

Wake-on-LAN

Rev 9.2-12/2013

Table of content

1	About Wake-on-LAN	. 3
2	Requirements	. 4
3	Set up Windows	. 5
3.1	Configure the BIOS	5
3.2	Configure the network card	5
3.3	Configure Windows 8	6
4	Set up Mac OS X	. 7
4.1	Configure the network card	7
5	Configure TeamViewer	. 8
5.1	Assign the computer to your TeamViewer account	8
5.2	Wake-on-LAN via a TeamViewer ID in the network	9
5.3	Wake-on-LAN via a public address	10
6	Wake up the computer	.11
7	Appendix	.12
7.1	Configure the router	12
	7.1.1 Set up port forwarding to the broadcast address of the local network7.1.2 Set up port forwarding to a certain computer	

 \bigcirc



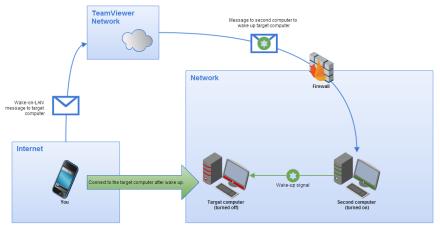
1 About Wake-on-LAN

You can turn on an offline computer with TeamViewer via Wake-on-LAN.

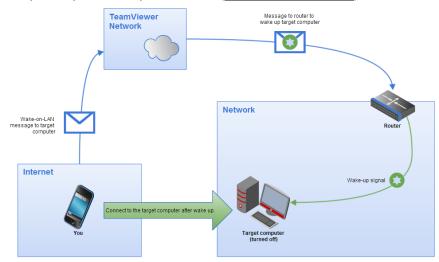
This way, you can control an offline computer remotely by waking it up before you establish a connection.

Wake-on-LAN can be used through two different methods:

• Wake up a computer via another computer within the same network (*see section 5.2, page 9*).



• Wake up a computer via its public address (see section 5.3, page 10).



This manual describes the necessary requirements and steps to use TeamViewer Wake-on-LAN. Unless stated otherwise, the functionalities described always refer to the TeamViewer full version for Microsoft Windows.



2 Requirements

In order to successfully wake up a computer by Wake-on-LAN, its hardware must meet several requirements.

The following checklist ensures that the computer is suitable for Wake-on-LAN:

- The computer is connected to a power source.
- The computer's network card supports Wake-on-LAN.
- The computer has an Internet connection.
- The computer is connected to the Internet via a network cable.
 - The computer is in one of the following power states
 - Sleep
 Start > Sleep
 - Hibernation
 Start > Hibernation
 - Shut down (Soft off)
 Start > Shut down
 not supported under Mac OS X

۴	Sleep Hibernate Shut down Restart	Jnavailable
Notifications	U Power Chang	ENG Keyboard Je PC settings

Supported power states.

If these requirements have been met, you can move on to configure your computer and the software in the next steps.



3 Set up Windows

In order to wake up the computer, it must be appropriately set up. Several settings must be adjusted on the computer for this purpose and TeamViewer must be correctly configured.

3.1 Configure the BIOS

It may also be necessary to activate Wake-on-LAN in the computer BIOS. This procedure can differ from computer to computer.

To activate Wake-on-LAN in the BIOS, follow these steps:

- 1. Start the computer.
- Press the F2 key (or the equivalent) to access the BIOS set-up.
 → The BIOS set-up will open.
- 3. Open the **Power** tab.
- 4. Activate the Wake-on-LAN option.
- 5. Save and exit the BIOS set-up.

	Lenovo BIOS Setup Utility	
	Power	
I	Automatic Power On	Help Message
ſ	Wake Up On LAN [Enabled]	
Ì	Wake Up On Alarm [Disabled]	Select whether Wake on LAN is enabled, and/or which Startup Sequence to use
	Wake Up on PCI Device [Enabled]	after a Wake on LAN event.
		Copyright by TSC,Lenovo
	F1 Help	F9 Setup Defaults
	Esc Exit \longleftrightarrow Select Menu Enter Select Sub Menu	F10 Save and Exit

Activating Wake-on-LAN in the BIOS.

Note: If there is no option to activate Wake-on-LAN in the BIOS, check the manual of the motherboard to make sure that it supports Wake-on-LAN.

3.2 Configure the network card

The computer's network card must be configured in such a way that it is supplied with power at all times. It may be necessary to adjust the properties of the network card for this purpose.



Note: Administrative rights are required for this process.

Note: Configuration of the network card can vary depending on the type of network card and operating system version.

To activate Wake-on-LAN for the network card under Windows, follow these steps:

- 1. Start the computer.
- 2. Open the Control Panel.
- 3. Click System and Security.
- Under System, click the Device Manager link.
 → The Device Manager window will open.
- 5. Under **Network adapters,** choose the **Properties** option in the context menu (right click) of the network card.
 - \rightarrow The **Properties of <network card>** dialog will open.
- 6. Open the **Power Management** tab.
- 7. Activate the Allow this device to wake the computer option.
- 8. The network card now supports Wake-on-LAN.

PCI-E-Fast-Ether	rnet-Controller d	er Familie Ma	rvell Yu 🗙
General	Advanced	Driver	Details
Events	Resources	Power M	anagement
Allow the comp Allow this device Only allow a Warning: If this is a allowing the netwo	st-Ethernet-Controller d suter to turn off this dev pe to wake the comput magic packet to wake a laptop computer and wich adapter to wake the pin also cause the lapt n a camying case.	ice is save power er the computer you run it using bat e computer could di	tery power. ain the battery
		ОК	Cancel

Activating Wake-on-LAN for the network card under Windows.

Note: If the option described in Step 7 is not activated, you must first activate the Allow the computer to turn off the device to save power option.

3.3 Configure Windows 8

Under Windows 8, the standard shutdown procedure puts the computer into a "hybrid shutdown" state. Because Windows 8 does not support Wake-on-LAN for this state, it is advisable to deactivate the fast startup. Once fast startup has been deactivated, the computer is always put into hibernation when shutdown.



Note: Administrative rights are required for this process.

To deactivate the fast startup under Windows 8, follow these steps:

- 1. Start the computer.
- 2. Open the Control Panel.
 - \rightarrow The **Control Panel** window will open.
- 3. Click System and Security.
- 4. Under Power Options, click the Change what power buttons do link.
- 5. Click on the Change settings that are currently unavailable link.
- 6. Uncheck the Turn on fast startup (recommended) box.
- 7. Fast startup is now deactivated.

Syst Syst	tem Settings		-	×
) 🔄 👻 ↑ 🗃 « Hardware and Sound → Power Optio	ons → System Settings	× د	Search Control Panel	Q
When I press the power button:	Sleep	✓ Sleep	~	^
When I press the sleep button:	Sleep	♥ Sleep	~	
👟 When I close the lid:	Sleep	∀ Sleep	~	
Password protection on wakeup				
Require a password (recommended) When your computer wakes from slee password to unlock the computer. <u>Cr</u>			the correct	
On 't require a password When your computer wakes from sleep, anyone can access your data because the computer isn't locked.				
Shutdown settings				
Turn on fast startup (recommended) This helps start your PC faster after shutdown. Restart isn't affected. <u>Learn More</u>				
Sleep				
Show in Power menu.				
Show in Power menu.				
Cock Show in account picture menu.				
show in account picture menu.				*
		Save change	Cancel	

Deactivating fast startup under Windows 8.

4 Set up Mac OS X

The computer's network card must be configured in such a way that it is supplied with power at all times. It may be necessary to adjust the properties of the network card for this purpose.

4.1 Configure the network card

To activate Wake-on-LAN for the network card under Mac OS X, follow these steps:

- 1. Start the Mac.
- 2. Open the System Settings.

www.teamviewer.com



- \rightarrow The **System Settings** window will open.
- 3. Click Save Energy.
- 4. Click the **Power Supply** tab.
- 5. Activate the Wake for Wi-Fi network access option.
- 6. The network card now supports Wake-on-LAN.

Computer sleep: 1 min 15 min 15 min 15 min 15 min 15 min 15 min 14 17 min 15 min 14 17 min 15 min 14 14 14 14 14 14 14 14 14 14 14 14 14	Adapter	I I		i i 3 hrs Never
1 min 15 min 15 min 15 min		1 1		
				3 hrs Never
Enable Power Nap while plugged into a power ac While sleeping, your Mac can back up using Time Machin calendar, and other iCloud updates		ally check f	or new ema	il,
Current battery charge: 92 % Estimated time remaining:	4:56		Restore	Defaults

Activating Wake-on-LAN for the network card under Mac OS X.

5 **Configure TeamViewer**

In order to wake up a computer, TeamViewer must be configured once on this device. During this process, you can either configure TeamViewer so that the computer can be wakened **via its public** address or via computers within the network.

The following checklist ensures that TeamViewer is configured on the computer for Wake-on-LAN:

- TeamViewer must be installed.
- The computer must be assigned to your TeamViewer account.
- TeamViewer Wake-on-LAN must be activated.
- For Wake-on-LAN via the network, the TeamViewer ID of a computer via which the computer is to be wakened must be entered in the TeamViewer Wake-on-LAN options.
- For Wake-on-LAN via a public address, the public address of the computer must be entered in the TeamViewer Wake-on-LAN options.

5.1 Assign the computer to your TeamViewer account

In order to guarantee that the computer cannot be wakened by an unauthorized person, it must be ensured that the computer really belongs to you. You must therefore assign the computer to your



TeamViewer account. Only the TeamViewer account linked with the computer can wake it up.

Note: If the computer (that is to be wakened) is in a shared group, all TeamViewer accounts with which the group is shared can wake up this computer.

To assign the computer to your TeamViewer account, follow these steps:

- 1. Start TeamViewer on the computer.
- 2. Click Extras | Options in the main menu.
 - \rightarrow The **TeamViewer options** dialog box will open.
- 3. Select the General category.
- Under Account assignment, click the Assign to account... button.
 → The Assign to account dialog will open.
- 5. Enter the e-mail address of your TeamViewer account in the E-Mail field.
- 6. Enter the password of your TeamViewer account in the **Password** field.
- 7. Click the Assign button.
- 8. You have now assigned the computer to your TeamViewer account.

0	TeamViewer options	×
General	Most popular options	
Security	Hover your mouse over options to get addition	onal info
Remote control	Important options for working with TeamVie	ewer
Meeting	Your display name	
Computers & Contacts	✓ Start TeamViewer with Windows	
Audio conferencing	Network settings	
Video	Proxy settings	Configure
Custom invitation	Wake-on-LAN	Configure
Advanced	Incoming LAN connections	deactivated 🗸 🗸
	Account assignment	
	By assigning this device to a TeamViewer account, and monitored by the account at any time.	the device can be remotely managed
	No assignment yet.	Assign to account
		O <u>K</u> <u>C</u> ancel

Assign the computer to your TeamViewer account

5.2 Wake-on-LAN via a TeamViewer ID in the network

If the computer does not have a public address, you can also wake it up using another computer in its network. The other computer must be turned on and TeamViewer must be installed and configured for starting with Windows.

If this is the case, you can activate Wake-on-LAN via the network in the TeamViewer options. Afterwards, enter the TeamViewer ID of the computer via which you intend to wake up the



computer. The signal to wake up is then sent from your computer to the computer that is to be wakened via the defined computer.

To activate TeamViewer Wake-on-LAN via a TeamViewer ID, follow these steps:

- 1. Start TeamViewer on the computer.
- 2. Click **Extras | Options** in the main menu.
 - \rightarrow The **TeamViewer options** dialog box will open.
- 3. Select the General category.
- Under Network settings | Wake-on-LAN, click the Configure... button.
 → The Wake-on-LAN dialog is opened.
- 5. Click the **TeamViewer IDs within your network** option button.
- 6. In the **TeamViewer ID** field, enter the TeamViewer ID in your network via which the signal to wake up is to be sent and then click the **Add...** button.
- 7. Click the **OK** button.
- 8. The computer can now be wakened via the saved TeamViewer ID.

S Wake-on-	LAN ×
Select whether your computer can be a Note: Make sure, you have configured computers properly.	woken up using Wake-on-LAN. TeamViewer and the involved
Click here for further information.	/
○ No Wake-on-LAN	
TeamViewer IDs within your networ	k
TeamViewer ID	
987654321	Add
IDs to wake up your computer	
123456789	Remove
O Public address	
Address	Port
mypc.dyndnsexample.org	9
	OK Cancel

Note: In order to ensure that Wake-on-LAN is possible at all times, the computer via which the signal to wake up is to be sent must always be turned on and TeamViewer must be running.

5.3 Wake-on-LAN via a public address

If you want to wake up the computer with the help of its public address, your computer must be clearly identifiable on the Internet at all times.

This is the case either if you have a fixed, static IP address through your Internet provider or your computer is reachable, e.g. with the help of a dynamic DNS provider (see

Activate Wake-on-LAN using TeamViewer IDs.



<u>http://en.wikipedia.org/wiki/Dynamic DNS</u>). If these conditions are met, you can activate Wake-on-LAN via a public address in the TeamViewer options.

To activate TeamViewer Wake-on-LAN via a public address, follow these steps:

- 1. Start TeamViewer on the computer.
- Click Extras | Options in the main menu.
 → The TeamViewer options dialog box will open.
- 3. Select the **General** category.
- Under Network settings | Wake-on-LAN, click the Configure...button.
 → The Wake-on-LAN dialog will open.
- 5. Click the Public address option button.
- 6. In the Address field, enter the fixed IP address or DNS name of the computer.
- In the **Port** field, enter the UDP port via which the computer can be reached (*see section 7.1, page 12*).
- 8. Click the **OK** button.
- 9. The computer can now be wakened via its public address and TeamViewer.

9	Wake-on-LAN	×
Note:	whether your computer can be woken up Make sure, you have configured TeamVie ters properly.	
🔮 <u>Cli</u>	ck here for further information.	
⊖ No	Wake-on-LAN	
() Tea	amViewer IDs within your network	
	TeamViewer ID	
	987654321	Add
	IDs to wake up your computer	
	123456789	Remove
Put	lic address	
_	Address	Port
	mypc.dyndnsexample.org	9
	OK	Cancel

Activating Wake-on-LAN using a public address.

6 Wake up the computer

If the computer meets the requirements described in section 1 and is set up as described in section 3 or 4 and 5, you can wake it up with another device.

Attention: Testing the function prior to usage is expressly recommended. This will prevent problems in case of an emergency.



Note: To wake up a computer, you can use TeamViewer 9 for Windows, Mac OS X, iOS, Windows Phone and the TeamViewer Management Console.

To wake up a computer, follow these steps:

- 1. Start a device with an existing Internet connection.
- 2. Open TeamViewer.
- Log in to your Computers & Contacts list with your TeamViewer account. The device to be wakened must be linked to the TeamViewer account (*see section 5, page 8*).
- 4. Select the offline computer that you want to wake up from the Computers & Contacts list.
- 5. In the context menu (right click), click the **Wake up** button.
- 6. The computer is wakened and appears as online in your Computers & Contacts list.

Office Laptop Offline (a few minutes)	\$\$ v
Remote connection prompt for confirmation	
Remote connection	1
Presentation prompt for confirmation	
9	🕐 Wake up
Alerts There are no alerts	

Wake up the computer.

7 Appendix

7.1 Configure the router

The router only needs to be configured if you have chosen the **Public address** option. If you have chosen the option **TeamViewer IDs within your network,** you can skip this section.

Configuring the router depends on the device used and the firmware installed on it. Not all types of devices support the necessary configuration.

Support of Wake-on-LAN via a router's public address requires port forwarding to be set up. Depending on the router used, only some of the following alternative configuration possibilities may be supported.

Note: In order to configure the router, please refer to the manufacturer's manual if necessary.



7.1.1 Set up port forwarding to the broadcast address of the local network

In order to be able to wake up all computers in the local network, set up port forwarding as described in the router manual from an incoming UDP port (e.g. 9) to the broadcast address of the local network (this often ends in ".255"). This configuration makes it possible to wake up all computers in the router's local network that have been configured according to the directions mentioned above.

Example: If the local network is configured with 192.168.1.0 and the subnet mask 255.255.255.0, then port forwarding must be configured from UDP port 9 to 192.168.1.255:9. Sometimes routers do not allow a broadcast address ending in ".255" as the port forwarding destination. This problem can sometimes be avoided by selecting a smaller subnet mask for the local network (e.g. 255.255.255.128), thus the broadcast address ends with ".127".

7.1.2 Set up port forwarding to a certain computer

In order to be able to wake up a certain computer in the local network, set up port forwarding as described in the router manual from an incoming UDP port (e.g. 9) to the local IP address of the computer to be wakened. It must also be ensured that your router can address the appropriate computer, even when this computer is turned off. In order to do so, a static ARP entry must be saved on the router (see instructions for the router) showing the IP address of the computer to be wakened on the MAC address of this computer. Some routers generate appropriate static ARP entries if a fixed IP address is reserved for this computer (no DHCP). In some cases, an appropriate configuration of the static ARP entries cannot be achieved via the router's configuration menu. The ARP entries can then be configured via Telnet or SSH.