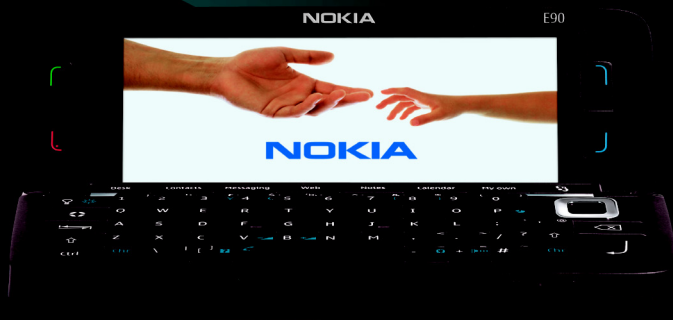


Configuring connection settings



NOKIA
Eseries

Nokia E90 Communicator

Nokia E90 Communicator

Configuring connection settings

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Contents

Introduction	4
Configuring wireless LAN	5
WLAN wizard	5
Creating Internet connections	7
Creating an Internet access point for packet data (GPRS)	7
Creating an Internet access point for data calls	8
Creating an Internet access point for WLAN.....	10
Modifying EAP settings.....	13
Selecting an Internet access point.....	14
Configuring text messages (SMS)	15
Configuring text message centre settings	15
Configuring text message settings.....	15
Configuring multimedia messages (MMS)	17
Configuring voice mailbox (network service)	19

Introduction

This document is a support guide for the configuration of Internet settings needed to use the Nokia E90 Communicator for data connections.

To access the Internet (in order to use WWW or mail), the following conditions must exist:

- The cellular network (GSM/WCDMA 850/900/1800/1900) you use must support data calls.
- The data service (also the high-speed HSCSD or HSDPA service if used) must be activated for your SIM card.
- You must have obtained an Internet access point (IAP) from an Internet service provider.
- Proper Internet settings must have been configured in your device.

If you are using a wireless LAN (WLAN) connection, you do not need SIM data service and GSM data call support.

For information about the correct settings, contact your Internet service provider or system administrator. The service provider may be able to configure the access point for you using a special SMS message or WWW page, which sets up all the necessary Internet access settings. Please contact your Internet service provider (ISP) for details.

The necessary settings for Internet configuration are provided by your Internet Service Provider. If your Internet settings are incomplete or incorrect, please contact your service provider. Depending on your ISP or network operator, you may not need to fill in all of the settings.

When you insert a SIM card, the device will read the necessary GPRS, MMS, and SMSC settings from the SIM card if they are available, and no manual configuration is necessary. Note that this may not work with all operators and SIM cards.

Configuring wireless LAN

- 1 Select **Tools** > **Settings** > **Connection** > **Wireless LAN** to access WLAN settings:
 - To have an indicator displayed when there is a wireless LAN available in your current location, select **Show availability** > **Yes**.
 - To select the time interval for your device to scan for available wireless LANs and update the indicator, select **Scan for networks**. This setting is not visible unless you select **Show availability** > **Yes**.
- 2 Select **Tools** > **Settings** > **Connection** > **Wireless LAN** > **Options** > **Advanced settings** to access advanced WLAN settings. The wireless LAN advanced settings are normally defined automatically, and changing them is not recommended. To edit the settings manually, select **Automatic configuration** > **Disabled**, and define the following:
 - **Long retry limit** – Enter the maximum number of transmission attempts if the device does not receive a receiving acknowledgement signal from the network.
 - **Short retry limit** – Enter the maximum number of transmission attempts if the device does not receive a clear-to-send signal from the network.
 - **RTS threshold** – Select the data packet size at which the wireless LAN access point device issues a request to send before sending the packet.

- **TX power level** – Select the power level of your device when sending data.
 - **Radio measurements** – Enable or disable the radio measurements.
 - **Power saving** – Enable or disable power saving.
- To restore all settings to their original values, select **Options** > **Restore defaults**.



WLAN wizard

The WLAN wizard helps you to connect to a wireless LAN. The WLAN wizard shows the status of your wireless LAN connections and network searches in the active standby mode. To view the available options, scroll to the row showing the status, and press the scroll key. Depending on the status, you can start the web browser using a wireless

LAN connection, disconnect from a wireless LAN, search for wireless LANs, or set network scanning on or off.


If wireless LAN scanning is off and you are not connected to any wireless LAN, *WLAN scanning off* is displayed in the active standby mode. To set scanning on and search for available wireless LANs, scroll to the status, and press the scroll key.

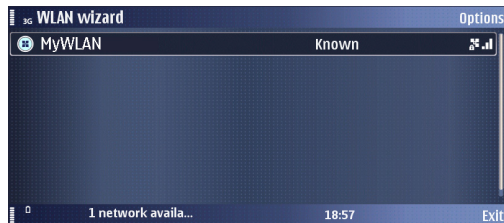
To start a search for available wireless LANs, scroll to a status, press the scroll key, and select *Search for WLAN*. To set wireless LAN scanning off, scroll to a status, press the scroll key, and select *Switch WLAN scan off*.

When you select *Start Web browsing*, the WLAN wizard automatically creates an internet access point (IAP) for the selected wireless LAN. The IAP can also be used with other applications requiring wireless LAN connection.

If you select a secured wireless LAN network, you are asked to enter the relevant passcodes. To connect to a hidden network, you must enter the correct hidden service set identifier (SSID).

You can also start the WLAN wizard separately to get more information on wireless LANs within range.

Select  > *Connectivity* > *WLAN wiz.* Found networks are displayed.



Scroll to the desired network, select *Options*, and from the following:

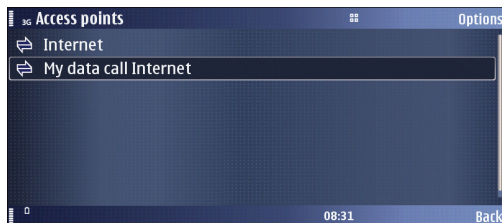
- *Start Web browsing* or *Cont. Web browsing* – Start or continue browsing the web using the IAP of the wireless LAN.
- *Disconnect WLAN* – Disconnect the active connection to the wireless LAN.
- *Refresh* – Update the list of available wireless LANs.
- *Details* – View the details of the wireless LAN.
- *Define access point* – Create an internet access point without starting the web browser.

Always enable one of the available encryption methods to increase the security of your wireless LAN connection. Using encryption reduces the risk of unauthorized access to your data.

Creating Internet connections

Creating an Internet access point for packet data (GPRS)

- 1 Select **Tools** > **Settings** > **Connection** > **Access points**.

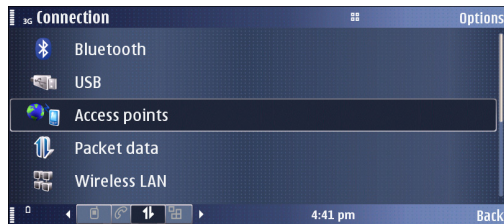


- 2 The list of existing access points is shown. Press **Options** > **New access point** to create a new Internet access point.
To use an existing access point as a basis for the new one, select **Use existing settings**. To start with an empty access point, select **Use default settings**.
- 3 Define the following settings:
 - **Connection name** – Type a descriptive name for the Internet access point, such as **My GPRS Internet**.
 - **Data bearer** – Select **Packet data**.

- **Access point name** – Enter the name for the access point. The name is usually provided by your service provider or network operator.
 - **User name** – Enter your user name if required by the service provider. User names are often case-sensitive and provided by your service provider.
 - **Prompt password** – Select **Yes** to enter your password each time you log into a server or **No** to save the password in your device memory and automate the login.
 - **Password** – Enter your password if required by the service provider. The password is often case-sensitive and provided by the service provider.
 - **Authentication** – Select **Secure** to always send your password encrypted or **Normal** to send your password encrypted when possible.
 - **Homepage** – Enter the Web address of the page you want to display as a home page when you use this access point.
- 4 After setting up a basic Internet access point for **Packet data** (GPRS), select **Back** to save the settings and exit, or **Options** > **Advanced settings** to define the following advanced settings:
 - **Network type** – Select **IPv4** or **IPv6** as the Internet protocol type. The Internet protocol defines how data is transferred to and from your device.

- **Phone IP address** — Enter the IP address of your device. Select Automatic to have the network provide the device IP address. This setting is available only if you have selected *Network type > IPv4*.
- **DNS address** — Enter the *Primary DNS address* and *Secondary DNS address* if required by your service provider or network operator. Otherwise, the name server addresses are provided automatically.
- **Proxy server address** — Enter the address of the proxy server. Proxy servers are intermediate servers between a browsing service and its users, which are used by some service providers. These servers may provide additional security and speed up access to the service.
- **Proxy port number** — Enter the port number used by the proxy server.

Creating an Internet access point for data calls




- 1 Select **Tools > Settings > Connection > Access points**.
- 2 The list of existing access points is shown. Press **Options > New access point** to create a new Internet access point.
To use an existing access point as a basis for the new one, select *Use existing settings*. To start with an empty access point, select *Use default settings*.
- 3 Define the following settings:
 - **Connection name** — Type a descriptive name for the Internet access point, such as **My Data Call Internet**.
 - **Data bearer** — Select *Data call* or *High speed (GSM)*.
 - **Dial-up number** — Enter the modem telephone number of the access point. Remember to type + before international numbers.

- **User name** – Enter your user name if required by the service provider. User names are often case-sensitive and provided by your service provider.
 - **Prompt password** – Select **Yes** to enter your password each time you log into a server or **No** to save the password in your device memory and automate the login.
 - **Password** – Enter your password if required by the service provider. The password is often case-sensitive and provided by the service provider.
 - **Authentication** – Select **Secure** to always send your password encrypted or **Normal** to send your password encrypted when possible.
 - **Homepage** – Enter the Web address of the page you want to display as a home page when you use this access point.
 - **Data call type** – Select **Analogue** or **ISDN**. This setting depends on both your GSM network operator and Internet service provider, because some GSM networks do not support certain types of ISDN connections. For details, contact your Internet service provider. If ISDN connections are available, they establish connections more quickly than analog methods.
 - **Maximum data speed** – Select the limit to apply to the transfer speed. The speed represents the maximum speed at which your connection will operate. During the connection, the operating speed may be less, depending on network conditions. If you select **Automatic**, the data transfer rate is determined by the network and may be affected by network traffic. Some service providers may charge more for higher data rates.
- 4 After setting up a basic Internet access point for **Data call** or **High speed (GSM)**, select **Back** to save the settings and exit, or **Options** > **Advanced settings** to define the following advanced settings:
- **IPv4 settings** – Enter the device IP and name server addresses for IPv4 Internet protocol.
 - **IPv6 settings** – Enter the device IP and name server addresses for IPv6 Internet protocol.
 - **Proxy server address** – Enter the IP address or the domain name of the proxy server. For example, domain names are company.com and organisation.org
 - **Proxy port number** – Enter the proxy server port number. The port number is related to the protocol. Common values are 8000 and 8080, but vary with every proxy server. Proxy servers are intermediate servers between a browsing service and its users, which are used by some service providers. These servers may provide additional security and speed up access to the service.
 - **Use callback** – Select **Yes** if you have a service that dials back to your device when you establish an Internet connection.
 - **Callback type** – Select **Use server number** or **Use other number**, according to instructions from your service provider.

- **Callback number** — Enter your data call phone number of your device, which the callback server uses.
- **Use PPP compress.** — Select **Yes** to speed up the data transfer, if it is supported by the remote PPP server.
- **Use login script** — Select **Yes**, if your Internet service provider requires a login script, or if you want to automate your login. A login script is a sequence of instructions that the system follows during the login process.
- **Login script** — Enter the login script. This setting is available only if you have selected **Use login script > Yes**.
- **Modem initialisat. string** — Enter a command string for the connection setup, if required by your service provider.

Creating an Internet access point for WLAN

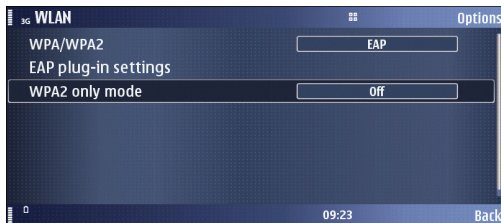
- 1 Select  > **Tools > Settings > Connection > Access points**.
- 2 The list of existing access points is shown. Press **Options > New access point** to create a new Internet access point.
To use an existing access point as a basis for the new one, select **Use existing settings**. To start with an empty access point, select **Use default settings**.

- 3 Define the following settings:
 - **Connection name** — Type a descriptive name for the Internet access point, such as **My WLAN Internet**.
 - **Data bearer** — Select **Wireless LAN**.
 - **WLAN network name** — To enter the service set identifier (SSID), that is, the name that identifies the specific wireless LAN, select **Enter manually**. To select the network from the wireless LANs in range, select **Search for networks**.
 - **Network status** — Select **Hidden** if the network you are connecting to is hidden, or **Public** if it is not hidden.
 - **WLAN network mode** — If you select **Infrastructure**, devices can communicate with each other and with wired LAN devices through a wireless LAN access point. If you select **Ad-hoc**, devices can send and receive data directly with each other, and no wireless LAN access point is needed.
 - **WLAN security mode** — You must select the same security mode that is used in the wireless LAN access point. If you select **WEP** (wired equivalent privacy), **802.1x**, or **WPA/WPA2** (Wi-Fi protected access), you must also configure the relevant additional settings as described in step 4.
 - **Homepage** — Enter the Web address of the page you want to display as a home page when you use this access point.



Note: The settings available for editing may vary.

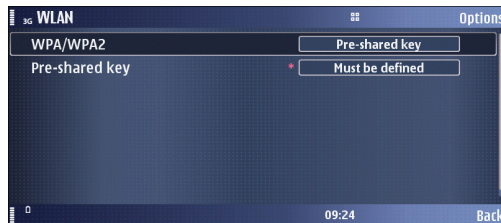
- 4 If you selected *WPA/WPA2* as the *WLAN security mode*, define the following in *WLAN security settings*:
- *WPA/WPA2* – Select *EAP* if you want to use an EAP module for authentication. If you select *Pre-shared key*, type the password (also called a master key) in the field. Note that the same key must be entered in the wireless LAN access point.
 - *EAP plug-in settings* – If you selected *EAP*, you must also define these settings. See “Modifying EAP settings” for more information.
 - *WPA2 only mode* – Select *Off* to enable both WPA and WPA2 modes. If you select *On*, the access point must support WPA2 mode.



If you selected *802.1x* as the *WLAN security mode*, define the following in *WLAN security sett.*:

- *WPA/WPA 2* – Select *EAP* if you want to use an EAP module for authentication. If you select *Pre-shared key*, type the password (also called a master key) in

the field. Note that the same key must be entered in the wireless LAN access point.



- *EAP plug-in settings* – If you selected *EAP*, you must also define these settings. See “Modifying EAP settings” for more information.

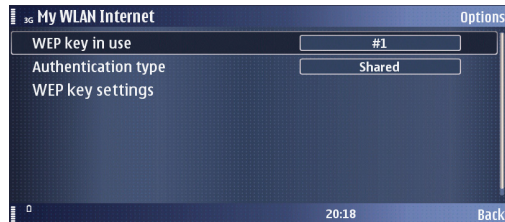


Note: 802.1x authenticates and authorises devices to access a wireless network, and prevents access if the authorisation process fails.

If you selected *WEP* as the *WLAN security mode*, define the following in *WLAN security sett.*:

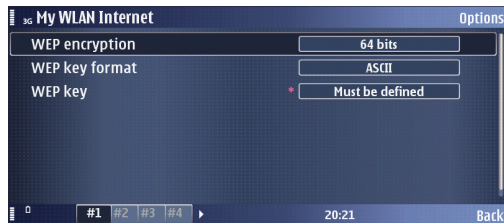
- *WEP key in use* – Select which WEP key is used (#1–#4).
- *Authentication type* – Select *Open* or *Shared*. Use the *Open* authentication when no authentication is required. The *Shared* authentication verifies that an

authenticating wireless client has the same WEP key as your WLAN access point.



- **WEP key settings** – The remaining settings are defined here:
 - WEP encryption** – Select the desired WEP encryption key length. Supported options are 64 and 128 bits. The more bits there are in the key, the higher the level of security. WEP keys consist of a secret key and a 24-bit initialisation vector. For example, some manufacturers refer to the 104-bit key as a 128-bit key (104+24). Both keys offer the same level of encryption and are therefore interoperable.
 - WEP key format** – Select whether you want to enter the WEP key data in *Hexadecimal* format or in text format (*ASCII*).

WEP key – Enter the WEP key data. The number of characters you can enter depends on the key length you have chosen.



Note: Wired equivalent privacy (WEP) encryption method encrypts data before it is transmitted. Access to the network is denied to users who do not have the required WEP keys. When WEP security mode is in use, if your device receives a data packet not encrypted with the WEP keys, the data is discarded. In an Ad-hoc network, all devices must use the same WEP key.

- 5 After setting up a basic Internet access point for *Wireless LAN*, select *Back* to save the settings and exit, or *Options* > *Advanced settings* to define the following advanced settings:
 - **IPv4 settings** – Enter the device IP and name server addresses for IPv4 Internet protocol.

- [IPv6 settings](#) – Select or enter the name server addresses for IPv6 Internet protocol.
- [Ad-hoc channel](#) – If the selected network mode is ad-hoc, select [User defined](#) to manually enter a channel number (1–11).
- [Proxy server address](#) – Enter the proxy server address.
- [Proxy port number](#) – Enter the proxy server port number. Proxy servers are intermediate servers between a browsing service and its users, which are used by some service providers. These servers may provide additional security and speed up access to the service.



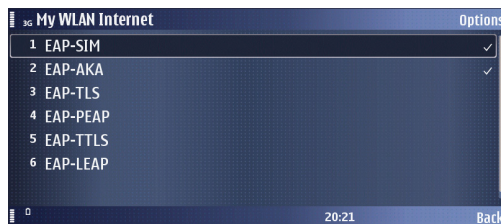
Note: The settings available for editing may vary. Contact your service provider for more information.

Modifying EAP settings

The extensible authentication protocol (EAP) plug-ins are used in wireless networks to authenticate wireless devices and authentication servers, and the different EAP plug-ins make possible the use of various EAP methods (network service).

To use an EAP plug-in when you connect to a WLAN using the access point, select the desired plug-in via [WLAN security settings](#) > [EAP plug-in settings](#) and [Options](#) > [Enable](#). The EAP plug-ins enabled for use with this access point

have a check mark next to them. To not use a plug-in, select [Options](#) > [Disable](#).



To edit the EAP plug-in settings, select [Options](#) > [Edit](#).


To change the priority of the EAP plug-in settings, select [Options](#) > [Raise priority](#) to attempt to use the plug-in before other plug-ins when connecting to the network with the access point, or [Options](#) > [Lower priority](#) to use this plug-in for network authentication after attempting to use other plug-ins.

The available options may vary. Check the EAP plug-in values from your WLAN administrator.

Selecting an Internet access point

When you establish an Internet connection, you are asked to select the Internet access point you want to use for that connection. Select an Internet access point from the list of available access points, and press [Select](#).



Tip: The [Select access point](#) dialog opens only if you have selected [Always ask](#) in the [Access point](#) field in the Web settings. Otherwise, the selected default Internet access point is used. To check the status of the setting, select  > [Web](#) > [Options](#) > [Settings](#) > [General](#) > [Access point](#).

Configuring text messages (SMS)




Note: Before you can send and receive text messages, the following conditions must exist:

- The phone must be turned on.
- The network you are using must support the text message service.
- The text message service must be activated for your SIM card.
- The text message settings must be defined.



Note: Your device may have recognised the SIM card provider and automatically configured the text message settings. If not, contact your service provider.

Configuring text message centre settings


Select  > *Messaging* > *Options* > *Settings* > *Text message* > *Message centres* to access the message centre settings.

To edit message centres, select the message centre, and *Options* > *Edit*.

To add new message centres, select *Options* > *New message centre*.

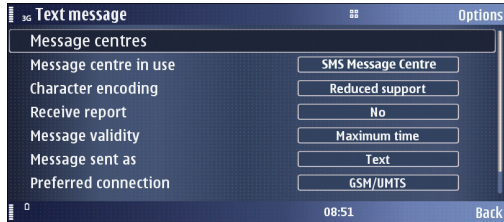
To delete message centres, select the message centre, and *Options* > *Delete*.

Configuring text message settings

Select  > *Messaging* > *Options* > *Settings* > *Text message* to access the following text message settings.

- *Message centre in use* – Select the message centre you want to deliver your text messages.
- *Character encoding* – Select *Reduced support* to use automatic character conversion to another encoding system when available.
- *Receive report* – Select *Yes* if you want that the network sends you delivery reports on your messages (network service).
- *Message validity* – Select how long the message centre resends your message if the first attempt fails (network service). If the recipient cannot be reached within the validity period, the message is deleted from the message centre.
- *Message sent as* – Convert the message to another format, such as *Text*, *Fax*, *Paging* or *E-mail*. Change this option only if you are sure that your message centre is able to convert text messages into these other formats. Contact your network operator.


- *Preferred connection* – Select the preferred method of connection when sending text messages from your device.
- *Reply via same centre* – Select whether you want the reply message to be sent using the same text message centre number (network service).



Configuring multimedia messages (MMS)

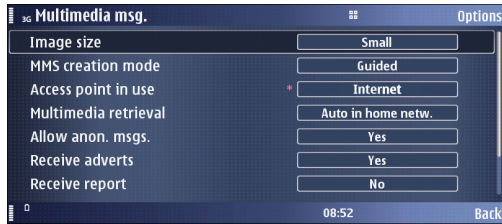


Note: Only devices that have compatible features can receive and display multimedia messages. The appearance of a message may vary depending on the receiving device. Before you can send or receive multimedia messages on your device, you must define the multimedia message settings. Your device may have recognised the SIM card provider and automatically configured the multimedia message settings. If not, contact your service provider.


Select  > *Messaging* > *Options* > *Settings* > *Multimedia message* to access the multimedia message settings.

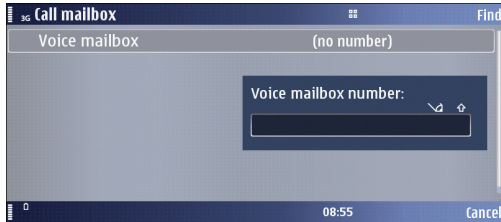
- *Image size* — Select *Small* or *Large* to scale images in multimedia messages. Select *Original* to maintain the original image size of multimedia messages.
- *MMS creation mode* — Select *Restricted* to have your device prevent you from including content in multimedia messages that may not be supported by the network or the receiving device. To receive warnings about including such content, select *Guided*. To create a multimedia message with no restrictions on attachment type, select *Free*. If you select *Restricted*, creating multimedia presentations is not possible.
- *Access point in use* — Select the default access point to connect to the multimedia message centre. You may not be able to change the default access point if it is present in your device by your service provider.
- *Multimedia retrieval* — Select *Always automatic* to always receive multimedia messages automatically, *Auto in home netw.* to receive notification of a new multimedia message that you can retrieve from the message centre (for example, when you are traveling abroad and are outside your home network), *Manual* to retrieve multimedia messages from the message centre manually, or *Off* to prevent receipt of any multimedia messages.
- *Allow anon. msg.s.* — Select whether you want to receive messages from unknown senders.
- *Receive adverts* — Select whether you want to receive messages defined as advertisements.
- *Receive report* — Select *Yes* to have the status of the sent message to be shown in the log (network service). Receiving a delivery report of a multimedia message that has been sent to an e-mail address may not be possible.
- *Deny report sending* — Select *Yes* to not send delivery reports from your device for received multimedia messages.

- *Message validity* – Select how long the message centre resends your message if the first attempt fails (network service). If the recipient cannot be reached within the validity period, the message is deleted from the message centre. *Maximum time* is the maximum amount of time allowed by the network.



Configuring voice mailbox (network service)

To configure your voice mailbox settings, select  > *Tools* > *Call mailbox*.



When you open the voice mailbox application for the first time, you are asked to enter the number of your voice mailbox. To change the number, select *Options* > *Change number*. To call the number, select *Options* > *Call voice mailbox*.



Tip: To call your voice mailbox (network service) in standby mode, press and hold **1**, or press **1** then the call key.