Quest® Unified Communications Analytics 8.7

Release Notes

July 2020

These release notes provide information about this Quest® Unified Communications Analytics release.

About Unified Communications Analytics 8.7

UC Analytics was rebranded to Quest and the installation path changed to Quest as of release 8.4.1. If you are upgrading from a version prior to 8.4.1, the UC Analytics program files and binaries are installed in the Quest directory but your storage folder is not changed from its previous location.

Before you install or upgrade UC Analytics, disable any anti-virus software that is running against your storage folder. The anti-virus software locks files in the storage folder, causing issues when the installer attempts to upgrade your stored data or during normal operation, when your configured data collections attempt to update the stored data. You should exclude the storage folder from anti-virus scans.

Unified Communications Analytics (UC Analytics) 8.7 is a maintenance release, with enhanced features and functionality.

See Enhancements and Resolved issues.

Upgrading from versions 8.1 or later

If you are upgrading from versions 8.1 or later, perform an in-place upgrade to ensure you maintain your collected data. Do **not** uninstall the previous version. If you uninstall the previous version, you will lose all the collected data.

During upgrade, program files and other binaries are moved to a Quest\UC Analytics folder. However, the storage directory is not moved and remains in the same directory as before upgrade.

Automatic upgrade of custom settings in configuration files

When upgrading to earlier releases of UC Analytics, you either had to manually reapply custom changes to .config files (upgrades from 8.4) or you had copy custom configuration files from a backup directory after upgrade (upgrades from 8.5).

Now, If you have a configuration file with custom settings, (such as job status interval time in the UC.Analytics.Insights.DataEngine.DataCollector.dll.config file), the existing configuration files are automatically copied to a backup folder located at Quest\UC Analytics\Backup Config Files.

When UC Analytics finds backup files in the Backup Config Files\Data Engine folder, it automatically reads the custom values and automatically updates the custom settings in the following configuration files:

If upgrading from 8.4 or an older version:

- Dell.UC.Insights.DataEngine.DataCollector.dll.config
- Dell.UC.Insights.DataEngine.InsightLogic.dll.config
- Dell.UC.Insights.DataEngine.UserSessionManagement.dll.config
- Dell.UC.Insights.DataEngine.Service.exe.config

When upgrading from 8.4.1 or a newer version:

- UC.Analytics.Insights.DataEngine.DataCollector.dll.config
- UC.Analytics.Insights.DataEngine.InsightLogic.dll.config
- UC.Analytics.Insights.DataEngine.UserSessionManagement.dll.config
- UC.Analytics.Insights.DataEngine.Service.exe.config

Upgrading from 8.0 or 8.0.1

Unified Communications Analytics 8.7 does not support a direct upgrade from versions before 8.1. To upgrade from 8.0 or 8.0.1, the upgrade is a two-step process. First, you must upgrade to 8.2. At this point, you can upgrade from 8.2 to 8.7.

Verifying backup and restore script configuration after upgrade

If you previously configured the backup and restore scripts provided in UC Analytics, you should review the script configuration after upgrade to ensure that the correct paths are specified. As of version 8.4.1, UC Analytics was rebranded to Quest. During upgrade from a version earlier than 8.4.1, the UC Analytics program files and binaries are moved to the Quest installation path but the storage directory is still at the same location as before upgrade.

If you have created a Windows scheduled task to automatically back up the storage directory, verify the following parameters:

- In the backup.bat script, verify that the -storageDirectoryPath parameter contains the path to the correct storage location.
- In the scheduled Windows task that runs the backup, ensure the path to the backup.bat file points to the correct location.

For details about configuring backup and restore batch files, see Appendix E in the *UC Analytics Deployment Guide*.

New features

The following new features are available in this release:

- **Support for OAuth modern authentication for data sources that use EWS or remote PowerShell to connect to Exchange Online.** UC Analytics now provides the option on Exchange Online (native and hybrid environments) data sources to select OAuth as the authentication method for either EWS access or remote PowerShell access.

  To use OAuth modern authentication for EWS access to Exchange Online, you must register UC Analytics as an application with the Microsoft Azure portal. You also must configure or update a target environment, hybrid or native, to specify the Azure Application ID that is registered for UC Analytics. To use OAuth modern authentication to access Exchange Online with remote PowerShell, you must install the Exchange Online PowerShell module (v1 or v2).

  For instructions about registering an app on the Microsoft Azure portal and installing the Exchange Online PowerShell module, see Appendix A in the *UC Analytics Deployment Guide*. (155522, 176168)

- **UC Analytics now supports LDAP over SSL (LDAPS)**. For data sources that use LDAP to connect, you can use LDAP over SSL. To enable LDAPS, set *enableLdaps* to true in the UC.Analytics.Insights.DataEngine.Service.exe.config file and restart the Data Engine service. Note that the performance of the on-premises data collections will degrade after enabling LDAP over SSL (190507)

- **Two new insights are added to show room use for Exchange meetings: Exchange Meetings - Room Usage and Exchange Meetings - Unused Rooms.** A new setting, Room Working Hours, is also added in the Admin Settings to allow you to specify the working day for rooms. (159183)

- **A new insight named Organizations / Mailbox Activity is added.** The insight provides views to support grouping daily mailbox activity (messages sent and received) by Active Directory attributes such as Company, Department, Office, City, Country or Region, or Job Title for the selected time period. You can also group by Internal Domain Name (as defined in your Admin Settings | Classifications | Domain Classifications). This insight is similar to Organizations / Departmental Reporting / Mailbox Activity but offers more flexibility in grouping the data. (188346, 188339)

- **A new cross-platform insight named Corporate at a Glance is added.** The insight provides a high-level overview of the Active Directory, ActiveSync, Exchange, and Lync/Skype for Business environments in your organization. The insight provides the number of Active Directory objects (such as groups, users, rooms), Exchange message and mailbox activity, Exchange inventory numbers, ActiveSync events, and information about Lync/Skype for Business conferences and sessions for different media types. (196175)

- **A new insight named Mailboxes - Size & Item Count Trends is added.** The insight shows the trends for mailbox sizes and item counts, providing daily values per mailbox for a specified time frame. You can view the mailbox size and item count trends grouped by total storage or total item count, storage limit status, Exchange version, location (on-premise or Office 365), or by the mailbox owner with the largest mailbox or most items. (86924)

- **A new insight named Mobile Devices - Active Devices History is added.** The insight shows the number of ActiveSync mobile devices that were synchronized within the specified date range. You can view active device history by device type, device model, operating system, and other groupings to determine which types of mobile devices had any activity within the specified time frame. (162303)

- **A new insight named Mailboxes / Mailbox Activity / Internal vs. External / Daily is added.** The insight provides a detailed breakdown of mailbox usage that shows user message activities on a daily basis. The insight includes details about internal and external message traffic. Internal traffic is identified when you

configure the **Classifications | Domain Classifications** in the Admin Settings to identify your internal domains. By default, the top 100 users are shown but you can customize the insight to show all results. (169421)

- **A new insight is added, Email - Logical Messages Activity, that lets you view *logical* message activity for individual message recipients.** Existing UC Analytics insights show *physical* (unique) Exchange messages. *Physical messages* provide message counts in a manner similar to how Exchange handles messages. When a user opens Outlook, creates a message with five recipients and clicks Send, there is one physical message that Exchange delivers to each recipient.

  Exchange can create copies of the message so that each recipient can receive the message. This process is called bifurcation and is performed when different recipients receive copies of the same message. A *logical message* is a message in which each recipient is counted as a separate message. For example, if a mail message is created in Outlook and is sent to nine recipients, that would count that as *one physical* sent message and *nine logical* sent messages. (169775)

- **A new insight is added, Exchange Public Folder Mailboxes - Summary, that shows summary information about each of your public folder mailboxes.** The insight includes the number of folders, mail-enabled folders, items, deleted items, total and average folder sizes, and last modified date.

  A new option is added to the Exchange Public Folders and Exchange Online Public Folders data sources that allows you to select **Empty Public Folder Mailboxes**. Use this option to include public folder mailboxes that do not contain public folders in the insight. (124264)

- **You can collect and view the information about the Recoverable Items folder and its subfolders in Exchange and Exchange Online**. New options are added to the Exchange Mailbox Content Summary and Exchange Online Mailbox Content Summary data sources to collect Recoverable Items folder which contain messages that are on *litigation hold*. For more information, see the section titled "About the Recoverable Items Folder" in the *UC Analytics Deployment Guide*.

  You can check the Recoverable Items folder and its subfolders in Mailboxes - Folders Inventory insight. Note that the sizes of the \Recoverable Items folder and its subfolders are not counted in the Top of Information Store folder for the mailbox owner since both folders are at same level.

  In addition, the Exchange Configuration and the Exchange Online Native/Hybrid Mailbox Configuration collections now collect the following attributes for mailboxes: LitigationHoldEnabled, LitigationHoldDate and LitigationHoldDuration. You can add the Litigation Hold Enabled, Litigation Hold Date and Litigation Hold Duration columns to insights such as Mailboxes - Inventory or Mailboxes - Activity Summary or filter insights by the new fields.

  For example, to add a column to the Mailboxes - Activity Summary insight, click the Customize icon , click **Manage field columns** and select **Show advanced fields**. Search for Litigation and select **Exchange Mailbox | Litigation Hold Duration**. (126713)

- **You can collect and view information about public folder permissions for legacy and modern public folders.** A new option, User permissions (Client permissions), is added to the Exchange Public Folders and Exchange Online Public Folders data sources to allow you to collect permissions data. Two new insights, Public Folders - Permissions Inventory and Legacy Public Folders - Permissions Inventory, show which users have access to specific public folders. (166818)

- **A new Manage Data Sources feature is added to allow you to copy or clone settings from existing data sources.** Specifically, you can use the Manage Data Sources feature to perform batch operations such as:

  - Export and import data source settings (Export selected data sources to a file and import the settings from the file to create new data sources.)

  - Remove multiple data sources.

  - Enable and disable data sources.

  - Start data collections for multiple data sources using **Run Now** option.

  The **Manage Data Sources** link is located on the **Admin Settings | Data Collection** page in the right corner above the data source tiles. For details, see the section titled "Managing data sources through batch operations" in the *UC Analytics Deployment Guide* (169957).

- **New configuration options are added to the Admin Settings | Queries page to allow you to exclude <none> values in aggregated and organizational grouped views from all or some insights.** In some situations, insights can include <none> values that are not relevant and that you do not want to include. For example, if a message is a system message or is sent through an SMTP address and does not have a corresponding user account in Active Directory (AD), the AD user attributes such as office, department, or sender name can display as <none> since they do not exist in Active Directory. For more information, see the *UC Analytics Deployment Guide.* (181193)

Enhancements

The following is a list of enhancements implemented in UC Analytics 8.7.

Table 1. Installation, resource kit, and utilities enhancements

Enhancements	Issue ID

UC Analytics automatically updates custom settings in configuration files during upgrades. In addition to the .dll.config files that were previously updated, UC Analytics now updates the settings in the following files: UC.Analytics.Insights.DataEngine.Service.exe.config (8.4.1 and later) or Dell.UC.Insights.DataEngine.Service.exe.config (8.4 or earlier)
 	
In summary, UC Analytics automatically updates the custom settings in the following files:
 	
If upgrading from 8.4 or an earlier version:
 	
    Dell.UC.Insights.DataEngine.DataCollector.dll.config
 	
    Dell.UC.Insights.DataEngine.InsightLogic.dll.config
 	
    Dell.UC.Insights.DataEngine.UserSessionManagement.dll.config
 	
    Dell.UC.Insights.DataEngine.Service.exe.config
 	
When upgrading from 8.4.1 or a newer version:
 	
    UC.Analytics.Insights.DataEngine.DataCollector.dll.config
 	
    UC.Analytics.Insights.DataEngine.InsightLogic.dll.config
 	
    UC.Analytics.Insights.DataEngine.UserSessionManagement.dll.config
 	
    UC.Analytics.Insights.DataEngine.Service.exe.config
	198705

PowerShell streaming, manual query, and server-side calculation features are now enabled by default for new installations. If you are upgrading from a previous version, UC Analytics will keep your existing settings for these options. **PowerShell streaming** is used in the Exchange Online (Hybrid and Native) data sources. The option can be found in Advanced Settings under the Exchange Online PowerShell Connection Parameters section. For information, see the section titled "About PowerShell collection method options" in the *UC Analytics Deployment Guide.* **Manual query** is an option that you can set in your user profile to delay the immediate loading of data in an insight. In cases where there is a lot of data, the default settings for an insight could cause the insight to take a long time to display. Using the manual query option allows you to apply filters or reduce the time period for the data, then click **Query** on the right top of the insight and load the data. For details, see the section titled "Disabling automatic loading of data in insights" in the *UC Analytics User Guide.* **Server-side calculation** is used to shift the data calculation that is done before displaying an insight from the client side (user interface web site) to the Data Engine (server-side). For large amounts of data, this improves the situation in which an insight takes a long time to display or times out with an error. You can set the option in the **Admin Settings	Queries** tile. For details, see the section titled "Setting where data calculation for insights is performed" in the *UC Analytics Deployment Guide.*	164367

Table 2. Configuration and data collection enhancements.

Enhancement	Issue ID
The Exchange Configuration and the Exchange Online Native/Hybrid Mailbox Configuration data sources now collect the following attributes for mailboxes: TotalDeletedItemSize, RecoverableItemsQuota and RecoverableItemsWarningsQuota. You can add the Total Deleted Item Size, Recoverable Items Quota At, and Recoverable Items Warnings Quota At columns to insights such as Mailboxes - Inventory or Mailboxes - Activity Summary or filter insights by the new fields. For example, to add the column to the Mailboxes - Activity Summary insight, select the Customize icon, click **Manage field columns** and select **Show advanced fields**. Search for **Deleted** and select Exchange Mailbox | Total Deleted Item Size.	190791
The Exchange Tracking Logs, the Exchange Mailbox Contents, and the Exchange Online Mailbox Contents data sources now collect the Message Class for messages. In an on-premises environment, use the Exchange Mailbox Contents data collection to collect the Message Class for messages sent from external domains. You can add the Message Class columns to insights such as Email – Details or filter insights by the new fields. For example, to add the column to the Email – Details insight, select the Customize icon 🖊, click **Manage field columns** and select **Show advanced fields**. Search for *Message Class* and add the fields that you want.	176402
The Skype for Business / Lync CDR Database data source now collects the following attributes for conferences: ServerCollectedFrom, SessionDateTime, and SessionSequenceNumber. You can add the Server Collected From, Session Date Time, and Session Sequence Number columns to insights such as Skype for Business / Lync Conferences - Details or filter insights by the new advanced fields. Also, a new parameter is added to the lyncCdrDatabaseJobSettings section and to the lyncQoeDatabaseJobSettings section in the UC.Analytics.Insights.DataEngine.DataCollector.dll.config file. The new parameter, named initialDataCollectionDays, is used to set the number of collection days that are initially collected for the associated Lync / Skype for Business data sources. The parameter has a default value of 30.	182979
A new configuration setting to explicitly set the "Resolve Targets" output queue length for Exchange Online Mailbox Configuration data sources (hybrid and native) is added in the UC.Analytics.Insights.DataEngine.DataCollector.dll.config file. Previously the output queue length was calculated from other settings in the config file. The new setting can be used by Quest Support to adjust the Exchange Online Mailbox Configuration data source queue lengths, used in resolving the names of DLs and User mailboxes, when troubleshooting data collection time.	186989

Table 3. Insight, export, and subscription enhancements.

Enhancement	Issue ID
A visible filter "Mobile Device | Mailbox | Owner | Name Is set" is added to the Mobile Devices - Inventory insight to filter out the devices that are not registered in the organization but have been logged in the Exchange IIS Logs and collected by the IIS Logs data collection job. Also, to determine the corresponding logon user in Exchange IIS Logs collection, UC Analytics now compares the user logon name in the ActiveSync event with the "mail" attribute in AD. Previously, only SamAccountName, DownLevelLogonName and UserPrincipalName attributes were used in the comparison.	193817

Table 3. Insight, export, and subscription enhancements.

Enhancement	Issue ID
The date range that was selected for an insight is now included in the email subject for a subscription when the insight is exported to email. Also, the date range and filters that were selected for an insight are included in the email body for a subscription when the insight is exported to email if an attachment type of subscription is selected. Two new configuration settings: subscriptionEmailSubjectIncludeDateRange and subscriptionEmailBodyIncludeDateRangeAndFilters are added in the UC.Analytics.Insights.DataEngine.InsightLogic.dll.config file. By default, these features are enabled. To disable the settings, you can edit the UC.Analytics.Insights.DataEngine.InsightLogic.dll.config file and restart Data Engine service. For details, see Appendix F in the *UC Analytics Deployment Guide*.	177041
Previously, when exporting and importing insights, you could only import an insight from the same version of UC Analytics. Now you can import insights from a different version of UC Analytics. For details about exporting and importing insights, see the section titled "Exporting insights from and importing insights to an insights home page" in the *UC Analytics User Guide*.	164846

Resolved issues

The following is a list of issues addressed in this release.

Table 4. Configuration and data collection resolved issues

Resolved issue	Issue ID
Fixed a leak in PowerShell sessions when the final flush of data to the Query Engine Service would fail in the following data sources: • Exchange Configuration • Exchange Public Folder • Exchange Online Native User Configuration • Exchange Online Hybrid User Configuration The data sources that use PowerShell are updated to add creator information to the PowerShell sessions to allow Quest Support to trace the origin of leaked PowerShell sessions in memory dumps. Creator information includes the data source, execution ID, and the time the PowerShell session was created.	184845
UC Analytics did not correctly handle a situation in the Exchange Online Mailbox Configuration data collections when mailbox information had been partially collected. Now the Exchange Online Native Mailbox Configuration and the Exchange Online Hybrid Mailbox Configuration collection jobs can perform an ongoing collection for mailboxes in which the mailbox entities logged an exception in the last run for the day.	185646
Customer received an error from the Exchange IIS Logs collection job such as: "Error: Unable to analyze the Exchange IIS log entries in the IIS log file. Details: Invalid IIS log file: Unexpected 20 fields, instead of 22, on line #5005". The error could be caused by leading NUL characters that remained after the IIS service shut down. Now, leading NUL characters are ignored if they are in a comment line that starts with the '#' character.	191170
In release 8.6.1, UC Analytics introduced a powerShellSecondsAfterTransientServerProblem setting for the UC.Analytics.Insights.DataEngine.DataCollector.dll.config file. The default value was 0, which would create a new PowerShell session if the "An error caused a change in the current set of domain controllers" exception occurred. However, some customers reported that the immediate reconnection could cause Office 365 throttling. Now the default value of powerShellSecondsAfterTransientServerProblem is increased to 30. If you have modified this setting since the 8.6.1 release, it remains unchanged after you upgrade. Otherwise, the setting is automatically changed to 30.	186080

Table 4. Configuration and data collection resolved issues

Resolved issue	Issue ID
To help identify an Office 365 throttling issue, the PowerShell session ID and runspace pool ID are now logged in the following data source logs. • Exchange Online Native/Hybrid User Configuration • Exchange Online Native/Hybrid Mailbox Configuration • Exchange Online Mailbox Contents • Exchange Online Public Folders	187794
In the Exchange and Exchange Online Mailbox Contents data collections and Exchange and Exchange Online Calendar data collections, the job status message is updated to indicate the number of failed mailboxes and skipped mailboxes.	190396
Performance logging is enhanced in the UC.Analytics.Common.Core.PerformanceStatistics.log file to allow better investigation of performance issues with insight exports.	188503
Fixed the handling of the following three errors. Now the errors do not cause the Exchange (Online) Calendar jobs to fail: • "Precondition failed: Is.NonNull" error • "Object reference not set to an instance of an object" error • "This property was requested, but it wasn't returned by the server" error	177459
Significantly improved performance for insight exports and subscriptions.	193351
The Exchange Online Native and Hybrid Mailbox Configuration data collections did not efficiently handle the situation in which a mailbox had been recently moved, slowing the collection process. Now, in the data collections when UC Analytics encounters the error "The mailbox may have been moved recently", the mailboxes in that specific batch are queued for the next round and the collection immediately continues to the next batch of mailboxes. The maximum number of rounds is determined by the powerShellMaxAttempts setting and the time to pause between two rounds is determined by the powerShellSecondsBetweenAttempts setting in the UC.Analytics.Insights.DataEngine.DataCollector.dll.config file.	185645
When a customer configured a target to be a group. such as a dynamic group, in the Exchange Online Native/Hybrid Mailbox Configuration and Exchange Online Mailbox Contents data sources, the resulting collection might resolve additional users that were not part of the target group. This issue could occur if users had duplicate display names. The data sources are updated to use the unique user GUID to resolve group members when retrieving user information using PowerShell.	176393

Known issues

The following is a list of issues, including those attributed to third-party products, known to exist at the time of release.

Table 5. Installation known issues

Known issues	Issue ID
It is not recommended that you use the built-in domain Administrator account for installing or for accessing UC Analytics. If you have a child domain in your environment, or if you have two root level domains, you will be unable to install the product.	NA
Typically, when you uninstall the product, the Storage directory is removed. If the specified directory cannot be removed (for example, if the directory is on a network drive) an error message appears. You can work around the error by clicking "Ignore". You can manually remove the directory after the uninstallation process is complete.	504453

Table 5. Installation known issues

Known issues	Issue ID
After installing the Storage Engine on a separate computer with multiple network cards, the customer is unable to access the web site ("Application failed to start.") and nothing seems to work. In this case, an incorrect IP address may have been registered for the Storage Engine. **NOTE:** If you are installing multiple Storage Engines on a separate computers that have multiple network cards, the installation may not complete. **Cause** On servers that have more than one IPv4 address, the UC Analytics installer selects one of the IPv4 addresses and registers that as the IP address for the UC Analytics component on that computer. The selected IP address may not be the IP address you want for the UC Analytics Storage Engine. **Workaround** Disable the network cards that have undesired IP addresses, run the UC Analytics installer for the Storage Engine, and re-enable the disabled network cards. If you need to disable a network card that is used for Remote Desktop access to the server, you must install UC Analytics using the physical console instead of Remote Desktop.	654123
In the Autorun.exe, the Download buttons for the software prerequisites may appear to be not working. An error is displayed about a script error on the page. **Cause** On some computers, an iexplore.exe process lingers for about 30 seconds after Internet Explorer is closed. Until the iexplore.exe process exits, the Javascript window.open() call for the Download buttons fails to launch a new Internet Explorer window. **Workaround** Launch the Task Manager and wait until the iexplore.exe process has exited. The Download buttons work correctly.	NA
In a deployment with multiple Data Engine collector roles installed, if you modify your deployment configuration properties using the Deployment Manager, and you clear the Data Engine configuration and reset it, an issue can occur in which the Primary Data Collector cannot be identified. The following error is displayed "You must have one collector role for the Data Engine designated as the primary collector." **Workaround** 1 In the Deployment Manager, select **Manage Deployment | Modify Deployment**. 2 Click **Edit Deployment** and click **Data Engine Advanced**. 3 Select the **Primary Data Collector** check box for the server that hosts collector that should be the primary collector.	774682
If an Office 365 account is added as a product administrator in the Deployment Manager, the account is not granted full access to the Admin Settings. **Workaround** In the UC Analytics web site, in Admin Settings | Security, add the Office 365 user account under the Access to Tenant Configuration heading to grant full access to Admin Settings. You must have already added an Office 365 target environment.	774770
On the Admin Settings - Data Collection page, under Data Sources, you cannot remove data sources if you are viewing the page using iPad or other mobile platforms.	NA
In the Classifications | Threshold Classification page, you can set thresholds for Skype for Business and Lync QoE quality metrics. The page has the recommended thresholds set for Skype for Business 2015 and Lync 2013 by default. Most of these thresholds also apply to Lync 2010. However, if you add a threshold classification that is specific to Lync 2010 only, and you have a mixed environment, the threshold will also be applied to Lync 2013 and later even though the threshold may not be applicable to those versions.	NA

Table 6. Configuration known issues

Known issue	Issue ID
When setting security access to insight data in the Admin Settings | Security page, if you add an Active Directory (AD) user in email address format when the user does not have an associated mailbox, the security access is not set. For example, if you granted unrestricted access to that user, the user would see the error "You do not have the required access rights to view the insight" when attempting to view an insight such as the Mailboxes - Inactive insight. **Workaround** You can add the user and grant data access if you enter the user SAM account name.	128425

Table 7. Data collection and resource kit known issues

Known issue	Issue ID
In the Exchange Online (hybrid and native) data source collections, if the same PowerShell credentials are used for more than one data source, there can be overlapping Azure AD plug-in credential incompatibility. You might notice authentication errors with Azure AD PowerShell cmdlets such as the following: `AdalException: multiple_matching_tokens_detected: The cache contains multiple tokens satisfying the requirements. Call AcquireToken again providing more requirements (e.g. UserId)` `Microsoft.IdentityModel.Clients.ActiveDirectory.AuthenticationContext (IL Offset 0x31): T RunAsyncTask[T](System.Threading.Tasks.Task`1[T])`  `Microsoft.Online.Administration.Automation.CommonFiles.AuthManager (IL Offset 0x11): System.String GetAuthorizationHeader(Microsoft.Online.Administration.Automation. EndPointAlias)` Though UC Analytics recovers from these errors, it is recommended that each Exchange Online data source be configured with its own set of PowerShell credentials.	701364
Previously, UC Analytics might collect incorrect data for mobile devices if a mailbox display name contained a / (forward slash) or a \ (backslash). For example, if there were two mailboxes, /AB and AB, and if mobile device #1 connected to mailbox /AB, and mobile device #2 connected to mailbox AB, UC Analytics would incorrectly match both mobile devices #1 and #2 to mailbox AB. This issue existed only for mailboxes that were migrated from on-premise Exchange to Exchange Online. Though this issue was corrected in version 8.4.2, incorrect mobile device data that was collected previously and stored in the database is not changed. All new collected data will be correct.	700497
UC Analytics does not distinguish between discovery mailboxes and system mailboxes. Discovery mailboxes are collected and recorded as system mailboxes. In insights, there is no indication that a mailbox is a discovery mailbox. You cannot filter on discovery mailboxes.	701077
There can be partial ActiveSync data on the day that a user first starts using a mobile device. For example, ActiveSync activity is shown but not associated with a user in the Exchange ActiveSync / Users / Email Activity / Summary insight. This situation occurred when a user started using an ActiveSync device for the first time after the Exchange Configuration collection had successfully run for that day. ActiveSync activity for subsequent days will be correctly associated with the user.	612851
If you have configured the Exchange Configuration data source for a resource forest implementation, if you later add an LDAP connection for more account forests, the data collection does not automatically run to update the data. You must wait until the next day's data collection run to see the new information from the account forest.	644161
In a hybrid environment (Exchange Online and Exchange on-premise), Azure AD Connect (formerly Azure AD Sync) synchronizes on-premises users with Office 365 cloud services for single identities. If the synchronization process is stopped, UC Analytics can double-count users. When the Azure AD Connect synchronization resumes, all new data collections will show the correct user count.	NA

Table 7. Data collection and resource kit known issues

Known issue	Issue ID
In the Exchange DLP Matches - Details insight, the text in the Justification for Override (insertable) column will appear incomplete if the justification text that was entered by the user contained a semicolon (:) or a single instance of single (') or double (") quotation marks.	605889 605908
The Exchange IIS Logs data collection cannot associate ActiveSync events to a user for some ActiveSync clients with users that have spaces in their Windows logon name (such as MYDOMAIN\N Wong). This issue affects ActiveSync events from the ActiveSync client in Windows Mail. It does not affect the ActiveSync clients in iOS or in Android.	456921
When collecting Exchange data from an Exchange resource forest deployment, there are certain limitations when an active (master) user account has more than one Exchange mailbox, or has more than one archive mailbox, in more than one forest. The master account of the linked mailboxes and of the linked archive mailboxes is correctly recorded. However, only one of the mailboxes that belong to the master account will be reported as its mailbox. Similarly, only one archive mailbox that belongs to the master account will be reported as its archive mailbox.	NA
For any back-end ActiveSync events that have an Exchange server as the authenticated user, the Exchange IIS data collector cannot associate the event to a device and user. The ActiveSync events are gathered but are shown in the insights without a device or a user.	456614
To collect data for personal archive mailboxes (using the Exchange Configuration, Exchange Online Hybrid Mailbox Configuration, or Exchange Online Native Configuration data sources), you select the following two options: • Personal Archive Mailboxes (Configuration) • Personal Archive Mailboxes (Statistics) If you do not select both options for the same data source collection, the Storage Limit Status column is not populated in the Personal Archive Mailboxes - Inventory and Personal Archive Mailboxes - Summary insights.	775039
In the Exchange Online data sources, during target expansion, batch size configuration is implemented to improve gathering performance. To ensure that the complete membership of dynamic distribution groups is collected, the batch size values set in the Data Engine collector configuration cannot be less than 1000, and must be greater than or equal to 1000. The batch size settings for the Exchange Online data source configuration are located in the UC.Analytics.Insights.DataEngine.DataCollector.dll.config file, on the computer that hosts the Data Engine (Collector):	775273

```
<exchangeOnlineMailboxContentsJobSettings

powerShellBatchSize="1000"

/>

<exchangeOnlineMailboxJobSettings

resolvingBatchSize="1000"

/>

<exchangeOnlineUserJobSettings

powerShellBatchSize="2000"

/>
```

Do not change these values except under guidance from Quest Support. If you reduce these values to a number less than 1000, some members of the target dynamic distribution groups will not be included in the Exchange Online data collections.

Table 7. Data collection and resource kit known issues

Known issue	Issue ID
When entering an organizational unit (OU) when configuring certain data sources, if the user enters an OU in the correct format but with an invalid value, the data collection jobs do not issue a warning or error but resolve 0 targets for the invalid OU. Data will be missing from the insights. Data sources in which you can specify an OU as a target are as follows: • Domain Controller • Exchange Mailbox Contents • Exchange Mailbox Content Summary • Exchange Tracking Logs • Exchange Configuration • Exchange IIS Logs	773630

Table 8. Insights and export known issues

Known issue	Issue ID
When you export an insight that shows a date range for the displayed data at the top of the insight, the date range time zone does not appear in the exported file.	121562
In Exchange 2010, if the Microsoft OWA light version is used, the Outlook on the Web (OWA) insights will display the browser as "Unknown" for Internet Explorer 11, Edge, FireFox, Chrome, and Opera. The issue does not exist in other versions of Exchange or if Safari is the browser.	NA
If the time zone offset is negative (such as -5), and you apply smoothing to a graph, and the beginning of your date range is before the date when data collection initially started, the total for the smoothed graph is less than the total for the unsmoothed graph. **Workaround** Ensure that the date range does not include the days before data was collected.	694810
In the Mobile Device insights, the Device IMEI column shows <none> for iOS devices. UC Analytics uses the cmdlet Get-MobileDeviceStatistics (for Exchange 2013/2016/2019) and Get-ActiveSyncDeviceStatistics (for Exchange 2010) to get the device IMEI. Due to how the iOS device built-in mail app works, the information is not stored in the internal mobile device logs and is not available to PowerShell, and by extension, to UC Analytics.	704642
In the insight view, If the date range is set to a single day, any trend graph will change to a vertical bar chart but if you export the same insight, the trend graph does not display a bar chart but displays a trend line with a single point.	718893
On the home page, you cannot enlarge or shrink the insight tiles on iPad and other mobile platforms.	NA
After installing Quest UC Analytics and attempting to open the Analytics web site (http://<server>/Analytics), the user sees the following error: "The application failed to initialize." This issue may be caused by a bug in IIS 7.0 in handling extensionless URLs. See the following link for details: http://support.microsoft.com/kb/980368 Install the Microsoft patch to fix this issue.	NA
If the Date format that is set in your UC Analytics user profile is in a different order than the Date and time format that is set in regional settings on your local computer, and you export an insight to .csv or .tsv format, when you open the exported file in Excel, Excel will incorrectly convert the date. **Workaround** Set the order for day/month/year for the user profile Date format to be the same as in the local Date and time format that is set in your computer's regional settings. For example, if the Data and time format on your computer is set to be mm/dd/yyyy, set the Date format in the user profile to also be mm/dd/yyyy. For more information about setting the date format in UC Analytics, see the *Unified Communications Analytics User Guide*.	654748

Table 8. Insights and export known issues

Known issue	Issue ID
When you export an insight to either .pdf or to Word (.docx) format, there might be discrepancies in how information is displayed: • Layout of Insights that contain two side-by-side tables can be different from what you see on the screen. • Numbers might sometimes overlap horizontal bars.	NA
In the details browser, the Exchange server details are not shown in the Exchange ActiveSync / Servers / Server Sync Times insight. This scenario can occur if you collect ActiveSync data for a time period from before you installed the product. The insight is populated with the historical ActiveSync data collected from the IIS logs (Exchange IIS Logs data source). However, the server detailed data is populated from the once-a-day "snapshots" collected from Active Directory (Exchange Configuration data source). Since you had not run the Exchange Configuration data collection during that time period, there is no Exchange server detailed information in the database. This issue decreases over time as the server data is accumulated through daily Exchange Configuration data collections.	591123
In the Mailboxes - Folders Inventory insight, if there is a mailbox owner with many folders that span more than one displayed insight page, when you click a heading (such as Size) to sort the fields, sorting does not work.	773936
The total number or size of messages (Unique Messages, Total Volume) will not always equal the sum of sent and received messages. The reason is that the total includes messages that were "sent on behalf of" and messages that were "sent as", while the total of sent messages does not include these types of message. For example, when user A sent a message on behalf of user B, the insight would show the total number of messages of user B is 1, while the number of sent messages is 0. The following insights are affected: • Mail Activity / Internal vs. External • Mailboxes - Active and Inactive Summary • Mailboxes / Mailbox Activity / Summary • Mailboxes / Mailbox Activity / Daily • Organizations / Departmental Reporting / Mailbox Activity	163943

Table 9. Subscriptions known issues

Known issue	Issue ID
When configuring UC Analytics for subscriptions (Admin Settings | Subscriptions) you have the option to require authentication to the SMTP server that is used for email subscriptions. UC Analytics cannot send subscription emails through Exchange receive connectors that meet **all** the following conditions: • require authentication and do not allow anonymous access • only allow Integrated Windows Authentication (basic authentication is disabled) • have EnableAuthGSSAPI property set to true	605072
Subscriptions might not send long emails, such as insights with large tables, in MHTML or HTML format. Depending on message size limit set on the specified SMTP server for email subscriptions, a subscription in MHTML or HTML format with a long body might be blocked. **Workaround** If a user does not receive an email subscription in MHTML or HTML format, switch the subscription format to either .pdf or .docx format in which the size of the message is much smaller.	606221

Table 9. Subscriptions known issues

Known issue	Issue ID
For Insight Visibility and Security (data access settings), UC Analytics does not support a configuration in which specified users are in a separate forest from the forest in which UC Analytics is installed. For on-premise target environments that are configured for Authentication-enabled, all users that are entered for Insight Visibility and Security must be in the same target environment as UC Analytics.	775501
Time Zone Offsets: When you create a subscription, the current time zone offset (such as UTC - 04:00) is captured and is used for the future subscription schedule. This captured time zone offset does not change with Daylight Saving Time (DST). You must manually change the existing subscription schedule when DST begins and ends. **Using a time zone offset override** Each time you log in, your user profile's time zone offset is updated to the time zone of the client computer. The offset is used for executing queries and affects the display of data, including scheduled insights. If you want your data queries to always run using a particular time zone offset regardless of your current location or whether DST is active, you can set an override in your user profile page. To access your user profile, click your user name in the top right corner of the Analytics web site and select **Edit Profile**. If you travel to a different time zone, or when the time changes due to daylight saving, the scheduled subscription emails still use the old time settings until you log in to UC Analytics in the new time zone or after the time switch.	NA

Table 10. Storage Engine and Data Engine known issues

Known issue	Issue ID
The UC Analytics Storage Engine service cannot start due to a failure to read a file descriptor in one of the commit logs. The Storage Engine tries to restart and fails because of a commit log replay issue, resulting in an error in the Cassandra.log file such as the following: ```org.apache.cassandra.db.commitlog.CommitLogReplayer$CommitLogReplayException: Could not read commit log descriptor in file /data/commitlog/CommitLog-6-1460632496764.log at org.apache.cassandra.db.commitlog.CommitLogReplayer.handleReplayError(CommitLogReplayer.java:644) [apache-cassandra-3.0.5.jar:3.0.5]``` By default the log file is located in the following path: C:\Program Files\Quest\UC Analytics\Storage Engine\bin\Cassandra.log **Workaround** Delete the corrupted commitlog file that is specified in the error message and restart the Storage Engine service.	642319
All the files in the Storage Engine directories must be available for reading and writing at all times. If you have any automated processes running on the Storage Engine directories that lock files, you might encounter problems. The Storage Engine, when it encounters one of its files that cannot be written to or deleted, stops running. You must restart the service to get the Storage Engine working again.	NA
The Data Engine does not communicate with the Query Engine when a proxy is enabled on the Data Engine server. **Workaround** Disable the proxy or ensure that the proxy allows direct communication to the Query Engine server (which can be the same server as the Data Engine).	NA

System requirements

Before installing UC Analytics 8.7, ensure that your system meets the following minimum hardware and software requirements.

Hardware requirements

If you are installing UC Analytics, the computer must meet the following minimum requirements:

Table 11. Minimum requirements for hardware.

Type	Minimum
Processor	Minimum: Quad core 64-bit computer.
RAM	Minimum: 24 GB.
Disk	• 5 GB for the application • *X* GB where *X* is the required disk space for collected data For estimates regarding the required disk space for the collected data for different numbers of users for all the platforms, see the *UC Analytics Deployment Sizing.xlsx* spreadsheet which can be found under Documentation in the autorun.exe.
Operating system	One of the following: • Windows 7 (64 bit version) or later • Windows Server 2008 R2 (Service Pack 1) or later • Windows Server 2012 and later • Windows Server 2016 • Windows Server 2019 Any server on which a UC Analytics service or service role is installed must have a static IP address defined. For a distributed deployment, the Remote Registry Service must be running.

About NAS/SAN support

Generally, using a NAS/SAN device for the Storage Engine is not supported. UC Analytics might support specific NAS/SAN devices but Quest would require full testing with the devices, or device simulators, to support them. Since each NAS/SAN device, depending on manufacturer, is unique, Quest will work with NAS/SAN vendors to certify or qualify a device but the NAS/SAN vendor must be willing to assist. To engage a NAS/SAN vendor and initiate the qualification process, you would send an email to your NAS/SAN vendor and contact Quest Support.

Software requirements

To install and run UC Analytics, the following software requirements must be met on the computers that host these specific UC Analytic services:

Table 12. Software requirements

Hosted service	Requirement
Web site	IIS (Internet Information Services) 7.0 or later For the required configuration for IIS logging, see Appendix C in the *Quest UC Analytics Deployment Guide*.

Table 12. Software requirements

Hosted service	Requirement

Data Engine service	• Microsoft .NET Framework 4.6 (full version) or later
	• PowerShell 3.0 or later
	• TLS (Transport Layer Security) 1.2 protocol must be enabled.
	• To use OAuth 2.0 to collect from Office 365, the Exchange Online PowerShell module (v1 or v2) must be installed.
	• To collect Office 365 user subscription data, the following software prerequisites must be met:
	    ▪ Microsoft Online Services Sign-in Assistant must be installed.
	    ▪ Windows Azure Active Directory Module for Windows PowerShell 1.x must be installed. (Version 2.x has different PowerShell cmdlets and will not work.)
	Also, since the Microsoft Azure AD cmdlets use the proxy settings for Internet Explorer, ensure that the Internet Explorer proxy settings for the service account are set correctly.

Query Engine service	64-bit Java Runtime Environment (JRE) 8 - OR - Zulu OpenJDK 8 (Zulu Java 8 JRE for Windows, x86 64-bit in .MSI form) For information and downloads, see https://www.azul.com/downloads/zulu-community/
Storage Engine service	64-bit Java Runtime Environment (JRE) 8 - OR - Zulu OpenJDK 8 (Zulu Java 8 JRE for Windows, x86 64-bit in .MSI form) For information and downloads, see https://www.azul.com/downloads/zulu-community/

For information about the rights and permissions needed to configure UC Analytics and by the credentials used to gather information, see the *Quest UC Analytics Deployment Guide*.

Table 13. Supported environments

Requirement	Details
Gathering environment	The following is a list of the minimum environments that are supported for data collection: • Exchange 2010 (SP1 or later) • Exchange 2013 • Exchange 2016 • Exchange 2019 • Exchange Online (Office 365 hybrid deployment with on-premise Exchange) • Exchange Online (native Office 365 deployment) • Lync 2010 • Lync 2013 • Skype for Business 2015 • Skype for Business 2019 • Cisco Unified Communications Manager (CUCM) 9.x to 11.0 and 11.5.

Table 13. Supported environments

Requirement	Details
Supported browsers	To access the UC Analytics web site, use one of the following browsers: • Microsoft Edge • Internet Explorer 10 or later • Google Chrome • Mozilla Firefox • Apple Safari For users with large amounts of data, it is recommended that you ensure your browser is in 64-bit mode. For more information about setting Internet Explorer to 64-bit mode, see the section titled "Using a browser in 64-bit mode" in the *UC Analytics User Guide*.

Product licensing

In release 8.1, UC Analytics switched to a new license type (.dlv) and emailed the new license file to existing customers.

Existing customers on 8.1 or later

If you are an existing customer with 8.1 or later installed, you will have a .dlv license file installed. When you upgrade, your dlv license will continue to work if it is not expired.

To install a new license, use the following procedure to activate it.

To activate a license

1   Copy the license file (xxx-xxxx.dlv) to any single computer on which the UC Analytics Data Engine service is installed.

    You do not need to copy a license file to all computers on which the Data Engine service is installed. When the license is copied to one computer that hosts the Data Engine service, it is updated automatically on all the computers that host the Data Engine service.

2   Start Quest UC Analytics | Quest UC Analytics from the Start menu or run the DeploymentManager.exe file from the product installation directory.

3   Click the **Manage Licenses** button.

4   Click **Add License** and browse to the location where license file (xxx-xxxx.dlv) is copied and install it.

New customers

After you download a trial version or purchase UC Analytics, you will receive a license file (.dlv) through email that is used to activate UC Analytics. After you install UC Analytics but before you can use UC Analytics, you must activate the license.

To activate a license

1   Copy the license file (xxx-xxxx.dlv) to a computer on which the UC Analytics Data Engine service is installed.

2   Start Quest UC Analytics | Quest UC Analytics from the Start menu or run the DeploymentManager.exe file from the product installation directory.

3   Click the **Manage Licenses** button.

4   Click **Add License** and browse to the location where license file (xxx-xxxx.dlv) is copied and install it.

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release is Unicode-enabled and supports any character set. In this release, all product components should be configured to use the same or compatible character encodings and should be installed to use the same locale and regional options. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan.

About us

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

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

•   Submit and manage a Service Request.

•   View Knowledge Base articles.

•   Sign up for product notifications.

•   Download software and technical documentation.

•   View how-to-videos.

•   Engage in community discussions.

•   Chat with support engineers online.

•   View services to assist you with your product.

Third-party contributions

This product contains the following third-party components. For third-party license information, go to http://www.quest.com/legal/license-agreements.aspx. Source code for components marked with an asterisk (*) is available at http://opensource.quest.com.

Table 14. List of third-party contributions

Component	License or acknowledgement
BouncyCastle 1.8.1	MIT N/A
crypto-ts 1.0.2	MIT
Hopscotch 0.1.2	Apache License, Version 2.0
HTML5 Sortable 1.0.0	MIT N/A
Infuse JS 1.0.1	Infuse JS License Copyright 2013 infuse.js Romuald Quantin www.soundstep.com
jquery.fileDownload 1.4.2	MIT N/A
Json.NET 6.0	MIT N/A
JQuery 1.8.2	MIT
MailKit 1.18	MIT N/A
MimeKIT 1.18.1	MIT N/A
Moment.js 2.6.0	MIT N/A
OpenSSL 1.0.2l (25-May-2017)	OpenSSL 1.0 Copyright (c) 1998-2017 The OpenSSL Project. All rights reserved. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/).
SharpZipLib 0.86	SharpZipLib License The library is released under the GPL with the following exception: Linking this library statically or dynamically with other modules is making a combined work based on this library. Thus, the terms and conditions of the GNU General Public License cover the whole combination. As a special exception, the copyright holders of this library give you permission to link this library with independent modules to produce an executable, regardless of the license terms of these independent modules, and to copy and distribute the resulting executable under terms of your choice, provided that you also meet, for each linked independent module, the terms and conditions of the license of that module. An independent module is a module which is not derived from or based on this library. If you modify this library, you may extend this exception to your version of the library, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version. Note The exception is changed to reflect the latest GNU Classpath exception. Older versions of #ziplib did have another exception, but the new one is clearer and it doesn't break compatibility with the old one. Bottom line In plain English this means you can use this library in commercial closed-source applications.
Simple.OData.Client 4	MIT
spin.js 1.2.2	MIT
typeahead.js 0.10.2	Copyright 2013-2014 Twitter, Inc. and other contributors; Licensed MIT
Web Toolkit Javascript SHA-256 1.0*	© 2013 webtoolkit.info Inc. All rights reserved. Creative Commons Attribution England and Wales 2.0
ua-parser 0.7.10	Copyright 2012-2015 Faisal Salman
7-ZIP 9.20	7-ZIP 9.20

Table 15. List of third party components (for Doradus and QUI)

Doradus 3.0 Components & QUI (Quest UI Library) 1.8 Components	License or acknowledgement
Cassandra 3.0.14	Copyright © 2017 The Apache Software Foundation. Licensed under the Apache License, Version 2.0. Apache and the Apache feather logo are trademarks of The Apache Software Foundation.
Cassandra C# Driver 3.9.0	Copyright © 2018, DataStax Licensed under the Apache License, Version 2.0
Cassandra Java Driver 2.1	Copyright 2012-2015, DataStax Licensed under the Apache License, Version 2.0
Google Open Sans 1.0	Apache 2.0
Guava 18.0	Copyright (C) 2011 The Guava Authors Licensed under the Apache License, Version 2.0
Javax Servlet API 3.0.1	Copyright © 2014, Oracle Corporation and/or its affiliates. All rights reserved. Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners. License CDDL + GPLv2 with classpath exception 1.0
Jetty 9.2	Copyright © 2015 The Eclipse Foundation. All Rights Reserved. Licensed under the Apache License, Version 2.0
log4j 1.2	This product includes software developed by the Apache Software Foundation (http://www.apache.org.) Licensed under the Apache License, Version 1.1
Lz4 .NET 1.0.10.93	Copyright © 2014, Milosz Krajewski Licensed under the BSD 2-Clause "Simplified" License
Lz4 Java 1.3	Licensed under the Apache License, Version 2.0
Netty 4.0.44.Final	Copyright © 2018 The Netty project Licensed under the Apache License, Version 2.0
slf4j - Simple Logging Facade for Java 1.7	Copyright (c) 2004-2008 QOS.ch All rights reserved.
snakeyaml 1.11	Licensed under the Apache License, Version 2.0
Snappy Compression Library 1.1	Copyright 2011, Google Inc. All rights reserved.
Twitter Bootstrap 2.1.1 Twitter Bootstrap 2.3.1	Licensed under the Apache License, Version 2.0
Underscore.js 1.5.1	© 2009-2013 Jeremy Ashkenas, DocumentCloud and Investigative Reporters & Editors MIT N/A
Underscore.string 2.3.0	MIT N/A