Services, Protocols, and Ports

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General Information

Summary

This document lists protocols and ports used by various MikroTik RouterOS services. It helps you to determine why your MikroTik router listens to certain ports, and what you need to block/allow in case you want to prevent or grant access to the certain services. Please see the relevant sections of the Manual for more explanations.

Home menu level: ***/ip service***

Modifying Service Settings

Home menu level: ***/ip service***

Property Description

address (*IP addressnetmask*; default: **0.0.0.0/0**) - IP address(-es) from which the service is accessible

certificate (*namenone*; default: **none**) - the name of the certificate used by particular service (absent for the services that do not need certificates)

name - service name

port (*integer*: 1..65535) - the port particular service listens on

Example

To set **www** service to use **8081** port accesible from the **10.10.10.0/24** network:

```
[admin@MikroTik] ip service> print
Flags: X - disabled, I - invalid
 #   NAME                                PORT  ADDRESS            CERTIFICATE
 0   telnet                              23    0.0.0.0/0
 1   ftp                                 21    0.0.0.0/0
 2   www                                 80    0.0.0.0/0
 3   ssh                                 22    0.0.0.0/0
 4   www-ssl                           443   0.0.0.0/0          none
```

```
[admin@MikroTik] ip service> set www port=8081 address=10.10.10.0/24
[admin@MikroTik] ip service> print
Flags: X - disabled, I - invalid
  #   NAME                                PORT  ADDRESS            CERTIFICATE
  0   telnet                              23    0.0.0.0/0
  1   ftp                                 21    0.0.0.0/0
  2   www                                 8081  10.10.10.0/24
  3   ssh                                 22    0.0.0.0/0
  4   www-ssl                           443   0.0.0.0/0          none
[admin@MikroTik] ip service>
```

List of Services

Description

Below is the list of protocols and ports used by MikoTik RouterOS services. Some services require additional package to be installed, as well as to be enabled by administrator, *exempli gratia* bandwidth server.

Port/Protocol	Description
20/tcp	File Transfer Protocol FTP [Data Connection]
21/tcp	File Transfer Protocol FTP [Control Connection]
22/tcp	Secure Shell SSH remote Login Protocol (Only with security package)
23/tcp	Telnet protocol
53/tcp	Domain Name Server DNS
53/udp	Domain Name Server DNS
67/udp	Bootstrap Protocol or DHCP Server (only with dhcp package)
68/udp	Bootstrap Protocol or DHCP Client (only with dhcp package)
80/tcp	World Wide Web HTTP
123/udp	Network Time Protocol NTP (Only with ntp package)
161/udp	Simple Network Menagment Protocol SNMP (Only with snmp package)
443/tcp	Secure Socket Layer SSL encrypted HTTP(Only with hotspot package)
500/udp	Internet Key Exchange IKE protocol (Only with ipsec package)
520/udp	Routing Information Protocol RIP (Only with routing package)
521/udp	Routing Information Protocol RIP (Only with routing package)

179/tcp	**Border Gateway Protocol BGP (Only with routing package)**
1080/tcp	**SOCKS proxy protocol**
1701/udp	**Layer 2 Tunnel Protocol L2TP (Only with ppp package)**
1718/udp	**H.323 Gatekeeper Discovery (Only with telephony package)**
1719/tcp	**H.323 Gatekeeper RAS (Only with telephony package)**
1720/tcp	**H.323 Call Setup (Only with telephony package)**
1723/tcp	**Point-to-Point Tuneling Protocol PPTP (Only with ppp package)**
1731/tcp	**H.323 Audio Call Control (Only with telephony package)**
1900/udp	**Universal Plug and Play uPnP**
2828/tcp	**Universal Plug and Play uPnP**
2000/tcp	**Bandwidth-test server**
3986/tcp	**Proxy for winbox**
3987/tcp	**SSL proxy for secure winbox (Only with security package)**
5678/udp	**MikroTik Neighbor Discovery Protocol**
8080/tcp	**HTTP Web proxy (Only with web-proxy package)**
8291/tcp	**Winbox**
20561/udp	**MAC winbox**
5000+/udp	**H.323 RTP Audio Streem (Only with telephony package)**
/1	**ICMP - Internet Control Message Protocol**
/4	**IP - IP in IP (encapsulation)**
/47	**GRE - General Routing Encapsulation (Only for PPTP and EoIP)**
/50	**ESP - Encapsulating Security Payload for IPv4 (Only with security package)**
/51	**AH - Authentication Header for IPv4 (Only with security package)**
/89	**OSPFIGP - OSPF Interior Gateway Protocol**
/112	**VRRP - Virtual Router Redundancy Protocol**