

THOR

Advanced Remote Control Feature Pack

User Manual

Version 3.5

Network Electronics ASA

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Revision history

Current revision of this document is the uppermost in the table below.

Revision	Replaces	Date	Change description
3.5	3.0	27/06/05	Updated to reflect SW release 3.5
3.0	2.9	24/11/04	Updated to reflect SW release 3.0
2.9	2.0	26/02/04	Updated to reflect SW release 2.9
2.0	1.95	01/06/02	Updated to reflect SW release 2.00
1.95	1	05/04/02	Updated to reflect SW release 1.95
1	0	25/09/01	Updated and expanded to include User Guidance
0	-	02/02/01	Initial Revision

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Definitions, Acronyms and Abbreviations

Remote site	Site you are connecting from
Local site	Site where the routers are located
RAI	Network - Remote Access Interface

1 Introduction

This document describes how to install and use *Advanced Remote Control* of the THOR – Router Management System, Version 3.5.

Advanced Remote Control

- Interface for control and monitoring of routers from remote sites via Internet or dial-up connections.

2 Installation

If you received this Feature Pack together with your THOR Main Package, you may skip this Chapter, because then you install both Main Package and Feature Pack(s) all together in one operation.

However, if you purchased this Feature Pack separately, installation of this Feature Pack is simply a matter of entering the correct Product Key in the Product Key Manager of THOR.

Each Feature Pack purchased separately comes with a unique *Product Key*. In order to add this to your existing system, use the *Product Key Manager* that you will find under the *Help* pull down menu. The following view appears:

🅸 THOR - Product Key Manager	
Name Jan Georg Skuggedal Company Network Electronics ASA Product Key >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Software Status Component Status THOR Basic Edition ACTIVE Configurable Control GUI NOT ACTIVE Salvo Scheduler NOT ACTIVE Veb Control NOT ACTIVE LAN Multiser Interface NOT ACTIVE Ethernet Interface to VikinX Compact NOT ACTIVE Sid Party Interface NOT ACTIVE Advanced Remote Control NOT ACTIVE
	www.network-electronics.com/thor

Figure 1: Product Key Manager

In this view, just add the new *Feature Pack Product Key*, and press *Add*. It is also possible to select an installed Feature Pack, and remove it, by pressing *Delete*.

The number of active Feature Packs is listed in the Software Status view.

Press Done when finished.

3 Advanced Remote Control

The Advanced Remote Control Interface gives you the possibility to connect remote PC's to local router sites, for monitoring and control of routers. You can access the sites by using a WAN/Internet access, or with a point-to-point Dial-up connection.

This document shows how to configure your office computer to connect to a local router site, and how to configure the remote computer(s).



Figure 2: Advanced Remote Control Interface overview

3.1 Remote Access setup

The Remote Access Interface is the application you use for connection to the local router sites. The program also includes a site manager, for configuring connections to router sites.

Available remote sites Site Name NEW YORK LAN London Dialup	Connection LAN DIALUP	Sites Manager Open Thor RMS Connect
<u>_</u>		Disconnect
CStatus Display OFFLINE		
Close		

Figure 3: Remote Access Interface manager

The following functions are available:

- Sites Manager
- Use this to open the Sites Manager.
- Open Thor RMS
- Use this to open THOR RMS.
- Connect

Use this to connect to the selected remote site.

- Disconnect
- Use this to disconnect from the remote site.
- Close

Closes the RAI interface.

3.2 Sites Manager

The Site Manager is used to configure connections to remote sites.

Network - VikinX. THOR Remote Site	Manager	
Remote sites		
Site Name Connection	Phone Book Entry	Remote IP Config Path
NEW YORK LAN LAN	Not Define	192.168.1.1 C:\Program Files\Network\RAI
London Dialup DIALUP	Network Remote	192,168,20.3 C:\Program Files\Network\RAI
<		>
New Edit	Delete	
Remote Site Name		Phone book entry
London Dialup		Network Remote
DialUp Connection Network(LAN) connection Remote Server IP Address 192.168.20.3		Number (). 33489474 User Name thor Password reconstruction
Configuration Directory		Server Interface
C:\Program Files\Network\RAI		C Calling to Thor Master Computer
		Calling to Thor device server.
Apply		- Device Com Port Speed
		Reuter Communication Speed 19200 bos
		C Router Communication Speed 9600 bps
		Done

Figure 4: Remote Access site manager

The following fields are displayed in the above window:

- Remote Sites
 - List with the configured remote sites.
- New

Use this to create a new remote site configuration.

- Edit

Use this to modify an existing remote site configuration.

- Delete

Use this to delete a remote site configuration

The following options are available when you press New or Edit:

- Remote Site Name
 - Name of the Remote Site Configuration
- DialUp Connection / Network (LAN) connection
 Shows the connection type. If you select dialup connection you must select a Phone Book Entry.

How to create a Phone Book Entry is described in the appendices.

- Remote Server IP Address

Here you type the IP address of the Remote Server. If you are connecting via Internet, the remote server needs static IP address on the Internet. If you are using a point-to-point dialup connection, see chapter "How to set up an incoming connection".



- Configuration Directory

Select a folder where THOR should write and read configuration files. The Configuration folder cannot be shared between remote sites, due to difference in router configurations.

- Phonebook Entry Shows the selected Phonebook Entry and the dialling information (Number, Username and Password).
- Server Interface
 - Calling to THOR Master Computer
 This option is used when the connection are made between two computers with modem/ISDN.
 - Calling to THOR device server THOR device server is a dedicated box with modem and RS232 connections. Used for remote dialup sites without computers. Select the router communication speed the device server is connected to (9600 bps / 19200 bps).

How to create a new remote site configuration

- 1. Press New to create a new configuration
- 2. Enter the *Remote Site Name* in the edit box
- 3. Choose connection type (LAN or Dialup)
- 4. Enter Remote Server IP address, IP address of the remote computer
- 5. Enter Configuration Directory (default is C:\Program Files\Network\RAI, but it is editable).
- 6. Choose Phone Book Entry if dialup connection type is selected.
- 7. Choose Server Interface (THOR Computer or THOR device server).
- 8. Press Apply to save the configuration.

3.3 How to set up the local site (Master computer)

Follow the procedure described hereunder to set up a local site computer.

Step 1: Install THOR

Install "THOR" on your computer. The software is located on your CD-ROM, or you can download it from the WEB site (<u>www.network-electronics.com</u>). You also need a valid serial code for THOR.

Step 2: Setup computer for incoming connection

How to set up the computer for incoming connections is described in Appendix D: and Appendix E:.

Step 3: Configure THOR – Router Management System

You must configure THOR – Router Management System with Multi User interface. In THOR – Router Management System, select menu "File" and "Communication Settings".

In the dialog "System Settings", select "Enable Multi User Interface".



*	THOR Communication Settings				
	System Controller Interface	LAN Multi User Interface	Υ	THOR CP	Interface
ſ	Communication Settings	Compact Router Serial Interfac	e E	thernet Interface to	VikinX Compact
	Standard Communica	ation Interfaces			
		le - Compact Router Serial Interface	(RS232)		
	🛒 🔽 Enab	le - System Controller Interface (TCP	7/IP)		
	-Additional Communic	ation Interfaces			
	🔜 🗖 Enab	e - Ethernet Interface To VikinX Con	npact		
	🐺 🔽 Enab	le - LAN Multi User Interface			
	🛼 🗖 Enab	e - THOR Control Panel Interface			
F	Run THOR Communication Interfaces w	when computer starts up	OK	Cancel	Apply

Figure 5: THOR system settings

In the dialog "Multi User Interface", you must enter the Hostname, or IP address, of the master/local remote computer. The computer should be set up as "Master Computer".

THOR Communication Settings		
Communication Settings	Compact Router Serial Interface	Ethernet Interface to VikinX Compact
System Controller Interface	LAN Multi User Interface	THOR CP Interface
Communication Mode Client Computer Master Computer Local Network Setting Local Hostname or IF PCJGS Client Computer Setting Master Computer Ho: 10.10.10.129	This computer is connected to a Master - Master computer for all router control s - Address gs st Name or IP Address	Computer
✓ Run THOR Communication Interfaces where the second s	nen computer starts up	K Cancel Apply

Figure 6: THOR Multi User settings

The drawing below shows an example of the configuration of a system. If you have a network adapter in your computer you should select the network adapter as "Network Server" IP address.



Figure 7: Remote Access configuration example

3.4 How to set up the remote site (Client computer)

Please follow these checkpoints before you start:

- You can only install the Remote Site Computer on an MS Windows computer with one of the following operating systems: Windows 98, Windows NT, Windows 2000 and Windows XP.
- You will need the operating system CD-ROM during the installation process, because some Windows components will be installed.
- You will need an Internet connection with a Modem, ISDN adapter or LAN connection. This should be installed before you start.

Step 1: Install THOR

Install "THOR" on your computer. The software is located on your CD-ROM, or you can download it from the WEB site (<u>www.network-electronics.com</u>). You also need a valid serial code for THOR.

Step 2: Install THOR - Remote Access Interface

In your Windows Explorer double click on the file "RAI.EXE". The installation program will guide you through the installation. The installation program will also create a shortcut to the "Remote Access Interface" program on your desktop.

Appendix A: Create a Phone Book Entry in Windows XP

This chapter will guide you through the creation of a phone book entry in Windows XP.

Step 1: Creating a Phone Book Entry

Open your Network Connections window (Start Menu \rightarrow Control Panel \rightarrow Network Connections).

Create a new connection by pressing the option on the left (\rightarrow "Create a new connection").



Press *Next* to continue.

Step 2: Network Connection Type



Select "Connect to the network at my workplace". Press Next to continue.

Step 3: Network Connection

ew Con	nection Wizard
Netwo Ho	rk Connection w do you want to connect to the network at your workplace?
Cre	sate the following connection:
۲	Dial-up connection
	Connect using a modem and a regular phone line or an Integrated Services Digital Network (ISDN) phone line.
0	Virtual Private Network connection Connect to the network using a virtual private network (VPN) connection over the
	Internet.
	< <u>B</u> ack <u>N</u> ext > Cancel

Select Dial-up connection type. Press Next to continue.

Step 4: Connection Name



Enter a connection name in the edit box. Press Next to continue.

Step 5: Phone Number to Dial

w Con	nection Wizard
Phone W	Number to Dial nat is the phone number you will use to make this connection?
Ту	be the phone number below.
	Phone number:
	495-1635
	You might need to include a "1" or the area code, or both. If you are not sure you need the extra numbers, dial the phone number on your telephone. If you hear a modem sound, the number dialed is correct.
	< <u>B</u> ack <u>N</u> ext > Cancel



Enter the phone number to dial. Press *Next* to continue.

Step 6: Connection Availability



Select My use only. Press Next to continue.

Step 7: Completing the New Connection Wizard

New Connection Wizard	
S	Completing the New Connection Wizard
	You have successfully completed the steps needed to create the following connection:
	Remote Connect to VikinX Routers
	The connection will be saved in the Network Connections folder.
	Add a shortcut to this connection to my desktop
	To create the connection and close this wizard, click Finish.
	Cancel Cancel

There is no need to "Add a shortcut to this connection to my desktop" for THOR remote connections. Press *Finish* to create the new phonebook entry.

Step 8: Testing the connection

Username and Password selection will pop up after "Finish" Wizard Screen.





This Username and Password will be the one used to connect to the PC that is dialled into. On that PC under "Incoming Connections", this username and password must be added. (Or use existing users)

For this dial up connection example, only the user who was logged into this PC can execute this remote connection. For "Anyone who uses this computer" to be available, log in as Administrator to this PC.

Appendix B: Create a Phone Book Entry in Windows 2000

This chapter will guide you through the creation of a phone book entry in Windows 2000.

Step 1: Creating a Phone Book Entry



Press: "Start", "Settings", "Network and Dial-up Connections" and "Make New Connection". Press *Next* in "Network Connection Wizard " dialog.

Step 2: Network Connection Type

your network configuration and your n	onnection you want to create, based on stworking needs.
Dial-up to private network Connect using my phone line (model)	fem or ISDN).
C Dial-up to the Internet Connect to the Internet using my p	vhone line (modem or ISDN).
C Connect to a private network	k through the Internet
Create a Virtual Private Network ()	/PN) connection or 'tunnel' through the Internet.
C Accept incoming connection	is
Let other computers connect to m	ine by phone line, the Internet, or direct cable.
C Connect directly to another of	c omputer
Connect using my serial, parallel, of	or infrared port.

In the "Network Connection Type" dialog, select "Dial-up to private network", and press *Next*.

Step 3: Select a Device

Network Connection Wizard			
Select a Device This is the device that will be used to make	the connection.		I)
You have more than one dial-up device on y	our computer.		
Select the devices to use in this connection:			
Infrared Modem Port (SERIAL1-0) Infrared Modem Port (SERIAL1-0) ISDN channel - NDIS WAN Minipoo SIDN channel - NDIS WAN Minipoo Modem - HAMR 5600 Voice Modem	t Adapter t Adapter ı (COM3)		
	< Back	Next >	Cancel

In the dialog "Select a device", you select the device you want to use for dialup and press *Next*.

Step 4: Phone Number to Dial

Phone No You m conne	umber to Dial iust specify the p ict to.	hone number of t	ne computer or ne	etwork you want to	S)
Type t your c dialing	he phone numb omputer to deter rules.	er of the computer mine automatically	or network you a how to dial from	re connecting to. If y different locations, cł	ou want heck Use
Are	a code:	Phone numb	er:		
	untry/region cod	e:		Y	
	<u>U</u> se dialing rule	s			
			< <u>B</u> ack	<u>N</u> ext >	Cancel

Enter the phone number of the computer you want to connect to, and press *Next*.

Step 5: Connection Availability

twork Connection Wizard			
Connection Availability You may make the new connection availab	le to all users, or	just yourself.	۶.
You may make this connection available to connection stored in your profile will not be	all users, or keep available unless <u>i</u>	it only for your ov you are logged on	vn use. A
Create this connection:			
 Eor all users O Only for myself 			
	< <u>B</u> ack	<u>N</u> ext >	Cancel

Select: "For All Users", if all people logging on to the computer should be enable to connect to the remote site, and press *Next*.

Step 6: Completing the Network Connection Wizard

Network Connection Wizard		
S	Completing the Network Connection Wizard	
	Type the name you want to use for this connection:	
	Dial-up Connection 2	
	To create this connection and save it in the Network and Dial-up Connections folder, click Finish.	
	To edit this connection in the Network and Dial-up Connections folder, select it, click File, and then click Properties.	
	Add a shortcut to my desktop	
	< <u>B</u> ack Finish Cancel	

Enter the name you want to use for this connection, and press Next.

Step 7: Trying out the connection



Test your connection, by pressing "Start", "Settings", "Network and Dial-up Connections", and <YOUR PHONE BOOK ENTRY name>. The "Connect" dialog will appear. Enter your login User name and password on the remote site. You choose to "Save Password", in order to have quick access when connecting to the "Remote Access Interface". Upon pressing *Dial*, the computer will connect to your remote site.

You may verify the connection by pressing, "Start", "Settings", and "Network and Dial-up Connections and <YOUR PHONE BOOK ENTRY name>.

Sensewave Status		<u>? ×</u>	Sensewave Status	? ×
General Details		[General Details	
Status: Duration: Speed: Activity	Sent — 📳 –	Connected 00:00:18 50.6 Kbps Received	Server type PPP Transports TCP/IP Authentication PAP Compression (none) PPP multilink framing Off Server IP address 148.122.155. Client IP address 148.122.155.	0
Bytes:	1 058	217		
Compression:	0%	0%		
Errors:	0 Disconnect	3		
		<u>C</u> lose	J	<u>C</u> lose

In the connection status view, you will see the Server IP address. This address should be included in the Remote Access Interface settings Remote Server IP Address.

In this case the IP address is "148.122.155.0"

Appendix C: Create a Phone Book Entry in Windows NT

This chapter will guide you through the creation of a phone book entry in Windows NT.

Step 1: Creating Phone Book Entry

Double click on the icon "My Computer" on the desktop. Select the entry "Dial-Up Networking" and the following dialog will appear:

🥵 Dial-Up Networking			? ×
	Phonebook entry to dial: MyDialUpServer	<u>N</u> ew	▼ More ▼
	Phone number pre <u>v</u> iew: 2222222 Dialing fr <u>o</u> m: New Location	_	Location
		<u>D</u> ial	<u>C</u> lose

In "Dial-Up Networking", press New.

New Phonebook Entry	Wizard
	Dial-Up Networking connects you to remote networks using your modem, ISDN, or other WAN adapter. This wizard helps you create a phonebook entry that stores the settings needed to connect to a particular remote network.
1	Name the new phonebook <u>e</u> ntry: MyDialUpServer2
) 2	I know all about phonebook entries and would rather edit the properties directly
	< Back Next > Cancel

Enter the name you want to use for this phonebook entry, and press Next.

Step 2: Server

Server	
	Check all that apply: Check all that apply: Check all that apply: Check all that apply: Check all
	< <u>B</u> ack <u>N</u> ext> Cancel

Check all the options that are applicable to you in the above dialog, and press *Next*.

Step 3: Phone Number

Phone Number	
	Enter the phone number of the dial-up server you are calling. Alternate phone numbers, if any, are dialed automatically if the primary phone number cannot be reached. They may also be used to set different numbers on individual multi-linked ISDN lines. Phone number:
	<u>A</u> lternates
2	Use Telephony dialing properties
	< <u>B</u> ack <u>N</u> ext > Cancel

Enter the phone number of the computer you want to connect to, and press *Next*.

Step 4: Finish



Step 5: Trying out the connection

Double click on the icon "My Computer" on the desktop. Select the entry "Dial-Up Networking" and press *Dial* in the appearing dialog. The following dialog will then appear:

Connect to MyDialUpServer2		
Enter a user remote netwo	name and password with access to the ork domain.	
<u>U</u> ser name:	Administrator	
Password:		
<u>D</u> omain:		
	Save password	
	OK Cancel	

Enter your "User Name", "Password" and activate "Save password". "Domain" should be blank. Press OK.

The computer should now connect to the remote site and log in.

Appendix D: Create an incoming connection in Windows XP

This chapter will guide you through the setup of an incoming connecting in Windows XP.

Step 1: Creating a Phone Book Entry

Open your Network Connections window (Start Menu \rightarrow Control Panel \rightarrow Network Connections).

Create a new connection by pressing the option on the left (\rightarrow "Create a new connection").



Press Next to continue.

Step 2: Network Connection Type



Select "Set up an advanced connection" and press Next to continue.

Step 3: Advanced Connection Options



Select "Accept incoming connections" and press Next to continue.

Step 4: Devices for Incoming Connections

New Connection Wizard
Devices for Incoming Connections You can choose the devices your computer uses to accept incoming connections.
Select the check box next to each device you want to use for incoming connections.
US. Robotics 56K Voice PU J.S. Robotics 56K Voice PU J.J. Direct Parallel (LPT1)
Properties
<u>⟨₿ack</u> <u>N</u> ext > Cancel

Select the device that shall accept the incoming calls. Normally is it a modem or ISDN device. Press *Next* to continue.

Step 5: Incoming Virtual Private Network (VPN) Connection

New Connection Wizard		
Incoming Virtual Private Network (VPN) Connection Another computer can connect to yours through a VPN connection		
Virtual private connections to your computer through the Internet are possible only if your computer has a known name or IP address on the Internet.		
allow your computer to send and receive VPN packets.		
Do you want to allow virtual private connections to this computer?		
Ont allow virtual private connections		
< <u>B</u> ack <u>N</u> ext> Cancel		



This option doesn't affect the THOR remote connections. Leave the default setting and press *Next* to continue.

Step 6: User Permissions

New Connection Wizard
User Permissions You can specify the users who can connect to this computer.
Select the check box next to each user who should be allowed a connection to this computer. Note that other factors, such as a disabled user account, may affect a user's ability to connect.
Users allowed to connect:
Administrator Cameron Francis (Russ Ence) Guest G
Add <u>R</u> emove <u>Properties</u>
< <u>B</u> ack <u>N</u> ext > Cancel

Select the users you want to give access to or press *Add* to add new users. Press *Next* to continue.

Step 7: Network Software

New Connection Wizard
Networking Software Networking software allows this computer to accept connections from other kinds of computers.
Select the check box next to each type of networking software that should be enabled for incoming connections. Networking software:
Install Uninstall Properties
Description: Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
< <u>B</u> ack <u>N</u> ext > Cancel

Make sure that the "Internet Protocol (TCP/IP)" option is enabled. Leave the default settings unchanged. Press *Next* to continue.

Step 8: Completing the New Connection Wizard



Press Finish to create the new connection.

Appendix E: Create an incoming connection in Windows 2000

This chapter will guide you through the setup of an incoming connecting in Windows 2000.

Step 1: Setup incoming connection

Press: "Start", "Settings", "Network and Dial-up Connections", and "Make New Connections". The following dialog will appear on the screen:



Press Next in the "Network Connection Wizard" dialog.

Step 2: Network Connection Type



Select "Accept incoming connections", and press Next.

Step 3: Device for Incoming Connections

Network Connection Wizard	
Devices for Incoming Connections You can choose the devices your computer uses to accept incoming connections.	I)
Select the check box next to each device you want to use for incoming connections. Connection devices:	
- NDIS) (A) Minipart Adapter (2 obaynale)	
Direct Parallel (LPT1)	
Properties	
< <u>B</u> ack <u>N</u> ext> Cano	cel

In "Device for Incoming Connections" you must select the device that you want to receive your incoming connection from, and press *Next*.

Step 4: Incoming Virtual Private Connection

In	icoming Virtual Private Connection Another computer can create a virtual private connection to your computer through the Internet or another public network.
	Vitual private connections to your computer through the Internet are possible only if your computer has a known name or IP address on the Internet.
	Choose whether to allow virtual private connections:
	C Allow virtual private connections
	Do not allow virtual private connections

In "Incoming Virtual Private Connection" you must select the option "Do not allow virtual private connections", and press *Next*.

Step 5: Allowed Users

Network Connection Wizard Allowed Users You can specify which users can connect to this computer.	Ŋ
Select the check box next to the name of each user you want to allow to connect to this computer. Note that other factors, such as a disabled user account, may affect a user's ability to connect. Users allowed to connect:	
✓ ★ Administrator (Administrator) ✓ ♀ andre-n (andre-n) ● ♀ (uset ● ♀ (USR_SEVERIN2 (Internet Guest Account)) ● ♀ (WAM_SEVERIN2 (Launch IIS Process Account)) ● ♀ (thor) ● ♀ UVSR_SEVERIN2 (VSA Server Account)	
Add Delete Properties	
< Back Next > Cance	:

In the dialog "Allowed Users", you select the user(s) that are allowed to log on to the computer from a remote site. You may also create a new user for this purpose here.

Step 6: Networking Components

Network Co	onnection Wizard				
Netwon Net kino	king Components working components enable this computer to accept connections from other as of computers.				
Sele ena	set the check box next to the name of each networking component you want to ble for incoming connections.				
Net	working components:				
	T Internet Protocol (TCP/IP)				
	🗹 🔜 Client for Microsoft Networks				
	Install Uninstall Properties				
Des	cription:				
Trar that	Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.				
	< Back Next > Cancel				

In the dialog "Networking Components", you select which network protocol to use. Remote Access Interface is using "Internet Protocol (TCP/IP)". Before you complete the "Networking Components" you must do some changes in the (TCP/IP) protocol setting. Select "Internet Protocol (TCP/IP)" and press *Properties*. The following dialog will appear:

Incoming TCP/IP Prop	erties	<u>? ×</u>			
Network access					
Allow callers to a	ccess my local area network				
TCP/IP address assign	ment				
C Assign TCP/IP addresses automatically using DHCP					
Specify TCP/IP addresses					
From:	192 . 168 . 0 . 10				
To:	192 . 168 . 0 . 20				
Total:	11				
Allow calling computer to specify its own IP address					
	OK Ca	ncel			

In the dialog "Incoming TCP/IP Properties", you must set the TCP/IP address assignment to specify the TCP/IP address. You should set the "From" address to **192.168.0.10** and the "To" address to **192.168.0.20**, or insert your own IP range.

The IP address for the remote server will be 192.168.0.10, if you selected this in the "From" address.

Press OK, and Next to continue.



Step 7: Completing the Network Connection Wizard

Enter the name you want to use for this connection, and press Finish.

You have now setup the computer to accept an incoming dial-up connection.



Appendix F: Create an incoming connection in Windows NT

This chapter will guide you through the setup of an incoming connecting in Windows NT.

Step 1: Setup incoming connection

Press "Start", "Settings", "Control Panel", and "Network". The following dialog will appear on the screen:



Step 2: Install Remote Access Service

Select the tab "Services", and select "Add". In the Network Service list, select "Remote Access Service", and press OK.



Windows NT will ask for the installation disk. Insert your installation disk and press "Continue". Windows will now install all components used for installing "Remote Access Service".



Step 3: Add RAS device

When the installation is complete you must select which adapter you want to use for the RAS connection, and press OK.

Add RAS Device	×
RAS Capable <u>D</u> evices:	OK
COM2 - Standard Modem	Cancel
	<u>H</u> elp
	Install <u>M</u> odem
	Install X25 <u>P</u> ad

Step 4: Remote Access Setup

Remote Acc	ess Setup		×
<u>P</u> ort	Device	Туре	
COM2	Standard Modem	Modem (unimodem)	Continue
			Cancel
			Network
			Help
, <u>A</u> dd	<u>R</u> emove <u>C</u> onfigure	Clone	

In the appearing dialog you configure the properties for the RAS device. Press *Configure*.

Step 4.1: Configure Port Usage

You must configure the port to use either "Receive Calls Only", or "Dial out and Receive Calls". Press, *OK* when done.

Configure Port Usage		×
Port: CDM2 Device: Standard Modem Port Osage © Dial out only	1	Cancel <u>H</u> elp
 <u>Receive calls only</u> <u>D</u>ial out and Receive calls 		

Step 4.2: Network Settings

The next step is to configure the "Network". In the "Remote Access Setup" dialog you press *Network*. The following dialog will appear:

Network Configuration		×		
Dial out Protocols:		OK		
□ NetBEUI		Cancel		
🗖 IPX		<u>H</u> elp		
Server Settings:				
Allow remote clients running:				
Net <u>B</u> EUI	<u>C</u> onfigure			
✓ TCP/IP	C <u>o</u> nfigure			
□ IP <u>X</u>	Configure			
Encryption settings:				
Allow any authenticat	ion including cl	ear text		
C Require encrypted au	Ithentication			
C Require <u>M</u> icrosoft en	crypted authent	ication		
Require data encryption				

The configuration should look identical to the dialog above. You must also perform some configuration for TCP/IP in the server settings.

RAS Server TCP/IP Configuration	×
Allow remote TCP/IP clients to access: © Entire <u>n</u> etwork © This <u>c</u> omputer only	OK Cancel <u>H</u> elp
Choose Cancel if you do not want to allow remote TCP/IP clients to dial in.	
O Use <u>D</u> HCP to assign remote TCP/IP client addresses	
Use static address pool:	
Begin: 192.168.0.10 End: 192.168.0.20	
E <u>x</u> cluded ranges	
<u>E</u> rom:	
<u>I</u> o:	
Add > < Remove	
Allow remote clients to request a predetermined IP address	

The IP address for the remote server will be 192.168.0.10, if you selected this in the "Begin" address, or you insert your own IP range.

When the "RAS server TCP/IP Configuration" is complete, press OK. Press Continue in the "Remote Access Setup" dialog. The "Remote Access Service" is now installed. Press Close and restart your computer.

Step 5: Configure login users

The next step is to select users that are allowed to connect to the local computer. Select "Start", "Programs", "Administrative Tools" and, "User Manager".

🤐 User Manager 📃 🗆 🗙				
<u>U</u> ser <u>Policies</u> <u>Options</u> <u>H</u> elp				
Username	Full Name	Description		
👷 Administrator		Built-in account for administering		
Sandren Guest	network	Built-in account for guest access		
Groups	Description			
Administrators Backup Operators Guests Power Users Replicator Users	Members can fully admini Members can bypass file Users granted guest acce Members can share direc Supports file replication in Ordinary users	ster the computer/domain security to back up files ess to the computer/domain tories and printers a domain		

Select the menu option "User", and "New User".

New User		×
<u>U</u> sername:	thor	OK
Full <u>N</u> ame:	Remote VikinX.THOR user	Cancel
Description:	Remote VikinX.THOR user	<u>H</u> elp
Password:	NNN	
<u>C</u> onfirm Password:	XXXXX	
User <u>M</u> us	t Change Password at Next Logon	
🔲 U <u>s</u> er Can	not Change Password	
Password	Never Expires	
C Account	Disa <u>b</u> led	
S <u>G</u> roups	R B Profile Dialin	

Create a new user. See the dialog above for an example.

You must also "Grant dial in permission to user".

Dialin Information	×
User: thor (Remote VikinX.THOR user)	OK
	Cancel
Grant dialin permission to user	<u>H</u> elp
Call Back	
No Call Back	
○ Set By Caller	
C Preset To:	

You have now included a new user with dial in permission.

Step 6: Finish

Close all dialogs and reboot Windows NT, to active all "Remote Access Services".

