



Nokia E61i

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Nokia E61i Internet calls

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Internet calls

Your Nokia E61i supports voice calls over the Internet (Internet calls). With the Internet call service (network service), you can make and receive calls over the Internet. Internet calls can be made from places that have a broadband connection and WLAN access, e.g. homes, hotspots at airports, and cafes.



Note: The Internet Call service must be set up on your Nokia E61i before you can make or receive calls. In addition to an active WLAN connection, you need an Internet call account from a SIP VoIP service provider.

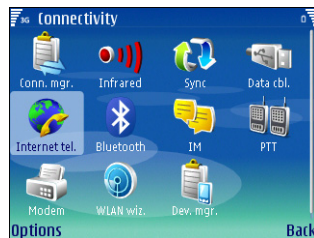
VoIP (Voice Over Internet Protocol) technology is a set of protocols that facilitate phone calls over an IP network, such as the Internet. VoIP phone calls can be established between computers, between mobile phones, and between a VoIP device and a traditional telephone. To make or receive a VoIP call, your device must be within WLAN coverage.

The availability of the Internet call service may vary according to your country or sales area.

Define the Internet call settings

If your Internet call service provider offers provisioning for the SIP VoIP settings, it is suggested to use the provisioning service instead of defining the settings manually. For details, contact your service provider.

Before you can make Internet calls, you need to define the Internet call settings. After you have defined the Internet call settings with these instructions, your device logs in to the Internet call service automatically when you select [Menu](#) > [Connect](#) > [Internet tel.](#)



To define the Internet call settings, do the following:

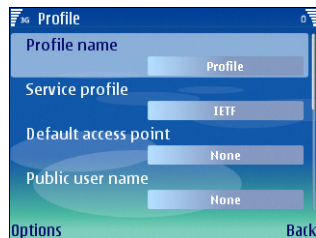
- 1 Define a SIP profile.
- 2 Define an Internet call profile.
- 3 Select a preferred Internet call profile (optional).

Define a SIP profile

- 1 Select **Menu** > **Tools** > **Settings** > **Connection** > **SIP settings** > **Options** > **Add new**.

Contact your Internet call service provider for the correct information.

Define the following settings:



- **Profile name** — Enter a name for the SIP profile.
- **Service profile** — Select **IETF** or **Nokia 3GPP** as specified by your service provider. The default is **IETF**.
- **Default access point** — Select the access point to use for the Internet connection.
- **Public user name** — Enter your user name received from your service provider.
- **Use compression** — Select **Yes** or **No** as specified by your service provider. The default is **No**.
- **Registration** — For automatic login, set the registration mode to **Always on**. For manual login, set it to **When needed**.

- **Use security** — Select **Yes** or **No** as specified by your service provider. The default is **No**.
- **Proxy server** — Enter the proxy server settings for this SIP profile. See "Define SIP proxy server details", p. 4.
- **Registrar server** — Enter the registration server settings for this SIP profile. See "Define registration server details", p. 5.

- 2 Select **Back** until you return to the **Connection** menu.

Define SIP proxy server details

- 1 Select **Proxy server**.

Proxy servers are intermediate servers between a browsing service and its users used by some service providers. These servers may provide additional security and speed up access to the service.

Define the following settings:

- **Proxy server address** — Enter the host name or IP address of the proxy server in use.
- **Realm** — Enter the proxy server realm.
- **User name and Password** — Enter your user name and password for the proxy server.
- **Allow loose routing** — Select **Yes** or **No** as specified by your service provider. The default is **Yes**.
- **Transport type** — Set the **Transport type** to **Auto**.
- **Port** — Enter the port number of the proxy server.

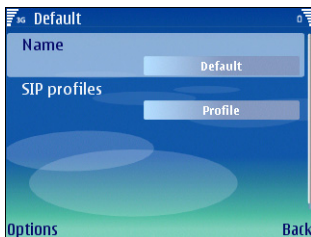
- 2 Select **Back** until you return to the **Connection** menu.

Define registration server details

- 1 Select *Registrar server*.
Define the following settings:
 - *Registrar serv. addr.* — Enter the host name or IP address of the registrar server in use.
 - *Realm* — Enter the registrar server realm.
 - *User name and Password* — Enter your user name and password for the registrar server.
 - *Transport type* — Set the *Transport type* to *Auto*.
 - *Port* — Enter the port number of the registrar server.
- 2 Select *Back* until you return to the *Connection* menu.

Define an Internet call profile

- 1 Select *Menu > Tools > Settings > Connection > Internet tel.settings > Options > New profile*. Enter a name for the profile, and select the SIP profile you just created.



- 2 Select *Back* until you return to the main menu.

Select a preferred Internet call profile

If you select a preferred Internet call profile, *Internet tel.* automatically uses this network profile to connect to the Internet call service.

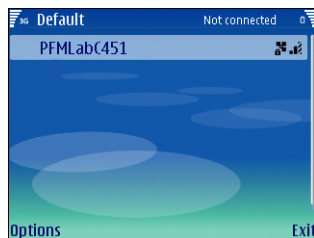
- 1 Select *Menu > Connect > Internet tel.*
- 2 Select *Preferred profile* and the Internet call profile you just created.
- 3 Select *Back* until you return to the main menu.

Connect to the Internet call service

To make or receive an Internet call, your device must be connected to an Internet call service. Select *Menu > Connect > Internet tel.*

If you have selected automatic login, your device automatically connects to the Internet call service. If you manually login to the service, choose an available connection network from the list, and press the scroll key to connect to the Internet call service. The saved networks, which are marked with a star icon, are shown

first on the list. If you want to stop the connection from establishing, select **Cancel**.



Select **Options** and from the following:

- **Connect to service** — to establish a connection to a service, when there is an Internet call service and suitable connection network available.
- **Disconnect from serv.** — to end the connection to the Internet call service.
- **Change service** — to choose the Internet call service for outgoing calls if the device is connected to more than one service. This option is shown only if there is more than one configured service available.
- **Configure service** — to configure new services. This option is shown only if there are services that have not been configured.
- **Save network** — to save the network settings to which you are currently connected. The previously saved networks are marked with a star icon on the list of connection networks. This option is shown only if you are connected to an unsaved WLAN network.

- **Use hidden network** — to connect to an Internet call service using a hidden WLAN network.
- **Refresh** — to manually refresh the list of connection networks. Use this option, if your WLAN network is not shown on the list. The list is also refreshed automatically every 15 seconds.

The available options may vary.

Your device can be connected only to one WLAN access point at a time. If you use two or more Internet call services, which use the same access point, your device may be connected to multiple services at the same time. The service used for outgoing Internet calls is shown in the view, where the connection networks are listed, and can be changed by selecting **Change service**.

After you have successfully connected to a service, you can save the used WLAN network as a known access point.

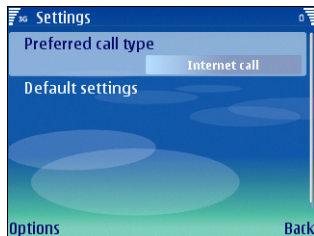
Connect using a shortcut

You may have a shortcut for **Internet tel.** in the active standby or you can add a shortcut if it is not available. By using the shortcut, you can register manually if an Internet call service and an access point are available. If you are already connected to an Internet call service, the device asks if you want to disconnect from the service.

Make Internet calls

If you set [Internet call](#) as the preferred call type and your device is connected to an Internet call service, calls are made as Internet calls as the default.

To set the preferred call type for outgoing calls, select [Menu](#) > [Connect](#) > [Internet tel.](#) > [Options](#) > [Settings](#) > [Preferred call type](#) > [Cellular](#) or [Internet call](#).



After you have connected to an Internet call service,  icon appears on the display in the standby mode, indicating that you have an active WLAN connection and that the device is registered with a SIP server so you can make Internet calls.

You can make an Internet call from all applications where you can make a regular voice call.

To make an Internet call in the standby mode, enter the phone number or Internet address, and press the call key.



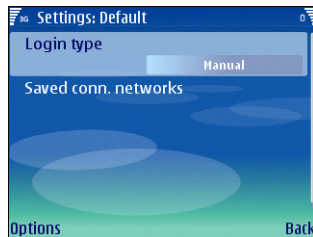
Note: To make an Internet call to an address that does not start with a digit, press any number key when the device is in the standby mode; then press # to clear the display and to switch the device from number mode to letter mode. Write the address, and press the call key.

You can also make an Internet call from [Contacts](#) and [Log](#). To make a call from [Contacts](#), select [Menu](#) > [Contacts](#), and scroll to the desired contact. Select [Options](#) > [Call](#) > [Internet call](#).

To make a call from [Log](#), select [Menu](#) > [Log](#) > [Recent calls](#) and [Missed calls](#), [Recvd. calls](#) or [Dialled nos.](#), and scroll to the desired contact. Select [Options](#) > [Call](#) > [Internet call](#).

Service settings

Select [Menu](#) > [Connect](#) > [Internet tel.](#) > [Options](#) > [Settings](#) > [Default settings](#):



Select [Login type](#) to view or change the way [Internet tel.](#) connects to the Internet call service. Select from the following:

- [Automatic](#) – Login automatically to the Internet call service. When a known network is found, the device automatically connects to the Internet call service. If you use the automatic login type for WLAN networks, the device periodically scans for WLAN networks, which increases the demand on battery power and reduces the battery life.
- [Manual](#) – Login manually to the Internet call service.

Select [Saved conn. networks](#) to view the connection networks you have saved for the Internet call service or the connection networks, which are recognized by the Internet call service. These networks are used for automatic login and are marked with a star icon on the list of connection networks. To remove a connection network from the service, select [Options](#) > [Remove](#).

Select [Edit service settings](#) to open the service-specific settings. This option is only available if a service-specific software plugin has been installed in the device.

Profile settings

Select [Menu](#) > [Connect](#) > [Internet tel.](#) to change settings.

Before you can select the default profile, you must create profiles in [Menu](#) > [Tools](#) > [Settings](#) > [Connection](#) > [Internet tel. settings](#).

To select the profile that is used by default when you make Internet calls, select [Preferred profile](#), and press the scroll key. Scroll to the desired profile, and press the scroll key.

To view or change the registration of your Internet telephone profiles in the local WLAN network, select [Registration status](#), and press the scroll key. Scroll to the profile that you want to register or unregister, and press the scroll key. Press the scroll key again to select [Registered](#) or [Not registered](#).



Note: Only those profiles where you have selected [Registration](#) > [When needed](#) setting in [Menu](#) > [Tools](#) > [Settings](#) > [Connection](#) > [SIP settings](#) are shown in the list.

To save your settings, select [Back](#).

Other features

The Internet call implementation includes the following features:

- Multiple Internet call profiles.
- Support for cable and Bluetooth headset.
- DTMF support.
- Volume control and mute.
- You can place an ongoing Internet call on hold, and make a new call. You can also switch between the call on hold and the new call.

- During an ongoing Internet call, you receive an alert of another incoming call. To activate Internet call waiting, select **Menu** > **Tools** > **Settings** > **Call** > **Internet call waiting**. Press the scroll key to activate Internet call waiting.
- You can restrict anonymous Internet calls by activating Internet call barring. Select **Menu** > **Tools** > **Settings** > **Call barring** > **Internet call barring**, and set **Anonymous calls** to **On**.
- You can hide your identity from the Internet call receivers. Select **Menu** > **Tools** > **Settings** > **Call** > **Send my net call ID**, and press the scroll key to select **No**. To enable the call ID to be sent, select **Yes**.
- You can reject incoming Internet calls automatically and inform the caller that you cannot answer incoming calls. Select **Menu** > **Tools** > **Settings** > **Call** > **Internet call alert**. Press the scroll key to set the alert **Off**. To enable Internet call alerts, select **On**.
- If you forward an incoming call, the caller is informed that the call is being forwarded to another recipient.

Network Address Translation (NAT)

Nokia E61i supports STUN (Simple Traversal of UDP Through NATs) servers for NAT (Network Address Translation) traversal, for networks where you do not have a public IP address. Even with STUN servers in use it is possible that the connection will not work, as some types of NATs still block the traffic.

The settings for NAT traversal can only be provisioned by the service provider, for example over the air or via download, but cannot be edited manually by the user.

Unlike the SIP settings and Internet call settings, the NAT settings cannot be defined manually, and it is therefore recommended to use provisioning offered by Internet call service provider.

NAT

There are two types of network address translation. The type often popularly called simply NAT (also named Network Address Port Translation or NAPT) refers to network address translation involving the mapping of port numbers, allowing multiple machines to share a single IP address. The other, technically simpler form – also called NAT or basic NAT or static NAT – involves only address translation, not port mapping. This requires an external IP address for each simultaneous connection. Broadband routers often use this feature to allow a designated computer to accept all external connections even when the router itself uses the only available external IP address.

STUN

STUN (Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)) is a network protocol allowing a client behind a NAT (or multiple NATs) to find out its public address, the type of NAT it is behind and the Internet side port associated by the NAT with a

particular local port. This information is used to set up UDP communication between two hosts that are both behind NAT routers.

STUN is a client-server protocol. Nokia E61i includes a STUN client which will send a request to a STUN server. The server then reports back to the STUN client the public IP address of the NAT router, and the port opened by the NAT to allow incoming traffic back in to the network. The response also allows the STUN client to determine what type of NAT is in use, as different types of NATs handle incoming UDP packets differently.

Protocols like SIP use UDP packets for the transfer of sound/video/text signaling traffic over the Internet. As both endpoints are often behind NAT, a connection cannot be set up in the traditional way. This is where STUN is useful.

Emergency calls

Your device attempts emergency calls primarily over cellular networks. If an emergency call using cellular networks is not successful, your device attempts an emergency call through your Internet call provider. Due to the established nature of cellular telephony, you should use cellular networks for emergency calls, if possible. If you have cellular network coverage available, make sure that your cellular phone is switched on and ready to make calls before you attempt an emergency call. The capability for an emergency call using Internet telephony depends on the availability of a WLAN network and your Internet call provider's implementation of emergency call capabilities. Contact your Internet call provider to check the Internet telephony emergency call capability.