

Samba port usage

From SambaWiki

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Introduction

If you require to secure your Samba installation with a firewall, you would need information, what ports and protocols are used. This page will give you an overview.

Identify on which ports and interfaces Samba is listening

You can use "netstat" to identify which ports Samba and related daemons are listening on and on which IPs:

```
# netstat -tulpn | egrep "samba|smbd|nmbd|winbind"
```

The following is a snippet of an example output:

```
tcp        0      0 127.0.0.1:139          0.0.0.0:*        LISTEN      43270/smbd
tcp        0      0 10.0.0.1:139           0.0.0.0:*        LISTEN      43270/smbd
tcp        0      0 10.0.0.1:88            0.0.0.0:*        LISTEN      43273/samba
tcp        0      0 127.0.0.1:88           0.0.0.0:*        LISTEN      43273/samba
tcp        0      0 127.0.0.1:445          0.0.0.0:*        LISTEN      43270/smbd
tcp        0      0 10.0.0.1:445          0.0.0.0:*        LISTEN      43270/smbd
.....
```

The above example shows, that the services are listening on localhost (127.0.0.1) and the interface with IP 10.0.0.1 - each on the listed ports (139, 88, 445,...).

Port usage when Samba runs as an Active Directory Domain Controller

Service	Port	protocol
DNS	53	tcp/udp
Kerberos	88	tcp/udp
End Point Mapper (DCE/RPC Locator Service)	135	tcp
NetBIOS Name Service	137	udp
NetBIOS Datagram	138	udp
NetBIOS Session	139	tcp
LDAP	389	tcp/udp
SMB over TCP	445	tcp
Kerberos kpasswd	464	tcp/udp
LDAPS (<i>only if "tls enabled = yes"</i>)	636	tcp
Dynamic RPC Ports*	1024-5000	tcp
Global Cataloge	3268	tcp
Global Cataloge SSL (<i>only if "tls enabled = yes"</i>)	3269	tcp
Multicast DNS	5353	tcp/udp

* Samba, like Windows, supports dynamic RPC services. The range starts at 1024. If something occupies this port for some reason, it will be a different port (literally walked up from 1024).

Remember, that there can be other ports too, which are related to your Samba installation but not provided from Samba itself, like if you run a NTP server for time synchronisation as well.

Port usage when Samba runs as an NT4 Primary Domain Controller

Service	Port	protocol
End Point Mapper (DCE/RPC Locator Service)	135	tcp
NetBIOS Name Service	137	udp
NetBIOS Datagram	138	udp
NetBIOS Session	139	tcp
SMB over TCP	445	tcp

Port usage when Samba runs as a Member Server

Service	Port	protocol
End Point Mapper (DCE/RPC Locator Service)	135	tcp
NetBIOS Name Service	137	udp
NetBIOS Datagram	138	udp
NetBIOS Session	139	tcp
SMB over TCP	445	tcp

Prevent Samba from listening on all interfaces

Sometimes you don't want Samba to listen on all interfaces of your host. For example, when the host is directly connected to the internet, you surely don't want to provide your shares to the rest of the world. If you limit Samba to listen only on the internal NIC(s), you don't need a firewall to prevent access from the outside.

Add the following to the "[global]" section of your smb.conf to bind Samba to eth0 and loopback:

```
bind interfaces only = yes
interfaces = lo eth0
```

The "interfaces" parameter allows various ways to restrict. See the manpage for more details.

After the changes, restart Samba.

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