



JoikuBoost Beta



JoikuBoost Beta User and Installation Guide

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1 What is JoikuBoost

JoikuBoost bases on new mobile Internet communications protocol developed by Joikusoft, which joins 3G bandwidth to a unified WiFi network. JoikuBoost complements Joikusoft's JoikuSpot solution by adding the 3G sharing and speed element to the solution. JoikuSpot enables sharing Internet from a single client, whereas JoikuBoost is a multi-client solution.

JoikuBoost allows you to share your Symbian S60 Smartphone's 3G data connection over Wifi with other JoikuBoost (Booster) phones. As a result, the overall Internet connection speed will be multiplied as JoikuBoost phones will create together a larger bit pipe making use of multiple 3G data networks from multiple phones and operators. JoikuBoost WiFi network that you create by sharing 3G with your friends is accessible over WiFi from laptops.

This document describes how to install and use JoikuBoost Beta. Please note that JoikuBoost is still at beta phase and it may contain bugs and errors, and that Joikusoft has not fully tested the solution against all possible device and network combinations.

Joikusoft welcomes all the feedback of use, feature wishes, bugs and performance evidence in different networks/phones. **You can post any such valuable feedback at our attention at boost@joikusoft.com or share your experiences publicly at our Joiku-community site at www.joiku.com (discussion forums and FAQs).**

Please be aware that network conditions like signal strength, overall 3G capacity and server loads may affect the download speed, and it takes some 20 seconds for speed impact to take place after starting JoikuBoost program. Please be specifically aware that the operator promised throughput may not be the same as the ACTUAL throughput of your operator provided mobile data connection. Actually, the actual speed may deviate a lot from your theoretical maximum bandwidth subscription. **Please note that you can add multiple Booster phones to your Boost network** to add the multiplying effect for your JoikuBoost WiFi network Internet connection speed.



2 JoikuBoost Beta 0.1 version details & known issues

- 1) **Please also see the complete JoikuBoost FAQ** at our community site www.joiku.com. We will be updating the known issues there regularly, per feedback we get from beta users.
- 2) **JoikuBoost Beta 0.1 is offered as a free download and on “as is basis”, and to be installed and used by user’s own risk.** “Beta is beta” by nature, and thus, may contain some errors and compatibility issues. Please be aware that your network operator will charge from the data amount you transfer via your JoikuBoost through operator network. Subscription for flat rate data plan is highly suggested, if such is available from your operator.
- 3) JoikuBoost software client installs and works in **Nokia S60v3 and S60v5** (Symbian) devices (e.g. Nokia N95, Nokia N95 8GB, Nokia E90, Nokia 5800, N97...). Device must have WiFi and 3G support. Please view the complete supported devices list at www.joiku.com JoikuBoost product information page.
- 4) JoikuBoost works with the latest Nokia phone **firmware versions**. In case you run a very early firmware version in your phone, please update your phone’s firmware easily with Nokia Software Updater in order to have proper WLAN/WiFi drivers updated to your phone for JoikuBoost to make use of. Software Updater can be downloaded at <http://europe.nokia.com/A4579163>.
- 5) When connecting external WiFi devices like laptops to your JoikuBoost Internet, please be aware that some older IBM and Lenovo laptop models (the WiFi chipsets inside them) are not compatible with all Nokia phone models, thus JoikuBoost may not function with such combinations.
- 6) JoikuBoost uses a new communications protocol developed by Joikusoft to share 3G from multiple phones and networks into a single WiFi network. In the current Beta version the “Boosting effect” (=SPEED) can be most clearly seen when downloading large multiple files simultaneously via two or three connected JoikuBoost clients. **The “Boosting effect” requires 10-20 seconds from download start to take place.** Different speed test sites in the Internet will not give you very reliable speed figures as their download test period is too short. Joikusoft is highly keen to know which types of speed and performance results you can get in your operator networks. JoikuBoost Master client (the one that creates the JoikuBoost network) shows the actual throughput in the application display (the connected boost clients only show their own speed that they bring to the shared Boost network).
- 7) Before starting JoikuBoost make sure there are no other applications using WiFi in your phone in parallel. JoikuBoost application will not start if WiFi is reserved for something else.

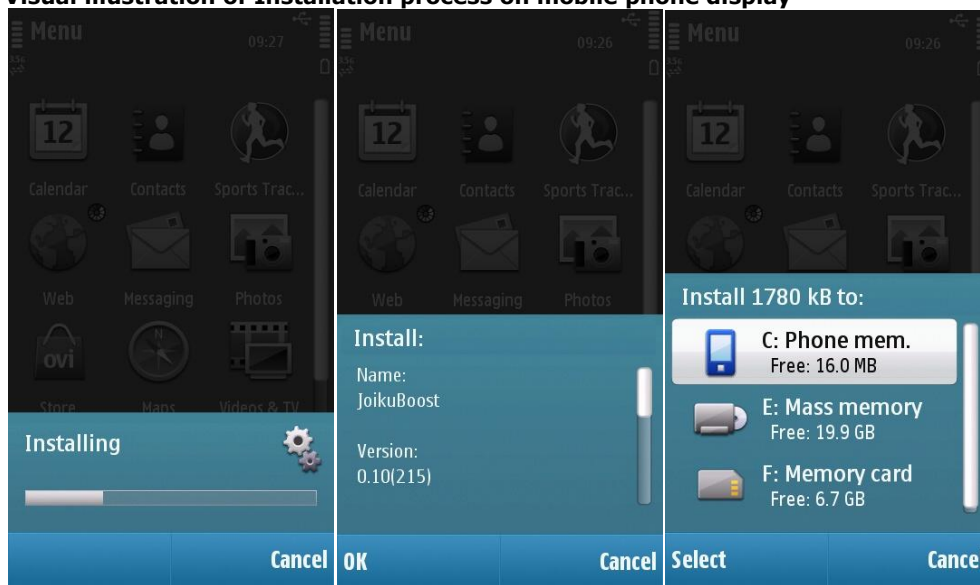
3 Installation

- 1) **Download JoikuBoost** Beta 0.1 software from www.joiku.com to your laptop.
- 2) **Install the .sis file** to your mobile phone. You can transfer the .sis file you have downloaded to your phone with Nokia PC Suite or by sending it to your phone via Bluetooth from your laptop.

As part of the installation process, your phone asks you whether you want to install the software. Click “OK” and select whether you wish to install it to your phone memory or external memory card. As part of the installation you need to approve the terms of use in order to use the software.

After installation is complete please reboot your phone. This will adjust and activate WLAN drivers in your phone for JoikuBoost.

Visual illustration of Installation process on mobile phone display





- 3) JoikuBoost is now installed and can be found in your phone's desktop under "Installations" or "Applications" menu folder.

Visual illustration on phone display



Applications folder – JoikuBoost icon.

You can move the application from this folder to any folder you like such as main folder by clicking "Options → Organize → Folder name".



4 Running JoikuBoost

- 1) **Click on the JoikuBoost icon** in your phone display, and JoikuBoost application starts.

In the JoikuBoost application main menu you have two functional options available and the settings menu.

Visual illustration on device display



JoikuBoost main menu.

- **Create network**

This selection will allow you to create a JoikuBoost primary network. Select this one for the first phone and add additional phones with “Add Booster”.

JoikuBoost will function just like JoikuSpot if no additional Booster phones are added to the network.

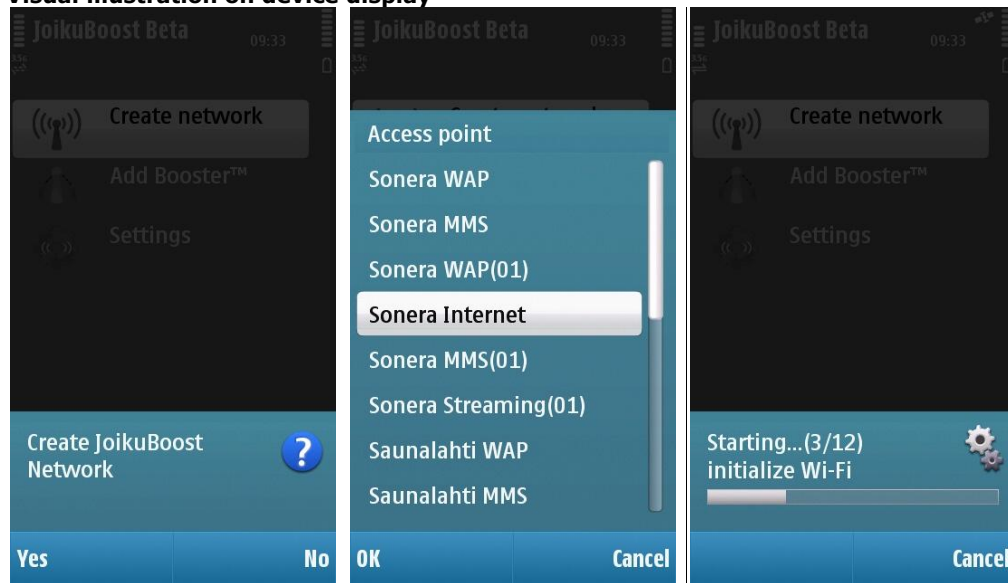
- **Add Booster**

When one JoikuBoost phone (=network) is already running, you can add additional “Booster” phones to join the Boost network, and add their speed to the shared WiFi hub. The more Boosters you add the greater is the speed.

- 2) **First, create the JoikuBoost primary network.** Select “Create network”. You will be prompted: “Create JoikuBoost Network?”

Choose the Internet connection that you want to share over WiFi (= **your operator’s default Internet access point**). Note that you are NOT able to share WiFi over e.g. WAP connection.

Visual illustration on device display

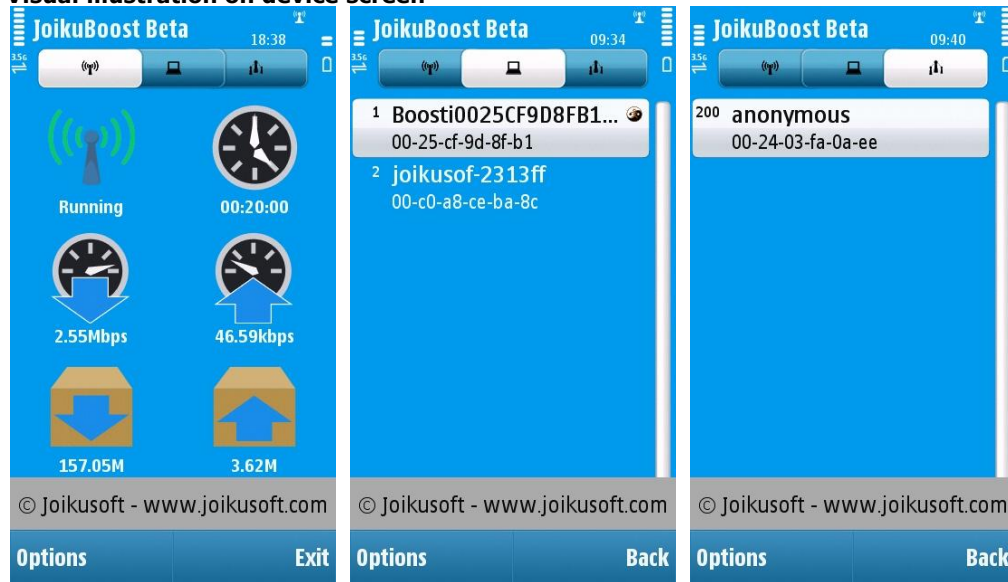


Choose your **default 3G Internet connection** from your network operator and activate the JoikuBoost.

- 3) **“JoikuBoost started”-prompt indicates that 3G WiFi sharing is successful.**

- 4) JoikuBoost is now active and connected, and external devices like laptops can discover it by scanning open WiFi networks. External devices see your JoikuBoost as “JoikuBoost Wifi network”, and they can choose to connect to the Internet via it using WiFi.

Visual illustration on device screen



JoikuBoost is active and connected and external devices can connect to it.

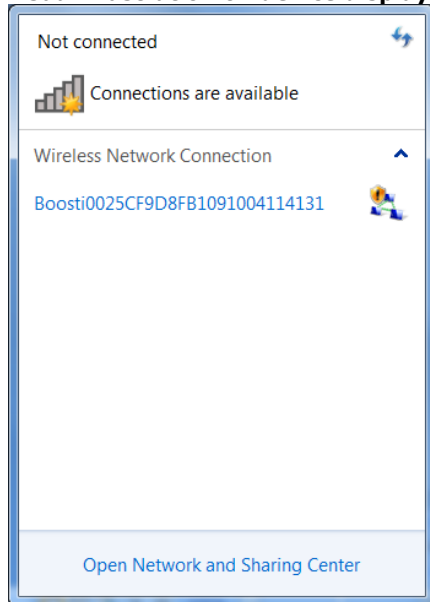
In “Connected/Running Mode” there are 3 tabs in the application that you can use:

- **Status tab** in the application indicates the connection status and amount of through-traffic via your JoikuBoost network.
- **Clients tab** in the application indicates connected external devices like laptops and whether the Internet connection is successfully established with them.
- **Boosters tab** in the application indicates the Booster phones connected to your phone sharing their 3G Internet connection with your JoikuBoost.

5 Connecting laptop to JoikuBoost network for Internet access

Click on “Wireless networks” on your laptop and select JoikuBoost WiFi network. Click “Connect” and you will connect your laptop to the Internet via your JoikuBoost network. The Internet traffic will flow through all 3G operator networks that are connected (Boosted) with your JoikuBoost.

Visual illustration on device display



JoikuBoost network found by a laptop.



6 Connecting Booster phones to JoikuBoost primary network

You can connect multiple JoikuBoost phones within close proximity to your JoikuBoost primary network (all Booster phones need to have JoikuBoost software installed). Additional Booster phones will increase your Internet capacity. Booster phone mobile data subscriptions can be from different operator networks (actually recommended as using multiple networks for Internet traffic route-through typically creates better performance).

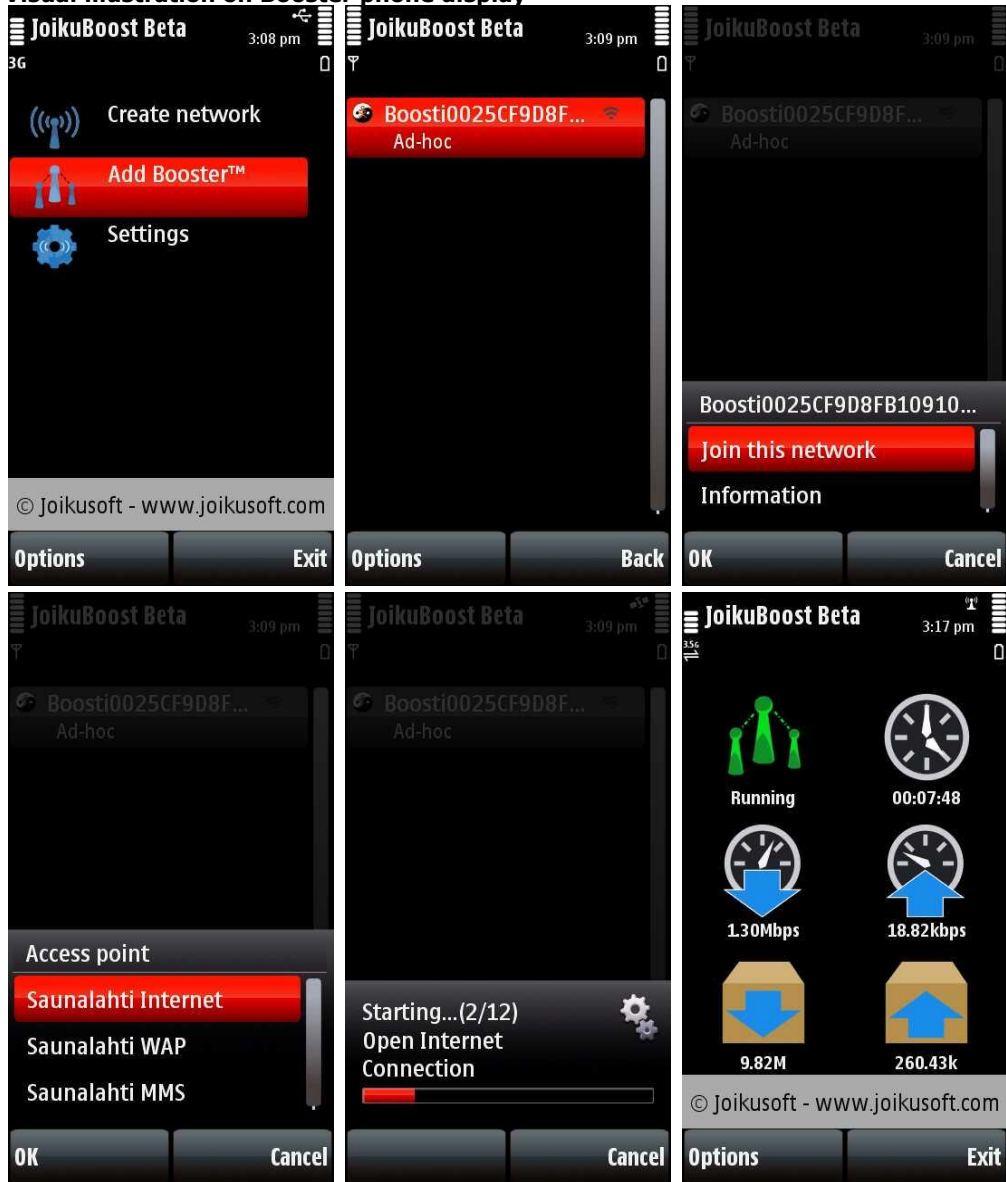
- 1) In the Booster phone, select “Add Booster” to connect second, third or fourth JoikuBoost phone to the primary JoikuBoost phone.
- 2) In the Booster phone, select the JoikuBoost network that you want to join in.
- 3) Choose your operator’s default 3G Internet APN (access point) and JoikuBoosters are connected to the primary JoikuBoost phone and network.
- 4) The Internet capacity is now multiplied as all connected Booster phones form together a larger mobile Internet bit pipe via multiple operator 3G networks.

PLEASE NOTE THAT EVERY PHONE THAT JOINS THE BOOST NETWORK WILL NEED TO HAVE JOIKUBOOST SOFTWARE INSTALLED TO THE PHONE.

TIP: Place phones near window or to a similar place where the 3G signal is the strongest. This will speed up the connection. You can keep your laptop(s) within 10-15 meters range from the phones as the bearer being used is WiFi (WLAN).

Repeat the same steps for every JoikuBoost phone that you wish to connect to the JoikuBoost WiFi network. Our suggestion with JoikuBoost Beta 0.1 is to keep the number of Booster phones under five (5) for local network stability. At least we haven’t tested connection stability with more than 4 connected Booster phones.

Visual illustration on Booster phone display



Connecting a booster to JoikuBoost network.

7 Settings menu (security etc. options)

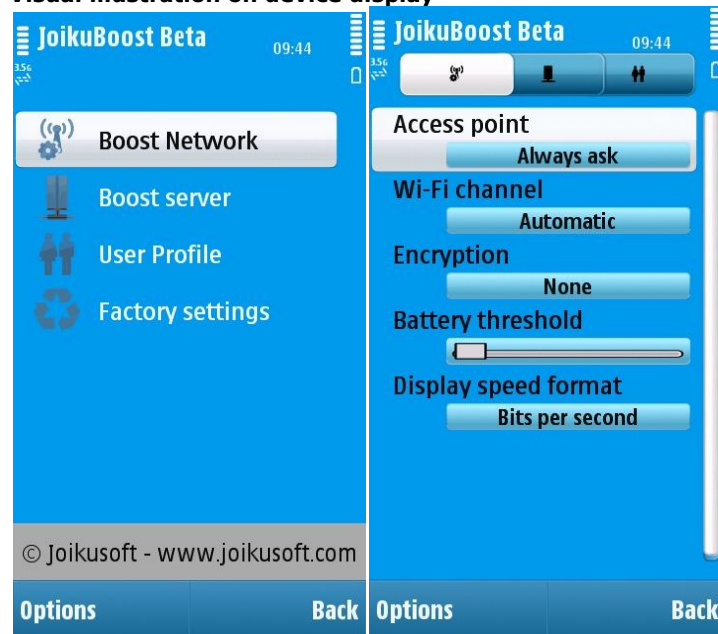
JoikuBoost needs to be stopped for adjusting the JoikuBoost settings like security. Click “Options → Stop” if in connected mode.

Under “Settings” you can set your default Internet APN; this will prevent future prompts when starting JoikuBoost.

You can also select the preferred Wifi channel (frequency); the default setting is “Automatic”.

You can also set the “Battery Threshold”; this will shut down JoikuBoost when battery level is too low. Please select a level that will fit your needs.

Visual illustration on device display



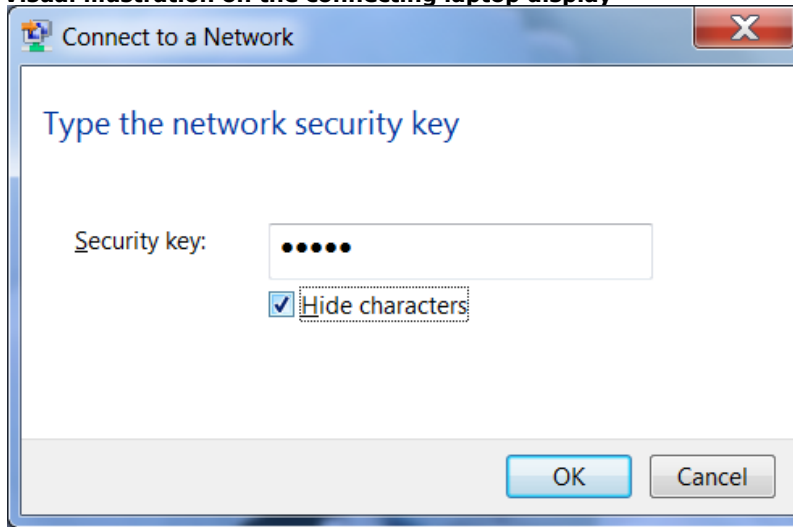
JoikuBoost settings menu.

If you want, you can set the Encryption on. This is not compulsory, but we suggest you to do it especially if you don’t have an unlimited data plan. The following security settings are recommended:

Encryption: WEP Open
Encryption key type: ASCII
Encryption key length: 128bit

Encryption key: This is generated automatically. You can also change it; just remember to set 13 characters. Write down your key, you will be prompted for it when setting up encryption to laptop or other wireless devices. **The key must be exactly the same in JoikuBoost and in your WiFi device.**

Visual illustration on the connecting laptop display



Windows is prompting for security key when connecting your laptop to the Internet via JoikuBoost network.

If you change the encryption settings later on in JoikuBoost, you will need to change the settings also in all your WiFi devices.

Visual illustration on device screen



Changing the JoikuBoost encryption settings.

When you have completed adjusting the settings, click “Back” and re-start your JoikuBoost by clicking “Options → Start”.

If you want, you can also set the “Registration name”. It will be shown to other JoikuBoosters.

Visual illustration on device screen



The “Registration Name” is shown to other JoikuBoosters

The rest of the settings are reserved for future usage (production release and should not be changed by the user without risking the JoikuBoost to function properly).

Visual illustration on device screen



Do not change these settings.

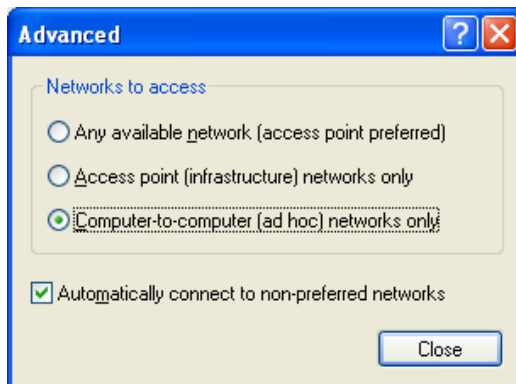
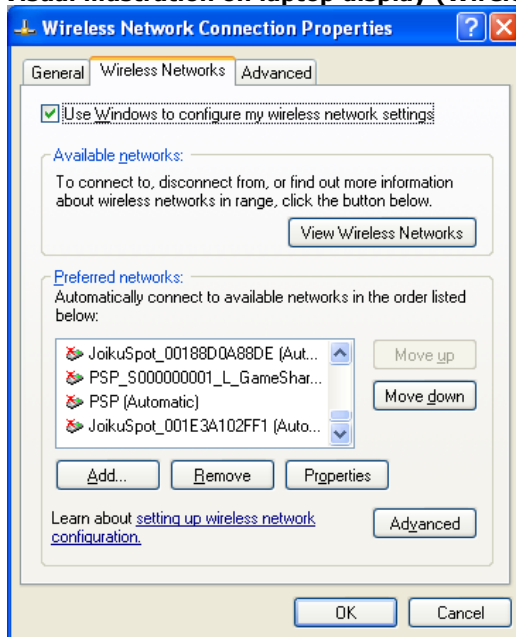
8 Tips and Tricks

8.1 Ad hoc mode in some laptops

Some laptops with Windows XP (depends of the laptop vendor) may require that you allow “Computer-to-computer (ad-hoc) networks only” for JoikuBoost. This is NOT the normal case, but you may try it if the connection does not work automatically.

Click on the Wireless network icon → “View Wireless networks” → “Change Advanced Settings” → “Advanced”. Choose “Computer-to-computer (ad-hoc) networks only”. See pictures below.

Visual illustration on laptop display (Wireless Networks settings)



8.2 Wifi Power save mode in Symbian S60 phones

If you want to improve the Wifi functionality in your phone, please set the “Power saving mode” to “Disabled” in your mobile phone. Go to “Tools → Settings → Connection → Wireless LAN.”

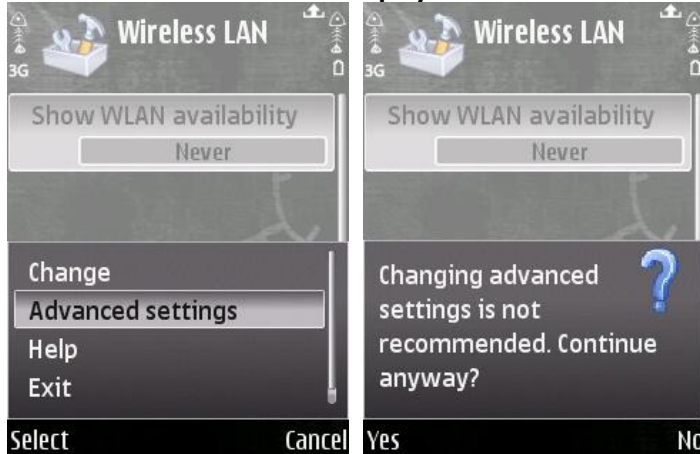
Visual illustration on phone display



You can improve the Wifi functionality in “Tools – Settings – Connection – Wireless LAN”.

Click “Options” and “Advanced Settings”. You will be prompted “Changing advanced settings is not recommended. Continue anyway?” Click “Yes”.

Visual illustration on device display




Make sure that “Automatic configuration” is set to “Disabled” and “Power saving” is also set to “Disabled”.

Visual illustration on device display



We hope you enjoy using JoikuBoost! Please report any feedback, both positive and constructive, to Joikusoft at boost@joikusoft.com or share your experiences publicly at our community site at www.joiku.com (Discussion Forums).

Please see also JoikuSpot product at www.joikushop.com. JoikuSpot is a commercial software title from Joikusoft that enables WiFi sharing from a single client.

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Let Your Joiku begin!