Installing and configuring Microsoft Forefront TMG Beta 2

Abstract

In this article, I will show you how to install and configure Microsoft Forefront Threat Management Gateway Beta 2.

Let's begin

First, keep in mind that the information in this article are based on a beta version of Microsoft Forefront TMG and are subject to change.

A few days ago, Microsoft released Beta 2 from Microsoft Forefront TMG (Threat Management Gateway), which has a lot of new exiting features.

In this article, I will show you how to install the prerequisites before installing Forefront TMG and after that how to install TMG and after a successful installation, I will show you some basic configuration tasks.

System requirements

One of the most important changes in Microsoft Forefront TMG is that it must be installed on Windows Server 2008 with 64 Bit. Other requirements:

- 2 gigabytes (GB) or more of memory
- 2.5 GB of available hard disk space. This is exclusive of hard disk space that you want to use for caching or for temporarily storing files during malware inspection.
- One network adapter that is compatible with the computer's operating system, for communication with the Internal network.
- An additional network adapter for each network connected to the Forefront TMG server.
- One local hard disk partition that is formatted with the NTFS file system.

Microsoft has divided the new feature into six sections:

- Control network policy access at the edge (Firewall)
- Protect users from web browsing threats (Web Client Protection)
- Protect users from E-mail threats (Email Protection)
- Protect desktops and servers from intrusion attempts (NIS)
- Enable users to remotely access corporate resources (VPN, Secure Web Publishing)
- Simplified management (Deployment)

Installation

After downloading the installation sources, start the TMG installation process by clicking the *Install Forefront TMG* button.



Figure 1: Installing Forefront Threat Management Gateway

Read and accept the License Agreement and provide additional Customer Information if required. Forefront TMG Beta 2 doesn't require entering a installation key.

As a next step select the Setup scenario. For this article, we select the radio button *Install Forefront Threat Management Gateway services*. If you only want to install the TMG Management console, select the second radio button. The third option is for installing a Management Server which centrally manages multiples TNG servers in an array.

🖁 Microsoft Forefront Threat Management Gateway Beta- Installation Wizard
Setup Scenarios
Select the Forefront Threat Management Gateway installation option for this computer.
Install Forefront Threat Management Gateway services
The computer will run Forefront Threat Management Gateway services. Forefront Threat Management Gateway Management will be installed for local management of this Forefront Threat Management Gateway computer.
🔿 Install Forefront Threat Management Gateway Management only
The computer will be used to remotely manage computers running Forefront Threat Management Gateway.
C Install Enterprise Management Server
The computer will provide centralized management for Forefront Threat Management Gateway arrays. Enterprise-level firewall policies and policy objects can be defined.
< Back Next > Cancel

Figure 2: Select Setup scenario

Select the components to install and the directory where the TMG binaries should be installed.

🔂 Microsoft Forefront Threat Management Gateway	Beta- Installation Wizard		
Component Selection			
The selected features will be installed.			
Click on an icon in the list to view or modify how a feature is installed.			
Forefront TMG Forefront TMG Management Configuration Storage server	Feature Description Controls access and traffic between networks. This feature requires 644 MB on your hard drive.		
Install to:			
C:\Program Files\Microsoft ISA Server\	Change		
Help Space < Back	Next > Cancel		

Figure 3: Component selection

As a next step select the IP address ranges for the internal network. As a best practice, select the IP address ranges from the internal network adapter.

Microsoft Forefront TMG Beta 365-Day Evaluation Setup	
Microsoft Microsoft Forefront Threat Management Gateway Beta- Installation Wizard	Addresses X
Internal Network	These are the IP address ranges included in this network.
Specify the address ranges you want included in the Forefront Threat Management Gateway Internal network.	Start Address End Address Add Adapter
Click Add to specify the network address ranges. Add	Edit
Internal Network Address Ranges (From-To):	Remove
	Add Private
	Add Range
For details, see the Installation Guide.	
< Back Next > Cance	el OK Cancel
365-Day Evaluation	
© 2007 Microsoft Corporation. All rights reserved.	

Figure 4: Specify the internal network address ranges

Select the internal network adapter. As a best practice, I recommend to give the network adapters in the Network and Sharing Center on the Windows Server 2008 a name which reflects the function of this network adapter.

Select Network Adapters	X
Select the network adapters associated with the network you are configuring.	
Network adapters:	
Name	
Network adapter details:	
Name: Intel(R) PRO/1000 MT Network Connection	A
IP Addresses: 10.0.0.2 Route Information:	
10.0.0.0 - 10.255.255.255	
	-
UK Cancel	

Figure 5: Select Network Adapters

If the following services are installed on the Server, the TMG setup process restarts these services during the setup process.

🙀 Microsoft Forefront Threat Managen	nent Gateway I	Beta- Installatio	n Wizard 🛛 🗙
Services Warning			
During installation, some services running restarted or disabled.	locally on this co	mputer may be	
Services that will be restarted during in:	stallation:		
SNMP Service			
IIS Admin Service World Wide Web Publishing Service			
Microsoft Operations Manager Service			
Services that will be stopped during inst	tallation:		
Routing and Remote Access Service			
	< Back	Next >	Cancel

Figure 7: Services stopped during the installation

In this beta version of TMG, you have to install the Microsoft Exchange Server 2007 Edge Server role before you install TMG. The Edge Server role is required by TMG Server for Antispam features and SMTP routing.

j 🛃 Micr	rosoft Forefront Threat Management Gateway Beta- Installation Wiza 💻 🗖 🗙
Insta	alling Microsoft Forefront Threat Management Gateway Beta
The	e program features you selected are being installed.
Ţ.	Please wait while the Installation Wizard installs Microsoft Forefront Threat Management Gateway Beta. This may take several minutes.
	Microsoft Forefront Threat Management Gateway Beta- Installatio 🗙
	If you plan to enable E-mail policy protection, you must install Exchange Edge before installing Forefront Threat Management Gateway (TMG). See the Forefront TMG Beta 2 release notes for details. If you do not want to use E-mail policy protection, click OK to continue. E-mail policy protection will be configurable, but will not function.
	OK Cancel
	< Back Next > Cancel

Figure 8: Error – Exchange Edge is not installed

Cancel the TMG Server setup process and start installing Exchange Server 2007 Edge from the Exchange Server 2007 DVD.

	Plan
	Read about Microsoft Exchange Server 2007 SP1
	Install
	Step 1: Install .NET Framework 2.0 - Installed
	Step 2: Install Microsoft Management Console (MMC) - Installed
	Step 3: Install Microsoft Windows PowerShell™ - Installed
	Step 4: Install Microsoft Exchange Server 2007 SP1
	Step 5: Get Critical Updates for Microsoft Exchange
Microsoft Exchange Server enables users to send and receive e-mail, schedule meetings, receive faxes, and receive voice mail.	Enhance
	Read about Microsoft Exchange Hosted Services
	Read about Microsoft Forefront™ Security for Exchange Server
	Install Forefront Security for Exchange Server
Exchange Server 2007	
	Close
ure 9: Exchange Server 2007 SP1 Setup	

Select the Custom Exchange Server installation option and specify a path for the Exchange Server 2007 installation files.

ver Installation d on this computer:
ools
ver Installation which of the following server roles you want to ustering) onsole
nstallation: /er Browse
it in

Figure 10: Custom Exchange Setup

Select the Edge Transport Server Role.

 Introduction License Agreement Error Reporting Installation Type Server Role Selection Readiness Checks Progress Completion 	Server Role Selection Select the Exchange server roles you wan Mailbox Role Client Access Role Unified Messaging Server Role Edge Transport Server Role Client Active Clustered Mailbox Role Passive Clustered Mailbox Role	t to install on this computer: Description The Edge Transport Role performs anti-spam and antivirus filtering and applies messaging and security policies to messages in transport This role is deployed in the perimeter network and outside the secure Active Directory fores
	Management Tools	Disk Space Allocation Disk space required: 697.0 M Disk space available: 11748.5 M
	Specify the path for the Exchange Server C:\Program Files\Microsoft\Exchange Ser	installation: ver Browse

Figure 11: Selecting Edge Server role

Because a previous installation is pending, we have to restart the system and rerun the setup. The second warning can be ignored and is specially to my test environment.

 Introduction License Agreement Error Reporting 	Readiness Checks The system and server will be checked to see whether Exchan Elapsed time: 00:02:41 Summary: 1 item(s). 0 succeeded, 1 failed.	nge is ready to be installed.
 Server Role Selection Readiness Checks Progress Completion 	 Edge Transport Server Role Prerequisites Error: A reboot from a previous installation is pending. Please resistup. Waming: Setup cannot contact the primary DNS server (10.0.0.5) u that the IP address of the DNS server is correct and that the Elapsed Time: 00:02:41 	Failed start the system and rerun using TCP port 53. Check he DNS server is reachable.
Help	Select Ctrl+C to copy the contents of this page.	

Figure 12: Restart required before Setup can continue

Exchange Setup is installing files and the Edge Transport Server role.

 Introduction License Agreement Error Reporting 	Progress Elapsed time: 00:00:09 Summary: 3 item(s), 0 succeeded, 0 failed.		
	🔓 Copy Exchange Files		*
Server Role Selection	Status: Processing Elapsed Time: 00:00:09		
Readiness Checks	Management Tools	Pending	*
Completion	📝 Edge Transport Server Role	Pending	\$
	Select Ctrl+C to copy the contents of this page.		
Help	r Back	Next > Can	cel

Figure 13: Setup in progress

The TMG setup takes a while.



Figure 14: Installing components

After the setup process has finished the TMG installation, you should start the Forefront TMG Management Wizard console.

🎫 Microsoft Forefront Threat	t Management Gateway Beta	×
FH FF	Installation Wizard Completed	
1111	The Installation Wizard completed successfully.	
<i>[[[</i>]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]		
MANKA 1		
KIKA H	☑ Invoke Forefront TMG Management when the wizard closes	;
IKNXX -	Click Finish to exit the wizard.	
	Finish]

Figure 15: Setup has finished

The Forefront TMG console appears and launches the Getting Started Wizard.



Start with the configuration of the network settings by first selecting a Network Template which corresponds to your current network environment.

tting Started - Netwo	k Setup Wizard	
Network Template Select the network t	election Implate that best fits your network topology.	
 Edge firewall 3-Leg perimeter Back firewall Single network adapt In this topology, For the Internal network security device (or a topology, Forefront 	er er effont TMG (Local Host) is deployed at the edge and the Internet. This template also fits a topol router) is deployed between Forefront TMG and TMG can protect internal clients from Web and e	PPN Clients Network External Network (internet)
topology, ForeFront Service (DoS) and ze network and the Int the Internet.	IMG can protect internal clients from Web and e ro-day attacks at the edge, enforce access polic rnet, provide remote access to internal applicat	-mail threats, stop Denial of cy between the Internal tions, and accelerate access to
	< Back	Next > Cancel

Figure 17: Select Network Topology

Specify the adapter for the LAN interface and if required additional network routes.

Network adapter conne	ed to the LAN:	
LAN IP address: Subnet mask: Default gateway: DNS server:	10 . 0 . 2 255 . 0 . 0 10 . 0 . 5	
Specify additional array	opology routes: Netmask Gateway Add	
	Edit	e

Figure 18: Select Network Adapters

Next, select the WAN adapter.

After the Network configuration wizard has finished, start the system configuration wizard. The Wizard asks for domain or workgroup membership and the Primary DNS suffix. In my opinion you should have all necessary settings finished before starting the TMG setup or Setup wizard.

Host Identification Enter the identification of	letails for this Forefront TMG computer.	\mathcal{H}
Computer name:	TMG	Change
Member of		
• Windows domain:	w2k8r2.dom	Change
C Workgroup:		Change
Help about <u>domain and wo</u>	rkgroup membership	
Primary DNS Suffix		
DNIC - CC.	w2k8r2.dom	Change
DINS SUTTIX:		
In a domain, the controller.	primary DNS suffix is provided by the domain	
In a domain, the controller.	primary DNS suffix is provided by the domain TMG.w2k8r2.dom	

Figure 19: Host identification

Next, the deployment wizard asks for Microsoft Update service settings .

Getting Started - Deployment Wizard	×
Microsoft Update Setup Use Microsoft Update service to help keep your computer secure and up to date.	\mathcal{H}
Forefront TMG uses the Microsoft Update service for delivery of malware definition updates to Forefront TMG servers. To receive these updates, you must choose to use the Microsoft Update service, below.	
 Use the Microsoft Update service to check for updates (recommended) I do not want to use the Microsoft Update service 	
See the Microsoft Update FAQ Read our Privacy Statement	
< Back Next >	Cancel

Figure 20: Windows update settings

As a next step you must specify the License settings for the Network Inspection System, Web protection and E-Mail protection.

License:	Activate complementary lice	ense and enable NIS		.
Web Protect	ion			
License:	Activate evaluation license	e and enable Web Protecti	on	-
Key:	Evaluation	Expiration date:	5/29/2009	-
License:	Disable E-Mail Protection			-
Key:		Expiration date:	2/28/2009	7
	-Mail Antivirus	Note: this feat	ure downloads and inst	alls

Figure 21: License activation

For the Network Inspection System (NIS), you have to configure additional settings like the polling frequency and the response policy for new signatures from the Microsoft Response Center.

Getting Started - Deployment Wizard	×
NIS Signature Update Settings Use signatures of known vulnerabilities from the Microsoft Response Center to detect and potentially block malicious traffic.	\mathcal{H}
Signature Set Update Configuration Select automatic update action: Check for and install updates (recommended) Automatic polling frequency: Every 15 minutes Updated Signature Set Configuration Select the response policy for new signatures: Detect only response Image: Signatures configured to respond in a way other than the Microsoft default are flagged for attention on the NIS details pane. Help about configuring NIS	
< Back Next >	Cancel

Figure 22: NIS Update settings

The next dialog boxes ask for Customer Feedback settings and settings for the Microsoft Telemetry Service.

Web Policy Access Wizard

The Web Access Policy allows the creation of a new Firewall policy. You can choose between a simple and custom configuration.

Web Access Policy Wizard	×
Access Policy Groups Select the types of groups for which Web access policies will be defined.	\checkmark
Users and user groups only This option allows you to require clients to present credentials for authenticated Web access. Note that clients must be configured to use Forefront TMG as a Web proxy.	
C Computers, IP addresses, and subnets This option allows you to define Web access policy for specific IP addresses. Clients will not be required to authenticate for Web access.	
C Any of the above This option allows you to define groups based on users or user groups (authenticated access), and on computers, IP addresses and subnets (unauthenticated access).	
Help me choose between these options	
< Back Next > Cance	el 🔄

Figure 23: Access Policy Groups

Allow or deny the Web request.

Select access groups which are allowed to use Forefront TMG for Internet access and select the destination to which the groups have access.

If you want to activate Malware inspection for this Firewall rule, select the radio button.



Figure 24: Malware Inspection settings

A new feature of Forefront TMG is the HTTPS inspection feature which allows outbound HTTPS inspection. You can enable HTTPS inspection during the web access policy wizard.

Select if you want to enable Web Caching. If you want to cache web content through TMG, you must also specify the cache drive and the size of the cache and some other settings.

Until all setup tasks are finished, the wizard closes and you have to save all configuration changes. Now you can use the Forefront Threat Management for additional tasks.

Conclusion

In this article, I gave you some information about how to install Microsoft Forefront TMG Beta 2 on Windows Server 2008. The setup process is easy but in this beta version the prerequisite before installing Microsoft Forefront TMG is an installed Exchange Server 2007 with the Edge server role. This might be changed in upcoming versions of Forefront TMG.

Related links

Forefront Threat Management Gateway Beta 2 http://www.microsoft.com/downloads/details.aspx?FamilyID=e05aecbc-d0eb-4e0fa5db-8f236995bccd&DisplayLang=en Forefront TMG Beta 2 is Released http://blogs.technet.com/isablog/archive/2009/02/06/forefront-tmg-beta-2-isreleased.aspx Forefront TMG MBE Frequently Asked Questions http://www.microsoft.com/forefront/edgesecurity/isaserver/en/us/tmg-mbe-faq.aspx How to install the Forefront Threat Management Gateway (Forefront TMG) Beta 1 http://www.isaserver.org/tutorials/Installing-Forefront-Threat-Management-Gateway-Forefront-TMG-Beta1.html