Port authentication users guide

This guide provides the instruction to authorized the wired connection using 802.1x and Port Authentication on different operating systems.

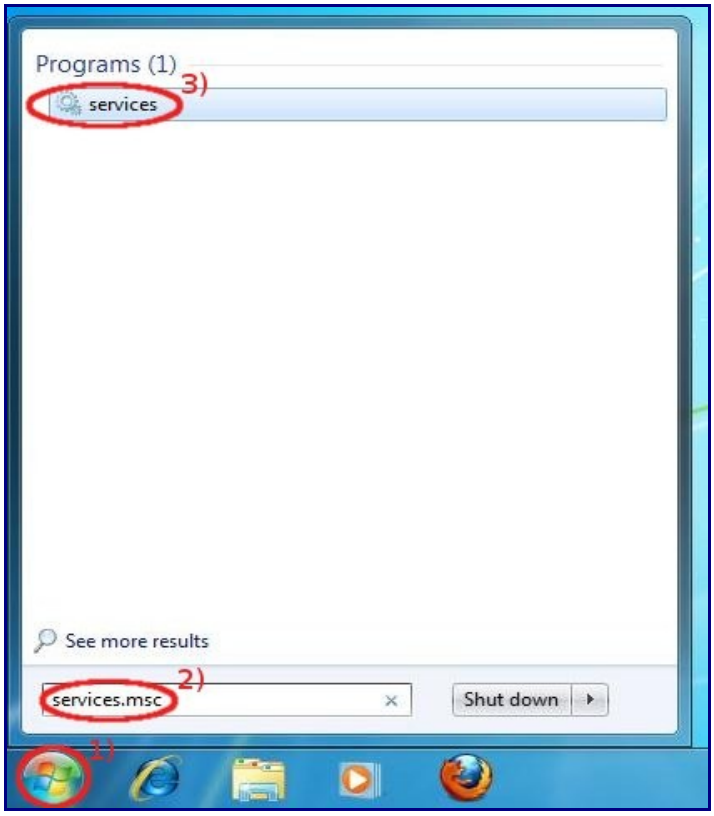
Users have to authenticate their laptops to access to network using a valid SISSA account.
If the authentication process is not correctly set, the laptop will not be allowed to access to network service.

Carefully follow the instructions for your system:

Windows 7 configuration guide

Configuration guide to the Sissa Wired Network (dot1x authentication), using the default tools and drivers of Microsoft Windows 7.

PLEASE NOTE: DO NOT PLUG the NETWORK CABLE untill you reach the STEP D of this procedure.

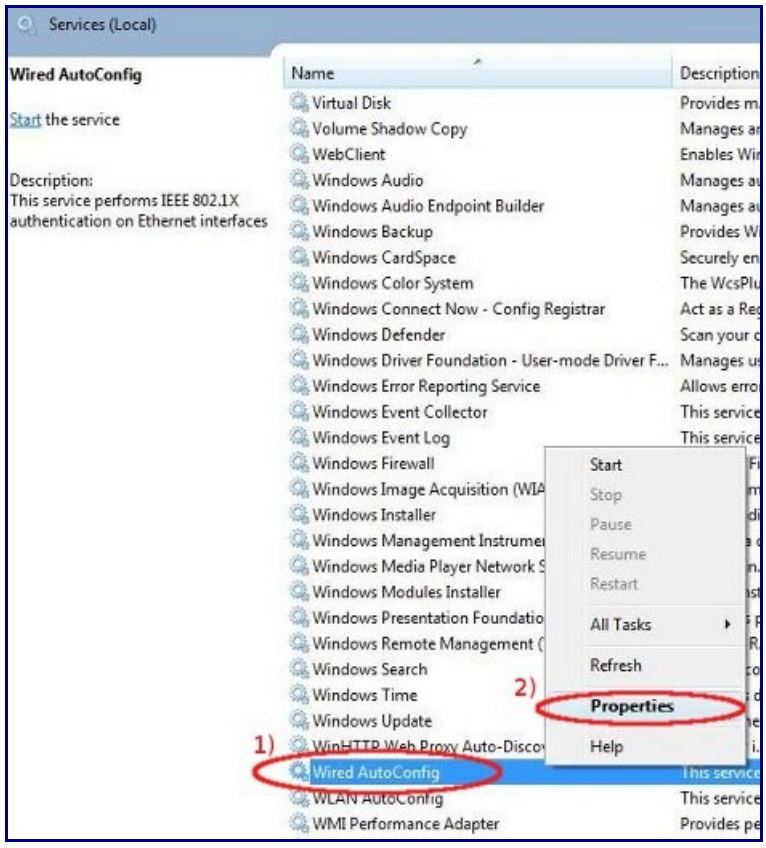


a) On the *Desktop*,

1) click the **Start** button,

2) and then type **services.msc**,

3) click on **services**.



b) In *Services* window,

1) look for **Wired AutoConfig** service, click on it using the RIGHT mouse button,

2) and select **Properties**

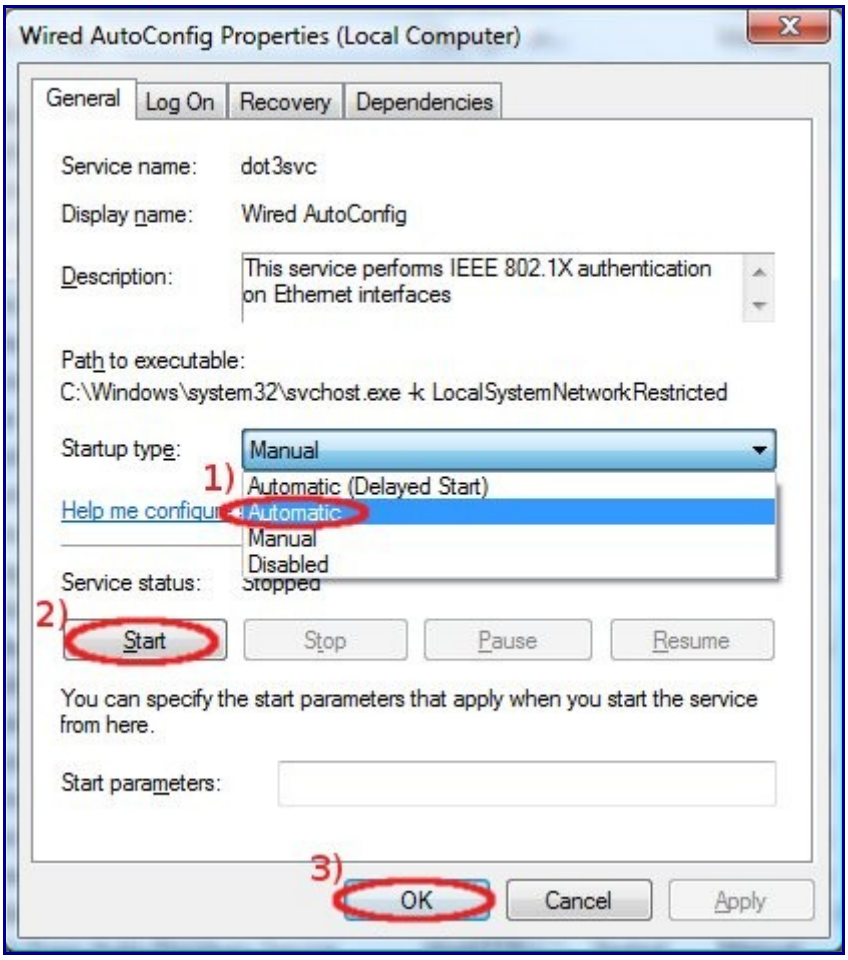
c) In the *Wired AutoConfig Properties* window,

1) in *Startup type:* drop down list select **Automatic**

2) in *Service status:* field click **Start**

3) then click on **OK**,

and at the end close *Services* window.



d) Connect the **Ethernet cable**!

In the **Notification area** (bottom-right corner of the Desktop):

1) click on the **Network** icon, ,

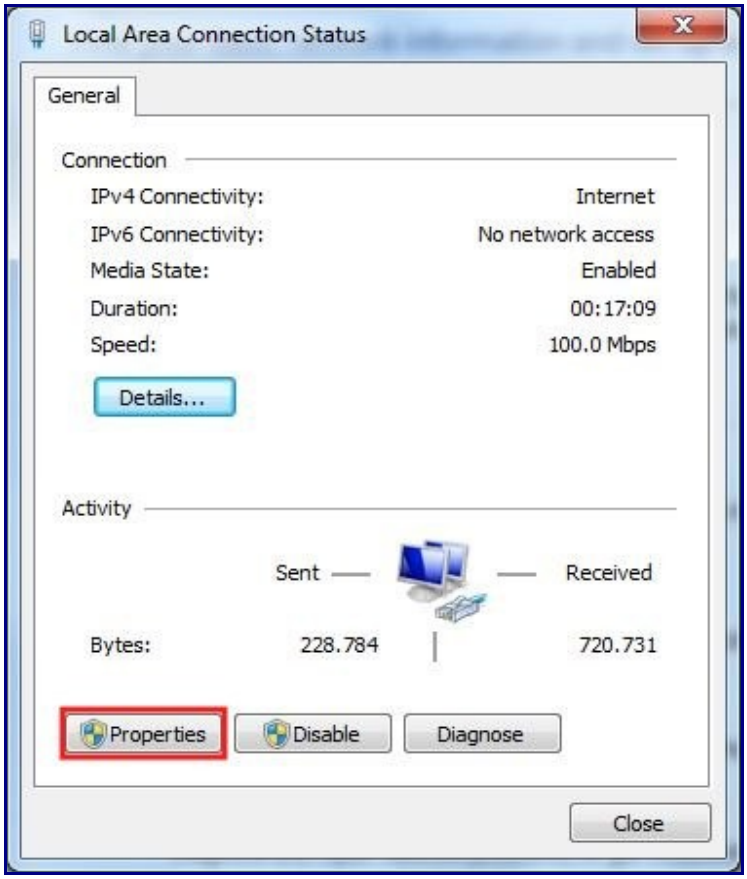
2) and then on the **Open Network and Sharing Center**.

e) In the *Network and Sharing Center* window, **Network** section, active *Connections:* field:

- click on **Local Area Connection**

f) On the *Local Area Connection Status* window,

- Click on **Properties**



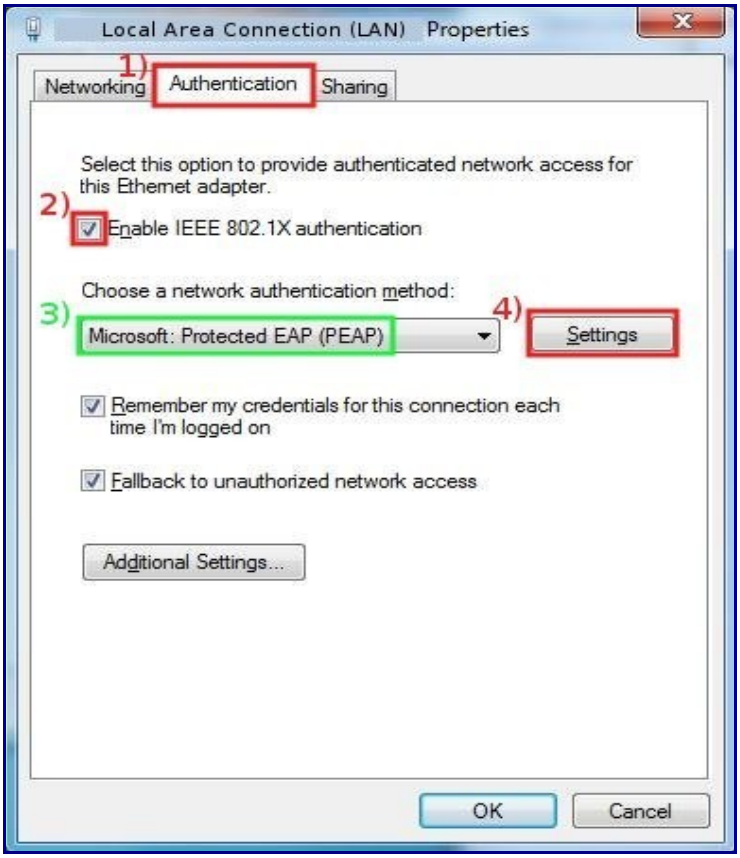
g) In the *Local Area Connection Properties* window,

1) select **Authentication** tab,

2) put a check in **Enable IEEE 802.1X authentication** box,

3) verify that in *Choose a network authentication method:* field **Protected EAP (PEAP)** is selected,

4) then click on **Settings**.

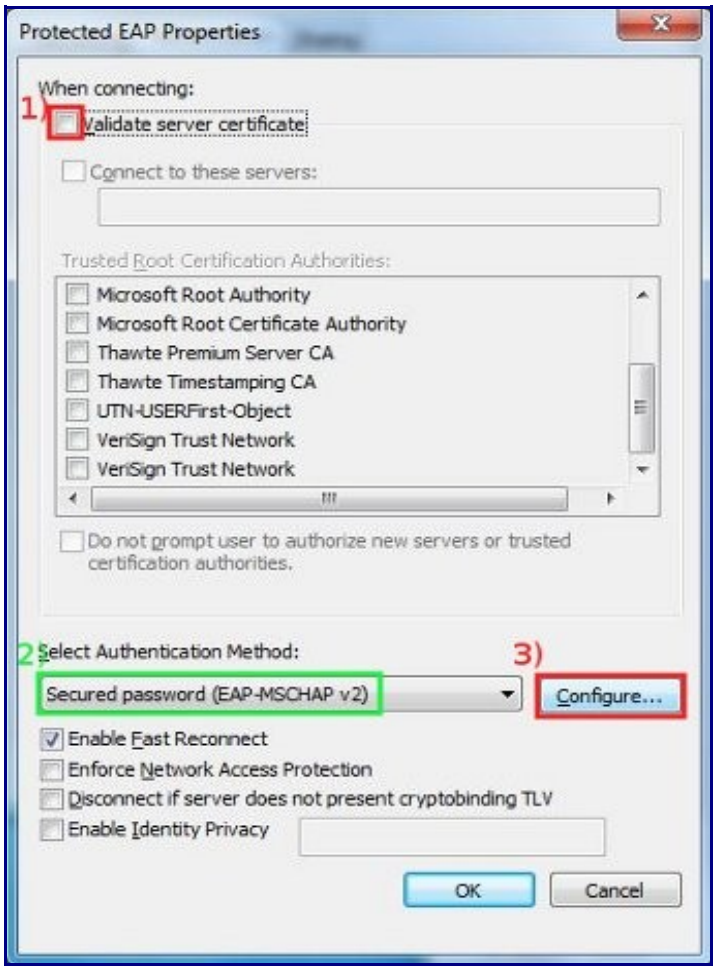


h) In *Protected EAP Properties* window,

1) **remove** the check in **Validate server certificate** box,

2) verify that in *Select Authentication Method* **Secured password (EAP-MSCHAP v2)** is selected,

3) click on **Configure…**.



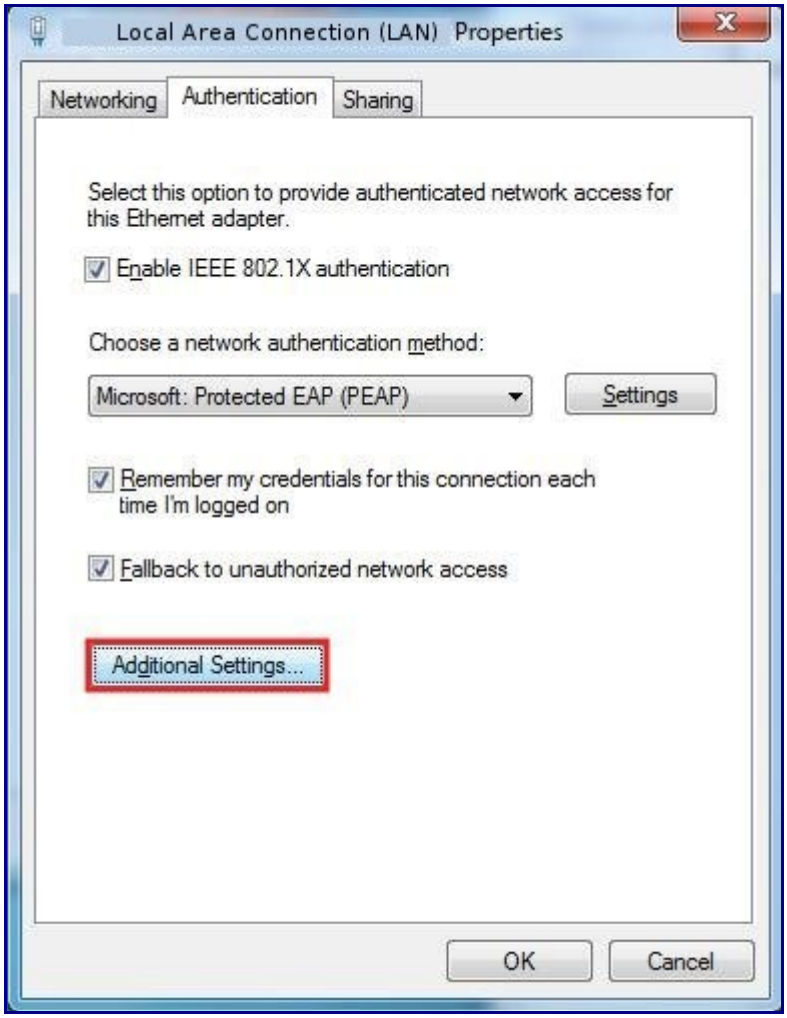
i) In *EAP MSCHAPv2 Properties* window, *Authentication* tab,

1) **remove** the check in **Automatically use my Windows logon name and password** box,

2) click **OK** on this window and in *Protected EAP Properties* window (step h) too.

j) In the *Local Area Connection Properties* window,

click on **Additional Settings…**



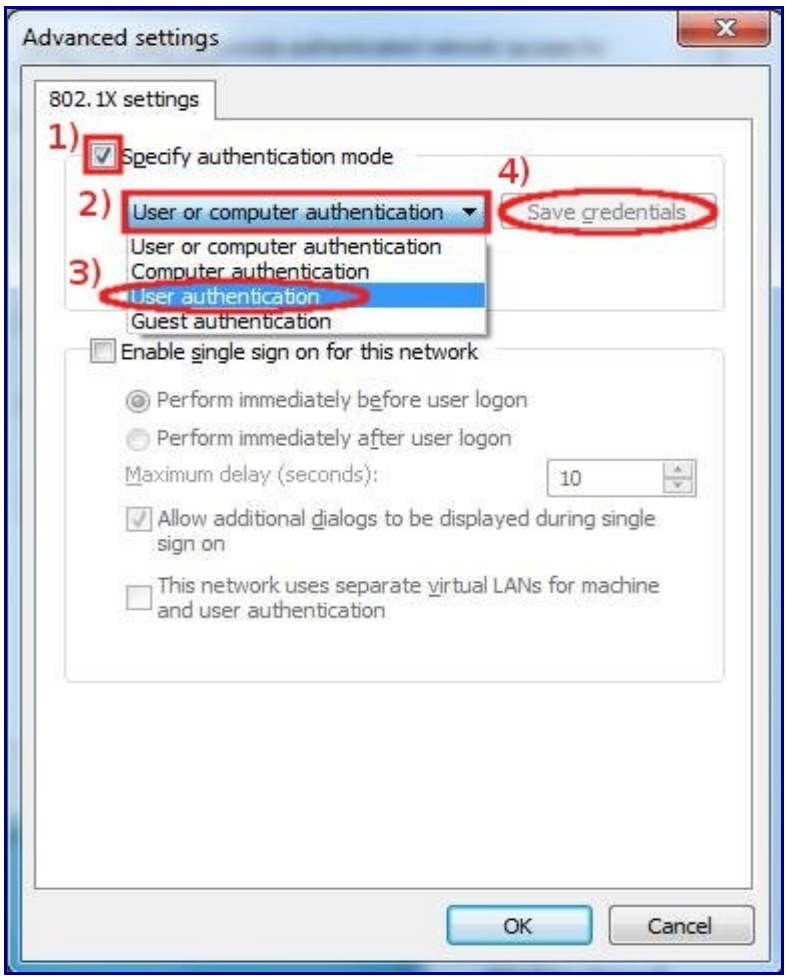
k) On the *Advanced settings* window,

1) put a check in **Specify authentication mode**,

2) in **User or computer authentication** drop down list,

3) select **User authentication**,

4) then click on **Save credentials**.



l) In the *Windows Security* window,

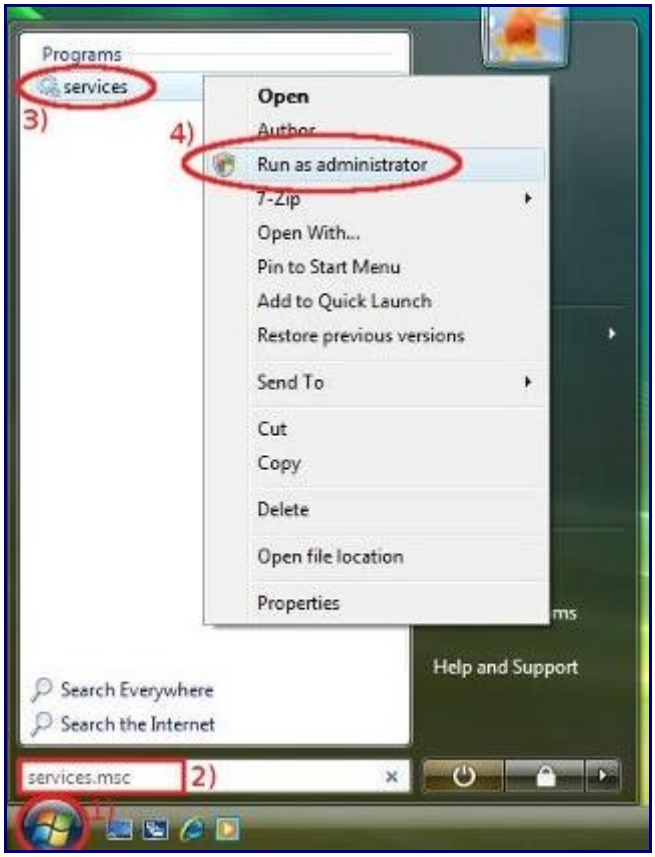
1) insert your **Username**, **2)** and **Password** (the same of your SISSA webmail),

3) then click **OK** here and on **ALL** windows in order to save and confirm all settings.

Windows Vista configuration guide

Configuration guide to the Sissa Wired Network (dot1x authentication), using the default tools and drivers of Microsoft Windows Vista.

PLEASE NOTE: DO NOT PLUG the NETWORK CABLE untill you reach the end of the STEP K of this procedure.



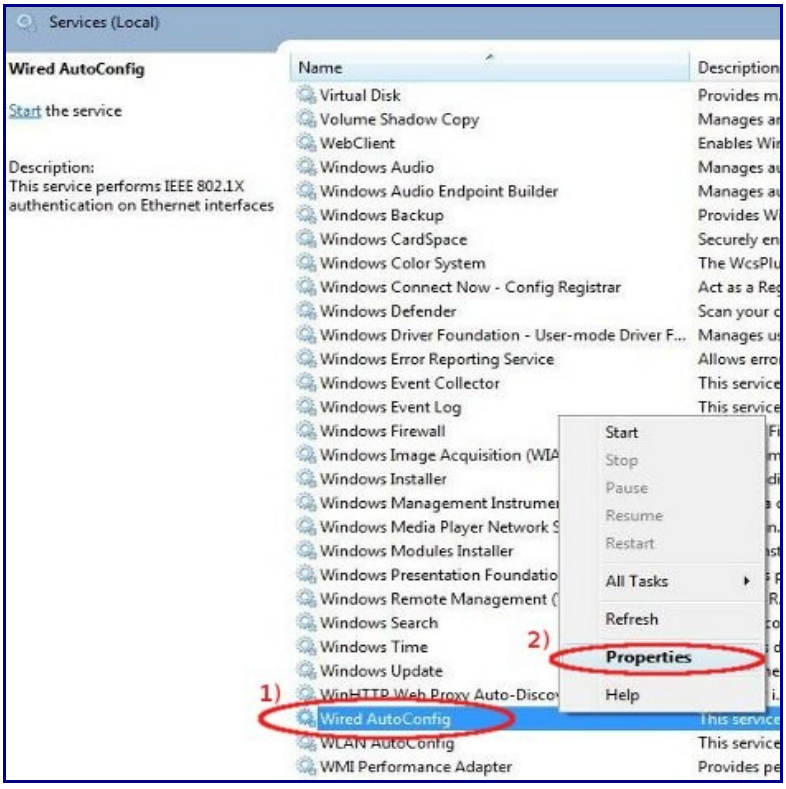
a) On the *Desktop*,

1) click the **Start** button,

2) and then write **services.msc** in search bar,

3) using the RIGHT mouse button click on **services**,

4) then select **Run as administrator**.



b) In *Services* window (in the following image there is a part only…):

1) look for **Wired AutoConfig** service, click on it using the RIGHT mouse button,

2) and select **Properties**.

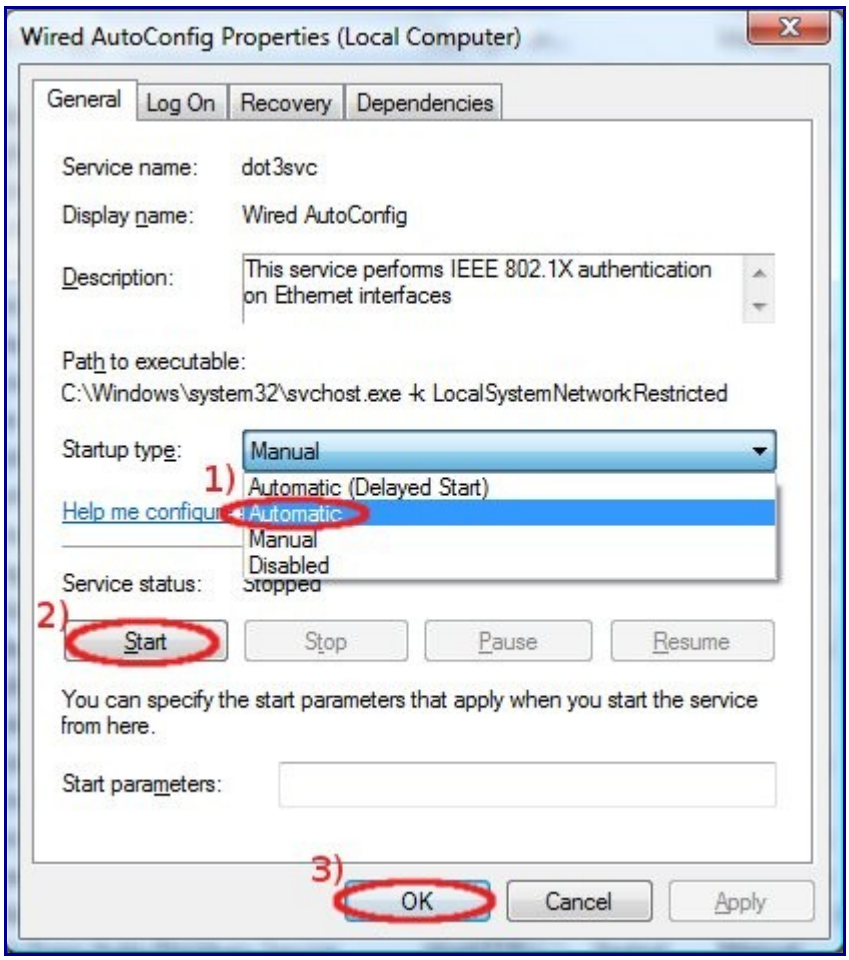
c) In the *Wired AutoConfig Properties* window,

1) in *Startup type* drop down list select **Automatic**,

2) in *Service status* field click **Start**,

3) then click on **OK** button

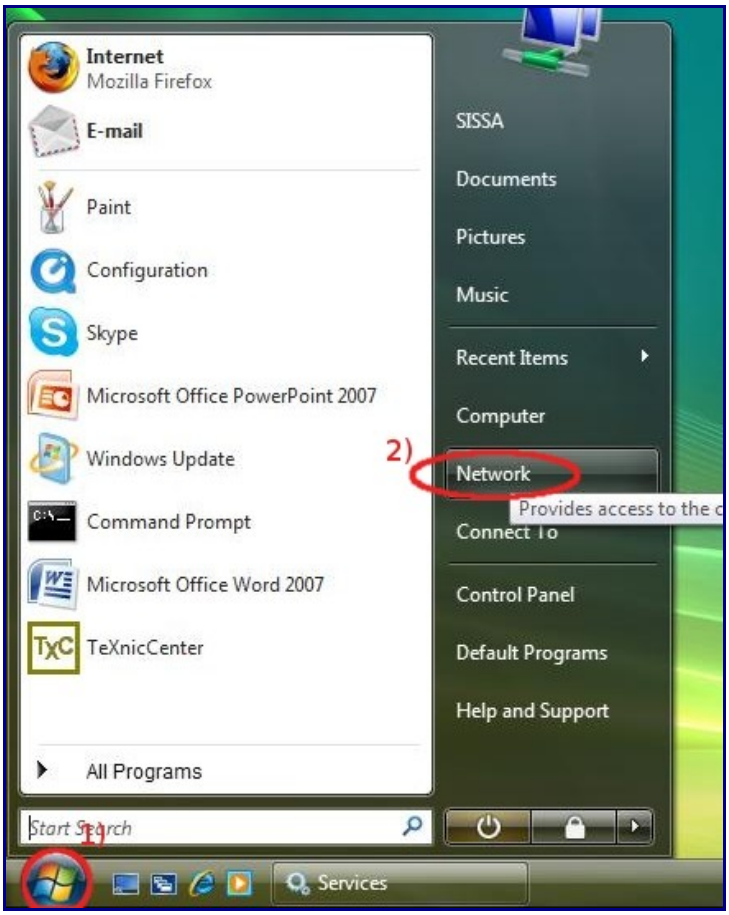
and close *Services* window.



d) On the *Desktop*,

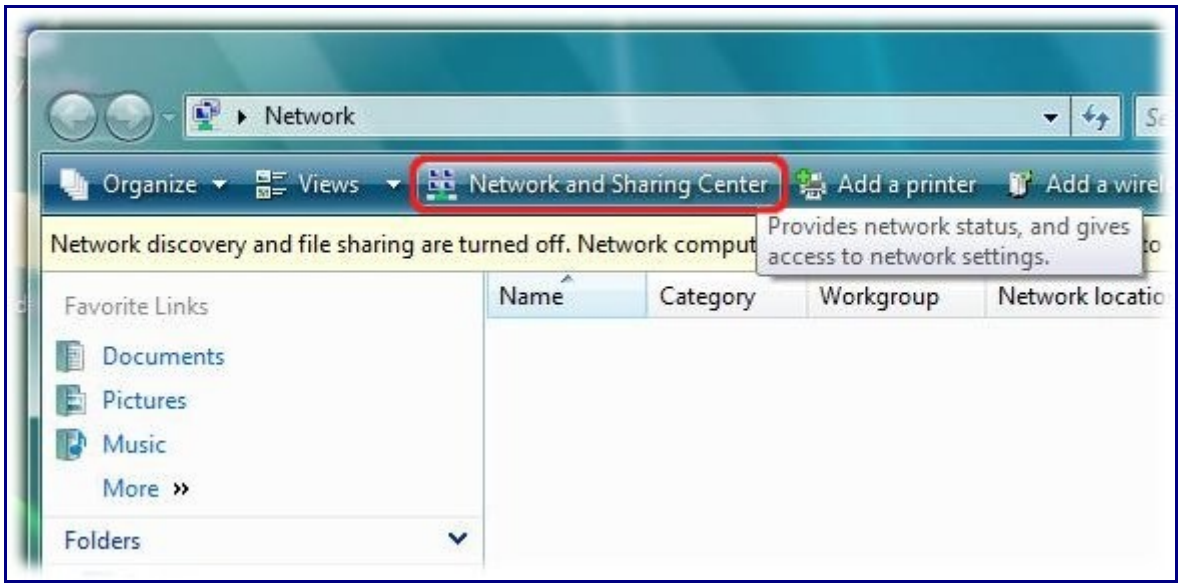
1) click the **Start** button,

2) select **Network**,



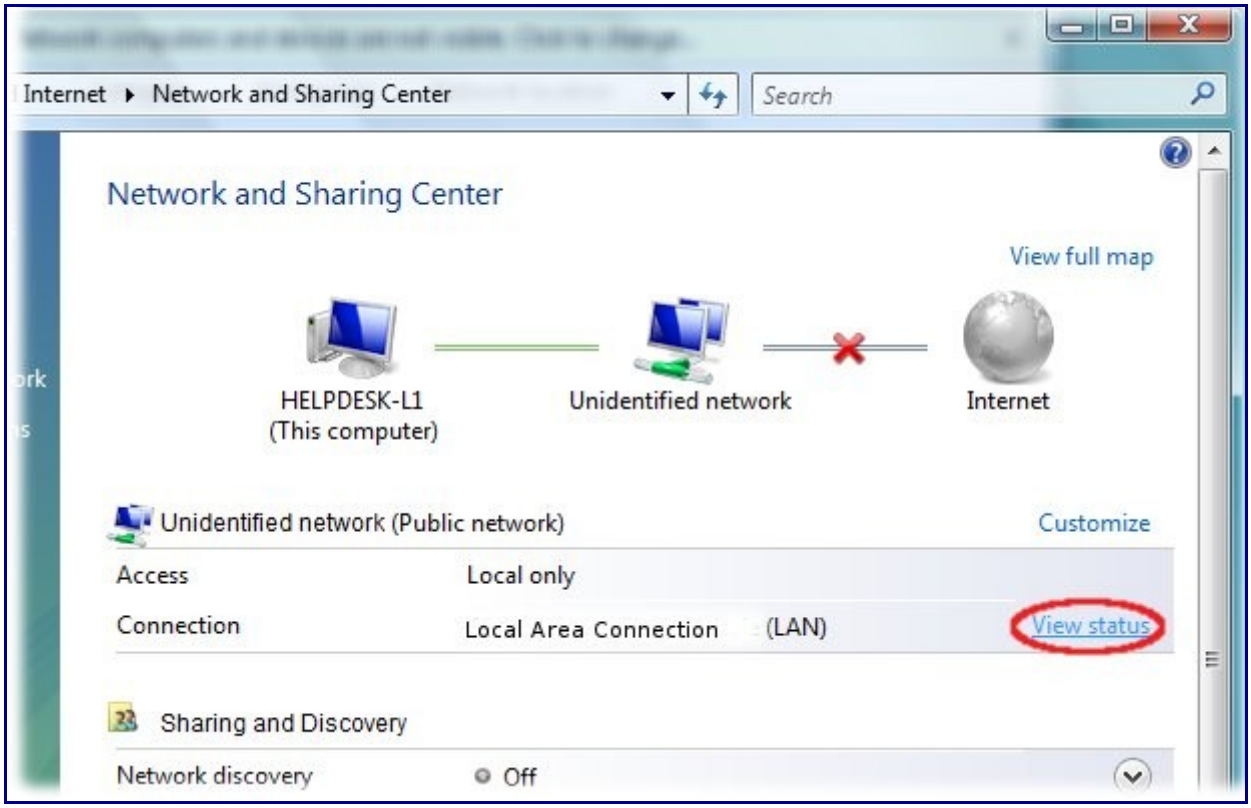
e) In the *Network* window,

- Click on **Network and Sharing Center**



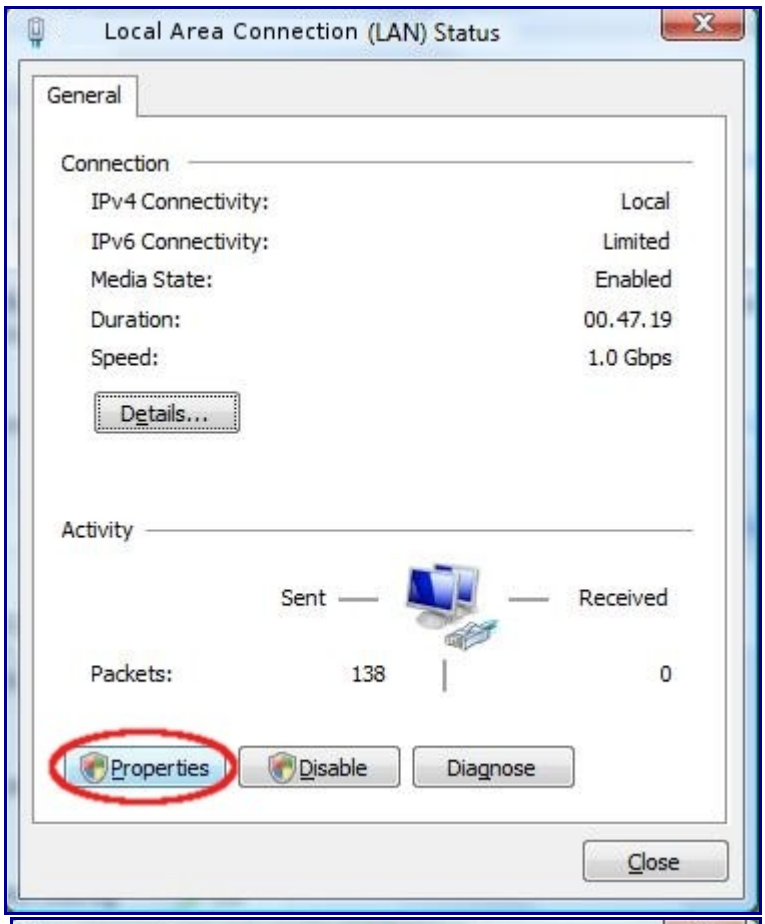
f) In the *Network and Sharing Center* window,

- on the same line of *Local Area Connection (LAN)* click on **View Status**.



g) In *Local Area Connection Status* window,

- click on **Properties**



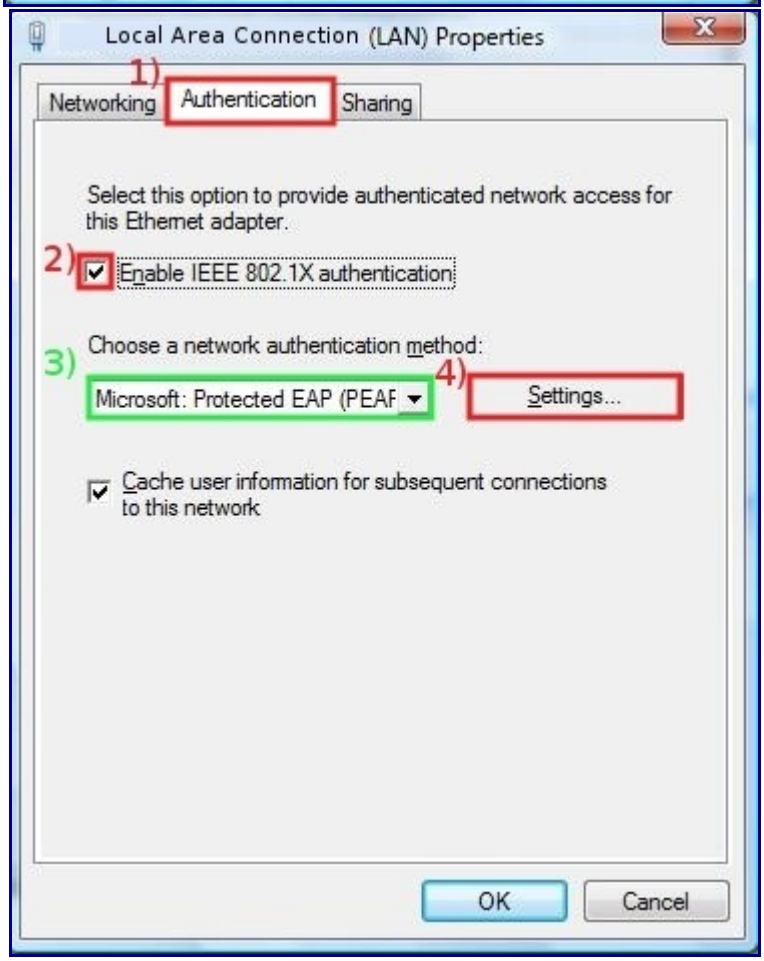
h) In *Local Area Connection Properties* window,

1) select **Authentication** tab,

2) put a check on **Enable IEEE 802.1X authentication** box,

3) verify that in *Choose a network authentication method:* field **Protected EAP (PEAP)** is selected,

4) then click on **Settings**.

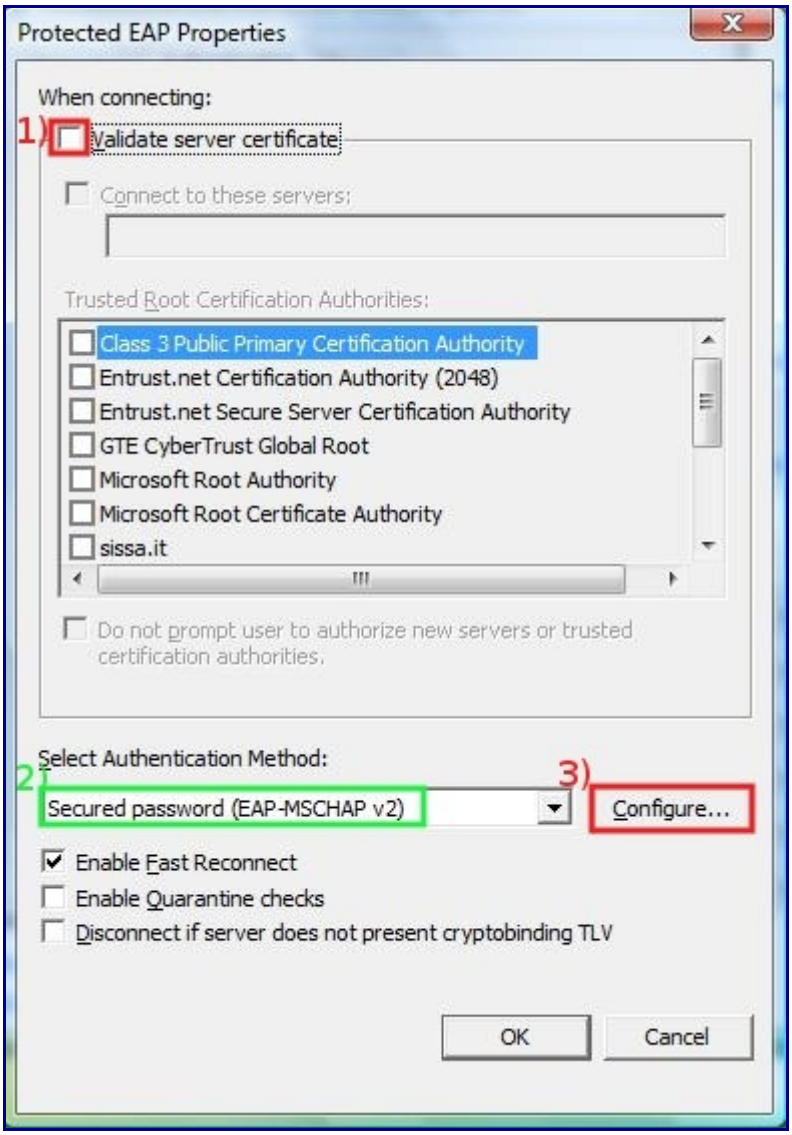


i) In *Protected EAP Properties* window,

1) remove the check in **Validate server certificate** box,

2) Verify that in *Select Authentication Method:* drop down list **Secured password (EAP-MSCHAP v2)** is selected,

3) Click on **Configure…**.



j) In *EAP MSCHAPv2 Properties* window,

1) remove the check in **Automatically use my Windows logon name and password** box,

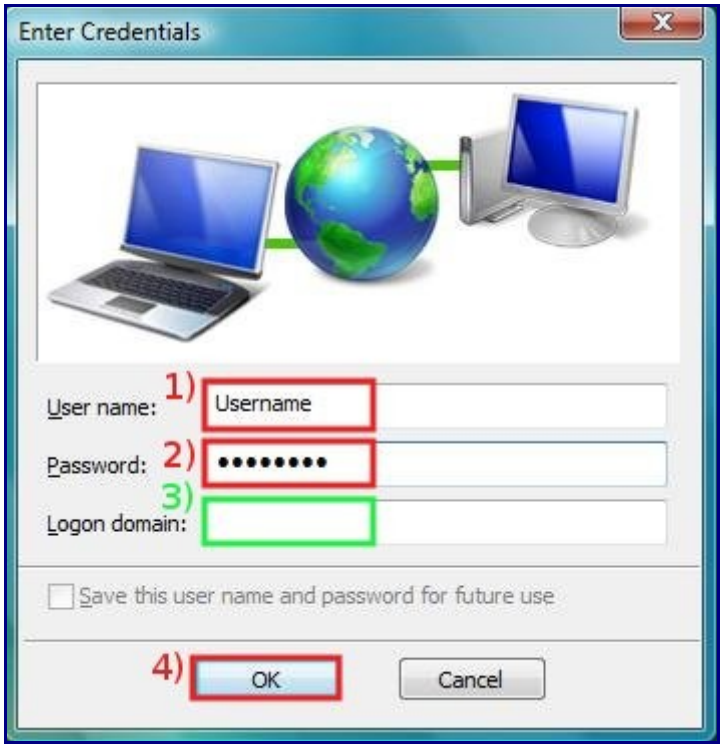
2) then click **OK** here and on all window Properties (*EAP MSCHAPv2 Properties*, *Protected EAP Properties*, *Local Area Connection Properties*).

k) Connect the **Ethernet cable**,

- in the **Notification area** (bottom-right corner of the Desktop) will appear a pop-up window, **click on it** in order to enter your credentials.

l) In *Enter Credentials* window,

1) insert your **Username** and **2)** **Password** (the same of SISSA webmail).
3) leave the *Logon domain* field **empty**,
4) then click **OK**.



Windows Xp configuration guide

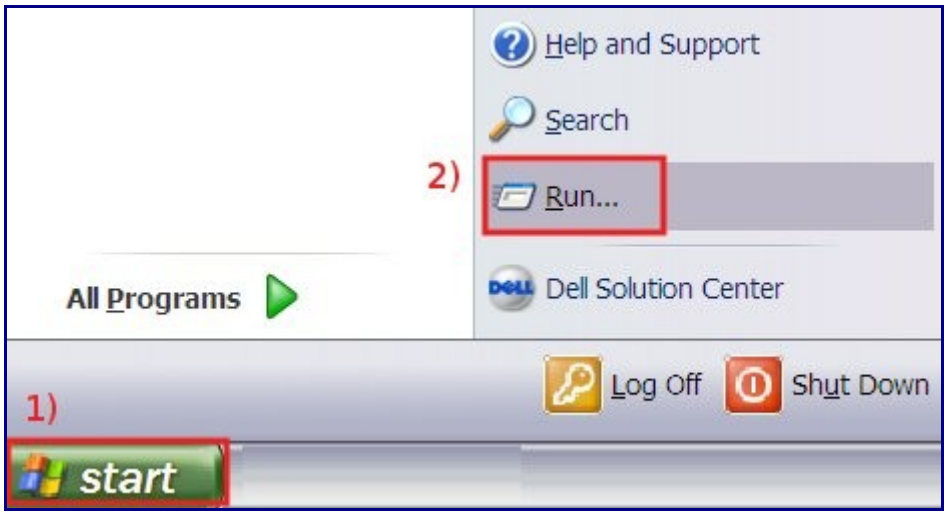
Configuration guide to the Sissa Wired Network (dot1x authentication), using the default tools and drivers of Microsoft Windows XP.

PLEASE NOTE: DO NOT PLUG the NETWORK CABLE untill you reach the end of the STEP J of this procedure.

a) On the *Desktop*,

1) click the **Start** button,

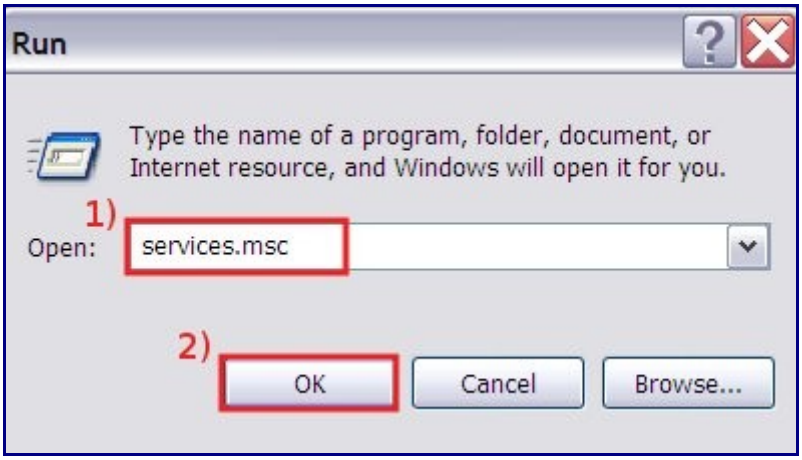
2) and then select **Run**.



b) In the *Run* window,

1) in the *Open* field write: **services.msc**,

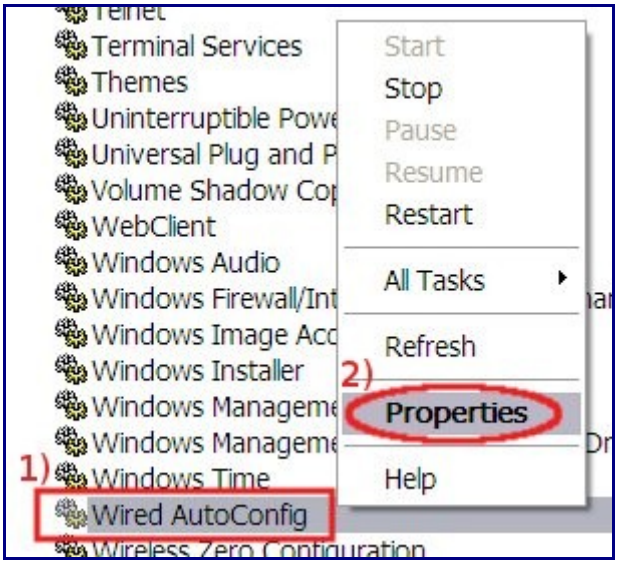
2) then click on **OK**.



c) In the *Services* window (in the following image there is a part only…):

1) look for **Wired AutoConfig** service, click on it using the RIGHT mouse button,

2) and select **Properties**.



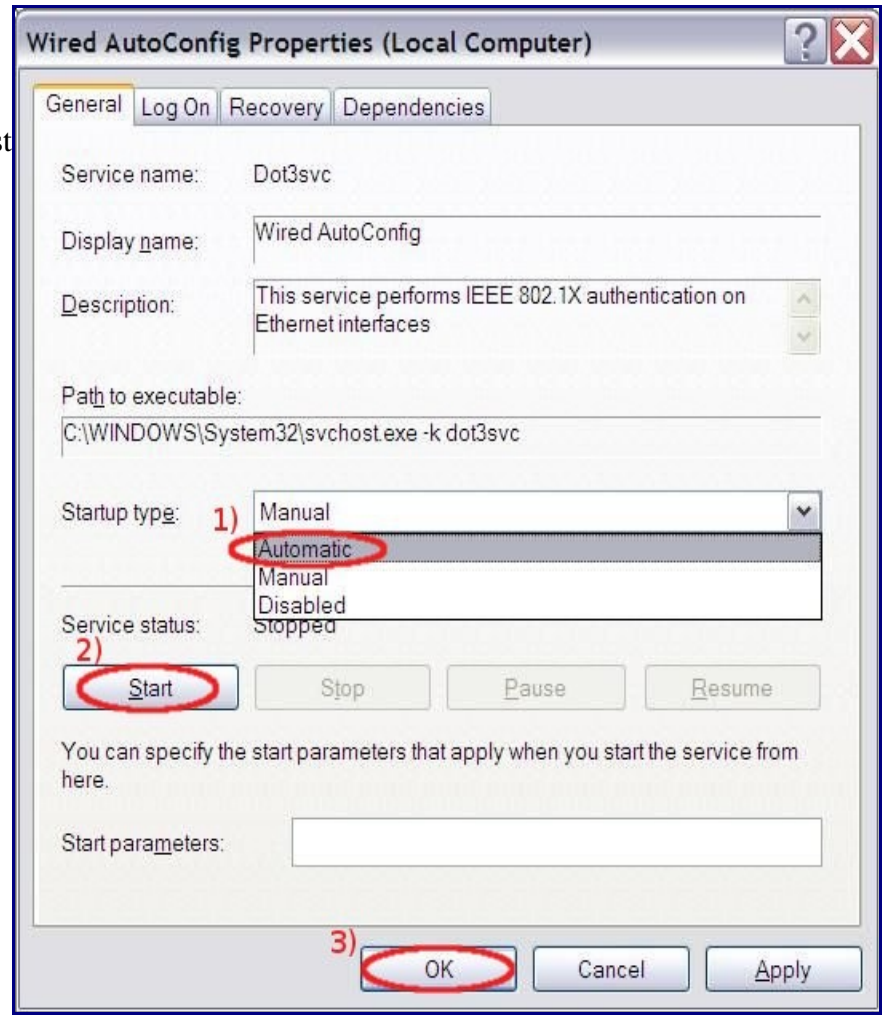
d) In the *Wired AutoConfig Properties* window,

1) in *Startup type* drop down list select **Automatic**,

2) in *Service status* field click on **Start**,

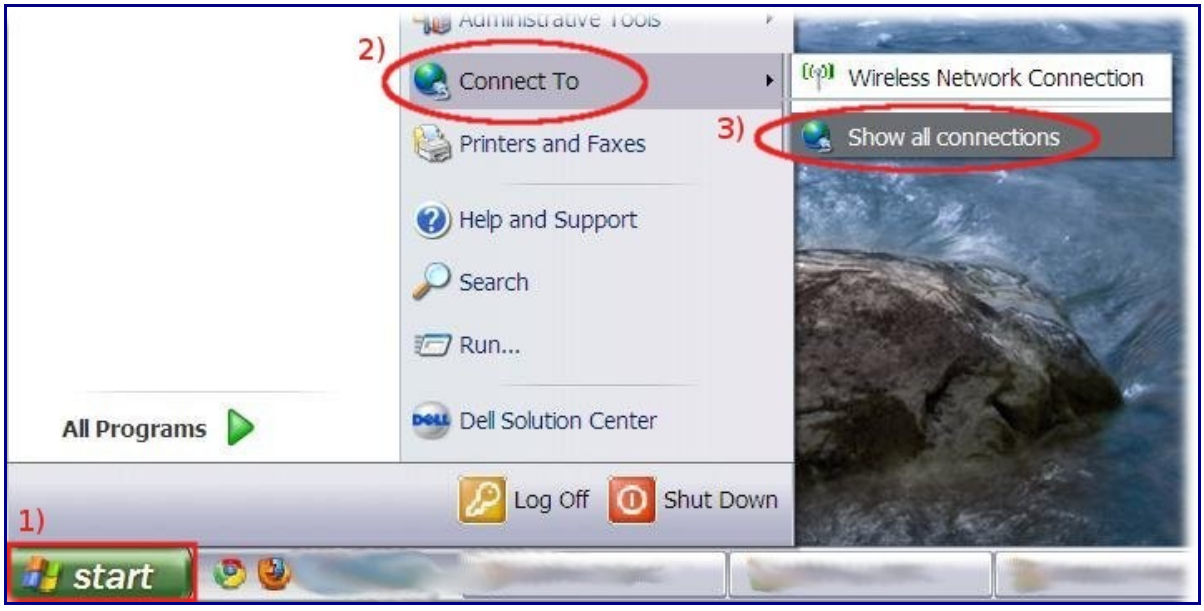
3) then click on **OK** button,

and at the end close *Services* window.



e) On the *Desktop*,

1) click the **Start** button,
2) select **Connect to**,
3) and then **Show all connections**

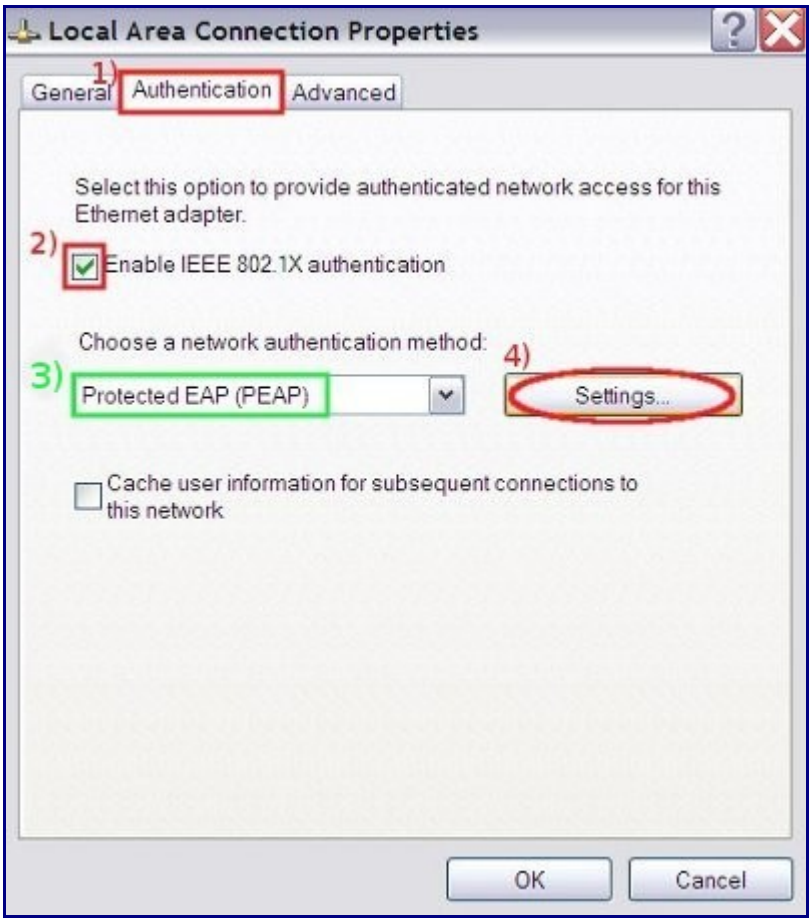


f) In *Network Connections* window,

1) using the RIGHT mouse button click on **Local Area Connection**,
2) then select **Properties**.

g) In *Local Area Connection Properties* window,

1) select **Authentication** tab,
2) put a check in *Enable IEEE 802.1X authentication* box,
3) verify that in *Choose a network authentication method* drop down list **Protected EAP (PEAP)** is selected,
4) then click on **Settings**.

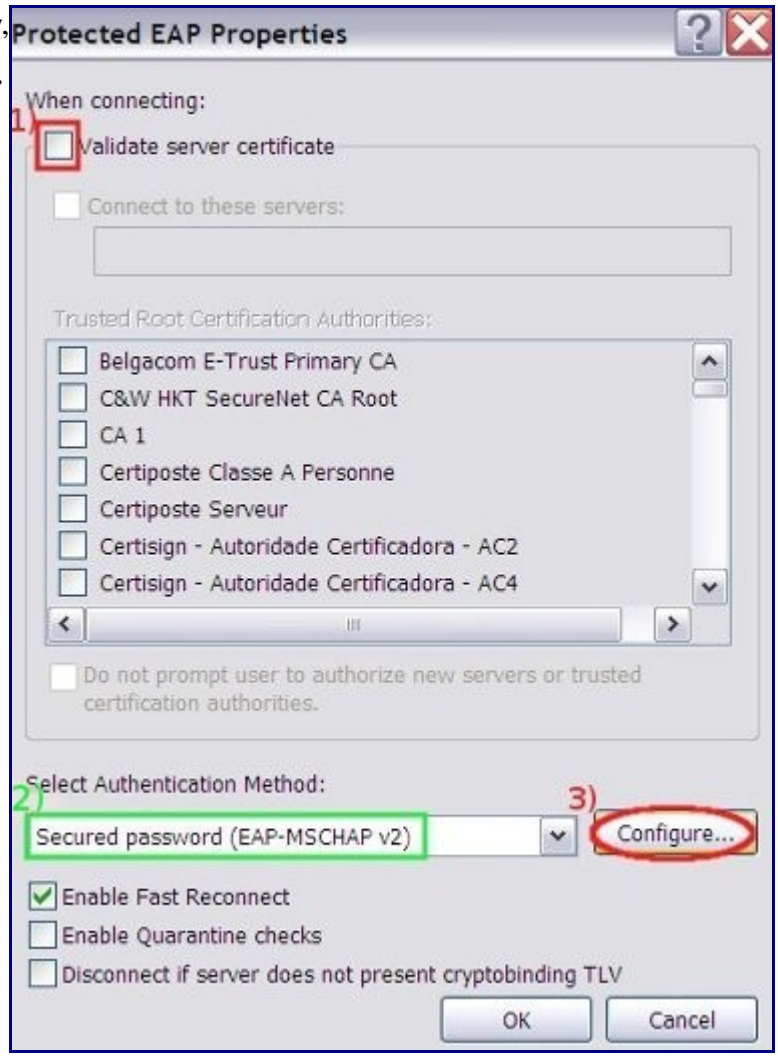


h) In *Protected EAP Properties* window,

1) **remove** the check in **Validate server certificate** box,

2) verify that in *Select Authentication Method* **Secured password (EAP-MSCHAP v2)** is selected,

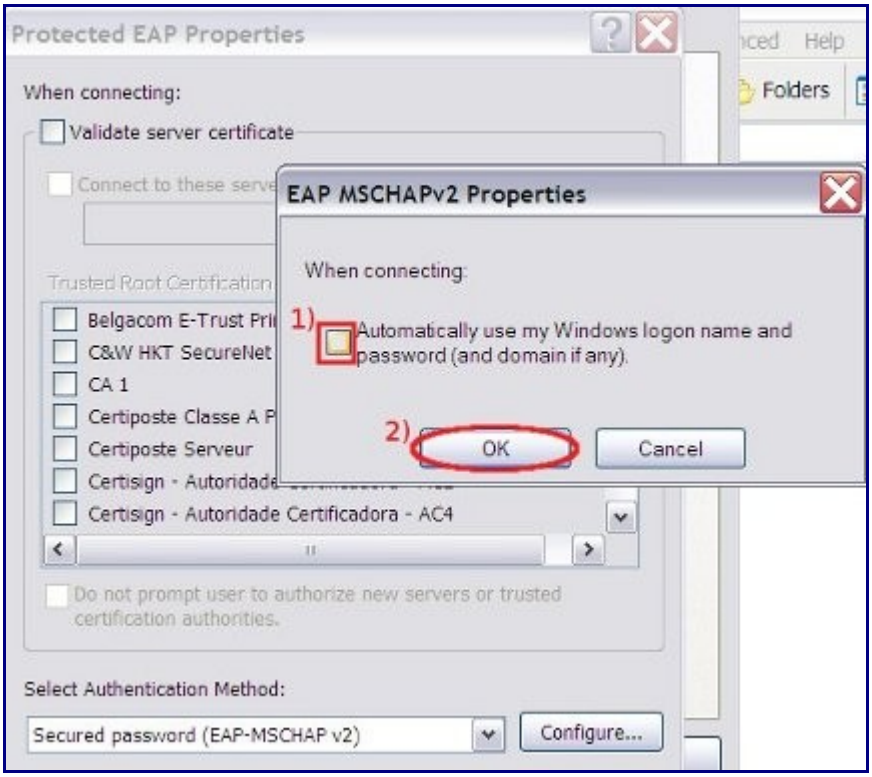
3) then click on **Configure…**



i) In *EAP MSCHAPv2 Properties* window,

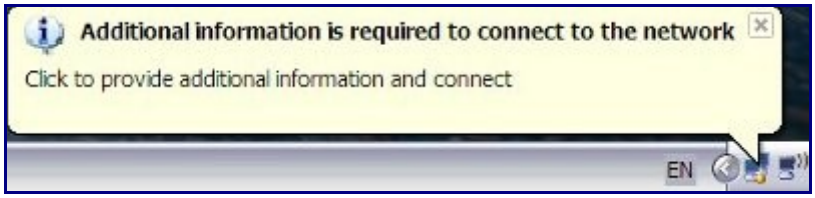
1) **remove** the check in **Automatically use my Windows logon name and password** box,

2) then click **OK** here and on ALL *Properties* (*EAP MSCHAPv2, Protected EAP Properties, Local Area Connection Properties*) windows.



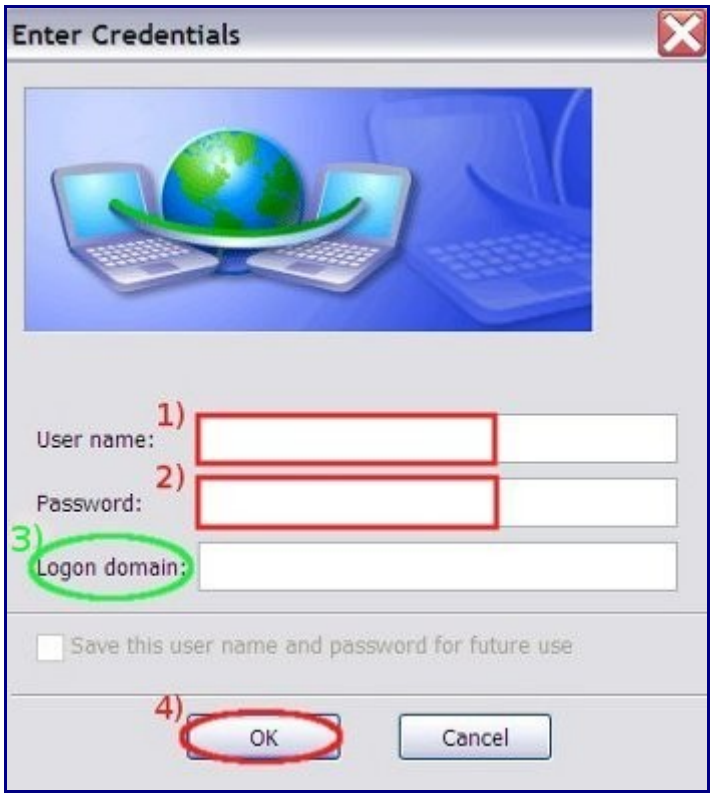
j) Connect the **Ethernet cable**,

- in the **Notification area** (bottom-right corner of the Desktop) will appear a pop-up window, **click on it** in order to enter your credentials



k) In *Enter Credentials* window,

1) insert your **Username**, **2)** and **Password** (the same of SISSA webmail),
3) leave the *Logon domain* field **empty**,
4) then click **OK**.



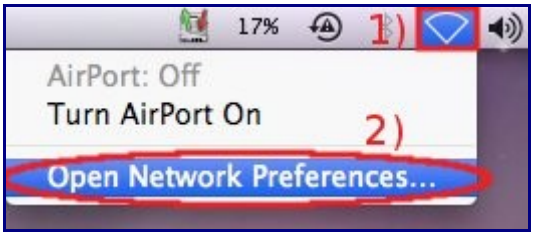
Mac OSX configuration guide

Configuration guide for the Sissa Wired Network (dot1x authentication), using the default tools of Mac OS X.

PLEASE NOTE: DO NOT PLUG the NETWORK CABLE untill you reach the end of the STEP F of this procedure.

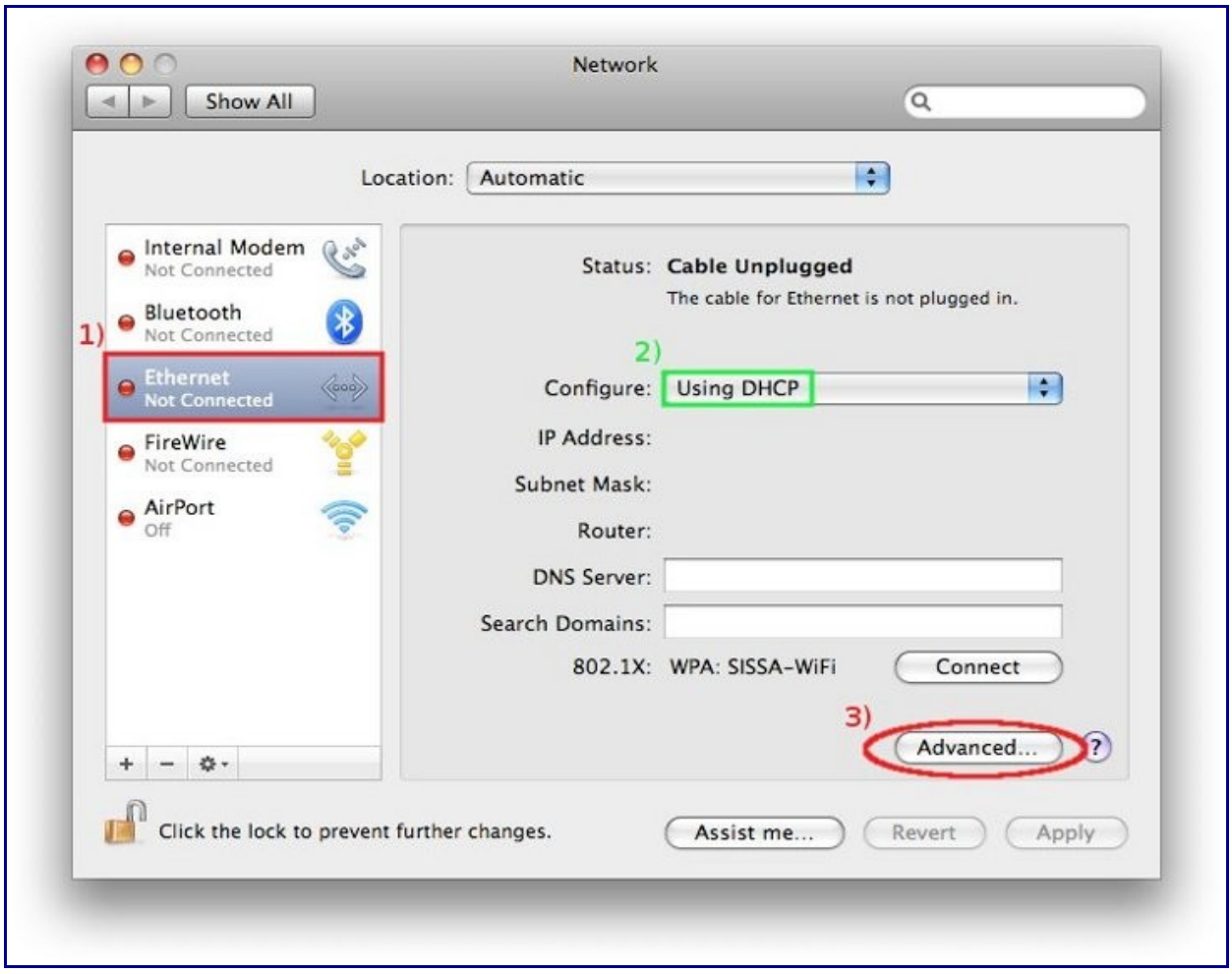
a) On the *Desktop* in the up-right corner,

1) click on the **Network** icon, and then
2) **Open Network Preferences…**



b) In the *Network* window,

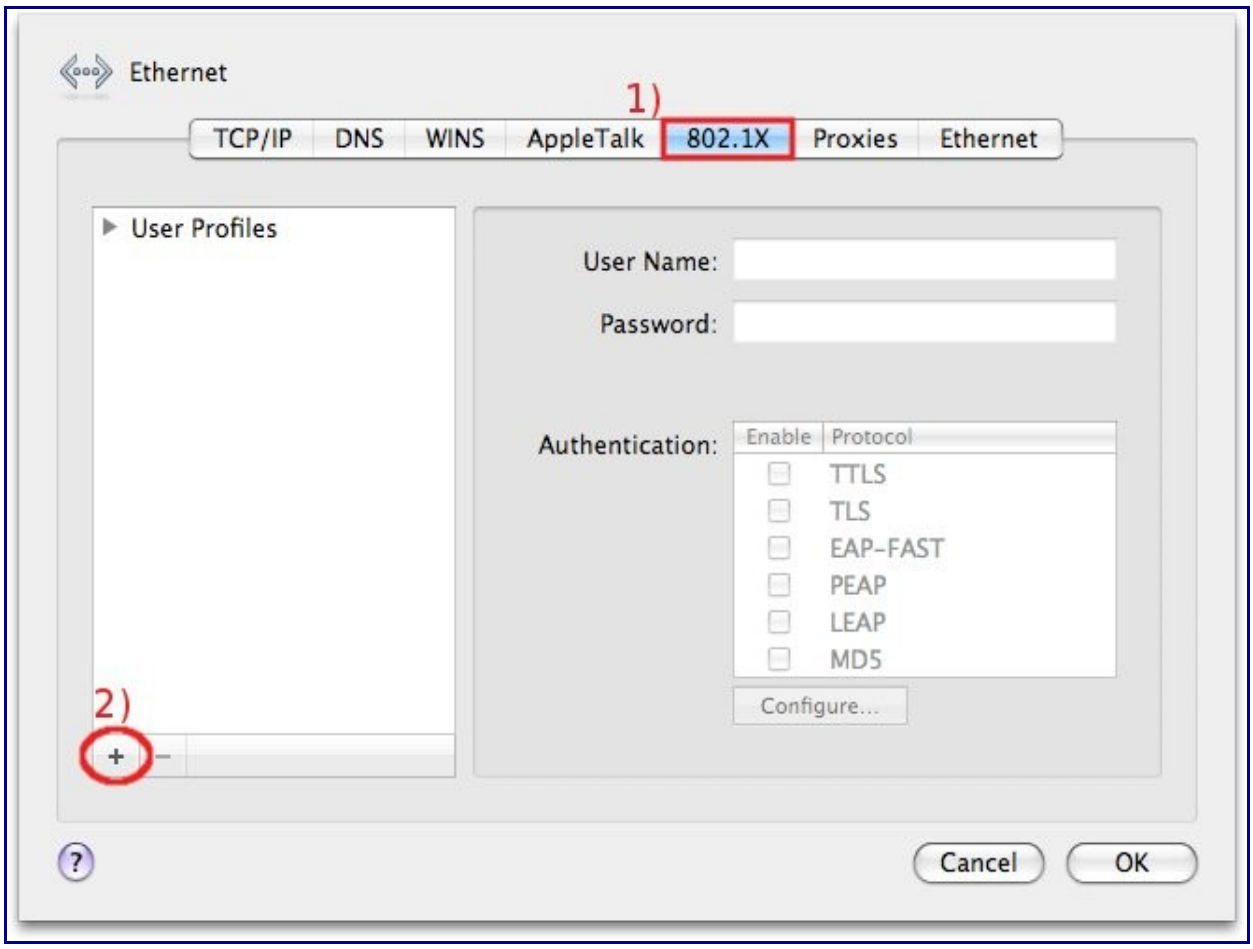
1) select **Ethernet** connection,
2) verify that **Using** DHCP is selected,
3) and then click on **Advanced**…



c) In the *Ethernet* window,

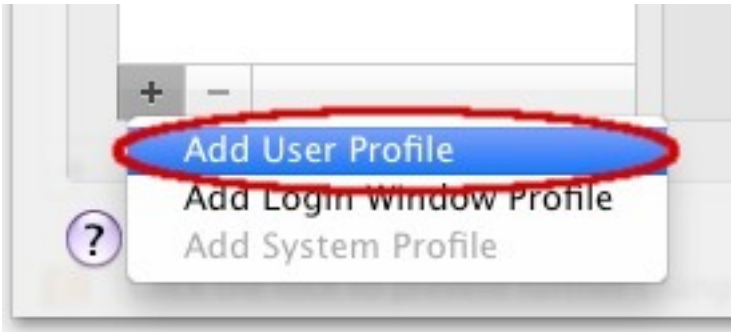
1) Select **802.1X** tab,

2) and click on **+**, in the bottom-left corner of the window.



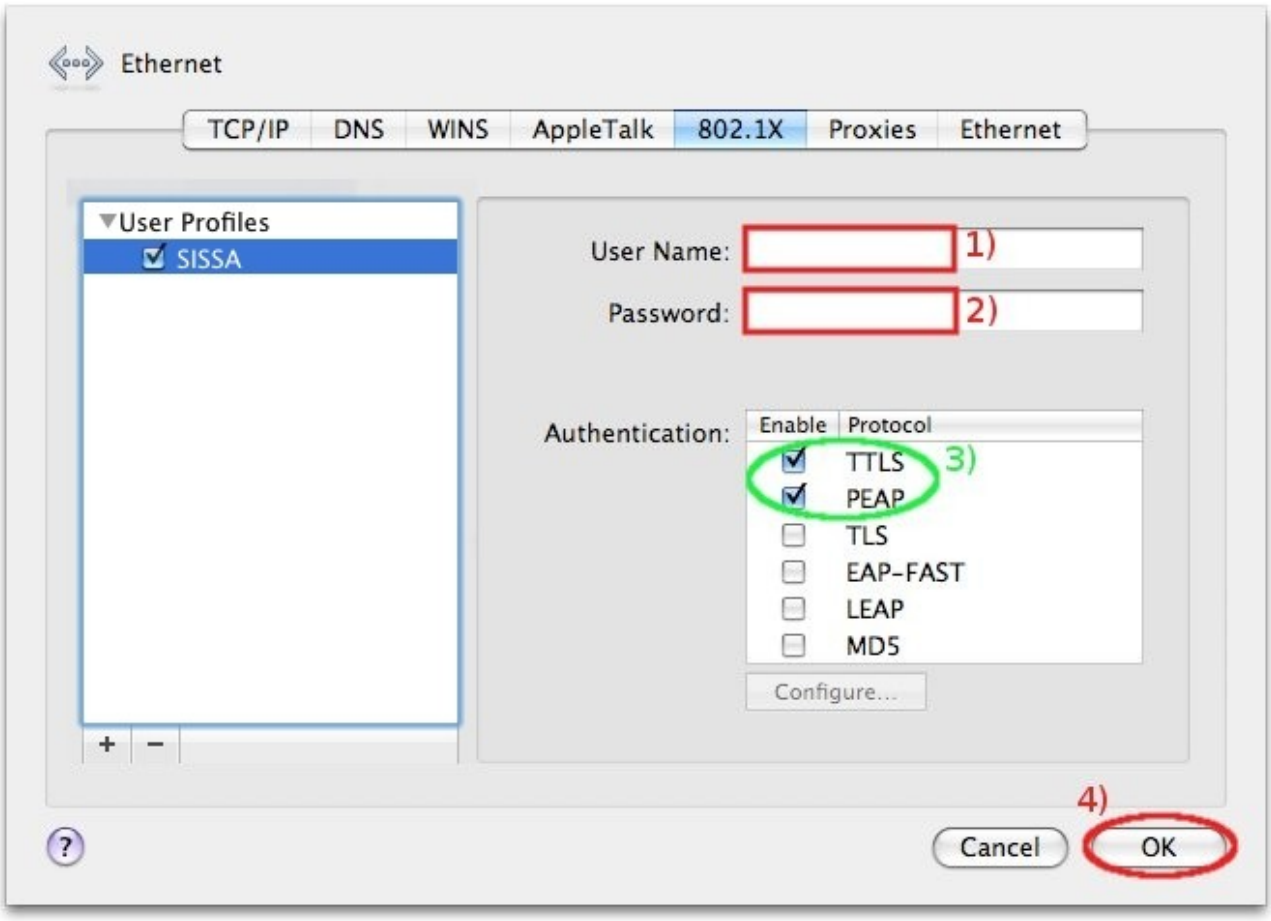
d) A drop down menu list will appear,

- Select **Add User Profile**

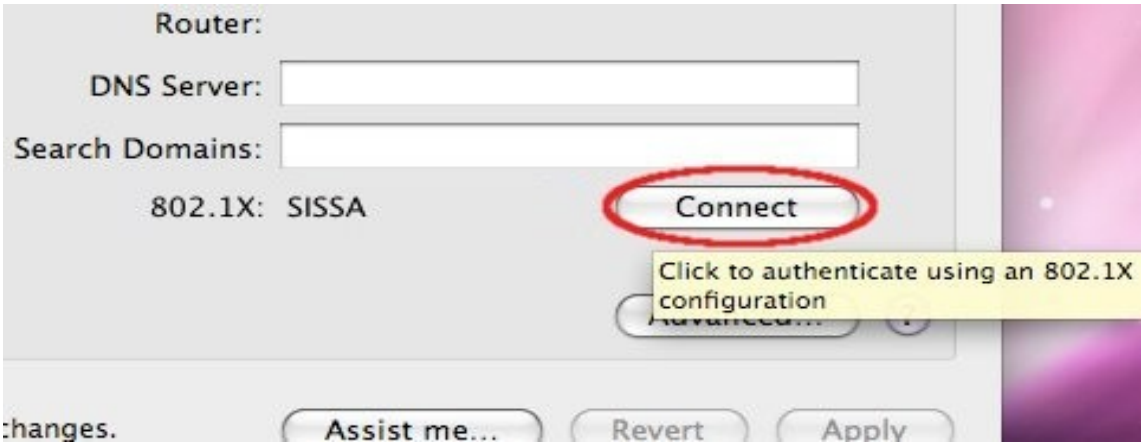


e) In the *Ethernet* window,

1) Insert your **Username**, and **2)** **Password** (the same of SISSA webmail),
3) verify that in *Authentication* boxes **TTLS** and **PEAP** are both checked,
4) then click **OK**.

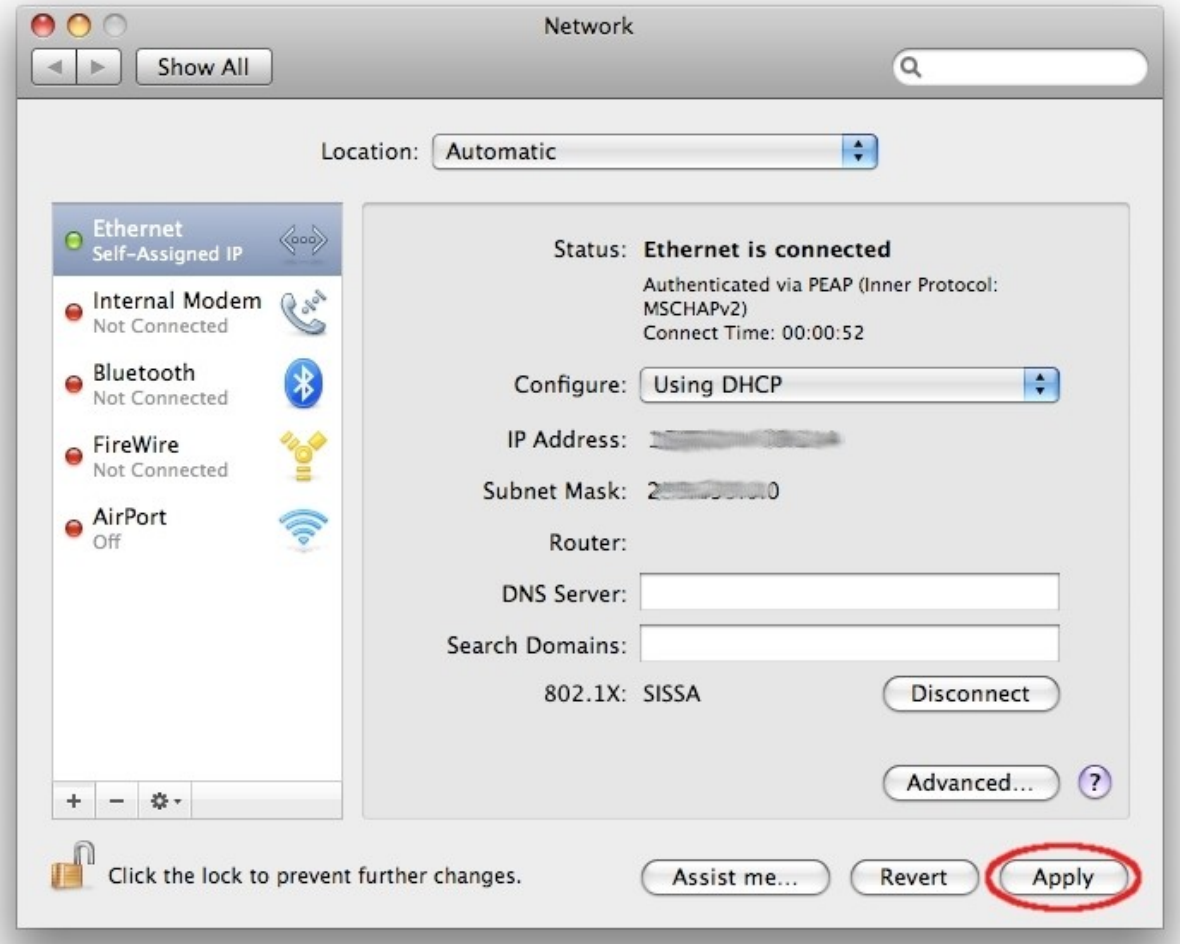


f) Plug in the **Ethernet cable** and Click **Connect**



g) Click on **Continue**

h) In the *Network* window, click **Apply**.



Ubuntu configuration guide

The instructions refer to Ubuntu 9.04 and Gnome Desktop –in english– using Network Manager (the applet controlling the network connections).

PLEASE NOTE: DO NOT PLUG the NETWORK CABLE untill you reach the end of the STEP D of this procedure.

When the port authentication is not required:

outside SISSA or in the Miramare, Stock, Q1 building user rooms;

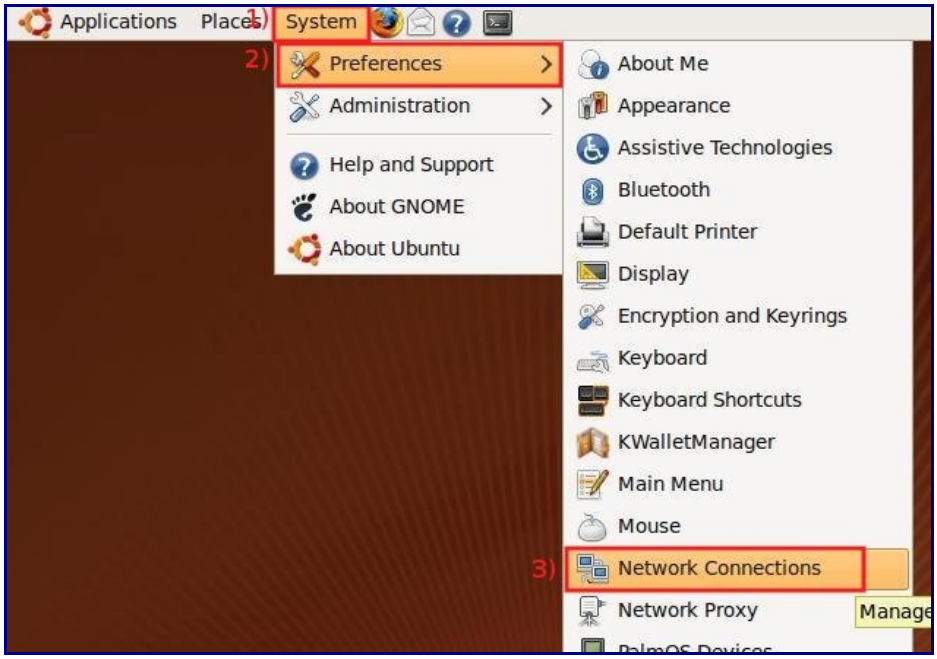
just uncheck **Use 802.1X security for this connection** in the *Editing* window **(Step c**,point **2**)

a) To open the Network connections window, on the main top bar menu:

1) click on **System**,

2) click on **Preferences**,

3) then click on **Network connections**;

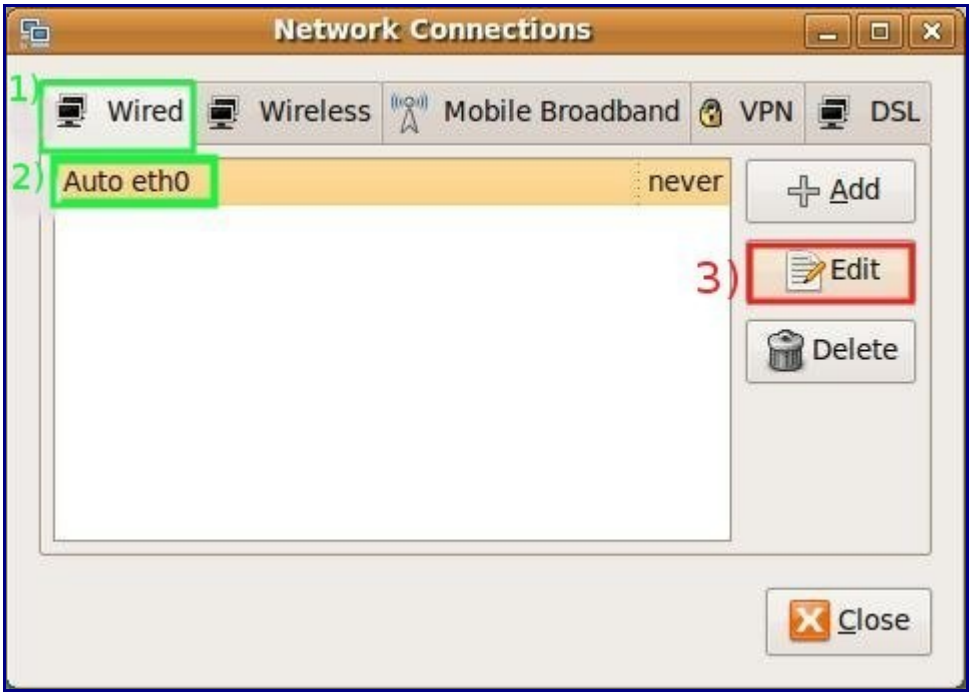


b) In the *Network connections* window:

1) in **Wired** tab,

2) select the connection and then,

3) click on **Edit**.



c) In the *Editing …* window:

1) Select **802.1X Security** tab,

2) put a check in the *Use 802.1X security for this connection* box,

3) in the *Authentication* drop down list select **Protected EAP (PEAP)**,

4) verify that *Inner Authentication* is set to **MSCHAPv2** then,

5) insert your **Username** and

6) Password (the same of SISSA webmail).

d) Always in the *Editing …* window:

1) Select *Ipv4 Settings* tab,

2) verify that the selected method is **Automatic** (DHCP) and then,

3) click on **Apply** and plug in the Ethernet cable.

Linux configuration guide

Configuration guide for the SISSA Wired Network (dot1x authentication), using **wpa_supplicant.**

a) With your preferred text editor create the /etc/wpa_supplicant/SISSA-WIRED.wpa_supplicant.conf configuration file and insert the following lines:

```
ctrl_interface=/var/run/wpa_supplicant
ctrl_interface_group=wheel
ap_scan=0

network={
        key_mgmt=IEEE8021X
        eap=PEAP
        phase2="auth=MSCHAPV2"
        identity="yourusername"
        password="yourpassword"
        eapol_flags=0
}
```

Insert your **yourusername** and **yourpassword** (the same of your SISSA webmail) in the *identity* and *password* fields.

b) Dependig on your distribution you have to continue in different ways:

Generic Linux distribution go to the page 26,

Ubuntu/Debian based distributions go to the page 26,

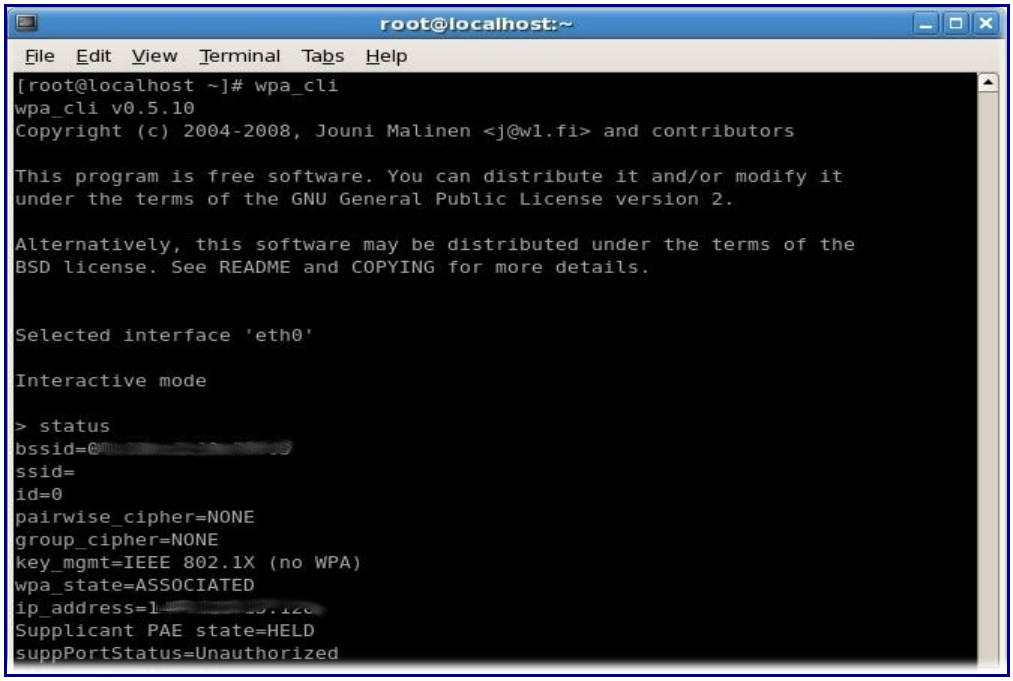
Fedora/RedHat distributions go to the page 27.

Generic Linux distribution

GL-a) Run the following command in order to activate the wpa_supplicant daemon:

wpa_supplicant -c /etc/wpa_supplicant/SISSA-WIRED.wpa_supplicant.conf -i eth0 -D wired -B

GL-b) To check the correct status of wpa_supplicant daemon, run the following commands:
wpa_cli
……. then
status



Please check the value of the following parameters:

`wpa_state=ASSOCIATED`

GL-c) Open another terminal and start network service:

ifup eth0

GL-d) Use again the **wpa_cli** command and check its result;
the last line should be the following:

`CTRL-EVENT-EAP-SUCCESS EAP authentication completed successfully`

Ubuntu/Debian based distributions

U&D-a) Using a text editor add the following lines at the end of the file: **/etc/network/interfaces**

```
auto eth0
iface eth0 inet dhcp
        wpa-driver wired
        wpa-conf /etc/wpa_supplicant/SISSA-WIRED.wpa_supplicant.conf
```

U&D-b) Enable the network service:

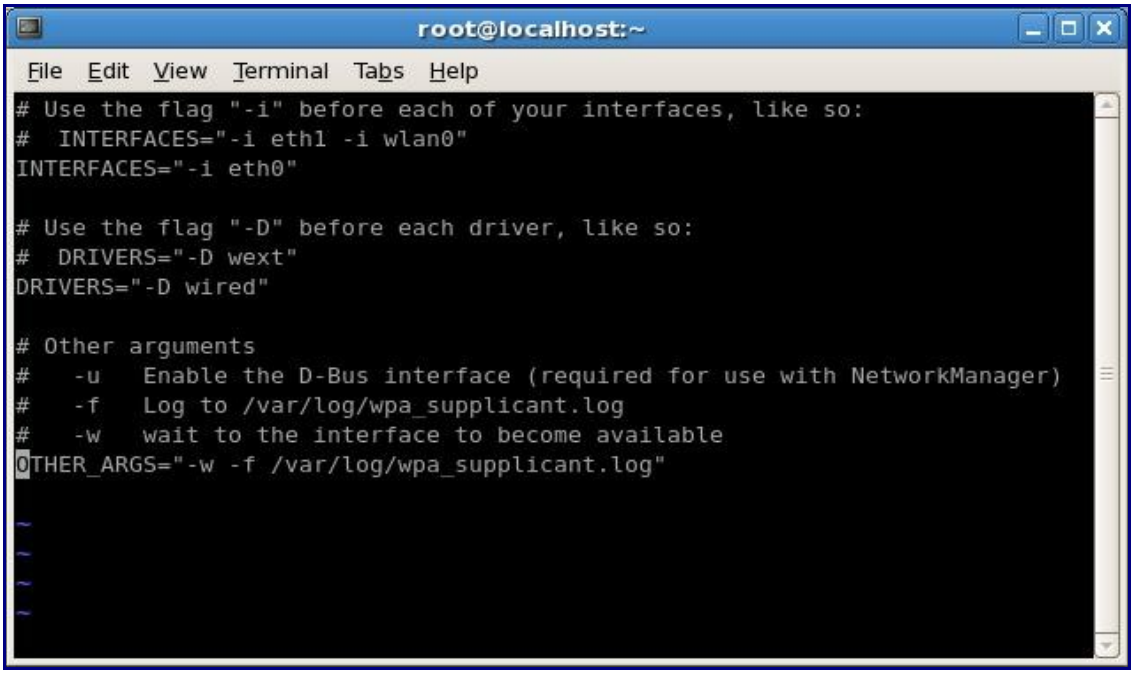
sudo /etc/init.d/networking start

Fedora/RedHat distributions

F&RH-a) Edit the file **/etc/sysconfig/wpa_supplicant**, then modify the value of the following parameters:

```
INTERFACES="-i eth0"
DIRVERS="-D wext"
OTHER_ARGS="-w -f /var/log/wpa_supplicant.log"
```

Please note that these parameters are in different lines.



F&RH-b) Enable the wpa_supplicant daemon and the network service:

service wpa_supplicant start

service network start