

Quest® On Demand Recovery

Release Notes

July 12, 2022

On Demand Recovery allows you to backup and restore Microsoft Azure Active Directory and Office® 365 objects with their properties. These objects can be selected in a backup and then restored to Azure Active Directory or Office 365 without affecting other objects or attributes. Using the granular restore, objects that were inadvertently deleted or modified can be recovered in a few minutes.

Key features of On Demand Recovery

- **Back up Azure Active Directory and Office 365 users, groups, contacts, service principals, conditional access policies, and device information**
On Demand Recovery automatically backs up your directory on a regular basis.
- **Granular, selective restore of Azure Active Directory and Office 365 users, groups, service principals, conditional access policies, devices, inactive mailboxes for permanently deleted users**
Users, groups, service principals, and devices can be selected in a backup and then restored to Azure Active Directory or Office 365 without affecting other objects or attributes.
- **Backup and restore Azure Active Directory B2C users and groups**
On Demand Recovery supports Azure Active Directory B2C tenants.
- **Restore users or Office 365 groups from the Recycle Bin**
Restore users and Office 365 groups that were inadvertently moved to the Recycle Bin.
- **Cloud solution: backup snapshots are stored in the cloud**
On Demand Recovery does not require to install or maintain any additional software.
- **Comparison reporting**
This feature lets you view differences between the selected backup and live Azure Active Directory or Office 365 and revert unwanted changes.
- **Integration with Recovery Manager for Active Directory**
On Demand Recovery can be integrated with Recovery Manager for Active Directory 9.0 or higher to restore on-premises objects that were synchronized with cloud by Azure AD Connect.

These release notes provide information about the On Demand Recovery release.

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Known issues

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

General known issues

Known issue	Issue ID (Jira)	Issue ID (ADO)
If you restore two groups which are members of the third group which was deleted, the third group can be duplicated after the restore operation. This issue is applied only to non-Office Groups which support nesting. Workaround: To avoid this issue, the user needs either to restore groups one by one (order is not important) or restore all of them at once.	RMAZ-18	ADO-226239
On Demand Recovery displays contacts in the backup statistics but does not support the restore of Contact objects.	RMAZ-130	ADO-225195
Restore of changed user mail attributes such as mail, proxyAddress, targetAddress is not restored correctly if the object was hard deleted and not available in the Recycle Bin.	RMAZ-136	ADO-352530
On Demand Recovery does not restore an Office 365 mailbox (either for user or for Office group) if it was permanently deleted.	RMAZ-137	ADO-352531
On Demand Recovery does not restore Distribution List members and will display the error "Status: 400, Code: Request_BadRequest. Details: Unable to update the specified properties for objects that have originated within an external service."	RMAZ-174	ADO-348192
If two users perform the unpack operation simultaneously with the selected "Clear objects" option in the same On Demand organization, one of the processed backups will not be unpacked (or will be partly unpacked). Workaround: Do not select the "Clear objects" option. Also, the restore operation may fail if the user is trying to unpack the backup that is currently processed by another user.	RMAZ-270	ADO-225214
Old backups (backups that were created before you remove the tenant) are not shown in the On Demand Recovery user interface if the same tenant was removed and then added again. If you need to unpack, restore or delete old backups, please contact Quest Support.	RMAZ-273	ADO-352537
Backup task does not check the Admin consent status, but if the Admin consent is not granted for the tenant, the following error occurs: "The identity of the calling application could not be established."	RMAZ-315	ADO-352542
On Demand Recovery does not show the proxyAddresses attribute in the Differences view.	RMAZ-338	ADO-352544

Known issue	Issue ID (Jira)	Issue ID (ADO)
The restore operation from the Differences view may fail if you run Refresh before the restore operation is completed.	RMAZ-352	ADO-352545
An incorrect (empty) object count may be displayed in the "details pane" of the Restore from Diff task.	RMAZ-354	ADO-352546
If you enable Azure Multi-Factor Authentication (MFA), you should regrant Admin Consent for the On Demand Recovery module. Otherwise, you will get the following error during the restore operation: "Failed to refresh access token. StatusCode: 400. ErrorCode: interaction_required. Due to a configuration change made by your administrator, or because you moved to a new location, you must use multi-factor authentication to access".	RMAZ-405	ADO-352553
On Demand Recovery does not support backup and restore of Azure Active Directory tenants created in Azure Germany, or U.S. Government.	RMAZ-566	ADO-352561
Restore of more than 10000 objects using one task may result in poor performance.	RMAZ-576	ADO-352562
On Demand Recovery does not restore MFA authentication methods for a hard deleted user if the mobile application was assigned to this user. NOTE: If any of the following Voice Call/SMS/Office Phone was set up as an authentication method for a user, On Demand Recovery will restore all MFA data for this user.	RMAZ-777	ADO-352568
On Demand Recovery does not support MFA enabled accounts for backup creation. To set the account password to never expire, use the following PowerShell command: <code>Set-MsolUser -UserPrincipalName <name of the account> -PasswordNeverExpires \$true</code> For more details, refer this article https://support.office.com/en-us/article/set-an-individual-user-s-password-to-never-expire-f493e3af-e1d8-4668-9211-230c245a0466	RMAZ-779	ADO-352569
If you restore a permanently deleted user with the enabled Self-Service Password Reset option, Multi-Factor Authentication methods will be displayed as not verified after restore.	RMAZ-798	ADO-352570
On Demand Recovery does not restore the conditional access policy "Baseline policy: Require MFA for admins".	RMAZ-998	ADO-359281
A tenant verification failed message appears when user adds tenant to On Demand Recovery (Core only).	N/A	ADO-264595

Hybrid only known issues

Known issue	Issue ID (Jira)	Issue ID (ADO)
Granular restore of object membership from the Differences view is not supported. Workaround: Go to the Objects view, find the group that you want to restore and select the member attribute in the attribute list to restore links.	RMAZ-252	ADO-225173
Some attributes of on-premises objects (e.g. "ipPhone", "pager", "info", "homePhone") are mapped by Azure AD connect but are not shown in the Differences view and cannot be applied to cloud-only	RMAZ-308	ADO-352539

Known issue	Issue ID (Jira)	Issue ID (ADO)
users. On Demand Recovery restores these attributes for on-premises objects only.		
Cannot download hybrid credentials with the Error 404 "Not found" may occur. This issue occurs if you try to get credentials right after the registration - it takes about one minute to create the Relay credentials.	RMAZ-311	ADO-352541
If the same on-premises object is selected in different unpacked backups on the Objects view, On Demand Recovery will perform the hybrid restore of the object on the first selected backup date.	RMAZ-355	ADO-352547
If multiple objects are selected for restore and there is Directory Synchronization Service Account among them, the restore operation will fail for all objects with the error "Failed on-premise restore. Error: Value cannot be null".	RMAZ-358	ADO-352548
Hybrid restore (from Objects or Differences view) uses attribute values from the on-premises backup. So, these values may be different from the corresponding values shown in the Differences or Objects view.	RMAZ-373	ADO-352551
Restore of the usageLocation cloud attribute does not work for the "Exchange Hybrid" scenario.	RMAZ-457	ADO-352554
A restore of a hybrid cloud user that was permanently deleted may fail, if Azure AD Connect cannot synchronize the newly created user from the on-premises Active Directory to the cloud. Workaround: Force Azure AD Connect initial synchronization to fix this issue, then restart the restore operation.	RMAZ-485	ADO-352559
If a user does not have the service account for the tenant, On Demand Recovery cannot restore permanently deleted service principals provisioned from Azure Gallery. Workarounds: <ol style="list-style-type: none"> 1. Install the corresponding application from Azure Gallery once again to re-create the service principal object. 2. Install SSL certificates for the application. 3. Configure single sign-on (SSO) options for the service principal (if any). 4. After that, On Demand Recovery will be able to apply properties from the backup. 	RMAZ-690	ADO-352565
Cannot restore cloud attributes for a permanently deleted user in hybrid scenario after the user was recreated by Azure AD Connect. The following error will arise: "Another object with the same value for property userPrincipalName already exists "	RMAZ-720	ADO-352566
On Demand Recovery cannot restore the onPremisesDistinguishedName property for permanently deleted users in hybrid scenario. In this case you will get the following error message: "Property 'onPremisesDistinguishedName' is read-only and cannot be set" error.	RMAZ-721	ADO-352567
Hybrid restore may fail with the following error: "The ChannelDispatcher at 'sb://backupaad-rmaz-hybrid-	RMAZ-907	ADO-352573

Known issue	Issue ID (Jira)	Issue ID (ADO)
us.servicebus.windows.net/org-f555beae-38fa-4d0a-b502-08c4b93b01da' with contract(s) 'HybridRestoreServiceContract' is unable to open its IChannelListener". Workaround: Restart the Recovery Manager Hybrid Connect service.		
Import-Module ADSync command may not work correctly on the Azure AD Connect host. Workarounds: <ul style="list-style-type: none"> Make sure that <i>Import-Module</i> is available globally on the Azure AD Connect host. -OR- Copy the AADSync.psm1 file manually from the Recovery Manager Portal machine to the PowerShell default folder on the Azure AD Connect host. 	RMAZ-931	ADO-352574

Quest Migration and Management Platform known issues

Known issue	Issue ID
You may see a "white screen" instead of spinning preloader when starting On Demand Recovery.	QMMP-74
The "Select all" option does not work properly in the "Select attributes" dialog that opens when you click Browse in the Restore Objects dialog. If you select the "Select all" check box, all attributes will be selected, but will not be restored.	QMMP-130
Invalid sorting of data by 'Task Name' and 'Object Name' fields in the Events view.	QMMP-142
Resizing issue: Shows gray overlay on small displays when the side bar was initially in the expanded state.	QMMP-159
Scrolling hangs if there are more than 10000 objects in a list. Workaround: Use sorting or filtering option to narrow your search scope.	QMMP-177, QMMP-182
The timelines on the Events and Backups show incorrect results if you select an interval in the timeline and then click any date range link on the left side of the screen.	QMMP-184
If you work with Internet Explorer 11, dialogs launched from the Differences and Dashboard screens may show controls from the lower layer. Workaround: Resize the browser window.	QMMP-201
Details panel on the Objects view shows tasks in a random order.	QMMP-221
On the Dashboard view, if you click on any specific status in the objects widget, you will be redirected to the Objects view with this status as a filter. Then, if you go back to Dashboard and click on the widget title (total number of objects), you will be redirected to Objects with the previous status filter.	QMMP-228

Release History

The following lists the new features and resolved issues by deployment.

Current Deployment

Release 1.5.86 (July 12, 2022)

New features

Feature	Issue ID (Jira)	Issue ID (ADO)
Enhancement to hybrid connection settings.	N/A	ADO-364499

Previous Deployments

Release 1.5.85 (June 30, 2022)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Unpacking fails for 8e205ff5-4a4a-e38d-0925-70aecc8b6ffc.	N/A	ADO-371256

Release 1.5.84 (June 07, 2022)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Lost backups monitor is not handling exceptions properly.	N/A	ADO-326952

Release 1.5.82 (May 17, 2022)

New features

Feature	Issue ID (Jira)	Issue ID (ADO)
Added option to perform differences operation during unpack.	N/A	ADO-349822
Enhanced the existing restore process to only read backup files that contain relevant data.	N/A	ADO-329253

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Saving customer credentials may fail due to changes in Azure KeyVault behavior.	N/A	ADO-328010

Release 1.5.80 (March 31, 2022)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Added fix to unpack and restore group with contacts.	N/A	ADO-346179

Release 1.5.75 (January 27, 2022)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Hybrid user restore from Recycle Bin will programmatically set user GivenName into different value.	N/A	ADO-319713

Release 1.5.72 (December 16, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Error during restore of AppRoles due to service principal object. Error was not displayed in the UI.	N/A	ADO-314295

Release 1.5.71 (November 30, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Hybrid restore: Clearing up "ReadOnly" Hybrid Object attributes for soft deleted user.	N/A	ADO-316891
Backup failures related to changes in Graph API.	N/A	ADO-320114

Release 1.5.69 (November 04, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Restore on-premises objects source and directory synced displayed incorrect information.	N/A	ADO-251281

Release 1.5.66 (September 28, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
An error displays that cannot update the default conditional access policy.	N/A	ADO-262144

Release 1.5.65 (July 20, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Hard deleted group/user did not reflect in Differences tab.	N/A	ADO-265552
Differences tab hangs when the user clicks refresh.	N/A	ADO-265263/ADO-238672

Release 1.5.63 (June 23, 2021)

New features

Feature	Issue ID (Jira)	Issue ID (ADO)
When deleting a group, all links that were affected by this action are shown in the Differences report, e.g. Azure AD group membership, SharePoint groups membership, conditional access policies, group owners, and application assignments.	N/A	ADO-351389

Release 1.5.60 (June 01, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
The backup configuration dialog does not behave properly when incorrect credentials provided.	N/A	ADO-261437

Release 1.5.59 (May 18, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Issue with running backup when no tenant selected.	N/A	ADO-258581
Policies not always restored due to caching of objects.	N/A	ADO-258490

Release 1.5.57 (May 04, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
A notification was not sent after a missed backup due to timeout of services.	N/A	ADO-255103
Hard deleted user failed to add owner to Service Principal due to insufficient privileges.	N/A	ADO-248651
Configure backup dialog was unable to open for B2C clients.	N/A	ADO-255021

Release 1.5.56 (April 29, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Restoration of a deleted user had failed.	N/A	ADO-254604
Multi-factor authentication status was incorrect when restoring multi-factor authentication settings.	N/A	ADO-234914
Service Principal restore did not reference a valid application object.	N/A	ADO-252945
Intermittent backup failures occurred for unknown reason.	N/A	ADO-257344

Release 1.5.55 (March 23, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
SharePoint user is not created during the restore operation.	N/A	ADO-251607
On Demand Recovery displays timeout error.	N/A	ADO-251978

Release 1.5.53 (March 16, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Fixed the discrepancy between data reported from the Backup tab and the Unpacked tab.	N/A	ADO-248218

Release 1.5.46 (January 25, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Failed backup event and email notification.	N/A	ADO-226221
Changes in appRoles are not shown in Differences.	N/A	ADO-226199
Differences report did not show conditional access policy change.	N/A	ADO-225252
Role assignment is not restored for single sign-on applications.	RMAZ-691	ADO-225247

Release 1.5.45 (January 12, 2021)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Difference report: The deleted conditional access policy may fail to appear.	N/A	ADO-234723
Object search functionality did not work correctly when partial criteria was entered.	N/A	ADO-234912
Linking hard deleted user to service principal owner or application owner gave insufficient permission error.	N/A	ADO-235423
Restoration of user failed due to invalid location.	N/A	ADO-225236

Release 1.5.39 (December 01, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Backup failing due to the deletion of a tenant	N/A	ADO-228850

Release 1.5.35 (November 03, 2020)

New features

Feature	Issue ID (Jira)	Issue ID (ADO)
On the Unpacked Objects tab, there is now a Mail Enabled filter. This allows you to filter by users and groups who do or do not have a mailbox.	RMAZ-1626	ADO-216080

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Changes made to appRoles attributes were not displayed in the Differences report.	RMAZ-1084	ADO-348200

Release 1.5.34 (October 05, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Made adjustments to the Application Proxy backup and restore feature to compensate for the modification that Microsoft made to an API endpoint.	RMAZ-1623	ADO-348180

Release 1.5.33 (October 01, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Second restore of hard deleted user unable to complete due to more than one user being found when matching.	RMAZ-1606	ADO-348179

Release 1.5.32 (September 24, 2020)

New features

Feature	Issue ID (Jira)	Issue ID (ADO)
From this version, On Demand Recovery restores Azure AD Application Proxy applications.	RMAZ-1335	ADO-348241
Application Proxy settings can be restored from the Differences report.	RMAZ-1435	ADO-348286

Release 1.5.31 (August 27, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
On Demand Recovery can restore/validate application role assignments that have invalid IDs.	RMAZ-1436	ADO-348287

Release 1.5.29 (August 13, 2020)

New features

Feature	Issue ID (Jira)	Issue ID (ADO)
From this version, On Demand Recovery restores gallery applications using Beta API .	RMAZ-1559	N/A

Release 1.5.26 (July 28, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
On Demand Recovery may display wrong timestamps for hybrid objects on the Events screen.	RMAZ-1482	ADO-348305

Release 1.5.25 (July 23, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
The Hybrid restore operation does not randomly restore some hybrid attributes.	RMAZ-1443	ADO-348172

Release 1.5.22 (June 30, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Backup creation can fail when getting a password from Azure Key Vault.	RMAZ-1452	ADO-348174
Hybrid recovery from encrypted backups does not work.	RMAZ-1448	ADO-348173

Release 1.5.21 (June 18, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Hybrid recovery stability has been improved.	RMAZ-1317	ADO-348157

Release 1.5.20 (June 16, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Improved stability of On Demand Recovery backups.	RMAZ-1442	ADO-348171

Release 1.5.18 (June 09, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
The ssoSettings attribute of a service principal cannot be restored for the corresponding non-gallery Application.	RMAZ-1432	ADO-348170

Release 1.5.17 (June 02, 2020)

Resolved issues

Resolved issue	Issue ID (Jira)	Issue ID (ADO)
Backup settings did not display correctly in the "Create backup" dialog due to a problem with the empty 'created' field.	RMAZ-1428	ADO-348169

Incident response management

Quest Operations and Quest Support have procedures in place to monitor the health of the system and ensure any degradation of the service is promptly identified and resolved. On Demand modules rely on Azure and AWS infrastructure and as such is subject to the possible disruption of these services.

You can view the following status pages:

- Quest On Demand: <https://status.quest-on-demand.com/>
- Azure Services: <https://azure.microsoft.com/en-ca/status/>
- AWS Services: <https://status.aws.amazon.com/>

System requirements

On Demand Recovery supports the following browsers:

- Microsoft Internet Explorer 11
- Microsoft Edge
- Google Chrome (latest version)
- Mozilla Firefox (latest version)

Product licensing

On Demand Recovery is a Software as a Service (SaaS) application where application software is hosted in the cloud and made available to users through quest-on-demand.com.

Use of this software is governed by the Software Transaction Agreement found at www.quest.com/legal/sta.aspx and the SaaS Addendum at www.quest.com/legal/saas-addendum.aspx. This software does not require an activation or license key to operate.

You can sign in to as a Guest user and sample the solutions the product can offer. As a Guest user, you can add your Azure AD tenant and look for problems that can be solved by On Demand Recovery. To sign in as a Guest user, go to quest-on-demand.com and click **Continue as Guest**.

Trial licenses are available. To enable a trial license, you must use a Quest account to sign up for On Demand Recovery. Use one of the following procedures:

- To enable a trial license with an existing Quest account
- To create a Quest account and enable a trial license

To enable a trial license with an existing Quest account

1. Go to <https://www.quest.com/on-demand/>.
2. Scroll down to the module you are interested in and click **Try Online**.
3. On the Free Trial of Recovery page, click **Sign In for your Free Trial**.
4. Fill in your Quest account credentials and click **Sign In**. The Welcome to page opens.
5. In the **Add organization name** field, enter a name for your organization.

6. In the **Select Region** field, select the region where you want your data to reside.
7. Click **Create New Organization**.

You can now add your Azure AD tenant and begin using the module. See the [On Demand Recovery User Guide](#) for more information on working with On Demand Recovery.

To create a Quest account and enable a trial license

1. Go to <https://www.quest.com/on-demand/>.
2. Scroll down to the module you are interested in and click **Try Online**.
To try online, you must create a Quest account and then sign up for On Demand Recovery.
3. Create a Quest account.
 - a. Click **Create a Trial Account**.
 - b. Fill in the fields on the Create Account page. Note that the email and password entered here will be the credentials you use to sign in to On Demand Recovery.
 - c. Click **Create Account**.
The "We've sent you an email" page opens.
4. Sign in to On Demand Recovery.
 - a. Go to your email account and open the email from support.quest.com. Click on the verification link.
The Welcome to page opens.
 - b. In the **Add organization name** field, enter a name for your organization.
 - c. In the **Select Region** field, select the region where you want your data to reside.
 - d. Click **Create New Organization**.

You can now add your Azure AD tenant and begin using the module. See the [On Demand Recovery User Guide](#) for more information on working with On Demand Recovery.

More resources

Additional information is available from the following:

- Online product documentation: [On Demand Recovery](#)
- [Quest On Demand community](#)
- [Product trials and subscriptions](#)

Third-party contributions

This product contains the third-party components listed below. For third-party license information, go to <https://quest.com/legal/license-agreements.aspx>.

List of Third-Party Contributions

Quest On Demand Recovery

Component	License or Acknowledgement
adal 1.2.4	MIT 1.0
aioitertools 0.7.0	MIT N/A
attrs 20.2.0	MIT 1.0
azure-common 1.1.25	MIT 1.0
azure-keyvault 1.0.0	MIT 1.0
azure-mgmt-authorization 0.60.0	MIT 1.0
azure-servicebus 0.21.1	MIT 1.0 Copyright (c) 2016 Microsoft
azure-storage 0.34.3	MIT 1.0 Copyright (c) 2016 Microsoft
cachetools 4.1.1	MIT N/A
chardet 3.0.4	GNU Lesser General Public License 2.1
dacite 1.6	MIT 1.0
jsrsasign 6.0.1	MIT 1.0
lxml 4.6.5	BSD 1.0
msrest 0.6.21	MIT 1.0
msrestazure 0.6.3	MIT N/A
openresty 1.11.2.5	BSD 1.0
psutil 5.7.0	BSD 1.0
pyasn1-modules 0.2.8	BSD 2-clause
pyjwt 1.7.1	MIT 1.0
pypsrp 0.5.0	MIT 1.0
pyspnego 0.1.1	MIT N/A
Python 3.8.6	Python Software Foundation License v2.2
python idna 2.10	BSD 3-clause
python3-isodate 0.6.0-1	BSD 3-clause
python-cffi 1.14.1	MIT 1.0
python-cffi 1.14.3	MIT 1.0
python-coverage 5.2.1	BSD 1.0
python-dateutil 2.8.1	python-dateutil 2.6.1
python-oauthlib 2.1.0	BSD 4.4

Component	License or Acknowledgement
python-pyasn1 0.4.8	BSD 2-clause
python-pycparser 2.20	BSD 4.4
python-requests-oauthlib 1.1.0	BSD 4.4
python-six 1.12.0	MIT 1.0
python-six 1.15.0	MIT1.0
python-urllib3 1.26.3	MIT 1.0
python-urllib3 1.26.5	MIT 1.0
pytz 2020.1	MIT1.0
PyYAML 5.3.1	MIT N/A
schema 0.6.6	MIT 1.0
Semver 2.10.2	MIT1.0
SQLAlchemy 1.3.19	MIT N/A
sqlalchemy-aio 0.16.0	MIT 1.0
typing-extensions 3.10.0.0	Python 2.0
typing-extensions 3.7.4.3	Python 2.0
yaml 1.5.1	Apache 2.0

Quest Migration and Management Platform

Component	License or Acknowledgement
Angular.js 1.3.18	MIT 1.0
aioitertools 0.7.0	MIT License Copyright (c) 2010-2014 Google, Inc. http://angularjs.org
ElasticSearch 2.x	Apache 2.0 Copyright 2009-2015 Elasticsearch https://www.elastic.co
Docker v1.6.2	Apache 2.0 https://github.com/docker/
Node.js 0.12.3	node.js Copyright Joyent, Inc. and other Node contributors. All rights reserved. Copyright Google, Inc Copyright Marc Alexander Lehmann copyright Thomas Nagy

Component	License or Acknowledgement
Python 3.5	copyright SCONS Foundation copyright Massachusetts Institute of Technology copyright Greg Hudson, Daniel Stenberg copyright OpenSSL Project copyright 2009-2010 Dominic Baggott and Ash Berli copyright Ryan Lienhart Dahl copyright The Closure Linter Authors and Google Inc. copyright 2008 Fair Oaks Labs, Inc. copyright 2011 Ben Noordhuis Copyright 1998 John E. Bossom Copyright 1999,2006 Pthreads-win32 contributors Python Software Foundation License v2.2 Copyright © 1990-2014, Python Software Foundation, 9450 SW Gemini Dr., ECM# 90772, Beaverton, OR 97008, USA. All rights reserved.

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Version 2.0, January 2004

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1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

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Version - 1.5.86