

ISA Server 2006 - Overview about ISA tools from Microsoft and other vendors

Abstract

In this article, I will give you an overview about different tools for ISA Server 2004 and ISA Server 2006 from Microsoft and other authors which offers free tools for ISA Server 2004 and 2006 which extends the functionality of ISA Server.

Let's begin

There are a lot of tools on different websites for ISA Server 2004 and ISA Server 2006. Many of these tools come direct from Microsoft and some other utilities are from trusted sources like <http://www.isatools.org> and other sites. In this article I will cover some of the most used tools for ISA Server 2006 and at the end of this article I collected a lot of websites with additional tools and information's around ISA Server.

CacheDirTool

The CacheDir tool is one of the most used utilities to display the ISA Servers cached content. With the help of this tool it is also possible to delete specific cached entries. After downloading the file from the Microsoft website and after extracting the files, copy CACHEDIR.exe to program files\Microsoft ISA Server. The CacheDir tool will display the ISA Servers Cache entries in realtime, so it could take some time after first starting the CacheDir tool because the content must be displayed in the CacheDir utility.

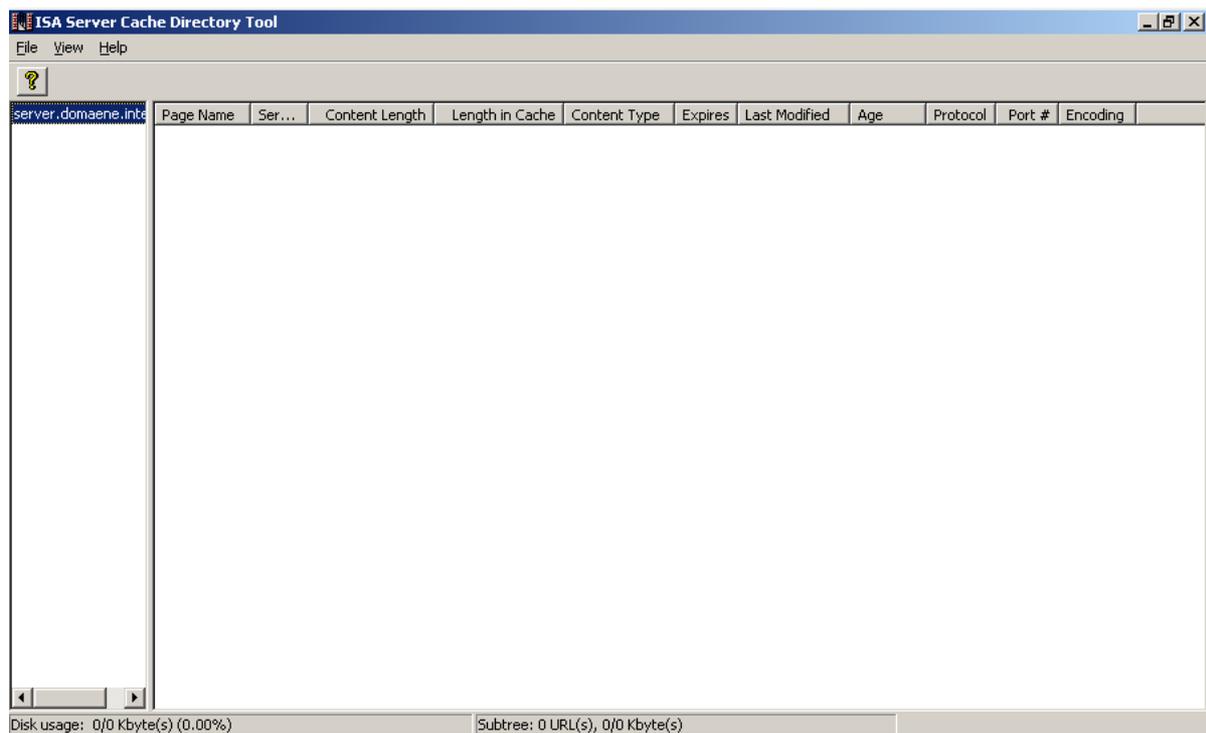


Figure 1: CacheDirTool

ISAInfo

ISAInfo is a great tool that collects information about the ISA Server installation and the underlying Operating System. ISAInfo collects information about ISA server Firewall rules, installed Hot fixes and service packs and nearly everything about your ISA Server configuration. Using ISAInfo is a two step process. First, you must execute ISAInfo.js. ISAInfo.js collects all information about ISA Server and Windows Server 2003 and put all these information into an XML file.

```
C:\WINDOWS\system32\cmd.exe
language, OSProductSuite, SerialNumber, ServicePackMajorVersion, ServicePackMinorVersion, SuiteMask, SystemDevice, SystemDirectory, TotalVirtualMemorySize, Version, WindowsDirectory from Win32_OperatingSystem

-- 1 items were returned from the query.
-- Saving C:\Documents and Settings\Administrator\Desktop\ISAInfo_server.xml
-- Executing WMI query "select Compressed, FileName, InitialSize, MaximumSize, Name from Win32_PageFile"

-- 1 items were returned from the query.
-- Saving C:\Documents and Settings\Administrator\Desktop\ISAInfo_server.xml
-- Executing WMI query "select Description, HotFixID from Win32_QuickFixEngine where HotFixID != "File 1"

-- 2 items were returned from the query.
-- Saving C:\Documents and Settings\Administrator\Desktop\ISAInfo_server.xml
-- Executing WMI query "select DisplayName, Description, Name, PathName, StartName, StartMode, State from Win32_SystemDriver"
.....
-- 152 items were returned from the query.
-- Saving C:\Documents and Settings\Administrator\Desktop\ISAInfo_server.xml
-- Executing WMI query "select DisplayName, Description, Name, PathName, ProcessId, StartMode, StartName, State from Win32_Service"
.....
```

Figure 2: ISAInfo.js

The created XML file from ISAInfo.js can be viewed by the ISAInfo viewer which is the ISA Info .hta application. The created XML file is located on the Desktop of the user who executes ISAInfo.js. Simply load the created .XML file into the ISAInfo viewer.

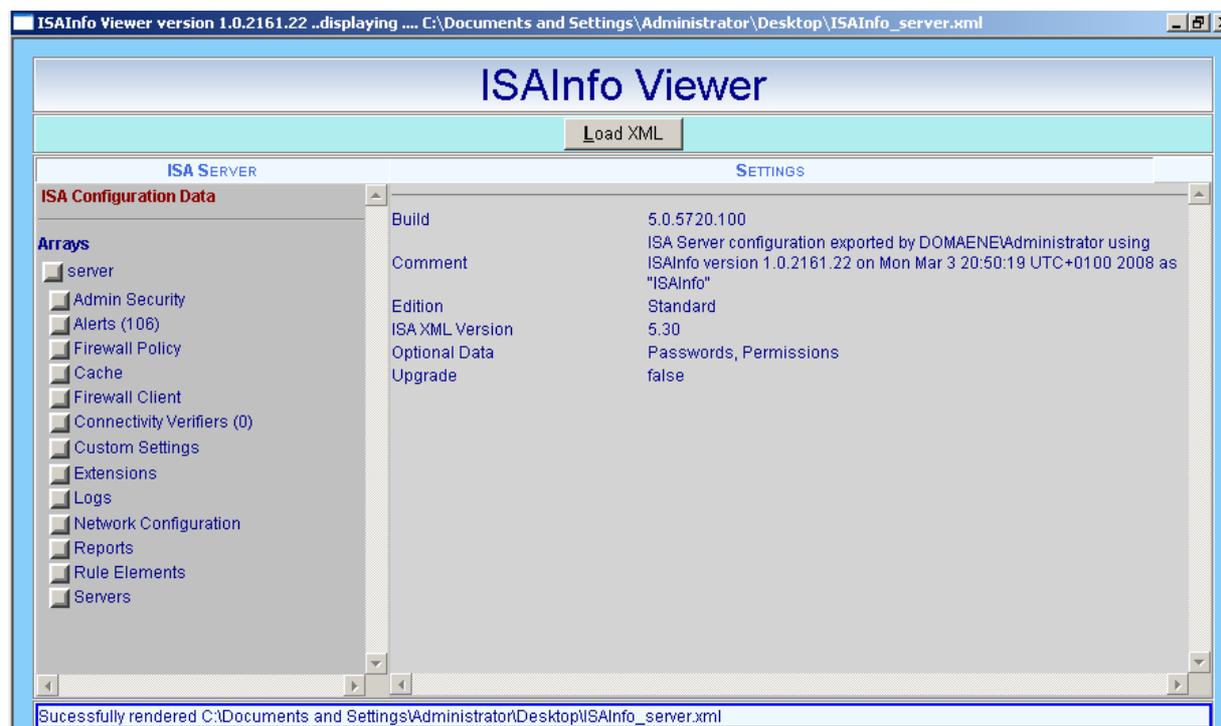


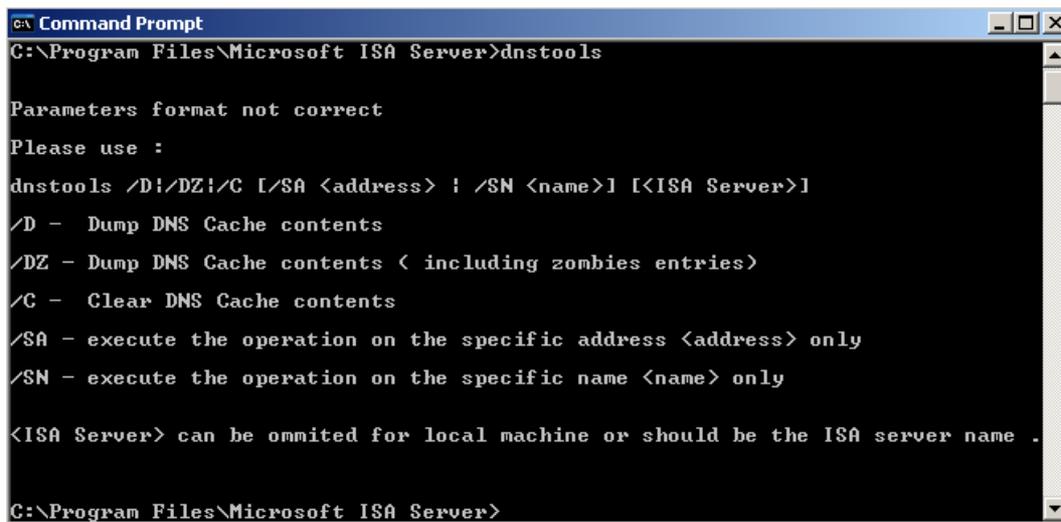
Figure 3: ISAInfo viewer

DNSCacheTool

Have you ever wondered, why ISA Server provides different information when you try to resolve DNS names and regardless what you will do, ISA Server or clients always resolve the wrong name? ISA Server has it's own DNS cache and with the help of the DNSCache tool, you can view the ISA cache and you can clear the cache content.

After extracting the files, copy DNSTools.exe to program files\Microsoft ISA Server. Now you can use the tool from the command line with different parameters. To clear the DNS Cache content, execute the following command:

DNSTOOLS /C



```
C:\ Command Prompt
C:\Program Files\Microsoft ISA Server>dnstools

Parameters format not correct
Please use :
dnstools /D!/DZ!/C [/SA <address> ! /SN <name>] [<ISA Server>]
/D - Dump DNS Cache contents
/DZ - Dump DNS Cache contents ( including zombies entries)
/C - Clear DNS Cache contents
/SA - execute the operation on the specific address <address> only
/SN - execute the operation on the specific name <name> only

<ISA Server> can be omitted for local machine or should be the ISA server name .

C:\Program Files\Microsoft ISA Server>
```

Figure 4: DNSTools.EXE syntax

Firewall Engine Monitor

The Firewall Engine Monitor (FWENGMON) is a great tool to analyze and troubleshoot firewall connectivity issues by monitoring the ISA Server kernel-mode driver. The kernel mode driver is implemented into the file FWENG.SYS. FWENGMON is a command line tool and the different command line options provide a way of looking at FWENG.SYS low level driver activity. FWENG.SYS provides a way to open and close firewall access for a specified IP address range, and to export the Firewall engine output to an XML file.

After downloading and installing the tool, simply execute FWENGMON from the command line and see what happens.

```

C:\temp>fwengmon
Creation Objects:
ID      Protocol  Source                Destination           One-Shot
-----
3       TCP(6)    0.0.0.0:0            10.141.141.146:1745   No
4       TCP(6)    0.0.0.0:0            10.141.141.146:8080   No
5       TCP(6)    0.0.0.0:0            10.141.141.150:1745   No
7       TCP(6)    0.0.0.0:0            10.141.141.150:8080   No
6       TCP(6)    0.0.0.0:0            10.141.141.151:1745   No
8       TCP(6)    0.0.0.0:0            10.141.141.151:8080   No
1       TCP(6)    0.0.0.0:0            192.9.200.123:1745    No
2       TCP(6)    0.0.0.0:0            192.9.200.123:8080    No

8 Creations.

Active Sessions:
ID      Protocol  Source / Destination / 2-way  Timeout
-----
0 Connections.

C:\temp>

```

Figure 5: FWENGMON

FWENGMON has several other command line parameters. Enter FWENGMON /? to see all options.

ISA Server 2006 SDK

The ISA Server 2006 SDK (Software Development Kit) contains a lot of information for Developers who wants to extend ISA Servers functionality and which want to create additional applications for ISA Server 2006. The SDK contains a very helpful documentation about the ISA Server architecture and enhanced functionality.

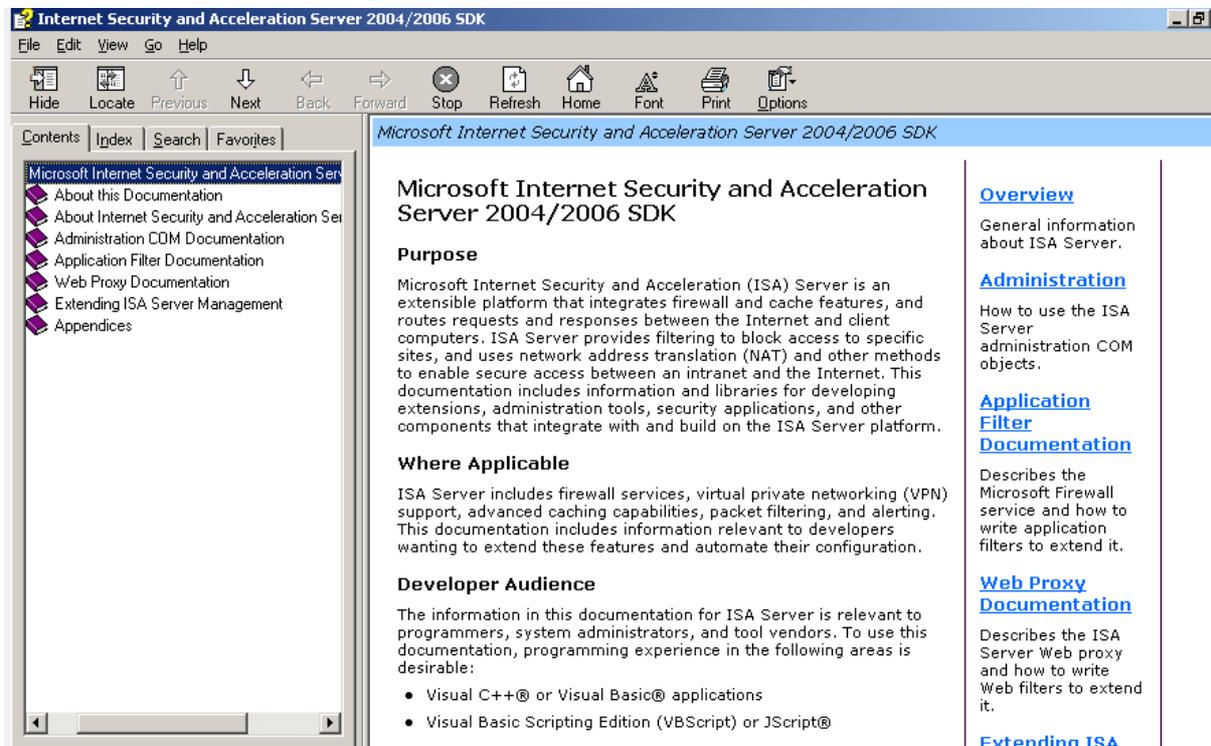
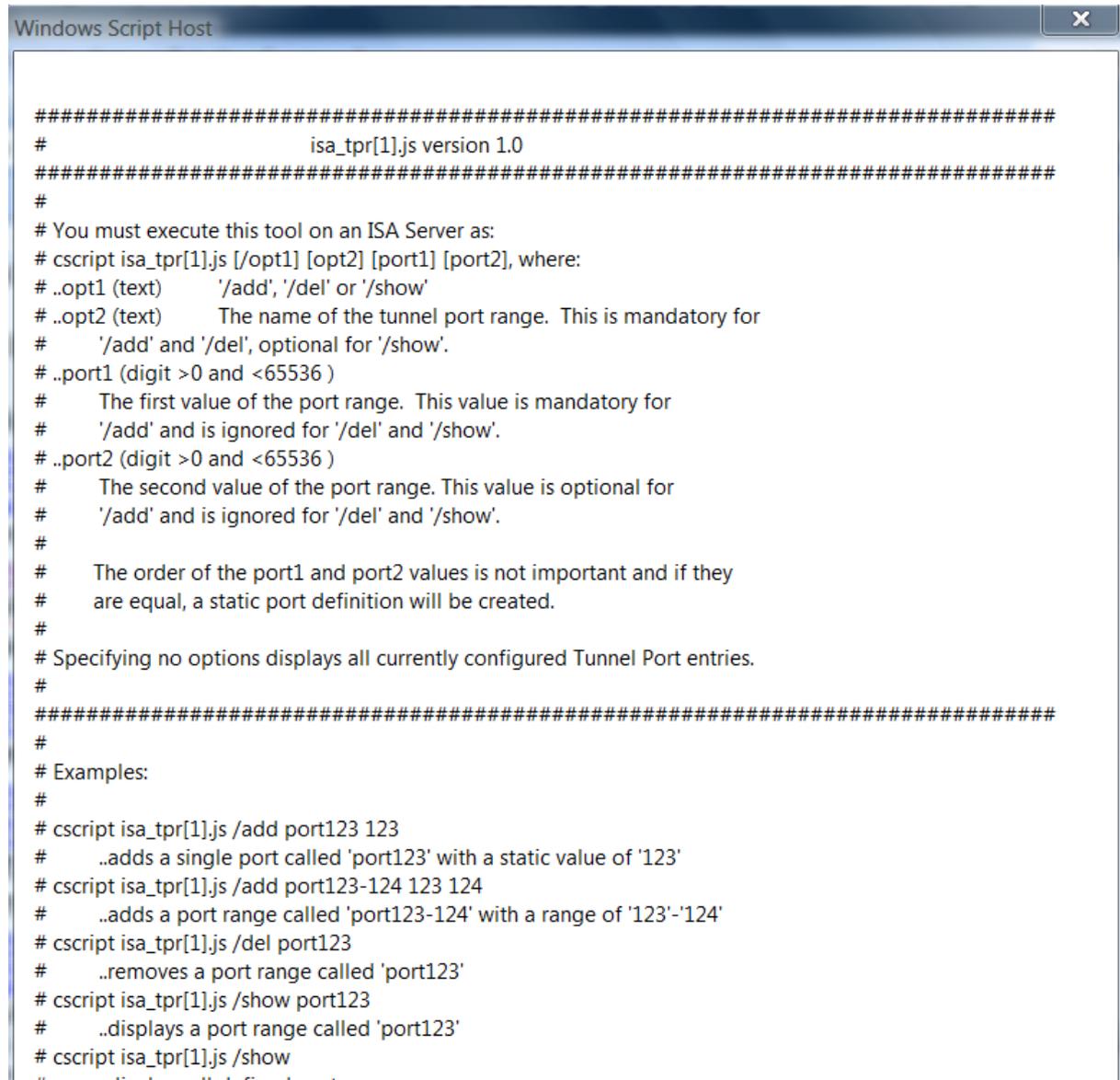


Figure 6: ISA Server 2006 SDK

The ISA Server 2006 SDK also contains a lot of sample script files for ISA Server management.

ISA Tunnel Range Editor

You can use the ISA Tunnel Port Range Editor to extend the default SSL port 443 to another port. There are some special applications on the market that need another port for SSL traffic. There are two versions of the Tunnel Range Editor. A command line option that I will explain in this article and a GUI extension.



```
#####
#                               isa_tpr[1].js version 1.0
#####
#
# You must execute this tool on an ISA Server as:
# cscript isa_tpr[1].js [/opt1] [opt2] [port1] [port2], where:
# ..opt1 (text)    '/add', '/del' or '/show'
# ..opt2 (text)    The name of the tunnel port range. This is mandatory for
#                  '/add' and '/del', optional for '/show'.
# ..port1 (digit >0 and <65536 )
#                  The first value of the port range. This value is mandatory for
#                  '/add' and is ignored for '/del' and '/show'.
# ..port2 (digit >0 and <65536 )
#                  The second value of the port range. This value is optional for
#                  '/add' and is ignored for '/del' and '/show'.
#
# The order of the port1 and port2 values is not important and if they
# are equal, a static port definition will be created.
#
# Specifying no options displays all currently configured Tunnel Port entries.
#
#####
#
# Examples:
#
# cscript isa_tpr[1].js /add port123 123
#   ..adds a single port called 'port123' with a static value of '123'
# cscript isa_tpr[1].js /add port123-124 123 124
#   ..adds a port range called 'port123-124' with a range of '123'-'124'
# cscript isa_tpr[1].js /del port123
#   ..removes a port range called 'port123'
# cscript isa_tpr[1].js /show port123
#   ..displays a port range called 'port123'
# cscript isa_tpr[1].js /show
#   ..display all defined port ranges
```

Figure 7: ISA Tunnel Range Editor

To extend the SSL tunnel port range to a custom port 4711, use the following command line parameters with ISATPR:

```
CSCRIPT ISA_TPR.JS /ADD port4711 4711
```

ISABPA

The ISA Server Best Practices Analyzer is a diagnostic tool like the well known EXBPA (Exchange Best Practice Analyzer Tool) and other BPA (SBS, Group Policies and more) that automatically performs specific tests on configuration data collected on the local ISA Server 2006 computer from the ISA Server hierarchy of

administration COM objects, Windows Management Instrumentation (WMI) classes, the system registry, files on disk, and the Domain Name System (DNS) settings. You can use ISABPA for both ISA Server 2006 Standard and ISA Server 2006 Enterprise. Because I already wrote about ISABPA, I will give you no more information about ISABPA. If you want to read more about the ISABPA, read my article [here](#). The article is based on ISA Server 2004, but you can always use it for ISA Server 2006.

Other tools / websites

There are a lot of more tools and utilities for ISA Server 2006. On the following websites you will find dozens of additional tool, scripts and utilities which makes the work as an ISA Server Administrator a bit easier.

Coding Corner

After ISA Server 2004 was published, Microsoft created the Coding corner website at <http://www.microsoft.com/technet/isa/2004/development/default.aspx>. The website provides a lot of tools that modify different ISA Server behaviour which cannot be configured through the GUI.

www.isascripts.org

This is the website of Jason Fossen, an Microsoft ISA Server (Forefront) MVP. Jason placed a lot of scripts on his website www.isascripts.org.

www.isatools.org

This is the website of Jim Harrison, a Microsoft ISA Server SE. Jim offers a lot of tools and scripts on his website and this website is a must have for every ISA Server administrator.

Conclusion

In this article I tried to give you an overview about common ISA Server 2004/2006 tools. Most of the tools work on ISA Server 2004 and ISA Server 2006 because the differences are not so much between these two versions. Because of the number of available tools it was not possible to dive deeper into every tool, but you should now have a good overview about these tools and how to use them.

Related links

Cache Directory Tool for Internet Security and Acceleration (ISA) Server 2006
<http://www.microsoft.com/downloads/details.aspx?familyid=B9ECFCD3-C13F-4447-83ED-ADD9A8EA45DB&displaylang=en>

ISA Server 2004/2006 Tunnel Range Editor
http://www.isatools.org/tools/isa_tpr.js

RemoveAllNLBSettings Tool for Internet Security and Acceleration (ISA) Server 2004 Enterprise Edition

<http://www.microsoft.com/downloads/details.aspx?FamilyId=1B02DFA5-B982-48CD-AD4C-B72BBAC0002F&displaylang=en>

Firewall Kernel Mode Tool for ISA Server 2004

<http://www.microsoft.com/downloads/details.aspx?familyid=f3306399-d4f9-4989-865e-c61f8293c330&displaylang=en>

Microsoft Internet Security and Acceleration (ISA) Server 2006 Software Development Kit (SDK)

<http://www.microsoft.com/downloads/details.aspx?FamilyID=16682c4f-7645-4279-97e4-9a0c73c5162e&displaylang=en>

Remote Access Quarantine Tool for Internet Security and Acceleration (ISA) Server 2004

<http://www.microsoft.com/downloads/details.aspx?FamilyId=17897522-AB69-46E0-9860-E2D9EC8CA122&displaylang=en>

MSDEToText Tool for Internet Security and Acceleration (ISA) Server 2004

<http://www.microsoft.com/downloads/details.aspx?FamilyId=A60A09A0-E4AD-47C7-9961-5E22E65CA986&displaylang=en>

ISACertTool for Internet Security and Acceleration (ISA) Server 2004 Enterprise Edition

<http://www.microsoft.com/downloads/details.aspx?FamilyId=F8F60164-C5A5-4716-9FF4-2D56C86506C3&displaylang=en>

Isainfo

<http://www.isatools.org/tools/isainfo.zip>

Microsoft ISA Server 2004 Development

<http://www.microsoft.com/technet/isa/2004/development/default.mspx>

Extending the ISA Firewall's SSL Tunnel Port Range

<http://isaserver.org/articles/2004tunnelporrange.html>

ISA Server 2004 Best Practice Analyzer

<http://www.isaserver.org/tutorials/ISA-Server-2004-Best-Practice-Analyzer.html>