Quick Start Guide on setting up a SSH tunnel on Windows to access resources of the Institute of Computer Science

Which resources and services can be used via a SSH tunnel?

- Service- and port-based access to the resources of the Institute of Computer Science
- File Transfer
- Mailservice
- Terminal Connection

1. Download

The required tools *putty.exe* (SSH client) and *plink.exe* (command line interface to putty) can be downloaded from the following Web page:

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

Note: The tools are standalone software, i.e. installation is not necessary. The following guide is based on version 0.59.

2. Configuration

- Run *putty.exe*
- Setting up an SSH connection to the mediation server (Figure 1)
 - select Category "Session" and enter the following details:

Host name:	honshu.informatik.uni-rostock.de
Port:	22
Protocol:	select SSH
Saved sessions:	assign a name for the session (e.g. xyz)

🕵 PuTTY Configuration	? *
PuTTY Configuration Category: Category: Category: Category: Category: Category: Cologging Category: Category: Category: Colours Colours	Basic options for your PuTTY session Specify the destination you want to connect to Host Name (or IP address) Port honshu.informatik.uni-rostock.de 22 Connection type: Raw Raw Ielnet Rlogin SSH Saved Sessions
	Saved Sessions xyzl Default Settings Load Save Delete
About <u>H</u> elp	Close window on exit: Always Never Only on clean exit Open Cancel

Figure 1 Settings in Category "Session"

- Setting up a SSH tunnel to the destination server (Figure 2)
 - Select Category ",Tunnels" (Connection \rightarrow SSH \rightarrow Tunnels) and enter the following details:

Source Port: port on local host which is used to establish the connection

(Here you must enter an unused value, values beyond 10000 have been proven non-critical.)

Destination: server.domain:port

examples:	port 25	SMTP
	port 110	POP3
	port 143	Imapmail
	port 3389	Terminal Server

- Check radio button "Local"
- To add the entry confirm with "Add"

E Session	. Option	is controlling SSH p	ort forwarding
⊡ Logging ⊡ Terminal - Keyboard - Bell - Features	Port forwarding Local ports accept connections from other hosts Remote ports do the same (SSH-2 only) Forwarded ports: Remote		
Window Appearance Behaviour Translation Selection Colours Connection	Add new forwa Source port Destination	rded port: 10000 boss.informatik	Add
- Data - Proxy - Telnet - Rlogin ⊡ SSH - Kex - Auth - X11	 € Local € Auto 	C Remote C IPv4	© Dynamic © IPv6

Figure 2 Tunnel from local port 10000 to the destination server boss.informatik.uni-rostock.de port 3389

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Proxy Telnet Rlogin	Local Auto	C Remote C IPv4	C Dynamic C IPv6

Figure 3 State after tunnel configuration

- Session 🛛 🖉	Option	s controlling SSH p	ort forwarding
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3-Window Appearance Behaviour	L10000 bos L143 min L25 smt	s.informatik.uni-rost Iap.informatik.uni-ro p.informatik.uni-rost	ock.de:3389 stock.de:143 ock.de:25
- Translation - Selection - Colours - Connection	Add new forwa Source port Destination	rded port:	Add
- Proxy - Telnet - Rlogin	C Local C Auto	C Remote C IPv4	C Dynamic C IPv6
E SSH Kex Auth − X11			

Figure 4 Additional examples of port definition

- Save Session
 - Select Category "Session"
 - If no session name has been assigned so far please enter a name.
 - Click "Save"

3. Establish a connection

- Option 1: using putty
 - Run *putty.exe*
 - Select Category "Session"
 - Select appropriate session and click "Load"
 - Click "Open" and sign in

- Option 2: using plink
 - Run *plink.exe* with the following parameters and sign in:

plink.exe –v –N –load name_of_tunnel_session

(see example: *plink.exe* –*v* –*N* –*load xyz*)

Note: Add *plink.exe* to your environment variable PATH beforehand or specify the full path to the executable. Alternatively, you can create a shortcut, right click (navigate to Properties \rightarrow Shortcut \rightarrow Target) and specify the path there.

4. Further Information

- The application on the target machine must be able to use other than default ports.
- When using mail services you have to specify *localhost* in your mail-client both for SMTP (outgoing mail) and IMAP (incoming mail).
- Establishing a Remote desktop connection

Run *mstsc.exe* with following parameters:

mstsc.exe /*v*:localhost:portnumber

(see example: *mstsc.exe* /v:localhost:10000)

Contact

In case you have any questions, please send an email to:

stg-cs@uni-rostock.de