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E70

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Nokia E70

Configuring connection settings

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Introduction

This document is a support guide for the configuration of Internet settings needed to use the Nokia E70 for data connections.

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

- The cellular network (GSM 900/1800/1900) you use must support data calls.
- The data service (also the high-speed HSCSD 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.

Creating Internet connections

Creating an Internet access point for data calls



- 1 Select **Menu**→ *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 data (GSM only)*.
- *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.

- **Max. 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 data (GSM only)**, 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 serv. 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 no.** or **Use other no.**, 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 initialisation** – Enter a command string for the connection setup, if required by your service provider.

Creating an Internet access point for packet data (GPRS)

- 1 Select **Menu**→ *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 IP addresses of the *Primary DNS address* and *Secondary DNS addr.* if required by

your service provider or network operator. Otherwise, the name server addresses are provided automatically.

- **Proxy serv. 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.

Creating an Internet access point for WLAN

- 1 Select **Menu** → **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 netw. 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 netw.**

- **Network status** — Select **Hidden** if the network you are connecting to is hidden, or **Public** if it is not hidden.
- **WLAN netw. 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 sett.**:
 - **WPA mode** — 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 page 9 for more information.

- **TKIP encryption** – To enable TKIP encryption, based on transient keys changed often enough to prevent misuse, select *Allowed*. All devices in the wireless LAN must either allow or prevent the use of TKIP encryption.

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

- **WPA mode** – 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 page 9 for more information.



Note: 802.1x authenticates and authorizes devices to access a wireless network, and prevents access if the authorization 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*.



- **WEP key settings** – The remaining settings are defined here:
 - WEP encryption** – Select the desired WEP encryption key length. Supported options are 64, 128, and 256 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 initialization 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.

- 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 serv. 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.



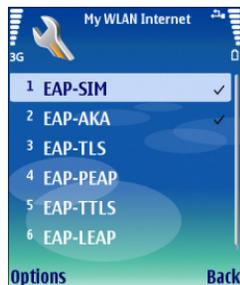
Note: The settings available for editing may vary. Contact your service provider for more information.

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 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*→*Configure*.

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.

Creating an Internet access point for IP passthrough

1 Select *Menu*→*Tools*→*Settings*→*Connection*→*Access points*.

- The list of existing access points is shown. Select *Options*→*New access point*→*Use default settings* to create a new access point.
- Define the following settings:
 - Connection name* – Type a descriptive name for the Internet access point, such as **My IP Passthrough**.
 - Data bearer* – Select *IP passthrough*.
- After configuring the basic settings for *IP passthrough*, select *Back* to save the settings and exit, or *Options*→*Advanced settings* to define the following advanced settings:
 - IPv4 settings* – Enter the *Phone IP address* and *DNS address* for the IPv4 Internet protocol.
 - IPv6 settings* – Enter the *DNS address* for the IPv6 Internet protocol.
 - Proxy serv. 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 proxy server port number.



Note: DNS is an Internet service that translates domain names such as *www.nokia.com* into IPv4 addresses such as *192.100.124.195*, or IPv6 addresses like *3ffe:2650:a640:1c2:341:c39:14*.

Activating IP passthrough



Note: Use the USB data cable driver to establish a cable connection between your device and a compatible Windows-based PC.

For Windows 2000 and Windows XP users: the drivers for the Nokia DKU-2 and CA-53 cables are integrated into Nokia PC Suite version 6.7 and onwards. Instead of downloading the cable driver separately, it is recommended that you download the Nokia PC Suite.

Select **Menu** → *Connect* → *Data cable* → *Options* → *IP passthrough* to use the data cable for the IP passthrough Internet access point.

Nokia Network Bridge (which can be downloaded from forum.nokia.com) is the IP passthrough application that allows you to obtain a network connection on your device from a compatible PC through a USB data cable. Connect the USB data cable to the bottom of the device. Connect the other end of the data cable to a compatible PC, and wait for the PC to recognize your device.

Use IP passthrough as you use any Internet access point to browse or synchronize remotely. If a wireless network connection is unavailable, use IP passthrough to access the Internet or a LAN. You cannot use IP passthrough at the same time as Nokia PC Suite. You cannot activate the

modem if you select IP passthrough in cable connection settings.

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 **Menu** → *Web* → *Options* → *Settings*.

Access point groups

Select **Menu** → *Tools* → *Settings* → *Connection* → *Access point groups*.

An access point group is used for grouping and prioritizing access points. An application can use a group as a connection method instead of a single access point. In that case the best available access point inside a group is used for making connection and in case of email, also for roaming.

To create an access point group, select [Access point groups](#)→ [Options](#)→ [New groups](#). In the [Group name](#) field, enter a name for the group. Define in the [Conn. switching](#) field whether to show the connection switching process on the display of your device. Choose and edit the access points that belong to this group in the [Access points](#) section.

To remove an access point in an access point group, select the access point and [Options](#)→ [Remove](#).

Configuring wireless LAN

- 1 Select **Menu**→ *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 **Menu**→ *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 config.*→ *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*.

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.

Configuring text message center settings

Select **Menu** → *Messag.* → *Options* → *Settings* → *Text message* → *Message centres* to access the message center settings.

To edit message centers, select the message center, and *Options* → *Edit*.

To add new message centers, select *Options* → *New msg. centre*.

To delete message centers, select the message center, and *Options* → *Delete*.

Configuring text message settings

Select **Menu** → *Messag.* → *Options* → *Settings* → *Text message* to access the following text message settings.

- *Msg. centre in use* – Select the message center 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 center 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 center.
- *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 center is able to convert text messages into these other formats. Contact your network operator.

- *Preferred conn.* – Select the preferred method of connection when sending text messages from your device.
- *Reply via same ctr.* – Select whether you want the reply message to be sent using the same text message center 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 recognized the SIM card provider and automatically configured the multimedia message settings. If not, contact your service provider.

Select **Menu**→ *Message*→ *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 center. You may not be able to change the default access point if it is preset in your device by your service provider.
- *Multimedia retrieval* – Select *Always automatic* to always receive multimedia messages automatically, *Aut. in home network* to receive notification of a new multimedia message that you can retrieve from the message center (for example, when you are traveling abroad and are outside your home network), *Manual* to retrieve multimedia messages from the message center manually, or *Off* to prevent receipt of any multimedia messages.
- *Allow anon. msgs.* – 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 center 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 center. *Maximum time* is the maximum amount of time allowed by the network.

Configuring voice mailbox (network service)

To configure your voice mailbox settings, select **Menu**→
Organiser→ *Voic.mail*.



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.