Administrators Guide

Sirana AppAnalyzer 6.0.0

Enterprise Edition

SIRANA software

Contacting Sirana

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Legal Information

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What's New in AppAnalyzer 6.0

Sirana AppAnalyzer 6.0.0 is a major new release based on customer feedback and significant development efforts. The primary goals of this release are:

1. Enable reporting and analysis of hybrid Exchange environments (On-Premises and Off-Premises).
2. Enhanced Reporting Breadth
3. Greater Reporting Depth
4. Scalability and Performance Improvements

The following is a summarized list of new AppAnalyzer 6.0 features and functions that support these goals.

Office 365 Exchange Support

A new data collection task has been created to enable reporting on Office 365 Cloud-based recipients and Public Folders. Additionally, new filters have been added to many of the existing reports that allow filtering by location (On-Premises or Off-Premises). These new features provide Exchange hybrid environment reporting and analysis.

BlackBerry Enterprise Service 10 Support

Data collection from the BlackBerry Enterprise Service version 10 configuration database is now supported.

New and Improved Exchange Public Folder Reports

Public Folder reports are now Organization based as opposed to Server based. This aligns with Microsoft Exchange's Public Folder implementation architecture. As a result, Public Folder reports no longer have a "Server" column. AppAnalyzer also now collects Public Folder security permissions information for reports, including Public Folder Owner for On-Premises Public Folders.The following new Public Folder reports have been added:

Top N Public folders in Growth

This report displays the specified number (N) of public folders with the largest growth over the specified time period in size, items, deleted size, or deleted items. The "As of" date reflects the most recent date that data was collected within the time period, and the "Days" column reflects the number of days between the earliest and latest data points collected within the time period.

Client Permission Details by Account

This report lists Public Folders and the assigned access rights that the targeted user account has on the Public Folders. Accounts can be targeted by a wild card supported search on the account name. Folders can be targeted by organization, or by a wild card supported search on the folder path. Access rights included in the report can be limited by a filter. Note that the 'Changes' column only reflects changes that have been identified between subsequent runs of the Public Folders task. As such, it does NOT reflect a complete change history for the given folder.

Client Permission Details by Folder

This report lists user accounts and the assigned access rights that the user has on the targeted Public Folders. Folders can be targeted by organization, or by a wild card supported search on the folder path. Access rights included in the report can be limited by a filter. Note that the 'Changes' column only reflects changes that have been identified between subsequent runs of the Public Folders task. As such, it does NOT reflect a complete change history for the given folder.

Client Permissions by Account

This report lists the user accounts and the count of Public Folders to which they have been granted non-default permissions. The default client permissions (account:right) of Default:Author, Anonymous:None and Anonymous:Create have been omitted.

Client Permissions by Folder

This report lists the public folders in the Exchange Organization that have non-default client permissions along with the count of user accounts that have been granted those non-default permissions. The default client permissions (account:right) of Default:Author, Anonymous:None and Anonymous:Create have been omitted.

Folder Access Change History

This report displays the re-add/remove change history for the specified folder permissions.Note that the change history only reflects changes that have been identified between subsequent runs of the Public Folders task. As such, it does NOT reflect a complete change history for the given folder.

New Exchange Client Access Reports

The following new Client Access reports have been added to AppAnalyzer for Exchange:

Client Access Login Details

This report displays the login event details for the selected time period and attempted user or resolved user.

Client Access Logins by Attempted User

This report displays the number of Outlook Web Access login events over the selected time period, grouped by the attempted user. The results can be filtered by Organization, Client Access Server, or server group, as well as by an attempted user wildcard filter. Results can also be filtered by the resolved user status - resolved, unresolved, or all. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events.

Client Access Logins by Group

This report displays the total or average number of Outlook Web Access login events over the selected time period, grouped by home server, store, or Directory Attribute groupings of the resolved user. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events.

Client Access Logins by IP

This report displays the number of Outlook Web Access login events over the selected time period, grouped by source IP address. The results can be filtered by Organization, Client Access Server, or server group, as well as by an IP address wildcard filter. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events. The chart represents the overall breakdown of success, failure and logout events.

Client Access Logins by Server

This report displays the number of Outlook Web Access login events over the selected time period, grouped by Organization, Client Access Server, or server group.

Client Access Logins by User

This report displays the total or average number of Outlook Web Access login events over the selected time period, grouped by the resolved user. Users can be filtered by home server, store, or Directory Attribute groupings. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events.

Client Access Logins over Time

This report displays the number of Outlook Web Access login events over the time period, grouped by the selected time option (e.g. Day of Year, Week, Quarter, etc.). The results can be filtered by Organization, Client Access Server, or server group. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events. The chart represents the overall breakdown of success, failure and logout events.

Devices Synced in N Days

This report lists the ActiveSync mobile devices in the Organization that have successfully synchronized in the time frame provided. Devices can be filtered by device property. Device users can be filtered by location and mailbox server, store, or directory attribute.

Mobile Device Counts (Pie)

This report displays the number of ActiveSync mobile devices in the Organization by mailbox server, store, device property, version, or directory attribute of the user, such as department. Device users can also be filtered by location.

Mobile Devices by Date

This report lists devices that were active on the specified date. The Removed date marks the date that AppAnalyzer discovered the device missing from the user. The devices can be filtered by device property, version, or the mailbox server, store, or directory attribute of the user, such as department. Device users can also be filtered by location.

New Exchange Active Directory Report

The following new Active Directory reports have been added to AppAnalyzer for Exchange:

Recipient List by Date Range

This report lists recipients in the directory that were created (or modified, depending on the selected parameter) in the date range provided. You can filter the list by recipient type, as well as groups, directory attributes and location when applicable.

Recipient Type Counts by Creation Date Range

This report displays counts of recipients in the directory that were created in the date range provided, grouped by recipient type. You can filter the list by recipient type, as well as groups, directory attributes and location when applicable.

New and Improved Exchange Mailbox Reports

The following new/updated Mailbox reports have been added to AppAnalyzer for Exchange:

Disabled Mailboxes

This report lists Mailboxes with user accounts that have been disabled in Active Directory. You can filter the list by mailbox type, as well as groups and directory attributes where applicable. The "Present in AD?" report parameter can be used to determine if the user account is still present in AD (True), or if the mailbox has been orphaned or is awaiting deletion pending the data retention settings within AppAnalyzer (False). An "*" in the Store column indicates that the Mailbox is an off-premises mailbox or the data store information is no longer available.

Inactive Mailboxes

The Inactive Mailboxes report has several new enhancements, including the addition of the Last Modified option as well as the collection of the Last logon information from both Mailbox and OWA logins.

Mailbox Delegate Access

This report lists mailboxes with user accounts (delegates) that have been granted non-default folder permissions. The targeted mailboxes can be identified by mailbox name, primary SMTP address, or alias and can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute, as well as location. The report can target multiple mailboxes and/or delegates as the parameters accept wild cards. The results can also be limited to specific mailbox folders, or specific access rights. Note that all permissions for the default accounts "Anonymous" and "Default" have been omitted.

Top N Mailboxes in Growth

This report displays the specified number (N) of mailboxes with the largest growth in size or items over the specified time period. This report can show mailboxes for all or an individual organization, server group, server, store, or directory attribute and can be filtered by location. The "As of" date reflects the most recent date that data was collected within the time period, and the "Days" column reflects the number of days between the earliest and latest data points collected within the time period. An "*" in the "Store" column indicates an off-premises mailbox.

Usability Enhancements

Tasks that are running can now be more easily stopped during execution. Additionally, Tasks can now be named which provides for easier task identification. AppAnalyzer also now supports multiple IIS log locations (up to 3) per server.

Performance Improvements

That Task engine has been updated to provide better multi-processer support.

Patch Roll-up

All customer specific patches and updates to AppAnalyzer 5.1 have been integrated into AppAnalyzer 6.0.

Introduction to AppAnalyzer

AppAnalyzer collects information about the usage of Microsoft Exchange, RIM BlackBerry and Sendmail servers, and produces reports based on this information. These reports are published at scheduled intervals to shared network directories and e-mail addresses. The reports are useful for many purposes, including service level measurement and improvement, problem isolation, security analysis, capacity planning, and charge-back for services.

This section contains the following topics:

What AppAnalyzer Provides

Most organizations today rely heavily on email and have made large investments in their email infrastructure. Well-run organizations monitor the day-to-day operations of their email system to ensure a reliable, efficient communication channel. Traditional systems management and monitoring solutions don't always answer the tough questions managers ask.

Health Monitoring & Reporting Is Not Enough

Systems management tools, such as Microsoft Systems Center Operations Manager, monitor the minute-by-minute health of the servers, networks, and applications within an organization sending alerts to IT staff when potential problems arise. This level of health and availability monitoring is essential. While these tools are able to collect data for reporting, the types of data collected are typically server-focused with little application-awareness. Reports produced are generally targeted towards items such as CPU utilization, disk I/O, service uptime, and available storage.

The Missing Piece

Consider this scenario for a moment: You have an Exchange organization that consists of over 5,000 users. Your team monitors the on-going operations using Microsoft Systems Center Operations Manager. Over the last month, you've noticed that server utilization across your Exchange servers has been gradually increasing at an alarming rate. You've checked the server hardware and network, but everything seems to be in good shape.

Is utilization increasing because your users truly are increasing their amount of message traffic? And, if so, is this legitimate business traffic or something else? If it is legitimate business traffic, is there a specific department that has caused this impact?

Answers to Tough Questions

Sirana AppAnalyzer provides the answers. AppAnalyzer's extensive list of detailed, business-focused reports help you better understand how your messaging system is being used so that you are able to make informed management decisions. Combined with a traditional systems management monitoring tool, such as Microsoft Systems Center Operations Manager, AppAnalyzer offers everything you need to ensure reliable, efficient, and secure email operations.

Benefits of AppAnalyzer

As e-mail remains a critical application for organizations today, new administration and management issues continue to emerge.

- E-mail administrators struggle to keep-up with the impact of system upgrades and configuration changes.
- IT Managers need confirmation that their e-mail infrastructure is being managed efficiently.
- Business Unit Managers, such as Human Resources Management, need assurance that e-mail acceptable use policies are adhered to by all employees.
- Executive Management wants the big picture view of how their investment in e-mail resources is paying-off.

AppAnalyzer delivers the reports and tools necessary to successfully address the needs at each level of your messaging system management.

Key Benefits

Achieve service levels — Enables you to analyze service level metrics so you can evaluate areas for improvements and adjust traffic on servers to better meet end-user demand. Demonstrate service level achievements through a number of reports, including message delivery times between sites, groups or servers.

Allocate messaging system costs — Offers reports to let you chargeback users or groups of users, such as departments for e-mail and storage resource use.

Comply with e-mail acceptable use policies and industry regulations — display e-mail activity for individual users, Internet domains, suspect SMTP addresses, and keywords and attachments within all messages.

Promote administration efficiencies — Allows you to understand Exchange, BlackBerry and Sendmail usage and identify trends and problems at a glance.

Data Gathering

AppAnalyzer includes the following features for data gathering:

Scheduled, Unattended Operation

Historical usage information about Microsoft Exchange, RIM BlackBerry and Sendmail servers is gathered automatically at the frequency you select. Intervals from an hour to a month are available. The interval can vary according to the types of information gathered. (Data gathering and report publishing are scheduled separately.)

Variety of Messaging Information

AppAnalyzer gathers data from a variety of sources, including:

- Exchange Server message tracking logs, which provide information about message traffic and delivery times.
- Exchange Server transport agent logs which provide information about Exchange Anti-spam message filtering.
- Active Directory, which provides information about the Exchange Server configuration and recipients.

- Exchange Server information stores, which provide information about their sizes.
- Exchange Server mailboxes, which provide information about their sizes, item counts, folder sizes, and last logon dates. This also provides information about selected keywords and attachments in the mailboxes. Mobile device inventory data is also collected with this task.
- Exchange Server public folders, which provide information about their sizes, item counts, and last access dates. This also provides information about selected keywords and attachments in the public folders.
- Event logs on Exchange Server computers, which provide information about selected Windows events issued by Exchange Server services.
- Exchange Server IIS logs for information about user client access (OWA, OMA, RPC over HTTP, and Active Sync).
- Sendmail log files, which provide information on Sendmail server message volumes, message sizes, queue delays, recipient counts, host pair traffic, and much more.
- BlackBerry Configuration database, which provides information about BlackBerry users, devices, and server configurations.
- BlackBerry Agent log files, which provide information on BlackBerry server message volumes, message sizes, delivery times, and more.
- BlackBerry Phone log files, which provide information on BlackBerry device phone call activity.
- BlackBerry SMS log files, which provide information on BlackBerry device SMS text activity.

Coverage of Multiple Exchange, BlackBerry and Sendmail servers

A single AppAnalyzer Server can gather data from multiple Exchange, BlackBerry and Sendmail servers. The resulting report data is summarized to provide a comprehensive view.

Coverage of Multiple Domains

A single AppAnalyzer Server can summarize data from multiple Windows and BlackBerry domains. Reports published from such an AppAnalyzer Server can provide an enterprise-wide view.

Reporting

AppAnalyzer includes the following features for reporting:

Graphical and Tabular reports

AppAnalyzer produces both tabular reports and varieties of graphical reports that include bar, pie, or line charts. Many reports contain both tabular and graphical views of the data. If such a report is dynamic and the reader manipulates the report, both the tabular and graphical views are refreshed.

Interactive and Static reports

AppAnalyzer provides interactive reports, which can be manipulated to obtain different views of the reports' data. Dynamic reports allow for selective grouping of data, drilling down, and filtering to focus on the information that interests the report viewer most. In addition,

AppAnalyzer publishes static reports, which are displayed to readers in an unchangeable form.

Minimal Software Requirements for Report Viewing

Viewing reports requires only a Web browser or e-mail client. Reports can be viewed on any computer running Microsoft Internet Explorer.

Report Scheduling

You can publish and view reports on demand, in addition to publishing them on periodic schedules. Reports are published automatically at the frequency you select. Intervals from five minutes to one month are available.

Variable Report Destinations

You can publish reports to shared network directories and e-mail addresses. Reports can be published in various formats, including HTML, Adobe PDF,and Microsoft Excel.

Architecture

This section describes the architecture of AppAnalyzer with an overview of where the data flows during data gathering, processing, and reporting.

AppAnalyzer Server – The AppAnalyzer Server runs the data gathering and other tasks and manages the database.

SQL Server – The collected data and information about the AppAnalyzer configuration is kept in a SQL database in Microsoft's SQL Server.

SQL Server Report Server -- Report definitions and subscriptions are stored within the SQL Server Report Server. This server also processes the report queries and renders each finished report.

Console clients – Clients access the AppAnalyzer server and the databases via theWebAdmin Console for administrative functions and reporting.

AppAnalyzer Installation and Upgrades

This section describes the process for both new installations of AppAnalyzer, and upgrades to existing AppAnalyzer implementations.

System Requirements

AppAnalyzer System requirements are divided into the following categories:

- Microsoft Exchange requirements.

- Server requirements – These requirements apply to the following components, which you can install on different computers.
  - AppAnalyzer Server
  - AppAnalyzer SQL Database Server
  - AppAnalyzer SQL Reporting Services Server
- Client requirements – Apply to the computers from which the WebAdmin or published reports are accessed.
- AppAnalyzer Service requirements – These include the logon account and Exchange mailbox that this service uses.

Microsoft Exchange Requirements

AppAnalyzer can report on Exchange 2007, Exchange 2010, Exchange 2013 or a mixed environment. Wherever it makes a difference during installation or configuration, the difference is explained. Your Exchange environment requirements are as follows:

- You must create a mailbox that the AppAnalyzer service can use. If you are running AppAnalyzer in a mixed Exchange 2007 and Exchange 2010/2013 environment, you must use an account with a mailbox on an Exchange 2007 server for the AppAnalyzer Service Account. You will be prompted during installation for two accounts -- An Exchange 2007 mailbox account for the AppAnalyzer Service and an Exchange 2010/2013 mailbox account for collecting data from Exchange 2010/2013 servers.

Exchange Server IIS Log Requirements

If you plan to gather data for Exchange Client Access reports, you must enable IIS logging with extended properties. Use the following procedure to enable IIS logging:

1. Launch the Internet Information Services (IIS) Manager on the Exchange Server.
2. Locate the web site that hosts Exchange.
3. Select the Properties for the web site.
4. On the Web Site tab, select Enable Logging.
5. From the Active log format menu, select W3C Extended Log File Format.
6. In the Enable Logging field, click Properties.
7. Click the Advanced tab.
8. Select Date, Time, and the following Extended Properties:
   - Client IP Address (c-ip)
   - User Name (cs-username)
   - Server IP Address (s-ip)
   - Server Port (s-port)
   - Method (cs-method)
   - URI Stem (cs-uri-stem)
   - URI Query (cs-uri-query)
   - Protocol Status (sc-status)
   - Protocol Substatus (sc-substatus)
   - Win32 status (sc-win32-status)
   - Bytes Sent (sc-bytes)
   - Bytes Received (cs-bytes)
   - User Agent (cs-User-Agent)

Exchange Server Message Tracking Log Requirements

To gather data about and report on message traffic and delivery times, ensure message tracking is turned on. Message tracking is required only if you want to view or publish reports that are dependent on the Exchange Log type of data gathering task. By default, message tracking is enabled on all Exchange 2010 computers that have the Hub Transport, Edge Transport, or Mailbox server roles installed.

To turn on message tracking in Exchange:

See the Microsoft article, "Configure Message Tracking" - http://technet.microsoft.com/en-us/library/aa997984.aspx .

Exchange Server Transport Agent Log Requirements

To gather data about and produce Exchange anti-spam reports, ensure that the anti-spam agent(s) is installed and configured on the Exchange Transport servers. By default, agent logging is enabled on a Hub Transport server or an Edge Transport server. For more information about the anti-spam agent logging, see "Understanding Agent Logging" - http://technet.microsoft.com/en-us/library/bb124795.aspx.

BlackBerry Requirements

AppAnalyzer can report on BlackBerry Enterprise Server 4.1.6 (or higher 4.x versions) and 5.0.x (or higher 5.x versions). Because AppAnalyzer supports multiple BES domains, it is possible to report on both 4.1.6 and 5.0.x BlackBerry domains at the same time.

BlackBerry Mailbox Agent Logs

The Mailbox Agent logs are enabled by default on all BlackBerry Enterprise Server instances. These logs contain synchronization data between the BlackBerry Configuration Database and user mailboxes and are the primary source of data for a majority of the AppAnalyzer reports. The BlackBerry Enterprise Server offers several logging details options. The BES 5.0.x recommended settings are:

Log Identifier -- The default setting is MAGT. This should not be modified in order for AppAnalyzer to properly identify the log files.

Log Level -- The default setting is Debug. This should not be modified in order for AppAnalyzer to properly identify the log files.

Log Auto-roll -- The default setting is True. AppAnalyzer supports either setting.

Log Encoding -- The default setting is UTF-8. This should not be modified in order for AppAnalyzer to properly identify the log files.

Daily File Creation -- The default setting is True. AppAnalyzer supports either setting.

Maximum Size of Daily Log Files (MB) -- The default setting is 500. AppAnalyzer supports any size.

Maximum Age of Daily Log Files -- The default setting is null. If you configure an aging period, it is important that you schedule your BlackBerry Agent log tasks to execute prior to the removal of the daily logs.

BlackBerry Phone Call and SMS Logs

The BlackBerry Phone Call logs and SMS logs contain data on phone calls and SMS text messages made and received by BlackBerry devices. These two files are enabled within the BES IT Policies under the PIM Synchronization options: 1) Disable Phone Call Log Wireless Synchronization, and 2) Disable SMS Messages Wireless Synchronization. By default, the Phone Call Log is enabled, but the SMS Messages log is not. You must enable these logs to generate AppAnalyzer reports on specific phone call and SMS text activity.

AppAnalyzer Server Requirements

Server requirements apply to the computer(s) on which you install the AppAnalyzer components listed in the following table.

Component	Includes
AppAnalyzer Server	• Files, objects, and other items for the operation of the AppAnalyzer Server • AppAnalyzer Web Service • WebAdmin Console • Documentation, including Help
AppAnalyzer SQL Database	• Database that stores the data gathered by AppAnalyzer
AppAnalyzer SQL Reporting Services Server	• Report publishing engine

If you install multiple components on a single computer, it must meet the combined requirements of those components.

Note: Do not install any of these components on an Exchange or Sendmail Server.

AppAnalyzer Server

The AppAnalyzer Server has the following requirements:

Hardware

Please refer to the "Hardware Sizing" section for specific hardware recommendations. The minimum platform is:

Component	Requirement	Comments
Processor	• AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support	• AppAnalyzer is a 64-bit application and must be run on a 64-bit platform.
Memory	• Minimum: 2 gigabyte (GB) of RAM.	
Disk	• Minimum: 10 (GB) for program files and temporary files.	• Additional drive space may be needed for processing larger log files.
Screen Resolution	• Minimum: 1024 x 768 pixels.	

Operating System

- Microsoft Windows Server 2008 Standard or Enterprise 64-bit.
- Microsoft Windows Server 2012 Standard or Datacenter.

Applications

- Microsoft Internet Information Services (IIS) 6.0 or later with Management Capability.
- Microsoft Internet Explorer 8.0 or later.
- Microsoft .NET Framework version 4.0 or higher.
- Microsoft ASP.NET (4.0.30319.0 or higher).
- Microsoft Report Viewer 2010.
- Microsoft Exchange Server 2007 Management Tools (Exchange 2007 environment)
- PowerShell 2.0

Note: The Web-based WebAdmin Console is installed to virtual directories on a specified IIS Web site. The Web site where the installation program creates these virtual directories must already exist. If you are using the Default Web Site, it was created when you installed IIS. To use a non-default Web site for these consoles, create it before you run the installation program. The program only lets you choose from existing IIS Web sites.

AppAnalyzer SQL Database

The AppAnalyzer SQL Database has the following requirements:

Hardware

Please refer to the "Hardware Sizing" section for specific hardware recommendations. The minimum platform is:

Component	Requirement	Comments
Processor	• x64 architecture-based computer with Intel processor that supports Intel 64 architecture (formerly known as Intel EM64T). • AMD processor that supports the AMD64 platform. • Intel Pentium or compatible 800-megahertz (MHz) or faster 32-bit processor.	
Memory	• Minimum: 2 gigabyte (GB) of RAM.	
Disk	• Minimum: 200 MB for initial database, transaction log and temporary files. • Recommended: 5 GB for database, and 5 GB for transaction log and temporary files (preferably on separate drives).	Disk space requirements vary from installation to installation. They are much higher than the initial minimum requirement and increase as you gather more and more data over time. Requirements tend to increase as the following items increase: • Number of monitored Exchange Servers • Types of data gathered • Retention periods of gathered data, which are specified on the Options page of the WebAdmin Please refer to the "Hardware Sizing" section for specific hardware recommendations.
Screen Resolution	• Minimum: 1024 x 768 pixels.	

Applications

- Microsoft SQL Server 2008 (Workgroup, Standard or Enterprise editions only) or 2012 (Enterprise, BI, or Standard).
- Select one of the SQL Server collations supported by AppAnalyzer. Collations are identified by collation designator or “SQL collation.” If you select a collation designator, it must be Latin1_General. The sort order **must** be case-insensitive. (Do not select binary sort order.) If you select a SQL collation, it must use the 437 (U.S. English) or 1252 character set. It must specify dictionary sort order. For more information about collations, refer to your Microsoft SQL Server documentation.

- The AppAnalyzer SQL Database has a default name of AppAnEx, but you can select a different name during setup.

AppAnalyzer SQL Reporting Services Server

AppAnalyzer requires Microsoft SQL Reporting Services in order to store all report definitions, subscription and history settings, and report security. Typically, the SQL Reporting Services component is installed on the same server as the AppAnalyzer SQL Database server. The AppAnalyzer SQL Reporting Services Server has the following requirements:

Hardware

Please refer to the "Hardware Sizing" section for specific hardware recommendations. The minimum platform is:

Component	Requirement	Comments
Processor	• x64 architecture-based computer with Intel processor that supports Intel 64 architecture (formerly known as Intel EM64T). • AMD processor that supports the AMD64 platform. • Intel Pentium or compatible 800-megahertz (MHz) or faster 32-bit processor.	
Memory	• Minimum: 1 gigabyte (GB) of RAM.	
Disk	• Minimum: 1 gigabyte (GB).	Disk space requirements will depend on the number of report definitions created and report snapshots retained.
Screen Resolution	• Minimum: 1024 x 768 pixels.	

Applications

- Microsoft SQL Server Reporting Services version 2008 R2 (Workgroup, Standard or Enterprise editions only).
- Microsoft SQL Server Reporting Services version 2012 (Standard or Enterprise editions only)

Client Requirements

Client requirements apply to the computers from which the WebAdmin Console or published reports are accessed.

- **Console clients** – Computers that access the WebAdmin Console, for administration or regular users.
- **Published report clients** – Computers that access reports published to e-mail addresses or shared network directories.

A single computer can be either or both type of client.

Console clients

On client computers that access the WebAdmin Console, you need Microsoft Internet Explorer 8.0 or later and a connection to the intranet with access to the WebAdmin Console Web server. This can be the same computer on which you install the AppAnalyzer Server.

Published report clients

On client computers that access published reports you need a Web Browser and a connection to the intranet with access to the shared network directories. (Published reports are HTML files.)

On client computers that access reports published to email addresses, email client software such as Microsoft Outlook is required. You can satisfy these requirements before or after installation.

Localization Requirements

There are three places to set localization:

AppAnalyzer Server computer – You can install this computer with any locale settings you need in order to view non-English characters correctly in reports sent by e-mail or to a share.

AppAnalyzer Service account – You must set the language of the logged-on user account to US English. You can set the language from the Control Panel.

1. Select Start > Settings > Control Panel > Regional Options.
2. On the General tab, select English [United States] in the Your locale (location) field.

SQL Server – When you install Microsoft SQL Server, set it to the Latin1 codepage ISO 1252 or US437 character set.

When you install a SQL Server instance, specify the default collation for that instance during setup. That collation is the default collation of the system databases: master, model, tempdb, msdb, and Distribution.

Check your Microsoft SQL Server documentation for details.

First-time Install Overview

AppAnalyzer is an enterprise-class application that requires proper planning for a successful implementation. This section provides the information needed to plan your deployment, prepare your environment, and perform the installation.

Hardware Sizing

Generally, installing SQL Server on a different computer than the AppAnalyzer Server results in better performance, provided they are connected by a fast, high-capacity, and reliable network connection.

It is best if the SQL Server computer has multiple fast processors, large amounts of memory, and multiple physical hard disks, especially when AppAnalyzer must process large volumes of data. In addition, a redundant array of independent disks (RAID) system is beneficial both for performance and disaster recovery.

The following table lists minimum hardware recommendations based on the number of e-mail users. These recommendations are based on several assumptions, including average usage levels of Exchange Server. Therefore, your actual requirements might vary from the recommendations.

Exchange Mailboxes	Minimum Hardware Recommendations
Under 1,000	AppAnalyzer Server, SQL Server & SQL Report Server all on the same computer: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 2Gb RAM • 2 Physical disk drives • 20Gb Minimum disk space
1,000 - 5,000	AppAnalyzer Server, SQL Server & SQL Report Server all on the same computer: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 4 Gb RAM • 3 Physical disk drives [RAID preferred] • 100 Gb Minimum disk space

5,000 - 20,000	AppAnalyzer Server: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 4Gb RAM • 2 Physical disk drives • 20 Gb Minimum disk space SQL Server & SQL Report Server on same computer: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 8Gb RAM • 3 Physical disk drives [RAID preferred] or high-speed SAN attached drives. • 100 Gb Minimum disk space
20,000 - 50,000	AppAnalyzer Server: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 4 Gb RAM • 3 Physical disk drives • 40Gb Minimum disk space SQL Server & SQL Report Server on same computer: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 12 Gb RAM • 4 Physical disk drives [RAID] or high-speed SAN attached drives. • 200 Gb Minimum disk space
50,000 - 100,000	AppAnalyzer Server: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 4 Gb RAM • 3 Physical disk drives • 40 Gb Minimum disk space SQL Server & SQL Report Server on same computer: • Processor Type: AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support • Processor Speed: Minimum 1.4 Ghz • 16 Gb RAM • 6 Physical disk drives [RAID} or high-speed SAN attached drives. • 300 Gb Minimum disk space

Over 100,000	Use the same server configuration as you would for 50,000 - 100,000 users. However, the amount of data retention needs to be very controlled. For example, Detailed Message traffic data would only be retained for less than 30 days. Contact Sirana Technical Support for specific hardware sizing guidance.

Note: AppAnalyzer has been tested in both VMware Server and Microsoft Hyper-V Server virtual environments and has no functional limitations or restrictions. It is important to note that AppAnalyzer is an enterprise-class application, and as such, all virtual sessions should be configured to perform equivalent to a physical server environment.

Data Retention

Detailed Data

AppAnalyzer imports detailed message traffic data from the Exchange message tracking logs into the AppAnalyzer SQL database during the Exchange Log task. These detailed message traffic database tables contain information about each message all the way down to the individual message-level. These message-level details include things like the originator, recipient, recipient count, size of message, message subject, time of origination, time of delivery, encryption level, and message ID.

Since the data for each message is loaded into the database, larger customer environments could expect to see literally millions of new rows added to their database each day. Trying to execute SQL queries against this large amount of data would make reporting very slow. AppAnalyzer addressed this issue in two ways.

Summary Data

Attempting to diagnose why a certain message took a long time to be delivered, or trying to find all of the messages that are over a certain size are usually short-term reporting and analysis needs, and do not require several months of detailed message traffic. AppAnalyzer builds summarized data aggregations from the detailed message traffic tables during the Data Aggregation task. These summary message traffic tables allow you to do long-term trend analysis (i.e. many months or years) without having to retain the huge amount of data associated with detailed message-level traffic. Most of the AppAnalyzer message traffic reports are based off of this summary message traffic data.

Data Aging

Built-in database aging and maintenance ensure that your data warehouse remains manageable and efficient. Different aging periods can be set for the detailed message traffic and summary message traffic data. Detailed message traffic should be retained for a shorter period, while Summary message traffic may be kept for many months or even years.

Setting-up the Installer Account

To run the installation program, you must be logged in using an account that has the following permissions:

- Administrative permissions on the computer where you want to install AppAnalyzer, which you can get by being a member of the local Administrators group.
- Permissions to create the AppAnalyzer SQL Database and logins on the SQL Server, which you can get by adding this account to the appropriate role in SQL Server Management Studio. If you cannot run the installer with an account that has these permissions, you can specify a SQL Server login name and password with these permissions during the installation.
- Permissions to create the report definitions and data source on the SQL Server Reporting Services server.

Service Account Permissions

The AppAnalyzer Server service runs with a service account that requires specific permissions to gather data from the Exchange environment, insert this data into the SQL Server database, and process SQL Server Reporting Services report queries.

SQL Server Permissions

The AppAnalyzer Server connects to the AppAnalyzer SQL Server database using either Windows Authentication or SQL Authentication. You must choose between one of these two authentication methods during installation.

SQL Authentication

By default, AppAnalyzer will rely on SQL authentication as it is typically the most reliable. The AppAnalyzer Installation will either create this account for you, or allow you to use an existing SQL account. If you choose to rely on an existing SQL account, it must have the following permissions:

- Server Role: public
- User Mapping: The account must be a dbo on the AppAnalyzer database.

Windows Authentication

AppAnalyzer can operate using Windows authentication, but it is recommended to only choose this option if you are running all of the AppAnalyzer components (AppAnalyzer Server, AppAnalyzer SQL Server, and AppAnalyzer SQL Report Server) on the same server. The AppAnalyzer Installation will add the AppAnalyzer service account to the AppAnalyzer SQL Server with the necessary permissions. The following permissions are established for the AppAnalyzer service account:

- Server Role: public
- User Mapping: dbo on the AppAnalyzer database.

Exchange Permissions

The AppAnalyzer Server service gathers data from the Exchange server under the authority of the permissions assigned to the AppAnalyzer service account. The AppAnalyzer Server service account must have an associated mailbox in Exchange. AppAnalyzer supports all versions of Exchange 2007, Exchange 2010 and Exchange 2013.

NOTE: If you are running AppAnalyzer in a mixed Exchange 2007 and Exchange 2010/2013 environment, you must use an account with a mailbox on an Exchange 2007 server for the AppAnalyzer Service Account. You will be prompted during installation for two accounts -- An Exchange 2007 mailbox account for the AppAnalyzer Service and an Exchange 2010/2013 mailbox account for collecting data from Exchange 2010/2013 servers.

In order to run the core AppAnalyzer Exchange data collection tasks on an Exchange 2007/2010/2013 server, the AppAnalyzer service account must have the following permissions:

- Exchange Organization Administrator permissions.
- Rights to read and write files on the Exchange server administrative shares.
- Rights to read and write files from the Exchange server tracking log shares.
- Rights to read and write files from the Exchange server transport agent log shares.
- Rights to read and write files from the Exchange server IIS log locations.
- Rights to read and write to all Exchange server mailbox and public folder store file system directories.

Optional Rights for Mailbox and Public Folder Content tasks

The AppAnalyzer Mailbox Content and Public Folder Content tasks collect keyword and attachment related content from messages stored in Exchange server mailboxes and public folders. These are optional data collection tasks that should only be used on an ad hoc basis. In addition to the normal Exchange permissions outlined above, the AppAnalyzer service account must be granted Full Mailbox Access to each mailbox that will be scanned by the Mailbox Content task. To grant Full Mailbox Access on Exchange servers:

Add Impersonation Permissions for both Exchange 2007/2010/2013 accounts

New-ManagementRoleAssignment -Role:ApplicationImpersonation -User:AppAnalyzerServiceAccount

Additional step for service account to work on Exchange 2007 servers

Get-ExchangeServer | Where {$_.ServerRole -match "ClientAccess"} | Add-ADPermission -User AppAnalyzerServiceAccount -ExtendedRights ms-Exch-EPI-Impersonation -InheritanceType None

Note: Replace "ExchangeServer" with the name of your Exchange server. Also replace "AppAnalyzerServiceAccount" with the name of your AppAnalyzer service account.

Sendmail Permissions

The AppAnalyzer Server service gathers data from the Sendmail server under the authority of the permissions assigned to the AppAnalyzer service account. The Sendmail log files can be retrieved by connecting to either a FTP location or UNC file path location. By default, the AppAnalyzer Server service account is utilized for this authentication to the Sendmail server log location. This can be overridden by updating the properties of the Sendmail server within the AppAnalyzer WebAdmin Console.

BlackBerry Permissions

The AppAnalyzer Server service gathers data from the BlackBerry server under the authority of the permissions assigned to the AppAnalyzer service account.

BlackBerry Configuration Database

The BlackBerry Database task connects to the BlackBerry Enterprise Server Configuration database and copies key BES server and device configuration and usage information. This task is required for all BlackBerry reports and should be run daily. By default, the AppAnalyzer Server service account is utilized for this authentication to the BlackBerry configuration database and the account should have a minimum of Read Only permissions to the database. This can be overridden by updating the properties of the BlackBerry domain within the AppAnalyzer WebAdmin Console.

BlackBerry Log Files

The BlackBerry message agent, phone call, and SMS log files can be retrieved by connecting to a UNC file path location. By default, the AppAnalyzer Server service account is utilized for this authentication to the BlackBerry server log location. This can be overridden by updating the properties of the BlackBerry server within the AppAnalyzer WebAdmin Console.

Preparing Exchange

AppAnalyzer collects three different types of log files from the Exchange server: Exchange Message Tracking logs, Exchange Transport Server Agent logs, and Internet Information Services (IIS) logs. These logs must be enabled and accessible by the AppAnalyzer service account in order to report on message traffic and client access related activity.

Exchange Server IIS Log Requirements

If you plan to gather data for Exchange Client Access reports, you must enable IIS logging with extended properties. Use the following procedure to enable IIS logging:

1. Launch the Internet Information Services (IIS) Manager on the Exchange Server.
2. Locate the web site that hosts Exchange.
3. Select the Properties for the web site.
4. On the Web Site tab, select Enable Logging.
5. From the Active log format menu, select W3C Extended Log File Format.
6. In the Enable Logging field, click Properties.
7. Click the Advanced tab.
8. Select Date, Time, and the following Extended Properties:
    - Client IP Address (c-ip)
    - User Name (cs-username)
    - Server IP Address (s-ip)
    - Server Port (s-port)
    - Method (cs-method)
    - URI Stem (cs-uri-stem)
    - URI Query (cs-uri-query)
    - Protocol Status (sc-status)
    - Protocol Substatus (sc-substatus)
    - Win32 status (sc-win32-status)
    - Bytes Sent (sc-bytes)
    - Bytes Received (cs-bytes)
    - User Agent (cs-User-Agent)

The Exchange Server IIS Log task gets its data from the IIS logs, so they must be available to the AppAnalyzer Server Service Account. There are several ways you can make them available:

- Grant the AppAnalyzer service account local administrator permissions on the Exchange server (or Domain Administrator).
- Share the default log file directory (\%WinDir%\system32\LogFiles\W3SVC1).
- Configure the logs to go in a directory that is already shared or configure a utility to copy them to such a directory.
- List the location of the log-file directory in the IIS Log File Location field on the Exchange Server Properties dialog.

Exchange Server Message Tracking Log Requirements

To gather data about and report on message traffic and delivery times, ensure message tracking is turned on. Message tracking is required only if you want to view or publish reports that are dependent on the Exchange Log type of data gathering task. By default, message tracking is enabled on all Exchange 2010 computers that have the Hub Transport, Edge Transport, or Mailbox server roles installed.

To turn on message tracking in Exchange:

See the Microsoft article, "Configure Message Tracking" - http://technet.microsoft.com/en-us/library/aa997984.aspx .

Exchange Server Transport Agent Log Requirements

To gather data about and produce Exchange anti-spam reports, ensure that the anti-spam agent(s) are install and configure on the Exchange Transport servers. By default, agent logging is enabled on a Hub Transport server or an Edge Transport server. For more information about the anti-spam agent logging, see "Understanding Agent Logging" - http://technet.microsoft.com/en-us/library/bb124795.aspx.

Begin Install

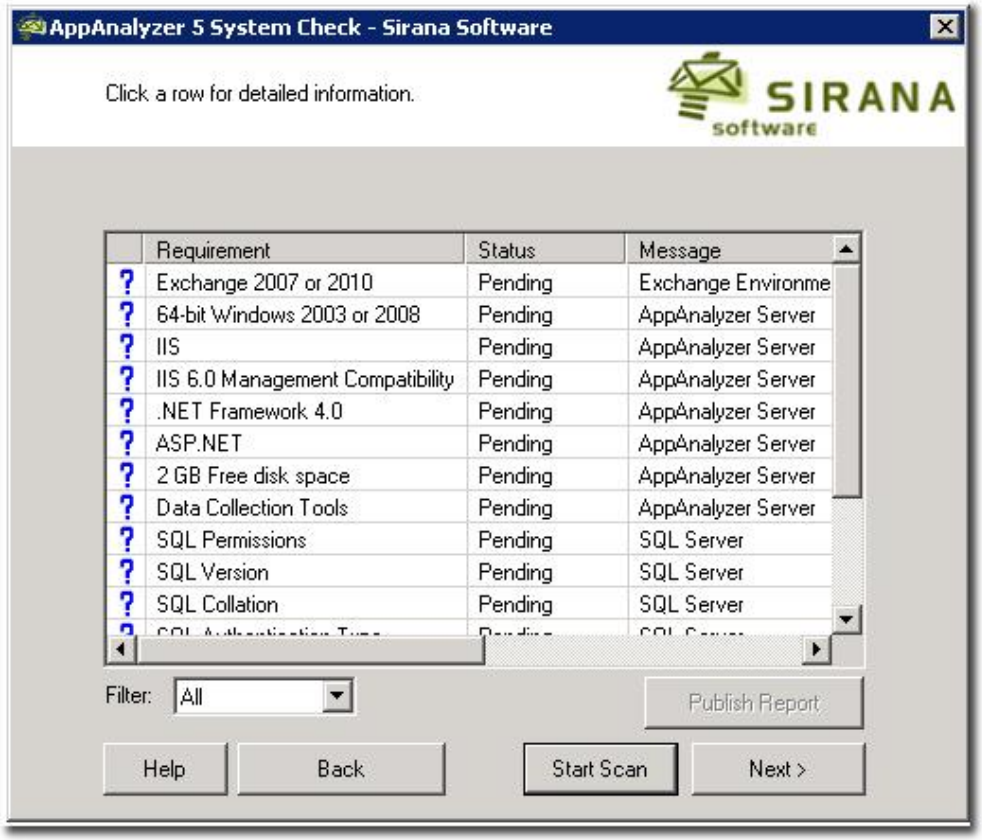
Run the Setup executable from the AppAnalyzer download location to start the Installation Wizard for Sirana AppAnalyzer.

Pre-Installation Check Utility

The Pre-Installation Check utility scans your environment to confirm that you have the necessary hardware, software, and account access permissions to properly perform an installation or upgrade. The initial dialog verifies the existence and connectivity to the Microsoft SQL Server and Microsoft SQL Server Reporting Services Server you intend to utilize for your AppAnalyzer operations. You will also need to provide a service account that will be used by AppAnalyzer to perform data gathering, reporting publishing, and database access.

If you plan to utilize non-default virtual directory settings for your Microsoft SQL Server Reporting Services server, click on the "**Advanced Report Server Options**" button and complete the following dialog and click the "Update" button.

After inputting the necessary server locations, service account, and virtual directory information, the initial list of items to be scanned will appear.



Click the "Start Scan" button to verify that all requirements have been met before continuing with the AppAnalyzer installation. This utility can be run several times if needed to confirm all components are correctly installed.

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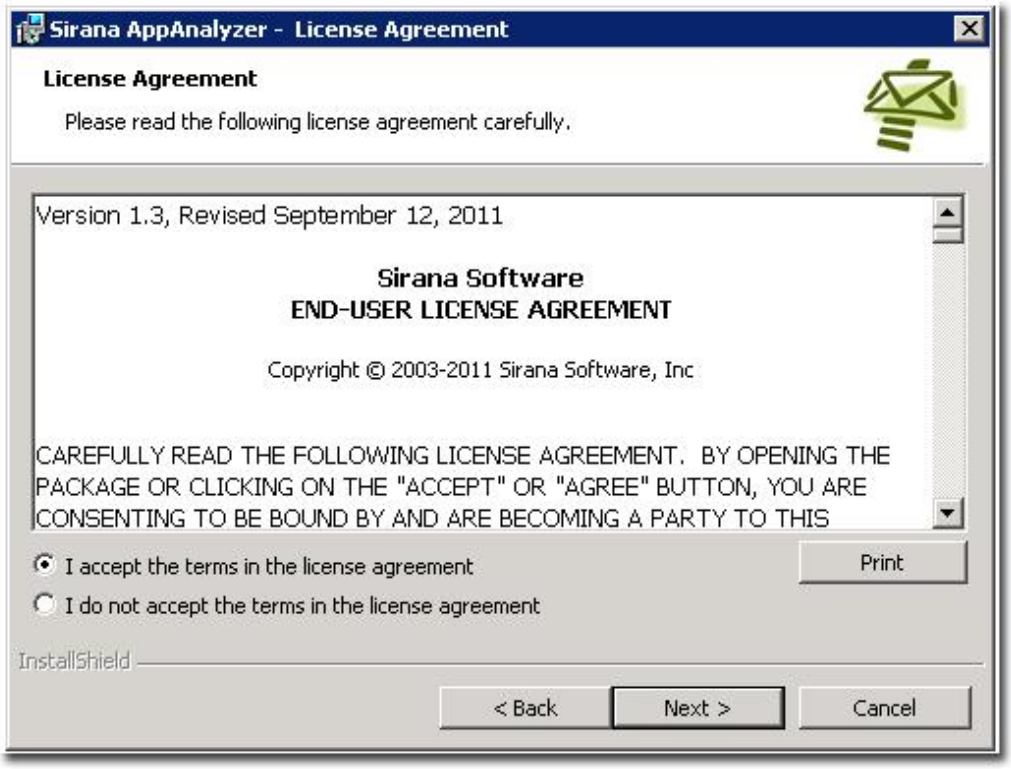
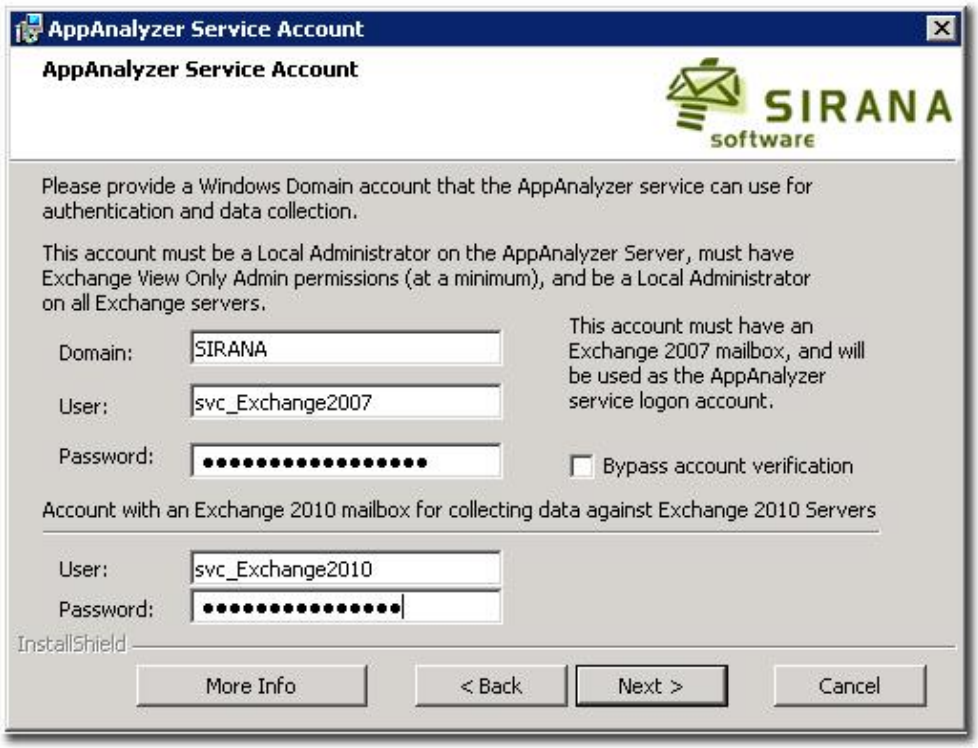
License Agreement

You must accept the Sirana AppAnalyzer license agreement in order to proceed with installation.



AppAnalyzer Service Account

Input a domain account and password that the AppAnalyzer Server service can use for ongoing authentication and data collection. This account must be an Administrator on the AppAnalyzer Server machine, as well as being a domain account (not a local computer account). Additionally, this account needs at least "Exchange View Only Administrator" permission to perform key data gathering tasks. In a mixed Exchange 2007 and Exchange 2010 environment, the primary service account needs have a mailbox on an Exchange 2007 mailbox server. A secondary account with a mailbox on an Exchange 2010/2013 mailbox server must also be provided.



Set-up the WebAdmin

Use this dialog to specify the IIS Virtual Server settings. AppAnalyzer can be installed in a non-default web site if you prefer.

SQL Reporting Services Server

Input the name of the Microsoft SQL Server Reporting Services server that will host the AppAnalyzer report definitions and subscriptions. If you have modified your virtual directory settings for Microsoft SQL Server Reporting Services, you can also input the appropriate SQL Server Reporting Services virtual directory names.

SQL Database Settings

These settings apply to the Microsoft SQL Server settings.

1. In the Database Name field, specify a name for the AppAnalyzer SQL Database. In the Database Server field, input the server name of the SQL Server that hosts AppAnalyzer database.
2. Select Windows Authentication if you want to connect to the SQL database using the Windows domain credentials that you are currently logged-on with. Select SQL Server Authentication if you want to connect using SQL Server security, then specify a SQL Server login name in the User ID field, and the appropriate password in the Password field. Note this account is used only during installation and database creation.
3. Click Next to continue.

AppAnalyzer Database Authentication

The AppAnalyzer Server service will need a constant connection to the AppAnalyzer SQL Server database. You can choose to have the AppAnalyzer Server service connect to the SQL Server using SQL Authentication or Windows Authentication. The default setting is SQL Authentication as this is the easiest method for distributed environments (AppAnalyzer Server and SQL Server on separate physical machines).

If you do select SQL Authentication for your authentication type, another dialog will appear that describes which SQL account will be used for the connection. By default, the Sirana AppAnalyzer Set-up Wizard can create the SQL account for you. The account that will be created in SQL is called "AppAnalyzer" and this account will be given a random, strong password. If you prefer, you can supply your own SQL account (not Windows account) and password.

Selecting Setup Type

This dialog enables you to choose the installation location for the AppAnalyzer program files.

1. Select Complete to install the AppAnalyzer components in their default locations. Select Custom if you want to specify different installation directories.
2. Click Next.

If you selected Complete, click Next to Install the Program.

Ready to Install

1. In the Ready to Install the Program dialog, click Install.
2. In the Installing AppAnalyzer dialog, wait for the wizard to install the AppAnalyzer Server, the AppAnalyzer SQL Database, and the AppAnalyzer SQL Reporting Server. This process may take several minutes.
3. When you receive a message that the database setup completed successfully, click OK. In the Installation Wizard Completed dialog, click Finish.

Post Install

When the AppAnalyzer Set-up Wizard completes, it should present the option to launch the AppAnalyzer WebAdmin. Launch the WebAdmin and follow the steps in the Getting Started section to begin gathering data and working with reports.

Upgrade Overview

AppAnalyzer 6.0.0 only supports upgrades from AppAnalyzer 4.0.0 or higher. If you are currently running a version older than AppAnalyzer 4.0.0, please contact Sirana Technical Support for assistance.

Upgrade Steps

Upgrading from AppAnalyzer 5.1.0 to 6.0.0

A successful upgrade from AppAnalyzer 5.1.0 to AppAnalyzer 6.0.0 should follow these steps:

1. Allow all currently running tasks to complete or manually stop the tasks.
2. Stop the AppAnalyzer Server service.
3. Make a back-up of the AppAnalyzer SQL database.
4. Uninstall AppAnalyzer 5.1.0.
5. Install AppAnalyzer 6.0.0.

NOTE: AppAnalyzer 6.0.0 is a "64-bit only" application and must be installed on a Windows 2008 or Windows 2012 64 bit server. If you are currently running 4.x.x on a 32-bit server, you will need to uninstall first and then install AppAnalyzer 6.0.0 on a new, 64-bit server. All task history, reports, and data will be maintained within the AppAnalyzer SQL database.

Post Upgrade

If you have moved your AppAnalyzer Server to a different server as part of the upgrade, you must take additional steps to ensure tasks will execute properly. See Post Upgrade for more details.

Permissions Required for Running Set-up

To run setup on a computer, you must have Administrative permissions on the computer where you are upgrading AppAnalyzer.

You must also have administrator's permissions to create the AppAnalyzer SQL Database and logins on the SQL Server. This includes the SQL Server Report Server. You can specify a SQL Server login name and password with these permissions during the AppAnalyzer set-up.

Begin Upgrade

Run the Setup.exe from the AppAnalyzer CD image or download location to start the Installation Wizard for Sirana AppAnalyzer.

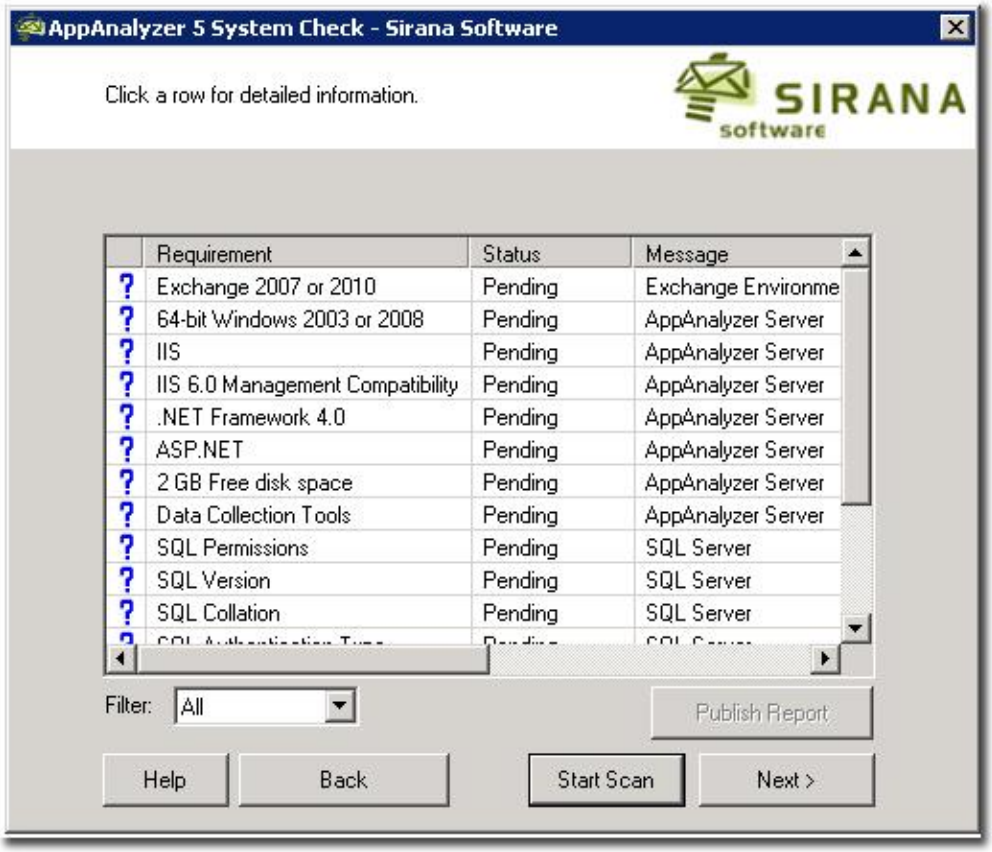
Pre-Installation Check Utility

The Pre-Installation Check utility scans your environment to confirm that you have the necessary hardware, software, and account access permissions to properly perform an

installation or upgrade. The initial dialog verifies the existence and connectivity to the Microsoft SQL Server and Microsoft SQL Server Reporting Services Server you intend to utilize for your AppAnalyzer operations. You will also need to provide a service account that will be used by AppAnalyzer to perform data gathering, reporting publishing, and database access.

If you plan to utilize non-default virtual directory settings for your Microsoft SQL Server Reporting Services server, click on the "**Advanced Report Server Options**" button and complete the following dialog and click the "Update" button.

After inputting the necessary server locations, service account, and virtual directory information, the initial list of items to be scanned will appear.



Click the "Start Scan" button to verify that all requirements have been met before continuing with the AppAnalyzer installation. This utility can be run several times if needed to confirm all components are correctly installed.

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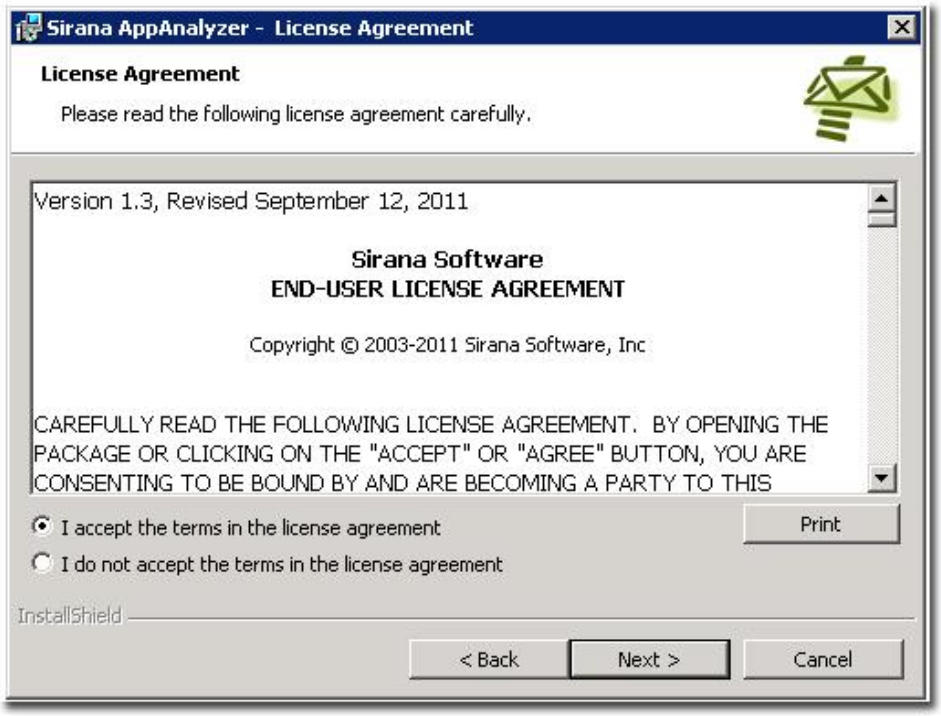
License Agreement

You must accept the Sirana AppAnalyzer license agreement in order to proceed with installation.



AppAnalyzer Service Account

Input a domain account and password that the AppAnalyzer Server service can use for ongoing authentication and data collection. This account must be an Administrator on the AppAnalyzer Server machine, as well as being a domain account (not a local computer account). Additionally, this account needs at least "Exchange View Only Administrator" permission to perform key data gathering tasks.

Set-up the WebAdmin

Use this dialog to specify the IIS Virtual Server settings. AppAnalyzer can be installed in a non-default web site if you prefer.

SQL Reporting Services Server

Input the name of the Microsoft SQL Server Reporting Services server that will host the AppAnalyzer report definitions and subscriptions. If you have modified your virtual directory settings for Microsoft SQL Server Reporting Services, you can also input the appropriate SQL Server Reporting Services virtual directory names.

Database Creation/Upgrade

These settings apply to the Microsoft SQL Server settings.

1. In the Database Name field, specify a name for the AppAnalyzer SQL Database. In the Database Server field, input the server name of the SQL Server that hosts AppAnalyzer database. This should be the same server name and database name as the AppAnalyzer 4.x database that was backed-up and restored during the upgrade preparation steps. By default this database name is AppAnEx.
2. Select Windows Authentication if you want to connect to the SQL database using the Windows domain credentials that you are currently logged-on with. Select SQL Server Authentication if you want to connect using SQL Server security, then specify a SQL Server login name in the User ID field, and the appropriate password in the Password field.
3. Click Next to continue.

AppAnalyzer Database Authentication

The AppAnalyzer Server service will need a constant connection to the AppAnalyzer SQL Server database. You can choose to have the AppAnalyzer Server service connect to the SQL Server using SQL Authentication or Windows Authentication. The default setting is SQL Authentication as this is the easiest method for distributed environments (AppAnalyzer Server and SQL Server on separate physical machines).

If you do select SQL Authentication for your authentication type, another dialog will appear that describes which SQL account will be used for the connection. By default, the Sirana AppAnalyzer Set-up Wizard can create the SQL account for you. The account that will be created in SQL is called "AppAnalyzer" and this account will be given a random, strong password. If you prefer, you can supply your own SQL account (not Windows account) and password.

Note: If the AppAnalyzer SQL account already exists, an additional dialog will appear with instructions for updating this account. This typically only occurs during an upgrade from version 4.0 or higher of AppAnalyzer.

Selecting Set-up Type

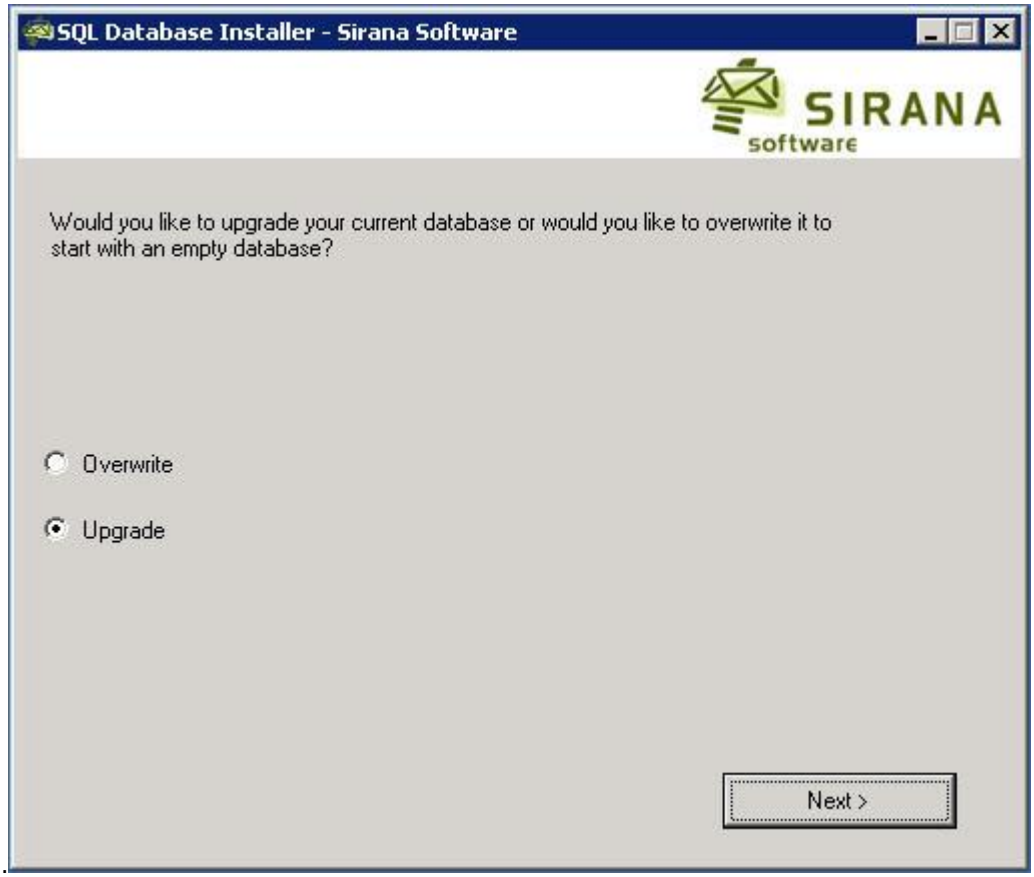
This dialog enables you to choose the installation location for the AppAnalyzer program files.

1. Select Complete to install the AppAnalyzer components in their default locations. Select Custom if you want to specify different installation directories.
2. Click Next.

If you selected Complete, click Next to Install the Program.

Ready to Install

1. In the Ready to Install the Program dialog, click Install.
2. In the Installing AppAnalyzer dialog, wait for the wizard to install the AppAnalyzer Server, the AppAnalyzer SQL Database, and the AppAnalyzer SQL Reporting Server. This process may take several minutes.
3. A dialog should appear to choose between Overwriting your existing AppAnalyzer database, or upgrading it. Make sure to select Upgrade if you want to retain your old AppAnalyzer data for historical reporting and task history



When you receive a message that the database setup completed successfully, click OK. In the Installation Wizard Completed dialog, click Finish.

Post Upgrade

When the AppAnalyzer Set-up Wizard completes, it should present the option to launch the AppAnalyzer WebAdmin. Launch the WebAdmin and follow the steps in the Getting Started section to begin gathering data and working with reports.

AppAnalyzer Server Name Change

If you installed AppAnalyzer 5.0.1 on a different server than your prior AppAnalyzer server was installed, you will need to update the Tasks execution server within the AppAnalyzer SQL database. Each reccurring task that you had scheduled in AppAnalyzer 5.0.0 was assigned an AppAnalyzer Server for execution.

For example, you may have had daily tasks scheduled to collect the Exchange Logs on an AppAnalyzer 5.0.0 server called SERVER1. You installed the new AppAnalyzer 5.0.1 server on a new server called SERVER2. When you copied the database from the AppAnalyzer 5.0.0 server to the new AppAnalyzer 5.0.1 database location, those tasks will still be in the database with the SERVER1 as their execution server. Since SERVER1 no longer exists, the tasks will never run again. You must update the database to point all of those tasks to SERVER2.

You can manually delete all of the tasks within the WebAdmin Console and create new tasks with SERVER2 as your AppAnalyzer execution server. If you have numerous tasks, it may be easier to run a stored procedure within the AppAnalyzer SQL database and automatically update the execution server for all tasks. To run this stored procedure:

1. Launch the SQL Server Management Studio on the AppAnalyzer SQL Server and connect to the database engine.
2. Locate the AppAnalyzer database (default name is AppAnEx) under the Databases tree node.
3. Right click on the AppAnalyzer database and select New Query.
4. Type the following command: EXEC dbo.uti_change_exec_server_name '<old server name>', '<new server name>'
    - Using the example above, you would type: EXEC dbo.uti_change_exec_server_name 'SERVER1', 'SERVER2'
    - Make sure to type the server names in upper case.
5. Click the Execute button in the SQL Server Management Studio toolbar.
6. You should see a number of rows affected by the query. Once complete, close SQL Server Management Studio.

Licensing Overview

There are two types of licenses: Evaluation License and Full Use License.

Evaluation license

If no license fee is paid, an evaluation license is granted only for the evaluation period (that is, trial period) agreed upon by your enterprise and Sirana (or an authorized reseller). An evaluation license is granted for the exclusive purpose of testing and evaluating AppAnalyzer to determine whether you desire to obtain a full use license.

The evaluation period is measured from the date that you install AppAnalyzer. After the evaluation period expires, the AppAnalyzer Server no longer executes tasks, which effectively renders AppAnalyzer useless for its designed purposes. If the evaluation period expires, you can request an extension or replace your evaluation license with a full use license.

Full use license

If a license fee has been paid to Sirana or to an authorized reseller, a full use license is granted. A full use license allows you to use AppAnalyzer for productive use and continues unless and until terminated in accordance with the Termination clause of the license agreement.

Each full use license has a limit for the maximum number of Exchange Server mailboxes, Sendmail servers, and/or BlackBerry devices to be monitored by AppAnalyzer. If the limit is exceeded, you are reminded by the WebAdmin and other methods that you are not in compliance with the terms of your license agreement. If you exceed the mailbox, server, and/or device limit, you can come into compliance by:

- Increasing the limit by purchasing an additional license key and adding it to your license key list accessed from the AppAnalyzer WebAdmin Console.
- Reducing the number of monitored mailboxes, Sendmail servers, and/or BlackBerry devices by suspending data gathering on one or more Exchange, Sendmail, and/or BlackBerry servers.

License Keys

AppAnalyzer relies on license keys to recognize the terms of your license agreement, including the limit on evaluation period, number of monitored Exchange mailboxes, number of monitored Sendmail servers, and number of BlackBerry devices. License keys provide the information required not only to monitor and enforce limits but also to grant the proper limits. The latter purpose ensures that you are allotted the full evaluation period to which you and Sirana agreed or the full mailbox, server, and/or device limit for which you paid.

To ensure that AppAnalyzer recognizes the correct terms of your license, maintain your list of license keys such that it is always complete and up-to-date according to your current license.

By default, four license keys are installed with AppAnalyzer. They provide a 30-day evaluation license to evaluate the AppAnalyzer Server, AppAnalyzer for Exchange, AppAnalyzer for Sendmail, and AppAnalyzer for BlackBerry Enterprise Server. If you have a full use license or an evaluation license with a longer evaluation period, you must add the license key(s) for that license to the list of license keys.

AppAnalyzer for Exchange License Keys

There are two forms of AppAnalyzer for Exchange license keys:

- An AppAnalyzer for Exchange WebAdmin license is used to license the AppAnalyzer for Exchange administration console.
- A Mailbox license is used to license Exchange mailboxes for AppAnalyzer for Exchange reporting.

The WebAdmin license takes the form of a serial number. This serial number is provided to you when you purchase AppAnalyzer for Exchange, and is valid for use on a single AppAnalyzer server. The serial number takes the format of AEX-NNNNN-NNNNN-NNNNN-NNNNN where N is a letter or number. You enter the serial number using the AppAnalyzer WebAdmin.

The Mailbox license is also controlled by a serial number. Each mailbox license serial number represents a specific number of mailboxes, such as 6,500. You can install multiple mailbox license serial numbers on an AppAnalyzer server. When you do so, the number of licensed mailboxes is the total of the number of individual mailbox licenses you own. For example, if you add a 1,500 mailbox license to your existing 6,500 mailbox license, you will now be licensed for 8,000 mailboxes. You add the license file to the AppAnalyzer database using the AppAnalyzer WebAdmin.

AppAnalyzer for BlackBerry Enterprise Server License Keys

AppAnalyzer for BlackBerry Enterprise Server is a separate, add-on product that works in conjunction with AppAnalyzer for Exchange. There are two forms of AppAnalyzer for BlackBerry Enterprise Server license keys:

- An AppAnalyzer for BlackBerry Enterprise Server WebAdmin license is used to license the AppAnalyzer for BlackBerry Enterprise Server administration console.
- A device license is used to license BlackBerry Enterprise Server handheld devices for AppAnalyzer for BlackBerry Enterprise Server reporting.

The WebAdmin license takes the form of a serial number. This serial number is provided to you when you purchase AppAnalyzer for BlackBerry Enterprise Server, and is valid for use on a single AppAnalyzer server. The serial number takes the format of ABB-NNNNN-NNNNN-NNNNN-NNNNN where N is a letter or number. You enter the serial number using the AppAnalyzer WebAdmin.

The device license is also controlled by a serial number. Each device license serial number represents a specific number of BlackBerry Enterprise Server handheld devices, such as 100. You can install multiple device license serial numbers on an AppAnalyzer server. When you do so, the number of licensed devices is the total of the number of individual device licenses you own. For example, if you add a 100 device license to your existing 200 device license, you will now be licensed for 300 BlackBerry Enterprise Server handheld devices. You add the license file to the AppAnalyzer database using the AppAnalyzer WebAdmin.

AppAnalyzer for Sendmail License Keys

AppAnalyzer for Sendmail is a separate, add-on product that works in conjunction with AppAnalyzer for Exchange. There are two forms of AppAnalyzer for Sendmail license keys:

- An AppAnalyzer for Sendmail WebAdmin license is used to license the AppAnalyzer for Sendmail administration console.

- A Server license is used to license Sendmail servers for AppAnalyzer for Sendmail reporting.

The WebAdmin license takes the form of a serial number. This serial number is provided to you when you purchase AppAnalyzer for Sendmail, and is valid for use on a single AppAnalyzer server. The serial number takes the format of ASM-NNNNN-NNNNN-NNNNN-NNNNN where N is a letter or number. You enter the serial number using the AppAnalyzer WebAdmin.

The Server license is also controlled by a serial number. Each Server license serial number represents a specific number of Sendmail servers, such as 20. You can install multiple Server license serial numbers on an AppAnalyzer server. When you do so, the number of licensed Servers is the total of the number of individual Server licenses you own. For example, if you add a 15 Server license to your existing 20 Server license, you will now be licensed for 35 Sendmail servers. You add the license file to the AppAnalyzer database using the AppAnalyzer WebAdmin.

To ensure that AppAnalyzer recognizes the correct terms of your license, keep your list of license keys up-to-date with your current license. License keys are issued to you by Sirana Software and can be found by logging-on to the Sirana web site (or contacting the authorized reseller that your purchased from).

Determining Your License Key Numbers

To determine your current list of license key numbers, display the Options -- AppAnalyzer -- Licenses page of the WebAdmin.

If you need to add a license key but are unsure of the license key number that has been issued to you, logon to the Sirana Software web site and view the My Sirana section.

Another way to determine your license key number is to send an email to support@sirana.com. In your email, include:

- Your company's or organization's name
- Your company's or organization's mailing address
- A contact person's name, telephone number, and email address
- The product name, "AppAnalyzer"

A Sirana representative will respond to your email.

Viewing and Updating License Information

Your list of license keys is maintained from the Options -- AppAnalyzer Servers -- Licenses page of the WebAdmin. Whenever you are issued a new license key, be sure to add it to the list. Ordinarily, it is not necessary to delete license keys because AppAnalyzer is able to recognize and give precedence to the current license keys.

AppAnalyzer relies on license keys to recognize the terms of your license agreement, including the limit on evaluation period, number of monitored mailboxes, or WebAdmin seats.

Adding Licenses

To add a license key:

1. Logon to the WebAdmin Console.
2. Click on the Options -- AppAnalyzer -- Licenses page.
3. Input the serial number (license key) you received from Sirana Software or your reseller.
4. Click on the Add button
5. You will need to refresh the browser window to see the licenses appear.

If the key is valid, you should see your license information updated on the License page.

Expired and Exceeded Licenses

If you have an evaluation license, and the evaluation period expires, the following symptoms arise:

- When you start the WebAdmin, a pop-up window notifies you that the evaluation period has expired.
- The only page available to you in the WebAdmin is the Options page.
- The AppAnalyzer Server no longer executes tasks.

If you have a full use license, and you exceed the limit on the number of monitored mailboxes, the following symptoms arise:

- When you start the WebAdmin, a pop-up window notifies you that the mailbox limit has been exceeded.
- The upper, right-hand corner of the WebAdmin console will constantly display a license exceeded warning.

You can request extensions or replacements for both types of licenses as described here.

Removing AppAnalyzer

To remove AppAnalyzer, use the Add/Remove Programs component of Control Panel or run the setup program again. After removing AppAnalyzer, if you want to delete its database, you must do so manually.

Note: Deleting the AppAnalyzer SQL Database deletes all of the data that has been gathered by AppAnalyzer. This action also deletes task and report definitions and other operational data. After deletion, the only way to recover deleted data is to restore the database from a backup. Backups are not performed by AppAnalyzer. Rather, their creation is the responsibility of the AppAnalyzer administrator.

To delete the AppAnalyzer SQL Database, use the SQL Server Enterprise Manager.

Getting Started

The Getting Started section summarizes setting up your environment to gather messaging data, view and schedule reports, and secure AppAnalyzer.

Starting the WebAdmin Console

There are two ways to start the WebAdmin Console:

- From the Start menu - This method works only on the AppAnalyzer Server computer.
- Within Microsoft Internet Explorer - This method works on the AppAnalyzer Server computer and other computers that can connect to it, provided that Internet Explorer 8.0 (or later) is installed on those computers.

To start the WebAdmin Console from the Start menu:

Click Start > All Programs > Sirana Software> AppAnalyzer > AppAnalyzer WebAdmin.

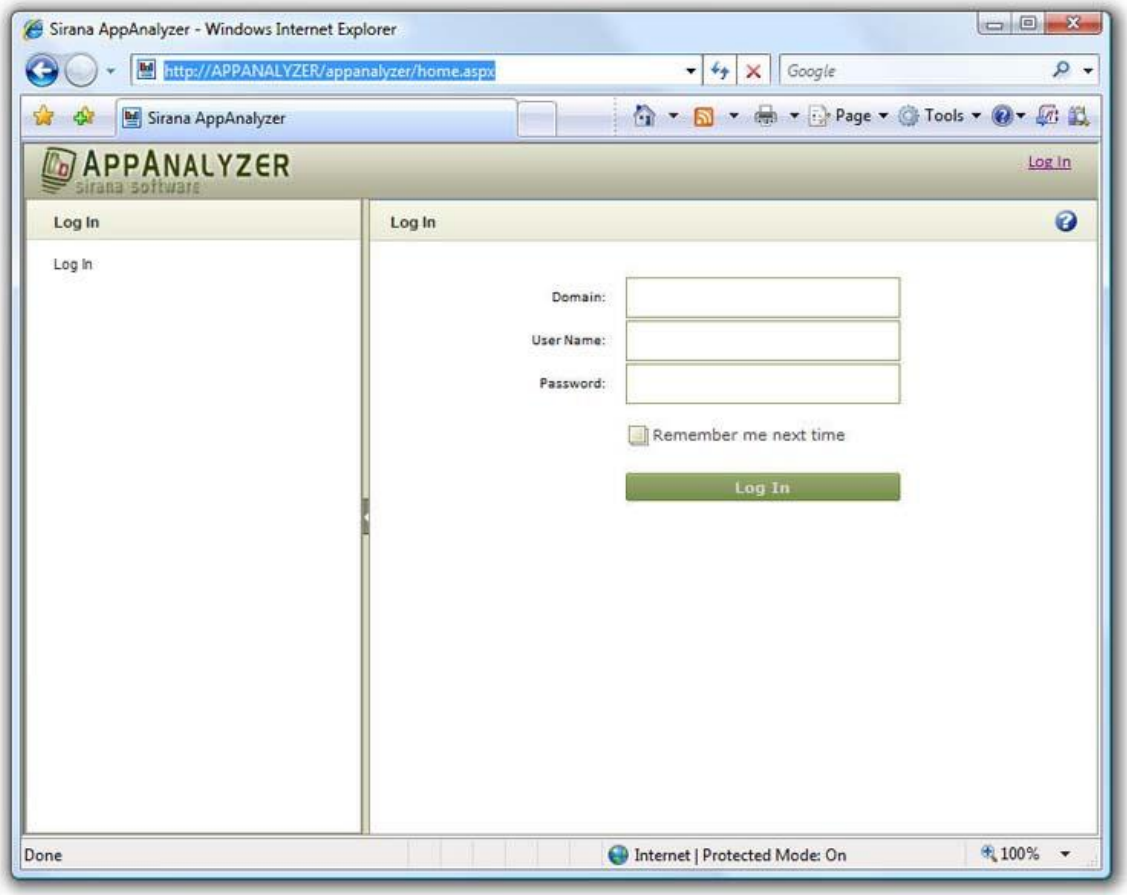
To start the WebAdmin Console from Internet Explorer:

1. Start Internet Explorer.
2. Go to the URL for the WebAdmin Console, which has the following format:
   http://<server-name>/<virtual-directory-alias>

   Where <server-name> is the name of the AppAnalyzer Server computer.

   <virtual-directory-alias> is the alias of the IIS virtual directory for the WebAdmin Console. The default value is AppAnalyzer, but you can specify a different value during setup.

The AppAnalyzer WebAdmin console is a Web-based user interface for administrators and end-users. The initial Log In screen is shown below.



Input a valid Windows domain, user name and password to logon.

Note: There are no security roles enabled until the first user logs on. For more about security roles and permissions, see AppAnalyzer Security.

AppAnalyzer Checklist

The AppAnalyzer Checklist should appear upon your first logon to the WebAdmin console. This checklist outlines the three main steps you must perform before viewing reports. These steps include:

Step 1: Run the Active Directory Task

The first data gathering task that should always be run on either a new installation or upgrade is the Active Directory task. This task gathers all of the email recipient information for your organization. You can execute this task by either clicking on the Step 1 icon, or going to the Tasks page of the WebAdmin and running the task.

Note: The Active Directory task should execute automatically on an upgrade from a previous version of AppAnalyzer.

Step 2: Gather Logs from the Messaging Servers

After successfully completing the Active Directory task, you can begin to gather other data for the AppAnalyzer reports. (You can skip this step if you are upgrading from a previous version of AppAnalyzer.) Click on the Step 2 icon to display the Task Wizard or by going to the Tasks page of the WebAdmin and scheduling a new task. It is not recommended to run all of the data gathering tasks immediately. See the Tasks Overview section for further details on the individual tasks. View the Tasks page to verify that all of the newly scheduled tasks have completed before moving on to Step 3.

Step 3: Process Data for Reports

The final step is to execute the Data Aggregation task. This task will aggregate the data for summary message traffic based reports and should only be run once all data collection has completed successfully. Click on the Step 3 icon to display the Task Wizard or by going to the Tasks page of the WebAdmin and scheduling a new task.

Once the Data Aggregation task has completed successfully, click on the "Do not show this checklist in the future" checkbox and reload the AppAnalyzer Today page.

Note: These are the minimum steps required in order to get messaging-related reports. Additional tasks are required for all reports to function.

Viewing Your First Reports

AppAnalyzer installs dozens of pre-built reports separated into various report categories. Once you have successfully completed the steps in the AppAnalyzer Checklist, many of these reports will begin to display data. Simply click on the Reports section of the WebAdmin and browse the reports within each category. You may find that additional data collection is needed to properly display some reports. See the Tasks Overview section for details on the individual data collection performed by each task. You can also learn more about how to modify, save, and export the reports in the Reports Overview section.

Publishing Your First Reports

Reports can be scheduled to be automatically emailed out to users or copied to file share locations via report Subscriptions.

To publish a report:

1. Click Reports in the WebAdmin Console.
2. Click on a report in the report tree.
3. From within the report, click New Subscription in the report toolbar area.
4. Follow the steps in the New Subscription Wizard to create the subscription.

Securing AppAnalyzer

AppAnalyzer is secured via a role-based authorization system that integrates with your organizations Windows Active Directory. The set of actions that a user or group of users can perform are controlled by their assignment to specific roles within AppAnalyzer. Additional levels of security can be implemented on a report by report basis by leveraging the built-in security of Microsoft SQL Server Reporting Services.

See AppAnalyzer Users and AppAnalyzer Roles for specific details on securing the AppAnalyzer WebAdmin.

AppAnalyzer WebAdmin

The AppAnalyzer WebAdmin is the user interface for configuring and managing AppAnalyzer, as well as viewing, editing, and publishing AppAnalyzer reports. The WebAdmin is divided into the following areas:

- AppAnalyzer Today
- Tasks
- Reports
- Security
- Exchange Configuration
- Sendmail Configuration
- BlackBerry Configuration
- Options

AppAnalyzer Today

This page is the default page of the WebAdmin Console, the user interface for administrators. Use this page to:

- Navigate to other pages and elements of the WebAdmin
- Obtain guidance through the post-setup procedures
- View favorite reports as well as upcoming tasks or tasks that ran most recently
- View the summarized status of your tasks, Exchange Servers, and user license

By default this page has two versions the AppAnalyzer Checklist contains steps for getting started. You can toggle it to show the My AppAnalyzer Today status page.

AppAnalyzer Checklist

The AppAnalyzer Checklist should appear upon your first logon to the WebAdmin console. This checklist outlines the three main steps you must perform before viewing reports. These steps include:

Step 1: Run the Active Directory Task

The first data gathering task that should always be run on either a new installation or upgrade is the Active Directory task. This task gathers all of the email recipient information for your organization. You can execute this task by either clicking on the Step 1 icon, or going to the Tasks page of the WebAdmin and scheduling a new task.

Note: The Active Directory task should execute automatically on an upgrade from a previous version of AppAnalyzer.

Step 2: Gather Logs from the Messaging Servers

After successfully completing the Active Directory task, you can begin to gather other data for the AppAnalyzer reports. (You can skip this step if you are upgrading from a previous version of AppAnalyzer.) Click on the Step 2 icon to display the Task Wizard or by going to the Tasks page of the WebAdmin and scheduling a new task. It is not recommended to run all of the data gathering tasks immediately. See the Tasks Overview section for further details on the individual tasks. View the Tasks page to verify that all of the newly scheduled tasks have completed before moving on to Step 3.

Step 3: Process Data for Reports

The final step is to execute the Data Aggregation task. This task will aggregate the data for summary message traffic based reports and should only be run once all data collection has completed successfully. Click on the Step 3 icon to display the Task Wizard or by going to the Tasks page of the WebAdmin and scheduling a new task.

Once the Data Aggregation task has completed successfully, click on the "Do not show this checklist in the future" checkbox and reload the AppAnalyzer Today page.

Note: These are the minimum steps required in order to get messaging-related reports. Additional tasks are required for all reports to function.

My AppAnalyzer Today

Task Status Pane

This section displays the status of the last tasks executed by this AppAnalyzer server.

The task status list shows status of the last running of each type of task.

The possible states are defined as follows:

Success - successfully completed tasks.

Running - currently running tasks.

Pending - tasks that have reached their start times but have not yet started. They may be awaiting resources or the completion of an exclusive task. Or, they might be exclusive tasks awaiting the completion of running tasks.

Retry - tasks that failed and are awaiting the start times of their automatic retries.

Incomplete - incomplete tasks. These tasks have finished running but completed only part of their work.

Failed - failed tasks.

Stopping - tasks that are currently stopping.

Stopped - tasks that have been stopped.

Never Run - tasks that are awaiting the start times of their first runs.

My Favorite Reports Pane

The My Favorite Reports section provides quick links to the reports you have designated in the My Favorite Reports area.

Licenses Pane

The Licenses section displays the number of monitored Exchange mailboxes, Sendmail servers, and BlackBerry devices, along with the license limits for each.

To view or add a license keys, click Manage Licenses.

If the number of monitored mailboxes, servers, and/or devices exceeds your limit, you are no longer in compliance with the AppAnalyzer license agreement. To restore compliance, obtain a new license key from Sirana Software and add it to your key list. See the Licenses section for more details on how licensing operates.

AppAnalyzer Server Pane

This section displays information about the computer on which this AppAnalyzer Server is installed. Note that the size of the temporary bulk data (tempBD) directory is included along with the amount of available disk space.

SQL Server Pane

This section displays information about the computer on which Microsoft SQL Server is installed.

SQL Report Server Pane

This section displays information about the computer on which Microsoft SQL Server Reporting Services server is installed.

About Sirana AppAnalyzer

The About Sirana AppAnalyzer dialog displays information about the installed versions of the AppAnalyzer Server service and AppAnalyzer Server database. This dialog also provides a link to launch the Sirana Technical Support web site, as well as download the latest version.

Tasks

Tasks are executed automatically by the AppAnalyzer Server at the times and intervals that you choose. These tasks manage the flow of data from the Exchange, BlackBerry and Sendmail Servers to the AppAnalyzer databases, where reports can access the data.

The tasks are described in the following topics based on what the tasks do:

- AppAnalyzer Server Tasks
- Microsoft Exchange Tasks
- Sendmail Tasks
- BlackBerry Tasks

AppAnalyzer Server Tasks

Active Directory

The Active Directory task queries the Exchange organization's configuration in Active Directory to determine the current sites, servers, storage groups, public folders, distribution groups and recipients. AppAnalyzer installs a single, periodic Active Directory task that by default runs daily at 6:00:00 PM.

Each Active Directory task gathers data about all monitored Exchange Servers in the organization. Therefore, a maximum of one periodic task can exist at a time, but you can run additional single execution tasks as needed.

Data Aggregation

The Data Aggregation task updates the Summary Message Traffic tables within the AppAnalyzer SQL Database. AppAnalyzer installs a single, periodic Data Aggregation task that by default runs daily at 3:00:00 AM.

A maximum of one periodic task can exist at a time, but you can run additional single-execution tasks as needed. This task type is exclusive. That is, it runs only when no other tasks are running.

Data Deletion

The Data Deletion task deletes older data from the AppAnalyzer SQL Database, including entries from the task log and single-execution tasks that have already run.

AppAnalyzer installs a single, periodic Data Deletion task that by default runs daily at midnight.

A maximum of one Data Deletion task can exist at a time, but you can run additional single-execution tasks as needed. This task type is exclusive. That is, it runs only when no other tasks are running.

Database Maintenance

The Database Maintenance task performs a variety of maintenance operations on the AppAnalyzer SQL Database. A single, periodic task of this type is installed. By default, it runs daily at 1:00:00 AM. A maximum of one periodic task can exist at a time, but you can run additional single-execution tasks as needed.

Microsoft Exchange Tasks

Exchange Agent Log

The Exchange Agent Log task gathers transport agent log data from the specified Exchange Hub and/or Edge Transport server(s). This data is used for all Anti-spam reports. You have to schedule it from the Schedule Tasks wizard on the Tasks page.

Exchange Message Tracking Log

The Exchange Message Tracking Log task gathers message tracking log data from the specified Exchange Hub Transport server(s). This data is primarily used for all Exchange message traffic related reports, including delivery time reports. This task is also an important part of performance tuning and is discussed further in Staggering Exchange Log Task Executions.

Exchange Server IIS Log

The Exchange Server IIS Log task gathers client access usage information from the IIS web logs on the Exchange Client Access server(s). Reports can be displayed for ActiveSync, Outlook Web Access, Exchange Web Services, and PowerShell usage. It is recommended that this task be run daily. This task is only required for reports in the Client Access report category. Note that the Mailbox task is also needed for the Mobile Device reports in the Client Access report category. AppAnalyzer does not create this task automatically, so you have to schedule it from the Schedule Tasks wizard on the Tasks page.

Information Store

The Information Store task gathers information stores data from the specified Exchange Mailbox server(s). AppAnalyzer does not create this task automatically, so you have to schedule it from the Schedule Tasks wizard on the Tasks page.

Mailbox Content

The Mailbox Content task gathers data about keywords and attachments in Exchange Server mailboxes. This task has extended properties not available in most other types. It can:

- Search selected mailboxes.
- Search for specific keywords and/or attachments.
- Forward or delete items containing a match.

You can specify defaults for these values on the Content Analysis tab of the Options page. You can override the defaults when you schedule the task.

Mailboxes

The Mailboxes task gathers the following data from the Exchange Mailbox server(s):

Mobile Device Information -- ActiveSync mobile device information, such as device type, version, last synced time, and policy.

Permission Information -- Active Directory access right information for each mailbox.

Folder Details -- Sizes, item counts and logon information for each mailbox, as well as Calendar, Contacts, Deleted Items, Drafts, Inbox, Journal, Junk Mail, Notes, Outbox, RSS Subscriptions, Sent Items, and Tasks folder details.

Office 365

The Office 365 task gathers the following data from the Microsoft Office 365 Exchange environment:

Mailbox Options -- Mobile device information and Mailbox & Folder permissions.

Folder Details -- Sizes, item counts for each mailbox, as well as Calendar, Contacts, Deleted Items, Drafts, Inbox, Journal, Junk Mail, Notes, Outbox, RSS Subscriptions, Sent Items, and Tasks folder details.

Public Folder Options -- Public Folder client permissions.

Public Folder Content

The Public Folder Content task gathers data about keywords and attachments in Exchange server public folders. This task has extended properties not available in most other types. It can:

Search selected public folders.

Search for specific keywords and/or attachments.

Forward or delete items containing a match.

You can specify defaults for these values on the Content Analysis tab of the Options page. You can override the defaults when you schedule the task.

Public Folders

The Public Folders task gathers data about Exchange Server public folders, including their sizes, item counts, and last access dates.

You have to schedule it from the Schedule Tasks wizard on the Tasks page. **NOTE: The Public Folder task is not supported against Exchange 2013 servers in this release.**

Windows Events

The Windows Events task gathers data from Windows event logs on Exchange Server computers. AppAnalyzer does not create this task automatically, so you have to schedule it from the Schedule Tasks wizard on the Tasks page.You can specify defaults for these values on the Windows Events tab of the Options page. You can override the defaults when you schedule the task.

Sendmail Tasks

Sendmail Log

AppAnalyzer for Sendmail has a single data collection task called the "Sendmail Log." This task connects to the Sendmail server(s) you select, copies the Sendmail log files to the AppAnalyzer Server, processes the logs, and imports into the SQL database to enable

reporting on Sendmail message volumes, message sizes, queue delays, recipient counts, host pair traffic, and much more. You have to schedule this task from the Schedule Tasks wizard on the Tasks page.

While not required by all Sendmail reports, it is important to also run the Exchange Server Active Directory task for recipient mailbox resolution.

BlackBerry Tasks

BlackBerry Database

The BlackBerry Database task connects to the BlackBerry Enterprise Server Configuration database and copies key BES server and device configuration and usage information. This task is required for all BlackBerry reports and should be run daily.

BlackBerry Agent Log

The BlackBerry Agent Log task gathers information from the Mailbox Agent logs on each BlackBerry Enterprise Server. These logs contain synchronization data between the BlackBerry Configuration Database and user mailboxes and are enabled by default. The data from this task displays report data on message activity from the devices. It is recommended that this task be run daily against all BlackBerry Enterprise Servers with Mailbox agent logs enabled.

BlackBerry Call Log

The BlackBerry Call Log task gathers information from the Phone Call Logs on each BlackBerry Enterprise Server. These logs contain synchronization data between the BlackBerry Configuration Database and user mailboxes, and are enabled by default. The data from this task primarily displays report data on phone calls made and received from the devices. It is recommended that this task be run daily against all BlackBerry Enterprise Servers with Message agent logs enabled.

BlackBerry SMS Log

The BlackBerry SMS Log task gathers information from the SMS Text Logs on each BlackBerry Enterprise Server. These logs contain synchronization data between the BlackBerry Configuration Database and user mailboxes, but the logs are not enabled by default. The data from this task primarily displays report data on text messages sent and received from the devices. It is recommended that this task be run daily against all BlackBerry Enterprise Servers with Message agent logs enabled.

Task Planning

Each data-gathering task schedule specifies the frequency, start date, and start time of data gathering. Each task gathers specific types of data. Task planning is about what the tasks do, how they are different, considerations for their use, and scheduling suggestions.

Creating a Master Schedule

In larger environments you may find it useful to create a master schedule, a planning document that describes your collection of tasks. You can use the master schedule as a guide for the creation and maintenance of your tasks.

Creating a master schedule involves:

1. Selecting execution times for the tasks that you have decided to run.
2. Filling in a “Master schedule template,” in order to create your own master schedule.
3. Filling in copies of a “Report schedule template,” in order to augment your master schedule with the details required for report tasks.

Selecting Task Execution Order

For each task that you have decided to run, select times for their execution. For types that permit only a single periodic task, select a single time. For types that require a separate task for each Exchange Server, you can select a single time or different times for different servers.

Note: Keep in mind that task execution times are relative to the local time of the SQL Server that manages the AppAnalyzer databases.

Data Gathering – The first time after installation that you run the data-gathering tasks, they must be executed consecutively in the following order:

- Exchange Servers task (This is a Run Once task that is automatically executed the first time the AppAnalyzer Server is started).
- Active Directory task
- Other tasks (in any order): Exchange Message Tracking Log, Exchange Agent Log, Information Store, Mailbox Content, Mailboxes, Exchange Server IIS Log, Public Folder Content, Public Folders, Windows Events

Thereafter, the data-gathering task types can be executed in any order, and they can be scheduled to start concurrently.

Data Aggregation -- The Data Aggregation task should be run daily, after all Data Gathering tasks have completed.

Database Management – Database management consists of the following tasks, which should be executed in the order listed:

- Data Deletion
- Database Maintenance

You should run these database management tasks when no other tasks are running, such as after midnight.

Task Execution Notes

- Delayed completion times
  Some tasks may complete later than the planned end times. The first time your tasks run and periodically thereafter, review the tasks’ end times and adjust the schedule of other tasks and dependent reports accordingly.
- Exclusive Tasks
  The Exchange Servers, Data Aggregation, Data Deletion, and Database Maintenance tasks are exclusive, so they can run only when no other tasks are running.
- Mailbox Content and Public Folder Content
  The Mailbox Content and Public Folder Content tasks can generate <u>considerable load</u> on the Exchange server. It is best to schedule these tasks of low utilization times, such as weekends or on an ad hoc basis.

- Exchange Message Tracking Log and Exchange Server IIS Log
  The Exchange Message Tracking Log and Exchange Server IIS Log tasks will generate significant network traffic as the log files are copied down from the Exchange server to the AppAnalyzer server. Run these tasks at times of lower network traffic. You can also schedule them for different sites or servers at different times.

Determining Your Requirements

To determine your enterprise's requirements, answer the following questions:

- Which reports do you need to view and export? See Reports for a list of all available reports, what information they provide, and what tasks you need to run to gather data for them.
- On which Exchange Servers do you need to report? The data-gathering tasks enable you to specify servers.
- How often is new data available to reports? This depends on the data. Some data, such as mailbox count may not change very often while message count changes all the time.
- What tasks supply information for these reports? See, Tasks for more detail.

Select the task types to include in your master schedule. The following topics describe considerations for certain tasks.

Data Deletion and Database Maintenance Tasks

Because continuous database growth ultimately leads to problems (for example, exhausted disk space), it is recommended that you run these tasks at least weekly.

Selecting the Exchange Servers to Monitor

Determine which Exchange servers you want to run each task against. If the selections are complex, consider creating a table of task types for Exchange sites and servers.

Selecting Intervals to Gather Data

New data is made available to reports by the periodic execution of data-gathering tasks and a subsequent Data Aggregation task. For each data-gathering task that you run, you should choose a useful interval. For example, you can run the Exchange Log tasks daily but run the Public Folders task weekly.

The selection of intervals is dependent in part on the needs of report readers. For example, if a report reader in your enterprise needs daily updates to reports containing mailbox information, run the Mailboxes tasks daily, followed by the relevant reports.

You should run most tasks daily. Only run the Mailbox Content and Public Folder Content tasks to investigate specific mailboxes or on a weekly or monthly basis. These tasks can take a very long time to run, depending on the number and size of mailboxes or public folders.

Task Views

As you begin to create tasks, you may find it necessary to view the task progress and details by grouping the tasks into different views. AppAnalyzer provides several views to enable grouping of tasks.

Task View -- The Task view groups tasks by task function. For example, you can select the Exchange Log node on the Task view tree to see just the Exchange Log tasks that have been scheduled.

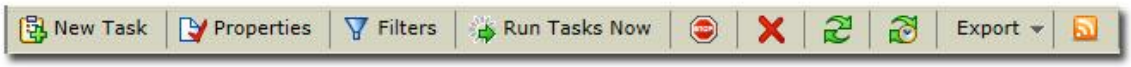
Status View -- The Status view groups tasks by task status. For example, you can select the Failed status node on the Status view tree to see just those tasks that have failed.

Task Management

The Tasks page within the AppAnalyzer WebAdmin is the main administration interface for managing AppAnalyzer tasks.

Toolbar Options

The Tasks toolbar contains the following options.



New Task -- Click this button to schedule a new task. See Schedule a Task for more information.

Properties – Click this button to view or modify the properties of the task(s) checked within the task list. You can modify the task interval, scheduled date/time, and AppAnalyzer execution server for the selected task(s).

Filters -- A filter can be applied within the Task View in order to limit which tasks are displayed.

Run Tasks Now -- Select any task and click Run Tasks Now to run the task(s) immediately. This does not change the schedule.

Stop Tasks -- Click this button to stop the task(s) checked on the task list. Only tasks with a Pending, Running, or Retry status can be stopped. The schedule is retained and the job will run again at the next interval.

Delete -- Click this button to delete the task schedules checked on the task list. Other schedules for this task are not affected.

Refresh -- The tasks status does not automatically update in the WebAdmin unless the Auto-Refresh option is applied. Clicking on the Refresh button will update the WebAdmin with the most current tasks status.

Auto-Refresh -- The tasks status does not automatically update in the WebAdmin unless the Auto-Refresh option is applied. When this button is activated, the Task status page will automatically refresh every 60 seconds.

Export -- Click this drop-down to export the task history to an Excel or text file.

RSS -- Clicking on the RSS button allows you to subscribe to Really Simple Syndication (RSS) feeds for task status updates.

Task Status Columns

The task list is divided into columns that provide information about each task. To sort the list by a particular column, click a column heading that displays the sort icon. Click again to reverse the sort order. The task list contains the following columns, which are listed in the order they appear from left to right.

Expand / Collapse Icon -- Clicking on the Expand/Collapse icon in the first column of a task will display/hide the task execution history.

Checkbox -- Selecting the checkbox next to a task(s) allows you execute one of the Toolbar actions (Properties, Run Tasks Now, Stop Tasks, Delete).

Task – This column displays the task type.

Status – This column displays the status of each task.

Server – For data-gathering tasks, this column displays the Exchange Server about which the task gathers data.

Processed -- Displays progress of items processed by the task.

Interval – This column displays the frequency at which the task runs.

Last Run -- Displays the last time this task attempted to execute. (Note: This column may not appear if your screen resolution if not large enough.)

Next Run – If a task is scheduled, this column displays the date and time of the task's next execution. (Note: This column may not appear if your screen resolution if not large enough.)

Run Time – This column displays the amount of time it took for the task to run. This value is measured from the actual start to completion. That is, it does not include any time in the Pending status.

Elapsed – The amount of time it took for the task to run. This value is measured from the actual start to completion, including any time in the Pending status. It also includes retry time. For example, suppose a tracking log task fails because of network problems, and waits for 60 minutes to retry. At retry, it finishes successfully in five minutes. Task elapsed time reports 65 minutes for this task.

Details -- Clicking this link opens a dialog to display detailed information about the task execution steps.

Task Filter Options

The Task filter options include menus for limiting the contents of the task list. To display the filter options, click the drop-down box below the column heading.

The filter options are listed below.

Task – Select a task type to display only tasks of a certain type.

Interval – Select a task interval to display only the tasks scheduled to run at that interval.

Status – Select a task status to display only the tasks with that status. Refer to Task Status Definitions.

Server – Select an Exchange, BlackBerry, or Sendmail Server to display only the tasks defined for that server.

Server Group -- Select a custom AppAnalyzer Server Group to display only the tasks defined for that Server Group.

Application -- Select to filter by Exchange, BlackBerry, Sendmail, or AppAnalyzer Server specific tasks.

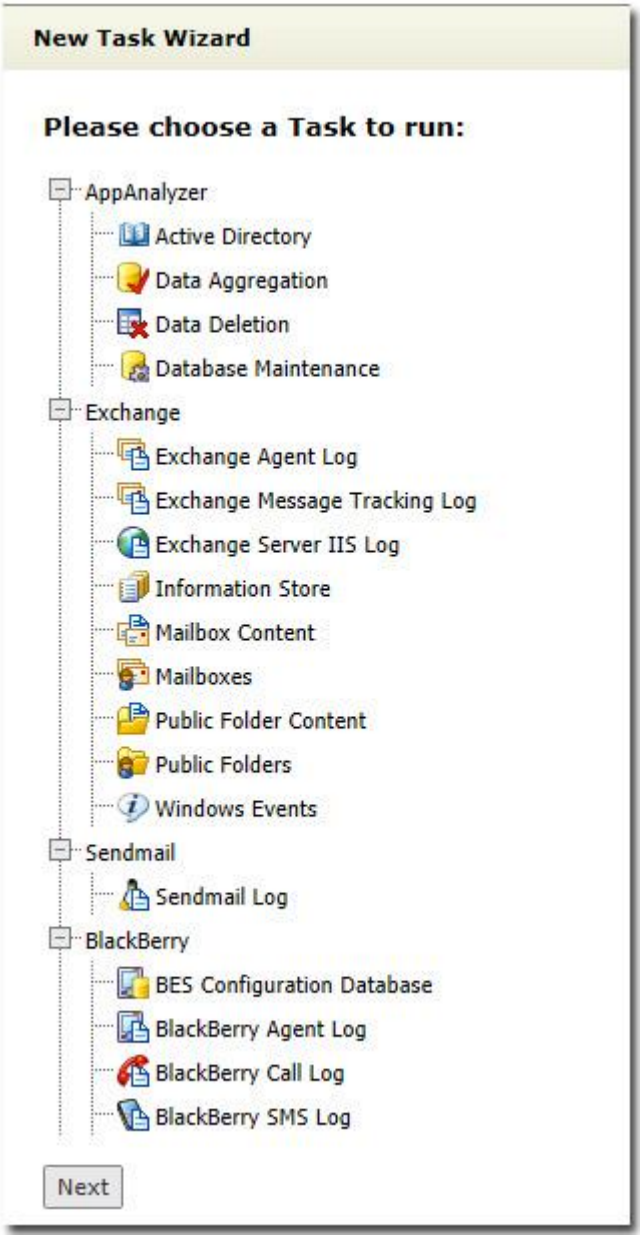
Schedule a Task

Access this wizard from the New Task button on the Tasks page. Use this wizard to create one or more data-gathering tasks, which collect information about Exchange Servers. The collected information is the basis of AppAnalyzer reports.

The wizard has six steps, but some steps may be skipped, depending on the options selected in the wizard.

Select Task Type

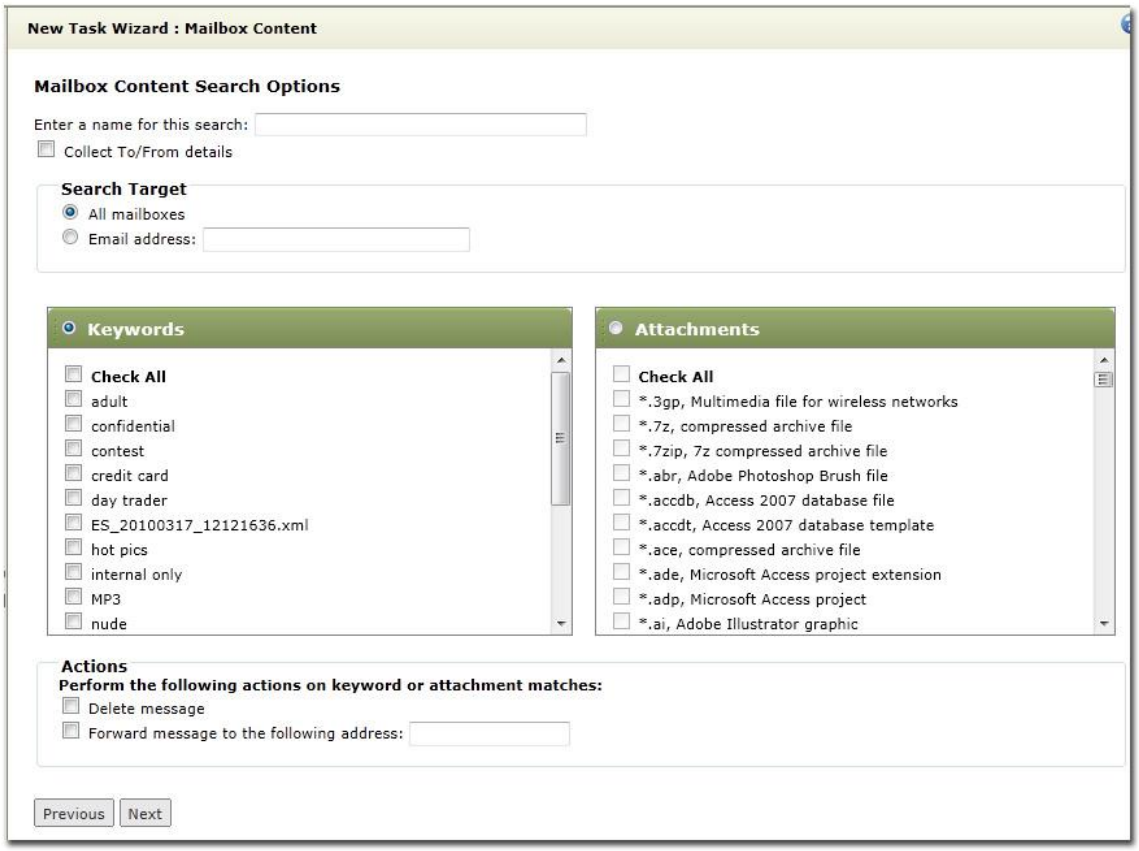
The task type determines the type of information gathered. Use this wizard to schedule the following data-gathering tasks:



Select the type of task you would like to create.

Customize Mailbox Content Task

If you have chosen to create a new Mailbox Content task, the following dialog will appear:



Enter a name for this search -- Mailbox Content scans will be saved under a specific search name that you define. This allows you to easily re-execute the task with the exact same settings at a later date.

All Mailboxes – Select this option to search all mailboxes on the Exchange Servers for which you are creating this task. (Select the Exchange Servers in a later step.)

Mailbox name – Select this option to search one mailbox. Type the mailbox alias.

Keywords – Select this option to search for keywords. You must select each keyword from the list. The keywords available for the search are defined in the Content Analysis section of the Options page.

Attachments – Select this option to search for attachments. You must select each attachment from the list. The attachments available for the search are defined in the Content Analysis section of the Options page.

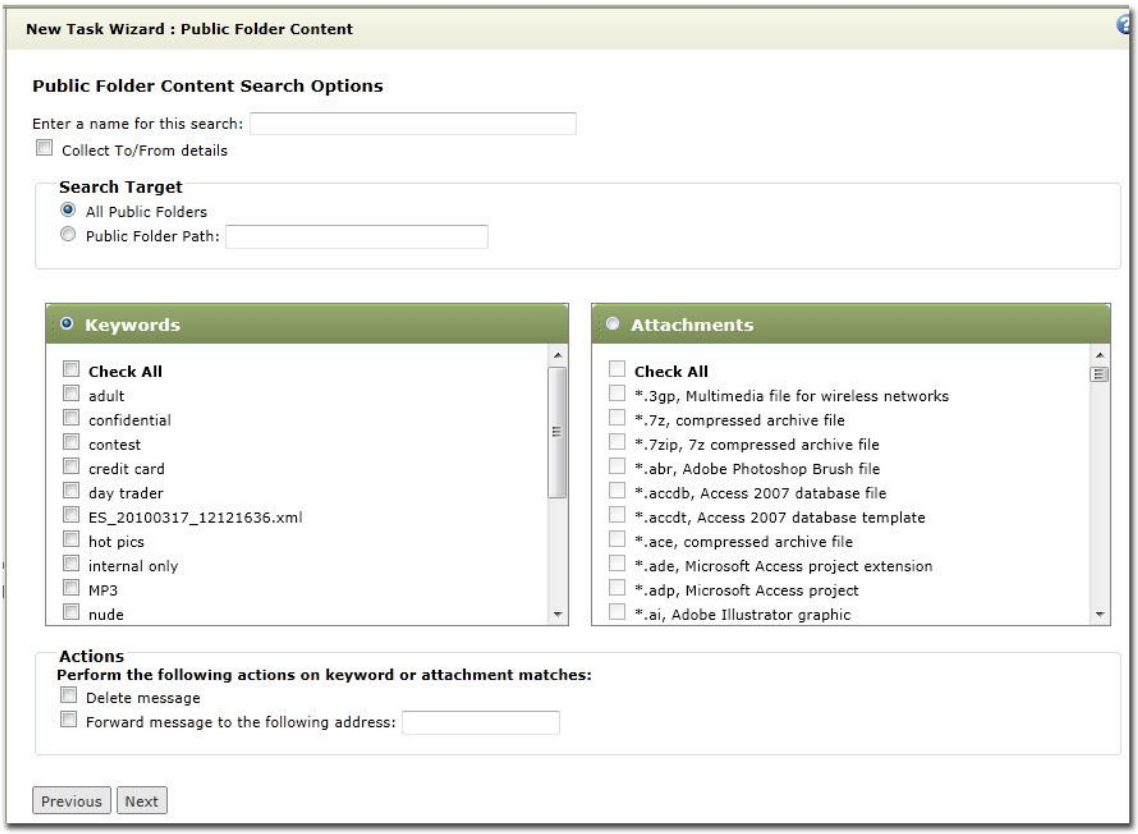
Delete message – Select this option to delete from the searched mailboxes every item that contains a selected keyword or attachment.

Forward message to the following address– Select this option to forward from the searched mailboxes every item that contains a selected keyword or attachment. Specify the SMTP e-mail address to receive the forwarded items.

Click Next to continue.

Customize the Public Folder Content Task

If you have chosen to create a new Public Folder Content task, the following dialog will appear:



Enter a name for this search -- Public Folder Content scans will be saved under a specific search name that you define. This allows you to easily re-execute the task with the exact same settings at a later date.

All Public Folders – Select this option to search all public folders on the Exchange Servers for which you are creating this task. (Select the Exchange Servers in a later step.)

Public Folder Name – Select this option to search one public folder. Type the mailbox alias.

Keywords – Select this option to search for keywords. You must select each keyword from the list. The keywords available for the search are defined in the Content Analysis section of the Options page.

Attachments – Select this option to search for attachments. You must select each attachment from the list. The attachments available for the search are defined in the Content Analysis section of the Options page.

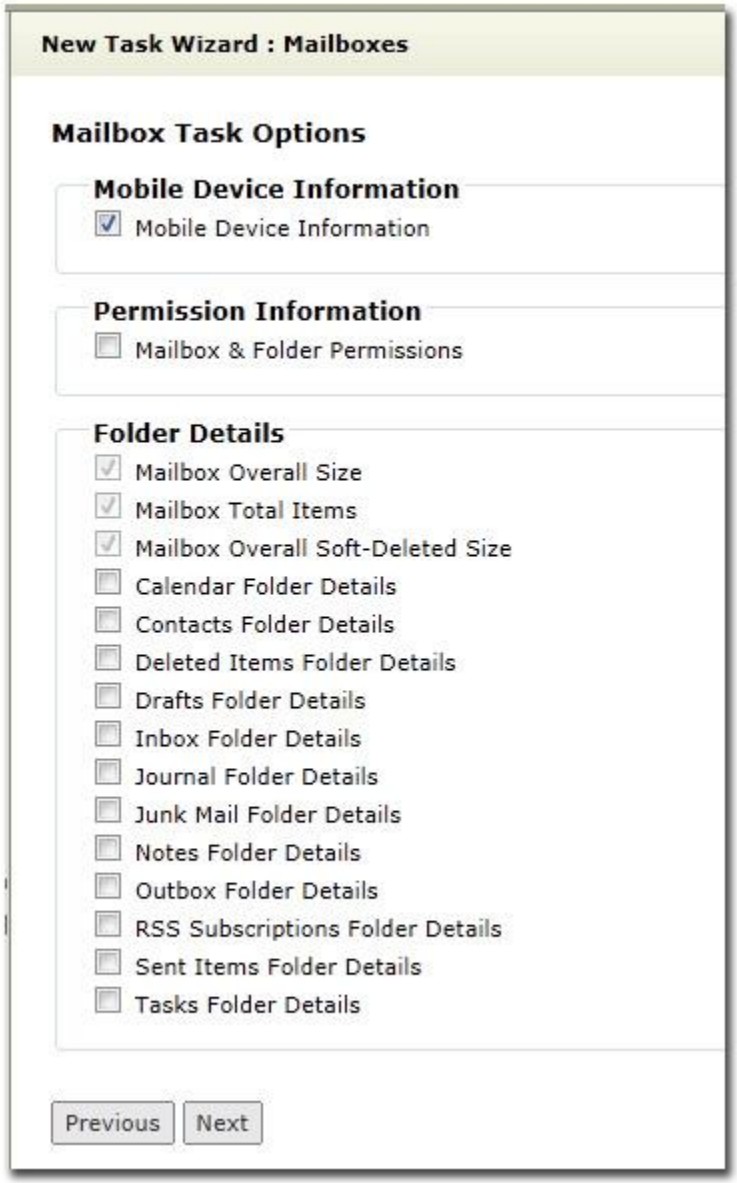
Delete message – Select this option to delete from the searched public folders every item that contains a selected keyword or attachment.

Forward message to the following address– Select this option to forward from the searched public folders every item that contains a selected keyword or attachment. Specify the SMTP e-mail address to receive the forwarded items.

Click Next to continue.

Customize the Mailbox Task

If you have chosen to create a new Mailbox task, the following dialog will appear:

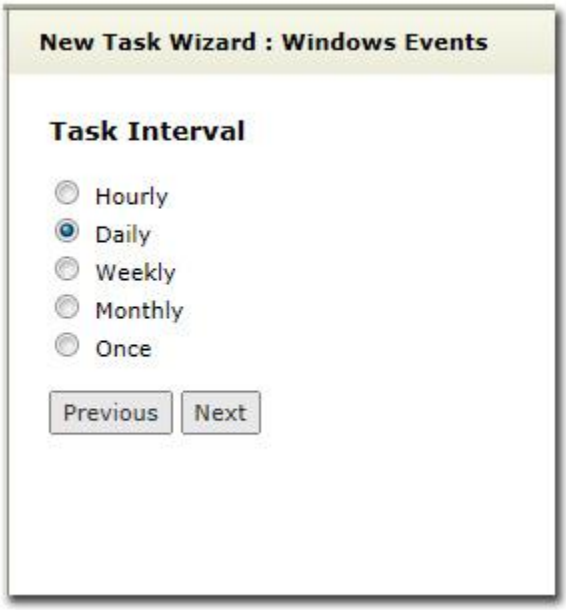


AppAnalyzer can collect size and count information about several of the default Exchange mailbox folders. Most of the AppAnalyzer Mailbox-related reports require only data collection for the Mailbox Overall Size, Mailbox Total Items, and Mailbox Overall Soft-Deleted Size folder items. You can elect to gather additional mailbox folder details. Note that each additional folder item selected will increase the overall Mailbox task execution time.

Click Next to continue.

Select Task Interval

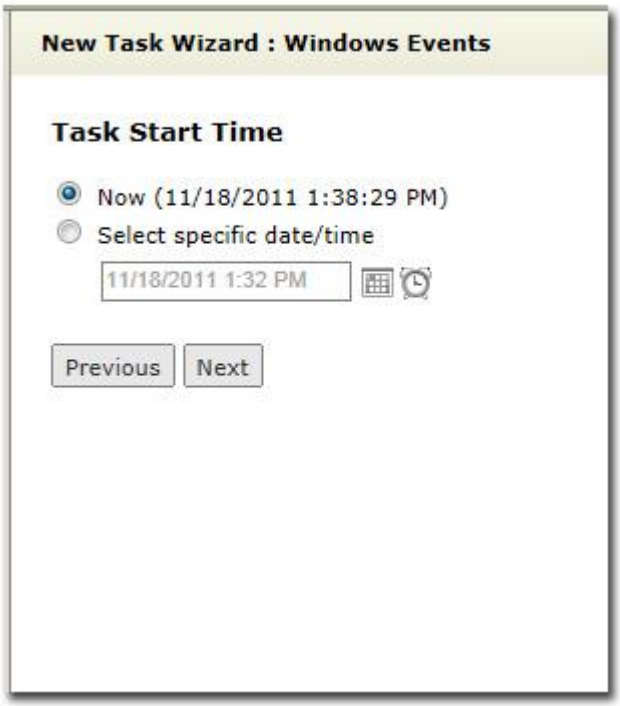
The following intervals are available:



Select how often you would like the task to run and click Next.

Select Start Time and Date

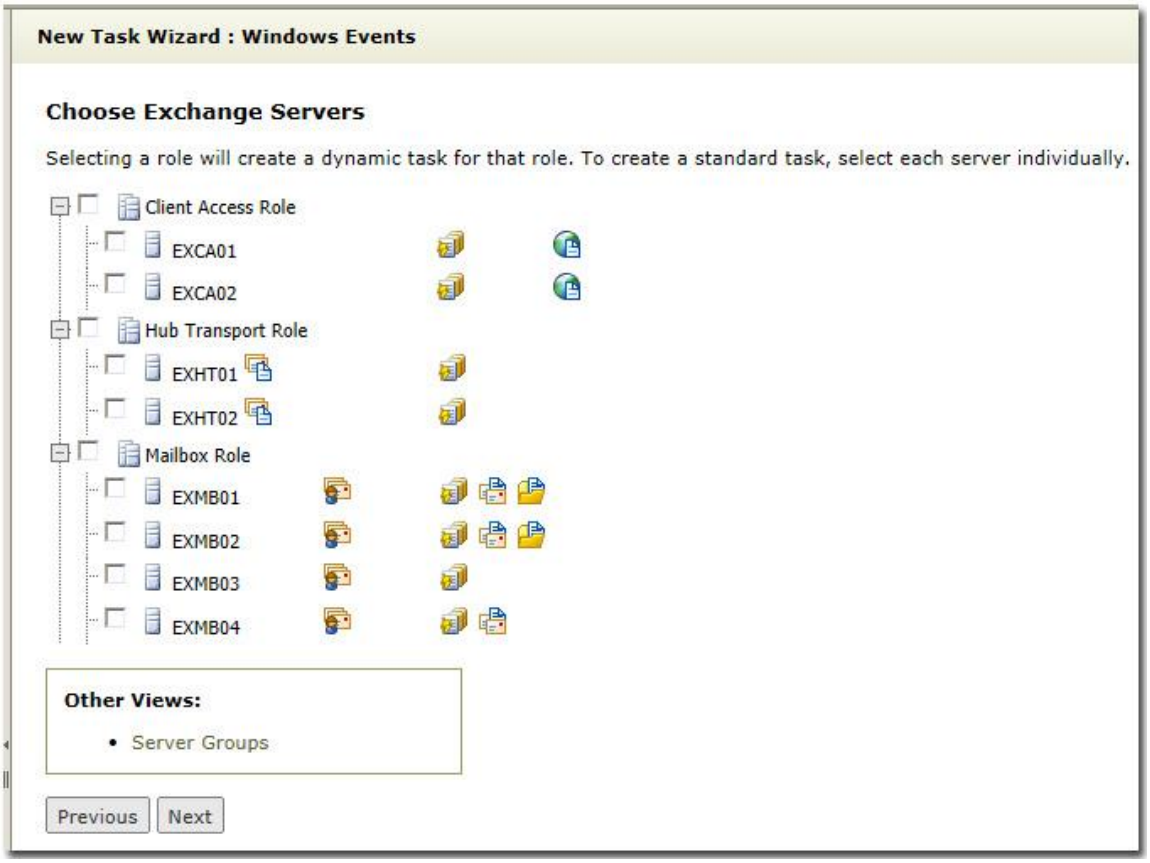
In this dialog, select the time and date that the tasks run for the first time.



1. Select whether the task schedule is to begin now or at some time in the future. Now means as soon as you complete the wizard.
2. If you want to start the schedule at some time in the future, click the calendar icon to select a month, day, and year. Then select a time. If you select a date/time that is in the past, the report schedule begins as if you selected Now.
3. Click Next.

Select Servers

In this dialog, select the Exchange, BlackBerry, or Sendmail server(s) from which you want to gather data:



Alternatively, if you have created server groups, you can click Choose Server Groups and then select the server group about which you want to gather data.

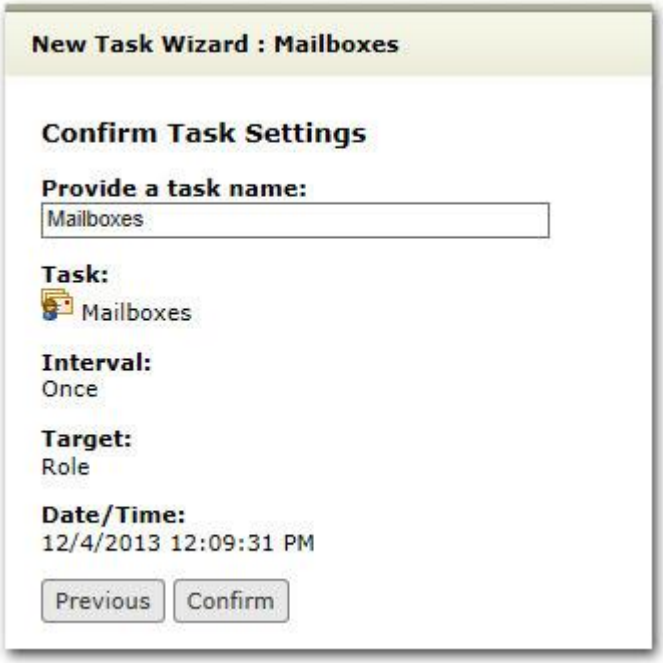
Dynamic Tasks

By assigning a task to a site or server group, all servers within those sites or server groups will automatically be scheduled for the task. As new servers join the sites and/or server groups, they will also be automatically assigned any tasks that were assigned at the site and/or server group level. You can see which tasks have been created dynamically by looking for the task icons that contain a lightening bolt within the Task Views.

Click Next to continue.

Confirm Selections

In this dialog, you can confirm the selections you made in earlier steps of the wizard. Inputting a custom task name will make it easier to identify specific task in the Task View.



This box displays the selections you made in earlier steps. To change a selection, click Previous to display the step in which you made that selection, and then change it.

Click Finish to complete the new task scheduling.

Task Status Definitions

The status column displays the status of each task in the status frame at the bottom or the summarized status of multiple tasks (such as in the Task Types frame, which shows a single status for all tasks of each type).

Running -- The task is running now.

Failed -- The task has failed. View the task details for more information on the actual step that failed.

Incomplete -- The task has completed but performed only part of the work. View the task details for more information on the actual step that caused the incomplete status.

Pending -- The start time for the task has been reached, but the task has not yet started. The task may be awaiting resources or the completion of an exclusive task.

Retry -- The task failed, and the start time for the automatic retry has not yet been reached.

Stopped -- The task has been stopped prior to completion.

Stopping -- The task is in the process of stopping prior to completion.

Success -- The task completed successfully.

Never Run -- The start time for the task's first run has not been reached, or a task of this type has never been run.

Reporting Overview

To specify a report's content, including both its fields and its formatting, you can use one of three common approaches:

Use a standard report

The simplest approach is to publish or view a report with predefined content. Numerous such reports are supplied with AppAnalyzer and are ready to run immediately after installation. You cannot modify a standard report's content or filters unless you save it with a new name, thus creating a custom report.

Create a new, custom report

When you create a new report you start with a standard report, redesign the content and time range. You have to save the report with a new name to keep your changes.

Modify a report

You can modify a custom report and save it with the same name, to overwrite the original custom report. You cannot modify standard reports. You can publish all reports in static form to two types of destinations:

- Shared network directories
- Email addresses

Working with Reports

AppAnalyzer offers great flexibility when needing to author, edit, and publish reports. This section describes how to work within reports to get the results you need, save reports for future use, and publish reports for others to see.

Report Parameters

Each report contains a number of parameters that allow you to group and filter the data to your specific needs. These parameters vary from report to report, but most reports contain the following parameters. After making any modifications to the parameters in a report, you must click on the View Report button to re-execute the report query. Click on the Show/Hide Parameters toolbar button to collapse or expand the parameters frame.

Date

Many reports require a range of dates on which to report. The Date range fields are on the left side at the top of the frame.

Preset ranges – You can select a preset date range from the Range menu at the top.

Custom ranges – Click the Custom Range selection from the Date Range drop-down input dates in the From and To fields to select the date range.

If a report does not use a date range, these date controls do not appear.

Content

Reports that contain a Content control allow the user to adjust the units of measurement are displayed and counted. For example, a report may allow you to choose between the Daily Average, Daily Mailbox Average, or Total messages. The same report might also provide a choice between message count or size of messages.

Group

The data returned in most reports can be grouped by an Exchange organizational entity, such as Site, Server, Storage Group, or Directory Attribute. These groupings can be sub-filtered to display a specific object from the group . For example, you may want to group by server, and sub-filter to display Server X only.

Filter

Some reports include an optional Filter selection. This Filter selection allows the user to limit the report data results to a subset of what has been chosen in the Group control. For example, you can execute a report that displays message traffic grouped by server with the Filter applied by a particular department. This will return a server-by-server breakdown of the message traffic for a particular department only.

Viewing a Report

Reports do not load automatically when you click on the report name in the report tree. You must make any modifications to the settings in the report Controls, and then click on the View Report button to display the report with the new settings.

Sorting

Click a column with up/down sort arrows in the heading to sort the list by that column. A small triangle appears to the right of the column heading to indicate that the list is sorted by this column.

Click again to reverse the sort order. The triangle points up or down to indicate ascending or descending order.

Drilling Down

For many reports the item on which you report represents a level in a hierarchy and you can change this level. For example you could get a report on messages by server group, server, or storage group.

Click an underlined item from the list. The list changes to show the next level of constituent items. For example, if you click an underlined server group, the list changes to display the servers in the group.

Saving a Report

To save a report that you have modified, click Save As. This button saves the report currently displayed on the Reports page.

Name – Use this field to change the title of the saved report. If you have modified a standard report. If the report is a custom report you are allowed to overwrite an existing report, although it warns you when the report already exists.

Description – This box displays the description for the report. In the report, the description appears beneath the report table. You can edit this field. For example, if you publish a report with certain filters set, you can edit this description to describe it.

Save – The Save button allows the user to save modifications that have been made to a report, such as date range, grouping, and filters. Standard reports can not have modifications saved and must be saved under a new name. Custom reports can be saved over an existing custom report.

Subscriptions

Subscriptions allow you to schedule reports for automatic publishing to email users or network shares. A subscription is also known as a scheduled report. Click on the Subscriptions -- New Subscription Wizard button when viewing a report to launch the New Subscription Wizard.

New Subscription Wizard

Set Report Parameters

A set of report parameters will appear depending on the report you have chosen for the new subscription. These parameters are the same as the controls within the report. You choose to either maintain the default settings, or modify the parameters that will be used when the report subscription executes. Click Next to continue.

Report's Destination

Scheduled reports can either be published via email to specific email addresses, or copied to a network share location you designate. Click Next in the New Subscription Wizard to continue.

If you have chosen Email as your destination, you must enter the To address, a Subject, and Message Priority. You can optionally input a Comment that will be included in the email along with the attached report output.

NOTE: Publishing a report via email is only available if you have configured Microsoft SQL Server Reporting Services to send emails. For information on configuring SQL Reporting Services to send email, see "How to: Configure Report Server for E-Mail Delivery (Reporting Services Configuration) - http://technet.microsoft.com/en-us/library/ms345234.aspx.

If you have chosen Network Share as your destination, you must enter a standard UNC path, credentials to access the share, and how you want the report to save if it already exists on the share.

Click Next to continue.

Output Format

The scheduled report can be published in one of the following file formats:

- Extensible Markup Language (*.xml)
- Comma Separated Values (*.csv)
- Tagged Image File Format (*.tif)
- Adobe Portable Document Format (*.pdf)
- Microsoft Excel (*.xls)
- Web Archive (*.mhtml)

Select of the formats and click Next.

Report Frequency

The schedule report can be published a single time or at reoccurring intervals. Choose from one of the following intervals:

- Hourly
- Daily
- Weekly
- Monthly
- Once

Click Next to continue. Additional scheduling parameters will display depending on which of the intervals you have chosen. For example, if you chose "Once," the next step in the wizard will allow you execute the subscription right now, or specify a later date and time. You can also designate a date that you want this subscription to end (This is primarily for multiple day intervals.).

Subscription Confirmation

Verify that the subscription has the parameters that you require. If not, click on the Previous button to go back and modify the subscription. Click Finish and Close when you are ready to execute the subscription.

View or Modify a Subscription

You can view all of the subscriptions that have been created for a particular report by clicking on the Subscriptions button in the toolbar while viewing a report. If you want to see all subscriptions for all reports, click on the All Subscription node at the bottom of the report tree.

A subscription can be modified (e.g. add a new person to the email distribution, change the schedule publish time, select a different file format, etc.) by clicking the Details link next to the subscription.

To delete a subscription, select the checkbox next to the subscription and click on the Delete button in the Subscriptions toolbar.

Report History

The Report History function within AppAnalyzer enables pre-execution of reports and saves them as snapshots. These snapshots are static reports that can be quickly rendered. Periodic

snapshots can be automatically saved across time to provide a historical reference. You can use these snapshots in several ways: First, snapshots allow you to see how a report's data changes over time. You can browse past monthly snapshots, for example, to see how your environment looked in the past. Secondly, because accessing a snapshot does not require you to re-query the database, it's a good idea to schedule snapshots for popular reports so that you can access the report information quickly.

Report History Wizard

Click on the History -- Settings button in the Report toolbar to launch the Report History Wizard. This wizard will allow you to create or edit a schedule for creating report history. A report's history consists of a series of snapshots. Click Next to continue.

Snapshot Interval

The snapshot of the report can be taken at reoccurring intervals. Choose from one of the following intervals:

- Hourly
- Daily
- Weekly
- Monthly
- No History (Use this selection to disable the snapshot)

Click Next to continue. Additional scheduling parameters will display depending on which of the intervals you have chosen. For example, if you chose Weekly, you can select how many weeks you want the snapshot to be taken and on which day of the week. Click Next to continue.

Specify Start Date and Time

Once you have chosen an interval for the snapshots, you must designate the date and time you want to the snapshots to begin. You can also select a time to stop taking snapshots. Click Next to continue.

Number of Snapshots

You can control the number of snapshots you retain in report history by selecting from one of the following retention options:

- Use default setting (This relies on the default setting you have defined on your SQL Server Reporting Services server.)
- Keep an unlimited number of snapshots in report history
- Limit the copies of report history: (input number of copies)

Report History Confirmation

Verify that the Report History definition has the parameters that you require. If not, click on the Previous button to go back and modify the snapshot settings. Click Finish and Close when you are ready to execute the subscription.

Viewing Report History

You can view the report snapshots by selecting the report within the report tree and clicking on the History -- History Snapshots button on the report toolbar. You will not see any snapshots in the Report History until a snapshot has successfully completed. Once a snapshot is listed in the Report History, click on the View link next to the snapshot to see the report snapshot.

Deleting a Snapshot

Select the checkbox next to a snapshot(s) and click on the Delete button in the Report History toolbar to delete a snapshot.

Customizing a Report

Clicking on the Customize button while viewing a report displays the Customize Report dialog. There are two sections within this dialog:

Chart Options

The Chart Options allow you to configure how the chart will appear within each individual report.

Visible -- This option allows you turn the chart on or off.

Show 3D Effects -- This option allows you to enable or disable the 3D look of the chart objects.

Palette -- This option allows you to modify the chart object colors. Several pre-built color palettes are provided. Note that some reports do not allow for color palette override.

Report Colors

Colors for the various table and report format headings can be adjusted based on your needs.

Once you have modified the chart options and/or colors within this dialog, you must click the Save button. If this is the first time you have modified the report, it will prompt you for a new report name to save into the report tree. Once saved, refresh the window to see the new report within the Report Tree and then click on the report within the report tree.

Deleting a Report

You can delete any custom reports that have been created by viewing the report and clicking on the Delete button within the Reports toolbar. You will be asked to confirm this action since reports cannot be restored after deletion. Standard AppAnalyzer reports cannot be deleted.

Exporting a Report

The data from any report can be easily exported while viewing the report. The available export formats include the following:

- Extensible Markup Language (*.xml)
- Comma Separated Values (*.csv)
- Adobe Portable Document Format (*.pdf)
- Web Archive (*.mhtml)
- Microsoft Excel (*.xls)
- Tagged Image File Format (*.tif)
- Microsoft Word (*.doc)

Choose one of the formats from the "Export" drop-down directly above the report header. A File Download dialog should appear that will let you either open the file in its exported format, save the file in its exported format, or cancel the export.

Printing a Report

There are two basic methods for printing a report:

Print from the WebAdmin

While viewing a report within the WebAdmin, click on the printer icon that is located just above the report header on the far right-hand side. This will launch the Windows Print dialog, allowing you to select the printer, Print range, and number of copies to print.

Publish and Print from the Application

Reports can be published through Subscriptions or exported to other file formats, such as Adobe Acrobat PDF. Opening the published reports in their supported applications allows you to edit and/or print directly from the supported application.

Note: Not all reports are formatted to print with proper paging. These reports typically contain far too many columns of data to fit on standard sheet of paper and have been designed for screen viewing and/or exporting/editing.

Report Security

AppAnalyzer provides an additional level of security by integrating with native Microsoft SQL Server Reporting Services security. The ability to view and/or publish reports can be secured on a report-by-report basis.

Modifying Report Security

While viewing a report, click on the Security icon in the report toolbar. The list of groups and users that have permission to the report will be displayed, along with the specific roles for each. You can modify the roles for specific users and groups, as well as add or delete users and/or groups. These roles are predefined within SQL Reporting Services and presented within the AppAnalyzer user inteface:

Browser -- Run reports and navigate through the folder structure.

Content Manager -- Define a folder structure for storing reports and other items, set security at the item level, and view and manage the items stored by the server.

My Reports -- Build reports for personal use or store reports in a user-owned folder.

Publisher -- Publish content to a report server.

Report Builder -- Build and edit reports in Report Builder.

See the Security section for more details on AppAnalyzer security options.

My Favorite Reports

The My Favorite Reports node on the Report tree provides quick access the reports you use most. You can add or remove reports from the My Favorite Reports through the Options page.

Categorized Report List

The following reports are included in AppAnalyzer (sorted by category):

Active Directory

Directory Attribute Reconciliation

Directory Members

Recipient List by Date Range [NEW!]

Recipient Type Counts

Recipient Type Counts by Creation Date Range [NEW!]

Recipient Type List

Anti-spam

Messages Blocked by Block List Provider

Messages Blocked by Block List Provider over Time

Messages by Transport Agent Action

Messages by Transport Agent Reason

Transport Agent Messages by Action over Time

Transport Agent Messages by Group over Time

Transport Agent Messages by Reason over Time

AppAnalyzer Administration

AppAnalyzer Task Status

BlackBerry

Applications

Application Counts

Application Counts by User

Application List

Applications Over N Size

Users with a Specific Application

Users without a Specific Application

Servers

BlackBerry Services
Message Traffic (Double Column)
Message Traffic (Multi Column)
Message Traffic (Single Column)
Message Traffic by Server Group over Time
Message Traffic over Time
Server Configuration
Server Events
Server Events (Details)
Server Events over Time

Service Levels

Delivery Times
Delivery Times by Interval
Delivery Times by Interval over Time
Delivery Times over Time
Message History

Users and Devices

Calls Made to a Specific Number
Device Owner History
Top N Users (Single Column)
Usage Summary
Usage Summary by User
User Calls
User Counts (Single Column)
User Counts by Information Store
User Counts over Time
User Device Statistics
User Group Policy Assignments
User List
Users by Date
Users by Policy Status
Users Created or Deleted
Users Not Active in N Days

Users with Disabled Accounts

Users with Low Device Memory

Users with Policy Exceptions

Users with Replaced Devices

Users without Devices

Users without Handheld Passwords

Users without Mailboxes

Client Access

Client Access Logins over Time [NEW!]

Client Access Login Details [NEW!]

Client Access Logins by Attempted User [NEW!]

Client Access Logins by Group [NEW!]

Client Access Logins by IP [NEW!]

Client Access Logins by Server [NEW!]

Client Access Logins by User [NEW!]

Client Access Server Usage by Group

Client Access Server Usage by Group (detail)

Client Access Server Usage by User

Client Access Server Usage over Time

Client Access Visit Length over Time

Client Access Visits by Group

Client Access Visits by Group (detail)

Client Access Visits by User

Devices Not Synced in N Days

Devices Synced in N Days [NEW!]

Devices without Policy Updates in N Days

Mobile Device Counts (Pie) [NEW!]

Mobile Device Counts (Single Column)

Mobile Device Counts over Time

Mobile Device List

Mobile Device List by Policy

Mobile Devices Added or Removed

Mobile Devices by Date [NEW!]

Top N Client Access Platforms

Top N Users by Client Access Visit

Distribution Groups

Distribution Group Members

Distribution Groups Not Used in N Days

Distribution Groups with No Members

Individual Distribution Group Memberships

Messages by Distribution Group

Email Policy Auditing

Mailbox Messages by Attachment (Double Column)

Mailbox Messages by Search

Messages by Email Address or Internet Domain

Messages by Email Address or Internet Domain (All Recipients)

Messages by Email Address or Internet Domain (Details)

Messages by Subject Line

Messages by Subject Line (Details)

Messages by Subject Line (Server Details)

Messages Over N Megabytes

Messages Over N Megabytes (details)

Messages Over N Recipients

Messages Over N Recipients (details)

Public Folder Messages by Attachment (Double Column)

Public Folder Messages by Search

Top N Internet Domains in Message Traffic

Exchange Diagnostics

Exchange Server Events

Mailbox Messages by Actual Delivery Time Interval

Messages by Group over Time

Mailbox Access

Mailbox Access by User

Mailbox Access Change History

Mailbox Access Details

Mailbox Delegate Access [NEW!]

User Access by Mailbox

User Access Details

Mailbox Message Traffic

Mailbox Messages Between Groups

Mailbox Messages by Group (Double Column)

Mailbox Messages by Group (Multi Column)

Mailbox Messages by Group (Single Column)

Mailbox Messages by Recipient (Double Column)

Mailbox Messages by Recipient (Multi Column)

Mailbox Messages by Recipient (Single Column)

Mailbox Messages over Time

Top N Mailboxes in Message Traffic

Mailboxes

Disabled Mailboxes [NEW!]

Inactive Mailboxes

Mailbox Counts by Group (Multi Column)

Mailbox Counts by Group (Single Column)

Mailbox Counts by Information Store

Mailbox Counts by Quota Limit Size

Mailbox Counts by Quota Limit Size Interval

Mailbox Counts by Size Increment

Mailbox Counts by Storage Group

Mailbox Folder Details

Mailbox Folder Details by Group

Mailbox List

Mailbox Quota Status

Mailbox Size Averages (Multi Column)

Mailbox Size Averages (Single Column)

Mailbox Size Averages by Group (Multi Column)

Mailbox Size Averages by Group (Single Column)

Mailbox Size Averages over Time

Mailboxes Over N Size

Top N Mailboxes

Top N Mailboxes in Growth [NEW!]

Public Folder Access

Client Permission Details by Account [NEW!]

Client Permission Details by Folder [NEW!]

Client Permissions by Account [NEW!]

Client Permissions by Folder [NEW!]

Folder Access Change History [NEW!]

Public Folders

Empty Public Folders

Inactive Public Folders

Mail-enabled Public Folders

Public Folder Counts

Public Folder List

Public Folder Messages by Folder (Multi Column)

Public Folder Messages (Multi Column)

Public Folder Size Averages (Single Column)

Public Folders by Date Created

Public Folders by Date Created (details)

Top N Public Folders

Top N Public folders in Growth [NEW!]

Sendmail

Ruleset Counts by Group

Ruleset Counts by Group over Time

Sendmail Messages by Server Group

Sendmail Messages over Time

Top N Mailboxes in Sendmail Traffic

Top N Recipients in Sendmail Traffic

Top N Rulesets

Top N Sendmail Host Pairs

Top N Sendmail Hosts

Top N Sendmail Hosts (Destination)

Top N Sendmail Hosts (Origination)

Server Message Traffic

Connector Message Trend

Connector Messages by Server

Connector Messages by Server over Time

Server Messages by Group

Tracking Log Events by Group

Server Storage

Information Store Audit

Information Store Database Backup

Information Store Database Whitespace

Information Store Databases Not Backed-up in N Days

Information Store Sizes by Server

Information Store Sizes over Time

Service Levels

Average Delivery Times by Group

Average Delivery Times over Time

Daily Average Delivery Times by Group

Daily Average Delivery Times by Recipient

Mailbox Messages by Average Delivery Time Interval

Mailbox Messages by Average Delivery Time Interval over Time

Exchange Reports Summary

The AppAnalyzer for Exchange reports are grouped into the following categories:

Active Directory

The reports within the Active Directory category display information about Exchange directory members and recipient types.

AppAnalyzer Administration

The reports within the AppAnalyzer Administration category display information needed to monitor the ongoing operations of the AppAnalyzer service.

Anti-spam

The reports within the Anti-spam category display information about message traffic filtered and/or blocked by the native Microsoft Exchange Server Anti-spam functionality.

Client Access

The reports within the Client Access category display information about the various non-MAPI client (Outlook Web Access, Outlook Mobile Access, RPC over HTTP, ActiveSync) visits and activity.

Distribution Groups

The reports within the Distribution Groups category display information about the membership, permissions, activity and usage of Exchange Distribution Groups.

Email Policy Auditing

The reports within the Email Policy Auditing category display information about message content (keywords and attachments), detailed user activity, and other Exchange message traffic detail needed to monitor and establish e-mail policies.

Exchange Diagnostics

The reports within the Exchange Diagnostics category display information about Exchange server events and server message delivery times.

Mailbox Access

The reports within the Mailbox Access category display information about Active Directory permissions for Exchange mailboxes.

Mailbox Message Traffic

The reports within the Mailbox Message Traffic category display information about message traffic originated or delivered to Exchange Mailboxes (non-system traffic).

Mailboxes

The reports within the Mailboxes category display information about the sizes, counts, quotas, and usage of Exchange Mailboxes.

Public Folders

The reports within the Public Folders category display information about the sizes, counts, ownership, activity and usage of Exchange Public Folders.

Public Folders Access

The reports within the Public Folder Access category display information about client permissions for Exchange Public Folders, including ownership.

Server Message Traffic

The reports within the Server Message Traffic category display information about all messages that flow through the Exchange servers (including system traffic).

Server Storage

The reports within the Server Storage category display information about the sizes of Information Stores on each Exchange server.

Service Levels

The reports within the Service Levels category display information about overall message delivery time and service levels.

Active Directory

The reports within the Active Directory category display information about Exchange directory members and recipient types.

Directory Attribute Reconciliation

This report displays directory attribute values, user counts and user details for the specified directory attribute type.

Recipient List by Date Range

This report lists recipients in the directory that were created (or modified, depending on the selected parameter) in the date range provided. You can filter the list by recipient type, as well as groups, directory attributes and location when applicable.

Directory Members

This report displays counts of directory members. The counts are listed by the home Exchange sites of the directory members. This report can also display counts by organization, server group, directory attribute, or other groups.

Recipient Type Counts

This report displays counts of recipient types in the directory. You can filter the list by recipient type, as well as groups and directory attributes where applicable.

Recipient Type Counts by Creation Date Range

This report displays counts of recipients in the directory that were created in the date range provided, grouped by recipient type. You can filter the list by recipient type, as well as groups, directory attributes and location when applicable.

Recipient Type List

This report displays recipients by type in the directory. You can filter the list by recipient type, as well as groups and directory attributes where applicable.

Anti-spam

The reports within the Anti-spam category display information about message traffic filtered and/or blocked by the native Microsoft Exchange Server Anti-Spam functionality.

Messages Blocked by Block List Provider

This report displays the daily average or total number of messages blocked by Block List Providers, grouped by organization, server group, or server.

Messages Blocked by Block List Provider over Time

This report displays the total number of messages blocked over the selected time option (e.g. Hour, Day of Week, Day, Quarter, etc.), grouped by Block List Provider. The report can be filtered by organization, server group, or server.

Messages by Transport Agent Action

This report displays the daily average or total number of messages by Transport Agent Action, grouped by organization, server group, or server.

Messages by Transport Agent Reason

This report displays the daily average or total number of messages by Transport Agent Action and Reason, grouped by organization, server group, or server. The report can be filtered by one or more reasons, such as 'SCL', or actions, such as 'Reject Message.'

Transport Agent Messages by Action over Time

This report displays the total number of messages resolved over the selected time option (e.g. Hour, Day of Week, Day, Quarter, etc.), grouped by the Transport Agent Action. The report can be filtered by organization, server group, or server as well as one or more reasons, such as 'SCL', or actions, such as 'Reject Message.'

Transport Agent Messages by Group over Time

This report displays the total number of messages resolved over the selected time option (e.g. Hour, Day of Week, Day, Quarter, etc.), grouped by organization, server group, or server. The report can be filtered by one or more reasons, such as 'SCL', or actions, such as 'Reject Message.'

Transport Agent Messages by Reason over Time

This report displays the total number of messages resolved over the selected time option (e.g. Hour, Day of Week, Day, Quarter, etc.), grouped by the detailed Transport Agent Reason. The report can be filtered by organization, server group, or server as well as one or more reasons (defaults to BlockListProvider), or actions, such as 'Reject Message.'

AppAnalyzer Administration

The reports within the AppAnalyzer Administration category display information needed to monitor the ongoing operations of the AppAnalyzer service.

AppAnalyzer Task Status

This report displays information about tasks that have been executed or that are pending execution. It does not include tasks that have been scheduled but have not yet executed (those with a 'Never Run' status). Tasks are displayed by organization, site, server, group, or AppAnalyzer server and can optionally be filtered by task type, status and interval. Interval names ending with '*' represent dynamic task intervals.

Client Access

The reports within the Client Access category display information about the various non-MAPI client (Outlook Web Access, Outlook Mobile Access, RPC over HTTP, ActiveSync) visits and activity.

Client Access Login Details

This report displays the login event details for the selected time period and attempted user or resolved user.

Client Access Logins by Attempted User

This report displays the number of Outlook Web Access login events over the selected time period, grouped by the attempted user. The results can be filtered by Organization, Client Access Server, or server group, as well as by an attempted user wildcard filter. Results can also be filtered by the resolved user status - resolved, unresolved, or all. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events.

Client Access Logins by Group

This report displays the total or average number of Outlook Web Access login events over the selected time period, grouped by home server, store, or Directory Attribute groupings of the resolved user. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events.

Client Access Logins by IP

This report displays the number of Outlook Web Access login events over the selected time period, grouped by source IP address. The results can be filtered by Organization, Client Access Server, or server group, as well as by an IP address wildcard filter. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events. The chart represents the overall breakdown of success, failure and logout events.

Client Access Logins by Server

This report displays the number of Outlook Web Access login events over the selected time period, grouped by Organization, Client Access Server, or server group.

Client Access Logins by User

This report displays the total or average number of Outlook Web Access login events over the selected time period, grouped by the resolved user. Users can be filtered by home server, store, or Directory Attribute groupings. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events.

Client Access Logins over Time

This report displays the number of Outlook Web Access login events over the time period, grouped by the selected time option (e.g. Day of Year, Week, Quarter, etc.). The results can be filtered by Organization, Client Access Server, or server group. Failure Rate is the percent of failure events per total attempts. Logout Rate is the percent of logout events per success events. The chart represents the overall breakdown of success, failure and logout events.

Client Access Server Usage by Group

This report displays Exchange Client Access usage information for ActiveSync (Windows Mobile), Outlook Web Access (OWA), Exchange Web Services (EWS), and PowerShell (PS) from the perspective of the Client Access Server. Usage can be analyzed by unique Users, Megabytes Uploaded/Downloaded, or HTTP Events.

Client Access Server Usage by Group (detail)

This report displays usage information (Users, Bytes Uploaded/Downloaded, and HTTP Events) from the perspective of the Client Access Server for a specific Exchange Client Access type. The Client Access types can be filtered by ActiveSync (Windows Mobile), Outlook Web Access (OWA), Exchange Web Services (EWS), and PowerShell (PS).

Client Access Server Usage by User

This report displays Exchange Client Access usage information for ActiveSync (Windows Mobile), Outlook Web Access (OWA), Exchange Web Services (EWS), and PowerShell (PS) from the perspective of the Client Access Server. Usage can be analyzed by unique Users, Megabytes Uploaded/Downloaded, or HTTP Events.

Client Access Server Usage over Time

This report displays Exchange Client Access usage information for ActiveSync (Windows Mobile), Outlook Web Access (OWA), Exchange Web Services (EWS), and PowerShell (PS) from the perspective of the Client Access Server. Usage can be analyzed by unique Users, Megabytes Uploaded/Downloaded, or HTTP Events.

Client Access Visit Length over Time

This report displays the Average, Maximum, and Standard Deviation of time for Exchange Client Access visits during a specific time period grouped by selected time options (e.g. Day of Week, Hour of Day, Quartely, etc.). The report can be filtered by a specific Client Access type such as ActiveSync, Outlook Web Access (OWA), Exchange Web Services (EWS), or PowerShell (PS), as well as by various Server and Directory Attribute groupings.

Client Access Visits by Group

This report displays Exchange Client Access usage information for ActiveSync (Windows Mobile), Outlook Web Access (OWA), Exchange Web Services (EWS), and PowerShell (PS) from the perspective of the accessed Mailbox. Usage can be analyzed by Visits, Megabytes Uploaded/Downloaded, or HTTP Events.

Client Access Visits by Group (detail)

This report displays usage information (Visits, Bytes Uploaded/Downloaded, and HTTP Events) for a specific Exchange Client Access type. The Client Access types can be filtered by ActiveSync (Windows Mobile), Outlook Web Access (OWA), Exchange Web Services (EWS), or PowerShell (PS).

Client Access Visits by User

This report displays the users of Exchange Client Access (non-MAPI) types by Visits, Megabytes uploaded/downloaded, or HTTP events. Users can be filtered by server, store, or Directory Attribute groupings.

Devices Not Synced in N Days

This report lists the ActiveSync mobile devices in the Organization that have not successfully synchronized in the time frame provided. Devices can be filtered by device property as well as by mailbox server, store, or directory attribute of the device user.

Devices Synced in N Days

This report lists the ActiveSync mobile devices in the Organization that have successfully synchronized in the time frame provided. Devices can be filtered by device property. Device users can be filtered by location and mailbox server, store, or directory attribute.

Devices without Policy Updates in N Days

This report lists the ActiveSync devices in the Organization that have not had policy updates in more than the number of days specified. Devices can be filtered by mailbox server, store, device property, version, or directory attribute of the user, such as department as well as specific policy or policy status values.

Mobile Device Counts (Pie)

This report displays the number of ActiveSync mobile devices in the Organization by mailbox server, store, device property, version, or directory attribute of the user, such as department. Device users can also be filtered by location.

Mobile Device Counts (Single Column)

This report displays the number of ActiveSync mobile devices in the Organization by mailbox server, store, device property, version, or directory attribute of the user, such as department.

Mobile Device Counts over Time

This report displays the number of ActiveSync devices in use over the selected time option (e.g. Day of Year, Week, Quarter, etc.), grouped by mailbox server, store, device property, version, or directory attribute of the user, such as department.

Mobile Device List

This report lists the ActiveSync mobile devices and users in the Organization by mailbox server, store, device property, version, or directory attribute of the user, such as department.

Mobile Device List by Policy

This report lists the ActiveSync mobile devices and users in the Organization by mailbox server, store, device property, version, or directory attribute of the user, such as department. It can also be filtered for specific policy or policy status values, as well as device policies that have not been updated in the number of days specified.

Mobile Devices Added or Removed

This report lists devices that have been added to or removed from users during the specified time period. The Removed date marks the date that AppAnalyzer discovered the device missing from the user. The devices can be filtered by device property, version, or by the mailbox server, store, or directory attribute of the user, such as department.

Mobile Devices by Date

This report lists devices that were active on the specified date. The Removed date marks the date that AppAnalyzer discovered the device missing from the user. The devices can be filtered by device property, version, or the mailbox server, store, or directory attribute of the user, such as department. Device users can also be filtered by location.

Top N Client Access Platforms

This report displays the top Exchange Client Access (non-MAPI) platforms by Visits, Megabytes uploaded/downloaded, or HTTP events. Users can be filtered by server, store, or Directory Attribute groupings.

Top N Users by Client Access Visit

This report displays the top users of Exchange Client Access (non-MAPI) types by Visits, Megabytes uploaded/downloaded, or HTTP events. Users can be filtered by server, store, or Directory Attribute groupings.

Distribution Groups

The reports within the Distribution Groups category display information about the membership, permissions, activity and usage of Exchange Distribution Groups.

Distribution Group Members

This report displays distribution groups and the number of members in each group. It also counts the total number of nested distribution groups as well as total unique recipients. A distribution group can contain mailboxes, external recipients, contacts, public folders, or other distribution groups, each of which is counted as a member.

Distribution Groups Not Used in N Days

By default, this report displays distribution groups that have not been used (that is, received messages) for the specified number of days or longer. The distribution groups are sorted by site by the date and time of their last use in ascending order. Therefore, the distribution group that has been unused the longest appears at the top of the report's table.

Distribution Groups with No Members

This report displays distribution groups with no members. Note that distribution group membership based reports require that the Active Directory task be run with the "Query group membership" option enabled.

Individual Distribution Group Memberships

This report displays a list of members of non-dynamic distribution groups. For each member, the report displays a count of distribution groups to which the member belongs.

Messages by Distribution Group

This report displays counts and megabytes of messages sent to and/or received from distribution groups.

Email Policy Auditing

The reports within the Email Policy Auditing category display information about message content (keywords and attachments), detailed user activity, and other Exchange message traffic detail needed to monitor and establish e-mail policies.

Mailbox Messages by Attachment (double column)

This report displays item counts and sizes for Mailbox messages that contain selected attachments. This report can break the message count down by the mailboxes that contain that attachment or show details about the messages that contribute to that count. These details include the message's time, subject, and attachment size.

Mailbox Messages by Search

This report displays counts of mailboxes and messages that contain matches for a content search. The Group and Directory Attribute Filters apply to the mailboxes searched, not the server that the search task ran against.

Public Folder Messages by Search

This report displays counts of public folders and messages that contain matches for a content search. The Group Filters apply to the public folders searched, not the server that the search task ran against.

Messages by Email Address or Internet Domain

This report displays message counts sent to or received from a specified e-mail address or Internet domain by members of your enterprise. The counts are listed by the senders or receivers of the messages. The report's table is sorted by the message count in descending order.

Messages by Email Address or Internet Domain (Details)

This report displays message details for messages that have been sent to or received from a specified e-mail address or Internet domain by members of your enterprise.

Messages by Email Address or Internet Domain (All Recipients)

This report displays message details for messages that have been sent to or received from a specified e-mail address or Internet domain by members of your enterprise. It lists every recipient without the need to drill-down.

Messages by Subject Line

This report displays the number of messages that match the specified Subject search target. The message counts are listed by subject. Messages in this report are limited to the 'user traffic' type. By default, this report will show messages matching the specified subject sent from any sender to any recipient. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered to show only messages where at least one recipient is in a specified site, server group, server, or storage group as well as for messages that were sent to at least one external recipient.

Messages by Subject Line (Details)

This report displays the message details for messages that match the specified Subject search target. Messages in this report are limited to the 'user traffic' type. By default, this report will show messages matching the specified subject sent from any sender to any recipient. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered to show only messages where at least one recipient is in a specified site, server group, server, or storage group as well as for messages that were sent to at least one external recipient.

Messages by Subject Line (Server Details)

This report displays the origination and destination details for messages that match the specified Subject search target. Messages in this report are limited to the 'user traffic' type. By default, this report will show messages matching the specified subject sent from any sender to any recipient. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered

to show only messages where at least one recipient is in a specified site, server group, server, or storage group as well as for messages that were sent to at least one external recipient.

Messages Over N Megabytes

This report displays the number of messages that are larger than the specified size in megabytes (the default is 1 MB). The message counts are listed by sender. Messages in this report are limited to the 'user traffic' type. By default, this report will show messages larger than the specified size sent from any sender to any recipient. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered to show only messages where at least one recipient is in a specified site, server group, server, or storage group as well as for messages that were sent to at least one external recipient.

Messages Over N Megabytes (details)

This report displays the message details for messages that are larger than the specified size in megabytes (the default is 1 MB). Messages in this report are limited to the 'user traffic' type. By default, this report will show messages larger than the specified size sent from any sender to any recipient. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered to show only messages where at least one recipient is in a specified site, server group, server, or storage group as well as for messages that were sent to at least one external recipient.

Messages Over N Recipients

This report displays the number of messages that have been sent to more than the specified number of recipients (the default is 10). The message counts are listed by sender. Messages in this report are limited to the 'user traffic' type. By default, this report will show messages sent to more than the specified number of recipients from any sender. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered to show only messages where more than the specified number of recipients are in a specified site, server group, server, storage group, or are external.

Messages Over N Recipients (details)

This report displays the message details for messages that have been sent to more than the specified number of recipients (the default is 10). Messages in this report are limited to the 'user traffic' type. By default, this report will show messages sent to more than the specified number of recipients from any sender. However, this report can be filtered to only list senders for a specified site, server group, server, or storage group as well as external senders. It can also be filtered to show only messages where more than the specified number of recipients are in a specified site, server group, server, storage group, or are external.

Public Folder Messages by Attachment (Double Column)

This report displays item counts and sizes for Public Folder messages that contain selected attachments. This report can break the message count down by the folders that contain that attachment or show details about the messages that contribute to that count. These details include the message's time, subject, and attachment size.

Top N Internet Domains in Message Traffic

This report displays counts or megabytes of messages sent to and/or received from external e-mail addresses. The counts are listed by the Internet domains in the originator and/or recipient e-mail addresses. For example, a message sent to myfriend@sirana.com is counted under sirana.com.

Exchange Diagnostics

The reports within the Exchange Diagnostics category display information about Exchange server events and server message delivery times.

Exchange Server Events

This report displays counts of selected Windows Events that are written by Exchange Servers.

Mailbox Messages by Actual Delivery Time Interval

This report displays message counts and average sizes for each site by delivery time, which is the elapsed time between sending and receiving a message. The delivery time is calculated by individual message prior to aggregation. Each message is reported with its own actual delivery time. This report only shows information for messages received.

Messages by Group over Time

This report displays the number of sent, received and total messages during a specific time period grouped by the selected time option (e.g. Hour, Day of Week, Day, Quarterly, etc.). The report can be grouped by various Server, Store and Directory Attribute groupings. This report is based on the detailed message data and the available time options will be limited by the data retention period selected for retaining detailed data.

Mailbox Access

The reports within the Mailbox Access category display information about Active Directory permissions for Exchange mailboxes.

Mailbox Access by User

This report lists user accounts and the number of mailboxes in the selected group to which the accounts have assigned access rights. The targeted mailboxes can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute..

Mailbox Access Change History

This report lists user accounts and the history of assigned access rights that the user has had on the targeted mailboxes in the selected group. The targeted mailboxes can be identified by mailbox name, primary SMTP address, or alias and can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute, as well as selected access rights. The report can list multiple mailboxes as the 'for' report parameter

accepts wild cards. Note that the change history only reflects changes that have been identified between subsequent runs of the Mailboxes task. As such, it does NOT reflect a complete change history for the given mailbox.

Mailbox Access Details

This report lists user accounts and the assigned access rights that the user has on the targeted mailboxes in the selected group. The targeted mailboxes can be identified by mailbox name, primary SMTP address, or alias and can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute, as well as selected access rights. The report can list multiple mailboxes as the 'for' report parameter accepts wild cards. Note that the 'Changes' column only reflects changes that have been identified between subsequent runs of the Mailboxes task. As such, it does NOT reflect a complete change history for the given mailbox.

Mailbox Delegate Access

This report lists mailboxes with user accounts (delegates) that have been granted non-default folder permissions. The targeted mailboxes can be identified by mailbox name, primary SMTP address, or alias and can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute, as well as location. The report can target multiple mailboxes and/or delegates as the parameters accept wild cards. The results can also be limited to specific mailbox folders, or specific access rights. Note that all permissions for the default accounts "Anonymous" and "Default" have been omitted.

User Access by Mailbox

This report lists mailboxes in the selected group and the number of user accounts that have assigned access rights to those mailboxes. The listed mailboxes can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute.

User Access Details

This report lists the mailboxes in the selected group along with the assigned access rights that the specified user account has on those mailboxes. The listed mailboxes can be filtered by organization, database availability group, server group, server, storage group, store, or directory attribute, as well as selected access rights. The report can list multiple user accounts as the 'User Account' report parameter accepts wild cards. Note that the 'Changes' column only reflects changes that have been identified between subsequent runs of the Mailboxes task. As such, it does NOT reflect a complete change history for the given mailbox.

Mailbox Message Traffic

The reports within the Mailbox Message Traffic category display information about message traffic originated or delivered to Exchange Mailboxes (non-system traffic).

Mailbox Messages Between Groups

This report displays total or daily average message traffic and delivery times between Exchange sites or servers. Message traffic is represented by message counts or megabytes received of messages with delivery times. Messages without delivery times are not counted. It can show this information by origin or destination organization, site, server group, or server.

Mailbox Messages by Group (Double Column)

This report compares total, daily average, or mailbox daily average messages or megabytes per group.

Mailbox Messages by Group (Multi Column)

This report displays total, daily average, or mailbox daily average messages or megabytes per group.

Mailbox Messages by Group (Single Column)

This report displays total, daily average, or mailbox daily average messages or megabytes per group.

Mailbox Messages by Recipient (Double Column)

This report compares total, or daily average messages or megabytes per mailbox.

Mailbox Messages by Recipient (Multi Column)

This report displays total, or daily average messages by mailbox.

Mailbox Messages by Recipient (Single Column)

This report displays total, or mailbox daily average messages or megabytes per mailbox.

Mailbox Messages over Time

This report displays the number or megabytes of messages sent and/or received during a specific time period grouped by selected time options (e.g. Day of Week, Day, Quartely, etc.). The report can be filtered by various Server, Store and Directory Attribute groupings.

Top N Mailboxes in Message Traffic

This report displays the specified number of mailboxes that send and/or receive the highest counts or megabytes of User Traffic type messages (the default is 10). The report's table is sorted by message count in descending order.

Mailboxes

The reports within the Mailboxes category display information about the sizes, counts, quotas, and usage of Exchange Mailboxes.

Disabled Mailboxes

This report lists Mailboxes with user accounts that have been disabled in Active Directory. You can filter the list by mailbox type, as well as groups and directory attributes where applicable. The "Present in AD?" report parameter can be used to determine if the user account is still present in AD (True), or if the mailbox has been orphaned or is awaiting deletion pending the data retention settings within AppAnalyzer (False). An "*" in the Store column indicates that the Mailbox is an off-premises mailbox or the data store information is no longer available.

Inactive Mailboxes

By default, this report displays mailboxes that have not been accessed for the specified number of days or longer. The mailboxes are sorted by the date and time of their last access in ascending order. Therefore, the mailbox that has been inactive the longest appears at the top of the report's table.

Mailbox Counts by Group (Multi Column)

This report displays the number of mailboxes for each server, storage group, store, server group, or directory attribute, such as department.

Mailbox Counts by Group (Single Column)

This report displays the number of mailboxes for each server, storage group, store, server group, or directory attribute, such as department.

Mailbox Counts by Information Store

This report displays mailbox counts by server, storage group, and information store, and includes the store size in MB or GB. The mailbox count and store size can be subtotaled by server and storage group. The report can be set to display this information for each site, storage group, server group, or server. This report does NOT include Exchange 2010 Databases.

Mailbox Counts by Quota Limit Size

This report displays the number of mailboxes grouped by storage quota size in KB, MB, or GB for the selected Quota Limit Type. The report can be filtered by Exchange site, server, storage group, routing group, server group, or directory attribute, such as department.

Mailbox Counts by Quota Limit Size Interval

This report displays the number of mailboxes grouped by up to 10 storage quota size intervals in KB, MB, or GB for the selected Quota Limit Type. The report can be filtered by Exchange site, server, storage group, routing group, server group, or directory attribute, such as department.

Mailbox Counts by Size Increment

This report displays the number of mailboxes in incremental size ranges, filtered by Exchange site, server, storage group, routing group, server group, or directory attribute, such as department.

Mailbox Counts by Storage Group

This report displays mailbox counts and store sizes by server and storage group. The storage group size can be viewed in MB or GB. The report can be set to display this information for a particular site, storage group, server group, or server. Note that this report is intended for use in organizations that have consistently named storage groups, and it does NOT include Exchange 2010 Databases.

Mailbox Folder Details

This report displays the total number of items and megabytes for the selected mailbox folders by server, storage group, and data store. Mailboxes can also be filtered by site, storage group, routing group, server group, server, or directory attribute.An '*' in the 'Storage Group' column indicates that the store is part of a Database Availability Group.

Mailbox Folder Details by Group

This report displays the total number of items and megabytes for the selected mailbox folders by organization, storage group, store, server group, server, or directory attribute.

Mailbox List

This report displays recipients by type in the directory. You can filter the list by recipient type, as well as groups and directory attributes where applicable.

Mailbox Quota Status

This report displays current Mailbox size and over-limit status. An '*' in the Date column indicates that the Mailbox task has not been run for the given mailbox or the mailbox is empty. '% Quota Used' represents the amount of the Receive quota currently used.

Mailbox Size Averages (Multi Column)

This report displays the daily average number of mailbox items and megabytes by mailbox.

Mailbox Size Averages (Single Column)

This report displays the daily average number of mailbox items or megabytes by mailbox.

Mailbox Size Averages by Group (Multi Column)

This report displays the daily average number of mailbox items and megabytes by storage group, store, server group, server, directory attribute or mailbox as total values or average values. "Daily Average" values are based on the total size of all mailboxes in the group and

"Mailbox Average" values are based on the total size divided by the number of mailboxes in the group.

Mailbox Size Averages by Group (Single Column)

This report displays the daily average number of mailbox items or megabytes by site, storage group, routing group, server group, server, directory attribute or mailbox as total values or average values. "Daily Average" values are based on the total size of all mailboxes and "Mailbox Average" values are based on the total size divided by the number of mailboxes. By default, the sizes are listed by the Exchange sites that store the mailboxes.

Mailbox Size Averages over Time

This report displays the daily average number of mailbox items or megabytes by storage group, store, server group, server, directory attribute or mailbox as total values or average values. "Daily Average" values are based on the total size of all mailboxes in the group and "Mailbox Average" values are based on the total size divided by the number of mailboxes in the group.

Mailboxes Over N Size

This report displays current Mailbox size and over-limit status for mailboxes over the specified size.

Top N Mailboxes

This report displays the specified number (N) of mailboxes with the largest sizes. The table shows the name of the mailbox, mailbox alias, the server it is on, and the size. How many mailboxes are shown (the value of N) is set in the report filter. This report can show mailboxes for all or an individual organization, site, routing group, server group, server, store, or directory attribute.

Top N Mailboxes in Growth

This report displays the specified number (N) of mailboxes with the largest growth in size or items over the specified time period. This report can show mailboxes for all or an individual organization, server group, server, store, or directory attribute and can be filtered by location. The "As of" date reflects the most recent date that data was collected within the time period, and the "Days" column reflects the number of days between the earliest and latest data points collected within the time period. An "*" in the "Store" column indicates an off-premises mailbox.

Public Folders

The reports within the Public Folders category display information about the sizes, counts, ownership, activity and usage of Exchange Public Folders. **NOTE: The Public Folder task and reports are not supported against Exchange 2013 servers in this release.**

Empty Public Folders

This report displays public folders for the specified group that contain no items. The table shows the name of the folder, its path, the server it is on, when it was created, when it was last accessed, and when data was last collected.

Inactive Public Folders

This report displays all the public folders on servers in the specified group that no one has accessed in more than the specified number (N) of days. The table shows the name of the folder, its path, the server it is on, when it was created, the last time and number of days since it was accessed.

Mail-enabled Public Folders

This report lists the mail-enabled public folders within the Exchange Organization, filtered by server or server group.

Public Folder Counts

This report displays the total number of public folders and mail-enabled public folders grouped by server or server group.

Public Folder List

This report lists the public folders in the Exchange Organization, filtered by server or server group.

Public Folder Messages by Folder (Multi Column)

This report displays total, or daily average messages or megabytes per folder. The values are grouped by the Exchange servers that store the public folders, so the values include messages sent to replicas.

Public Folder Messages (Multi Column)

This report displays total, daily average, or folder daily average messages or megabytes per group. The values are grouped by the Exchange servers that store the public folders, so the values include messages sent to replicas.

Public Folder Size Averages (Single Column)

This report displays the daily average number of public folder items or megabytes by server group or server as total values or average values. "Daily Average" values are based on the total size of all folders and "Folder Average" values are based on the total size divided by the number of folders.

Public Folders by Date Created

This report displays counts of public folders by the dates they were created. The report's table is sorted in ascending order by creation date. It can also list the public folders that contribute to the count.

Public Folders by Date Created (details)

This report lists public folders by the dates they were created. By default, the folders are sorted in ascending order by creation date.

Top N Public Folders

This report displays the specified number (N) of public folders with the largest sizes on the specified groups of servers. The table shows the name of the folder, its path, the server it is on, and the size in MB or the number of items. The report can also display the size in MB of the deleted items or the number of deleted items.

Top N Public Folders in Growth

This report displays the specified number (N) of public folders with the largest growth over the specified time period in size, items, deleted size, or deleted items. The "As of" date reflects the most recent date that data was collected within the time period, and the "Days" column reflects the number of days between the earliest and latest data points collected within the time period.

Public Folders Access

The reports within the Public Folder Access category display information about client permissions for Exchange Public Folders, including ownership.

Client Permission Details by Account

This report lists Public Folders and the assigned access rights that the targeted user account has on the Public Folders. Accounts can be targeted by a wild card supported search on the account name. Folders can be targeted by organization, or by a wild card supported search on the folder path. Access rights included in the report can be limited by a filter. Note that the 'Changes' column only reflects changes that have been identified between subsequent runs of the Public Folders task. As such, it does NOT reflect a complete change history for the given folder.

Client Permission Details by Folder

This report lists user accounts and the assigned access rights that the user has on the targeted Public Folders. Folders can be targeted by organization, or by a wild card supported search on the folder path. Access rights included in the report can be limited by a filter. Note that the 'Changes' column only reflects changes that have been identified between subsequent runs of the Public Folders task. As such, it does NOT reflect a complete change history for the given folder.

Client Permissions by Account

This report lists the user accounts and the count of Public Folders to which they have been granted non-default permissions. The default client permissions (account:right) of Default:Author, Anonymous:None and Anonymous:Create have been omitted.

Client Permissions by Folder

This report lists the public folders in the Exchange Organization that have non-default client permissions along with the count of user accounts that have been granted those non-default permissions. The default client permissions (account:right) of Default:Author, Anonymous:None and Anonymous:Create have been omitted.

Folder Access Change History

This report displays the re-add/remove change history for the specified folder permissions.Note that the change history only reflects changes that have been identified between subsequent runs of the Public Folders task. As such, it does NOT reflect a complete change history for the given folder.

Server Message Traffic

The reports within the Server Message Traffic category display information about all messages that flow through the Exchange servers (including system traffic).

Connector Message Trend

This report displays a trend of the daily total number of messages by connector, as well as the total number and total size of the messages over the specified date range. Size can be displayed in Megabytes or Gigabytes. The report can be filtered by organization, server group, or server.

Connector Messages by Server

This report displays the daily average and total number of messages by connector, as well as the daily average and total size of the messages in Megabytes or Gigabytes. The report can be filtered by organization, server group, or server.

Connector Messages by Server over Time

This report displays the total number and size of messages over the selected time option (e.g. Hour, Day of Week, Day, Quarter, etc.), grouped by connector. The report can be filtered by organization, server group, or server as well as selected connectors.

Server Messages by Group

This report displays total, daily average, or mailbox daily average messages or megabytes per group.

Tracking Log Events by Group

This report displays Tracking Log Event counts.

Server Storage

The reports within the Server Storage category display information about the sizes of Information Stores on each Exchange server.

Information Store Audit

This report displays the current size, whitespace, and default storage limits of the Exchange databases. An '*' in the 'As of' Store Size column indicates that the Information Store task has not been run for the given store. An '*' in the 'As of' Whitespace column indicates that the Windows Events task has not been run on the given server. An '*' in the 'Storage Group' column indicates that the store is part of a Database Availability Group. This report does not display database whitespace information for Exchange 2010 servers.

Information Store Database Backup

This report displays the last backup dates of the Exchange databases. An '*' in the 'As of' column indicates that the Information Store task has not been run for the given store. An '*' in the 'Storage Group' column indicates that the store is part of a Database Availability Group.

Information Store Database Whitespace

This report displays the physical properties of the Exchange databases. The sizes can be displayed in MB or GB. An '*' in the 'As of' EDB column indicates that the Information Store task has not been run for the given store. An '*' in the 'As of' Whitespace column indicates that the Windows Events task has not been run on the given server (Exchange 2007 only). An '*' in the 'Storage Group' column indicates that the store is part of a Database Availability Group.

Information Store Databases Not Backed-up in N Days

This report displays the last backup dates of the Exchange databases. An '*' in the 'As of' column indicates that the Information Store task has not been run for the given store. If a last backup date is empty but the Information Store task has been run, the data may not be applicable in your environment.

Information Store Sizes by Server

This report displays Exchange database sizes by server, storage group, and information store. The store size can be displayed in MB or GB, and can be subtotaled by server and storage group. The report can be filtered by organization, Database Availability Group, storage group, server group, store, or server. An '*' in the 'Storage Group' column indicates that the store is part of a Database Availability Group.

Information Store Sizes over Time

This report displays the average daily Exchange database store size grouped by selected time options (e.g. Day of Week, Day, Quarter, etc.). The store size can be displayed in MB or GB, and can be filtered by organization, database availability group, storage group, store, server group, or server.

Service Levels

The reports within the Service Levels category display information about overall message delivery time and service levels.

Average Delivery Times by Group

This report displays average delivery times of messages received by an Organization, Server Group, Server, Storage Group, Store or Directory Attribute. Delivery time is the time elapsed between when a message first appears in the Exchange Organization and when it is delivered.

Average Delivery Times over Time

This report displays the average message delivery times by hour of the day or day of the week, over the specified time range. Delivery time is the time elapsed between when a message first appears in the Exchange Organization and when it is delivered. Messages received can be filtered by Organization, Server Group, Server, Storage Group, Store or Directory Attribute as well as Recipient Type of the receiver.

Daily Average Delivery Times by Group

This report displays the count and average delivery time of messages received by group, by day. The report also displays the daily delivery time trend and overall average delivery time per message for the group. The group can be an Organization, Server Group, Server, Storage Group, Store or Directory Attribute. The message recipients can also be filtered by Recipient Type as well as Directory Attribute. Delivery time is the time elapsed between when a message first appears in the Exchange Organization and when it is delivered.

Daily Average Delivery Times by Recipient

This report displays the count and average delivery time of messages received by recipient, by day. The recipient can be filtered by Organization, Server Group, Server, Storage Group, Store or Directory Attribute as well as Recipient Type. Delivery time is the time elapsed between when a message first appears in the Exchange Organization and when it is delivered.

Mailbox Messages by Average Delivery Time Interval

This report displays counts of messages received by delivery time intervals over the specified date range. Delivery time is the time elapsed between when a message first appears in the Exchange Organization and when it is delivered. Messages received can be filtered by Organization, Server Group, Server, Storage Group, Store or Directory Attribute as well as Recipient Type of the receiver. The chart shows the relative distribution of message counts for the selected delivery time intervals.

Mailbox Messages by Average Delivery Time Interval over Time

This report displays counts of messages received by delivery time intervals over the specified date range. Delivery time is the time elapsed between when a message first appears in the Exchange Organization and when it is delivered. Messages received can be filtered by Organization, Server Group, Server, Storage Group, Store or Directory Attribute as well as Recipient Type of the receiver. The counts can be aggregated by day, month, quarter, or year.

Sendmail Reports Summary

AppAnalyzer for Sendmail includes the following reports:

Ruleset Counts by Group

This report counts the number of times a Sendmail ruleset has been applied during a specific time period grouped by server or server group.

Ruleset Counts by Group over Time

This report counts the number of times a Sendmail ruleset has been applied during a specific time period over the selected time option (e.g. Hour, Day of Week, Day, Quarter, etc.), grouped by server or server group.

Sendmail Messages by Server/Group

This report counts the number of inbound, outbound, and unique (based on queue id) Sendmail messages during a specific time period grouped by server or server group. The report also includes the overall size of the inbound messages, and the average queue delay (seconds) per message for the selected group.

Sendmail Messages over Time

This report counts the number of inbound, outbound, and unique (based on queue id) Sendmail messages during a specific time period grouped by the selected time options (e.g. Day of Week, Hour of Day, Quarterly, etc.). The report also includes the overall size of the inbound messages, and the average queue delay (seconds) per message over the selected time group.

Top N Mailboxes in Sendmail Traffic

This report displays the specified number of mailboxes that send and/or receive the highest counts or megabytes of Sendmail messages (the default is 10). The report's table is sorted by message count in descending order.

Top N Recipients in Sendmail Traffic

This report displays the specified number of recipients that send and/or receive the highest counts or megabytes of messages (the default is 10). The report's table is sorted by message count in descending order.

Top N Rulesets

This report displays the top rulesets that have been applied over the specified time period, filtered by server or server group. The report can display the total number of times a rule has been applied, or the daily average over the selected time period.

Top N Sendmail Host Pairs

This report displays total number of messages and megabytes for unique messages between a host pair (based on queue id) over a specific time period grouped by server or server group. The report also includes the average queue delay (seconds) per message, average number of recipients per message, and the average size of the messages for the selected host pair.

Top N Sendmail Hosts

This report displays total number of messages and megabytes for unique messages (*based on queue id and underlying host pairs) sent or received by a host over a specific time period grouped by server or server group. The report also includes the average queue delay (seconds) per message, average number of recipients per message, and the average size of the messages for the selected host.

Top N Sendmail Hosts (Destination)

This report displays total and unique (based on queue id) messages for outbound messages to a host over a specific time period grouped by server or server group. The report also includes the average queue delay (seconds) per message, and the average number of recipients per message for the selected host.

Top N Sendmail Hosts (Origination)

This report displays total and unique (based on queue id) messages and megabytes for inbound messages to a host over a specific time period grouped by server or server group. The report also includes the average number of recipients per message, and the average size of the messages for the selected host.

BlackBerry Reports Summary

The AppAnalyzer for BlackBerry Enterprise Server reports are grouped into the following categories:

Applications

The reports within the Applications category display information about the BlackBerry device applications.

Servers

The reports within the Servers category display information about the BlackBerry server's configuration, traffic, and diagnostic data.

Service Levels

The reports within the Service Levels category display information about the BlackBerry message delivery times.

Users and Devices

The reports within the Users and Devices category display BlackBerry user and device configuration, activity, and history.

BlackBerry Applications

The reports within the Applications category display information about the BlackBerry device applications.

Application Counts

This report displays the total number of unique applications installed on BlackBerry devices grouped by BES Server, BES Server Group, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Active Carrier, Home Carrier, Network Type, Device Model, Platform Version, or BlackBerry Version.

Application Counts by User

This report displays the number of applications each user has installed on their BlackBerry device. Drilling-down on the application count will expose the list of applications.

Application List

This report displays a list of the applications installed on BlackBerry devices within an organization. Drilling-down on the User count will expose the users that have a specific application installed on their BlackBerry device.

Applications Over N Size

This report displays a list of the applications larger than a specific size (KB) installed on BlackBerry devices, along with the number of users for each of the applications.

Users with a Specific Application

This report lists BlackBerry users that have the specified application(s) installed on their device. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

Users without a Specific Application

This report lists BlackBerry users that do not have the specified application(s) installed on their device. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

BlackBerry Servers

The reports within the Servers category display information about the BlackBerry server's configuration, traffic, and diagnostic data.

Server Configuration

This report displays the current configuration of BlackBerry Enterprise Servers within the organization. It includes both version information, as well as BES services installed. 'N/A' in the Services column indicates that the service is running on the server instance but version information is not available.

Server Events

This report displays counts of selected BlackBerry Enterprise Server Events that occur on each BES server.

Server Events (Details)

This report displays BlackBerry Enterprise Server Events that occur on each BES server.

Server Events over Time

This report displays the number of occurrences of a specific BlackBerry Enterprise Server event over a given period of time. The report can be filtered by BES servers, instances, groups or domains.

Server Message Traffic (Double Column)

This report compares total, daily average, or user daily average messages or volume (kilobytes) per group during a specific time range. The report can be filtered by BES server, BES Server Group, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version. The Message Type direction is in relationship to the BES Server (e.g. Message To Handheld Device, Message From Handheld Device, etc.).

Server Message Traffic (Multi Column)

This report displays total, daily average, or user daily average messages or volume (kilobytes) per group over the specified time range. Messages can be filtered by BES server, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version. The Message Type direction is in relationship to the BES Server (e.g. Message To Handheld Device, Message From Handheld Device, etc.).

Server Message Traffic (Single Column)

This report displays total, daily average, or user daily average messages or volume (kilobytes) per group during a specific time range. The report can be filtered by BES server, BES Server Group, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version. The Message Type direction is in relationship to the BES Server (e.g. Message To Handheld Device, Message From Handheld Device, etc.).

Server Message Traffic by Server Group over Time

This report displays total, daily average, or user daily average messages or volume (kilobytes) per group by day of the week, day, week, day of the year, month, quarter or year over the specified time range. Messages can be filtered by BES server, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version. The Message Type direction is in relationship to the BES Server (e.g. Message To Handheld Device, Message From Handheld Device, etc.).

Server Message Traffic over Time

This report displays total, daily average, or user daily average messages or volume (kilobytes) per group by day of the week, day, week, day of the year, month, quarter or year over the specified time range. Messages can be filtered by BES server, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version. The Message Type direction is in relationship to the BES Server (e.g. Message To Handheld Device, Message From Handheld Device, etc.).

Services

This report lists the BlackBerry Server Instance services by domain, server, group, or instance.

BlackBerry Service Levels

The reports within the Service Levels category display information about the BlackBerry message delivery times.

Message History

This report displays a list of all BlackBerry messages during a specific time range including delivery time in seconds. The report can be filtered by BES server, BES Server Group,

BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version. The Message Type direction is in relationship to the BES Server (e.g. Message To Handheld Device, Message From Handheld Device, etc.).

Server Delivery Times

This report displays average delivery times of messages forwarded (messages sent from the BES server to the handheld devices) by a BES server, group of servers, policy, carrier, model, version, or directory attribute of the user, such as department. This report only shows information for messages successfully forwarded to the device.

Server Delivery Times by Interval

This report displays message counts and average sizes for each individual BES server or group of BES servers by delivery time, which is the total time of forwarded messages (messages sent from the BES server to the handheld devices). The delivery time is calculated by individual message prior to aggregation. Each message is reported with its own actual delivery time. This report only shows information for messages forwarded.

Server Delivery Times by Interval over Time

This report displays message counts by delivery time, which is the total time of forwarded messages (messages sent from the BES server to the handheld devices). This report can show counts of messages delivered within each delivery time interval from a BES server or group of BES servers. The counts can be aggregated by day, month, quarter, or year. This report only shows information for messages forwarded.

Server Delivery Times over Time

This report displays the average BES server message delivery times (forwarded messages) in seconds by hour of the day, day of the week, day, week, day of the year, month, quarter or year over the specified time range. Delivery time is based on the combined internal and external time elapsed when forwarding a message (message sent from the BES server to the handheld device). Messages forwarded can be filtered by BES server, BlackBerry Domain, Mailbox Server, User Group, IT Policy, Directory Attribute, Carrier, Network Type, Device Model, Platform Version or BlackBerry Version.

BlackBerry Users and Devices

The reports within the Users and Devices category display BlackBerry user and device configuration, activity, and history.

Calls Made to a Specific Number

This report lists users that have made calls to or received calls from a designated phone number during a specific time period. The report can be grouped and filtered by BES server, user group, policy, carrier, model, version, or directory attribute of the user, such as department.

Device Owner History

This report displays a history of BlackBerry device ownership. An '*' in the Total columns indicates that data is not available for the selected time period.

Usage Summary

This report displays a summary of BlackBerry device usage by BES domain, BES server, user group, policy, carrier, model, version, or directory attribute of the users, such as department. Note that the BlackBerry Message Summary section only counts 'Message To' and 'Message From' message types.

Usage Summary by User

This report displays a summary of BlackBerry usage per User. The BlackBerry users can be grouped and/or filtered by server, user group, policy, carrier, model, version, or directory attribute of the user, such as department. Note that the BlackBerry Message Summary section only counts 'Message To' and 'Message From' message types.

User Calls

This report lists calls that users have made or received from a designated phone number during a specific time period. The report can be grouped and filtered by BES server, user group, policy, carrier, model, version, or directory attribute of the user, such as department.

User Counts (Single Column)

This report displays the number of BlackBerry users in the domain by server, user group, policy, carrier, model, version, or directory attribute of the user, such as department.

User Counts by Information Store

This report displays the number of BlackBerry users for each Exchange mailbox store. The report can be filtered by organization, database availability group, site, storage group, server group, or server. Users can be selectively included in the report based on their Active Directory values (i.e. Department, OU, etc.) by using the Directory Attribute filter. An '*' in the 'Storage Group' column indicates that the store is part of a Database Availability Group.

User Counts over Time

This report displays the number of BlackBerry users in the domain over a given period of time by server, group, policy, carrier, model, version, or directory attribute of the user, such as department.

User Device Statistics

This report lists users with their summary statistics over the specified period. The report can be grouped and filtered by BES server, user group, policy, carrier, model, version, or directory attribute of the user, such as department. Note that the data for this report is primarily derived from the BES UserStats table, which can be reset by the BES Administrator.

User Group Policy Assignments

This report displays the BlackBerry IT Policy assigned to each BlackBerry User Group, along with the user counts for each User Group. It also displays a count of users within the User Group that have a policy exception. A policy exception occurs when a user's policy does not match the policy on their device, or if the user's policy does not match the policy of any User Group of which they are a member.

User List

This report lists BlackBerry users in the domain by server, group, policy, carrier, model, version, or directory attribute of the user, such as department. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

Users by Date

This report lists BlackBerry users in the domain based on creation and deletion dates. The Deleted date marks the date that AppAnalyzer discovered the user missing from the domain. Users can be filtered by domain, server, group, policy, carrier, model, version, or directory attribute of the user, such as department. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

Users by Policy Status

This report lists users with their most recent IT Policy deployment status. The report can be grouped and filtered by BES server, group, policy, carrier, model, version, or directory attribute of the user, such as department.

Users Created or Deleted

This report lists users that have been created on or deleted from the BES server during a specific time period. The Deleted date marks the date that AppAnalyzer discovered the user missing from the domain. The report can be grouped and filtered by BES server, user group, policy, carrier, model, version, or directory attribute of the user, such as department. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

Users Not Active in N Days

This report lists BlackBerry users whose devices have not contacted the BES server in a speficified period. The report can be grouped and filtered by BES server, group, policy, carrier, model, version, or directory attribute of the user, such as department.

Users with Disabled Accounts

This report lists users that are defined on the BES server but have a disabled Active Directory account. The report can be grouped and filtered by BES server, group, policy, carrier, model, version, or directory attribute of the user, such as department.

Users with Low Device Memory

This report lists users with devices that are below a specific threshold for device free memory. The report can be grouped and filtered by BES server, group, policy, carrier, model, version, or directory attribute of the user, such as department.

Users with Policy Exceptions

This report lists users that have a different BES IT Policy from what is defined in their assigned BES User Group(s) or on their device. The report can be grouped and filtered by BES server, user group, policy, carrier, model, version, or directory attribute of the user, such as department.

Users with Replaced Devices

This report lists users that have changed their handheld device (new PIN) within the specified period. The report can be grouped and filtered by BES server, user group, policy, carrier, model, version, or directory attribute of the user, such as department.

Users without Devices

This report lists BlackBerry users that have been added to the BES server but have not activated their handheld device. The report can be grouped and filtered by BES server, group, policy, or directory attribute of the user, such as department. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

Users without Handheld Passwords

This report lists users that do not have a password enabled on their handheld device. The report can be grouped and filtered by BES server, group, policy, carrier, model, version, or directory attribute of the user, such as department. An "*" in the Exchange Mailbox Server column indicates that the BES User is no longer in Active Directory.

Users without Mailboxes

This report lists users that are defined on the BES server but no longer have a mailbox on their configured Exchange server. The report can be grouped and filtered by BES server, group, policy, carrier, model, or version.

Top N BlackBerry Users (Single Column)

This report displays the specified number of users that send and/or receive the highest counts or volume of messages, phone calls, or SMS text messages. The report's table is sorted by message count in descending order. The BlackBerry users can be grouped and/or filtered by server, user group, policy, carrier, model, version, or directory attribute of the user, such as department. Note that BlackBerry messages only include 'Message To' and 'Message From' message types.

AppAnalyzer Security

AppAnalyzer is secured via a role-based authorization system that integrates with your organizations Windows Active Directory. The set of actions that a user or group of users can perform are controlled by their assignment to specific roles within AppAnalyzer. Additional levels of security can be implemented on a report by report basis by leveraging the built-in security of Microsoft SQL Server Reporting Services.

The first person to log into AppAnalyzer is automatically granted the AppAnalyzer Administrator and can full manage/administer the system. Multiple people can hold this role. After the first person special case, however, users must be approved for AppAnalyzer access and granted one or more roles. The potential roles are:

- AppAnalyzer Administrator
- Exchange Administrator
- Exchange Report Viewer
- BlackBerry Administrator
- BlackBerry Report Viewer
- Sendmail Administrator
- Sendmail Report Viewer

The different roles determine their access to specific report classes (Exchange, Sendmail, etc.), as well as their ability to create new reports, delete reports, etc. Basically, a Report Viewer is a "read-only" type of report person. Roles determine actions that a user can take within the AppAnalyzer Web Admin, as well as set specific access security on the SQL Report Server.

Users can be either manually approved by an AppAnalyzer Administrator, or automatically approved based on their Active Directory group membership. For example, to automatically grant access to everyone, an Administrator could configure that the Everyone group gets access as an Exchange Report Viewer. Members of the "Exchange IT Admins" group could be automatically approved as an "Exchange Administrator". The initial group matching takes place on a user's first login to AppAnalyzer. After that, user approval and role membership is managed by the pages in the Security section.

AppAnalyzer Users

The AppAnalyzer Users page within the WebAdmin provides the ability to manage individual users that will have access to the AppAnalyzer WebAdmin. The first user to logon is automatically added to the AppAnalyzer Users. Additional users may be added by clicking on the Add button within the AppAnalyzer Users page, inputting a Windows Domain User Account name, selecting the appropriate Roles for the user, and clicking the Add button.

Users may also be removed from the AppAnalyzer Users by selecting the checkbox next to the users name and clicking the Delete button in the AppAnalyzer Users toolbar.

To view and/or modify the Roles of a user, click on the Roles link next to the user.

AppAnalyzer Roles

All users must interact with AppAnalyzer within the context of a role. A user can be assigned to different kinds of roles for different contexts. For example, a user that is a member of the BlackBerry Administrator role may also be a member of the Exchange Report Viewer role.

This user would be allowed to fully manage all configuration,data collection, and reporting publishing for BlackBerry Enterprise Servers, but would only be allowed to view and publish reports for Exchange servers.

AppAnalyzer provides the following roles:

AppAnalyzer Administrator -- Users are allowed to manage and operate all features within AppAnalyzer without limitations.

BlackBerry Administrator -- Users are allowed to configure, manage data collection tasks, and view/publish reports for the BlackBerry configuration and reporting only.*

BlackBerry Report Viewer -- Users are allowed to view/publish reports for the BlackBerry configuration and reporting only.*

Exchange Administrator -- Users are allowed to configure, manage data collection tasks, and view/publish reports for the Exchange configuration and reporting only.

Exchange Report Viewer -- Users are allowed to view/publish reports for the Exchange configuration and reporting only.

Sendmail Administrator -- Users are allowed to configure, manage data collection tasks, and view/publish reports for the Sendmail configuration and reporting only.

Sendmail Report Viewer -- Users are allowed to view/publish reports for the Sendmail configuration and reporting only.

Managing Users Assigned to a Role

Users must be added to at least one role when they are created (See AppAnalyzer Users). Members of Roles can be managed on the AppAnalyzer Roles page by clicking on the Members link next to each role. Users can also be automatically added to roles via Windows Active Directory group membership (See Auto-assign AppAnalyzer Roles).

Auto-assign AppAnalyzer Roles

The Auto-assign AppAnalyzer Roles feature allows users to be automatically added to AppAnalyzer Roles based upon their membership in Windows Active Directory groups. For example, if you have a group in Windows Active Directory called AppAnalyzer Admins, the members of this group will automatically be assigned to the AppAnalyzer Administrator role upon their initial logon. It's important to note that the Auto-assign functionality only assigns the users to a role upon their **first** logon to AppAnalyzer. If membership in a Windows Active Directory group changes after logging on to AppAnalyzer, the user's role is not automatically updated within AppAnalyzer.

Managing Auto-assign Roles

The Windows Active Directory groups that are utilized for the Auto-assign feature can be managed from the main Auto-assign AppAnalyzer Roles page. New groups can be added and/or groups can be deleted. Role assignment can be edited by clicking on the Edit link next to a group.

Report Server Roles

AppAnalyzer provides an additional level of security by integrating with native Microsoft SQL Server Reporting Services security. The ability to view and/or publish reports can be secured on a report-by-report basis.

SQL Server Reporting Services utilizes a role-based authentication model much like the AppAnalyzer Security model. Users are assigned roles which control their ability to perform such functions as viewing reports, publishing reports, managing folders, and creating new reports. SQL Server Reporting Services includes a small set of predefined roles that you can use in role assignments. Each role is defined by the tasks that it supports. You can modify these roles or replace them with custom roles. These roles can either be managed directly within the SQL Server Reporting Services user interface, or by accessing the Report Server Roles page within the AppAnalyzer WebAdmin. It is important to note that the AppAnalyzer Roles are different from the SQL Server Reporting Services roles and must be managed separately.

Report Server Security

AppAnalyzer provides an additional level of security by integrating with native Microsoft SQL Server Reporting Services security. The ability to view and/or publish reports can be secured on a report-by-report basis.

The Report Server Security page provides direct access to the SQL Server Reporting Services security settings assigned to each AppAnalyzer report and folder. Permissions to access, view, edit, and publish individual reports or entire folders can be assigned by selecting the appropriate node in the AppAnalyzer Report Server Security Reports tree and modifying the default permissions. These settings can also be modified directly within the SQL Server Reporting Services Report Manager.

Exchange Configuration

The Exchange Configuration section of the AppAnalyzer WebAdmin allows administrators to configure and view the properties each Exchange server, site, or custom server group AppAnalyzer utilizes during data collection. Several views are provided in order to make it easier to manage large numbers of Exchange servers.

Configuration Views

Larger organizations typically contain a great number of Exchange servers. Editing the data collection properties for each of these servers can be time consuming if there is not an easy method to sort, group, and filter the servers. AppAnalyzer provides three primary views to group the Exchange servers:

Organization View

The Organization View displays a high level Exchange Organization summary of the total number of Sites, Managed Servers, and Unmanaged Servers. You can drill-down by clicking on the Organization name to display the Sites View. Properties for the Organization can also be modified within the Organization view by clicking the Properties link.

Roles View

The Roles View displays a high level Exchange server roles summary of the total number of Managed Servers and Unmanaged Servers. You can drill-down by clicking on a role type to display the servers within that role. Properties for each role can also be modified by clicking the Manage link next to the corresponding role.

Server Groups View

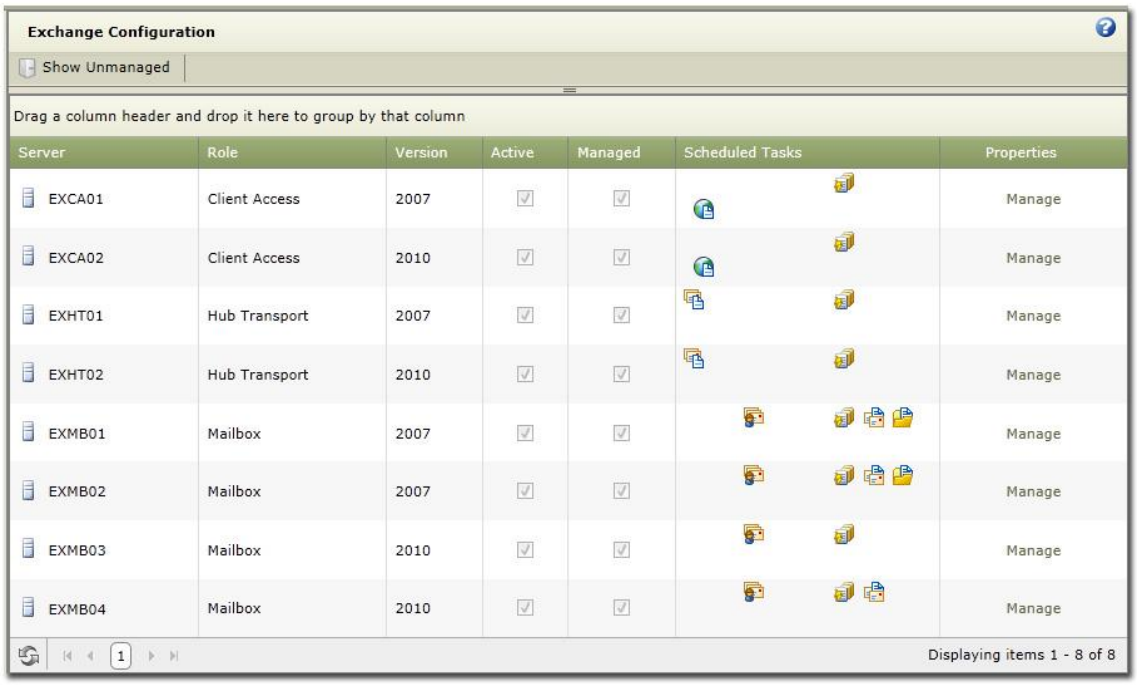
The Server Groups View displays a high level Exchange Server Groups summary of the total number of Managed Servers and Unmanaged Servers. You can drill-down on a server group by clicking on a server group name to display the servers within that server group. Properties for each server group can also be modified by clicking the Manage link next to the corresponding server group.

Off-Premises

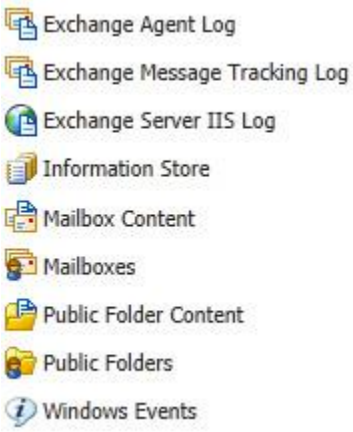
The Off-Premises View displays a high level summary of off-premises Exchange Organizations (Office 365). Administrators can add and edit off-premises organizations, as well as flag an organization as inactive.

Scheduled Tasks

You can view a summary of which tasks are scheduled to run on each server by drilling-down to the server level on any Exchange Configuration View.



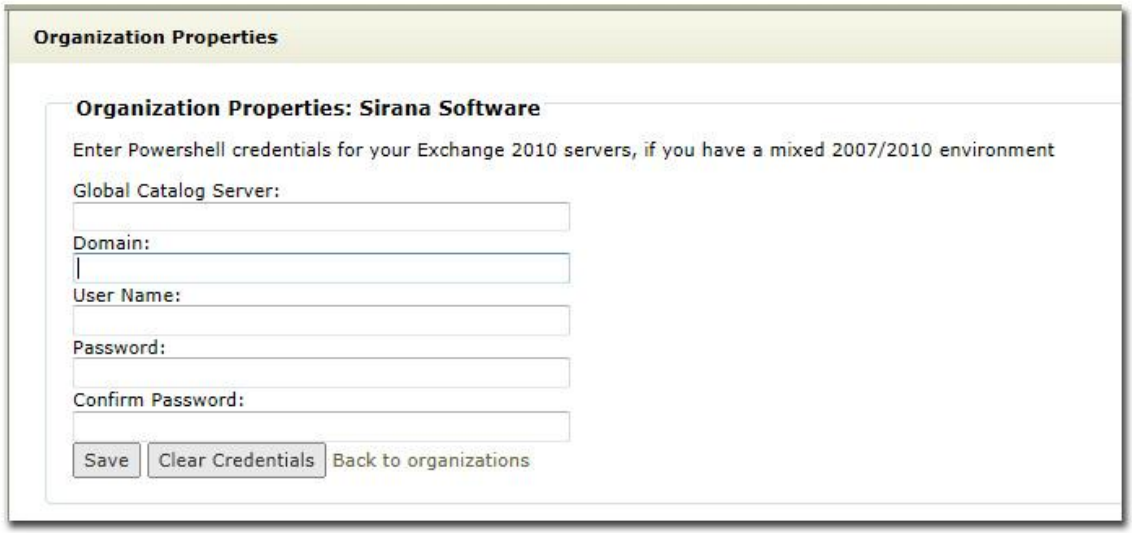
The icons under the Scheduled Tasks column represent the following tasks:



Icons with a lightening bolt included represent tasks that have been assigned dynamically.

Organization Properties

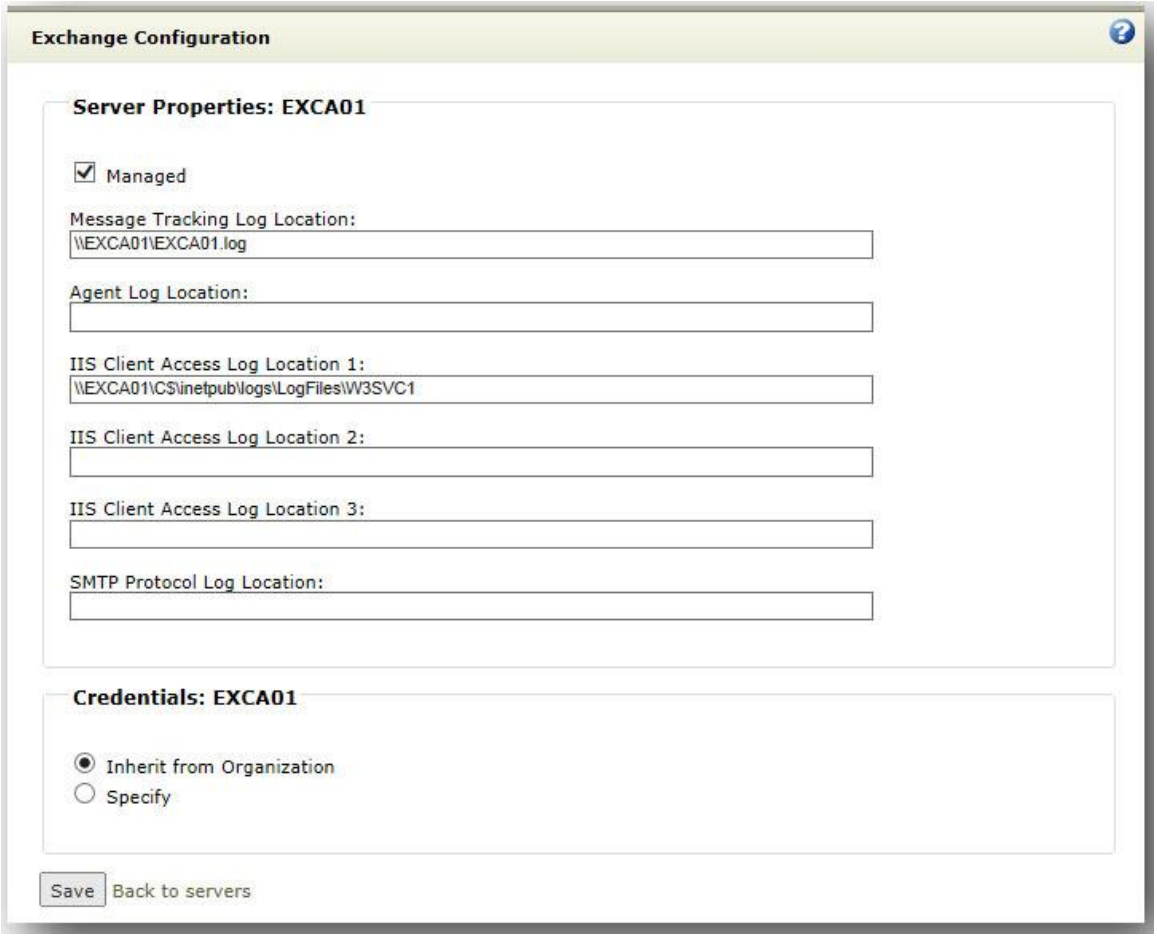
The Organization Properties can be edited by clicking on the Properties link in the Organization View.



This property is only required if your are running AppAnalyzer in a mixed Exchange 2007 and Exchange 2010 environment. The AppAnalyzer Service account needs to be an active directory account with a mailbox on an Exchange 2007 server. All of your Exchange 2010 servers will use the credentials provided within this Organization Properties dialog.

Server Properties

The Server Properties can be edited by clicking on the Manage link next to the corresponding Exchange server.



The server properties are automatically populated after installation completes and a successful Exchange Servers tasks has completed. You can update the following properties on a server-by-server basis:

Managed -- All servers are managed by default. If for some reason you prefer not to include a server in data collection tasks, you can deselect the Managed checkbox for that server.

Message Tracking Log Location -- The default Exchange message tracking log location for a standard Exchange installation is supplied by default. If you have configured Exchange to output the Exchange tracking logs to a different location, you can edit the location within this field.

Agent Log Location -- The default Exchange Transport server agent log location for a standard Exchange installation is supplied by default. If you have configured Exchange to output the Exchange transport agent logs to a different location, you can edit the location within this field.

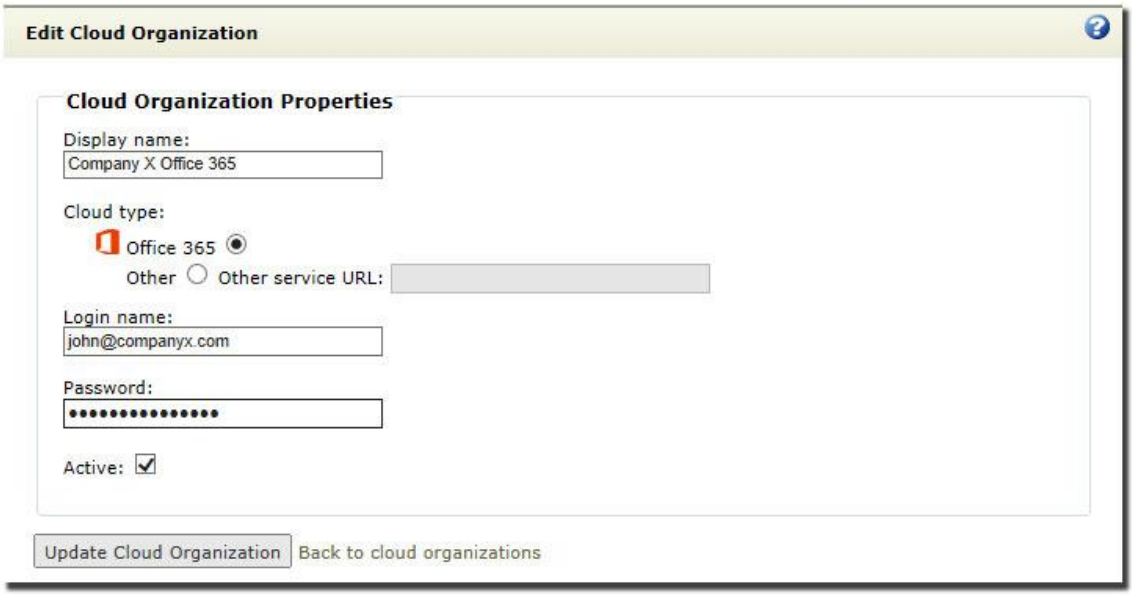
IIS Client Access Log Locations -- The default Exchange IIS log location for a standard Exchange Client Access server installation is supplied by default. If you have configured Exchange to output the Exchange IIS logs to a different location, you can edit the location within this field. Two additional fields allow for collecting logs from multiple locations.

SMTP Protocol Log Location -- This is reserved for a future release.

Credentials -- By default, data collection is performed using the service account credentials provided for the AppAnalyzer Service or defined at the top level of the Organization properties. If you have specific servers that need to use alternate credentials, you can specify those credential on a server-by-server basis.

Cloud Properties

The Cloud Properties can be edited by clicking on the Edit command link within the Off-Premises view.



The Cloud Organization must be manually configured for each Office 365 Organization. You can update the following properties on a organization-by-organization basis:

Display Name -- Input any name as you would like the Organization to appear in the Off-Premises summary view..

Cloud type -- This release currently supports Microsoft Office 365 as the Cloud type.

Login Name -- The account name used to access Office 365. This account must have Exchange Administrator permissions.

Password -- The password associated with the Login Name for Office 365.

Active -- Administrators can elect to disable reporting and data collection from inactive Office 365 organizations by deselecting this option.

Server Groups

A Server Group is a collection of Exchange Servers that you define in AppAnalyzer for managing and reporting on servers as a unit. For example, you may want to group your Exchange servers by function (Mailbox, Client Access, Hub Transport, etc.) so the data collection tasks can be assigned dynamically based on server role. You may also want to create server groups based on geographic location (North America, EMEA, LA, APAC) for reporting on specific regional activity. AppAnalyzer supports server memberships in multiple server groups, easing the ability to manage tasks and filter reports.

Creating a New Server Group

From the Server Groups View, click on the Add Group button in the toolbar. Input a name for the new server group and an optional description. Click Add. This creates the new server group with no members. You will need to modify the server group to add new servers.

Modifying an Existing Server Group

From the Server Groups View, click on the Manage link next to the corresponding server group to display the Modify Group dialog. Add or remove servers from the server group and click Update to save the changes.

Deleting a Server Group

From the Server Groups View, click on the Delete link next to the corresponding server group that you want to delete. This will not delete the Exchange servers from AppAnalyzer -- it will only remove the server group. Click on the Delete button in the toolbar and confirm the deletion. You will no longer be able to group or filter within a report by a server group that has been deleted.

Sendmail Configuration

The Sendmail Configuration section of the AppAnalyzer WebAdmin allows administrators to configure and view the properties each Sendmail server or custom server group AppAnalyzer utilizes during data collection. Several views are provided in order to make it easier to manage large numbers of Sendmail servers.

Configuration Views

Larger organizations typically contain a great number of Sendmail servers. Editing the data collection properties for each of these servers can be time consuming if there is not an easy method to sort, group, and filter the servers. AppAnalyzer provides two primary views to group the Sendmail servers:

Organization View

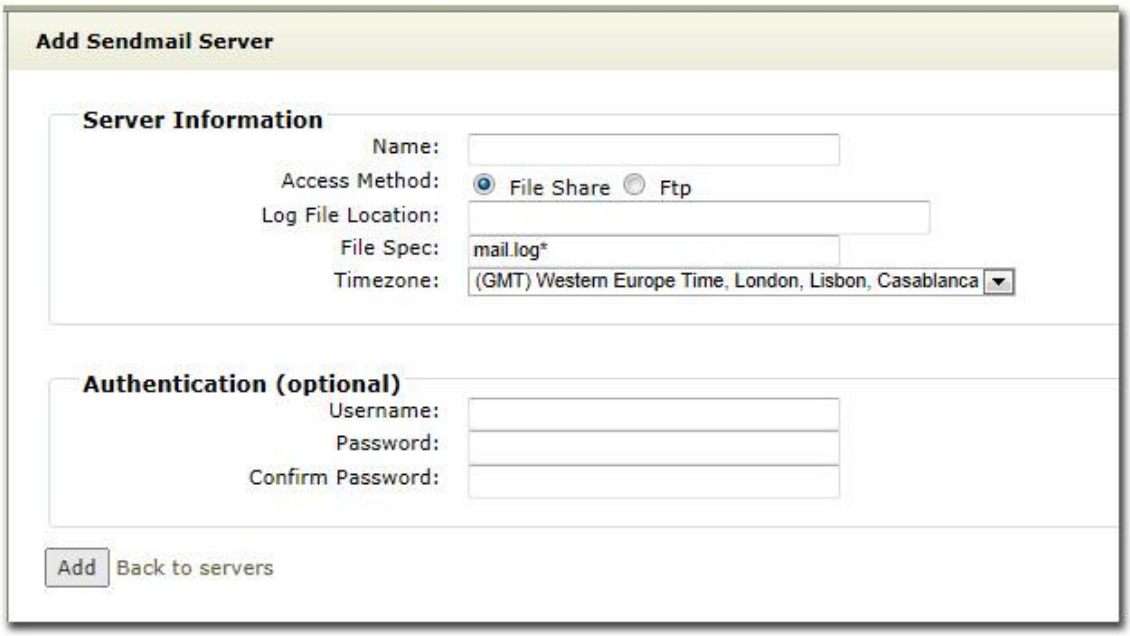
The Organization View displays a high level Sendmail server summary.

Server Groups View

The Server Groups View displays a high level Sendmail Server Groups summary of the total number of Managed Servers and Unmanaged Servers. You can drill-down on a server group by clicking on a server group name to display the servers within that server group. Properties for each server group can also be modified by clicking the Properties link next to the corresponding server group.

Adding A Sendmail Server

Sendmail servers must be manually added to AppAnalyzer before data collection tasks and reporting can be executed. Select any of the nodes in the Sendmail Configuration tree and click on the "Add" button within the Sendmail Configuration page to display the following dialog:



Each Sendmail server must be manually configured by inputting the following properties:

Name -- The name of the Sendmail server as you want it to appear in the AppAnalyzer WebAdmin Console and reports.

Access Method -- The Sendmail server log files will be collected using either Windows file share (UNC) or FTP.

Log File Location -- The location that AppAnalyzer will access to copy the Sendmail server log files.

File Spec -- The naming convention used for your Sendmail server log files. AppAnalyzer supports compressed logs (*.GZ).

Timezone Offset -- Allows administrators to provide time zone correction for data that is not provided in UTC.

Authentication - The user name and password that will be used by AppAnalyzer when accessing the Sendmail server log file location. If left empty, AppAnalyzer will use the AppAnalyzer Server service account and password.

After a Sendmail server has been added, the Sendmail server name cannot be modified. You can, however, modify the properties of the server to designate whether the Sendmail server is Managed and/or Active:

Active -- All servers are active by default. If for some reason you want to remove a Sendmail server from AppAnalyzer, uncheck the Active property and follow the prompts to permanently delete the server. Note that you will not be able to add this server back nor will you be allowed to add a new server with the same name.

Managed -- All servers are managed by default. If for some reason you prefer not to include a server in data collection tasks, you can deselect the Managed checkbox for that server. You can later enable the Manage property if you need to collect data from this server.

Server Groups

A Server Group is a collection of Sendmail Servers that you define in AppAnalyzer for managing and reporting on servers as a unit. For example, you may want to group your Sendmail servers based on geographic location (North America, EMEA, LA, APAC) for reporting on specific regional activity. AppAnalyzer supports server memberships in multiple server groups, easing the ability to manage tasks and filter reports.

Creating a New Server Group

From the Server Groups View, click on the Add Group button in the toolbar. Input a name for the new server group and an optional description. Click Add. This creates the new server group with no members. You will need to modify the server group to add new servers.

Modifying an Existing Server Group

From the Server Groups View, click on the Manage link next to the corresponding server group to display the Modify Group dialog. Add or remove servers from the server group and click Update to save the changes.

Deleting a Server Group

From the Server Groups View, click on the Delete link next to the corresponding server group that you want to delete. This will not delete the Sendmail servers from AppAnalyzer -- it will only remove the server group. Click on the Delete button in the toolbar and confirm the deletion. You will no longer be able to group or filter within a report by a server group that has been deleted.

BlackBerry Configuration

The BlackBerry Configuration section of the AppAnalyzer WebAdmin allows administrators to configure and view the properties each BlackBerry domain, server or custom server group AppAnalyzer utilizes during data collection. Several views are provided in order to make it easier to manage large numbers of BlackBerry servers.

Configuration Views

Larger organizations typically contain several BlackBerry servers. Editing the data collection properties for each of these servers can be time consuming if there is not an easy method to sort, group, and filter the servers. AppAnalyzer provides two primary views to group the Sendmail servers:

Domains View

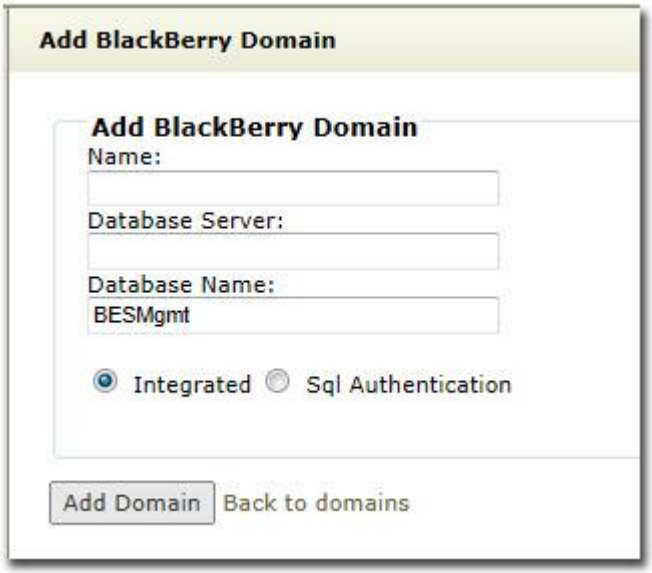
The Domains View displays a high level BlackBerry server summary by BlackBerry domain.

Server Groups View

The Server Groups View displays a high level BlackBerry Server Groups summary of the total number of Managed Servers and Unmanaged Servers. You can drill-down on a server group by clicking on a server group name to display the servers within that server group. Properties for each server group can also be modified by clicking the Properties link next to the corresponding server group.

Add a BlackBerry Domain

BlackBerry domains must be manually added to AppAnalyzer before data collection tasks and reporting can be executed. Select any of the nodes in the BlackBerry Configuration tree and click on the "Add" button within the BlackBerry Configuration page to display the following dialog:



Each BlackBerry domain must be manually configured by inputting the following properties:

Name -- The name of the BlackBerry domain as you want it to appear in the AppAnalyzer WebAdmin Console and reports.

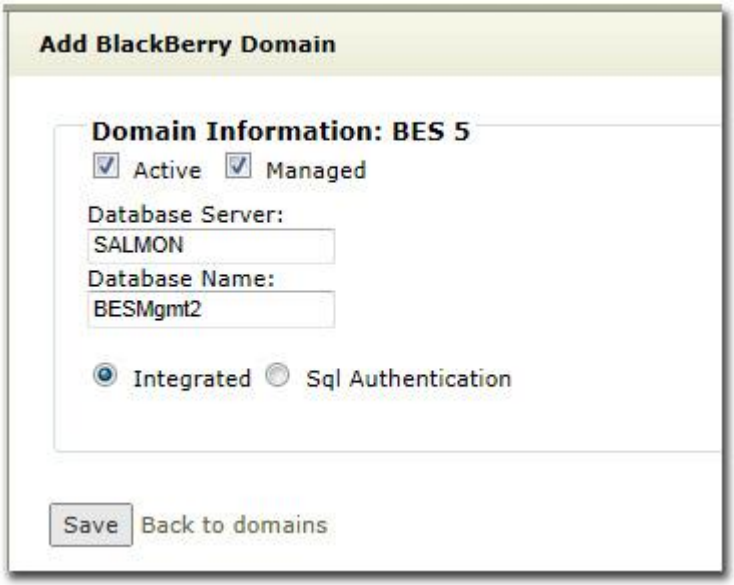
Database Server -- The name of the SQL Server that hosts the BlackBerry Enterprise Server Configuration database.

Database Name - The name of the BlackBerry Enterprise Server Configuration database.

There are two authentication methods available when connecting to the BlackBerry Enterprise Server Configuration database. By default, AppAnalyzer will use Windows Authentication and access the database with the AppAnalyzer service account. Alternatively, selecting the "SQL Security" option will allow you to input SQL Server user credentials for authentication.

Modify a BlackBerry Domain

There may be reason to remove, un-manage, or modify the configuration of a BlackBerry domain within AppAnalyzer. Click on either the root of the tree or the Domains View in the BlackBerry Configuration panel and click on the Properties for that domain to display the following dialog:



From this dialog, you can easily modify the name of the BES domain, the SQL Server name of the BES Configuration database, the BES Configuration database name, and/or the authentication method. Additional options to control whether this domain is available for data collection and reporting include:

Active -- All domains are active by default. If for some reason you want to remove a BlackBerry domain from AppAnalyzer, uncheck the Active property and follow the prompts to permanently delete the domain. Note that you will not be able to add this domain back nor will you be allowed to add a new domain with the same name.

Managed -- All domains are managed by default. If for some reason you prefer not to include a domain in data collection tasks, you can deselect the Managed checkbox for that domain. You can later enable the Manage property if you need to collect data from this domain.

BlackBerry Server Properties

Each BlackBerry server is automatically discovered when AppAnalyzer connects to the BlackBerry Enterprise Server Configuration database for the BlackBerry domain. The Server Properties can be edited by clicking on the Manage link next to the corresponding BlackBerry server.

The server name cannot be modified. The location of the BlackBerry Message Agent log files is populated automatically during installation, but can be modified within this dialog. Additional options to control whether this server is available for data collection and reporting include:

Active -- All servers are active by default. If for some reason you want to remove a BlackBerry server from AppAnalyzer, uncheck the Active property and follow the prompts to permanently delete the server. Note that you will not be able to add this server back nor will you be allowed to add a new server with the same name.

Managed -- All servers are managed by default. If for some reason you prefer not to include a server in data collection tasks, you can deselect the Managed checkbox for that server. You can later enable the Manage property if you need to collect data from this server.

BlackBerry Server Groups

A Server Group is a collection of BlackBerry Servers that you define in AppAnalyzer for managing and reporting on servers as a unit. For example, you may want to group your BlackBerry servers based on geographic location (North America, EMEA, LA, APAC) for reporting on specific regional activity. AppAnalyzer supports server memberships in multiple server groups, easing the ability to manage tasks and filter reports.

Creating a New Server Group

From the Server Groups View, click on the New Group button in the toolbar. Input a name for the new server group and an optional description. Click Add. This creates the new server group with no members. You will need to modify the server group to add new servers.

Modifying an Existing Server Group

From the Server Groups View, click on the Properties link next to the corresponding server group to display the Modify Group dialog. Add or remove servers from the server group and click Update to save the changes.

Deleting a Server Group

From the Server Groups View, click on the checkbox next to the corresponding server group that you want to delete. This will not delete the BlackBerry servers from AppAnalyzer -- it will only remove the server group. Click on the Delete button in the toolbar and confirm the deletion. You will no longer be able to group or filter within a report by a server group that has been deleted.

Options Page

The AppAnalyzer Options contains global configuration settings that can modified by administrators. Options that are available vary based on the AppAnalyzer products that have been licensed.

My Options

The My Options page allows a user to define custom settings that apply only to their individual logon. These options include:

Theme -- Choose to display the WebAdmin in one of the pre-built color schemes.

Start Section -- Choose which area of the WebAdmin you want to appear when you logon.

Rows to display in Grids -- Choose the number of rows to display within the Tasks data grid.

Show Task Alerts -- Pop-up messages can be configured to display when task executions complete.

My Favorite Reports -- Select specific reports that you want to appear in the My Favorite Reports portion of the Reports tree and the My AppAnalyzer Today page.

AppAnalyzer

AppAnalyzer has the following options for user and server settings:

- Server Properties
- Active Directory Properties
- Global Catalog Server
- Licenses

Server Properties

The Server Properties allows you to set properties of the AppAnalyzer Server(s).

Active -- Enable or disable an AppAnalyzer Server. This setting is displayed when multiple AppAnalyzer Servers are present in the environment. If, for example, you have migrated the AppAnalyzer Server from one server to another, you can use this option to disable the old AppAnalyzer Server.

Status – Select Active if you want to continue using the AppAnalyzer Server. Select Inactive if you no longer want to use the AppAnalyzer Server or if you want to temporarily suspend its usage. If you select Inactive, tasks defined on the AppAnalyzer Server do not run, and new tasks cannot be created on the AppAnalyzer Server.

Failed Task Retries – Specify the maximum number of times this AppAnalyzer Server should run a failed task again. The timing of each rerun depends on the value in the Time interval between retries box. The default value is 1.

Failed Task Retry Interval – Specify the amount of time the AppAnalyzer Server waits after a task failure before starting the next automatic rerun. If you want to expedite a retry you can also schedule the task to Run Now, either from the Schedule Task wizard of from the Default Tasks tab of the Options page. The default value is 60 minutes.

Task Threads – Specify the maximum number of concurrent threads for data-gathering tasks. The default value is 4.

Database Threads – Specify the maximum number of concurrent threads for database connections during data collection. The default value is 1.

AppAnalyzer Server Logging -- Logging can be enabled to assist Sirana Technical Support with troubleshooting product issues. The default setting of "General" should be selected unless otherwise instructed by Sirana Technical Support. Enabling "Trace" and/or "Verbose" can impact the performance of AppAnalyzer. Note that the AppAnalyzer Service must be restarted for any setting changes to take effect.

Click Update when you are done changing these values.

Active Directory Properties

The Active Directory Properties option enables you to specify Active Directory attributes for mailboxes and custom recipients that you can choose to match against in reports.

Within reports, mailboxes and custom recipients are aggregated by the attributes that you select. For example, if you choose the Office attribute and you choose to generate a report grouped by Office, the report you select groups mailboxes and custom recipients by the office values.

The default Directory Attributes made active upon installation are:

- Organizational Unit
- Company
- Department
- Manager
- Office
- Title
- Address
- City

- State
- Country
- Zipcode
- Custom attributes #1-15 as defined in Exchange.

Deactivate / Activate a Directory Attribute

These Directory Attributes can be deactivated by selecting the checkbox next to the attribute and clicking the Deactivate Checked Attributes button. Deactivated attributes will no longer appear in the reports for grouping or filtering. If you later find the need to filter or group by a deactivated attribute, simple locate the attribute in the Directory Attributes page and click the Activate link next to it.

Adding New Directory Attributes

Any Active Directory attribute can be added to AppAnalyzer for grouping and filtering recipients. Simply click on the Add Attribute button from within the Directory Attribute page, input a valid Attribute Name and Active Directory Name, and click Save. It is important to note that AppAnalyzer does not perform any kind of validation against Active Directory to determine whether the values you have input match specific values in Active Directory, so verify that you have the correct syntax for both values before saving.

Note: After you make any changes to the Directory Attribute selections, you must run the Active Directory task. The changes cannot appear in reports until you have run this task. There is a button at the top of the Directory Attribute page to "Run complete Active Directory task."

Global Catalog Server

AppAnalyzer dynamically locates the default Exchange Global Catalog sever during installation. If, however, you need to utilize a different Global Catalog server in your environment, this setting can be overridden by inputting the server name in this dialog and clicking the Save button.

Licenses

Your list of license keys is maintained from the Options -- AppAnalyzer Servers -- Licenses page of the WebAdmin. Whenever you are issued a new license key, be sure to add it to the list. Ordinarily, it is not necessary to delete license keys because AppAnalyzer is able to recognize and give precedence to the current license keys.

AppAnalyzer relies on license keys to recognize the terms of your license agreement, including the limit on evaluation period, number of monitored mailboxes, or WebAdmin seats.

Adding Licenses

To add a license key:

1. Logon to the WebAdmin Console.
2. Click on the Options -- AppAnalyzer Servers -- Licenses page.
3. Input the serial number (license key) you received from Sirana Software or your reseller.
4. Click on the Add button.
5. Click on the Reset Licenses button.

If the key is valid, you should see your license information updated on the License page. See License Overview for more information on licensing.

Exchange Options

AppAnalyzer has the following options for configuring Exchange server specific settings:

- Content Analysis
- Data Management
- Internal Domains
- Windows Events

Content Analysis

The Content Analysis option specifies a list of keywords and file attachments for which AppAnalyzer searches in mailboxes and public folders. It also specifies the action to take when a match is found.

Specified keywords, attachments, and actions can be overridden when you schedule Mailbox Content or Public Folder Content tasks. This dialog enables you to:

- Edit the Message Keyword List
- Edit the File-Attachments List
- Specify a default Action
- Define the email server settings for messages that are forwarded

Edit the Message Keyword List

The Message Keyword box displays the keywords for which AppAnalyzer searches in mailboxes and public folders.

To add a keyword:

1. Click Add.
2. Type in a new keyword.
3. Click Add Keyword.

Keyword searches are not case-sensitive. If you type a letter, it matches both upper and lower case versions of that letter.

To remove a keyword:

1. Check the keywords you want to remove. (Note that you can also click on the "Check All" option to select all of the keywords at once.)
2. Click Remove.

The check boxes are only used to remove keywords, not to select the keywords for which to search. All listed keywords are searched for unless you change them when you schedule the task.

Edit the Message Attachments List

This box displays the attachments for which AppAnalyzer searches in mailboxes and public folders.

To add attachments:

1. Click Add.
2. Type in a file name and extension. You can include the wildcard character * to search for all characters.
3. Type in a description of the attachment specification up to 75 characters.
4. Click Add Attachment.

To remove attachments:

1. Check the attachments you want to remove. (Note that you can also click on the "Check All" option to select all of the attachments at once.)
2. Click Remove.

Specify an Action

Delete message

Check this option to delete from searched mailboxes and public folders every message that contains a listed keyword or attachment.

Forward message to the following address

Check this option to forward a copy from searched mailboxes and public folders every item that contains a listed keyword or attachment. Note that the forwarded messages may appear in the end-users Outbox before being forwarded.

Data Management

The Exchange Data Management option contains settings for retention periods for task log entries, single-execution tasks, and gathered data. When the age of data exceeds its retention period, the next run of the Data Deletion task deletes the data from the SQL Database.

To set a retention period:

1. Enter the number of days you want to keep each type of data.
2. Click Save.

Retention periods:

Delete AppAnalyzer task status entries after– This option includes Run-once tasks that have already run, and entries in the task log. Because tasks and task log entries are displayed on the Tasks page of the WebAdmin Console, this retention-period option affects that page.

Delete internal Exchange Summary data after – This is summary data collected by data-gathering tasks. Internal means messages sent to or received from within the Exchange server system. The default is 180 days. Detailed and summary data are explained in more detail in Data Retention.

Delete external Exchange Summary data after– This is summary data for collected by data gathering tasks. External means messages sent to or received from outside the Exchange server system. The default is 180 days. You might want to set this to a shorter period if, for example, you get a lot of junk email from outside the system and don't want to clutter up your database. Detailed and summary data are explained in more detail in Data Retention.

Delete detailed Message Traffic data after – This includes **detailed data** collected by Exchange Log tasks. Detailed and summary data are explained in more detail in**Data Retention**

Delete Message Content data after – This is data collected by the Mailbox Content task and Public Folder Content task. These tasks collect information about keywords and attachments. The default is 30 days.

Delete IIS (including OWA) data after – This is data collected by the Exchange Server IIS Log task. This data is related to Exchange client access transactions.

Internal Domains

The Internal Domains option allows administrators to specify any Internet domains that are internal to your enterprise. For example, if your enterprise is named Company X, and your enterprise's Internet domain is companyx.com, in this tab specify companyx.com. The specified domains are omitted from reports about Internet domains.

Before you can specify a domain, you must have run the Exchange Log task and collected one or more messages to or from a recipient with an email address in that domain.

The check boxes are used to remove domains, not to select the domains to omit from reports. All listed domains are omitted from reports.

To add a domain:

1. Click Add Internal Domain from the Toolbar area.
2. Type in the domain name to add.
3. Click Add Domain.

To remove a domain

1. Check all the domains you want to remove.
2. Click Delete Checked Domains from the Toolbar area.
3. Verify that the domains are checked correctly.
4. Click OK.

Windows Events

The Windows Events option allows administrators to define which Windows Server events will be collected by AppAnalyzer during the Windows Events task. The check boxes are used to remove events, not select the events for which to search. All listed events are searched for.

To Add a new Windows Event:

1. Click Add New Event in the Toolbar area.
2. Specify the ID of the event. The ID is an integer.
3. Specify the name of the service that produces the event. Do not specify the display name if it is different from the service name.
4. Click Add Event button.

To remove an event:

1. Check the events you want to remove.
2. Verify that these are the events you want to remove and click Delete Checked Events in the Toolbar area.

Sendmail Options

AppAnalyzer has the following options for configuring Sendmail server specific settings:

- Data Management

Data Management

AppAnalyzer collects and stores three types of Sendmail server data:

- Server Data
- Relay Pair Data
- Recipient Data

The Sendmail Data Management option contains settings for retention periods for gathered data. The amount of data you retain impacts the overall database size and report performance. While the Sendmail "Server Data" is a a relatively small footprint in database size, the "Relay Pair Data" and "Recipient Data" can cause significant database growth over time. If you elect not to store a data type, or the age of data exceeds its retention period, the next run of the Data Deletion task deletes the data from the SQL Database.

To set a retention period:

1. Enter the number of days you want to keep each type of data.
2. Click Save.

BlackBerry Options

AppAnalyzer has the following options for configuring BlackBerry server specific settings:

- Data Management
- BlackBerry Events
- Privacy

BlackBerry Data Management

The BlackBerry Data Management option contains settings for retention periods for gathered data. When the age of data exceeds its retention period, the next run of the Data Deletion task deletes the data from the SQL Database.

To set a retention period:

1. Enter the number of days you want to keep each type of data.
2. Click Save.

Retention periods:

Delete summary agent data after -- The summary agent data includes BlackBerry device message activity for long-term, statistical reporting. The default data retention setting is 365 days.

Delete detailed agent data after -- The detailed agent data includes BlackBerry device message activity for short-term, diagnostic reporting and user auditing. The default data retention setting is 30 days.

Delete summary phone call data after -- The summary phone call data includes BlackBerry device phone activity for long-term, statistical reporting. The default data retention setting is 365 days.

Delete detailed phone call data after -- The detailed phone call data includes BlackBerry device phone activity for short-term, diagnostic reporting and user auditing. The default data retention setting is 30 days.

Delete summary SMS data after -- The summary SMS data includes BlackBerry device SMS text activity for long-term, statistical reporting. The default data retention setting is 365 days.

Delete detailed SMS data after -- The detailed SMS data includes BlackBerry device SMS text activity for short-term, diagnostic reporting and user auditing. The default data retention setting is 30 days.

Load SMS message content -- By default, AppAnalyzer loads the content of SMS text messages during the BlackBerry SMS Log task. You can disable this functionality for privacy and/or database scalability reasons.

BlackBerry Events

The BlackBerry Events option allows administrators to define which BlackBerry server events will be collected by AppAnalyzer during the BlackBerry Agent Log task. The check boxes are used to remove events, not select the events for which to search. All listed events are searched for.

To Add a new BlackBerry Event:

1. Click Add New BlackBerry Event in the Toolbar area.
2. Specify the ID of the event. The ID is an integer.
3. Specify the event description you would like to appear in the reports.
4. Click the Add Event button.

To remove an event:

1. Check the events you want to remove.
2. Verify that these are the events you want to remove and click Delete Checked BlackBerry Events in the Toolbar area.

BlackBerry Privacy

Several of the BlackBerry reports include device PIN and phone numbers. While these can be hidden on a report by report basis, the BlackBerry Privacy options page allows the administrator to globally hide PIN and phone numbers on a BlackBerry user group membership basis. You can prevent either the PIN, phone number, or both from appearing in reports by clicking on the corresponding checkbox next to the BlackBerry Group(s) that contain members to be hidden. The default is to display PIN and phone numbers for all BlackBerry groups, but this can be modified by clicking on the "View/Edit Defaults" button on the BlackBerry Privacy toolbar. Selecting to hide the PIN and/or phone number from the "View/Edit Defaults" page will cause the PIN and/or phone numbers for all BlackBerry Groups to be hidden.

Advanced Settings

There are several AppAnalyzer Server and SQL Server advanced settings and configuration options for optimizing performance and assisting with troubleshooting issues.

Log File Compression Utility

AppAnalyzer copies Exchange message tracking log files from the Exchange servers to the AppAnalyzer server on a nightly basis. In some cases, the time it takes to copy these text files across the network can be quite time consuming due to slow network connections or excessively large log file sizes. AppAnalyzer includes a command line utility that can be executed on the Exchange server to compress these log files significantly before copying across the network.

Installation

While the utility is executed on the Exchange server, there is no "installation" package for the utility. Three files must be copied from the AppAnalyzer server program directory (\Program Files\Sirana Software\AppAnalyzer\Utilities\ZipAgent by default) to the Exchange server:

- 7z.exe
- 7z.dll
- logcopy.vbs

The files 7z.exe and 7z.dll should be placed in a directory listed in the PATH environment variable on the Exchange server. The Windows\System32 directory is an example of a directory which is usually in the PATH. The exe and dll files do not need to be COM-registered with the Exchange server.

Running the Utility

You should run the Log File Compression Utility once a day, preferably after that day's Exchange log files have been closed (usually after midnight GMT). Running the utility before the day's logs are closed will result in receiving only a partial copy of that day's log activity. You can create a Windows scheduled event to run this command. Or, you can execute the command in most management frameworks, such as NetIQ AppManager or Microsoft System Center Operations Manager.

The Log File Compression Utility will compress the log(s) to a destination directory as a ZIP file(s). The AppAnalyzer server will decompress the ZIP file(s) and process the logs during the Exchange Log task. It is therefore recommended that the destination directory for the Log File Compression Utility be designated as a location on the AppAnalyzer Server.

Note: You must update the Exchange Log file location within the AppAnalyzer WebAdmin Console for the server(s) that will be running the Log File Compression Utility . The new location should point to the Log File Compression Utility destination directory.

The Log File Compression Utility command to execute via a command line, Windows Scheduler, or third party tool is:

cscript logcopy.vbs /dest:<destination> where destination represents a folder or UNC path where the zip files for this server will be created.

Examples:

cscript logcopy.vbs /dest:\\aaserver\zipfiles

cscript logcopy.vbs /dest:\\aaserver\c$\zipfiles

cscript logcopy.vbs /dest:"c:\long directory\with spaces"

Options:

/all The /all flag copies all available log files from the server. You can use this option on your initial execution to gather all of the log files.

/temp If you do not specify a temp directory, the Command-Line Log Agent will use the Windows default. You can specify a temp directory by using the temp switch, for example: /temp:c:\tempdir

Examples:

cscript logcopy.vbs /dest:\\myserver\myshare /temp: c:\tempdir /all

Performance Tuning

This section provides an overview of the procedures for tuning AppAnalyzer to achieve better performance. Each procedure is described in its own topic later in this chapter. You can perform any combination of these procedures because they are not interdependent.

The procedures are grouped within two categories, SQL Server and AppAnalyzer Server, depending on each procedure's target server.

AppAnalyzer Server Performance Tuning

Larger Exchange organizations may require customization of the out-of-the-box AppAnalyzer performance settings established during installation. Follow the guidelines in this section to optimize your AppAnalyzer Server.

Background on the Exchange Log Task

The Exchange Log task gathers message tracking logs from Exchange Servers, processes the logs, and stores the resulting data in the AppAnalyzer SQL Database. The Exchange Log task is a commonly used task because many reports depend on it. If you use the Exchange Log task, you must have an Exchange Log task for each Exchange Server that you want AppAnalyzer to monitor. Typically, each task runs daily.

Exchange Log tasks generally move and process large volumes of data because:

- A message tracking log records every operation performed on every message processed by an Exchange Server. Therefore, a message tracking log on a busy Exchange Server can be quite large.
- A new message tracking log is created daily on each Exchange Server.
- AppAnalyzer copies each message tracking log to the AppAnalyzer Server computer before processing the message tracking log. Processing a local copy increases efficiency and reliability compared to processing "over the wire."

Staggering Exchange Log Task Execution

Whenever possible it is preferable to spread the execution times of your Exchange Log tasks as widely and evenly as possible. This approach will distribute the AppAnalyzer Server's processing load more evenly over time and improve the performance of the tasks.

Within a 24-hour cycle, you can schedule your Exchange Log tasks to execute within a majority of the 24-hour period. However, do not schedule these tasks to execute while the following tasks are scheduled to be running:

- Data Deletion task
- Database Maintenance task
- Data Aggregation task

In practice, this approach requires that you specify certain options when creating or changing your Exchange Log tasks. These tasks are created by running the New Task Wizard from the Tasks page of the WebAdmin.

When you run the wizard, select an Exchange Server rather than a site or Select All. This action causes the wizard to create a single task for the selected Exchange Server rather than multiple tasks for multiple Exchange Servers. You will have to run the wizard once for each Exchange Server, but you will be able to select a different execution time for each Exchange Server.

If you have already created your Exchange Log tasks but want to change their execution times, use the Task Properties dialog box, which is accessed from the Tasks page.

Disk Use for the Exchange Log Task

AppAnalyzer uses several methods to maximize performance when processing data on the AppAnalyzer Server. One of these methods is the bulk copy program (bcp) SQL Server utility. After processing a message tracking log, the AppAnalyzer Server writes the resulting data to a shared directory on the AppAnalyzer Server computer. This data is referred to as "temporary bulk data."

AppAnalyzer provides a configuration setting for separating the read and write operations of the log tasks onto different physical hard drives. On an AppAnalyzer Server computer that has multiple hard disks, you can use this setting to specify the location of the read operations of log tasks. This location will store the copies of the log files that are made on the AppAnalyzer Server computer.

Before you specify the configuration setting, you must create a new directory on the AppAnalyzer Server computer. Create this directory on a hard disk different than the one that stores the temporary bulk data directory. By default, the temporary bulk data directory is stored on the same disk on which you install the AppAnalyzer Server. The default path to the temporary bulk data directory is:

C:\Program Files\Sirana Software\AppAnalyzer\Services\out

The new directory will be the location of the read operations and the copies of the log files. The path to this directory will be specified in the "inDirectory" configuration setting. To enable this configuration setting:

1. Open the Sirana.AppAnalyzer.Service.exe.config file under the \Program Files\SiranaSoftware\AppAnalyzer\Services directory.
2. Locate the <appsettings> section.

3. Modify the value for "inDirectory" to point to the new location.
4. Save the Sirana.AppAnalyzer.Service.exe.config file.
5. Restart the AppAnalyzer Server service from the Services control panel.

SQL Server Performance Tuning

The performance of AppAnalyzer depends greatly on the SQL Server hosting the AppAnalyzer database. You will experience significant performance gains by following the configuration settings within this section.

Specifying File Locations

If the SQL Server computer that stores your AppAnalyzer SQL Database contains multiple physical hard disks, it is preferable to store the data file and transaction log file for this database on separate disks. Storing these files on different disks improves the performance of AppAnalyzer.

After setup, you can alter the locations of the files by performing backup and restore operations as provided by SQL Server. Before doing so, ensure that no tasks are running on the AppAnalyzer Server and then stop the AppAnalyzer Server service. After restoring the files to their new locations, restart the AppAnalyzer service.

If sufficient disks are available, it is also preferable to store the data file and transaction log file for the tempdb database on their own disks.

Allocating Space for the SQL Database

The AppAnalyzer Installation creates the initial AppAnalyzer database at a fixed, minimum size. The AppAnalyzer SQL database will automatically grow daily as it collects data from your Exchange environment. Each time the database needs to grow, performance will be reduced. Pre-allocating the SQL database space that you will need improves the performance of AppAnalyzer.

Use SQL Server Management Studio to allocate the required space. Follow these steps:

1. Start SQL Server Management Studio.
2. Expand items to reveal the AppAnalyzer SQL Database (default name AppAnEx).
3. Right-click the database, and click Properties.
4. Click the Files tab.
5. In the Initial Size(MB) column, specify the amount of space required by the database.
6. Click OK.

Customizing the tempdb Database

If the SQL Server computer that stores your AppAnalyzer SQL Database contains multiple physical hard disks, it is preferable to store the data file and transaction log file for the tempdb database on separate disks.. Storing these files on different disks improves the performance of AppAnalyzer.

The tempdb database is a SQL Server system database that provides a storage area for temporary tables, temporary stored procedures, and other temporary working storage needs.

You can allocate disk space for the files of the tempdb database by using SQL Server Management Studio as described below. When you allocate disk space for the data file, specify the larger of the following values:

- One third of the combined sizes of the databases on the SQL Server that stores the AppAnalyzer SQL Database.
- 1.1 times the size of the largest table on the SQL Server that stores the AppAnalyzer SQL Database.

When you allocate disk space for the transaction log file, specify twice the size of one day's data file for the AppAnalyzer SQL Database.

You can change the file locations and allocate space after installing SQL Server by executing an ALTER DATABASE statement within SQL Server Management Studio. Use the following syntax when executing a query:

ALTER DATABASE tempdb MODIFY FILE (NAME = '<logical-file-name>',

FILENAME = '<path-and-file-name>', SIZE = <size>)

where

- <logical-file-name> is one of two values: tempdev for the data file, or templog for the transaction log file.
- <path-and-file-name> is the path and file name to which you are moving the file. For continuity, it is recommended to use the default file name and change only the drive letter and directory path. The default files names are tempdb.mdf (for the data file) and templog.ldf (for the transaction log file).
- <size> is the amount of disk space allocated for the file. An example value is 400MB. The size you specify must be larger than the existing size, which can be viewed in Enterprise Manager. Right-click the tempdb database, click Properties, and view the Space Allocated (MB) column on the appropriate tab.

For example, to change the location of the data file for the tempdb database, issue the following statement:

ALTER DATABASE tempdb MODIFY FILE (NAME = 'tempdev',

FILENAME = 'E:\SQLTempData\tempdb.mdf', SIZE = 500MB)

For example, to change the location of the transaction log file for the tempdb database, issue the following statement:

ALTER DATABASE tempdb MODIFY FILE (NAME = 'templog',

FILENAME = 'F:\SQLTempLogData\templog.ldf', SIZE = 100MB)

After issuing one of these statements, you must restart the SQL Server by using SQL Server Service Manager in order for the change to take effect. If sufficient disks are available, it is also preferable to store the data file and transaction log file for the AppAnalyzer SQL Database on their own disks.