

The rpcping command in Windows

Applies to Windows Server (Semi-Annual Channel), Windows Server 2016, Windows Server 2012 R2, Windows Server 2012

The **rpcping** command helps confirm the RPC connection between the computer running Microsoft Exchange Server and any supported Microsoft Exchange Client workstations on the network. This command utility can also be used to check whether Microsoft Exchange Server services are meeting RPC requests from client workstations via the network.

Rpcping command syntax

```
rpcping [/ t] [/ s] [/ e  
| / f [, Majorver]] [/ O  
[/ i #_ iterations>] [/ u] [/ a]  
[/ N] [/ I] [/ C]  
[/ T] [/ M]  
[/ S] [/ P] [/ F]  
[/ HOUR ] [/ o]  
[/ B] [/ b] [/ E] [/ q] [/ c]  
[/ A] [/ U]  
[/ r] [/ v] [/ d]
```

The rpcping command parameter

Parameters

Describe

/t

Specify a protocol string to use. This may be one of the standard RPC protocol strings, for example: ncaen_ip_tcp, ncaen_np or ncaen_http.

If this parameter is not specified, the ncaen_ip_tcp protocol string will be used by default.

/S

Specify server address. If this parameter is not specified, the local machine will be pinged by default.

/e

Specify the endpoint to ping. If this parameter is not specified, the endpoint mapper on the target machine will be pinged. This option will not be used at the same time as the interface option (/ f), they will be mutually exclusive.

/ o

Specify the linking options for ping RPC.

/ f [, Majorver]

Specify the interface to ping. This option with the endpoint option above will be mutually exclusive. The interface is designated as UUID.

If the Majorver parameter is not specified, version 1 of the interface will be searched.

When the interface is specified, the **rpcping** command will query the endpoint **mapper** on the target machine to retrieve the endpoint for the specified interface.

/ O

Specify an object for UUID in case this interface is registered.

/ i #_ iterations>

Specify the number of calls to be made. The default will be 1. This option is useful for measuring connection latency if multiple iterations are specified.

/ u

Specify the security package (security provider) that RPC will use to make a call. Security package is defined as a specific number or name. If a number is used, the number will be the same as the number in the RpcBindingSetAuthInfoEx API. The list below shows the name and number of the security package (the name will not be case sensitive):

1. Negotiate / 9 or nego, snego, negotiate
2. NTLM / 10 or NTLM
3. SChannel / 14 or SChannel
4. Kerberos / 16 or Kerberos
5. Kernel / 20 or Kernel

If you specify this option, the authentication norm will have to be specified differently from zero. There is no default for this option. If this parameter is not specified, RPC will not use security for ping.

/ a

Specify the authentication level to use. Values ??can be:

1. connect
2. call
3. pkt
4. integrity
5. privacy

If this option is specified, the security package ID (/ u) must also be specified in. There is no default for this option. If this option is not specified, RPC will not use security for ping.

/N

Specify the main name of the server. This field can only be used when the authentication level and security package are selected.

/I

Allows you to specify an alternate authentication identity to connect to the server. Identity will be in the form of users, domains, and passwords. If the user name, domain name or password have special characters that can be interpreted by the shell, you must put the identity in quotation marks. You can also specify * instead of password and RPC will prompt you to enter the password without repeating the password on the screen. If this field is not specified, the identity of the logged-in user will be used by default.

In addition, this field can only be used when the authentication level and security package are selected.

/C

Specify a hexadecimal bitmask of the Flag. This field can only be used when the authentication level and security package are selected.

/T

Specify static (dynamic) or dynamic (dynamic) values. If not specified, the default will be dynamic. This field can only be used when the authentication level and security package are selected.

/M

Specify anonymous (anonymous), identify, impersonate, or delegate (delegate). The default will be impersonate. This field can only be used when the authentication level and security package are selected.

/S

Specify the server SID as expected. This field can only be used when the authentication level and security package are selected.

/P

Specify identity to authenticate with RPC / HTTP proxy. This option has the same format as the / I option. You must specify the security package (/ u), authentication level (/ a) and authentication scheme (/ H) to use this option.

/F

Specify the Flag to pass RPC / HTTP user interface authentication. Flags can be specified as numbers or names. The flags currently recognized include:

1. Use SSL / 1 or ssl or use_ssl
2. S? d?ng first auth scheme / 2 ho?c first or use_first

You must specify the security package (/ u) and the authentication level (/ a) to use this option.

/HOUR

Specify authentication schemas to use for RPC / HTTP user interface authentication. This option is a list of numeric values or names separated by commas, for example: Basic, NTLM. Accredited value (name is not case sensitive) is:

1. Basic / 1 or Basic
2. NTLM / 2 or NTLM
3. Certificate / 65536 or Cert

You must specify the security package (/ u) and the authentication level (/ a) to use this option.

/ B

Specify the server certificate object. In order for this option to work, you must use SSL. You must specify the security package (/ u) and the authentication level (/ a) to use this option.

/ b

Retrieve the certificate server certificate owner only sent and printed to the screen by the server or sent to the log file. This option is only valid when the option uses only proxy (/ E) and the specified SSL options are used.

You must specify the security package (/ u) and the authentication level (/ a) to use this option.

/ R

Specify HTTP proxy. If not specified, the RPC proxy will be used by default. The default value means using your client's IE settings. All other values will be treated as clear HTTP proxies. If you do not specify, the default value will be assumed, meaning that IE settings will be selected. This option is valid only when the / E (echo Only) parameter is enabled.

/ E

Specifies only limited ping for RPC / HTTP proxies. Ping will not reach the server. This option is useful when you try to set whether or not the RPC / HTTP proxy is accessible. To specify an HTTP proxy, use the / R parameter. If the HTTP proxy is specified in the / o parameter, this option will be ignored.

This option is valid only when the / E (echo Only) parameter is enabled.

/ q

Specify silent mode. The system will not give any prompt except password. Consider using this option carefully.

/ c

Specify use of smart card certificates. The **rpcping** command will prompt the user to select a smart tag.

/ A

Specify identity to authenticate with HTTP proxy. This parameter has the same format as the / I option.

/ U

You must specify the authentication scheme (/ U), security package (/ u) and authentication level (/ a) to use this option.

/ r

Specify authentication schemas to use for HTTP proxy authentication. This option is a list of numeric values ?? or names separated by commas, for example: Basic, NTLM. Accredited value (name is not case sensitive) is:

1. Basic / 1 or Basic
2. NTLM / 2 or NTLM

You must specify the security package (/ u) and the authentication level (/ a) to use this option.

/ r

If multiple iterations are specified, this option will cause the **rpcping** command to display the current execution statistics periodically, instead of displaying statistics after the last call. Reporting period is calculated in seconds. The default value will be 15.

/ v

Specify the **rpcping** command to create an output. The default value is 1. Values ??2 and 3 will provide more outputs.

/ d

Launch the RPC (RPC network diagnostic UI) network diagnostic user interface.

/ p

Only prompt for authentication information if authentication fails.

/?

Show help at the command prompt .

Example rpcping command

To find out if the Exchange server to which you connect via RPC / HTTP is accessible, enter:

```
rpcping / t ncacn_http / s exchange_server / o RpcProxy = front_end_proxy / P "username, domain, *" / H Basic / u NTLM / a connect / F 3
```

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