ISA Server Best Practice Analyzer with Visio

All of you ISA experts might know about the ISA Server Best Practice Analyzer. The ISA Best Practice Analyzer is used to analyze the ISA environment for potential configuration problems. The ISA Server Best Practices Analyzer is a diagnostic tool like the well known EXBPA (Exchange Best Practice Analyzer Tool) that automatically performs specific tests on configuration data collected on the local ISA Server 2004/2006 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 2004/2006 Standard and ISA Server 2004/2006 Enterprise. If you want to know more about the ISA Server Best Practice Analyzer, read the following article.

Newer ISA Server best Practice Analyzer versions contain additional packages:
• The ISA Data Packager enables you to create a single .cab file containing ISA Server diagnostic information that can be easily sent to Microsoft Product Support Services for analysis.
• BPA2Visio generates a Microsoft Office Visio 2003 or Visio 2007 diagram of your network topology as seen from the ISA Server computer based on output from the ISA Server Best Practices Analyzer Tool output

The ISA Best Practice Analyzer is a very helpful utility for ISA Administrators. Newer versions (beginning with ISABPAv5) of the ISA Server Best Practice Analyzer contains an built in version of a ISABPA to Visio utility which will help you to automatically draw a Visio diagram from your ISA Server environment. This is very helpful to document ISA Server settings.

You will need an installed version of Microsoft Office Visio 2003 Professional or Visio 2007 Professional on either the ISA Server 2004/2006 or on a separate Workstation from where you will run the ISA BPA with Visio.

Attention:

It is highly not recommended installing Microsoft Office Visio on the ISA Server computer because of security concerns.

Let's start

Installing and using the ISA Server Best Practice Analyzer is a straight ford process. The high level steps are:

- Downloading and installing the latest ISA Server Best Practice Analyzer version
- Downloading the newest ISA Server Best Practice Analyzer update definition down
- Run a ISA Server Best Practice Analyzer scan

- Copy the created XML file to the ISA BPA / Visio computer
- Run the BPA2VISIO tool

Downloading and installing ISA Server Best Practice Analyzer

You can download the latest ISA Server Best Practice Analyzer version from the Microsoft [website](). The actual version as I wrote this article is 5.5.14.100. After downloading the package, start the installation process and follow the installation instructions.
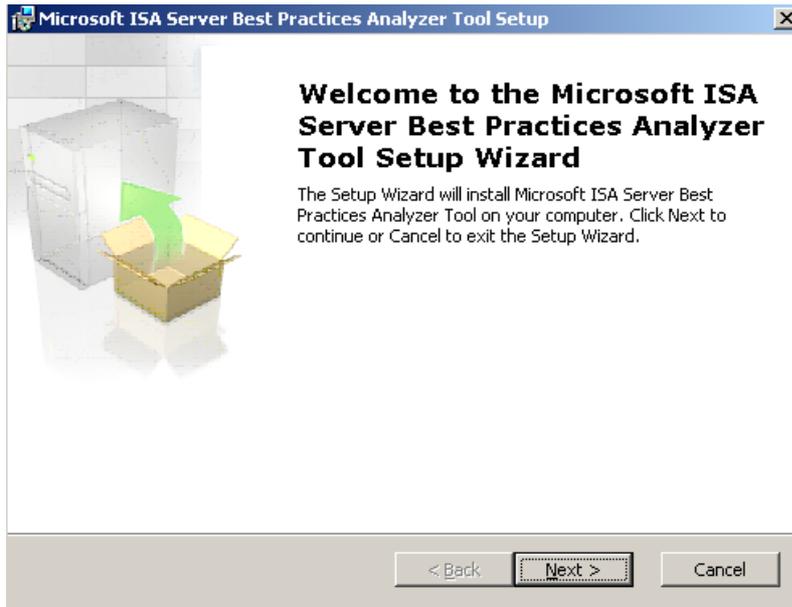

Figure 1: ISA Server Best Practice Analyzer installation

Visio is needed

If you try to start the ISA Server Best Practice Analyzer to Vision tool after a successful installation, you will get the following error message on the ISA Server when Microsoft Office Visio is not installed on the computer. Please note again that it is not recommended installing Microsoft Office Visio on ISA Server computers.

Figure 2 Visio is not installed

Installing Microsoft Office Visio on the administration client

As a next step, it is necessary to install Microsoft Office Visio 2003 or Visio 2007 on the administration client. For this article, we are installing Microsoft Office Visio 2007 Professional. If you want to use the ISABPA2VISIO tool for a long time period you will need an activated and licensed copy of Microsoft Office Visio Professional. If you only want to draw a diagram once, it is possible to install Microsoft Office Visio

Professional without activating the software, so you can start Visio a limit number of times.
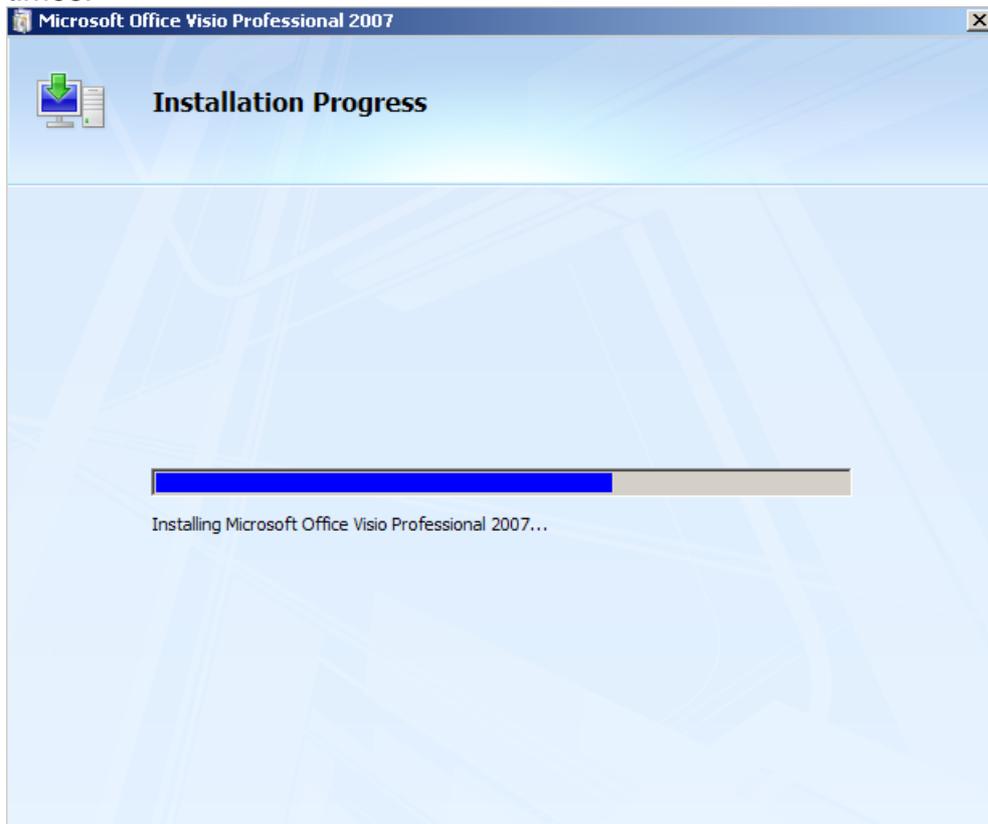
Figure 3: Visio is not installed

Running ISA Server Best Practice Analyzer

The next logical step is running the ISA Server Best Practice Analyzer on the selected ISA Server. For the example in this article we are using the Health Check scan type and we name the Best Practice Report ISABPA2VISIO.
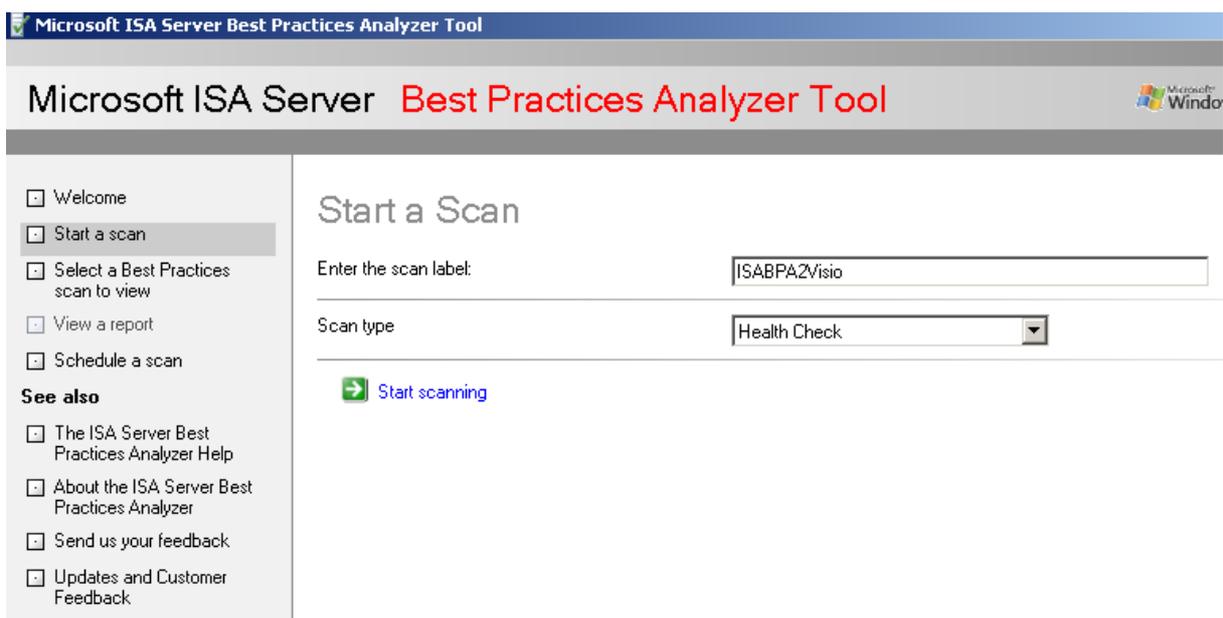
Figure 4: Start a ISA Server Best Practice Analyzer scan

After the scan has been executed and successfully finished, you can select a Best Practice Scan to view, to see the name of the Best Practice Analyzer scan, so it is easier to find the corresponding XML file.
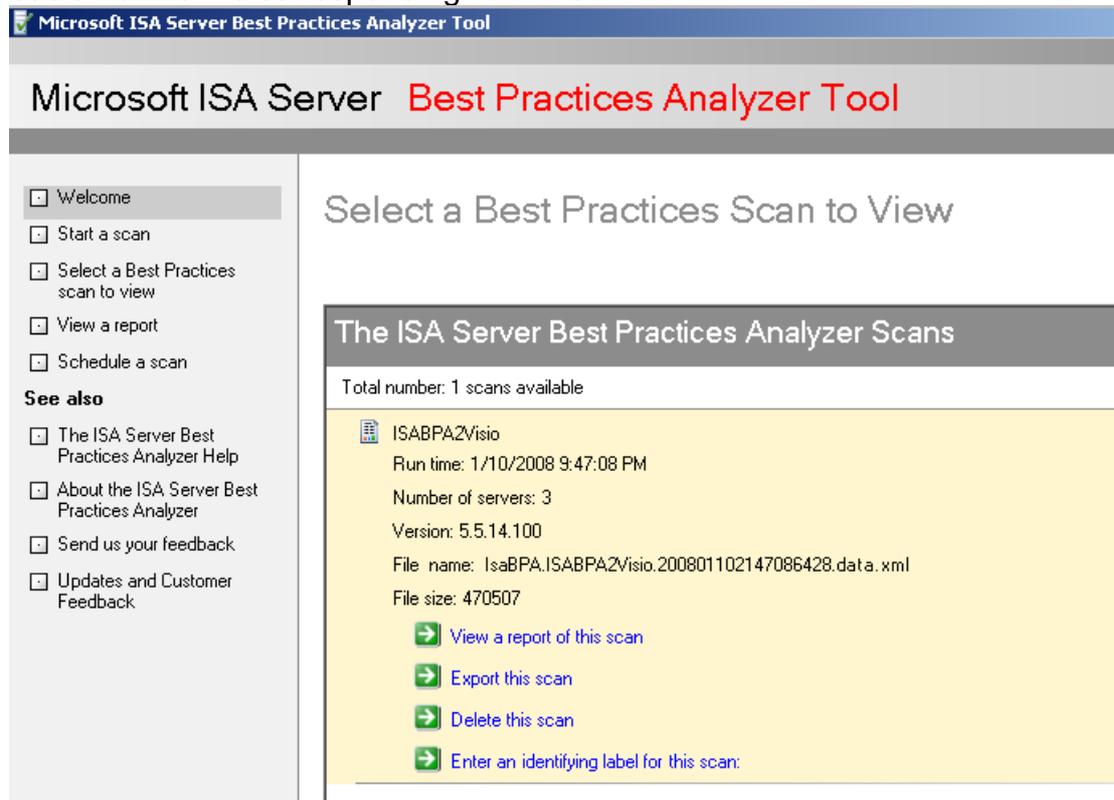
Figure 5: ISABPA2VISIO file name

The ISA Server Best Practice Analyzer XML file is located into the C:\Documents and settings\Username\Application Data\Microsoft\ISABPA. The name of the XML file follows the format BPAReportYYYYMMDDHHmm.xml.
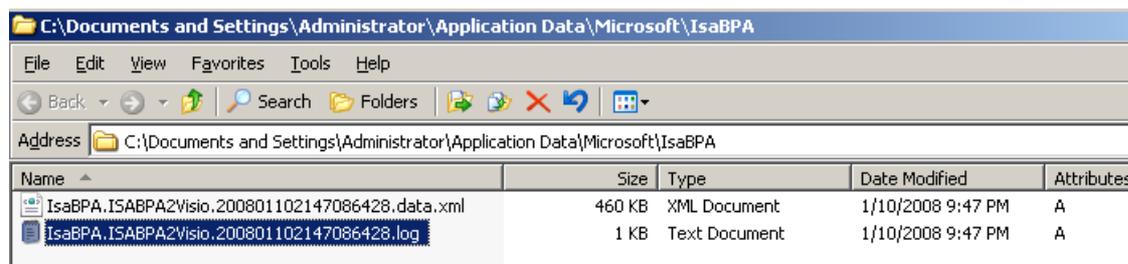

Figure 6: ISA Server Best Practice Analyzer XML file

Copy this file to the administrative client PC and execute the Microsoft ISA Server Best Practice Analyzer to Visio and select the file to import it into the ISA BPA to Visio tool.
After selecting the file, click Generate Diagram to generate a Microsoft Office Visio drawing of the ISA Server configuration.
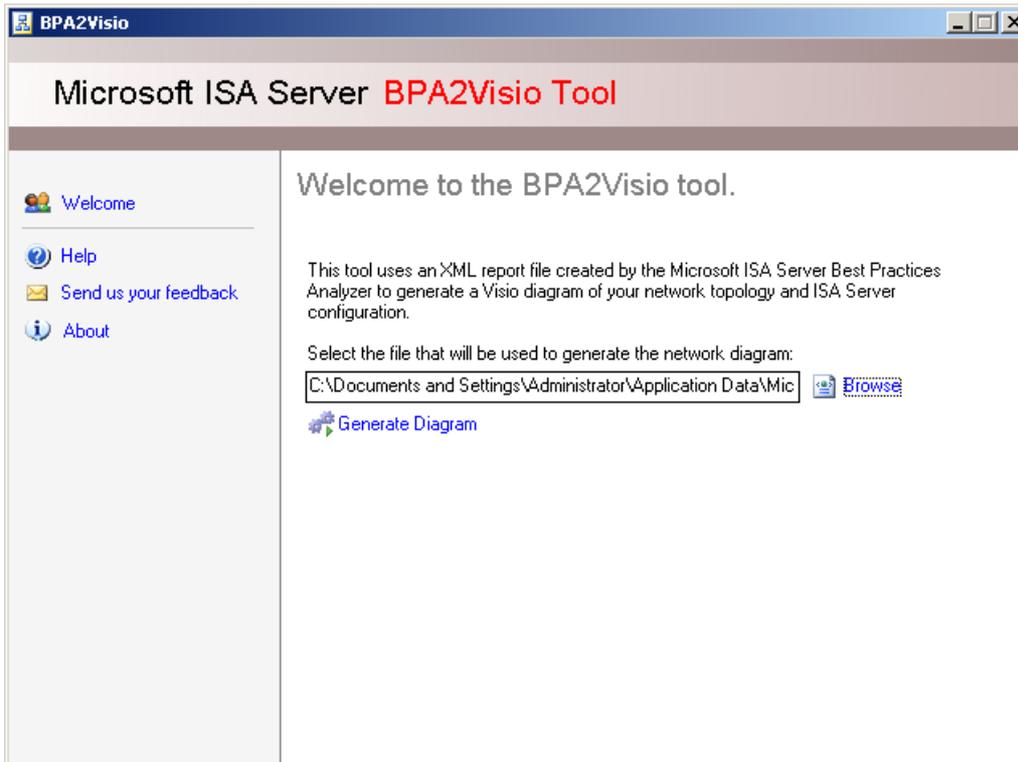
Figure 7: BPA2VISIO tool

Depending on the size of your ISA Server configuration and the power of your workstation, it can take a while to generate the drawing. After some processing, ISABPA2VISIO has created the drawing and displays the drawing. If you have some experience with Microsoft Office Visio, it is now possible to extend and to customize the drawing.
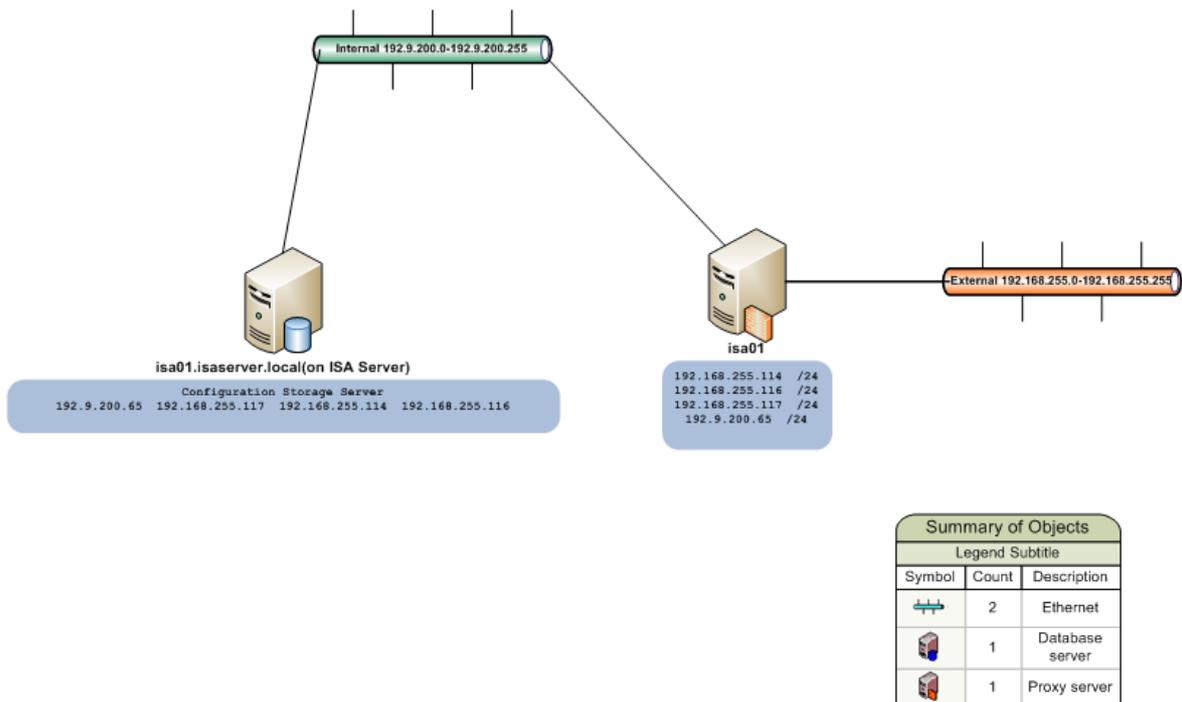
Figure 8: ISA BPA to Visio drawing

This diagram is based on data from the ISA Server configuration and parts of the Windows Server 2003 routing table that the ISA Server Best Practices Analyzer collects on the local ISA Server computer. This information is stored in the XML file. This created diagram is useful for visualizing the network topology of the local ISA Server computer and other servers and network devices that are viewable from the ISA Server computer. ISABPA2VISIO doesn't create a network diagram of your whole network. Information's that are part of the diagram are Servers that are published through ISA (Server- and Web server-Publishing rule), Configuration Storage servers in ISA Server Enterprise environments, and remote site networks in VPN Site to Site deployments.

Running ISA Best Practice Analyzer for Visio from the command line

It is possible to run the BPA2VISIO process from the command line. The executable file BPA2Visio.exe is located in the ISA Server Best Practices Analyzer installation directory, which is located at %programfiles%\Microsoft IsaBPA.
You can open the program from the command prompt with some different switches.

The command-line usage syntax for BPA2Visio.exe is the following.

BPA2Visio.exe [-f Path to XML file][-h | -? | -help] [-o Path to output file]

The following table explains the function of the command-line switches.

Switch	Description
-f	Generates the Visio diagram from the specified XML file.
-h -? –help	Displays the usage text.
-o	Saves the output file of the Visio diagram in the folder specified. The output file is not saved if this switch is not included.

Conclusion

I like the ISA Server best Practice Analyzer to Visio tool, because as an ISA Server Consultant, I often have to implement ISA Server environments in Enterprise environments and this tool is very helpful to document the implemented ISA infrastructure. This tool is also very helpful for ISA administrators which have to document its own environment.

Related links

ISA Server Best Practice Analyzer
https://lb1.www.ms.akadns.net/downloads/details.aspx?FamilyID=D22EC2B9-4CD3-4BB6-91EC-0829E5F84063&displaylang=en
ISA Server Product Team Blog - Using BPA2Visio
http://blogs.technet.com/isablog/archive/2007/07/22/using-bpa2visio.aspx
ISA Server 2004 Best Practice Analyzer
http://www.isaserver.org/tutorials/ISA-Server-2004-Best-Practice-Analyzer.html