## Remote access to the network of the Rectorate of the Charles University using VPN (IPSec)

Remote access to the Rectorate network, especially to services provided in the UVTUK domain, can be executed through connection to a virtual private network (VPN). This is done via the IPSec protocol, possibly its NAT-T extension, which also enables connection from networks with port translation (PAT/NAPT), such as Eurotel CDMA. After establishing a link, connection is secured by AES (Advanced Encryption Standard) with key length 128 bits and a SHA. Firewall address is **vpn.ruk.cuni.cz**, users are verified on the RADIUS server in the UVTUK domain. Access is enabled only to employees of the Rectorate of the Charles University with an account in the UVTUK domain.

For this type of VPN – unlike for PPTP whose implementation is part of most operation systems – one needs to install special software (VPN client). One can use **Cisco VPN Client**, which is available in the following versions:

Cisco VPN Client pro MS Windows ver 5.0 (32bit)

Cisco VPN Client pro MS Windows ver 5.0 (64bit) Cisco VPN Client pro Mac OS X 10.4 (Intel/PPC)

<u>Cisco VPN Client pro Mac OS X 10.4 (Intel/PPC)</u>

Cisco VPN Client pro Linux

Settings for Cisco VPN client are described here.

In the Linux system, one can also use the vpnc program (with no graphic interface), commonly available for example within the Debian distribution.

Cisco VPN Client does not support some newer versions of Windows. In those operation systems, one can use <u>Shrew</u> <u>Soft VPN client</u>

## Setting up VPN connection – Cisco VPN client

Press 'New' button

👌 ¥PN Client	- Version 4	.0.5 (Rel)				
Connection Ent	ries <u>S</u> tatus	C <u>e</u> rtificates	Log Options	<u>H</u> elp		
Connect Connect	New tries Cert	F 📰 Import ificates   Lo	Modify	) Delete		CISCO SYSTEMS
Conne	ction Entry	Δ	Host		Transport	
Not connected.						11

Complete information according to the picture. In the 'Password' field, enter 'rukvpn' (without scare quotes). The same applies to the 'Name' field.

🕹 VPN Client   Create New VPN Connection Entry 🛛 🔀
Connection Entry: RukVPN
Description:
Host: vpn.ruk.cuni.cz
Authentication Transport Backup Servers Dial-Up
Name: rukvpn
Password:
C <u>o</u> nfirm Password: *****
<ul> <li>Certificate Authentication         <u>Name:</u> </li> <li>Send CA Certificate Chain</li> </ul>
Erase User Password Cancel

On 'Transport' card, there is no need to check anything. Just press 'Save'.

VPN Client   Create New VPN Connection Entry	×
Connection Entry: RukVPN	- Andrew
Description:	
Host: vpn.ruk.cuni.cz	
Authentication Transport Backup Servers Dial-Up	
Enable Transparent Tunneling	
IPSec over UDP (NAT / PAT )	
C IPSec over ICP TCP Port: 10000	
Allow Local LAN Access	
Peer response timeout (seconds): 90	
Erase User Password Save	Cancel

To connect, press ,Connect'.

👶 ¥PN Client - ¥ersion 4	.0.5 (Rel)			
Connection Entries Status	Certificates Lo	g Options	Help	
Connect New	F 🗟 Import	Modify	Delete	Cisco
Connection Entries Cert	ificates Log	1		
Connection Entry	Δ		Host	Transport
RukVPN			vpn.ruk.cuni.cz	IPSec/UDP
Not connected.				

When asked to do so, type in your user name and password in the UVTUK domain.

👌 VPN Client   Us	er Authen	tication for "RukVPN"	ъ
CISCO SYSTEMS	<u>U</u> sername: <u>P</u> assword:	OK Cancel	

## Setting up VPN connection – Shrew Soft VPN

To install Shrew Soft VPN Client, we recommend downloading version **2.1.5** <u>vpn-client-2.1.5-release.exe</u>. Possible newer versions can be downloaded at <u>http://www.shrew.net/download/vpn</u>. A new connection is set up by pressing '**Add**' on the toolbar.

(B) Shrew So	oft VPN	Access Mana	ager		x
File Edit	View	Help			
Connect	C) Add	Modify	) Delete		
					н

In bookmark 'General', type in the host name: vpn.ruk.cuni.cz.

VPN Site Configuration				
General Client Name Resolution Authenticatio				
Remote Host Host Name or IP Address Vpn.ruk.cuni.cz Auto Configuration ike config pull				
Local Host Address Method Use a virtual adapter and assigned address 💌				
MTU Obtain Automatically          1380       Address       .       .         Netmask       .       .       .				
Save Cancel				

In bookmark 'Authentication' set 'Authentication method' to 'Mutual PSK + XAuth' and in sub-bookmark 'Local Identity' set 'Identification Type' to 'Key Identifier'. The 'Key ID String' is 'rukvpn'.

VPN Site Configuration
Client Name Resolution Authentication Phase
Au gentreation Mer. ad Mutual PSK + XAuth
Local Identity Remote Identity Credentials
Identification Type
Key Identifier
Key ID String
rukvpn
Save Cancel

In sub-bookmark 'Local Credentials', type 'rukvpn' into 'Preshared Key' and save by pressing 'Save'.



After creating a connection, connect by pressing '**Connect**'. The appropriate connection must be selected in the connections list.

(B) Shrew Sof	t VPN Access	Manager	_	x
File Edit	View Help			
Connect	Add Mo	a 😑		
8				
vpn.ruk.cu				
			 	at

Before opening the connection, VPN client will ask for a **Username** and **Password**. Type in the same name and password you use when logging into the **UVTUK** domain.

🐼 Shrew Soft V	/PN Connect - vp 🗖 🗖 💌 🗙
Connect Netwo	ork
config loaded l	tor site 'vpn.ruk.cuni.cz' ent settings
Credentials	
Username	jméno diaman
Bassword	harla
Fassword	nesio
aussenst and	Connect Exit

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