

Welcome

This manual is about setting up the Thinux Embedded Linux operating system.

Resources

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Getting Started

When you first turn on the Micro 4/5/Neo R thin client, you are greeted with the default desktop of the thin client. The desktop has the icons Home, Remmina, and Trash.



1.1 Desktop Icons



Home Clicking on the **Home** thin client's home directory.

Remmina Clicking on the **Remmina** will open the Remmina GUI window where you can make your RDP connections.

Trash Clicking on **the Trash** icon will open the recycle bin.

1.2 Using the taskbar

The Taskbar of the thin client is at the top of the screen. It allows you to locate and launch programs through Start and the Start menu, or view any program that is currently open. It also allows you to check the **date and time**.



1	Opens the thin client start menu.
2	Display the Desktop.
3	Opens the Mozilla Firefox web browser.
4	Opens the Remmina GUI Window.
5	Opens the Network Manager Option.
6	Displays Network usage.
7	Displays the CPU usage.
8	Displays the thin client temperature.
9	Opens the sound panel.
10	Date and time.
11	Shut down option.



Clicking on **1** will open the start menu. Once you click on this, you can navigate through the applications which are provided by the thin client.



Click on 9 to open the volume panel. From there you can increase or decrease volume.



Clicking on the **11th** icon will give you the option to shut down the system.

-		Shut D	own 1	×		
	\bigcirc	Are you sure	you want to shut down?			
	\bigcirc	Turning of	off computer in 11 seconds.			
	-					
		Cancel	Shut Down			
			<u> </u>	i		

Network Settings

You can access the network configuration window by two methods.

Method 1:

Start menu > All applications > Advanced Network Configuration

Method 2:

By clicking on the **5th** icon of the taskbar.

Ethernet

By default, the thin client network settings are on the DHCP settings. However, if you want to change it to the static configuration, you can do it.

The network settings window will come up once you open the network settings from one of the two methods defined above.

-	Network Connections	+ - + x
Name		Last Used 🔻
Wired connect	ion 1	26 minutes ago
+ - 0		

2.1

- Click on the **settings** icon as shown in figure 2.1. It will open the editing window. Click on the **IP4 Settings** tab. Select the connection type from the list, whether you want to select the **DHCP or Manual** settings.
- Once the **Manual** method is selected, you need to click on **Add**. Now you can enter the desired IP address which you want to assign to your thin client. (Figure 2.2 and 2.3)

-			Editing Wired	connecti	on 1		+ - + ×
Connection	name	Wired con	nection 1				
General	Ether	net 80	2.1X Security	DCB	Proxy	IPv4 Settings	IPv6 Settings
Method	Automa	atic (DHCP)				
Addition	Automa	atic (DHCP) addresses on	ly			
Addre	Manua						
	Link-Lo	cal Only					
	Shared	to other co	omputers				
	Disable	ed					
Add	itional D	NS servers	•				
Addition	nal searc	h domains	5				
	DHO	P client ID	,				
Req	Require IPv4 addressing for this connection to complete						
							Routes
						Cancel	Save

-			Editing Wired o	onnecti	on 1		+ - +	
Connection	n name	Wire	connection 1					
General	eneral Ethernet 802.1X Security DCB Proxy IPv4 Settings							
Method	•							
Addres	ses							
Addr	ess		Netmask		Gatewa	у	Add	
192.1	68.0.6		24		192.168.0	0.1		
							Delete	
DN	S servers	•						
Search	domains	;						
DHCP	client ID	·						
Re	quire IPv	4 addr	essing for this conne	ction to o	complete			
							Poutos	
							Routes	
						Cancel	Save	

2.3

- Once you have entered the IP address, click on **Save** and close the network setting window.
- To activate your settings, click on the network icon on the top right of the taskbar. Then, you need to click on the **disconnect** option and again click on the **Wired connection** option. This will activate the new IP settings which you have entered into your system.



WiFi

- Connect the WiFi dongle with your thin client.
- Now, click on the **Network Icon** which is in the task bar. The moment you click on it, you will see the available WIFI networks. Just click on the one of the WIFI networks which you want to get connected with, enter the WIFI password and you are connected to the WiFi network.

Configuring Printers

There are two ways by which you can configure your printer locally with the thin client.

Method 1: Configuring through the start menu

• Connect the printer USB cable to the thin client and search for the printers in the start menu.



• Clicking on **Printer** will open the printer configuration window

✓ Printers - localhost + - + >							
Server Printer	View Help						
🚽 Add 👻	G Filter:	Q. (2)					
There are no printers configured yet. Add							

Click on **Add** to add the printer.

• It will show the name of the printer which is successfully detected by the thin client. If your printer name still does not show up in the **Select Device** section, you need to check your printer USB cable. Select the printer and click on **Forward.** The system will now search for the printer drivers.

•	New Printer + x
Select Device	
Devices Generic CUPS-BRF HP Deskjet 2540 (CN3Cl2FGBV Serial Port #1 Enter URI Network Printer	Description HPLIP software driving a printer, or the printer function of a multi-function device.
	← Connection HP Linux Imaging and Printing (HPLIP) USB
	Cancel Forward

• Once the driver is installed, the settings window will give an option to **print a test page** to check if the connected printer is configured correctly.

✓ Printers - localhost + –						+	×			
Ser	ver	Printer	View	Help						
÷	Add	-	Ċ		Filter:	٩			•	×
	•							1	×	F
		?) ~	Vould yo	u like to	print a tes	t pag	e?		
		C	ancel			Print Test P	age			
Connected to localhost										

• The printer setting window will show the printer configured by the user once the printing of the test page is done.



Method 2: Configuring through the Web Browser

• Open the Web browser and type localhost:631 in the address bar and press enter.



• This will open the Cups utility page. Now, click on the Administration tab.

🗘 🚍 🔕 🔕 Administration - CUPS 2 🖶 Printers - localhost	👔 📕 🔥 68 * C 🐠 Sun 17 May, 11:25 🥥
+ Administration - CUPS 2	t.3.1 - Mozilla Firefox + - + ×
Administration - CUPS 2. × +	
(←) → C ⁴	···· 🖂 🕅 🖬 🖬 🖬
CUPS.org Home Administration Classes Help Jobs Printers	
Administration	
Printers	Server
Add Printer Find New Printers Manage Printers	Edit Configuration File
Classes	Server Settings: — Advanced ▶
Add Class Manage Classes	Share printers connected to this system Allow printing from the Internet
Jobs	Allow remote administration Buse Kerberos authentication (FAO)
Manage Jobs	Allow users to cancel any job (not just their own) Save debugging information for troubleshooting
	Change Settings
k	

- The Utility gives you three options, Add printers, Find New Printer and Manage Printer. If you want to manage a pre-installed printer, you need to click on the Manage Printer button. To add a new printer, click on Add Printer.
- The system will ask for Username and password. Put **root** as the user name and **thinux** as password.
- If your printer is connected with the thin client, it will show it's name in the Add **Printer** configuration window. Select the printer which you want to add and click on **Continue.**

Add Printer

Add Printer

Local Printers:	CUPS-BRF (Virtual Braille BRF Printer)
	Serial Port #1
	HP Deskjet 2540 series USB CN3Cl2FGBV05XK HPLIP (HP Deskjet 2540 series)
	HP Deskjet 2540 series (HP Deskjet 2540 series)
	O HP Fax (HPLIP)
Discovered Network Printers:	Deskjet 2540 series (HP Deskjet 2540 series)
Other Network Printers:	Backend Error Handler
	Internet Printing Protocol (http)
	Internet Printing Protocol (ipp)
	Internet Printing Protocol (ipps)
	LPD/LPR Host or Printer
	AppSocket/HP JetDirect
	Internet Printing Protocol (https)
	Windows Printer via SAMBA
	Continue

• Next, it will ask you whether you want to share the printer or not. Check the button if you want to share the printer and click on continue.

Add Printer

Add Printer

Name		
Name.	HP_Deskjet_2540_series	
	(May contain any printable characters except "/", "#", and	space)
Description:	HP Deskjet 2540 series	
	(Human-readable description such as "HP LaserJet with	Duplexer")
Location:	home	
	(Human-readable location such as "Lab 1")	
Connection:	usb://HP/Deskjet%202540%20series?serial=CN	V3CI2FGBV05XK&interface=1 HP Deskjet 2540 series
Sharing:	Share This Printer	
	Continue	

• Select the **ppd** file from the **Model** section according to your printer. You can also provide a ppd from the external driver or a directory. Click on **Add Printer** once all is done.

Add Printer

Add Printer

Name: HP_Deskjet_2540_series Description: HP Deskjet 2540 series Location: home Connection: usb://HP/Deskjet%202540%20series?serial=CN3CI2FGBV05XK&interface=1 HP Deskjet 2540 series Sharing: Do Not Share This Printer	S
Make: HP Select Another Make/Manufacturer	
Model: HP Deskjet 2540 Series, hpcups 3.20.3 (en) HP Deskjet 2540 Series, hpcups 3.20.3 (en)	
Dr Provide a PPD File: Browse No file selected. Add Printer	

• Set the default page settings and other settings. Click on **Set Default Options** once you are done.

Gen	eral	
Media Size:	A4 210x297mm	~
Media Source:	Auto-Select 🗸	
Output Mode:	Color 🗸	
Media Type:	Plain Paper 🐱	
Print Quality:	Normal 🗸	
Set Defau	t Options	

 Now your printer is configured successfully. You can click on Administration or Maintainance to explore the printer options. You can print a test change to the printer from the Maintenance > Test page.

Managing RDP Preferences

Thinvent has provided two ways by which you can access any operating system remotely from anywhere. These ways are:

- 1. Remmina.
- 2. Kiosk Mode.

1. Remmina

Remmina is a remote desktop client which is widely used in the Linux based operating systems. It supports the **Remote Desktop Protocol** which is used to connect with a remote system. You can access the Remmina application in the thin client via the **main menu** or just click on the Remmina icon which is on the **taskbar**. Once clicked, you will see the main Remmina dialog box where you can make your connection settings.



Although you can connect to a remote system by just mentioning the I.P address of the remote system in the RDP section, by doing this you won't be able to explore the features of Remmina. So, it is always preferred to create a new connection with all those options enabled.

To create a new connection click on the icon and **Remote Desktop Preference** window will get opened. By default, the protocol selected in the **Protocol** section is NX-NX Technology, you need to select the **RDP** -**Remote Desktop Protocol** there. Once you are

done with it, your **Remote Desktop Preference** would be like the screenshot below. Each field of the window is described below.

-		Remote Desktop	Preference		+ + ×
Name	Quic	k Connect			
Group					
Protocol	🛇 R	DP - Remote Desktop Pr	otocol		•
Pre-command	com	mand %h %u %t %U %i	o %goption		
Post-command	/path	n/to/command -opt1 arg	%h %u %t -opt2 %	%U %p %g	
Basic Advance	ed Autostart	SSH Tunnel			-
Username					
Password					
Domain					
Resolution	• Use initial w	indow size	⊖ Use	e client resolution	
	O Custom 640)×480			····
Colour depth	GFX AVC444 (3	2 bpp)			-
Share folder	(None)				-
	Cancel	Save as Default	Save	Connect	Save and Connect

• Name

This is the name of the computer that you want or wish to connect to, this does not need to be the actual name that has been assigned to the host computer. You can choose any name that would best describe the computer and differentiate it from the others (if you plan on having multiple hosts).

• Group

Leave it as it is , empty. There is no need for it to connect to a remote system.

• Protocol

Select the RDP - Remote Desktop Protocol.

• Pre-command and Post-command

Remmina has 'Pre' and 'Post' command support to execute a script before it connects and after it disconnects, respectively. You can leave those fields blank.

• Server

Enter the IP address of the system to which you want to connect remotely. The IP address could be internal i.e if the system is connected with the local network or a public IP address.

• Username and Password

Enter the username that you wish to log onto your host computer in the **Username** field. In the **Password** field, you need to enter the password of the user to whom you

are going to connect.

• Domain

If your networking has a domain name, then mention its name in this field. Otherwise, leave it blank.

Resolution

There are 3 options provided in the resolution field. If you choose **Use initial window size**, the RDP screen would be compact. This option is not recommended so it is better to choose the **Use client resolution** option. If you want to set a custom resolution then select **Custom** and select the appropriate resolution from the drop-down list.

• Colour Depth

Select the appropriate colour depth via this option. This is an important selection, if you select the default option of 256 colours (8bpp) and your default background is Hi-Res then you will start to see some funky colours and it is generally unworkable. If you are on a slower connection or if you are connecting to an external machine outside of your network you may need to reduce the number of colours. By default, you can set it on the predefined settings which is **GFX AVC444(32bpp)**.

• Share Folder

Use this option if you want to copy a file from your thin client to your remote pc or vice-versa. Once you select this box, it will give you an option which folder or path you want to share and the same folder or path will appear in your Windows machine.

Once all these options are filled, your **Remote Desktop Preference** screen will look like this.

•		Remote Deskt	op Preference		+ + ×			
Name	ſ	Server 1						
Group	ĺ							
Protocol	(🔉 RDP - Remote Desktop Protocol 🗾						
Pre-command	ĺ	command %h %u %t %U	%p %goption					
Post-command	Ì	/path/to/command -opt1 a	arg %h %u %t -opt2 %	%U %p %g				
Basic Advance	ed Auto:	start SSH Tunnel						
Server	192.168.1.	200						
Username	User1	User1						
Password		•••••						
Domain								
Resolution	O Use init	ial window size) Use	client resolution				
	O Custom	640x480			· ···			
Colour depth	GFX AVC44	14 (32 bpp)			•			
Share folder	🖌 🔳 Desk	esktop 🗸						
	Cancel	Save as Default	Save	Connect	Save and Connect			

Click on the **Advanced tab** to enable other features like sound during the RDP connection.

•		Remote Deskt	op Preference		+ + x	
Name	Serve	er 1				
Group					*	
Protocol	🛇 RE	🔉 RDP - Remote Desktop Protocol				
Pre-command	comr	nand %h %u %t %U	%p %goption			
Post-command	/path	/to/command -opt1 a	arg %h %u %t -opt2 %	%U %p %g		
Basic Advanced At	utostart	SSH Tunnel				
Quality			Poor (fastest)		•	
Sound			Local		•	
Security			Negotiate		•	
Gateway transport type			http		•	
Remote Desktop Gateway server						
Remote Desktop Gateway username						
Remote Desktop Gateway	passwo	ord				
Remote Desktop Gateway	domain	1				
Client name						
Client build					•	
Startup program			<u> </u>			
Canc	el	Save as Default	Save	Connect	Save and Connect	

• Quality

This option is related to the quality of the RDP connection. The list provides options like **Poor, Medium, Good, Best.** If you choose the Best option, your overall RDP connection quality will be good however, you may experience some lag in your connection. So, it is advised to have the **Poor** option selected in this field.

• Sound

This option enables the sound over the RDP connection. You can choose from options like Local, Local-medium, Local-best etc. here.

• Security

You can choose the level of security like NLA, TLS, RDP from this option otherwise leave this option on **Negotiate**.

Now, scroll down the window and select options like **share local printers** etc. according to your needs.

.	Remote Deskt	op Preference		+ + x		
Name	Server 1					
Group						
Protocol	RDP - Remote Desktop	RDP - Remote Desktop Protocol				
Pre-command	command %h %u %t %U	command %h %u %t %U %p %goption				
Post-command	/path/to/command -opt1 arg %h %u %t -opt2 %U %p %g					
Local serial path						
Local parallel name						
Local parallel device						
Smartcard name						
Share printers		Share serial ports	5			
(SELinux) permissive mode for serial ports Share excepted		Share parallel po	rts			
Share smartcard		✓ Ignore certificate				
Use the old license workflow		Turn off password storing				
Attach to console (2003/	2003 R2)	Turn off fast-path				
Server detection using R	emote Desktop Gateway	Use system proxy settings				
Turn off automatic recon	nection	Relax order chec	ks			
Glyph cache						
Cancel	Save as Default	Save	Connect	Save and Connect		

If you want to get connected to your created connection automatically once you open the Remmina, you need to check the **Turn on "Auto Start" for this profile.** option in the **Autostart** tab.

		Remote Deskte	op Preference		+ + ×
Name	Serve	er 1			
Group					-
Protocol	🛇 RI	OP - Remote Desktop	Protocol		•
Pre-command	comr	nand %h %u %t %U	%p %goption		
Post-command	/path	/to/command -opt1 a	rg %h %u %t -opt2 %	%U %p %g	
Turn on "Au	tostart" for this pro	file			

Click on the Save button once you are done with the settings options. Once it is done, you will see a connection is connected with the name provided by you in the main Remmina window.

[] Q		Remmina Rem Remote De	ote Deskt esktop Client	op 🔳 🔅 –	+ ×
RDP 🔻					€3
Name 👻	Group	Server	Plugin	Last used	
Server 1		192.168.1.200	RDP	2020-07-19 - 14:51:52	
Total 1 ite	m.				

You just need to double click on the connection which has been created and you will be connected to the host system whose access you want to have.

2. Kiosk Mode

Kiosk mode is a feature that only allows you to run one application and that is Remmina. Other features of the Thinux operating system like the GUI and other things get disabled and you will see the Remmina window only on your screen.

• Click on the **Enable Kiosk Mode** icon in the Thinux menu to enable the Kiosk mode in your thin client.



Note: Before accessing the Kiosk mode, you need to create the RDP connection in the Remmina first because one system enters into Kiosk mode, it doesn't allow you to create new connections or make changes to the existing connection.

• Once you click on the icon, a dialog box will appear asking you to enable the Kiosk mode are not. It gives you the option to enable the mode(**yes**), **quit** the mode in case you have accidentally clicked on the Kiosk mode icon and **change password**.



• If you click on **yes**, the system will ask for the password to enable the Kiosk mode.

▼ Enab	le Kiosk Mode 🛛 🕇 🗕 🕂 🗙
	Type your password
Password:	I
	Quit Submit

- The system will go into Kiosk mode if you enter the correct password, otherwise it will show that the password you entered is wrong.
- Once you enter the Kiosk mode, you will see the only window which is the Remmina window and it will have the created RDP connection which you have created before enabling the kiosk mode.(SS).

Remmina Kiosk	= = ×
	D
Last used	
	Remmina Kiosk Last used

- If you haven't selected the **auto connect** option, the system will not auto connect to the remote system. If it is checked, then the system will automatically connect to the remote system once you enable the kiosk mode.(SS)
- To disable the kiosk mode, click on the button on the Remmina window. It will open a dialog box where you would be asked to either **shut down** the system or **configuration**. Click on the configuration tab and it will ask for the kiosk mode password. Entering the password successfully will disable the Kiosk mode and it will take you back to the Thinux operating system GUI.(SS)
- If you wish to enable the Kiosk mode forever then you can just shut down and the next time the system boots, it will automatically connect to the remote system.(SS)

Change Kiosk Password

You can change the default kiosk password by clicking on the Change Password.

 Change Pa 		t	-	+	×	
Change password	of the	Kiosk	м	od	e—	_
Current Password						
New Password						
Confirm Password						
	Cance			ОК		

The window will ask you for the current password, new password. To make changes it again asks you to confirm the new password which you have entered in the New password field. If any mismatch happens, like your entered current password and current password doesn't match or your new and confirmed password doesn't match, the system will throw an error. If everything matches then a password update message will appear on the window.



Disconnect RDP From Server

There are two methods by which you can disconnect the RDP connection from a server.

• Method 1:

Click on the **shutdown** button which is in the start menu of the Windows. You will see the **Disconnect** option. Click on it and your RDP connection will be disconnected.



• Method 2:

Remmina has the disconnect option. You just need to click on the option and the RDP will be disconnected.



Factory Reset

If the thin client is not functioning properly or some of the operating system features are not working, in such case you can try factory resetting the system. Doing a factory reset restores the system back to its original state when it was delivered to the customer.



To perform the factory reset, go to the main menu and search for the factory reset icon.

Clicking on that icon will ask you to reboot the system. Click on yes. Once reboot is done, your system will be factory reseted.

FAQ

Ques: I am not able to make RDP connections to the server.

Ans: There could be many possibilities behind this.

- 1. Try to ping from your thin client to the server. If it is not pinging, then there is some issue with your networking.
- 2. If ping is happening from server to thin client but not from thin client to server, **disable the firewall and antivirus** in the windows server.
- 3. If you are connecting to a particular user on the server and you are not able to connect to it, check whether the user is added in the **Remote Desktop User** or not.

Ques: I have Windows 10 home edition and I want to take RDP from a thin client to my server, can I take it?

Ans: No, you can not, Windows 10 home edition doesn't come with the RDP feature. You need to upgrade your system to professional edition or buy a windows server.

Ques: I have a Windows 10 professional edition and I want multiple users to connect to a particular user, can I do it ?

Ans: No you can't. If you are connecting to a user who is already active or some other person is remotely connected to it, it will give you an error that **another user is currently using that user.**