Microsoft Forefront TMG – Best Practice Analyzer

Abstract

In this article I will show you how to install and use the Forefront TMG Best Practice Analyzer (TMGBPA). You can use TMGBPA to analyze your Forefront TMG environment for security holes, performance problems and configuration mismatches. The Best Practices Analyzer (BPA) Tool is designed for administrators who want to determine the overall health of their Forefront TMG computers and to diagnose current problems.

Let's begin

TMGBPA scans the configuration settings of the local Forefront TMG computer and reports issues that do not conform to the recommended best practices. TMG BPA uses some different technologies to get information about the TMG computer. TMG BAP uses COM objects to find information, Windows Management Instrumentation (WMI) classes, the system registry, files on disk, and the Domain Name System (DNS) settings to collect all necessary information about the Forefront TMG computer.

The resulting report details critical configuration issues, potential problems, and information about the local computer. TMG uses an integrated Windows help (chm file) or external website links for additional information how to solve found problems in your TMG configuration.

TMG BPA comes with two tools:

- TMG Data Packager
- BPA2Visio

TMG Data Packager

TMG Data Packager creates a single .cab file containing Forefront TMG diagnostic information that can be easily sent to Microsoft Product Support Services for analysis.

BPA2Visio

BPA2Visio generates a Microsoft Office Visio diagram of your network topology as seen from a Forefront TMG computer or any Windows computer based on output from Forefront TMG BPA. Visio 2003, 2007, or 2010 must be installed in order to run BPA2Visio, so it is not recommended using BPA2Visio on the Forefront TMG computer, because you had to install Visio on the Firewall. A better practice is to install the Forefront TMG BPA on a machine with Visio installed. It is possible to use saved TMG BPA scan results for BPA2Visio.

System Requirements

The System requirements for running TMG BPA are moderate:

Supported Operating Systems: Windows Server 2008 Windows Server 2008 R2 Windows Vista Windows 7 Microsoft .NET Framework 2.0 or higher

TMG

Forefront TMG Medium Business Edition (MBE) Forefront TMG 2010

BPA2Visio

For BPA2Visio: Microsoft Office Visio 2003; Microsoft Office Visio 2007; Microsoft Office Visio 2010

Installing TMGBPA

First we need to download the Forefront TMG Best Practice Analyzer (TMGBPA) from the following <u>website</u>. After downloading you can install the TMGBPA tool following the instructions of the wizard.



Figure 1: Installation of the Forefront TMG Best Practice Analyzer Tool

Read, understand and accept the License Agreement

| 🙀 Forefront TMG Best Practices Analyzer Tool Setup | × |
|---|---|
| Automatic updates Forefront TMG Best Practices Analyzer Tool automatic update option | |
| The Forefront TMG Best Practices Analyzer Tool contains a live update mechanism. Please choose whether you would like the Forefront TMG Best Practices Analyzer Tool to look for new updates everytime it starts. This option can be modified in the 'Updates and customer feedback' screen. | |
| Would you like to look for new Forefront TMG Best Practices Analyzer Tool updates every time the application starts? | |
| C No. | |
| < Back Next > Cance | 2 |

Figure 2: Forefront TMG Best Practice Analyzer Tool automatic update option

If you want to participate in the CEIP – Customer Experience Improvement Plan click the appropriate option. You can change this setting later.

| Forefront TMG Best Practices Analyzer Tool Setup | × |
|---|----|
| Customer Experience Improvement Plan | |
| Please help us improve the next Forefront TMG Best Practices Analyzer To | |
| The Customer Experience Improvement Program is designed to improve the quality, reliability and performance of Microsoft software and services. Think of it as your chance to help design the next version of Forefront TMG Best Practices Analyzer Tool and to help us improve our services. | |
| The program collects information about computer hardware and how you use Forefront TMG Best Practices Analyzer Tool without interrupting you. This helps Microsoft identify which Forefront TMG Best Practices Analyzer Tool features to improve. No information collected is used to identify or contact you. You can stop participating in this program at any time by clicking Help[Customer Feedback Options. For more information visit http://www.microsoft.com/products/ceip. | |
| Participate in the Forefront TMG Best Practices Analyzer Tool Customer Experience Improvement Program. (Recommended) | |
| $\ensuremath{\mathbb{C}}$ I do not want to participate in the program at this time. | |
| < Back Next > Cance | el |

Figure 3: Forefront TMG Best Practice Analyzer Tool - CEIP

Click install to start the TMG BPA installation process.

The installation takes some times, depending on the speed and load of your TMG machine.

After the installation of the TMG BPA has finished, start the Forefront TMG Best Practice Analyzer tool.



Figure 4: Installation of the Forefront TMG Best Practice Analyzer Tool has finished

On first startup, TMG BPA is checking for the most current version on the Internet



Figure 5: TMG BPA checking for updates

Create a first scan

After checking for TMG BPA updates, it is time to create a first TMG BPA scan. Select options for a new scan.

| Forefront TMG Best Practices | s Analyzer Tool |
|---|--|
| Forefront TMG | Best Practices Analyzer Tool |
| Welcome | Welcome to the Ferefrent TMC Past Prestings Analyzer |
| Start a scan | welcome to the Forefront TIMG Best Practices Analyzer |
| Select a Best Practices scan to view | This tool examines the Forefront TMG computer. During the scan, configuration information is gathered and analyzed from several sources (for example, WMI, registry, Forefront TMG configuration), and verified for correctness. |
| View a report | When the gathering and analysis process is complete, a report is generated, listing found issues, arranged by severity. For each issue, the tool provides a detailed |
| Start BPA2Visio | description of the problem and how it can be triced. |
| Schedule a scan | You can begin a new scan, or view an existing scan report. |
| See also | Isolation options for a new scan |
| Forefront TMG Best Practices Analyzer Help | Select a Best Practices scan to view |
| About the Forefront TMG Best Practices Analyzer | |
| Send us your feedback | |
| Updates and customer feedback | |

Figure 6: TMG BPA – Select options for a new scan

Start a scan and select the scan option. Enter the scan label to identify the scan job later, and enter the Scan type.

| 😴 Forefront TMG Best Practices Analyzer Tool | | | | |
|---|--|--------------------|--|--|
| | | | | |
| Forefront TMG | Forefront TMG Best Practices Analyzer Tool | | | |
| | - | | | |
| Welcome Start a scan | Start a Scan | | | |
| Select a Best Practices scan to view | Enter the scan label: | First Health check | | |
| View a report | Enter the AD server: | | | |
| Start BPA2Visio | Scan type | Health Check | | |
| 🖸 Schedule a scan | | All tasks | | |
| See also | Start scanning | Health Check | | |
| Forefront TMG Best Practices Analyzer Help | | | | |
| About the Forefront TMG Best Practices Analyzer | | | | |
| Send us your feedback | | | | |
| Updates and customer feedback | | | | |

Figure 7: Enter scan label, and scan type

The scan process can take some time, but the estimated time remaining will give you helpful information how long the process takes to complete.

| Forefront TMG Best Practices | s Analyzer Tool |
|---|---|
| Forefront TMG | Best Practices Analyzer Tool |
| | |
| Welcome Start a scan Select a Best Practices scan to view View a report Start BPA2Visio Schedule a scan See also Forefront TMG Best | Scanning In Progress Please wait while the Forefront TMG Best Practices Analyzer creates a Best Practices report by gathering data from the specified locations and analyzing it. |
| About the Forefront TMG | Total: 1 in progress, 1 completed |
| Send us your feedback Updates and customer feedback | Image: TMG Configuration 21% Image: TMG Installation © Completed |

Figure 8: TMG BPA starts scanning the TMG configuration

It takes some times longer ...

| Forefront TMG Best Practice | s Analyzer Tool | |
|---|--|--------------------------|
| Forefront TMG | Best Practices Analyzer Tool | Windows Server System |
| | | |
| Welcome Start a scan | Scanning In Progress | |
| Start a scarr Select a Best Practices scan to view | Please wait while the Forefront TMG Best Practices Analyzer creates a Best Practices report by gathering data from the specified loc | ations and analyzing it. |
| View a report | 97% | |
| Start BPA2Visio | | |
| 💽 Schedule a scan | Estimated Time Remaining: | |
| See also | Stop Scanning | |
| Forefront TMG Best Practices Analyzer Help | Scanning details: | |
| About the Forefront TMG Best Practices Analyzer | Total: 1 in progress, 4 completed | |
| Send us your feedback | | |
| Updates and customer feedback | Hardware | 🥏 Completed |
| | E ISAInfo | 50% |
| | Operating System | 🤕 Completed |
| | TMG Configuration | 🤕 Completed |
| | TMG Installation | 🤕 Completed |

Figure 9: TMG BPA scanning in progress

Scanning completed. Click view a report of the Best Practices Scan.

| Forefront TMG Best Practice | s Analyzer Tool | <u>_</u>]] |
|--|--|-----------------------|
| Forefront TMG | Best Practices Analyzer Tool | Windows Server System |
| | | |
| Welcome Start a scan Select a Best Practices | Scanning Completed Scanning has completed successfully. | |
| scan to view View a report Start BPA2Visio | Scanning summary: | |
| | Total: 6 completed | |
| Forefront TMG Best Practices Analyzer Help | | |
| About the Forefront TMG Best Practices Analyzer | Export TMG Configuration | 🥏 Completed |
| Send us your feedback Updates and customer | Hardware ISAInfo | Completed |
| feedback | ☐ Operating System | Completed |
| | TMG Configuration | 🧭 Completed |
| | TMG Installation | 📀 Completed |

Figure 10: TMG BPA scan completed

It takes some times to display all issues. The issues are sorted from Critical to informational items.

| Forefront TMG Best Practices | s Analyzer Tool | |
|---|---|-----------------------|
| Forefront TMG | Best Practices Analyzer Tool | Windows Server System |
| Welcome Start a scan Select a Best Practices scan to view View a report Start BPAZVisio Schedule a scan See also Forefront TMG Best Practices Analyzer Help About the Forefront TMG Best Practices Analyzer Send us your feedback Updates and customer feedback | View Best Practices Report First Health check Select Report Type: List Reports The Reports O ther Reports Has this tool been helpful? O Yes No Critical Issues All Issues Informational items All Issues O yes No Print report Export report Find Arange by: Cass Image: An access rule has an empty set of sources Image: An access rule has an empty set of sources Image: An access rule has an empty set of sources Connection to Microsoft Reputation Services Failed Connection to Update Source Failed Image: Connection to Update Source Failed Fine Configuration changes cannot be loaded by Forefrort TMG services error alert was signaled 1 times Image: The Definition Updates Checking Failed error alert was signaled 1 times Image: The Definition Updating Failed error alert was signaled 1 times Image: The Source channel to the trusted domain controller cannot be verified Image: The Upload New Configuration to Services Failed error alert was signaled 1 times Image: The Upload New Configuration to Services Failed error alert was signaled 1 times Image: The Source channel to the trusted domain controller cannot be verified Image: The Upload New Configuration to Services Failed error alert was signaled 1 times Image: The Upload New Configuration to Services Failed err | |

Figure 11: TMG BPA scan results

If you want to have more information about the found issue, click the issue to find more information how to resolve the found problem. Forefront TMG BPA uses a Built In help file with TMG BPA information.

| Forefront TMG Best Practice | s Analyzer Tool |
|---|--|
| Forefront TMG | Best Practices Analyzer Tool |
| Welcome Start a scan Select a Best Practices scan to view View a report Start BPAZVisio Schedule a scan See also Forefront TMG Best Practices Analyzer Help About the Forefront TMG Best Practices Analyzer Send us your feedback Updates and customer feedback | View Best Practices Report First Heath check Select Report Type: |

Figure 12: TMG BPA – getting additional information

It is also possible to schedule a BPA scan if you want to create TMG health reports over a specific time. Scheduling TMG BPA reports is always helpful if you often changes the Forefront TMG configuration.

| Forefront TMG Best Practice | s Analyzer Tool | - |
|---|---|--|
| Forefront TMG | Best Practices An | alyzer Tool 🖉 🕷 Windows Server Sys |
| | | |
| Welcome Start a scan | Schedule a Scar | 1 |
| Select a Best Practices scan to view | Scans can be configured to run on a application is closed, scans will contin | scheduled basis. If this option is enabled, scans with the currently specified parameters will run at the specified interval. If this rue to run. The output can be examined by restarting this UI. |
| View a report | Fnable scan scheduling | |
| Start BPA2Visio | | |
| Schedule a scan | Start time: | 12:42 📑 Sonntag , 31. Januar 2010 💌 |
| See also | Run frequency: | Run weekly |
| Forefront TMG Best Practices Analyzer Help | Exit this tool | |
| About the Forefront TMG Best Practices Analyzer | Save and Exit this tool | |
| Send us your feedback | | |
| Updates and customer feedback | | |

Figure 13: Schedule a TMG BPA scan

You can view the TMG BPA help file without executing the TMG BPA tool. You can found the TMG BPA help file (.CHM file) in the installation directory of Forefront TMG BPA. The TMG BPA help is really helpful to get additional information about all Forefront TMG issues.

| 🔮 TMGBPA | |
|--|--|
| 51 (- <i>A</i>) ff | |
| Hide Back Print Options | |
| Contents Search Favorites | Overview of the Forefront TMG BPA Tool |
| Overview of the Forefront TMG BP This computer has less than 2 GB c Current processor speed is less than Processor speed is less than 550 M Disciple and charged tables are processor. | The Microsoft® Forefront Threat Management Gateway Best Practices Analyzer Tool (referred to from here on as the Forefront TMG BPA Tool) is a diagnostic tool that automatically performs specific tests on configuration data collected on the local Forefront TMG computer from the Forefront TMG hierarchy of administration COM objects, Microsoft Windows® Management Instrumentation (WMI) classes, the system registry, files on disk, and other sources. |
| A disk drive is reporting an error A logical disk has less than 3 GB of | The resulting report details critical configuration issues, potential problems, and information about the local computer. By following the recommendations of the tool, administrators can achieve greater performance, scalability, reliability, and uptime. |
| ? This computer has only one connect ? This computer has no connected n | For every issue, the Forefront TMG BPA Tool provides the following kinds of information: |
| A network adapter on this compute The IP address of a network adapted | A description of the issue |
| This computer has two or more con The Microsoft Forefront TMG Job S | Recommended best practices related to the issue |
| ? The Microsoft Forefront TMG Contr | Step-by-step procedures for fixing the issue |
| The Microsoft Forefront TMG Stora | Links to more detailed information about the issue and related topics |
| ? The DHCP Server service is runnin ? The DNS Server service is running | A technical description of the test used to discover the issue |
| ? The World Wide Web Publishing se ? This computer is a domain controlle ? Forefront TMG may block traffic to t | You can use the Forefront TMG BPA Tool both to troubleshoot current problems and to proactively verify that the configuration of your Forefront TMG computer is set according to the recommended best practices. |
| Porefront TMG may block LDAP tra Forefront TMG may block traffic to t | The Forefront TMG BPA Tool is supplied with the following supplementary tools: |
| Extension Mechanisms for DNS (EI The External network is used in a s | The TMG Data Packager, which creates a single .cab file containing Forefront TMG diagnostic information that can be easily sent to Microsoft Product Support Services for analysis. |
| One or more server publishing rules The name of the server certificate a A secure Web publishing rule speci | BPA2Visio, which generates a Microsoft Office Visio® diagram of your network topology as seen from the Forefront TMG computer. |
| There are no certificates in the loca The Firewall Engine is not running c One or more information alerts were | The Forefront TMG BPA Tool does not change anything in your configuration, and it does not automatically send information about your configuration and settings to anyone. However, you can use the TMG Data Packager to send the output files that contain the results of a scan to support engineers for further analysis. |
| One or more warning alerts were issue One or more error alerts were issue The certificate used by the server s | |
| ? The name on the certificate used by ? The certificate used by the server a | |
| ? The certificate used by the server s | |
| The name of the center enertied in | |
| | |

Figure 14: TMG BPA integrated help

It is also possible to configure Forefront TMG BPA update checking, and Customer Experience improvement Program settings.

| Forefront TMG Best Practices | es Analyzer Tool | |
|---|--|---|
| Forefront TMG | Best Practices Analyzer Tool | er System |
| Welcome Start a scan Start a scan Select a Best Practices scan to view View a report Start BPA2Visio Schedule a scan See also Forefront TMG Best Practices Analyzer Send us your feedback Updates and customer feedback | Updates and customer feedback The following options control whether this tool will automatically check the Web for a newer version of the configuration or the tool upon statup. Leave this enably you are having repeated connection difficulties or are running in a closed network. If this is disabled, you can still check for updates on demand using the "Updat customer feedback" link on the left pane, or you can manually install updates. Instructions for manually installing updates can be found in the help file. Image: Check for updates on statup (recommended) Image: Check for updates on statup Do you want to join the Microsoft Customer Experience Improvement Program? The program sends to Microsoft anonymous information about your computer hardware and how you use our product, without interrupting you or your users. This hidentify which features to improve. If you choose to join, this data will be collected from all servers this tool scans. No information collected is used to identify or control work work privacy policy Image: Check for updates now Image: Check for updates now Image: Check for updates now Image: Check for updates non the program at this time | ed unless es and relps us rtact you. |

Figure 15: Configuring Updates and customer Feedback

TMG BPA has the option to open saved BPA reports for later reviewing. Click Import scan to open a saved report.



Figure 16: Importing TMG BPA scan reports

To determine the version of the TMG BPA version, click About the Forefront TMG Best Practice Analyzer. The version used for this article is 2.5.7970.100.

| 📝 Forefront TMG Best Practices Analyzer | x |
|--|------------------------|
| | Windows Server System |
| | |
| | |
| | |
| Forefront TMG Best Practices Analyzer | Tool |
| Application Version: 2.5.7970.100 | |
| Configuration File Version: 8.0.1 | |
| ©2009 Microsoft Corporation. All rights reserv | rved. <i>Microsoft</i> |
| | |
| | ок |

Figure 17: TMG BPA version information

Conclusion

In this article, I gave you an overview about the Microsoft Forefront TMG Best Practice Analyzer. TMGBPA is great tool for Administrators and TMG consultants to analyze their TMG Server computers for potential problems. TMG BPA has also some basic documentation capabilities in form of saved TMG BPA reports and the BPA2Visio component.

Related links

Microsoft Forefront Threat Management Gateway Best Practices Analyzer Tool http://www.microsoft.com/downloads/details.aspx?FamilyID=8AA01CB0-DA96-46D9-A50A-B245E47E6B8B&displaylang=en

Announcing the Availability of ISA/TMG Best Practices Analyzer Version 7 <u>http://blogs.technet.com/isablog/archive/2009/05/06/announcing-the-availability-of-isa-tmg-best-practices-analyzer-version-7.aspx</u>

Using Forefront TMG/ISA Server BPA for documenting your deployment http://blogs.technet.com/isablog/archive/2009/12/24/using-forefront-tmg-isaserver-bpa-for-documenting-your-deployment.aspx

ISA Server 2004 BPA

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