Quest® MessageStats® 7.8.1

Quick Start Guide

MessageStats Quick Start Guide
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Contents

About This Guide

This document can assist you in becoming familiar with MessageStats. The Quick Start Guide contains the information required to install and start using MessageStats. It is intended for network administrators, Exchange administrators, consultants, analysts, and other IT professionals evaluating the product.

The Quick Start Guide provides the minimum hardware and software requirements, and the permissions needed to install MessageStats. The guide also explains the Exchange rights and permissions that MessageStats service accounts and task credentials need to gather information from the Exchange servers.

Other Sources of Information

The MessageStats documentation suite includes the following documents and online help:

- *Release Notes* for minimum installation requirements and known issues.

- *MessageStats Upgrade Guide* for information about upgrading to a new release of MessageStats, or moving and upgrading the different MessageStats components.

- *MessageStats Administrator Guide* for MessageStats configuration using the MMC-based console and procedural information.

- *MessageStats Reports User Guide* for information about using the MessageStats Reports web-based interface and listings of the available reports

- *MessageStats Deployment Guide* for information about the product architecture and information useful in planning your deployment.

- Online Help for context sensitive help while you are using the MessageStats MMC console.

- Reports Online Help for help using the MessageStats Reports web-based interface.

Understanding MessageStats

MessageStats is a data collection and reporting application that facilitates the gathering and analysis of usage statistics for a number of messaging environments. The core MessageStats product focuses on Microsoft$^{®}$ Exchange messaging systems.

MessageStats collects and processes Exchange tracking logs and Exchange object usage information from selected Exchange organizations, administrative groups, routing groups, Exchange servers, or user-defined regions. A dynamic task-based gathering engine allows the collection of information to be intelligently scheduled, minimizing the impact to your messaging network.

MessageStats stores the information in a SQL database, which provides content for the web-based reports. MessageStats Reports provide comprehensive information including critical metrics for resource usage, capacity monitoring and planning, and migration preparedness. Reports also provide detailed information for monitoring mailbox content and mail flow, allowing you to track capacity and improper usage.

With the extensive information that MessageStats gathers, MessageStats provides an extremely flexible web-based reporting engine that allows all interested individuals to view messaging information and to package the information in many different ways. All reports are available by accessing the web site directly, by signing up for automated subscriptions that can be sent to any email address, or through export to a number of supported formats.

There are two primary groups of MessageStats users:

- System administrators who can configure servers, create regions, schedule automated/recurring gathering tasks, and import tracking log data.
- Report consumers or system administrators who use the collected data to create and view reports using the MessageStats web-based reports to analyze Exchange usage.

The following graphic illustrates the MessageStats workflow:
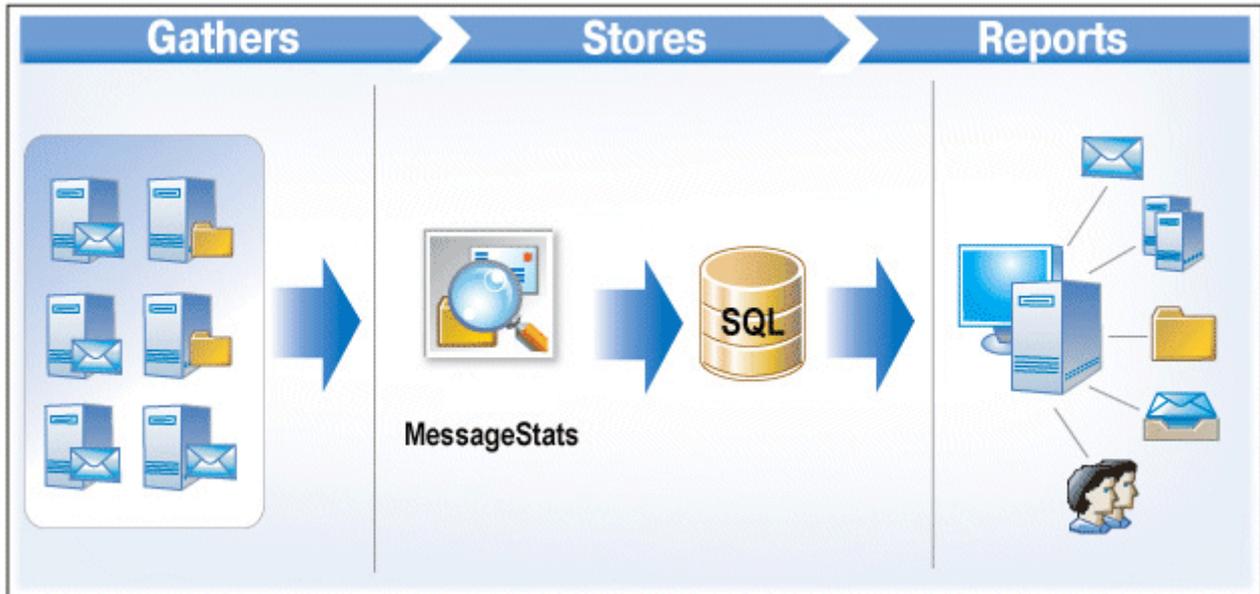
Figure 1. MessageStats workflow.

MessageStats is designed for large Exchange enterprises and seamlessly handles native Exchange 2010, Exchange 2013, Exchange 2016, and Exchange 2019 server versions, as well as mixed mode environments.

MessageStats provides an intelligent multi-threaded approach to ensure that you can copy and process large volumes of data quickly and reliably. MessageStats deployment requires no agents on your Exchange servers, intelligently minimizing network traffic on your production Exchange organization.

MessageStats provides the ability to scale out gatherings through the following functions:

- **Scheduling**. By scheduling activities to occur during off-periods, you can ensure that MessageStats Servers are not interrupted while doing time-critical gatherings. Thus MessageStats Servers would have the available resources to meet the gathering and processing requirements of the particular task.
- **Distributing MessageStats Components**. By installing the MessageStats database, MessageStats reports, and the MessageStats Server (including the console) on separate servers, you can balance resources. You can install one or more components on a single server, depending on the size and topology of your enterprise.
- **Using additional task execution servers.** Through the Create Task wizard, you can set tasks to execute on remote Task Execution Servers in any location. Task Execution Servers are servers on which the task processors are installed.

MessageStats Key Features

MessageStats provides the support for large Microsoft Exchange enterprise implementations through the following features:

Table 1. MessageStats key features.

Feature	Description
Auto-discovers Exchange environments	MessageStats analyzes your Exchange organization and auto-discovers the routing groups, administrative groups, and versions of your servers.
Supports multiple Exchange organizations	MessageStats allows you to view and report on multiple Exchange organizations simultaneously with your production environment. **NOTE:** In a scenario where multiple Exchange organizations overlay multiple domains, you may need a two-way trust between the domain in which MessageStats resides, and the domains on each Exchange organization to which MessageStats is associated. These trusts depend on the credentials that are used by the MessageStats gathering processes.
Handles diverse topologies	MessageStats seamlessly handles the details associated with tracking log file locations, database storage locations, and administrative group topologies. This allows you to report across native or mixed mode environments for Exchange 2010 and later. MessageStats also provides the ability to specify an alternate location for the Exchange databases, including alternative disk drives, SAN, and NAS devices.
Allows customized locations for archived tracking logs	MessageStats lets you specify file server share locations using UNC paths. This allows you to gather from archived tracking logs that no longer reside on the original Exchange servers that generated the logs. MessageStats also supports scenarios in which the tracking log directory has been moved from the default location on an Exchange server.
Supports layered security contexts	MessageStats allows you to specify security credentials that are used to gather data from each target server. As a result, MessageStats does not require you to maintain a single account that has rights across all of your Exchange servers. You can specify different credentials for tasks that gather data from different servers or groups.
Shows presence status in reports	In a report that displays mailbox-specific information, MessageStats can show the presence status information for the mailbox owner. In addition to presence status, the full set of Microsoft Office Communicator functionality is available directly from the MessageStats Reports.
Reports on hidden mailboxes and on distribution group membership	MessageStats can optionally report on hidden mailboxes and on distribution group membership on relevant reports. For information about setting the options to include this information in reports, see the *MessageStats Administrator Guide.*
Supports customized gathering schedules	MessageStats allows administrators to tune the number of times that mailbox, distribution group, and public folder data is gathered, to reduce network impact.
Provides for distributed data gatherers	You can install task processors at several locations to provide vertical and horizontal scaling.

Supported Environments

The following table describes the environments that MessageStats supports:

Table 2. Supported Exchange Environments.

Component	Supported Environment
Microsoft Exchange version	• Exchange Online • Exchange 2019 • Exchange 2016 • Exchange 2013 • Exchange 2010 Must have tracking logs enabled and the tracking log folder shared.

You cannot install MessageStats on a domain controller or on an Exchange server.

To gather information from other environments, such as Lync and Skype for Business server, Lotus and IBM Notes, OWA, Microsoft ActiveSync, Exchange Online, and Quest Archive Manager, you must install the appropriate report pack. All the available MessageStats report packs are listed respectively under Reports pack folder in the installation directory.

Sources of Exchange Information

MessageStats gathers two types of Exchange information:

Table 3. MessageStats Sources of Information.

Type	Description
Tracking logs	Log files generated by Microsoft Exchange that track message-related events occurring on or between Exchange servers.
Exchange Object information	Exchange objects that are provided by an Exchange server. These objects include: • Mailbox and user information • Mailbox-enabled objects • Mail-enabled groups in Active Directory • Simple Mail Transfer Protocol (SMTP) domains and address templates for SMTP • Internal Namespaces • Public Folders • Mail Contacts

The information processed from the tracking logs and the Exchange objects provides information about the flow and volume of email over user-defined periods. Report consumers can then view or create a report using MessageStats Reports through a web interface.

MessageStats Architecture

MessageStats is comprised of three main components, and three secondary components, as described in the following sections.

You can install all MessageStats components on a single computer, or you can distribute components on multiple computers, for the purpose of spreading the processing load and locating the gathering function closer to the data sources.

MessageStats Server

MessageStats collects and processes Microsoft Exchange tracking logs and Exchange object usage information from Active Directory, and from a list of Exchange servers, administrative groups, routing groups, and user-defined regions.

The MessageStats Server consists of the following three components:

- **MMC client console:** The MessageStats console is a Microsoft Management Console (MMC) snap-in that is used administer MessageStats.

- **MessageStats Scheduler service**: In a distributed gathering model, the MessageStats Scheduler Service coordinates all the gathering servers (Task Execution Servers). There can only be one MessageStats Scheduler Service per MessageStats database.

- **Task Execution Server**: A server on which you install the task processors is called a Task Execution Server. To optimize information gathering, you can deploy multiple Task Execution Servers across your organization.

The MessageStats Server allows you to:

- Connect to and enumerate the Exchange organizations.

- Select the administrative groups, routing groups, regions, or servers that you want to include in your gatherings.

- Create and schedule gathering tasks for the automated gathering of tracking logs and mailbox statistics.

MessageStats Database

The MessageStats Database is an SQL database that is the main repository for the gathered information. When the database is properly tuned, information can be efficiently stored, and MessageStats Reports can quickly access the required data.

To manage your MessageStats Database, you can use the Database Management functionality from the console to selectively delete obsolete data and to tune the database for optimal performance.

MessageStats Reports

MessageStats Reports allow you to view usage statistics through a collection of dynamic, preconfigured reports. You can view the data within one Exchange organization or across multiple Exchange organizations. You can also change relevant report parameters interactively using on-page quick filters. Using the custom reports feature, you can create and save custom queries for later use.

In addition, you can create report subscriptions so that MessageStats can automatically create reports and notify a recipient list on a regular basis that specific reports are available.

For the current list of MessageStats Reports, see the *MessageStats Reports User Guide*. Several reports have additional variations, such as default grouping order. Within each variation you can change the filter, group, and sort criteria for each of these reports.

Table 4. Different types of reports available for Exchange Online and Exchange Server.

Category	S. No	Report Name	Exchange Online	Exchange Server
MessageStats Reports	1	Corporate Exchange At A Glance	Yes	Yes
Executive Summaries	2	Server Traffic Usage	No	Yes
	3	Recipient Traffic Usage	Yes	Yes
	4	Financials	No	Yes
	5	Capacity	No	Yes
	6	Service Delivery	No	Yes

Table 4. Different types of reports available for Exchange Online and Exchange Server.

Category	S. No	Report Name	Exchange Online	Exchange Server
Organizations	7	Departmental Mailbox Sizes	Yes	Yes
	8	Departmental Mailbox Activity	Yes	Yes
	9	Organization Traffic	Yes	Yes
	10	Subject Sent Audits	No	Yes
	11	Subject Received Audits	No	Yes
	12	Region Activity Summary	No	Yes
	13	Region Internal vs. External Activity	No	Yes
	14	Organizational Storage	No	Yes
Mailboxes	15	Mailbox Sizes	Yes	Yes
	16	Mailbox Quotas	Yes	Yes
	17	Archive Mailbox Sizes	No	Yes
	18	Top Senders and Receivers By Messages	Yes	Yes
	19	Top Senders and Receivers By Volume	Yes	Yes
	20	Top Internet Senders and Receivers By Messages	Yes	Yes
	21	Top Internet Senders and Receivers By Volume	Yes	Yes
	22	Mailbox Activity Summary	Yes	Yes
	23	Mailbox Activity Internal vs. External	Yes	Yes
	24	Mailbox Profile	No	Yes
	25	Mailbox Sent Audits	No	Yes
	26	Mailbox Received Audits	No	Yes
	27	Mailbox Message Sizes Sent Distribution	Yes	Yes
	28	Mailbox Message Sizes Received Distribution	Yes	Yes
	29	Mailbox Delegates	Yes	Yes
	30	Mailbox Security	Yes	Yes
Mail Contacts	31	Top Mail Contacts by Messages	Yes	Yes
	32	Top Mail Contacts by Volume	Yes	Yes
	33	Top Mail Contact Users by Messages	Yes	Yes
	34	Top Mail Contact Users by Volume	Yes	Yes
	35	Contacts	Yes	No

Table 4. Different types of reports available for Exchange Online and Exchange Server.

Category	S. No	Report Name	Exchange Online	Exchange Server
Distribution Groups	36	Inactive Distribution Groups By Distribution Group	Yes	Yes
	37	Group Access By Distribution Group	Yes	Yes
	38	Top Distribution Groups By Messages	Yes	Yes
	39	Top Distribution Groups By Volume	Yes	Yes
	40	Top Distribution Group Users By Messages	Yes	Yes
	41	Top Distribution Group Users By Volume	Yes	Yes
	42	Groups	Yes	No
	43	Groups Members	Yes	No
Internet	44	Top Internet Domains By Message	Yes	Yes
	45	Top Internet Domains By Volume	Yes	Yes
	46	Top Internet Domain Users By Message	Yes	Yes
	47	Top Internet Domain Users By Volume	Yes	Yes
	48	Domain Inbound Audits	No	Yes
	49	Domain Outbound Audits	No	Yes
	50	Internal Namespace Distribution	No	Yes

Table 4. Different types of reports available for Exchange Online and Exchange Server.

Category	S. No	Report Name	Exchange Online	Exchange Server
Inventory	51	Deleted Mailboxes	Yes	Yes
	52	Mailbox Growth	Yes	Yes
	53	Mailbox Duplicate Names	Yes	Yes
	54	Disabled Accounts	Yes	Yes
	55	Inactive Accounts	Yes	Yes
	56	Mailbox Owners	Yes	Yes
	57	Mail Contacts	Yes	Yes
	58	Distribution Groups	Yes	Yes
	59	Distribution Group Membership	Yes	Yes
	60	Chargeback By Mailbox Sizes	No	Yes
	61	Chargeback By Senders	No	Yes
	62	Chargeback By Internet Senders	No	Yes
	63	Primary Mailboxes	No	Yes
	64	Archive Mailboxes	No	Yes
	65	Public Folder Mailboxes	No	Yes
	66	Primary Mailboxes Exceeding Quotas	No	Yes
	67	Archive Mailboxes Exceeding Quotas	No	Yes
	68	Summary	No	Yes
	69	DAGs	No	Yes
	70	Servers	No	Yes
	71	SMTP Virtual Servers	No	Yes
	72	Connectors	No	Yes
	73	Databases	No	Yes
	74	Orphaned Mailboxes	No	Yes
	75	Public Folders	No	Yes
	76	Empty Public Folders	No	Yes
	77	Public Folder Owners	No	Yes
Server	78	Server Activity Summary	No	Yes
	79	Server Internal vs. External Activity	No	Yes
	80	Server System Messages	No	Yes
	81	Server Advanced Details	No	Yes
	82	Mail Traffic Server To Server	No	Yes
	83	Mail Traffic Region To Region	No	Yes
	84	Delivery Times By Server	No	Yes
	85	Message Delivery Audit	No	Yes
	86	Sent Distribution of Message Sizes	No	Yes
	87	Received Distribution of Message Sizes	No	Yes
	88	Server Uptime	No	Yes

Table 4. Different types of reports available for Exchange Online and Exchange Server.

Category	S. No	Report Name	Exchange Online	Exchange Server
Content Analysis	89	Mailbox Content - Item Count by Folder	No	Yes
	90	Mailbox Content - Item Count by Class	No	Yes
	91	Mailbox Content - Audit Items by Subject Keyword	No	Yes
	92	Mailbox Content - Audit Items by Body Keyword	No	Yes
	93	Mailbox Content - Audit Items by Size	No	Yes
	94	Mailbox Content - Audit Items by Number of Recipients	No	Yes
	95	Mailbox Content - Audit Items by Date	No	Yes
	96	Public Folder Content - Item Count by Class	No	Yes
	97	Public Folder Content - Audit Items by Subject Keyword	No	Yes
	98	Public Folder Content - Audit Items by Body Keyword	No	Yes
	99	Public Folder Content - Audit Items by Size	No	Yes
	100	Public Folder Content - Audit Items by Date	No	Yes
	101	Mailbox Attachments - Attachment Count by File Extension	No	Yes
	102	Mailbox Attachments - Attachment Count by File Name Keyword	No	Yes
	103	Mailbox Attachments - Attachment Count by Size	No	Yes
	104	Mailbox Attachments - Audit Attachments by File Extension	No	Yes
	105	Mailbox Attachments - Audit Attachments by File Name Keyword	No	Yes
	106	Public Folder Attachments - Attachment Count by File Extension	No	Yes
	107	Public Folder Attachments - Attachment Count by File Name Keyword	No	Yes
	108	Public Folder Attachments - Attachment Count by Size	No	Yes
	109	Public Folder Attachments - Audit Attachments by File Extension	No	Yes
	110	Public Folder Attachments - Audit Attachments by File Name Keyword	No	Yes

Table 4. Different types of reports available for Exchange Online and Exchange Server.

Category	S. No	Report Name	Exchange Online	Exchange Server
Public Folder	111	Public Folder Root Summary	No	Yes
	112	Public Folder Details	No	Yes
	113	Public Folder Permissions	No	Yes
	114	Public Folder Replicas	No	Yes
Storage	115	Storage - Servers Summary	No	Yes
	116	Storage - Databases Summary	No	Yes
	117	Storage - Servers Details	No	Yes
	118	Storage - Database Copy Distribution	No	Yes
Users	119	Users	Yes	No
	120	Deleted Users	Yes	No

Requirements for Installing the MessageStats Components

Before you install MessageStats, you should assess your gathering and processing requirements. You can install all MessageStats components on a single server, but you may decide to install MessageStats components on separate servers to improve database and reporting performance.

Prerequisites differ among MessageStats components. The following tables list the requirements that must be met on the server on which you want to install a MessageStats component. If you intend to install more than one component on a server, the server must meet the requirements for all of the installed components.

The following sections describe the specific requirements for each MessageStats component:

> MessageStats Database Minimum Requirements

> MessageStats Reports Minimum Requirements

> MessageStats Server Minimum Requirements

For information about the rights and permissions that are needed to install and operate MessageStats, see Rights and Permissions Required by MessageStats on page 13.

With the exception of the MessageStats Database, you cannot directly install MessageStats components on remote servers. The installation files must be copied to the server on which you are installing the components, and the installer must run on that server.

For the Microsoft Exchange-specific requirements, see Prerequisites for Gathering from Microsoft Exchange on page 18.

MessageStats Database Minimum Requirements

The server on which you install the MessageStats Database must meet the following hardware requirements:

Table 1. Database minimum hardware requirements.

Type	Minimum
Processor	Pentium 4 running at a minimum speed of 2.4 GHz
RAM	8 GB

Table 1. Database minimum hardware requirements.

Type	Minimum
Disk	The space requirement varies depending on the size of the database. If you are upgrading an existing database, the free disk must be larger than for a new database installation. Space requirements also depend on the amount of information you intend to write to the database and the length of time you intend to retain the records.
	For help in assessing the amount of space that will be sufficient for your implementation, contact Support to acquire a database size estimation tool.
	To tune your MessageStats database and maximize performance, contact Professional Services through your sales representative.
Other	Pointing device must be installed on your server to access all MessageStats Reports features.

The server on which you install the MessageStats Database must meet the following software requirements:

Table 2. Database minimum software requirements

Type	Minimum
Operating Systems	Windows Server 2012 and later
	Full installation on Windows 10 is supported for evaluation purposes only.
	In a production environment, you can install only the MessageStats MMC client console on Windows 10.
Database Server	SQL Server 2012 or later.
	MessageStats supports SQL Server Express for test and evaluation scenarios only.
	SQL Server Agent must be installed and running to use the Database Management tasks: database reindexing, defragmenting, or database aging. SQL Express does not include the SQL Server Agent. Database Maintenance tasks are not available when running on SQL Express.
	The MessageStats database requires that Microsoft OLE DB Driver for SQL Server"(MSOLEDBSQL) be installed when you are installing the database through the MessageStats installer. You can find the download here: https://www.microsoft.com/en-us/download/details.aspx?id=56730.
	NOTE: When selecting a SQL collation, ensure the collation option that you select is Case Insensitive (CI).
	For SQL database connectivity, you must install the new version of Microsoft OLE DB Driver for SQL Server (MSOLEDBSQL). You can find the download here: https://www.microsoft.com/en-us/download/details.aspx?id=56730.

MessageStats Reports Minimum Requirements

The server on which you install the MessageStats Reports must meet the following hardware and software requirements:

Table 3. Reports server minimum requirements.

Type	Minimum
Hardware Requirements	
Processor	Pentium 4, running at a minimum speed of 2.4 GHz
RAM	8 GB

Table 3. Reports server minimum requirements.

Type	Minimum
Disk	60 MB of free disk space for MessageStats Reports. The space should exist on a local disk drive rather than a network drive.
Other	Monitor capable of supporting a resolution 1024 by 768
	Pointing device must be installed on your server to access all MessageStats features.
Software Requirements	
Operating Systems	Windows Server 2012 or later
	Full installation on Windows 7 is supported for evaluation purposes only.
IIS server	IIS 8.0 or later
	Also certain IIS roles services must be enabled. See Setting IIS Role Services for IIS on page 16 for more information.
SQL connectivity	For SQL database connectivity, you must install the new version of Microsoft OLE DB Driver for SQL Server (MSOLEDBSQL). You can find the download here: https://www.microsoft.com/en-us/download/details.aspx?id=56730.
Browsers	Internet Explorer 10.0 or later
	Chrome
	Firefox
	Microsoft Edge
.NET	Microsoft .NET Framework 4.7.2. For information about resolving common ASP.NET configuration problems, see Appendix A: IIS Configuration Issues on page 39.

MessageStats Server Minimum Requirements

The MessageStats Server consists of the following three components:

- MMC client console
- MessageStats Scheduler Service
- Task processors

Minimum hardware requirements are given for the server and for each component, in the following table.

Table 4. MessageStats Server component hardware minimum requirements.

Type	Minimum
Hardware Requirements for any or all MessageStats Server components	
Processor	Pentium 4, running at a minimum speed of 2.4 GHz
RAM	8 GB
Disk	90 MB of free disk space
SQL connectivity	For SQL database connectivity, you must install the new version of Microsoft OLE DB Driver for SQL Server (MSOLEDBSQL). You can find the download here: https://www.microsoft.com/en-us/download/details.aspx?id=56730.
Other	Sufficient space for the temporary MessageStats caches, application logs, and task documents. The size of the cache depends on the number of servers, the number of logs on each server, and the size of each log. The space should exist on a local drive rather than a network drive.
	Monitor capable of supporting a resolution 1024 by 768
	Pointing device must be installed on your server to access all MessageStats features.

The minimum software requirements are listed for each of the MessageStats server components. If you install more than one component on the same computer, you must meet the requirements for each component.

Table 5. Software requirements for MessageStats Server components.

Component	Minimum
Operating Systems	Windows Server 2012 or later
	Full installation on Windows 10 is supported for evaluation purposes only.
	NOTE: In a production environment, you can install only the MessageStats client console on Windows 10.
Task Processor Specific Requirements	
MAPI	For Exchange 2010 or 2013 you can install the newest Microsoft MAPI & CDO software download (http://www.microsoft.com/en-us/download/details.aspx?id=39045) on the Task Execution Server.
	• For Exchange 2010, ensure that you are using MAPI & CDO version 6.5.8211.0 or later.
	• For Exchange 2013, ensure that you are using MAPI & CDO version 6.5.8320.0 (released 5/17/2013). This version of MAPI & CDO implements RPC over HTTPS (Outlook Anywhere) which requires that the proxy (CAS) server have an SSL certificate on it that is trusted by the Task Execution Server.
	Configuring an SSL certificate on your Exchange 2013 CAS (proxy) server is part of the normal setup that is required for the Outlook 2013 client. For more information, see the Microsoft Exchange 2013 documentation for configuring mail flow and client access.
	If you already have a version of the MAPI Download installed, you must remove it before installing a new version. The Microsoft MAPI installer does not upgrade, nor does it warn you if you try to install MAPI & CDO without removing the previous version.
.Net	Microsoft .Net Framework 4.7.2
	Can be downloaded from https://dotnet.microsoft.com/download/dotnet-framework/net472
Microsoft PowerShell 2.0	For Exchange 2010, 2013, 2016, and 2019, you must also install Microsoft PowerShell 2.0.
	You can download the Windows Management Framework (which includes PowerShell 2.0) from http://support.microsoft.com/kb/968929.
Report Client Specific Requirements	
Microsoft Lync and Outlook	To see the presence status information in Exchange mailbox-specific reports, the person that is viewing the reports on the web site must have Lync Communicator 2010 or later and Outlook installed and running on their local computer.
	For 64-bit computers, the 64-bit version of Microsoft Office 2010 or later must be installed. If a 32-bit version of Office, such as Office 2010 (x86) is installed, the presence icons will not appear since the 64-bit version of the required Name.dll will not be available.
	NOTE: The Exchange organization must have Lync Server or later configured and running.

Rights and Permissions Required by MessageStats

The account that you use to install MessageStats should be the account that you use as the MessageStats service account. This account must have distinct rights and permissions to install MessageStats, to gather information, and to render reports. These requirements are described in the following sections:

Installation Rights

Operational Rights

MessageStats Reports Security Settings

Installation Rights

The account you use to install MessageStats must have the following rights and permissions:

- Membership in the local Administrator group

Database Server Permissions

To install the MessageStats Database, the MessageStats service account must have database creation rights on the SQL Server. Specifically, the following SQL security roles must be assigned to the account used to install the database:

- dbcreator

- public

- securityadmin

For information about the permissions that are required for different operational activities, see Operational Rights on page 15.

MessageStats roles and permissions created during installation

During installation, MessageStats automatically performs the following actions:

- Adds the service account to the local administrator group.

- Grants the following rights to the service account on the local MessageStats server:

  - Act as part of the operating system

  - Logon as a batch job

  - Replace a process level token

The MessageStats installer automatically creates the following roles and permissions on the server in which the specific component is installed:

Table 6. Permissions and roles created during installation.

Installed Component	Item	Name
MessageStats Database Task Processor MessageStats Scheduler service MessageStats MMC console	Two local groups	MessageStats Admin MessageStats Web **NOTE:** For a server on which only the task processors are installed (a Task Execution Server), only the MessageStats Admin local group is created. **MessageStats Admin group rights** The MessageStats Admin local group is added to the following server Local Security Policies: • Access this computer from the network • Act as part of operating system • Allow log on locally • Impersonate a client after authentication • Log on as a batch job • Log on as a service • Replace a process level token
MessageStats Reports web site	Three local groups	Web Report Administrators Web Report Authors Web Report Users
MessageStats Database	Two database users (Server Logins) These logins allow database read, write, and security admin rights on the MessageStats database.	MessageStats Admin MessageStats Web
	Two database roles on the SQL server that hosts the MessageStats database	MessageStats_Admin MessageStats_Web

Operational Rights

After installation, the account that runs the MessageStats Scheduler Service requires db_owner rights on the MessageStats database.

To perform database maintenance activities, the account used to run the database maintenance tasks must have rights to re-index and defragment the MessageStats database (such as alter rights, and so on). To use the database management features in a distributed environment, one of the following accounts must have the sysadmin fixed server role on the SQL server that hosts the MessageStats database:

• the MessageStats service account

  - OR -

• the account that is currently logged into the MessageStats console

The account (task credentials) used by MessageStats to gather from Microsoft Exchange servers must have the following permissions:

- Membership in the MessageStats Admin local group on the SQL server that houses the MessageStats Database

MessageStats Reports Security Settings

For all IIS servers that house the MessageStats Reports web server, ensure the following:

Table 7. IIS Required Settings for Reports Server.

Setting	Required Configuration
Authentication mode	**If the MessageStats Database and Reports Are Installed on Same Server** On the MessageStats Reports virtual directory, ensure that Windows Authentication is selected. **If the MessageStats Database and MessageStats Reports Are Installed on Different Servers** For a distributed installation, you typically would specify SQL Server Authentication mode. Windows Authentication mode cannot handle the credential hopping that occurs in a distributed topology unless Kerberos delegation is configured. For instructions about how to deploy a distributed installation using Windows Authentication and Kerberos, see the chapter titled Deployment Recommendations in the *MessageStats Deployment Guide*. **IMPORTANT:** As of release 7.7, Anonymous Authentication must be disabled for the MessageStats Web Reports web site.
ASP.NET	ASP.NET must be installed and set as Allowed to run.
Active Server Pages	Active Server Pages must be set as Allowed to run.
User Account	The account that accesses the web site must have local Administrator rights on the database server. The account must also be in the MessageStats Admin local group (for read and write access) or MessageStats Web local group (for read access only).

Setting IIS Role Services for IIS

To install MessageStats Reports on Windows Server, you must install and enable IIS (Internet Information Services). The Web Server (IIS) role must be installed on Windows Server and the following IIS role services must be enabled:

Table 8. Roles Services Required

IIS 7.0 - Web server (IIS) Role services	Services that must be enabled
Common HTTP Features	• Static Content • Default Document
Application Development	• ASP.NET • ASP • Server Side Includes
Security	• Windows Authentication **IMPORTANT:** Anonymous Authentication must be disabled.

You can install the Web Services (IIS) role using Server Manager and click Manage | Add Roles and Features or through PowerShell cmdlets.

About Permissions to Run Report Subscriptions

Report subscriptions are used to generate specific reports on a regular schedule. When you install MessageStats Reports, the local group called MessageStats Web is created with "Everyone" in its membership. Members of the MessageStats Web local group can create and run report subscriptions.

However, if an account is specified to run a subscription but it is not a member of the Administrators local group or does not have "logon locally" rights on the server on which the subscription task is scheduled to run, the task will not start.

By default, the MessageStats Web group is assigned Read/Write and Execute permissions on the %Windir%\System32\Tasks directory. If you grant the MessageStats Web group "Log on as batch job" permissions as well, accounts that are members of the MessageStats Web group, but do not have local Administrator rights on the server, can run subscription tasks.

Trust Relationships

The following trust relationships must exist:

- Domains in which the tracking logs exist must trust the domain to which the MessageStats service account belongs.
- Domain to which the SQL server belongs must trust the domain to which the MessageStats service account belongs.

Miscellaneous Rights

The following rights and permissions are also required to use specific MessageStats functionality:

Table 9. Service Account Required Permissions.

Action	Rights and Permissions Required
Specify User Context in MessageStats Task Properties	The service account and/or the account used to run the MessageStats console requires the right "Act as a part of the operating system" to impersonate other security contexts.
	Additionally, any user account specified on the Server Properties tab must be a member of the Administrators local group on the MessageStats Server.
	Assigning permissions
	You assign this permission to the Service account through the MessageStats Installer. Windows does not immediately enable this right.
	If you are logged on as the Service account when the privileges are granted, you must log off and on for the changes to take effect.

Prerequisites for Gathering from Microsoft Exchange

Before MessageStats can collect and report information from your Microsoft Exchange network, You must ensure that certain prerequisites are met. These are described in the following sections.

Sharing the tracking log folder

Enabling message tracking

Required rights on Exchange servers

About the Exchange mailbox used for connection

Additional Exchange rights required for specialized gathering tasks

Configuring Lync to include presence in mailbox reports

Sharing the tracking log folder

If you are reporting against on-premise Exchange, you must have at least one server running Exchange with tracking logs enabled and shared. Exchange does not share the directory that contains the tracking logs by default. You must manually share the tracking log folder.

The tracking log folder is located as follows for the following versions of Exchange:

- Exchange 2010
  C:\Program Files\Microsoft\Exchange Server\V14\TransportRoles\Logs\MessageTracking

- Exchange 2013 / 2016 / 2019
  C:\Program Files\Microsoft\Exchange Server\V15\TransportRoles\Logs\MessageTracking

Enabling message tracking

Message tracking must be enabled for the Exchange servers:

- For instructions about how to enable message tracking on an Exchange 2010 server, see the following article: http://technet.microsoft.com/en-us/library/aa997984(v=exchg.141).aspx.

- For instructions about how to enable message tracking on an Exchange 2013 server, see the following article: http://technet.microsoft.com/en-us/library/aa997984.aspx.

- For instructions about how to enable message tracking on an Exchange 2016 or Exchange 2019 server, see the following article: https://technet.microsoft.com/en-us/library/aa997984(v=exchg.160).aspx

Required rights on Exchange servers

The account used to run the MessageStats gathering tasks (task credentials) must have the following rights and permissions on the Exchange servers from which you gather data.

Table 1. Credentials required to gather from different Exchange environments.

Requirements for account credentials to gather from Exchange	
Required to gather from Exchange	• Membership in the following security group: Organization Management - OR - If you do not want the task credentials to be a member of the Exchange Organization Management group, add the task credentials to the following security groups instead: View-Only Organization Management Public Folder Management In some environments, you can encounter gathering errors unless you ensure that one of the security groups has access to the Microsoft Exchange System Objects container in Active Directory for each domain. For instructions, see Granting Access to the Microsoft Exchange System Objects container on page 20. • Membership in the local Administrators group on each Exchange server to gather Exchange database information. If you do not want to add the credentials to the local Administrators group, provide the account certain WMI permissions instead. For details, see Running the Exchange Databases Gathering for Exchange 2010 Without Being a Local Administrator on page 20. • For Exchange 2010, the Exchange server to which you connect to enumerate the organization must have the Client Access (CAS) role. However, MessageStats gathers tracking logs only from Hub and Edge Transport servers. The tracking logs on CAS servers do not include all the information that is needed for reports. • To create the connection to the Exchange CAS (2010) or Mailbox server (2013), MessageStats requires a mailbox to which the account used to run tasks has full access rights. To grant an account full rights on the Exchange 2010 or 2013 mailbox, see Granting Full Rights to an Exchange 2010 or 2013 Mailbox on page 21. • Read rights to the log files in the tracking log share on the Exchange server. • Read rights to the file system directory (local, NAS, or SAN) that contains the Exchange mailbox and public folder databases. • The account used to run a Public Folder gathering task must be a member of the Public Folder Management security group. • For Exchange 2013, the CAS server that is used for connection must be configured to include NTLM among the IIS authentication methods allowed. For example, you could allow NTLM, Basic, and Negotiate by entering the following PowerShell command: Get-OutlookAnywhere | Set-OutlookAnywhere -IISAuthenticationMethods basic,ntlm,negotiate • To run the Server Uptime gathering to populate the Server Uptime report, task credentials must belong to the Performance Monitor Users group. You must also grant the task credentials access to certain registry keys. For instructions, see Granting Access for Server Uptime Information Without Being a Local Administrator on page 21.

Some specialized gathering tasks, such as the Content and Attachment gathering tasks, require additional rights and permissions. For more information about these rights, see Additional Exchange rights required for specialized gathering tasks on page 22.

Granting Access to the Microsoft Exchange System Objects container

One of the security groups to which the task credentials belong must have access to the Microsoft Exchange System Objects container in Active Directory. Use the following procedure to ensure this access. You must perform the procedure for each domain from which information is gathered.

To grant access to the Microsoft Exchange System Objects container

1   Open Active Directory Users and Computers.

2   In the View menu, ensure that **Enhanced Features** is selected.

3   Locate the Microsoft Exchange System Objects container under the domain from which MessageStats will be gathering

4   Right-click and select **Properties**.

5   Select the **Security** tab.

6   Search the **Group or user names** list.

7   Ensure that at least one of the security groups to which you've added the MessageStats account has **Read** access.

Running the Exchange Databases Gathering for Exchange 2010 Without Being a Local Administrator

The Exchange 2010 Databases gathering uses WMI to gather the database volume information and requires access to the root\CIMV2 WMI namespace. To access the root\CIMV2 WMI namespace without being a member of the local Administrator group, the gathering credentials need the following permissions:

•   The account must be a member of the local DCOM group (Distributed COM Users). Membership in this group allows DCOM access that is required by remote WMI.

•   The account must have the Remote Enabled and Enable Account WMI permissions set for the root\CIMV2 namespace.

To enable the required WMI permissions for the root\CIMV2 WMI namespace

1   Open Computer Management.

2   Under the Services and Applications node, select **WMI Control**.

3   Right-click and select **Properties**.

4   Select the **Security** tab and select **CIMV2**.

5   Click the **Security** button at the bottom.

6   In the Group or user names list, select the credentials that are used to run the gathering task. (This might be the MessageStats service account).

7   In the Permissions pane, select the Allow check boxes for **Enable Account** and **Remote Enable**.

8   Click **OK**.

Granting Access for Server Uptime Information Without Being a Local Administrator

To give the task credentials the ability to collect performance monitoring information without being an administrator on the Exchange 2010 server, the task credentials must be a member of the Performance Monitor Users group. You must also grant the credentials read-access permissions on specific registry keys.

To grant read-access to the Perfmon-related registry keys

1   On the Exchange 2010 server, open the Registry Editor. Click **Start** and select **Run**.

2   Enter **regedit** and click **OK**.

3   Navigate to the following registry key:
    HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurePipeServers\winreg

4   Right-click on **winreg** and select **Permissions**.

5   Add the task credentials to which you want to grant Read access.

6   Exit the Registry Editor and restart Windows.

About the Exchange mailbox used for connection

When you create a connection to an organization that contains either Exchange 2010 or 2013 mailbox servers, you must specify a mailbox that will be used for MAPI logon to collect mailbox and public folder information. The account that will be used to run tasks (task credentials) must have full access rights to this mailbox.

Since MAPI looks up mailboxes using the global address book, ensure that the mailbox does not have the Hide From Exchange Address Lists option selected in its properties.

To verify that the mailbox is available through Exchange address lists

1   Open the Properties dialog box for the mailbox-enabled user account by double-clicking the user name in the Exchange Management Console.

2   Select the **General** tab.

3   Ensure that the **Hide From Exchange Address Lists** check box is clear and click **OK**.

Granting Full Rights to an Exchange 2010 or 2013 Mailbox

The user account that will be used to run mailbox gathering tasks must have access to a specific mailbox. To grant permissions to the account, and to specify the mailbox to which permissions are granted, you can run the following PowerShell commands. (A PowerShell script that contains these commands can be found in the Scripts folder in the MessageStats installation directory.)

Run the commands in the Exchange 2010 management shell. Replace the *mailboxName* and the *userName* in following scripts to grant full rights to the specified user account.

```
Add-ADPermission -id:mailboxName -User:userName -AccessRights:extendedright
```

```
Add-MailboxPermission -id:mailboxName -User:userName -AccessRights:FullAccess
```

You may have to wait a few minutes or manually force an AD replication.

Additional Exchange rights required for specialized gathering tasks

The following rights and permissions are also required to run specific gathering tasks that collect information for specific types of reports. The gathering tasks are used to populate reports such as the Public Folder reports and the Content Analysis reports.

See the following table for details:

Table 2. Additional rights required for specific gathering tasks.

Gathering Task	Rights and Permissions Required
Exchange Public Folders Gathering Allows MessageStats to gather from Exchange public folders	For Exchange 2010 and 2013, the account used to run the public folder gathering tasks must be a member of the Public Folder Management security group. When gathering against Exchange 2013 public folders, the DCOM credentials of MessageStats Task Processor must trust the SSL certificate for the proxy (CAS) server.
Exchange Mailbox Content and Attachment Gathering Allows MessageStats to gather the content and attachment information from mailboxes.	For MessageStats to collect mailbox content and attachment information, the task credentials specified in each Mailbox Content and Attachment gathering task must have sufficient rights. By default, the rights to access mailbox content are denied. Additional access rights must be added to each Active Directory object with an associated mailbox from which you want to collect content and attachment information. You can create Mailbox Content and Attachment gatherings for Exchange 2010, 2013, 2016, and 2019.: • For Exchange 2010, the account that is used to run the task must have Full Mailbox Access to the specific mailbox or to all mailboxes from which you want to gather information. For details, see Content and Attachment Gatherings— Granting Mailbox Access for Exchange 2010 on page 23. • For Exchange 2013, Exchange 2016, or Exchange 2019, the account that is used to run the task must have Exchange impersonation rights for the target mailboxes. For details, see Content and Attachment Gatherings— Granting Impersonation Rights for Exchange 2013 and later on page 23.
Exchange Public Folder Content and Attachment Gathering Allows MessageStats to gather the content and attachment information from public folders.	The Public Folder Content and Attachment gathering task is supported only for Exchange 2010. • The account that is used to run the task must have Full Mailbox Access to the specific mailbox or to all mailboxes from which you want to gather information. For details, see Content and Attachment Gatherings— Granting Mailbox Access for Exchange 2010 on page 23. • The account also requires access to the Exchange 2010 public folders.

Content and Attachment Gatherings— Granting Mailbox Access for Exchange 2010

In Exchange 2010, when permissions are assigned to the server object, the permissions cannot be propagated down to the mailbox databases since the databases are not located under the server object in AD. Use the following steps to grant Full Mailbox Access to mailboxes on the Exchange 2010 servers using PowerShell cmdlets.

To grant Full Mailbox Access to a specific mailbox

1   Open the Exchange Management Shell.

2   Run the Add-MailboxPermission command in Windows PowerShell.

3   For example, if the mailbox is called mailboxName and the account is called userName, the command would be:

```
Add-MailboxPermission -id:mailboxName -User:userName -AccessRights FullAccess
```

To grant Full Mailbox Access to a specific mailbox database

1   Open the Exchange Management Shell.

2   Run the Add-MailboxPermission command in Windows PowerShell.

3   For example, if the mailbox database is called *DatabaseName* and the account is called *userName*, the command would be:

```
Get-MailboxDatabase Databasename | Add-ADPermission -User "userName" -ExtendedRights Send-As, Receive-As
```

To grant Full Mailbox Access to the entire server

1   Open the Exchange Management Shell.

2   Use the Add-ADPermission command in Windows PowerShell to grant the Send-As and Receive-As permissions.

3   For example, if the server is called *MyServer* and the account is called *UserA*, the commands are as follows:

```
Get-MailboxServer Myserver | Get-MailboxDatabase | Add-ADPermission -User "UserA" -ExtendedRights Send-As, Receive-As
```

Content and Attachment Gatherings— Granting Impersonation Rights for Exchange 2013 and later

The Mailbox Contents and Attachment gathering task uses Exchange Web Services (EWS) to connect to Exchange 2013, Exchange 2016, and Exchange 2019 mailboxes. The credentials that are used for the gathering task must have Exchange Impersonation permissions to the target mailboxes.

Configuring impersonation for all users

You can configure Exchange impersonation for all users in an organization.

To configure credentials to impersonate all users in an organization

1 Open the Exchange Management Shell.

2 Run the New-ManagementRoleAssignment cmdlet to add the permission to impersonate to the specified user.

   The following example shows how to configure Exchange Impersonation to enable a service account to impersonate all other users in an organization.

```
New-ManagementRoleAssignment –Name:impersonationAssignmentName –
Role:ApplicationImpersonation –User:serviceAccount
```

Configuring impersonation for specific users or groups

You can configure Exchange impersonation for specific users or groups.

To configure credentials to impersonate specific users or groups of users

1 Open the Exchange Management Shell.

2 Run the New-ManagementScope cmdlet to create a scope to which the impersonation role can be assigned. If an existing scope exists, you can skip this step.

   The following example shows how to create a management scope for a specific group.

```
New-ManagementScope –Name:scopeName –
RecipientRestrictionFilter:recipientFilter
```

3 Run the New-ManagementRoleAssignment cmdlet to add the permission to impersonate the members of the specified scope.

   The following example shows how to configure Exchange Impersonation to enable a service account to impersonate all users in a scope.

```
New-ManagementRoleAssignment –Name:impersonationAssignmentName –
Role:ApplicationImpersonation –User:serviceAccount –
CustomRecipientWriteScope:scopeName
```

Configuring Lync to include presence in mailbox reports

The Microsoft Exchange reports that contain mailbox information can include the user presence status.

Report users can see the presence status icons and can access Communicator functionality in the mailbox-specific reports if they have Microsoft Outlook and Microsoft Office Communicator installed and running on the computer on which they are viewing the report.

Viewing Presence on a 64-bit Computer

If you are viewing reports on a 64-bit computer but have a 32-bit version of Microsoft Office installed, such as Office 2010 (x86), the presence icons do not appear in the reports. If you install Office 2010 (which contains both 32-bit and 64-bit versions of the required Name.dll files), the presence icons appear correctly in the mailbox reports.

Planning a MessageStats Installation

You can install MessageStats components on a single computer or distribute them on many computers. You need to make this decision before you can ensure that the computers involved meet the minimum requirements, and before proceeding with specific installation procedures.

For information about prerequisite actions, see Requirements for Installing the MessageStats Components on page 10 and see Prerequisites for Gathering from Microsoft Exchange on page 18.

The procedures to install MessageStats for the first time are different than procedures for upgrading. For information about upgrading your MessageStats installation, see the *MessageStats Upgrade Guide*.

Installation Scenarios

In a typical small installation, all MessageStats components are installed in the same computer. If this is your case, you can install MessageStats using the procedure in Performing a Complete Installation on page 26. The term "complete" refers to the fact that the entire installation is performed at one time, at one computer.

Database on a separate server

The most common separation of components is to place the database in a separate computer and install the remaining components together. To perform this installation, you can follow the procedure in Performing a Complete Installation on page 26, but you will need to specify the remote computer where the MessageStats database is to go. The remote computer must have prerequisites satisfied in advance; for example, the SQL Server must be installed prior to installing MessageStats.

In some distributed installation scenarios, due to security considerations, you might be unable to run the MessageStats installation wizard on the SQL server. In this case, you can use the MessageStats database creation script (MessageStatsDatabase.sql) to manually create the SQL database. You must also manually create the necessary security groups to allow access to the MessageStats database. For information about how to manually create the MessageStats database, see the section titled "Manually Creating the MessageStats Database in a Distributed Installation" in the *MessageStats Deployment Guide*.

Distribution of other MessageStats components

Any further distribution of components requires that you perform a custom installation. This means performing installations at multiple computers. You can install any combination of components on any qualified computer, as described in Requirements for Installing the MessageStats Components on page 10. The installation procedures are given in Performing a Custom Installation on page 28.

Placing the MessageStats Reports component in a separate computer spreads out the processing requirements. However, this component should have a high bandwidth link to the MessageStats Database, as described in the *MessageStats Deployment Guide*.

MessageStats supports multiple consoles, which can be placed close to administrative regions. See Installing MMC Client Consoles on page 33 for more information.

The initial MessageStats Task Execution Server can be installed with other components. However, to optimize collection of specific data, additional Task Execution Servers can be installed closer to the data. For installation considerations of this component, see the *MessageStats Deployment Guide. See Deploying Additional Task Execution Servers (Task Processors)* on page 34 for the installation procedure.

Performing a Complete Installation

When you select Complete installation, MessageStats Reports and the MessageStats Server are installed on a single computer. The MessageStats Database may also be installed on the same computer.

NOTE: When using the Complete installation option, you can only install MessageStats on your local C drive. To install all three components on a single server on a drive other than the C drive, use the Custom installation option.

To perform a complete installation of MessageStats

1   Log on to your system using local administrative privileges.

     The account must be a member of the local administrator group on the server.

2   Double-click the **setup.exe**.

3   In the Install wizard welcome page, click **Next**.

4   Read the license agreement and select the **I accept the terms in the license agreement** check box and click **Next.**

     You must select the check box to activate the Next button.

5   Click **Next** to accept the default installation folder.

6   Click **Complete** install type.

7   Verify that the MessageStats Database server location is correct.

     You can specify a remote server where the database will be installed. The server must have SQL Server already installed. Enter the server name and (if necessary) the SQL instance name in the following format:

     Server Name/ Instance Name.

     You must specify the SQL instance name if one of the following situations applies:

     ▫   You are using SQL Express (MyServer/ SQLEXPRESS).

     ▫   You are not using the default SQL instance.

     ▫   You have more than one SQL instance.

8   Verify that the MessageStats Reports server location is correct and click **Next**.

9   Indicate if a share should be created for Application Logs and click **Next**.

10   Indicate whether you want to use the default web site or identify a different web site and click **Next**.

11   Enter the mail server used to send subscription notifications and the name to appear in the originators field and click **Next**.

     If you do not complete the subscription configuration in the installer, you can define the mail server and originator in MessageStats Reports using the Configuration button on the File | Subscriptions functionality.

12   Enter the following information in the Services Setup window, as applicable:

Table 1. Specifying the services credentials.

Interface Element	Description
Username	Displays the name of the user that is logged on to the local computer. This field should take the Domain\User name form.
Password	Prompts you to enter the corresponding password for the user name.
Authenticate the username	Indicates that you must validate the password and user name.

13 Click **Install**.

The Database Setup Wizard Welcome is displayed.

To set up the MessageStats Database

14 Read the Database Setup Wizard welcome page and click **Next**.

15 Enter the following information in the Database Configuration Settings screen, as appropriate:

Table 2. Database configuration settings.

Element	Description
MSDE/ SQL Server	Indicates the location of the MessageStats Database Server. This field defaults to the local server unless you specified a remote server.
Database Name	Indicates the name of the database where you intend to store the tracking log and mailbox statistic data. This field is read-only.
Migrate previous build	Not available for new installations.
Advanced Details	Since you are creating a new database, you can select the Advanced Details check box. This option allows you to configure database size and log file size and growth rate parameters.
	• Select the **Advanced Details** check box to display the Database File/Log Settings screen.
	• Clear the **Advanced Details** check box and click **Next** to display the Database Summary screen.

16 Click **Next**.

17 Select appropriate database size settings log file size using the Database File Setting and Log File Settings tabs.

You can use these tabs to set database path, size, and growth rate parameters. You can also define log file size and growth rate parameters.

18 Click **Next**.

19 Review the **Summary of Options Selected** screen, and click **Start**.

20 Review the installation results.

21 Click **Done** to exit.

The installation results that you review on the last page of the wizard are appended to the Qinstaller.log after you click Done.

22 Click **Finish** to complete the installation and exit the installer.

23 Register MessageStats using the procedures described in To license MessageStats on page 35.

Performing a Custom Installation

The custom installation permits you to install combinations of MessageStats components in multiple computers. Typically, you install a single instance of each component, but you may plan to distribute Task Execution Servers regionally to optimize data collection.

If you plan to run all components except the database in a single computer, see Performing a Complete Installation on page 26.

You must manually copy the installation files to each computer where you intend to install MessageStats components. You can use Remote Desktop to run the installer on the remote computers.

Installation Order for Distributed Components

As long as you have a plan for where MessageStats components will be installed, you have some flexibility as to the order in which this installation takes place. Some components need to know where other components are located, but those other components may not need to be previously installed.

Normally, MessageStats components are installed in the following order:

1   MessageStats Database

2   MessageStats Reports

MessageStats Server

3   MessageStats Scheduler Service

4   MessageStats Task Execution Servers and Consoles

This order is recommended because the Database must be installed before the Scheduler and before Reports. Also, the Scheduler must be installed before the Task Execution Servers.

This flexible installation permits you to group components. The only limitation is that if you want a Task Execution Server to be co-located with the Database, you also must install the Scheduler on the same computer. But in a custom installation, you will normally install the Database separately.

Using the Installer

When you click Custom as the installation type, you select the components that you want to install on the local server. By default, all components are selected. You must deselect components that are to be installed in other computers.

The components that comprise the MessageStats Server (task execution server, scheduler, and console) are grouped under the MessageStats Server. You can select them together, or expand the installer tree and select one or two individual components to install on the local computer.

Table 3. Installation options that determine which components are installed on the local computer.

Icon	Text	Action
	Will be installed on local hard drive	All components of the selected feature are installed. **NOTE:** If you are installing a remote database, you can select this option and specify the remote SQL server on the next dialog.

Table 3. Installation options that determine which components are installed on the local computer.

Icon	Text	Action
	Entire feature will be installed on local hard drive	All components of the selected feature are installed. **NOTE:** The option performs the same installation as the **Will be installed on local hard drive** option. Use the **Will be installed on local hard drive** option instead.
	Entire feature will be unavailable	The selected feature is not installed in the local computer.

As an example, if you are installing the MessageStats Reports and the entire MessageStats Server on the local computer, you must select both during a single installation, as follows:

- Set MessageStats Server to **Will be installed on local hard drive.**
- Set Database to **Entire feature will be unavailable.**
- Set MessageStats Reports to **Will be installed on local hard drive.**

In this scenario, you would have installed the database on the remote computer before installing the Reports and the MessageStats Server together on the local computer.

If you are installing more than one component on the local computer, you must select and install them at one time. If you install one component, and then rerun the installer to try to add another component to the same computer, MessageStats only allows you to remove the first component.

Installing the MessageStats Database

Before you install the MessageStats Database, ensure the following:

- All MessageStats Database minimum requirements are met. For more information, see MessageStats Database Minimum Requirements on page 10 and Installation Rights on page 14.
- An SQL Server is installed on the same computer.

When you install the MessageStats database, MessageStats automatically configures the database to use Windows authentication. If you have the MessageStats database and the MessageStats reports web site installed on different computers, it is recommended that you use SQL authentication.

Windows Authentication mode cannot handle the credential hopping that occurs in a distributed topology unless Kerberos delegation is configured. If you want to use Windows authentication and Kerberos for a distributed installation, see the section titled "Deploying a Distributed Installation Using Windows Authentication" in the *MessageStats Deployment Guide*.

Also, in some environments, you might not be able to run the MessageStats installer on the SQL server due to security considerations. In this case, you can manually install the database using a SQL script that is provided in the SQL folder of the MessageStats installation folder. For more information see the section titled "Manually Creating the MessageStats Database in a Distributed Installation" in the *MessageStats Deployment Guide.*

To install the MessageStats Database

1   Log on to the computer using local administration privileges.

   The local account must be a member of the local administrator group or the Domain administrator group.

2   Double-click the **setup.exe**.

3   In the Install wizard welcome page, click **Next**.

4   Read the license agreement and select the **I accept the terms in the license agreement** check box and click **Next.**

   You must select the check box to activate the Next button.

5   Click **Next** to accept the default installation folder.

6   Select **Custom** install type.

7   Click on the individual features to set the following:

   ▪   Set MessageStats Server to **Entire feature will be unavailable.**

   ▪   Set Database to **Will be installed on local hard drive**.

   ▪   Set Reports to **Entire feature will be unavailable**.

8   Click **Next**.

9   Confirm or specify the MessageStats Database server location and click **Next**.

    You must specify the SQL instance name if one of the following situations applies:

   ▪   You are using SQL Express (MyServer/ SQLEXPRESS).

   ▪   You are not using the default SQL instance.

   ▪   You have more than one SQL instance.

10 Enter the service name that is logged onto the local computer in the format Domain \ User name.

11 Click **Install**.

    After installation, MessageStats performs some configuration using the setup wizard.

12 In the setup wizard welcome page and click **Next**.

13 Enter the following information in the Database Configuration Settings screen:

Table 4. Database configuration settings.

Element	Description
MSDE/ SQL Server	Indicates the location of the MessageStats Database Server. This field defaults to the local server.
	When installing the MessageStats database, you must specify the SQL instance name (Server Name/ Instance Name) if one of the following situations applies:
	• You are using SQL Express (MyServer/ SQLEXPRESS).
	• You are not using the default SQL instance.
	• You have more than one SQL instance.
Database Name	Indicates the name of the database where you intend to store the tracking log and mailbox statistic data. This field is read-only.
Migrate previous build	Not available for new database installations.
Advanced Details	For new database installations, you can select the Advanced Details check box to configure database and log file size and growth rate parameters.
	Clear the Advanced Details check box to skip this action and select a database size level instead.

14 Click **Next**.

15 If you did not select Advanced Details, select a database size level and click **Next**. Go to Step 17.

16 In the Database File Settings tab, specify the database path, size, growth rate parameters, and collation name.

    In the Log File Settings tab, specify log file name, log file size and growth rate parameters.

    Click **Next**.

17 Review the summary of selected options and click **Start**.

18 Review the installation results.

19 Click **Finish**.

A reboot may be required to complete the installation.

20 Click **Done** to exit.

The installation results that you review on the last page of the wizard are appended to the Qinstaller.log after you click Done.

Installing MessageStats Reports

Before you install MessageStats Reports, ensure the following:

- The MessageStats Database has been installed.

- All MessageStats Reports minimum requirements are met. For more information, see MessageStats Reports Minimum Requirements on page 11 and Installation Rights on page 14.

- An IIS server is installed on the same computer.

To install MessageStats Reports

1 Log on to the computer using the MessageStats service account.

2 Double-click the **setup.exe**.

3 In the Install wizard welcome page, click **Next**.

4 Read the license agreement and select the **I accept the terms in the license agreement** check box and click **Next.**

You must select the check box to activate the Next button.

5 Click **Next** to accept the default installation folder.

6 Select **Custom** install type.

7 Click on the individual features to set the following:

- Set MessageStats Server to **Entire feature will be unavailable.**

- Set Database to **Entire feature will be unavailable.**

- Set Reports to **Will be installed on local hard drive.**

8 Click **Next**.

9 Enter the computer name where you installed the database.

Verify the local computer name (where you are presently installing MessageStats Reports).

Click **Next**.

10 Indicate if you want to use the default web site or a different web site and click **Next**.

11 Enter the mail server name used to send subscription notifications, and the name to appear in the originators field, and click **Next**.

If you do not complete the subscription configuration during installation, you can define the mail server and originator in MessageStats Reports using the Configure Subscriptions option.

12 Enter the service name that is logged on to the local computer in the following format: Domain\Username.

13 Click **Install**.

14 Click **Finish** to exit the installation wizard.

A reboot of this computer is required to complete the installation.

Installing the MessageStats Server or Scheduler component

Use this procedure to install the entire MessageStats Server or just the Scheduler Service.

Before you install the MessageStats Server, ensure that:

- All MessageStats Server minimum requirements are met. These prerequisites include specific requirements to allow MessageStats to gather from Microsoft Exchange environments. For information about minimum requirements, see MessageStats Server Minimum Requirements on page 12 and also Prerequisites for Gathering from Microsoft Exchange on page 18.

- The MessageStats Database and MessageStats Reports components have been installed on their respective servers.

To install the MessageStats Server or Scheduler Service

1 Log on to the computer using the MessageStats service account.

2 Double-click the **setup.exe**.

3 In the Install wizard welcome page, click **Next**.

4 Read the license agreement and select the **I accept the terms in the license agreement** check box and click **Next.**

   You must select the check box to activate the Next button.

5 Click **Next** to accept the default installation folder.

6 Select **Custom** install type.

7 For a complete MessageStats Server installation, click on the individual features to set the following:

   - Set MessageStats Server to **Will be installed on local hard drive**.

   - Set Database to **Entire feature will be unavailable.**

   - Set Reports to **Entire feature will be unavailable.**

         - OR -

   For a Scheduler Service only installation, click on the individual features to set the following:

   - Set MMC Client Console to **Entire feature will be unavailable**.

   - Set Scheduler to **Will be installed on local hard drive**.

   - Set Task Processors to **Entire feature will be unavailable**.

   - Set Database to **Entire feature will be unavailable.**

   - Set MessageStats Reports to **Entire feature will be unavailable.**

8 Click **Next.**

9 Enter the computer name on which you previously installed the MessageStats Database.

   Enter the computer name where you previously installed the MessageStats Reports.

   Click **Next**.

10 Verify the local computer name where the MessageStats Server will be installed and click **Next**.

11 If installing a complete MessageStats Server, indicate if the folder to which the MessageStats log files are copied is shared.

   You must share this directory to run MessageStats from a remote console.

   Click **Next** to advance to the Services Setup window.

12 Enter your domain username and password.

13 Click **Install**.

14 Click **Finish** to exit the installation wizard.

> A reboot may be required to complete the installation.

Installing MMC Client Consoles

The MMC Client Console is a thin application that can be installed on a MessageStats administrator's laptop computer or workstation. The administrator can create tasks and view logs, but the task scheduling and gathering can be performed at another location with more robust resources. Several consoles can be deployed in your network.

Before you install an MMC Client Console, ensure that the following requirements are met:

- All MessageStats Server minimum requirements are met. For information about requirements, see MessageStats Server Minimum Requirements on page 12.

- The MessageStats Database, MessageStats Reports, and MessageStats Scheduler Service are already installed on their respective computers.

To install the MMC Client Console

1 Log on to the computer using local administration privileges.

2 Double-click the **setup.exe**.

3 In the Install wizard welcome page, click **Next**.

4 Read the license agreement and select the **I accept the terms in the license agreement** check box and click **Next.**

> You must select the check box to activate the Next button.

5 Click **Next** to accept the default installation folder.

6 Select **Custom** install type.

7 Click on the individual features to set the following:

- Set MessageStats Server to **Will be installed on local hard drive.**

- Set MMC Client Console to **Will be installed on local hard drive.**

- Set Scheduler Service to **Entire feature will be unavailable.**

- Set Task Processors to **Entire feature will be unavailable**.

- Set Database to **Entire feature will be unavailable.**

- Set MessageStats Reports to **Entire feature will be unavailable.**

8 Click **Next**.

9 Enter the computer names on which you previously installed the MessageStats Reports.

> Enter the computer name on which you previously installed the MessageStats Scheduler service.

> Click **Next**.

10 Enter your domain username and password.

11 Click **Install**.

12 Click **Finish**.

Deploying Additional Task Execution Servers (Task Processors)

While you may install a single Task Execution Server on the same computer as other MessageStats components, some situations require that you deploy additional Task Execution Servers on separate computers.

Gathering tasks such as Public Folder Gathering, Distribution Group Membership Gathering, and Content and Attachment Gatherings require more system resources. For example, if you run the Public Folder Gathering on the same MessageStats Server that gathers the core data every night, resources could be consumed to the point that the Default Gathering task is delayed. Installing an additional task processor to run the Public Folder Gathering removes this risk.

When you are planning to install additional Task Execution Servers, consider the following:

- The number of Task Execution Servers that are needed is relative to the number of Exchange servers from which you want to collect data.

- The Task Execution Servers must have good connectivity to the MessageStats SQL database and to the Exchange servers.

- Collections must complete within a 24-hour cycle so that MessageStats does not continually get backlogged in Exchange tracking log processing.

- Too many Task Execution Servers trying to connect to the SQL database at the same time can cause deadlocks and time-outs on data storage.

To determine your specific need, see the Planning section of the *MessageStats Deployment Guide*.

Compression of Tracking Log Files

To optimize performance in collecting Tracking Logs, you should run the Tracking Logs gathering on a Task Execution Server that is close to the MessageStats Database server, and compress your Exchange Tracking Log and copy it over the network using the QMSCompress.exe utility, which is shipped with MessageStats. For more information, see the section "Compressing Tracking Log Files" in the *MessageStats Administrator Guide*.

Installing the Task Execution Server

The servers on which you intend to install the MessageStats task processors (Task Execution Servers) must meet the prerequisites specified in the section titled Task Processor Specific Requirements on page 13.

Before you install the task processor components, ensure that the following MessageStats components are already installed on their respective servers:

- MessageStats Database

- MessageStats Reports

- MessageStats Scheduler Service

To install the task processor

1   Add the MessageStats service account to the local administrators group on the new server.

2   Log on to the computer using the MessageStats service account.

3   Double-click the **setup.exe**.

4   In the Install wizard welcome page, click **Next**.

5   Read the license agreement and select the **I accept the terms in the license agreement** check box and click **Next.**

    You must select the check box to activate the Next button.

6   Click **Next** to accept the default installation folder.

7   Select **Custom** install type.

8   Click on the individual features to set the following:

> - Set MessageStats Server to **Will be installed on local hard drive.**
> - Set MMC Client Console to **Entire feature will be unavailable.**
> - Set Scheduler Service to **Entire feature will be unavailable.**
> - Set Task Processors to **Will be installed on local hard drive.**
> - Set Database to **Entire feature will be unavailable.**
> - Set MessageStats Reports to **Entire feature will be unavailable.**

9   Click **Next**.

10   Enter the computer names on which you previously installed the MessageStats Reports.

Enter the computer name on which you previously installed the MessageStats Scheduler service.

Select the **Share the Application Log folder** option to create a share in which the MessageStats log files are copied.

You must create a share to be able to view the log files from a remote console.

11   Click **Next**.

12   Enter the MessageStats service account name and password.

13   Click **Install**.

14   Click **Finish**.

15   Open the MessageStats console, right-click **Task Execution Servers** and select **Refresh**.

At this point, you can optionally set a limit on the number of months that you retain task log files. For example, you might decide to only keep task logs for one month.

16   Expand the Task Execution Servers node, right-click the name of the new Task Execution server and select **Properties**.

17   Select the **Task Logging Archive** tab

18   Enable archiving and set the Number of Months to Keep to **1**.

19   Click **OK**.

Licensing MessageStats

Typically, if you download a trial version of MessageStats, a trial license is emailed to you. After you purchase MessageStats, you will receive a license file from your sales representative that is used to activate your purchased license.

To license MessageStats

1   Copy the license file to the desktop of the computer where the MessageStats MMC client console is installed, or to another convenient location.

2   Launch the MessageStats client console.

3   Connect to the MessageStats Server.

If you have more than one MessageStats server, complete steps 4 to 7 for each server.

4   Right-click on the server node, and select **License**.

5   Click **Update License**.

6   Browse to the license file you copied in step 1.

7   Select the license, and click **OK**.

Starting MessageStats

When you start the MessageStats console, MessageStats checks to see if a MessageStats Database connection exists. If a connection does exist, MessageStats automatically loads existing configuration settings. If a connection does not exist, you must establish the database connection.

To start MessageStats

•   Select **Start | Programs | Quest | MessageStats | Quest MessageStats Console**.

Using MessageStats

After you have installed MessageStats, you can use it to gather information from your Exchange servers. MessageStats supports many complex implementations for complex Exchange environments. At the most basic level, however, MessageStats has the basic steps described in the following table.

Table 5. Steps for getting started with MessageStats.

Step	Description
Connect to your Exchange organization	You select the Exchange server from which you will gather information for the Exchange Organization.
	To connect to an Exchange organization
	1 Select the **Exchange Organizations** node.
	2 Right-click and select **Connect**.
	3 Enter the NETBIOS name for an Exchange CAS server name (or Mailbox server name for Exchange 2016 and Exchange 2019)
	4 Specify a mailbox. Enter the mailbox in one of the following formats:
	- Display Name
	- Alias
	- SMTP Address
	5 Click **Next**.
Configure a gathering task	Tasks define the information you want to gather, and when you want to gather it.
	To create an initial gathering task
	1 Select the folder containing the enumerated Exchange organization, object, or container.
	2 Right-click, and select **Create Task**.
	3 Select **Default Gathering**.
	4 Click **Next** through the remaining wizard pages.

Table 5. Steps for getting started with MessageStats.

Step	Description
View task progress	You can view the progress of the configured task. This step is not mandatory. ***To view job progress*** • Click the **Tasks** node from the treeview and select a task.
View reports based on the gathering	You can use the web-based MessageStats Reports interface to view reports based on the gathering tasks that you have created. ***To view reports based on the completed gathering task*** • Select the **MessageStats Reports** node from the treeview, then select a report. - OR - Select **Start | Programs | Quest | MessageStats| Quest MessageStats Reports**.

Step-by-Step Walkthrough

There are two main functions of MessageStats: importing tracking logs and other Exchange information, and creating appropriate reports based on the imported data. This step-by-step walkthrough takes you through the most common usage of MessageStats.

Typically, you would manually perform an initial import of information immediately after installation using the Create Task wizard to create a Default gathering task. Once the initial import is complete, you would schedule the Default gathering task to automatically gather data each day going forward. The data collected by the MessageStats task processors on each successive import is added to the existing data in the database.

Configuring Tasks

Tasks define the information that will be gathered from tracking logs and Exchange sources, and the frequency with which the gathering is repeated. You can create tasks by selecting an Exchange object or container node, then creating a task based on the selected object.

MessageStats also provides a Default Gathering option which disables some of the large public folder and distribution group gatherings in order to avoid extensively long gathering times. You can enable those gatherings or create a new task to include the remaining gatherings.

To create an initial gathering task

1   Select the folder containing the enumerated Exchange organization.

2   Right-click, and select **Create Task**.

3   Select **Default Gathering**.

4   Click **Next**.

To create additional gathering tasks

1   Select the folder containing the Exchange object or container you want to use as the basis for the task.

2   Right-click, and select **Create Task**.

3   Select a task template.

4   Complete any additional task configuration.

5   Click **Next**.

Viewing MessageStats Reports

MessageStats Reports allow you to view usage statistics through a collection of preconfigured reports. You can also change relevant report parameters using on-page quick filters. Several reports have additional variations, such as default grouping order. Within each variation you can change the filter, group, and sort criteria for each of these reports.

You can create report subscriptions so that MessageStats will automatically notify a recipient list on a daily, weekly, monthly, quarterly, or yearly basis that specific reports are available.

MessageStats also provides you with a custom reports feature. Using this feature, you can create and save custom reports for later use.

For the current list of MessageStats Reports, see the *MessageStats Reports User Guide*.

To view MessageStats Reports

1 Select **Start | Programs | Quest | MessageStats | Quest MessageStats Reports**.

   - OR -

   Select the **MessageStats Report** node in the MessageStats Console.

2 Click the report you want to view from the available list.

Removing MessageStats

To remove a complete MessageStats installation from a computer

1 Select **Start | Settings | Control Panel | Add or Remove Programs**.

2 Select **Quest MessageStats** from the program list and click **Remove**.

3 Verify that you want to remove MessageStats.

   You may be prompted to reboot your computer to remove the service or MessageStats Reports web site support files.

Appendix A: IIS Configuration Issues

In installations where the MessageStats Reports IIS server and the MessageStats database SQL server are installed on separate computers, you might see one of the following errors when starting the MessageStats Reports web site:

"Error: Unable to connect to the database. You may need to use SQL Authentication to connect to the database server. Please review the Installation Issues section of the MessageStats Release Notes.Login failed for user NT AUTHORITY\ANONYMOUS LOGON"

- OR -

"Unable to open database connection. (0x80004005: Login failed for user (null). Reason: Not associated with a trusted SQL Server connection., Provider=SQLOLEDB.1;Server=ServerName;Database=MessageStats;Trusted_Connection=Yes;Current Language=English;Locale Identifier=1033 (0x80040114)"

- OR -

"HTTP 500 Internal Server Error - ASP Error.
QSWebWizard9.WebWizard.1 error 80004005
Unspecified Error
MessageStatsReports /ForcedAuthenticate.asp, line 31"

If you are unable to resolve these issues when connecting to the SQL database server, you may need to use SQL Authentication to connect to the database server. By enabling IIS to use SQL Authentication, you can resolve this issue.

For information about how to configure SQL Authentication, see Knowledge Base article 3553 on the Support Portal.

Microsoft .NET Configuration Issues

MessageStats Reports require that Microsoft .NET Framework version 4.7.2 is installed on the server on which the web-based reports are hosted. If you have problems accessing MessageStats Reports, you can check the following settings that affect ASP Active Server Page (ASP) configuration.

For Windows Server, IIS must be installed and enabled. Also the Web Server (IIS) role must be installed and certain role services must be enabled. See Setting IIS Role Services for IIS on page 16 for more information.

Repairing IIS Mappings for ASP.NET

In some Microsoft environments, you may encounter a configuration issue with Microsoft .NET which can prevent MessageStats from reporting information correctly. The error indicates that Microsoft .NET Framework must be installed on the IIS server that hosts MessageStats Reports, and that Microsoft ASP.NET must be enabled on the virtual directory that contains MessageStats Reports.

If you are sure that the Microsoft .NET Framework 4.7.2 is installed, and ASP.NET is enabled you may need to repair the IIS mappings for ASP.NET. The following procedure is based on the Microsoft Knowledge Base article 306005. Use the procedure to configure Microsoft ASP.NET.

To fix configuration mappings for ASP.NET

1   Run the Aspnet_regiis.exe utility:

    a   Click **Start** and select **Run**.

    b   In the Open text box, type **cmd** and click **OK**.

    c   Navigate to the .NET Framework directory. (%windir%\Microsoft.NET\Framework*version*\)

In this path, the version represents the .NET Framework directory version that is installed on the server. Replace the placeholder in the example with an actual version number.

For example, at the command prompt, type the following:

CD /D "%windir%\Microsoft.NET\Framework\v4.0.30319"

2   Type the following command:

    aspnet_regiis.exe -i

3   Press **ENTER**.

4   Restart the IIS Service:

    a   Click **Start** and select **Run**.

    b   Type **iisreset** and press **ENTER**.

If Repairing the IIS Mappings for ASP.NET Fails

If you follow the procedure to repair the IIS mappings and you still see the error, the cause might be that the Network Service is not granted the correct permission to write to the IIS metabase.

To grant permissions to the Network Service to write to the IIS metabase

1   Click **Start** and select **Run**.

2   In the Open text box, type **cmd** and click **OK**.

3   Navigate to the .NET Framework directory. (%windir%\Microsoft.NET\Framework*version*\)

    NOTE: In this path, the version represents the .NET Framework directory version that is installed on the server. Replace the placeholder in the example with an actual version number.

For example, at the command prompt, type the following:

CD /D "%windir%\Microsoft.NET\Framework\v4.0.30319"

4   Type the following command:

    aspnet_regiis.exe -ga "nt authority\network service"

The "-ga" option grants the specified user or group access to the IIS metabase and other directories that are used by ASP.NET.

About us

Quest provides software solutions for the rapidly-changing world of enterprise IT. We help simplify the challenges caused by data explosion, cloud expansion, hybrid datacenters, security threats, and regulatory requirements. We are a global provider to 130,000 companies across 100 countries, including 95% of the Fortune 500 and 90% of the Global 1000. Since 1987, we have built a portfolio of solutions that now includes database management, data protection, identity and access management, Microsoft platform management, and unified endpoint management. With Quest, organizations spend less time on IT administration and more time on business innovation. For more information, visit www.quest.com.

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- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.