

## 4.5.1 Uncomplicated Firewall configuration

The "Firewall Configuration" is a GUI app (gufw) used for the configuration of the "Uncomplicated Firewall", aka UFW. This makes it a simple task for novice users to configure their firewall. This GUI app (gufw) is installed by default in Xfce and Fluxbox only.

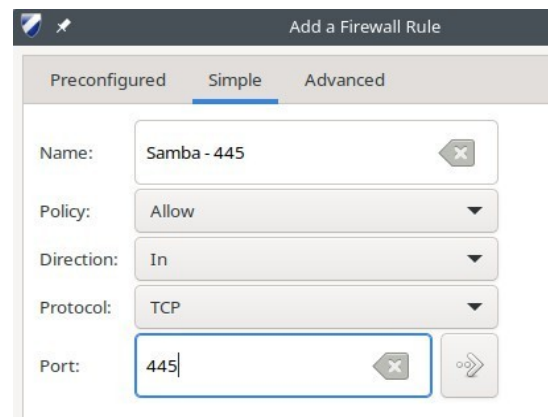
**KDE users should search in MX Package Installer for the package named 'gufw'. Install this GUI app to get the 'Firewall Configuration' app referenced in this section.**

In MX Linux 23, the Firewall is enabled and set to ignore all Incoming connections. This may prevent discovery of printers and some popular applications from working correctly. Programs may wait a long time to connect and never do so, or give an error message. Some of these error messages are not very clear.

### ***Adding a Simple firewall exception rule (example – Samba)***

Samba uses just port 445 with the TCP protocol for the latest versions of Windows. To configure a 'Simple' exception rule for Samba:

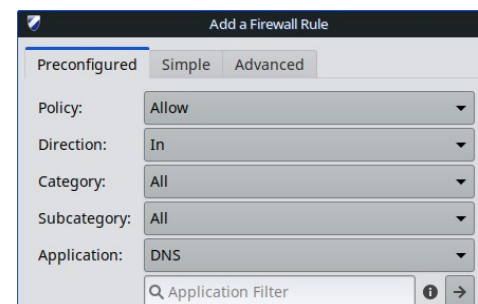
- Run the 'Firewall Configuration' app.
- Click the 'Rules' button and then +.
  - **Click the 'Simple' tab.**
  - In Name: type 'Samba – 445'.
- In the Protocol; click down and select 'TCP'.
- In Port: type '445'.
- Click the 'Add' button and then 'Close'.



**Samba Note:** There are many other guides that show more ports being opened for older versions of Samba. Opening *these additional port ranges can result in Malware affliction.*

### ***Adding a 'Preconfigured' firewall exception rule (example – DNS)***

- Run the 'Firewall Configuration' app.
- Click the 'Rules' button and then +.
  - Click the 'Preconfigured' tab.
  - Click the down arrow in 'Application:' and scroll to the 'Preconfigured' name to select it.
- Click the 'Add' button and then 'Close'.



### ***Common Firewall Port usage***

\* Avahi 5353 UDP a mDNS (aka Bonjour) provider - use Preconfigured rule: 'PLEX Avahi discovery'.

Chrome Remote Desktop TCP port 443 and TCP/UDP 3478

Chrony UDP 123 UDP 323

CIFS (Common Internet File System)      TCP ports 139 and 445. †

\* CUPS IPP/PPS printing 631 TCP More - <https://www.cups.org/doc/firewalls.html> ‡

    AppSocket/JetDirect printing      9100-9102 TCP

\* DHCP      UDP port 67 on the server side.  
             UDP port 68 on the **client** side. Preconfigured rule adds port 67 only.

\* DNS    53 TCP & UDP

\* DropBox      TCP 90, 443, 17600 & 17601 (3rd party file apps). TCP 17500 LAN Sync feature.

Duckto 4644

\* FTP    20 & 21

Hplip    5353 UDP

\* Internet Printing Protocol aka IPP uses TCP with port 631. (Use 'CUPS' pre-configured rule).

\* KDE Connect - port range 1714-1764 for UDP and TCP

LocalSend      53317 TCP & UDP

\* IRC    6697 (IRC SSL)

\* mDNS      5353 UDP      DNS Lookup. Preconfigured rule: 'Multicast DNS'

\* Minecraft    25,565

\* NFS    111 & 2049 TCP & UDP (Web NFS)

\* NTP/SNTP/Chrony      UDP 123 Chrony adds UDP 323

OpenVPN      1194 TCP & UDP

PC Anywhere    5631

Printing & SMB Printer sharing – see CUPS above.

Plex Media Server      TCP: 32400

Remote Desktop 3389    TCP & UDP – enables acceleration. (RDP > 8.0)

\* Samba (pre 2012 devices - SMB1/NT1) UDP ports 137 & 138; TCP ports 135, 137, 139 & 445. †

Samba modern: SMB version 2 & SMB version 3 implementations      TCP port 445

\* SANE 6566, 54921      Preconfigured rule: 'SANE Scanner'

Scrcpy 5555    TCP

SMB Printing    see CUPS above.

Spotify uses port 4070 TCP by default. If it is unable to connect on that port, it will roll to port 443, then port 80

\* SSH    22

Syncthing      22000 TCP & UDP - host-to-host 9806 8384

\* Teamviewer    TCP/UDP 5938, TCP 443, TCP 80

\* Transmission    51413.

UpnP (Universal Plug n Play) 1900 UDP also 80, 5431 & 49152

\* VNC    5500/5900/5901 both.

Warpinator      42000 and 42001 Flatpack adds 5353 UDP

WINS    137 UDP

Wormhole/Magic Wormhole      connection to 'Mailbox' aka Rendezvous Server 4000 & 4001

WSDD port 5357 TCP and port 3702 UDP - Add as two 'Simple' type rules.

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\* = Use the "Preconfigured" application rule for these.

† = Enabling the above additional port ranges \*MAY\* result in data loss, Ransomware, Malware (such as WannaCry), and or privacy issues. TCP on ports 136 and 138 no longer implemented.

‡ = The printer connection, if connected to via Samba (default for a shared printer) \*may\* require opening port 445 on TCP on PCs not hosting the printer connection.

**More ports** <https://www.linuxtrainingacademy.com/ports/>

Please direct ALL support requests to the MX Linux Forum -- <https://forum.mxlinux.org>

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