



SmartConnect

User Guide

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1 SmartConnect

SmartConnect lets you simplify Internet access by using **connection groups**. A connection group is a prioritized list of connections that can be used by applications in place of a single regular connection (or access point). When you use a connection group to access the Internet, the device will try connecting using each of the group's member connections in order until successful. A connection group can be thought of as a "universal" connection that you can use almost anywhere - it can use a fast WLAN connection if one is available, and otherwise fall back on a slower cellular connection.

You can create several connection groups if you need to. You might, for example, want to avoid using certain connections or prioritize the connections differently for some applications.

Connection groups can also be set up to make use of a **seamless roaming** service. This enables a connection group to switch networks **while in use**, in order to maintain the best possible connection. If you move out of range of a WLAN network, the connection group seamlessly switches to a cellular network. If another WLAN network becomes available later on, it switches again to take advantage of the WLAN's high speed. Seamless roaming is enabled by installing seamless roaming configuration data on your device. To get license for seamless roaming feature contact www.birdstep.com.

SmartConnect without seamless roaming is licensed for use with limited models of Nokia Eseries and Nseries phones.

SmartConnect can also provide automated hotspot detection and login for WLAN connections.

Use the **Connection groups** page to manage your connection groups. Select the group you want to work with and then select an entry from the **Options** menu.

The **Options** menu contains the following entries:

Open Opens the selected group so that you can edit group settings and add and remove connections.

New group Lets you add a new group. The **Group settings** page for the new connection group is displayed; enter the required settings, then select **Next** and add connections to the group. When you have added all the required connections, select **Done**. The group will now appear in other applications such as your browser and email client as one of the connections (access points) you can use to connect to the Internet.

Delete Deletes the selected group.

Advanced > Settings Opens the **Settings** page, where you can set general application parameters.

Advanced > SR providers Displays the **SR providers** page, which you can use to set seamless roaming options and access your seamless roaming subscription. This option is only seen when SmartConnect is licensed to use seamless roaming feature.

Advanced > Status Displays constantly updated status information about your connection status.

Help Displays help about this page.

Exit Terminates the application.

The icon displayed to the left of each connection group is green if the group is in use and yellow if it is inactive. A Birdstep icon is displayed to the right of any group that is set up to use seamless roaming.

2 Settings

Use this page to set the following parameters:

Notification level Determines how many SmartConnect notification messages are displayed. **None**: No notifications. **Normal**: all critical notifications are displayed, plus notifications about other significant events such as authentication failures. **Verbose**: all normal notifications are displayed, plus notifications about other network events that are not usually of interest.

Prompt on new conn. If you set this option to **Yes**, then whenever a new connection (access point) is created (in the **Settings** application, for example), SmartConnect will ask if you want to add the new connection to any of your connection groups.

Roaming GPRS Set it to "Disable" if GPRS connections are not allowed when phone is roaming, in other words, it is connected to foreign network. Set it to "Enable" if GPRS connections are always allowed.

The **Options** menu contains the following entries:

Change Lets you edit the selected parameter.

Help Displays help about this page.

Exit Terminates the application.

3 Group settings

Use this page to set the following group parameters:

Group name This is the name that will appear in the connection (access point) list when you are setting up Internet connections for applications.

Seamless roaming If you want to use seamless roaming in this group, select the name of the seamless roaming (Mobile IP) service you want to use from the displayed list. Otherwise, select **None**. This option is only seen when SmartConnect is licensed to use seamless roaming feature.

On better connection You can set this option to **Disconnect** for a group that is intended to be used by push mail applications. For general purpose networking, set it to **Stay connected**. If **Disconnect** is selected, then whenever a better connection is available the current connection is disconnected. The next time a "push" operation occurs, the better connection will then be used. This option is not available if seamless roaming is enabled.

Destination If phone supports the destinations here you can choose the destination where created connection group goes or if you choose same as group name new destination is created with same name as connection group.

The **Options** menu contains the following entries:

Change Lets you edit the selected group option.

Help Displays help about this page.

Exit Terminates the application.

4 Connection group

Use this page to manage a selected connection group and its connections. To modify group parameters, select **Group settings** from the **Options** menu. To add connections to the group, select **Add connections** from the **Options** menu. To modify an existing connection, select the connection you want to work with and then select an entry from the **Options** menu.

The **Options** menu contains the following entries:

Add connections Lets you add new connections.

Remove Removes the selected connection.

Change priority Lets you change the priority of the selected connection. Select this option then use the joystick to move the selected connection up or down the list. When the connection is in the position you want, select **Ok**. Selecting **Cancel** returns the connection to its original position.

Group settings Opens the **Group settings** page for this group, where you can set various group parameters.

Connection settings > Hotspot settings Lets you set up automatic hotspot login for the selected WLAN connection. (The option is not displayed when other kinds of connection are selected.)

Roaming settings Lets you set seamless roaming parameters for the selected connection. This option is only displayed if you have enabled seamless roaming for this group.

Help Displays help about this page.

Exit Terminates the application.

5 Hotspot settings

Use this page to set up automated hotspot detection and login for WLAN connections by setting the following parameters:

Hotspot authentication Choose the hotspot authentication method to be used (if any). The options are:

- **None** No hotspot detection or login is carried out.
- **WISPr** WISPr is a standard authentication method used by many hotspots. If you choose this option then you can enter a username and password, and SmartConnect will automatically login for you.
- **Autodetect** If you choose this option then SmartConnect will try to determine whether or not authentication is required at a hotspot. If authentication is required then SmartConnect will ask if you want to log in, and if you do, display the hotspot's login interface in a browser window.

Username Enter your username (WISPr authentication only)

Password Enter your password (WISPr authentication only)

The **Options** menu contains the following entries:

Change Lets you modify the selected group option.

Help Displays help about this page.

Exit Terminates the **SmartConnect** application.

6 Roaming settings (WLAN)

Use this page to set seamless roaming parameters for WLAN connections:

WLAN sig. str. monitor If this option is switched on, then SmartConnect will monitor the connection's signal strength and switch to a different connection if it falls below an acceptable level.

Min. acceptable sig. str. The signal strength level used for signal strength monitoring

The **Options** menu contains the following entries:

Change Lets you edit the selected roaming parameter.

Help Displays help about this page.

Exit Terminates the application.

7 Roaming settings (cellular)

Use this page to set seamless roaming parameters for cellular connections:

Always connected Set this option to "Yes" where charges are based on data transfer volumes rather than connection time. The connection is then kept open whenever the connection group is in use, so that it is ready for use if needed, making connection switching faster. Set it to "No" where charges are based on connection time. A connection is then only established when it is actually needed.

8 SR providers

Use this page to set up user-defined profiles for accessing seamless roaming (Mobile IP) services to which you have access.

The **Options** menu contains the following entries:

Edit settings To edit a user-defined provider profile, select the profile and then select this option. The **Edit provider profile** page is then displayed.

Add user defined Select this option to add your own provider profile for a seamless roaming (Mobile IP) service to which you have access. The **Edit provider profile** page is then displayed. You will need to obtain various items of information from the service provider in order to be able to complete the form displayed on this page.

Help Displays help about this page.

Exit Terminates the application.

9 Edit provider profile (user-defined)

Use this page to edit a provider profile you have added yourself. To do this you will need to obtain some items of information from the service provider. The parameters are displayed on three tabbed pages, **General**, **Network** and **Authentication**. Use the joystick (left-right) to switch between the pages.

The **General** page contains the following parameters:

Profile name This is the provider name that appears in the selection list of the **Seamless roaming** field of the **Group settings** page.

The **Network** page contains the following parameters:

Home agent The IP address or DNS name of the home agent to use. Your Mobile IP service provider must supply you with this value. You can enter a series of home agent IP addresses in this field, separated by spaces. SmartConnect will then use the first home agent to respond. If you use a DNS name, then you can only specify one name in the field.

Mobile node NAI Your network access identifier (NAI). A NAI looks like an email address (john.smith@myfirm.com, for example) and may even be identical with your email address. Your Mobile IP service provider must supply you with this value if you need to enter it. Your Mobile IP service provider may provide you with either a NAI or an IP address (see below) or both. Only one is required, but if you are given both, then enter both.

Mobile node IP address The IP address of your handset. It will look something like this: 192.3.3.20 (your address will contain different numbers, though). Your Mobile IP service provider or network manager must supply you with this value if you need to enter it. Your Mobile IP service provider may provide you with either a NAI (see above) or an IP address or both. Only one is required, but if you are given both, then enter both.

Home DNS server The IP address of a DNS server that is local to the home network and will always be reachable. Your Mobile IP service provider should supply you with this value. If you do not enter an address, then SmartConnect will attempt to use any local server that is available on the currently active connection. This mechanism is not foolproof, however; on some connections, no local DNS server may be available. You should therefore always specify a **Home DNS server** address if possible.

Home DNS suffix The domain name suffix of your home network. Your Mobile IP service provider should supply you with this value. If you are not supplied with a value, leave the field empty

Tunneling policy Select the tunneling policy recommended by your Mobile IP service provider. In the case of UDP tunneling, "only when needed" means when there is a network address port translation (NAPT) device in the communication path. In the case of reverse tunneling, "only when needed" means when ingress filtering in the local subnet is causing traffic failure.

The **Authentication** page contains the following parameters:

Algorithm Select the authentication algorithm to be used to secure communication between your device and the home agent. Your Mobile IP service provider must supply you with this value.

Key entry Select the kind of authentication key you are to enter: either a **Password**, such as "mybigsecret365" or a **Hex** (hexadecimal) key such as "03A6F93B66".

Key Enter your authentication password or key. Your Mobile IP service provider must supply you with this value.

SPI entry Select the kind of number you are going to enter in the **SPI** field: either **Dec** (decimal) or **Hex** (hexadecimal).

SPI Security Parameter Index, a number specifying the security context to which your device is assigned. Your Mobile IP service provider must supply you with this number.

The **Options** menu contains the following entries:

Change Lets you edit the selected provider setting.

Help Displays help about this page.

Exit Terminates the application.

10 SmartConnect status

Use this page to view the current seamless roaming status, terminate seamless roaming, and display seamless roaming log/diagnostics information. The following information is displayed:

Active group: The name of the connection group currently being used. **None** is displayed if no connection group is in use.

Active connection: The name of the connection currently being used. **None** is displayed if no connection is in use.

The following items are only displayed if seamless roaming is enabled and in use in the active connection group:

Roaming state: This can display the following values: **Not connected** when seamless roaming is not in use; **Connecting** when seamless roaming is in use but the application has not yet made contact with the seamless roaming service's **home agent**; **Registering** when the application is in the process of registering with the seamless roaming service's **home agent**; **Connected** when the application is successfully registered with the seamless roaming service's **home agent**.

Mobile node IP address: The mobile node home address currently assigned to your device.

Co-located address: The IP address currently assigned to the seamless roaming service's **home agent**.

The **Options** menu contains the following entries:

Disconnect Closes the connection currently associated with the active connection group. **Active group:** and **Active connection:** will revert to **None** and, if currently displayed, the seamless roaming settings will be hidden.

Log Lets you view the current contents of the seamless roaming log file. The file is opened in your device's document editor. You may be asked to save a copy of this file for diagnostic purposes when solving support issues. To do so, select **Options, Save**. The file is saved as **c:\miplog.txt**. Alternatively, you can send it directly to a PC via Bluetooth by selecting **Options, Send, Via Bluetooth**.

Diagnostics Generates a diagnostics file and displays it in the document editor. The generated file contains detailed information about your device and a snapshot of the current network status. You may be asked to save a copy of this file for diagnostic purposes when solving support issues. To do so, select **Options, Save**. The file is saved as **c:\mipdiag.txt**. Alternatively, you can send it directly to a PC via Bluetooth by selecting **Options, Send, Via Bluetooth**.

Help Displays help about this page.

Exit Terminates the application.

Glossary of Terms

DNS

See **Domain Name System**.

Domain Name System (DNS)

A distributed Internet directory service. DNS is used mostly to translate between domain names and IP addresses, and to control Internet email delivery.

home agent

See **Mobile IP home agent**.

IP address

A numerical address with the form nnn.nnn.nnn.nnn, used to uniquely identify a host computer within an **IP** network.

Mobile IP

An Internet standard that supports handover between different networks. It solves the problem of routing inbound messages to a device whose network address keeps changing.

Mobile IP client

A program that implements the client end of the **Mobile IP** standard. It resides in a **mobile node** and maintains communication with a **Mobile IP home agent**, keeping the home agent

informed of the mobile node's whereabouts, and accepting incoming messages redirected by the home agent.

Mobile IP home agent (home agent)

A program that implements the home agent part of the **Mobile IP** standard. It resides in a **mobile node's** home network and communicates with **Mobile IP clients**. It keeps track of the location of the mobile nodes in which the clients reside, and redirects incoming messages to the appropriate nodes' current locations.

mobile node

Generic term for the mobile device in which a **Mobile IP client** resides. It could be a laptop computer, **PDA** or mobile phone, for example.

NAI

See **network access identifier**.

network access identifier (NAI)

A unique identifier similar to an e-mail address (john.smith@myorg.com, for example) that enables a **Mobile IP client** to be correctly identified.

PDA

See **personal digital assistant**.

personal digital assistant (PDA)

A pocket-size computer/personal organizer such as a Palm Pilot or Pocket PC.

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