

1. Protocol (Windows Server 2008 R2)

```
# Copyright (c) 1993-2006 Microsoft Corp.
#
# This file contains the Internet protocols as defined by various
# RFCs. See http://www.iana.org/assignments/protocol-numbers
#
# Format:
#
# <protocol name> <assigned number> [aliases...] [#<comment>]

ip      0      IP      # Internet protocol
icmp    1      ICMP    # Internet control message protocol
ggp     3      GGP     # Gateway-gateway protocol
tcp     6      TCP     # Transmission control protocol
egp     8      EGP     # Exterior gateway protocol
pup     12     PUP     # PARC universal packet protocol
udp     17     UDP     # User datagram protocol
hmp     20     HMP     # Host monitoring protocol
xns-idp 22     XNS-IDP # Xerox NS IDP
rdp     27     RDP     # "reliable datagram" protocol
ipv6    41     IPv6    # Internet protocol IPv6
ipv6-route 43    IPv6-Route # Routing header for IPv6
ipv6-frag 44    IPv6-Frag # Fragment header for IPv6
esp     50     ESP     # Encapsulating security payload
ah      51     AH      # Authentication header
ipv6-icmp 58    IPv6-ICMP # ICMP for IPv6
ipv6-nonxt 59   IPv6-NoNxt # No next header for IPv6
ipv6-opts 60   IPv6-Opts # Destination options for IPv6
rvd     66     RVD     # MIT remote virtual disk
```

2. Services (Windows Server 2008 R2)

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# Copyright (c) 1993-2004 Microsoft Corp.
#
# This file contains port numbers for well-known services defined by IANA
#
# Format:
#
# <service name> <port number>/<protocol> [aliases...] [#<comment>]
#
echo          7/tcp      sink null
echo          7/udp
discard      9/tcp      sink null
discard      9/udp      sink null
systat       11/tcp     users          #Active users
systat       11/udp     users          #Active users
daytime      13/tcp
daytime      13/udp
qotd         17/tcp     quote          #Quote of the day
qotd         17/udp     quote          #Quote of the day
chargen      19/tcp     ttytst source  #Character generator
chargen      19/udp     ttytst source  #Character generator
ftp-data     20/tcp
ftp          21/tcp
ssh          22/tcp
telnet       23/tcp
smtp         25/tcp     mail           #Simple Mail Transfer Protocol
time         37/tcp     timserver
time         37/udp     timserver
rlp          39/udp     resource       #Resource Location Protocol
nameserver   42/tcp     name           #Host Name Server
nameserver   42/udp     name           #Host Name Server
nicname      43/tcp     whois
domain       53/tcp
domain       53/udp
bootps       67/udp     dhcps          #Bootstrap Protocol Server
bootpc       68/udp     dhcps          #Bootstrap Protocol Client
tftp         69/udp
gopher       70/tcp
finger       79/tcp
http         80/tcp     www www-http   #World Wide Web
hosts2-ns    81/tcp
hosts2-ns    81/udp
kerberos     88/tcp     krb5 kerberos-sec #Kerberos
kerberos     88/udp     krb5 kerberos-sec #Kerberos
hostname     101/tcp    hostnames      #NIC Host Name Server
iso-tsap     102/tcp
rtelnet      107/tcp

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pop2	109/tcp	postoffice	#Post Office Protocol - Version 2
pop3	110/tcp		#Post Office Protocol - Version 3
sunrpc	111/tcp	rpcbind portmap	#SUN Remote Procedure Call
sunrpc	111/udp	rpcbind portmap	#SUN Remote Procedure Call
auth	113/tcp	ident tap	#Identification Protocol
uucp-path	117/tcp		
sqlserv	118/tcp		#SQL Services
nntp	119/tcp	usenet	#Network News Transfer Protocol
ntp	123/udp		#Network Time Protocol
epmap	135/tcp	loc-srv	#DCE endpoint resolution
epmap	135/udp	loc-srv	#DCE endpoint resolution
netbios-ns	137/tcp	nbname	#NETBIOS Name Service
netbios-ns	137/udp	nbname	#NETBIOS Name Service
netbios-dgm	138/udp	nbdatagram	#NETBIOS Datagram Service
netbios-ssn	139/tcp	nbssession	#NETBIOS Session Service
imap	143/tcp	imap4	#Internet Message Access Protocol
sql-net	150/tcp		
sqlsrv	156/tcp		
pcmail-srv	158/tcp		#PCMail Server
snmp	161/udp		#SNMP
snmptrap	162/udp	snmp-trap	#SNMP trap
print-srv	170/tcp		#Network PostScript
bgp	179/tcp		#Border Gateway Protocol
irc	194/tcp		#Internet Relay Chat Protocol
ipx	213/udp		#IPX over IP
rtsp	322/tcp		
rtsp	322/udp		
mftp	349/tcp		
mftp	349/udp		
ldap	389/tcp		#Lightweight Directory Access Protocol
https	443/tcp	MCom	#HTTP over TLS/SSL
https	443/udp	MCom	#HTTP over TLS/SSL
microsoft-ds	445/tcp		
microsoft-ds	445/udp		
kpasswd	464/tcp		# Kerberos (v5)
kpasswd	464/udp		# Kerberos (v5)
isakmp	500/udp	ike	#Internet Key Exchange
crs	507/tcp		#Content Replication System
crs	507/udp		#Content Replication System
exec	512/tcp		#Remote Process Execution
biff	512/udp	comsat	
login	513/tcp		#Remote Login
who	513/udp	whod	
cmd	514/tcp	shell	
syslog	514/udp		
printer	515/tcp	spooler	
talk	517/udp		
ntalk	518/udp		
efs	520/tcp		#Extended File Name Server
router	520/udp	route routed	
ulp	522/tcp		

ulp	522/udp		
timed	525/udp	timeserver	
tempo	526/tcp	newdate	
irc-serv	529/tcp		
irc-serv	529/udp		
courier	530/tcp	rpc	
conference	531/tcp	chat	
netnews	532/tcp	readnews	
netwall	533/udp		#For emergency broadcasts
uucp	540/tcp	uucpd	
klogin	543/tcp		#Kerberos login
kshell	544/tcp	krcmd	#Kerberos remote shell
dhcpv6-client	546/tcp		#DHCPv6 Client
dhcpv6-client	546/udp		#DHCPv6 Client
dhcpv6-server	547/tcp		#DHCPv6 Server
dhcpv6-server	547/udp		#DHCPv6 Server
afpovertcp	548/tcp		#AFP over TCP
afpovertcp	548/udp		#AFP over TCP
new-rwho	550/udp	new-who	
rtsp	554/tcp		#Real Time Stream Control Protocol
rtsp	554/udp		#Real Time Stream Control Protocol
remotefs	556/tcp	rfs rfs_server	
rmonitor	560/udp	rmonitord	
monitor	561/udp		
nnntp	563/tcp	snntp	#NNTP over TLS/SSL
nnntp	563/udp	snntp	#NNTP over TLS/SSL
whoami	565/tcp		
whoami	565/udp		
ms-shuttle	568/tcp		#Microsoft shuttle
ms-shuttle	568/udp		#Microsoft shuttle
ms-rome	569/tcp		#Microsoft rome
ms-rome	569/udp		#Microsoft rome
http-rpc-epmap	593/tcp		#HTTP RPC Ep Map
http-rpc-epmap	593/udp		#HTTP RPC Ep Map
hmmp-ind	612/tcp		#HMMP Indication
hmmp-ind	612/udp		#HMMP Indication
hmmp-op	613/tcp		#HMMP Operation
hmmp-op	613/udp		#HMMP Operation
ldaps	636/tcp	slldap	#LDAP over TLS/SSL
doom	666/tcp		#Doom Id Software
doom	666/udp		#Doom Id Software
msexch-routing	691/tcp		#MS Exchange Routing
msexch-routing	691/udp		#MS Exchange Routing
kerberos-adm	749/tcp		#Kerberos administration
kerberos-adm	749/udp		#Kerberos administration
kerberos-iv	750/udp		#Kerberos version IV
mdb_s_daemon	800/tcp		
mdb_s_daemon	800/udp		
ftps-data	989/tcp		#FTP data, over TLS/SSL
ftps	990/tcp		#FTP control, over TLS/SSL
telnet	992/tcp		#Telnet protocol over TLS/SSL

imaps	993/tcp		#IMAP4 protocol over TLS/SSL
ircs	994/tcp		#IRC protocol over TLS/SSL
pop3s	995/tcp	spop3	#pop3 protocol over TLS/SSL (was spop3)
pop3s	995/udp	spop3	#pop3 protocol over TLS/SSL (was spop3)
kpop	1109/tcp		#Kerberos POP
nfsd-status	1110/tcp		#Cluster status info
nfsd-keepalive	1110/udp		#Client status info
nfa	1155/tcp		#Network File Access
nfa	1155/udp		#Network File Access
activesync	1034/tcp		#ActiveSync Notifications
phone	1167/udp		#Conference calling
opsmgr	1270/tcp		#Microsoft Operations Manager
opsmgr	1270/udp		#Microsoft Operations Manager
ms-sql-s	1433/tcp		#Microsoft-SQL-Server
ms-sql-s	1433/udp		#Microsoft-SQL-Server
ms-sql-m	1434/tcp		#Microsoft-SQL-Monitor
ms-sql-m	1434/udp		#Microsoft-SQL-Monitor
ms-sna-server	1477/tcp		
ms-sna-server	1477/udp		
ms-sna-base	1478/tcp		
ms-sna-base	1478/udp		
wins	1512/tcp		#Microsoft Windows Internet Name Service
wins	1512/udp		#Microsoft Windows Internet Name Service
ingreslock	1524/tcp	ingres	
stt	1607/tcp		
stt	1607/udp		
l2tp	1701/udp		#Layer Two Tunneling Protocol
pptconference	1711/tcp		
pptconference	1711/udp		
pptp	1723/tcp		#Point-to-point tunnelling protocol
msiccp	1731/tcp		
msiccp	1731/udp		
remote-winsock	1745/tcp		
remote-winsock	1745/udp		
ms-streaming	1755/tcp		
ms-streaming	1755/udp		
msmq	1801/tcp		#Microsoft Message Queue
msmq	1801/udp		#Microsoft Message Queue
radius	1812/udp		#RADIUS authentication protocol
radacct	1813/udp		#RADIUS accounting protocol
msnp	1863/tcp		
msnp	1863/udp		
ssdp	1900/tcp		
ssdp	1900/udp		
close-combat	1944/tcp		
close-combat	1944/udp		
nfsd	2049/udp	nfs	#NFS server
knetd	2053/tcp		#Kerberos de-multiplexor
mzap	2106/tcp		#Multicast-Scope Zone Announcement Protocol
mzap	2106/udp		#Multicast-Scope Zone Announcement Protocol
qwave	2177/tcp		#QWAVE

qwave	2177/udp	#QWAVE Experiment Port
directplay	2234/tcp	#DirectPlay
directplay	2234/udp	#DirectPlay
ms-olap3	2382/tcp	#Microsoft OLAP 3
ms-olap3	2382/udp	#Microsoft OLAP 3
ms-olap4	2383/tcp	#Microsoft OLAP 4
ms-olap4	2383/udp	#Microsoft OLAP 4
ms-olap1	2393/tcp	#Microsoft OLAP 1
ms-olap1	2393/udp	#Microsoft OLAP 1
ms-olap2	2394/tcp	#Microsoft OLAP 2
ms-olap2	2394/udp	#Microsoft OLAP 2
ms-theater	2460/tcp	
ms-theater	2460/udp	
wlbs	2504/tcp	#Microsoft Windows Load Balancing Server
wlbs	2504/udp	#Microsoft Windows Load Balancing Server
ms-v-worlds	2525/tcp	#Microsoft V-Worlds
ms-v-worlds	2525/udp	#Microsoft V-Worlds
sms-rcinfo	2701/tcp	#SMS RCINFO
sms-rcinfo	2701/udp	#SMS RCINFO
sms-xfer	2702/tcp	#SMS XFER
sms-xfer	2702/udp	#SMS XFER
sms-chat	2703/tcp	#SMS CHAT
sms-chat	2703/udp	#SMS CHAT
sms-remctrl	2704/tcp	#SMS REMCTRL
sms-remctrl	2704/udp	#SMS REMCTRL
msolap-ptp2	2725/tcp	#MSOLAP PTP2
msolap-ptp2	2725/udp	#MSOLAP PTP2
icslap	2869/tcp	
icslap	2869/udp	
cifs	3020/tcp	
cifs	3020/udp	
xbox	3074/tcp	#Microsoft Xbox game port
xbox	3074/udp	#Microsoft Xbox game port
ms-dotnetster	3126/tcp	#Microsoft .NET ster port
ms-dotnetster	3126/udp	#Microsoft .NET ster port
ms-rule-engine	3132/tcp	#Microsoft Business Rule Engine Update Service
ms-rule-engine	3132/udp	#Microsoft Business Rule Engine Update Service
msft-gc	3268/tcp	#Microsoft Global Catalog
msft-gc	3268/udp	#Microsoft Global Catalog
msft-gc-ssl	3269/tcp	#Microsoft Global Catalog with LDAP/SSL
msft-gc-ssl	3269/udp	#Microsoft Global Catalog with LDAP/SSL
ms-cluster-net	3343/tcp	#Microsoft Cluster Net
ms-cluster-net	3343/udp	#Microsoft Cluster Net
ms-wbt-server	3389/tcp	#MS WBT Server
ms-wbt-server	3389/udp	#MS WBT Server
ms-la	3535/tcp	#Microsoft Class Server
ms-la	3535/udp	#Microsoft Class Server
pnrp-port	3540/tcp	#PNRP User Port
pnrp-port	3540/udp	#PNRP User Port
teredo	3544/tcp	#Teredo Port
teredo	3544/udp	#Teredo Port

p2pgroup	3587/tcp	#Peer to Peer Grouping
p2pgroup	3587/udp	#Peer to Peer Grouping
ws-discovery	3702/udp	#WS-Discovery
ws-discovery	3702/tcp	#WS-Discovery
dvcprov-port	3776/tcp	#Device Provisioning Port
dvcprov-port	3776/udp	#Device Provisioning Port
msfw-control	3847/tcp	#Microsoft Firewall Control
msdts1	3882/tcp	#DTS Service Port
sdp-portmapper	3935/tcp	#SDP Port Mapper Protocol
sdp-portmapper	3935/udp	#SDP Port Mapper Protocol
net-device	4350/tcp	#Net Device
net-device	4350/udp	#Net Device
ipsec-msft	4500/tcp	#Microsoft IPsec NAT-T
ipsec-msft	4500/udp	#Microsoft IPsec NAT-T
llmnr	5355/tcp	#LLMNR
llmnr	5355/udp	#LLMNR
wsd	5357/tcp	#Web Services on devices
wsd	5358/tcp	#Web Services on devices
rrac	5678/tcp	#Remote Replication Agent Connection
rrac	5678/udp	#Remote Replication Agent Connection
dccm	5679/tcp	#Direct Cable Connect Manager
dccm	5679/udp	#Direct Cable Connect Manager
ms-licensing	5720/tcp	#Microsoft Licensing
ms-licensing	5720/udp	#Microsoft Licensing
directplay8	6073/tcp	#DirectPlay8
directplay8	6073/udp	#DirectPlay8
man	9535/tcp	#Remote Man Server
rasadv	9753/tcp	
rasadv	9753/udp	
imip-channels	11320/tcp	#IMIP Channels Port
imip-channels	11320/udp	#IMIP Channels Port
directplaysrvr	47624/tcp	#Direct Play Server
directplaysrvr	47624/udp	#Direct Play Server