Step by step guide for connecting PC to wired LAN at dormitories of University of Pardubice

English version Version 1.1 July 2008

Information Cente University of Pardubice

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A. Windows XP

Valid for the operating system Microsoft XP (all versions). It's recommended to have the latest updates of the system.

To connect to the wired network, the user authentication is required through the protocol 802.1x.

Follow to: Set autostart service "Wired AutoConfig": Click here to begin 🏄 Start 🥭 🚱 Start > My Computer > right click to select Manage, Services and Application > Services > select service "Wired AutoConfig". 📮 Computer Management <u>- 0 ×</u> 🖳 Eile Action <u>V</u>iew <u>W</u>indow <u>H</u>elp _ 8 × 📃 Computer Management (Local) 🍇 Services 🖻 🌇 System Tools 🗄 🔞 Event Viewer Name 🗠 Description Status Startup ... Log On 🔺 Wired AutoConfig Shared Folders
 Social Users and Groups Wuninterruptible Pow... Manages an u... Manual Local Se Start the service 🖏 Universal Plug and ... Provides supp... Manual Local Se 🗄 🐺 Performance Logs and Alert: 🍓 Volume Shadow Copy 🛛 Manages and ... Manual Local S 🚊 Device Manager 🍓 WebClient Enables Wind... Started Automatic Local Se Description: 🖻 🚵 Storage This service performs IEEE 802.1X authentication on Ethernet interfaces 🖏 Windows Audio Manages audi... Started Automatic Local Sy Removable Storage
 Storage
 Disk Defragmenter Windows Firewall/I... Provides net... Started Automatic Local Sv 🐝 Windows Image Ac... Provides imag... Manual Local Sy 🚟 Disk Management 🍓 Windows Installer Adds, modifie... Manual Local Sy 🖻 뤓 Services and Applications Windows Managem... Provides a co... Started Automatic Local Sy 🆏 Services 🐝 Windows Managem... Provides syst... WMI Control Manual Local Sy 🗄 🤷 Indexing Service 🆏 Windows Time Maintains dat... Started Automatic Local Sy Wired AutoConfig This service p... Manual Local S 🐝 Wireless Zero Confi... Provides auto... Started Automatic Local Sv 🍓 WMI Performance ... Provides perf... Manual Local Sv 🖏 Workstation Creates and ... Started Automatic Local Sy -• . Extended Standard

Right click to select "Properties",



Another way is to find the desktop icon "My computer".

In the "General" card select the Startup type: "Automatic".

Wired AutoConfig	Properties (Local Computer)	? ×		
General Log On	Recovery Dependencies			
Service name:	Dot3svc			
Display <u>n</u> ame:	Wired AutoConfig			
Description:	This service performs IEEE 802.1X authentication o Ethernet interfaces	n 🔺		
Pat <u>h</u> to executable: C:\\/INDOWS\System32\svchost.exe -k dot3svc				
Startup typ <u>e</u> :	Automatic Automatic Manual			
Service status:	Disabled Stopped	-		
<u>S</u> tart	Stop <u>P</u> ause <u>R</u> esume			
You can specify the start parameters that apply when you start the service from here.				
Start para <u>m</u> eters:				
	OK Cancel A	pply		

Click at the "Start" button to run the service.

Wired AutoConfig	Properties (Local Computer)	? ×		
General Log On	Recovery Dependencies			
Service name:	Dot3svc			
Display <u>n</u> ame:	Wired AutoConfig			
Description:	This service performs IEEE 802.1X authentication on Ethernet interfaces	▲		
Pat <u>h</u> to executabl C:\WINDOWS\S	Path to executable: C:\WINDOWS\System32\svchost.exe -k dot3svc			
Startup typ <u>e</u> :	Automatic	•		
Service status: Stopped				
<u>S</u> tart	Stop <u>P</u> ause <u>R</u> esume			
You can specify the start parameters that apply when you start the service from here.				
Start para <u>m</u> eters:				
	OK Cancel <u>A</u> pp	ly		

The service is running, press "OK" to close the Window.

Wired AutoConfig I	Properties (Local Computer)	? ×		
General Log On	Recovery Dependencies			
Service name:	Dot3svc			
Display <u>n</u> ame:	Wired AutoConfig			
Description:	This service performs IEEE 802.1X authentication on Ethernet interfaces			
Pat <u>h</u> to executabl C:\WINDOWS\S	Pat <u>h</u> to executable: C:\WINDOWS\System32\svchost.exe -k dot3svc			
Startup typ <u>e</u> :	Automatic	•		
Service status:	Started	-		
<u>S</u> tart	Stop Pause Resume			
You can specify the start parameters that apply when you start the service from here.				
Start para <u>m</u> eters:				
	OK Cancel	ly l		

If the network cable is connected, the following window appears in the right down corner: "Additional information is required to connect to the network".

i Additional information is required to connect to the network	×
Click to provide additional information and connect	

Now do not click at the window and continue in the setup of the connection properties: Setup Authentication in Wired connection properties for the internet connection:



Right click to select "Properties" at "Local Area Connection" icon.



In the window "Local Area Connection Properties" select the card "Authentication",

General Authentication Advanced
Connect using:
Broadcom NetXtreme 57xx Gigabit C
This connection uses the following items:
 ✓ ■ Client for Microsoft Networks ✓ ■ File and Printer Sharing for Microsoft Networks ✓ ■ QoS Packet Scheduler ✓ ☞ Internet Protocol (TCP/IP)
Install Uninstall Properties
Allows your computer to access resources on a Microsoft network.
 Show icon in notification area when connected ✓ Notify me when this connection has limited or no connectivity
OK Cancel

Compare the settings with the picture below and press "Settings",



uncheck "Validate server certificate" and compare the settings with the picture below and select "Configure",

Protected EAP Properties
When connecting:
Validate server certificate
Connect to these servers:
Trusted Root Certification Authorities:
ABA.ECOM Root CA
🗌 🗖 Autoridad Certificadora de la Asociacion Nacional del Notaria 🚍 📄
Autoridad Certificadora del Colegio Nacional de Correduria P.
Baltimore EZ by DST
Belgacom E-Trust Primary CA
Do not grompt user to authorize new servers or trusted certification authorities.
Select Authentication Method:
Secured password (EAP-MSCHAP v2)
🔽 Enable Fast Reconnect
Enable Quarantine checks
Disconnect if server does not present cryptobinding <u>T</u> LV
OK Cancel

uncheck the field in this window and press "OK".

EAP MSCHAPVZ Propercies	
When connecting:	
— Automatically use my W	/indows locon name and
password (and domain	if any).
OK	Cancel

Close the configuration by selecting "OK" twice.

Now the Local Area Connection is finished.

If the window requesting additional information does not appear, please unplug and plug in the network cable.

The following window appears in the right down corner: "Additional information is required to connect to the network":



Click at the window and fill in the User name (as <u>NetID@upce.cz</u>) and your password. Do not fill the field "Logon domain":

Enter Credentia	als	×
<u>U</u> ser name:	st12345@upce.cz	
Password:	•••••	
Logon domain:		
☐ <u>S</u> ave this u	ser name and password for future use	
	Cancel	

Select "OK".

The user with the active NetID will obtain an IP address and connect to the network.

Note: You can find the information about NetID at http://www.upce.cz.

Troubleshooting:

1. If the following window appears:

Re-enter Credentia	als 🔰
Windows was unable name and password password	e to connect to the network using the user you provided. Please re-enter the
<u>U</u> ser name:	st12345@upce.cz
Password:	•••••
<u>D</u> omain:	
	OK Cancel

your password is wrong. Check your Username and Password.

In other cases the following window appears in the right down corner: "Additional information is required to connect to the network" again:

ſ	$\left< \! \downarrow \! \right>$ Additional information is required to connect to the network	×	
ļ	Click to provide additional information and connect		
		N	0

Please follow to:

- 2. Check all the settings mentioned above.
- 3. Check another settings of TCP/IP Local Area Connection:

Once again open the window "Local Area Connection Properties", In the "General" card select "Internet Protocol (TCP/IP)", select "Properties":

🕹 Local Area Connection Properties	? ×
General Authentication Advanced	
Connect using:	
Broadcom NetXtreme 57xx Gigabit C	onfigure
This connection uses the following items:	
Glient for Microsoft Networks Elient for Microsoft Networks Elie and Printer Sharing for Microsoft Network: Elie QoS Packet Scheduler Elient Protocol (TCP/IP)	\$
	operties
Transmission Control Protocol/Internet Protocol. The wide area network protocol that provides communica across diverse interconnected networks.	edefault ation
 Show icon in notification area when connected ✓ Notify me when this connection has limited or no conneconnection has limited or no connection has limited or no con	onnectivity
ОК	Cancel

Compare the settings with the picture below; the automatic IP and DNS must be enabled. Close all the windows by selecting "OK".

Internet Protocol (TCP/IP) Prope	rties ? X			
General Alternate Configuration				
You can get IP settings assigned a this capability. Otherwise, you need the appropriate IP settings.	utomatically if your network supports to ask your network administrator for			
Obtain an IP address automat	ically			
$\square \bigcirc \bigcirc$ Use the following IP address:				
[P address:				
S <u>u</u> bnet mask:				
Default gateway:				
Obtain DNS server address a	utomatically			
C Use the following DNS server	addresses:			
Preferred DNS server:				
Alternate DNS server:				
	Ad <u>v</u> anced			
	OK Cancel			

Unplug and plug in the network cable again and log in to the wired network.

4. If the problem still persists, please contact the network administrator of the dormitories.

For the news and updated information, please visit: <u>http://www.upce.cz</u> Information centre pages. Information centre, University of Pardubice.

B. Windows Vista

Step by step guide for connecting PC to wired LAN at dormitories of University of Pardubice

English version Version 1.0 July 2008

Valid for the operating system Microsoft Vista (all versions). It's recommended to have the latest updates of the system.

To connect to the wired network, the user authentication is required through the protocol 802.1x.

Follow to:

Set autostart service "Wired AutoConfig":

Start > Computer > right click to select Manage, Services and Application > Services > select service "Wired AutoConfig".



Right click to select "Properties",

In the "General" card select the Startup type: "Automatic".

Wired AutoConfig	Properties (Local Computer)
General Log On	Recovery Dependencies
Service name:	dot3svc
Display <u>n</u> ame:	Wired AutoConfig
Description:	This service performs IEEE 802.1X authentication on Ethemet interfaces
Pat <u>h</u> to executabl C:\Windows\syst	e: em32\svchost.exe + LocalSystemNetworkRestricted
Startup typ <u>e</u> :	Manual
Help me configur	Automatic (Delayed Start) 2: Automatic Magual
Service status:	Disabled Stopped
<u>S</u> tart	Stop Pause Resume
You can specify t from here.	he start parameters that apply when you start the service
Start parameters:	
	OK Cancel Apply

Click at the "Start" button to run the service.

Wired AutoConfig Properties (Local Computer)	x
General Log On Recovery Dependencies	_
Service name: dot3svc	
Display <u>n</u> ame: Wired AutoConfig	
Description: This service performs IEEE 802.1X authentication on Ethemet interfaces	
Pat <u>h</u> to executable: C:\Windows\system32\svchost.exe +k LocalSystemNetworkRestricted	
Startup type: Automatic 🗸	
Help me configure service startup options.	
Service status: Stopped	
Stat Stop Pause Resume	
You can specify the start parameters that apply when you start the service from here.	
Start parameters:	
OK Cancel Apply	

The service is running, press "OK" to close the Window.

Wired AutoConfig Pr	operties (Local Computer)
General Log On F	Recovery Dependencies
Service name: 0	dot3svc
Display <u>n</u> ame:	Wired AutoConfig
Description:	This service performs IEEE 802.1X authentication
Pat <u>h</u> to executable: C:\Windows\system	132\svchost.exe ⊀ LocalSystemNetworkRestricted
Startup typ <u>e</u> :	Automatic 🔹
Help me configure s	ervice startup options.
Service status:	Started
<u>S</u> tart	Stop Pause Resume
You can specify the from here.	start parameters that apply when you start the service
Start parameters:	
L	OK Cancel Apply

If the network cable is connected, the following window appears in the right down corner: "Additional information is required to connect to the network".

-	Additional information is required to connect to the network Click to provide additional information and connect	x
No.	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Now do not click at the window and continue in the setup of the connection properties:

Setup Authentication in Wired connection properties for the internet connection:

Start > Network > Network and Sharing Center > Manage network connections

🕞 🖓 💆 🕨 Control Panel 🕨	Network and Sharing Center	✓ 4y Search	Q
Tasks View computers and devices Connect to a network Set up a connection or network <u>Manage network connections</u> Diagnose and repair	Network and Sharing VISTA-PC (This compu	Center	View full map — O Internet
	Linidentified network	: (Public network)	Customize
	Connection	Local Area Connection	View status
	Sharing and Discovery	,	
	Network discovery	● Off	$\overline{\mathbf{v}}$
See also	File sharing	● Off	\odot
Internet Options	Public folder sharing	• Off	$\overline{\mathbf{v}}$
Windows Firewall	Printer sharing	 Off (no printers installed) 	

Right click to select "Properties" at "Local Area Connection".

00	🗢 👰 🕨 Control F	Panel ► Network	Connections	✓ 47 Se	arch		ک ا
🎍 Organ	iize 🔻 📲 Views	-	_	_	_	_	0
Name	Status	Device Name	Connectivity	Network Category	Owner	Туре	»
LAN or H	igh-Speed Internet	t (1)					· ·
S	Local Area Connec Unidentified netwo Broadcom NetLink	c (TM) Gig		_			
	Bro	adcom NetLink (T	M) Gigabit Etherne	et j			

In the window "Local Area Connection Properties" select the card "Authentication",

🃮 Local Area Connection Properties 🛛 💌
Networking Authentication
Connect using:
🔮 Broadcom NetLink (TM) Gigabit Ethemet
Configure
This connection uses the following items:
Gient for Microsoft Networks GoS Packet Scheduler GoS Packet Scheduler File and Printer Sharing for Microsoft Networks Antemet Protocol Version 6 (TCP/IPv6) Antemet Protocol Version 4 (TCP/IPv4) Antemet Protocol Version 4 (TCP/IPv4)
Install Uninstall Properties
Description Allows your computer to access resources on a Microsoft network.
OK Cancel

Compare the settings with the picture below and press "Settings",

📮 Local Area Connection Properties 🛛 🛛 🕰
Networking Authentication
Select this option to provide authenticated network access for this Ethernet adapter.
✓ Enable IEEE 802.1X authentication
Choose a network authentication <u>m</u> ethod:
Microsoft: Protected EAP (PEAF Settings
Cache user information for subsequent connections to this network
OK Cancel

uncheck "Validate server certificate" and compare the settings with the picture below and select "Configure",

Protected EAP Properties
When connecting:
☐ <u>V</u> alidate server certificate
Connect to these servers:
Tructed Doot Certification Authorities:
Class 3 Public Primary Certification Authority
Microsoft Root Authority
Microsoft Root Certificate Authority
Do not prompt user to authorize new servers or trusted
certification authorities.
Select Authentication Method:
Secured password (EAP-MSCHAP v2)
Enable East Reconnect
Enable Quarantine checks
J Disconnect if server does not present cryptobinding TLV
OK Cancel
uncheck the field in this window and press "OK".
EAP MSCHAPv2 Properties
When connecting:
-
<u>Automatically use my Windows logon name and</u>
password (and domain if any).
OK Cancel

Close the configuration by selecting "OK".

📱 Local Area Connection Properties 🛛 💌
Networking Authentication
Select this option to provide authenticated network access for this Ethemet adapter.
Enable IEEE 802.1X authentication
Choose a network authentication method:
Microsoft: Protected EAP (PEAF Settings
Cache user information for subsequent connections to this network
OK Cancel

Now the Local Area Connection is finished.

If the window requesting additional information does not appear, please unplug and plug in the network cable.

The following window appears in the right down corner: "Additional information is required to connect to the network":



Click at the window and fill in the User name (as <u>NetID@upce.cz</u>) and your password. Do not fill the field "Logon domain":

	117345@upce.cz
User name:	12545@upce.cz
Password:	
Logon domain:	
Save this user r	name and password for future use
[OK Cancel

Select "OK".

Note: You can find the information about NetID at http://www.upce.cz.

The user with the active NetID will obtain an IP address and the following window appears. Select your location: "Public location",



To finish select "Close".

🌀 🏭 Set Net	twork Location			
Successfully set network settings				
View or cha	Network name: Location type: ange network and sha	Network Public Discovery of other computers and devices will be limited, and the use of the network by some programs may be restricted.		

Troubleshooting:

If the/your authentication fails, follow these instructions:

- 1. Check all the settings mentioned above.
- Check your Username and Password.
 Check another settings of TCP/IP Local Area Connection:

Once again open the window "Local Area Connection Properties", In the "Networking" card select "Internet Protocol Version 4", select "Properties":

🖳 Local Area Connection Properties 🛛 💌						
Networking Authentication						
Connect using:						
😰 Broadcom NetLink (TM) Gigabit Ethemet						
Configure						
This connection uses the following items:						
Client for Microsoft Networks Client for Microsoft Networks Client for Microsoft Networks Client Protocol Version 6 (TCP//Pv6) Lintemet Protocol Version 4 (TCP//Pv4) Lintemet Protocol Version 4 (TCP//Pv4) Lintent Protocol Version 4 (TCP//Pv4) L						
Install Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.						
OK Cancel						

Compare the settings with the picture below; the automatic IP and DNS must be enabled. Close all the windows by selecting "OK".

Internet Protocol Version 4 (TCP/IPv4) Properties					
General Alternate Configuration					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatically					
O Use the following IP address:					
IP address:					
S <u>u</u> bnet mask:					
Default gateway:					
Ohtain DNS server address automatically					
○ Use the following DNS server addresses:					
Preferred DNS server:					
Alternate DNS server:					
	Ad <u>v</u> anced				
	OK Cancel				

Unplug and plug in the network cable again and log in to the wired network.

4. If the problem still persists, please contact the network administrator of the dormitories.

For the news and updated information, please visit: <u>http://www.upce.cz</u> Information centre pages. Information centre, University of Pardubice.