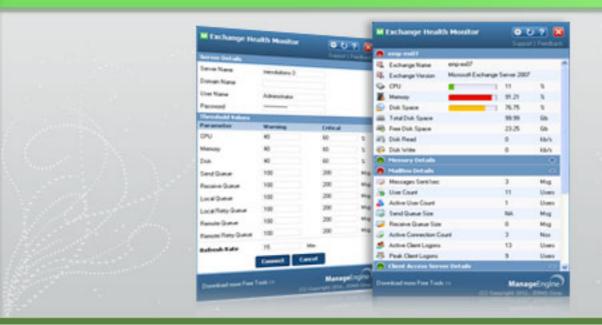# ManageEngine Free Tools
User Manual

Exchange Health Monitor 2.0
[Exchange 2010 and Exchange 2007 Performance Monitor]

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Overview

Free Exchange Monitoring

For any business, e-mail is the mission-critical communication tool. This greater reliance on e-mail has increased the number of messages sent and received. Mail servers are not only for e-mail, but also for calendars, attachments, contacts, and more. Mail servers such as Exchange servers, need to be up and running all the time. Any outages or performance degradation in the Exchange servers, will affect the mail messaging system, resulting in a bad user-experience and eventually affecting many users. Hence it becomes imperative to monitor and manage those Exchange servers continuously.

The Free "ManageEngine Exchange Health Monitor" tool will address this monitoring requirement. The ManageEngine Exchange Health Monitor tool, monitors important parameters of Exchange 2010 servers, Exchange 2007 servers and Exchange 2003 servers. The tool fetches comprehensive data about the servers and exchange servers details, presents them as visually elegant graphs and reports. The relevant data, graphs and reports are displayed in a desktop tool dashboard providing wealth of information about the realtime functioning of the MS Exchange servers.

The "ManageEngine Exchange Health Monitor" tool can monitor Exchange 2010, Exchange 2007 and Exchange 2003 versions. The best part is that the tool is made available, absolutely FREE of cost.

Exchange server Monitoring with ManageEngine Exchange Health Monitor Free Tool

ManageEngine Exchange Health Monitor tool provides an exclusive Exchange 2010, Exchange 2007 and Exchange 2003 server monitoring, as a desktop tool dashboard. It shows the actual resource utilization of the Exchange servers along with exhaustive information about the Mail Queue details of the Exchange Server . The dashboard quickly shows Mail Box parameters like Queue size , User Count, Logons, Client Access Server Details and Transport Details like Delivery Queues and POP / IMAP performance counters and how much CPU and memory are allocated to / consumed by Exchange Server etc., in an intuitive bar graph.

Using the tool, administrator can also set threshold values for CPU and memory usage,Disk usage and individual mail queue sizes , like critical and warning thresholds. If at all, the Exchange servers behave abnormally and the CPU and memory utilization is in higher side or disk space is not enough or queue size dangerously crosses threshold limits then alert signals will be shown in the dashboard Tool. The IT administrator can then effortlessly manage instances to prevent server crash, or bring back the servers to normal functioning state, or manage queue sizes so that important mails are not blocked or dropped and there by ensures meeting the specified SLA.

The ManageEngine Free Exchange Health Monitor tool serves as a smart desktop tool that continuously monitors Exchange 2010 servers, Exchange 2007 servers and Exchange 2003 servers, giving real-time monitoring. The tool helps to track Exchange server's health and ensures your mail server run smoothly.

Features

Exchange Monitoring Free Tool

ManageEngine Health Monitor helps the Administrators to monitor following parameters.

- Server Health Details
- Memory Details
- MailBox Details
- MailBox/RPC Details
- Client Access Server Details
- Transport Details
- POP/IMAP Details

Server Health Details

Administrator can view the following parameters of General Information.

Exchange Version

The version of the Exchange Server.

CPU Usage

Percentage of CPU cycles in use to the available CPU.

Memory Used

This is the memory currently in use as a percentage of total available memory.

Disk Space

Disk Space utilized as a percentage of total available disk space.

Disk Read Rate

Average number of bytes read from the disk. This parameter is expressed in megabytes / sec.

Disk Write Rate

Average number of bytes wrote to the disk. This parameter is expressed in megabytes/sec.

Memory Details

The important memory details of the server can be monitored are

Transition Pages Repurposed/sec

Indicates system cache pressure. Should be less than 100 on average.

Page Reads per sec

Indicates data must be read from disk instead of memory. Should be less than 100 on average.

Pages per sec

Shows the rate at which pages are written to or read from disk to resolve hard page faults. Should be below 1000 on average.

Pages input/sec

Shows the rate at which pages are read from disk to resolve hard page faults. Should be below 1,000 on average.

Pages Output/sec

Shows the rate at which pages are written to disk to free space in physical memory. Should be below 1,000 on average.

MailBox Details

The tool displays the following mailbox details of the Exchange.

Messages Sent/sec

Shows the Messages Sent/sec, this is the rate at which messages are being sent every second.

User Count

User Count is the actual count of users (not connections) that are currently using the Exchange.

Active User Count

Active User Count details shows the number of user connections that have shown activity in the last 10 minutes. Value are in numbers.

Send Queue Size

Send Queue Size is the number of messages in the mailbox store's send queue to be delivered.

Receive Queue Size

Receive Queue Size is the number of messages in the mailbox store's receive queue state.

Active Connection Count

Active Connection Count indicates the number of connections to the Exchange store that have shown activity in the last 10 minutes.

Active Client Logons

Active Client Logons indicates the number of clients that performed any action within the last 10 minute time interval.

MailBox/RPC Details

Administrator can view the following parameters of Mailbox/RPC Details for Exchange 2010

RPC requests

The overall RPC requests currently executing within the information store process. Should be below 70 at all times.

Client RPC failed Server too busy/sec

Shows the client reported rate of failed RPC due to the server too busy ROC error. Should be 0 at all times.

RPC Operations/Sec

Indicates the current number of RPC operations per second. Should basely correspond to historical baselines.

Mailbox Messages Queued for submission

Shows the current number of submitted messages not yet processed by the transport layer. Should be less than 50 at all times.

Public Messages Queued for submission

Shows the current number of submitted messages not yet processed transport. Should be less than 20 at all times.

Client Access Server Details

Administrator can view the following parameters of Mailbox/RPC Details for Exchange 2007 and Exchange 2010

OWA/Average Response time

Shows the average time that elapsed between the beginning and end of OEH and ASPX request.

OWA/Average Search time

Shows the average time that elapsed while waiting for the search to complete. Should be less than 31000 ms at all times.

Transport Details

Administrator can view the following parameters of Transport Details for Exchange 2007 and Exchange 2010

Active Mailbox Delivery Queue

Shows the number of messages in the active mailbox queues. The permissible value is 250 at all times.

Retry Mailbox Delivery Queue

Shows the number of messages in a retry state attempting to deliver mail to remote mailbox. Should be less than 100 at all times.

Active Remote Delivery Queue

Shows the number of messages in the active remote delivery queues. Should be less than 250 at all times.

Retry Remote Delivery Queue

Shows the number of messages in a retry state in remote delivery queues. Should not exceed 100.

Administrator can view the following Exchange 2010 parameters if the tool makes connection with 2010 server.

Aggregate Queue length

Shows the number of messages queued for delivery in all queues. Should be less than 3000 and not more than 5000.

Submission Queue Length

Shows the number of messages in the submission Queue. Should not exceed 100.

Active Non-Smtp Delivery Queue Length

Shows the number of messages in active state in non-smtp delivery queues. Should be less than 250 at all times.

Retry non-smtp Delivery Queue Length

Shows the number of messages in retry state in non-smtp gateway delivery queues. Should not exceed 100.

Unreachable Queue Length

Shows the number of messages in unreachable queues. should not exceed 100.

Largest Delivery Queue Length

Shows the number of messages in largest delivery queues. Should be less than 200.
POP/IMAP Details

Administrator can view the following details for Exchange 2007 and Exchange 2010

POP3 Current Connections

Shows the current number of POP3 Connections

IMAP4 Current Connections

Shows the current number of IMAP4 Connections

Documents

Free Exchange Health Monitoring

The manageengine free Exchange Health tool helps an administrator to monitor exchange 2010, 2007 and 2003 servers.

The tool makes connection with MSExchange Server and generates easy to visualize desktop graphs and reports.

Getting Started

Start the tool, this will take you to the Settings window where host details can be provided to connect to the Exchange Server.

Server Setting

The exchange tool initially loads to the settings panel. In the Settings panel, fill the following details

- Server Name
- Domain Name
- User Name
- Password

Click on "Connect" button or press "Enter" to connect to the server. Click the "Cancel" button to go the previous page.

During the restart of the tool, the tool automatically connects to the server and populates the performance counters.

Administrator can view the following details

Server Details View

Administrator can view server resource details like CPU Utilization, Memory utilization, Disk storage details and Exchange version.

Operating System Memory Details

Administrator can view operating system parameters like Transition pages repurposed per second, Page reads per second, Pages per second and more…

Mailbox Details

Tool populates mailbox parameters like Messages sent per second, User count, Active user count, Send queue size, Receive queue size and more…

Mailbox/RPC Details

Administrator can view Mailbox RPC parameters like RPC requests, RPC failed/server too busy, RPC operations per second for Exchange 2010 server

Client Access/Server Details

In Exchange 2007 and Exchange 2010 server, the administrator can view client access parameters like Outlook Web Access/Average Response time and Outlook Web Access/ Average Search Time.

Transport Details

Administrator can view important transport details like Active mailbox delivery queue, Retry Mailbox Delivery queue, Active Remote Delivery Queue, Retry Remote Delivery Queue for 2007 server and aggregate queue length,submission queue length and more parameters for 2010 server

POP/IMAP Details

Exchange Administrator can view POP, IMAP current connections.

Configure Threshold

Administrator can also configure threshold value for Warning Threshold and for Critical Threshold. This will generate alerts in the desktop tool dashboard when ever server crosses threshold limits.

There are some common threshold value for the following parameters,

- CPU Usage
- Memory Used
- Disk Space
- Send Queue Size
- Receive Queue Size
- Active Mailbox Delivery Queue
- Retry Mailbox Delivery Queue
- Active Remote Delivery Queue
- Retry Remote Delivery Queue

Refresh Interval

MS Exchange Server will be polled every few minutes based on the configuration given in the refresh interval.

Refresh Immediately

To Know the server current status use the Refresh icon in the top right corner. The administrator should clicks on the refresh icon, so the tool will connect to server and gets the current value of parameters and populates in detail view panel.
Retaining Settings

The following details are saved in the disk, so that the parameters can be reused when the tool is restarted. During the restart of the tool, the tool automatically connects to the server and populates the performance counters.

Connection Information

- Server Name
- Domain Name
- User Name
- Password (Encrypted using Triple DES) encryption used

Warning and critical values for exchange parameters

- CPU threshold values
- Memory threshold values
- Disk usage threshold values
- Send Queue threshold values
- Receive Queue threshold values
- Local Queue threshold values
- Local Retry Queue threshold values
- Remote Queue threshold values
- Remote Retry Queue threshold values
- And Refresh Interval

For more information and support, contact us at free-tools@manageengine.com

System Requirements

Hardware Requirements

1. Atleast 3 MB of Disk space before installation
2. Less than 10 MB of Disk space after installation
3. Atleast 512 MB RAM.

Software Requirements

1. Microsoft Windows Operating Systems eg. Windows XP, Windows Vista, Windows 7 & Windows 2003.
2. Microsoft .NET Framework 2.0/3.0/3.5 Note: If you do not have Microsoft .NET Framework, please download the required version from
   - http://www.microsoft.com/downloads/details.aspx?FamilyID=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en (Microsoft .NET Framework 2.0)
   - http://www.microsoft.com/downloads/details.aspx?familyid=10CC340B-F857-4A14-83F5-25634C3BF043&displaylang=en (Microsoft .NET Framework 3.0)

If you need to monitor more Mail Exchange Servers in your environment, please use our OpManager product from our website http://www.manageengine.com/products/opmanager/download.html.

FAQ

Unable to connect to the MS Exchange server?

Please check the server is running properly and check the server is behind firewall and also port 445 and 135 is accessible. if the server is behind firewall and if not accessible, then open the port by configuring firewall.

I have downloaded the tool but it is not running. What should I do?

Please check Dot Net platform is installed in your system. Run the utility available in the bin directory, Check_Dot_Net_version.exe, It will tell you the Dot Net version. If Dot Net platform is not available in the system, download the platform. Please see the software requirements page for downloading the platform.

MS Exchange Server running correctly, but the tool shows "Unable to Connect". What should I do?

Please check the following steps.

- From the Start menu, click Run, and then enter WBEMtest.
- The WBEMtest.exe dialog appears. Click Connect.
- Provide "\\servername\root\cimv2" in the first textbox.
- Provide "domainname\username" in the user textbox under credentials.
- Provide password in the password textbox under credentials.
- Click Connect.

If you are getting (No error) the Windows Management Instrumentation Tester Dialog with the Enum Classes, Enum Instances, Open Namespace.etc., buttons enabled, then you can able to connect to the server. If you are getting error message then check your credentials and also ensure that wmi and RPC services are running properly in remote machine.

Can I monitor more than one server simultaneously?

To monitor more servers, please visit http://www.manageengine.com/network-monitoring/download.html or send mail to free-tools@manageengine.com

Contact Us

For more information, please send a mail to free-tools@manageengine.com.

To monitor more than 2 servers you can use our ManageEngine OpManager product. This can be downloaded from

http://www.manageengine.com/products/opmanager/download.html Your queries can also be posted under the topic "FreeTools" in Forums.