog does no longer appear.

#### Note

This customisation is available for all device types.

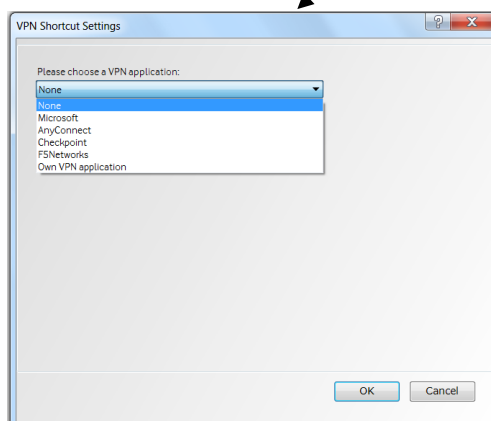
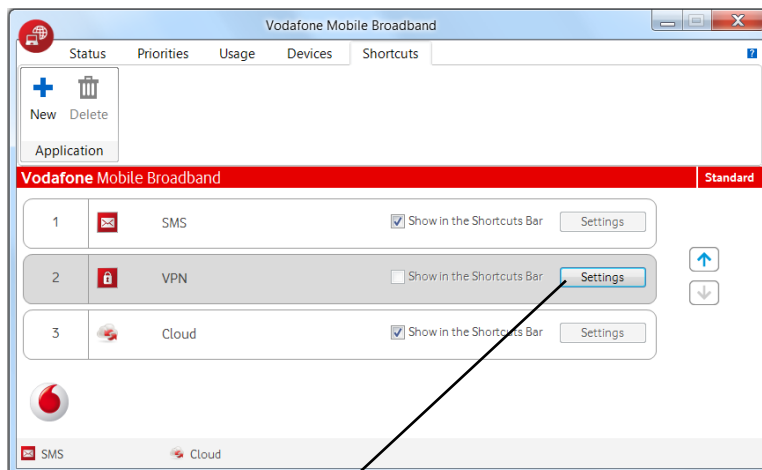


Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Appendix A: Supported VPN Clients

Vodafone Mobile Broadband 10 supports the following VPN clients:

- Cisco
- The new Cisco VPN Client 'Any Connect' resp. 'Any Connect Mobility' Client
- Checkpoint
- Fortinet
- F5Networks
- Microsoft VPN
- NCP
- Nortel
- SonicWall



The following functionality is supported for all these clients:

- Detecting if a VPN client is installed on the user's computer.
- If a VPN client is detected as installed, the VPN tab will show an additional button that allows a profile from the VPN application to be selected.
- The VPN connection will be monitored and its status (connected / disconnected) will be shown in the **Status** view.
- If the VPN connection is broken or disrupted, Vodafone Mobile Broadband detects this and will try to re-open the connection automatically.
- If the user manually closes the mobile connection, the Vodafone Mobile Broadband application will disconnect the VPN first.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

For all other VPN clients, Vodafone Mobile Broadband 10 only includes basic support. The path to the VPN client can be selected using the Entry **Own VPN application**. After the client has been selected, it can be started from a Shortcut on the Shortcuts Bar in the Vodafone Mobile Broadband Standard and Advanced application windows. In such cases, the VPN connection will not be monitored by Vodafone Mobile Broadband, and the application will not monitor or display the status of the VPN connection.

## VPN Configuration

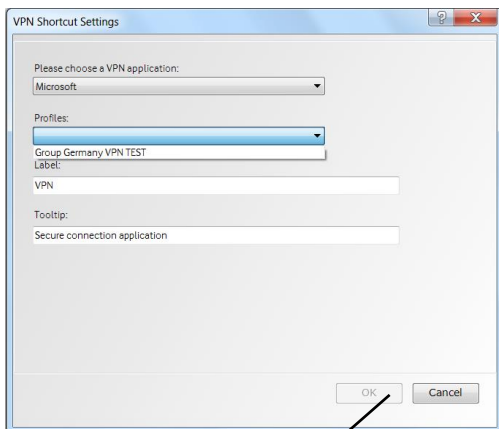
If a VPN client is configured, it will be possible to enable this client for use with Vodafone Mobile Broadband.

There are two possibilities:

- Using the Vodafone Mobile Broadband user interface
- Manual configuration by editing the Vodafone Mobile Broadband user profile.

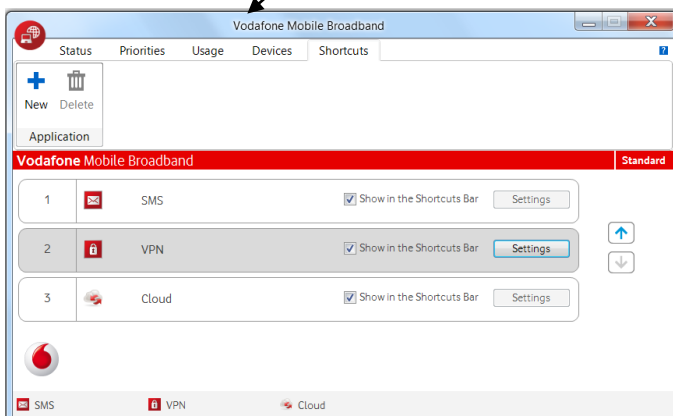
For both use-cases, a working VPN connection must already exist in Windows.

## Configuration via the User Interface



All supported and installed VPN clients are displayed in the list of the drop down button of the settings dialog.

To configure an installed VPN client, profile has to be chosen from the corresponding drop down list. Additionally, the label of the VPN shortcut can be entered as well as the tooltip of the VPN shortcut.



Once a VPN client is configured, the VPN panel is checked, and the corresponding shortcut is shown in the shortcuts bar of the Vodafone Mobile Broadband application.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Manual Configuration by editing the User Profile

The following entries can be seen afterwards in the **MobileBroadbandProfile.XML** file. There is an entry in the user profile which allows a shortcut to be created for the VPN:

```
<VpnShortcut>true</VpnShortcut>
```

## Microsoft VPN

The necessary entries in the **MobileBroadbandProfile.XML** file are:

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

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

**MS VPN** must be the name of the Microsoft VPN connection that has been configured in Windows.

## Cisco VPN

To manage a Cisco VPN connection, Vodafone Mobile Broadband uses **vpngui.exe**. The connection will be created using the default profile. The necessary entries in **MobileBroadbandProfile.XML** are:

```
<UseCiscoVPN>true</UseCiscoVPN>
```

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

The name of the Cisco profile can also be defined in **MobileBroadbandProfile.XML**:

```
<CiscoVpnName>Cisco Profile Name</CiscoVpnName>
```

## Checkpoint VPN

```
<UseCheckpointVPN>>false</UseCheckpointVPN>
```

```
<CheckpointVpnName>Checkpoint VPN</CheckpointVpnName>
```

**Checkpoint VPN** must be the profile name of the Checkpoint VPN connection, which has been configured with Checkpoint.

The name of the Checkpoint profile can also be defined in **MobileBroadbandProfile.XML**:

```
<CheckpointVpnName>Checkpoint Profile Name</CheckpointVpnName>
```

The same applies for **Cisco AnyConnect, F5Networks, Fortinet, NCP, Nortel, SonicWall**.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Appendix B: Always Best Connected (ABC) - Reference

Vodafone Always Best Connected is a feature included in Vodafone Mobile Broadband, which allows the Vodafone Mobile Broadband application to actively manage all connections available, including LAN and Wi-Fi/WLAN connections. It is designed to select the best connection to be used in any location, by comparing the connections that are available with the personal preference settings. When Vodafone Always Best Connected is enabled, the Vodafone Mobile Broadband application can:

- Open Mobile, Wi-Fi and LAN connections
- Check that the local connection, e.g. a Wi-Fi, actually has access to the internet, and switch to another connection if the internet cannot be reached.
- Switch between Mobile, Wi-Fi and LAN connections, based on defined priorities, to ensure the best connection is always used.
- Take account of what applications are being used before switching connections, e.g. avoid disrupting a Virtual Private Network (VPN) or secure connection because a better connection has become available.
- If Vodafone Always Best Connected is being used within a corporate network, it can check if the corporate network can be reached directly, and if not, start a VPN program when required. Vodafone Always Best Connected can be included in both Vodafone Mobile Broadband Lite and Vodafone Mobile Broadband Full software versions
- Is also available on the Mac OS X versions of the client.

Always Best Connected has been built on core Windows services, including the .NET Framework and the Windows WLAN API.

To use ABC the following items must be installed:

- Windows XP Service Pack 3 or higher (Windows Vista, Windows 7, Windows 8, Windows 10)
- If you are using Windows XP Service Pack 2, you will need to ensure that the following patches are installed:
  - .NET Framework 2.0 (this is installed with the Vodafone Mobile Broadband application)
  - WLAN API Hotfix (KB918997) – language-dependent (EN, FR and DE are included in the VMB installer)
  - MSXML 6.0 (KB933579) – language-dependent (EN, FR and DE are included in the VMB installer)
- ABC does not support Windows 2000, as the required Windows services are not available on this platform.

In addition, the Microsoft Windows Wi-Fi manager built into the operating system must be used for Wi-Fi management, and not a 3rd party Wi-Fi manager. We also recommend that any Wi-Fi profiles required for corporate Wi-Fi networks are pre-loaded: Always Best Connected will detect and use existing Windows Wi-Fi profiles automatically.

The changes described in the following chapters must be made in the OpCo.XML file to define the service settings. The OpCo.XML file can be found at the following location:

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

```
%ProgramFiles%\Vodafone\Vodafone Mobile Broadband\Opc\
```

### Example for Vodafone UK:

```
%ProgramFiles%\Vodafone\Vodafone Mobile Broadband\Opc\23415 United Kingdom\23415.XML
```

To localise the installation to your environment, additional changes are required to the MobileBroadbandProfile.XML in the templates section:

```
%ProgramFiles%\Vodafone\Vodafone Mobile Broadband\Templates\MobileBroadbandProfile.XML
```

## ABC OPCO.xml File settings

### 1. Turn on or off ABC

```
<Features>
  <Abc>true</ABC>
  <LAN>true</LAN>
  .
</Features>

<xs:element name="ABC" type="xs:boolean" />
```

Default-Value => **false**  
**true** => ABC is **on** (active)  
**false** => ABC is **off** (not active)

Not changeable by user (ABC On/Off button does not exist in VMB UI). When ABC is off, ABC doesn't compute any new decision. Otherwise when ABC is on, in every switching-mode (also in manual mode) ABC computes a new decision on any ABC relevant event.

### 2. Displayed name

```
<DisplayNames>
  <Abc>Always Best Connected</Abc>
  .
</DisplayNames>

<xs:element name="ABC" type="xs:string" />
```

Default-Value => **"Always Best Connected"**  
Defines name for 'ABC' abbreviation displayed to user in VMB UI.  
Currently e.g. UK => **Always Best Connected**  
DE => **Zero Click Connect**  
FR => **Optimisation des connexions**

Not changeable by user.

### 3. Switching-Mode (or switching-behavior-mode):

Means one of  
manual  
prompt  
automatic

switching modes (changeable by user when ABC is active). The initial state for first run is defined in OPCO file.

```
<SwitchingBehaviour>
  .
```

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

```
<SwitchingMode>Manual</SwitchingMode>
.
```

In every switching-mode, ABC computes a new decision, only the interaction with the user is different.

#### 4. Switching-Behavior:

Specifies how the Vodafone Mobile Broadband application should react to changes in connections or the availability of connection types. This section applies to three situations:

- Connect
- Disconnect
- Switch situation (disconnect followed by connect).

A part of these parameters is changeable by a user. The most of them are self-explanatory.

```
<SwitchingBehaviour>
  <PreventWhenRoaming>>false</PreventWhenRoaming>
  <PreventWhenWebSessions>>false</PreventWhenWebSessions>
  <PreventWhenVpn>>false</PreventWhenVpn>
  <PreventWhenBusy>>false</PreventWhenBusy>
  <PreventWhenIpv4>Prompt</PreventWhenIpv4>
  <PreventWhenNew>0</PreventWhenNew>
  <GlobalWiFiConnectTimeout>60</GlobalWiFiConnectTimeout>
  <SwitchingMode>Prompt</SwitchingMode>
  <OnButtonSwitchingMode>Prompt</OnButtonSwitchingMode>
  <RememberOnButtonMode>>false</RememberOnButtonMode>
  <SuspendMethod>StepDown</SuspendMethod>
  <StepDownPeriod>120</StepDownPeriod>
  <AutoDisconnectManual>>false</AutoDisconnectManual>
  <PromptWhenRoaming>>true</PromptWhenRoaming>
  <PromptWhenWebSessions>>true</PromptWhenWebSessions>
  <PromptWhenVpn>>true</PromptWhenVpn>
  <PromptWhenBusy>>true</PromptWhenBusy>
</SwitchingBehaviour>
```

```
<xs:element name="PreventWhenRoaming" type="xs:boolean" />
```

Default-Value => **true**

**true** => prevent switch/connect to a roaming network.

**false** => do not prevent switch/connect to a roaming network

Changeable by user.

```
<xs:element name="PromptWhenRoaming" type="xs:boolean" />
```

Default-Value => **true**

**true** => prompt the user before switch/connect to a roaming network.

**false** => do not prompt the user switch/connect to a roaming network

Changeable by user.

```
<xs:element name="PreventWhenWebSessions" type="xs:boolean" />
```

Default-Value => **true**

**true** => prevent switch/connect to a websession connection.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

**false** => do not prevent switch/connect to a websession connection  
Changeable by user.

```
<xs:element name="PromptWhenWebsessions" type="xs:boolean" />
```

Default-Value => **true**

**true** => prompt the user before switch/connect to a websession connection.

**false** => do not prompt the user by switch/connect to a websession connection

Changeable by user.

```
<xs:element name="PreventWhenVpn" type="xs:boolean" />
```

Default-Value => **true**

**true** => prevent disconnect VPN connection by switch to other connection

**false** => do not prevent disconnect VPN connection by switch to other connection

Changeable by user.

```
<xs:element name="PromptWhenVpn" type="xs:boolean" />
```

Default-Value => **true**

**true** => prompt user before disconnect VPN connection by switch to other connection.

**false** => do not prompt user before disconnect VPN connection by switch to other connection.

Changeable by user.

```
<xs:element name="PreventWhenBusy" type="xs:boolean" />
```

Default-Value => **true**

**true** => prevent disconnect mobile connection while data transferring by switch to other connection

**false** => do not prevent disconnect mobile connection while data transferring by switch to other connection

Changeable by user.

```
<xs:element name="PromptWhenBusy" type="xs:boolean" />
```

Default-Value => **true**

**true** => prompt user before disconnect mobile connection while data transferring by switch to other connection.

**false** => do not prompt user before disconnect mobile connection while data transferring by switch to other connection.

Changeable by user.

```
<xs:element name="PreventWhenIpv4">  
<xs:restriction base="xs:string">  
  <xs:enumeration value="False"/>  
  <xs:enumeration value="True"/>  
  <xs:enumeration value="Prompt"/>  
</xs:restriction>  
</xs:element>
```

Default-Value => **Prompt**

**True** => connect to IPv4 network not allowed.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

**False** => connect to IPv4 network allowed.

**Prompt** => prompt user before connect to IPv4 network.

Not changeable by user.

```
<xs:element name="PreventWhenNew" type="xs:integer" />
```

Default-Value => **0**

Defines the time in seconds the connection is considered as new and prevent disconnect mobile connection by switch to other connection in this time.

Changeable by user.

```
<xs:element name="GlobalWiFiConnectTimeout" type="xs:integer" />
```

Default-Value => **60**

Defines "Global WiFi" connection timeout in minutes. Relevant when <GlobalWiFi> element = true;

Changeable by user.

```
<xs:element name="OnButtonSwitchingMode">
<xs:restriction base="xs:string">
  <xs:enumeration value="Auto"/>
  <xs:enumeration value="Prompt"/>
</xs:restriction>
</xs:element>
```

Default-Value => **Prompt**

Defines where an ABC switch from "off" to "on" should go to, either Auto or Prompt.

Not changeable by user.

```
<xs:element name="RememberOnButtonMode" type="xs:boolean" />
```

Default-Value => **false**

Configure where an ABC switch from "Off" to "ON" should go to the previously used value (Auto or Prompt) instead of OnButtonSwitchingMode.

Not changeable by user.

```
<xs:element name="AutoDisconnectManual" type="xs:boolean" />
```

Default-Value => **false**

Defines if pressing the Connect button, automatically disconnects other bearer types.

Not changeable by user.

## 5. ABC Suspend-Mode

**Definition:** ABC is suspended means, in the most cases; current ABC switching-mode is 'manual'. Only when in OPCO file the item <SwitchingBehaviour><SuspendMethod> is set on 'StepDown', and the current switching mode is 'automatic' and ABC suspends then switching-mode is set on 'prompt' and ABC doesn't prompt the user until the period of seconds defined in item <SwitchingBehaviour><StepDownPeriod> is elapsed. This suspend state in 'prompt' switching-mode is similar to state ABC not



Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

active (no prompts, no automatic actions), but ABC computes still decisions to check if next 'step down' ( to set the switching mode on manual) must be done.

```
<SwitchingBehaviour>
  .
  <SuspendMethod>StepDown</SuspendMethod>
  <StepDownPeriod>120</StepDownPeriod>
  .
</SwitchingBehaviour>
```

#### ABC changes in suspend mode:

1. On any user's manual connect or disconnect.
2. On any connect or disconnect to WLAN or WWAN outside VMB when this action is contrary to action computed by ABC.
3. When the user declines ABC prompt for connect, disconnect or switch.
4. On Wan connection error (exception defined by VMB).
5. On Wan Sdk error (exception defined by VMB).
7. On device disabled.

#### Auto VPN

You can use the **AutoVpn** section to define VPN settings for connection profiles. These settings only apply when a corporate anchor point has not been defined.

VpnGlobal is only used when a corporate anchor point has been defined. It is the default value for the global setting, which can be used to set up the software for corporate or for private use.

The other sub-tags of this element define the default value for starting a VPN per connection profile (for the respective bearer types). These values are only used when a corporate anchor point has not been defined. Possible values are True and False; the default is False. The setting is independent of the specific VPN client: it applies to all VPN clients.

Xml element	Value	Comment
<i>VpnGlobal</i>	boolean	Global VPN Flag
<i>LAN</i>	boolean	LAN
<i>WWAN</i>	boolean	WWAN
<i>WebSessions</i>	boolean	WebSessions
<i>PreferredWlan</i>	boolean	Preferred WLAN
<i>OtherWlan</i>	boolean	Other WLAN

#### National and International

The **AlwaysBestConnected** element contains two objects that prioritise the connection types:

- The sub-tag in the International tag sets the priority of this connection type when the user is in a roaming situation

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

- The sub-tag in the National tag sets the connection's priority in non-roaming situations, ie. when the user is located in coverage of their home network.

The National and International elements describe the prioritisation order of connection types, and which of them should be enabled by default. The sections also configure the Open Internet Anchor Points. Each BearerPrio object contains a new DisconnectionBehaviour tag, both for National and International, which defines whether and how Vodafone Mobile Broadband should disconnect a Mobile or WebSessions connection when a higher priority LAN or Wi-Fi connection is opened. The possible values for these tags are Auto, Prompt and Manual.

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

## Anchor Points

Even when a connection has been selected and opened by the Vodafone Mobile Broadband application with ABC, the connection may still not be useful to the user, either because it does not offer access to the internet, or because the user cannot reach their corporate network via VPN. ABC can therefore be set up to make HTTP requests to specific servers to check for both internet and intranet access. These servers are called 'anchor points'. Their URLs must be defined and they must fulfil certain conditions:

- The sub-tag in the 'International' tag sets the priority of this connection type when the user is in a roaming situation
- High server availability
- Fast response
- Low data traffic.

## Open Internet Anchor Points vs. Corporate Anchor Point

**Open Internet Anchor Points** can be defined by the OpCo in the OpCo.XML file – see the introduction to this chapter for the location. These Open Internet Anchor Points are used to check that the internet can actually be reached, for instance when using a public Wi-Fi hotspot.

A **Corporate Anchor Point** can be defined by an IT administrator in the MobileBroadbandProfile.XML file. This anchor point will then be used to check that the corporate intranet can be reached via VPN – see the Auto VPN section above.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

Xml element	Value	Comment
<i>AnchorPoint1</i>	url	URL of server acting as the corporate anchor point.
<i>AnchorPoint2</i>	url	URL to be used if AnchorPoint1 is not available.
<i>Latency</i>	number	To accept the connection as usable, the anchor point must be reachable within this latency time (seconds).
<i>ResponsePattern</i>	string	The server must send back a response matching this response pattern.
<i>Server</i>	url	<p>The name of the anchor point. The Open Internet Anchor Point is used to check whether the internet in general is reachable, and whether the user's standard web browser should be opened to show a landing page.</p> <p>Whenever the highest-prioritised open connection changes, or a connection is opened manually, ABC issues an HTTP GET request over the connection to the Open Internet Anchor Point. If ABC does not get the expected response, it will also open the user's browser at the Open Internet Anchor Point.</p> <p>The browser's HTTP GET request might then be re-directed to a landing page. If the connection is a WebSessions connection, the user will be able to purchase a session on the landing page. If it is a Wi-Fi connection, the user might get a landing page for authorisation.</p> <p>When no Open Internet Anchor Point has been defined by the OpCo, ABC will always assume that the internet is reachable when a connection has been opened.</p>

In this example, the XML defines that a server is accessible in a corporate intranet at the URL <http://myserver>, and serves an HTML file called **ACK.html**. The content of the file includes the word **ACK**, and this is defined as the expected response pattern.

When a connection is opened, ABC will send a request to myserver. If the correct response (**ACK**) is received, no further action takes place and the user can continue to use the connection, because ABC has established that it can reach the corporate intranet. If, however, no response is received, and the `InCorporateScenario` and `VpnGlobal` tags are set to true, ABC will open the user's VPN automatically.

## VPN Settings

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

The Vodafone Mobile Broadband application allows an IT administrator to define the VPN that shall be started, along with any parameters required.

The Vodafone Mobile Broadband application supports a wide range of VPN software:

- Microsoft VPNs – when a Microsoft VPN has been set up on the computer already, it can be selected via the Settings/VPN menu entry
- Other VPNs – any executable (.exe), batch file (.bat), script file (.cmd) etc. can be defined as the VPN software that VMB should use. For example, 'ipsecdialer.exe' is commonly-used VPN application from Cisco.

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

Xml element	Value	Comment
<i>Location</i>	string	Program path / location of the VPN client, e.g. >% ProgramFiles%\Cisco Systems\VPN Client\ipsecdialer.exe
<i>ManualProxy</i>	string	Automatically use a manual proxy server when VPN is opened and a mobile device connection is in place.
<i>UseMsVpn</i>	boolean	Use Microsoft VPN client?
<i>MsVpnName</i>	string	Microsoft VPN name
<i>UseOtherVpn</i>	boolean	Use other VPN client?
<i>OtherVpnName</i>	string	Other VPN name
<i>NoProxyWhenNoVPN</i>	string	Inherit original proxy server settings when VPN is not open. Use no manual proxy server setting when VPN is not open.
<i>VpnParam</i>	string	Additional start parameter for the VPN client

Here the location of an existing VPN client is defined in the **LOCATION** tag, and the start parameter **/c** is defined in the **VpnParam** to connect automatically when the client is started.

### Bandwith-based ABC Switching

The QoS (Quality of Service) element can influence the priority of some (or all) connections. Each OpCo can configure whether a QoS check is needed before switching to a certain connection (in automatic or prompt mode), and also the type of such QoS check.

The setting should say something like:

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

QoS check should be done before switching to any WLAN connection when other connections with lower priority exist, and also during the active WLAN connection; If QoS check is successful, next check is performed in xxx seconds, otherwise in yyy seconds.

Xml element	Value	Comment
<i>Wwan2WlanBandwidth</i>	integer	Minimum bandwidth (in bytes per second) required to consider WLAN connection good enough to switch to it from another connection with the lower priority. (Default value: 48000)
<i>Wlan2WwanBandwidth</i>	integer	Minimum bandwidth (in bytes per second) that an active WLAN connection must have in order to be still considered good enough. (Default value: 40000)
<i>SuccessTimeout</i>	integer	Interval (in seconds) when next QoS check is scheduled on WLAN connection which has good enough bandwidth. (Default value: 3600 seconds)
<i>FailureTimeout</i>	integer	Interval (in seconds) when next QoS check is scheduled on WLAN connection which has bad bandwidth. (Default value: 1200 seconds)

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Appendix C: Using Transforms for Customisation

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 computer. Transforms are useful for system administrators to provide variations of a single product without having to modify the original product installer database. Multi-language installations are also performed by a default language contained in the MSI database, together with several Transform files, one for the localised strings of each language.

### Creating Transforms

The following instructions describe basic steps using Orca from Microsoft to create Transforms. All tasks can actually be put into one single Transform – there is no need to put each step or customisation into a separate Transform.

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

#### Original file

```
<installdir>\Opco\23415 United Kingdom\23415.xml
```

#### Modified file

```
23415.xml
```

Usually all components are compressed and contained in a single cabinet file. That way so-called cabinet releases are saving space and time compared to so-called uncompressed releases. The file extension **.cab** is used for cabinet files.

### How to extract files from a cabinet file?

#### 1. Administrative installation of VMB

After performing the administrative installation, file 23415.xml and its relative path can be found: “program files\Vodafone\Vodafone Mobile Broadband\Opco\23415 United Kingdom\23415.xml”

#### 2. Installation of VMB on a test machine

An actual installation of VMB copies all files to the installation folder. However, the file path of the administrative installation can differ from the file path of the actual installation of a certain folder. For the further steps below, we’re using always the relative file path of the administrative installation.

#### 3. Microsoft’s tool Cabarc.exe

Microsoft’s tool Cabarc.exe can be used to get any file out of the cabinet file container. This command-line tool allows users to create, query, and extract Windows cabinet files but not to add files to an existing cabinet file.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

The next step is to modify file 23415.xml. Then, for determining the modified file size, open Windows Explorer, navigate to the modified file, right-click it to display its properties, and then note the actual file size, e.g. **Size: 700 bytes**. Keep this number in mind when creating the Transform later.

The following example requires Microsoft's tool Orca:

Orca can be downloaded from webpage <http://support.microsoft.com/kb/255905/EN-US>

Now the Transform can be created by following these steps:

1. Start Orca.
2. From the File Menu, select Open.
3. Browse to the folder that contains your working copy of the Vodafone Mobile Broadband application.
4. Select **Vodafone Mobile Broadband.msi**.
5. Click Open.
6. From the Transform menu, select **New Transform**.
7. In the left pane, select **File** table.
8. In the right pane, select the row which displays the filename **23415.xml** in the third column (**FileName**) and also displays the component name **OPCO23415** in the second column (**Component\_**).
9. Select column **FileSize** and enter the file size of your modified file **23415.xml**, e.g. value **634** to value **700**.
10. Select column **Attributes** and replace flag **msidbFileAttributesCompressed** (0x004000, 16384) with flag **msidbFileAttributesNoncompressed** (0x002000, 8192), because the modified file will stay outside of the cabinet file.
11. Select column **Sequence** and change the value to one more as the **LastSequence** column value in the **Media** table of the cabinet's file last sequence, e.g. if the last sequence number would be **3400**, then you have to enter here in the **Sequence** column **3401**.
12. In the left pane, select **Media** table.
13. Add a new line for uncompressed modified file **23415.xml** like  
DiskId: 2  
LastSequence: 3401  
DiskPrompt: 1  
Cabinet:

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

VolumeLabel: DISK1

Source:

14. From the Transform menu, select **Generate Transform**.
15. Enter a Transform filename and save the Transform.
16. From the Transform menu, select **Close Transform**.
17. Exit Orca.

These are the basic steps to replace a file using a cabinet release via Transform.

For all OpCo files (nnnnn.xml and Opco-nnnnn.xml), including 23415.xml, an additional step is necessary to replace this file correctly, but only if the modification will change the installation process itself, for instance when changing values of xml elements within the xml element node <Setup>:

- 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, it 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** with its relative path from the administrative installation to the same directory where cabinet file Data1.cab is located, e.g. create the following path for file **23415.xml**:  

Program	files\Vodafone\Vodafone	Mobile	Broadband\Opco\23415	United
Kingdom\23415.xml				
4. Copy the Transform file to the root directory of the cabinet setup where the files **Vodafone Mobile Broadband.msi** and **setup.ini** are located.
5. Start the setup.

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

1. Start Orca.
2. From **File** Menu, select **Open**.



Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

3. Browse to the folder that contains your working copy of the Vodafone Mobile Broadband application.
4. Select Vodafone **Mobile Broadband.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 **File** Menu, select **Open**.
3. Browse to the folder that contains your working copy of the Vodafone Mobile Broadband application.
4. Select **Vodafone Mobile Broadband.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.

Fehler! Verwenden Sie die Registerkarte 'Start', um Heading 1 dem Text zuzuweisen, der hier angezeigt werden soll.

## Further Documentation

For a list of configurable objects see help file **AdminGuide.chm**.

## Further Information

The Vodafone support website contains software and documentation for all Vodafone data products.

- Vodafone Mobile Broadband application downloads
- VPN documentation
- FAQs
- How-to documents
- Etc...

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<http://support.vodafone.com>

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