

RES ONE Workspace 2015 SR2 Release Notes

The logo for RES, consisting of the letters 'RES' in a bold, sans-serif font. The 'R' is a simple block letter. The 'E' has a horizontal bar that extends to the right and then curves back to the left, ending under the 'S'. The 'S' is a simple block letter. A small registered trademark symbol (®) is located at the bottom right of the 'S'.

9.10.2.0

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Contents

1.	What's new in RES ONE Workspace 2015 SR2	1
<hr/>		
1.1	About this Release	1
1.2	Highlighted Features	2
	Microsoft Office 2016 support	2
	Actions: New timing option 'At application end' for Execute Command	3
	RES File Hash Monitor now available	3
	Microsoft Azure RemoteApp compatibility	3
	Advanced Settings: Bypass composer setting now also supports groups	4
	Security: Ability to export Application Security log file in XML format via command line	4
	Microsoft Windows 10 compatibility	4
1.3	Important Changes	8
	Datastore: Designated account for Windows Authentication now configurable for Microsoft SQL databases	8
	Workspace Composer: Improved logon time of user sessions processing more than 25,000 file hashes	8
	Agents: Cache update improved when processing authorized files/file hashes	8
	Security: Ability to export Removable Disk Security log file in XML format via command line	9
	Agent: Enhanced reliability when connected to non-FIPS encrypted Datastore	9
1.4	Hotfix	10
	Agents: Not synchronizing when connected to a Relay Server with updates installed related to Microsoft Security Bulletin MS16-065	10
1.5	Enhancements and Improvements	11
	Authorized Files: Several improvements when processing imported files hashes ...	11
	Authorized Files: Time to import file hashes improved	11
	Citrix XenApp Publishing: Enhanced support for environments using more than 1000 published applications	11
	Console: Enhancements in Export and Copy functionalities	12
	Drivers: New drivers implemented	12
	Errors: Logging enhancement	13
	Folder Synchronization: Enhanced reliability and logging	13
	Folder Synchronization: New option 'Log event summaries'	14
	Installation: Desktop Sampler now only available as download from Success Center	14
	Microsoft App-V 5: Importing packages that do not contain shortcuts now possible	14
	User Event Log: Enhanced logging when using Instant LogOff on Citrix XenDesktop 7.x	14
	Workspace Composer: Enhanced reliability of graceful restart	15
	Workspace Composer: Improved performance of Workspace refresh by selectively applying registry tasks	15
	Workspace Composer: Logoff splash now visible when logoff is initiated from Microsoft Windows Start screen	15
	Workspace Composer: Security notifications now have 'OK' button selected by default	15
	Workspace Preferences: 'LDAP computer entry' now available on Diagnostics tab	16
1.6	Resolved Issues	17
	Applications: 'Autolaunch at session start' presented incorrect options after installing RES ONE Workspace 2015 or 2015 SR1	17

Applications: 'Run application now' could give error "This key is already associated with an element of this collection" after installing RES ONE Workspace 2015.....	17
Applications: Applications configured with time restrictions could not be started from the Console	17
Applications: Microsoft App-V application might not be imported.....	17
Authorized Files: Authorizing file could give error "Invalid procedure call or argument".....	18
Building Blocks: Importing Building Block for second time failed if for first time an incorrect password was provided	18
Building Blocks: Inconsistency in file type extension of Building Block files	18
Citrix XenApp 7.x: Session for published Microsoft Windows Explorer might be logged off immediately.....	18
Citrix XenApp 7.x: Starting published application might take a long time after installing Citrix Receiver 4.3	19
Citrix XenApp Publishing: Folder Synchronization might cause empty desktop, Workspace Composer crash at logon.....	19
Citrix XenApp Publishing: Starting published application with unsupported characters in title might give error "Application can't be started"	20
Console: Unexpected warning messages displayed in environments containing non-Windows Agents	20
Datastore: Importing connection string might not work correctly	21
Drivers: Certificates might disappear when starting Microsoft Internet Explorer ...	21
Files and Folders Security: Blocked file types might not be blocked in user sessions.....	22
Installation: Master Installer for RES ONE Workspace 2015 SR1 not installing all selected components	22
Instant Reports: Results might be grouped when 'No grouping' was selected	22
Licensing: 'Concurrent Users' tab might not be available even though concurrent licenses were claimed	23
Maintenance: "Search for non-existing users" not working correctly	23
Microsoft App-V 5: Packages created with App-V Sequencer 5.0 SP1 might give error "Application can't be started"	24
Microsoft App-V 5: RES ONE Workspace Package delivery not working when Microsoft TS RemoteApp Application Publishing was enabled.....	25
Printing Preferences: Printers from 'printers.lst' file might not be displayed	26
Published applications: Console crashed when CTRL or ALT was pressed while selecting servers.....	26
RES VDX Integration: No VDX license claimed when reconnecting to VMware View session	26
RES VDX Integration: Workspace refresh at reconnect might start delayed when using VMware View	27
User Event Log: 'Refreshing RES ONE Workspace session' entries logged without the reason	27
User Event Log: No detailed logging for Folder Synchronization after installing RES ONE Workspace 2015 SR1 Revision 2 or higher	27
User Event Log: No summary entry for Folder Synchronizations that run at interval	27
User Settings: 'View stored settings' might give error "Type mismatch"	28
Workspace Composer: Actions with access control based on language might not be executed if language was not default	28
Workspace Composer: Application might be available to all users even though no users were configured	29
Workspace Composer: Application User Settings option 'Extra process(es) to track' might not work	29
Workspace Composer: Application window might lose focus when Folder Synchronization was active	29
Workspace Composer: Cached credentials might not be updated when connection to Active Directory was restored.....	30

Workspace Composer: Computer Active Directory Group membership not available when logged on with local account	30
Workspace Composer: Configuration for Internet Explorer not applied correctly on Microsoft Windows 8.x, Server 2012(R2)	31
Workspace Composer: Configuration not applied correctly if '/appvve' was configured as a parameter	32
Workspace Composer: Configured actions for application executed even though application was blocked (hash denied)	33
Workspace Composer: Empty desktop at logon on Terminal Server after setting Workspace Composer as shell in registry.....	33
Workspace Composer: Environment variable in User Settings Cache location might not be resolved	34
Workspace Composer: Execute Command with Dynamic Privileges could not create symbolic link	34
Workspace Composer: Explorer.exe restarted repeatedly in RES ONE Workspace session of administrator	34
Workspace Composer: Folder Redirection not working correctly for Windows 10 ..	34
Workspace Composer: Folder Synchronization action on application not working when disabled on global level.....	35
Workspace Composer: Folder Synchronization still executed at interval after moving to application.....	35
Workspace Composer: Going to offline connection state could give error "Type mismatch"	35
Workspace Composer: Logging on to session could give error "Method '-' of object '-' failed"	36
Workspace Composer: Logoff might fail when application using Dynamic Privileges was open	36
Workspace Composer: Logon might be slow after upgrading to RES ONE Workspace 2015 or 2015 SR1	36
Workspace Composer: Managed application shortcuts might have blank icons after installing RES ONE Workspace 2015 Revision 7 or higher.....	36
Workspace Composer: Message "Maximum reached" for TS RemoteApp disappeared too quickly	37
Workspace Composer: Multiple applications for same executable could give error "This key is already associated with an element of this collection"	38
Workspace Composer: Multiple applications for same executable might result in one pinned shortcut in Start Menu	38
Workspace Composer: Multiple shortcuts with similar names could not be pinned if name contained period	39
Workspace Composer: Screensaver not working until Workspace refresh on Microsoft Windows 8.1 and Server 2012 R2	39
Workspace Composer: Starting Google Chrome for the first time might cause the Workspace Composer to crash	39
Workspace Composer: Starting WinSCP from taskbar resulted in Microsoft Internet Explorer starting	40
Workspace Composer: Temporary Internet Files stored by Global User Settings Tracking erroneously.....	40
Workspace Composer: Unexpected security notifications might be displayed in user sessions.....	40
Workspace Composer: User Settings might not be applied correctly if file already existed.....	41
Workspace Composer: Website Security could give error "Failed to verify signature of process '-1'"	41
Workspace Composer: Workspace refresh on Microsoft Windows 8.1, Server 2012 R2 might be slow when 'Only allow authorized file hashes' was configured	41
Workspace Composer: Zones based on Active Directory Group membership not applied in sessions with an offline connection state.....	42
Workspace Start Menu: Combination of keystrokes might give error	42
Workspace Start Menu: Might not be displayed when Windows text size was enlarged.....	42

1.7	Relay Servers: Enhancements and Improvements	43
	Relay Servers: Enhanced performance when passing transactions from one Relay Server to another	43
	Relay Servers: Improved transaction handling	43
	Relay Servers: Reduced size of Objects folder	43
1.8	Relay Servers: Resolved Issues	44
	Relay Servers: Sometimes deadlock on "tblLicenses"	44

1. What's new in RES ONE Workspace 2015 SR2

1.1 About this Release

Datastore

This table shows which Datastore revision level applies to RES ONE Workspace 2015 SR2 and in which version it was introduced:

Datastore revision level:	Introduced in:
13	RES Workspace Manager 2014 SR3

When installing this revision, if the Datastore is of a lower revision level, it will automatically be updated.

Drivers

This table shows what drivers will be updated by installing this release.

Driver	Driver update
AppGuard	Yes
ImgGuard	Yes
NetGuard	Yes
RegGuard	Yes
RESNFLT	Yes

1.2 Highlighted Features

Microsoft Office 2016 support

E-mail Settings: Microsoft Outlook 2016 supported (on page 2)

User Settings: New templates for Microsoft Office 2016 (on page 2)

E-mail Settings: Microsoft Outlook 2016 supported

Microsoft Outlook 2016 is now supported when configuring mail profiles for users for **Microsoft Exchange Server** and when configuring **Outlook Signatures**.

Please note that the Microsoft Exchange Autodiscover service needs to be used when configuring mail profiles for Microsoft Outlook 2016. To use this service, select the option **Use Autodiscover (requires Exchange 2007 or higher)**.

Mail profiles and Outlook Signatures can be configured at **Composition > Applications > E-mail Settings**.

User Settings: New templates for Microsoft Office 2016

User Settings templates provide a good starting point when configuring global User Settings or when configuring User Settings for an application.

New templates have been added for **Microsoft Office 2016**:

- Instant Messaging
 - Skype > Skype for Business 2016
- Microsoft Office
 - Microsoft Access
 - Microsoft Excel
 - Microsoft OneNote
 - Microsoft Outlook
 - Microsoft PowerPoint
 - Microsoft Publisher
 - Microsoft Word
- Microsoft Office Common
- Microsoft Office Tools

User Settings can be configured on global level at **Composition > User Settings**, on the **User Settings** tab, and on application level at **Composition > Applications**, on the **User Settings > Properties** tab of an application.

Actions: New timing option 'At application end' for Execute Command

Like **Folder Synchronization** actions, **Execute Command** actions can now be executed at **application end** as well as at application start.

The following changes have been made in the Management Console to support this functionality and make the timing of application-level actions more visible:

- Actions configured for a managed application are now listed per timing, on two new subtabs **At application start** and **At application end** (on the **Actions** tab in the **Configuration** section).
 - For **Linked Actions**:
 - a placeholder is displayed on both **At application start** and **At application end** tabs, regardless of the timing of the actions configured for the source application.
 - the **Resulting Actions** tab has been replaced by two separate tabs: **At application start** and **At application end**.
 - When configuring an **Execute Command** action at application level, there is a new setting **Run task** to set the timing at **At application start** or **At application end**.
 - To run an **Execute Command** action at application start *and* end, duplicate the action and change the timing.
 - By contrast, a single **Folder Synchronization** action can be configured to run at both application start and end.

Previously, it was possible to configure Folder Synchronization actions without specifying any timing at all. For Folder Synchronization actions configured for applications, the interface now requires at least one timing option to be selected.

RES File Hash Monitor now available

With RES ONE Workspace 2015 SR2 we also offer the RES File Hash Monitor. This companion tool to RES ONE Workspace simplifies security whitelisting if you deploy new applications via a third party tool such as Microsoft System Center or IBM BigFix, or if you deploy them manually by storing them on a file share.

RES File Hash Monitor eliminates the need to manually configure Authorized Files and file hashes in the RES ONE Workspace Console for any distributed applications, as it allows you to automatically import and update these in your RES ONE Workspace environment.

RES File Hash Monitor can be downloaded from the Success Center <https://success.ressoftware.com>.

Microsoft Azure RemoteApp compatibility

RES ONE Workspace is now compatible with Microsoft Azure RemoteApp.



Note

Configuring Microsoft Azure RemoteApps uses the same functionalities as Microsoft TS RemoteApp.

Advanced Settings: Bypass composer setting now also supports groups

The Advanced Setting **Bypass composer** has been enhanced. This setting now also supports groups. Previously only local and domain administrative accounts were supported.

This setting allows administrators to log on to a machine without starting a RES ONE Workspace session, which is useful for troubleshooting purposes.

Please note that the **Bypass composer** setting only supports nested groups within the same domain as the logged on user account.

Security: Ability to export Application Security log file in XML format via command line

It is now possible to export the Application Security log file in the interchangeable XML format via the following command line (case insensitive):

- `PWRTECH.EXE /EXPORTLOG /TYPE=APPLICATION /OUTPUT=<OUTPUT FILEPATH> /START=<START DATE> /END=<END DATE>`

Example:

```
PWRTECH.EXE /EXPORTLOG /TYPE=APPLICATION /OUTPUT=C:\LOGS\OUTPUTLOG.XML  
/START=20160101 /END=20160229
```

The value for `OUTPUT` must be specified. The values for `START` and `END` need to be set in the `YYYYMMDD` (optionally `YYYYMMDDHHMMSS`) format and are not mandatory. Data entered for `START` and `END`, and timestamps in the export file are all in UTC.

The Console user needs to have at least read permission on the **Managed Applications** node (at **Security > Applications > Managed Applications**) to export the log file successfully. If the command line is executed with insufficient access rights, the XML export file will contain no data.

Microsoft Windows 10 compatibility

RES ONE Workspace is now compatible with both x86 and x64 versions of Microsoft Windows 10, OS builds 10.0.10586 (Version 1511) and 10.0.10240. Several known limitations apply (**Microsoft Windows 10 known limitations** (on page 5)).

Changes have, among others, been implemented in Zone rules, Tile Management, Application Shortcuts, and Agent overview to achieve this.

Microsoft Windows 10 known limitations

RES ONE Workspace is compatible with Microsoft Windows 10, Version 1511, OS build 10.0.10586, with known limitations as listed below.

Microsoft Windows apps with User Settings or Network Connections Security

Microsoft Windows apps* (such as Microsoft Edge) interact with the Operating System in a new way and with changed timing. This particularly affects our User Settings and Network Connections Security features, which may not behave exactly as expected for Microsoft Windows apps. For example, Network Connections Security does not work correctly on Microsoft Explorer 11 running in **Enhanced Protected Mode**. We are fully aware of this, and are working hard to address the issues in order to provide full support as soon as possible.

* Windows apps are also referred to as Metro, Windows 8-style, Modern, Windows Store and Universal apps.

Disable Active Setup (skips first-time shell init) setting must be unchecked

Microsoft Windows 10 performs several important actions during the Active Setup. At **Composition > Applications**, on the **Settings** tab, uncheck the setting **Disable Active Setup (skips first-time shell init)** to allow these actions to be executed correctly (the setting is checked by default).

DefaultTileLayout_Windows10.xml

The Microsoft Windows 10 Tile layout is stored in an XML file:

DefaultTileLayout_Windows10.xml. When upgrading to Windows 10, Version 1511, OS build 10.0.10586, the XML from the previous Windows build (10.0.10240) can be used. However, when this XML file is created in Version 1511, OS build 10.0.10586, it is not backwards compatible with OS build 10.0.10240.

In mixed Microsoft Windows 10 environments it is, therefore, recommended to only use XML files that were created in Windows build 10.0.10240.

Please note that the name of the XML must be DefaultTileLayout_Windows10.xml.

RES ONE Workspace with Windows Shell shortcut creation set to Replace mode (Microsoft Windows 10, OS build 10.0.10586 (Version 1511))

Consider the following scenario:

- The **Windows Shell shortcut creation** is set to **Replace all unmanaged shortcuts**.
 - The option **Replace all unmanaged tiles on start screen** is selected.
- In your RES ONE Workspace environment, no tiles are configured.

In this scenario, in user sessions, the default tile layout will be used by Microsoft Windows. This is default Windows behavior.

Enabled Microsoft Group Policy "Remove and prevent access to the Shut Down, Restart, Sleep, and Hibernate commands" results in a black box in the Start Menu

If the Microsoft Group Policy "Remove and prevent access to the Shut Down, Restart, Sleep, and Hibernate commands" is enabled, on Windows 10, a black box appears in the user's Start Menu instead of the actual options. This Windows 10 behavior also occurs in RES ONE Workspace sessions when using the following Lockdown and Behavior options that make use of the same policy:

- **Disable "Shutdown" for all users on all computers**
- **Disable "Shutdown" for end users on workstations.**

RES ONE Workspace and tile management (Microsoft Windows 8.1, 2012 R2, and 10)

Consider the following scenario:

- At **Composition > Applications**, on the **Settings** tab, **Windows Shell shortcut creation** was set to **Merge with unmanaged shortcuts**.
- At **Composition > Applications**, an application, e.g. Microsoft Excel, was added.
- In the user session, the user pins the managed Microsoft Excel to the Start screen.
- In the Management Console, the administrator changes Access Control or removes the managed application completely, so that the user no longer has access to the managed Microsoft Excel.

In this scenario, when the user next logs on, Microsoft Excel is still pinned to the Start screen, but the managed application is not present. When the user clicks the tile, Microsoft Excel will start unmanaged if it is present on the user's machine, or nothing will start.

RES ONE Workspace with Windows Shell shortcut creation set to Replace mode/Merge mode

Consider the following scenarios:

- In an existing Microsoft Windows 10 environment users have pre-existing Start Screen lay-outs including pinned tiles and RES ONE Workspace is installed with **Windows Shell shortcut creation** set to **Replace mode**.
 - When switching the **Windows Shell shortcut creation mode** to **Merge** or **Do not create shortcuts**, or uninstalling RES ONE Workspace, unmanaged application tiles might not be restored.
- RES ONE Workspace is installed with **Windows Shell shortcut creation** set to **Merge** mode and in the user session, users pinned tiles to their Start Screen.
 - When switching **Windows Shell shortcut creation** to **Replace** mode, and then back to **Merge** mode again, unmanaged application tiles might not be restored.

RES ONE Workspace Folder Redirection not reflected in Microsoft Windows 10 explorer views "Quick access" and "This PC"

At **Composition > Actions By Type > Files and Folders > Folder Redirection**, when redirections are configured for one or more folders, the Microsoft Windows 10 explorer views "Quick access" and "This PC" might not use the redirected locations for these folders.

Start Menu folder structure not displayed correctly in Microsoft Windows 10

If the Start Menu in Microsoft Windows 10 contains a folder with subfolders, only the top level folder is displayed in the Start Menu. Applications from any subfolders are listed by application name as if they were in the top folder.

This Windows 10 behavior affects RES ONE Workspace sessions in the following scenario:

- At **Composition > Applications**, on the **Start Menu** tab, applications are sorted into a nested folder structure.
- A RES ONE Workspace session is running on Microsoft Windows 10.

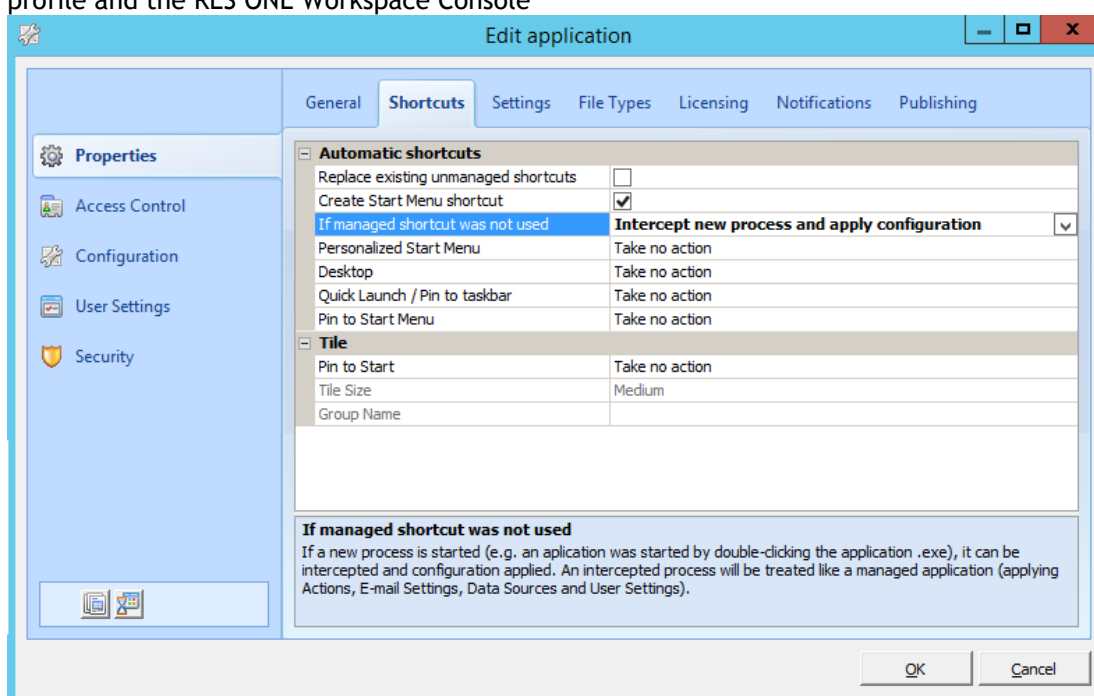
Recommendation when offering tiles for managed applications in Merge mode

If **Windows Shell shortcut creation** is set to **Merge with unmanaged shortcuts**, and you want to create a tile for a particular application on the Start Screen, please enable the application's option **Replace existing unmanaged shortcuts** (on the application's **Properties > Shortcuts** tab). Otherwise unexpected behavior can occur, such as the appearance on the Start Screen of a tile for the unmanaged version of the application, instead of a tile for the managed one.

Recommendation when starting to use RES ONE Workspace Managed Applications for users with pre-existing Microsoft Windows 10 profiles (Microsoft Windows 10, OS build 10.0.10240)

If you have an existing Microsoft Windows 10 environment in which you are going to install RES ONE Workspace with **Windows Shell shortcut creation** set to **Merge** mode, then the following configuration will preserve the pre-existing Start Screen lay-outs for users with Windows 10 profiles with pinned tiles:

- At **Composition > Applications**, on the **Settings** tab, set **Windows Shell shortcut creation** to **Merge with unmanaged shortcuts**.
- Ensure that each managed application at **Composition > Applications** is configured as follows on the **Shortcuts** tab of the application:
 - Turn off the options **Replace existing unmanaged shortcuts** and **Create Start Menu shortcut** (checkboxes empty)
 - Set the option **If managed shortcut was not used** to **Intercept new process and apply configuration** to manage all applications, also those that have a different name in the user profile and the RES ONE Workspace Console



In the user's first RES ONE Workspace session, no tiles will be added to the Start Screen for new managed applications (those that are not yet existing in the user's Windows 10 profile). From the user's second logon, tile management as defined in the RES ONE Workspace Console will be applied in all sessions.

In this scenario, if you do configure options in the **Automatic shortcuts** section differently than recommended above, then users will experience changes to the lay-out of tiles pinned to their Start Screen for unmanaged applications for which a managed equivalent also exists in the RES ONE Workspace Console, but with a different name:

- the tile sizes of these applications will all be set to medium.
- the Start Screen groups to which these applications belonged will be lost. All tiles will be put in a single, nameless, group.

RES VDX Integration

- RES VDX is not compatible with Microsoft Windows 10, OS builds 10.0.10586 (Version 1511) and 10.0.10240.

1.3 Important Changes

Datastore: Designated account for Windows Authentication now configurable for Microsoft SQL databases

As of RES ONE Workspace 2015 SR2, when using a Microsoft SQL Datastore, you can specify a designated Windows account for RES ONE Workspace Datastore access. This makes it possible for the RES ONE Workspace Console to connect to the Datastore using a designated account if the Console-user does not have Datastore access with their own Windows account. Previously, when using Windows authentication for access to the Datastore, it was necessary for the Windows user accounts of Console-users to have access permissions on the database.

As a result, after configuring a designated account for your environment, you can remove Windows user accounts of Console-users from the Active Directory groups that grant them write access to the Datastore. This increases security because users of the Console no longer need permissions on the Datastore.

The designated account can be specified for existing Datastores, and when creating a new Datastore or migrating one.

Please note that in the **Datastore Connection Wizard** the credentials of the Datastore connection are displayed. For SQL authentication, the credentials can also be changed, for Windows authentication, the credentials are grayed out.

In the Audit trail (at **Diagnostics > Audit Trail**) the changes in your environment are logged with the current user information. On your Microsoft SQL Server, the changes in the Datastore are logged with the designated account information.

Workspace Composer: Improved logon time of user sessions processing more than 25,000 file hashes

The logon time of RES ONE Workspace sessions has been improved for environments in which more than 25,000 file hashes are defined for authorized files (at **Security > Managed Applications**, on the **Settings** tab, the option **Only allow authorized file hashes** enabled). This improvement has been realized by enhancing the `pwr-cache.exe` and `pfwsmgr.exe` processes.

Agents: Cache update improved when processing authorized files/file hashes

The time needed to update the RES ONE Workspace Agent cache has been improved for situations in which the Agent is connected to a Relay Server and:

- 500 or more modified authorized files/file hashes exist in the Datastore
- or
- 20% or more of the authorized files/file hashes in the Datastore have been modified.

Security: Ability to export Removable Disk Security log file in XML format via command line

It is now possible to export the Removable Disk Security log file in the interchangeable XML format via the following command line (case insensitive):

- `PWRTECH.EXE /EXPORTLOG /TYPE=REMDISK /OUTPUT=<OUTPUT FILEPATH> /START=<START DATE> /END=<END DATE>`

Example:

```
PWRTECH.EXE /EXPORTLOG /TYPE=REMDISK /OUTPUT=C:\LOGS\OUTPUTLOG.XML  
/START=20160101 /END=20160229
```

The value for `OUTPUT` must be specified. The values for `START` and `END` need to be set in the `YYYYMMDD` (optionally `YYYYMMDDHHMMSS`) format and are not mandatory. Data entered for `START` and `END`, and timestamps in the export file are all in UTC.

The Console user needs to have at least read permission on the **Removable Disks** node (at **Security > Data > Removable Disks**) to export the log file successfully. If the command line is executed with insufficient access rights, the XML export file will contain no data.

Agent: Enhanced reliability when connected to non-FIPS encrypted Datastore

Improvements have been made to enhance reliability when connected to a non-FIPS encrypted Datastore.

1.4 Hotfix

Agents: Not synchronizing when connected to a Relay Server with updates installed related to Microsoft Security Bulletin MS16-065

After installing the Security Update for .NET Framework (3156757) mentioned in Microsoft Security Bulletin MS16-065, RES ONE Workspace Agents no longer synchronized with RES ONE Workspace Relay Servers. This has been resolved.

At the time of writing, the following Microsoft updates were known to be related to Security Bulletin MS16-065:

KB3142023, KB3142024, KB3142025, KB3142026, KB3142030, KB3142032, KB3142033, KB3142035, KB3142036, KB3142037, KB3156387, KB3156421



Note

On machines running Microsoft Windows 10, the issue could also occur after installing KB3147458 or KB3147461.

1.5 Enhancements and Improvements

Authorized Files: Several improvements when processing imported files hashes

Several improvements have been made to the processing of imported files hashes into the RES ONE Workspace Console using the command line option `Pwrtech.exe /importhashes=<file> /createifnotexists:`

- With CTRL+C, the import of file hashes can be interrupted. In the command box a message will be displayed with the number of files that have been imported until the interrupt.
- When using a command box, processing messages and errors are now displayed. An example of a processing message is how many files hashes were imported. And an error can be, for instance, that the import was not successful.
- In case an error occurs during the import of file hashes, the error level is included with the error. The following errors could be returned:

Error level	Description
0	The import of file hashes was completed successfully.
2	File could not be opened. For instance incorrect syntax or nonexistent file name.
3	The import of file hashes was interrupted with CTRL+C.
4	General failure to process the imported file. For instance, the database could not be reached.
Error level in case the file could be opened, but the file contents are incorrect	Description
401	Incorrect file hash.
402	Incorrect value for "Type" (allow or deny) for a file hash.
403	Unknown Workspace for a file hash. Only Workspaces that exist in the RES ONE Workspace Console can be specified in the file.

Authorized Files: Time to import file hashes improved

The time it takes to import files hashes into the RES ONE Workspace Console has been improved.


File hashes can be imported via the RES ONE Workspace Console (at **Security -> Authorized Files** choose the option **Import file hashes** from the context menu) or by using the command line option `Pwrtech.exe /importhashes=<file> /createifnotexists.`

Citrix XenApp Publishing: Enhanced support for environments using more than 1000 published applications

RES ONE Workspace now has enhanced support for environments using more than 1000 Citrix XenApp published applications.

Console: Enhancements in Export and Copy functionalities

In the Management Console at **Administration > Agents**, on the **Agents** tab, the **Export to file** option has been added. With this new option, data from this tab can be exported to a CSV file for external processing. When compared to **Copy info**, the option **Export to file** can handle larger amounts of data.

Export to file can be found in the context menu and as button  in the Command bar.

Additionally, at **Security > Applications > Websites**, on the **Log** tab, the **Export to file** button has been moved to the Command bar.

With the introduction of **Export to file** on the **Agents** tab, the option **Copy info** has been removed.

Drivers: New drivers implemented

To support Microsoft Windows 10, the **NetGuard** driver has been updated. For other improvements, for instance related to **Website Security**, the **RegGuard** and **RESNFLT** drivers have been updated.

Also, for versioning and dual-signing purposes, RES ONE Workspace 2015 SR2 also contains new versions of the AppGuard and ImgGuard drivers.



Note

A system reboot is required to activate the new AppGuard, ImgGuard, NetGuard, RegGuard, and RESNFLT drivers.

Errors: Logging enhancement

The logging of errors caused by a malfunction of a machine on which RES ONE Workspace is running, or by a RES component (e.g. `pfwsmgr.exe`, `pwrgrid.exe`) has been enhanced.

Now, if a certain error is logged 60 times or more within an hour, logging of the individual occurrences of the error is suspended. The following entry is logged in the common error log at **Diagnostics > Errors**:

```
"Start summarizing error <error number> as it was logged 60 times since <time of first occurrence>"
```

As long as the error keeps occurring 60 times or more within an hour, the following entry is logged in the common error log once per hour:

```
"Summary of error <error number>: logged <amount> times since <time summarizing started or time of previous summary>"
```

When the frequency of the error drops below 60 times per hour, the following entry is logged in the common error log:

```
"Stop summarizing error <error number> as it was logged only <amount> times since <time summarizing started or time of previous summary>"
```

Logging individual occurrences for that error is then resumed.

The summarizing mechanism is in place as long as the RES Service is running.

When the RES Service is stopped and one or more errors are being summarized, the following entry is logged in the common error log for each of these errors:

```
"Closed summary of error <error number>: logged <amount> times since <time summarizing started or time of previous summary>"
```

Folder Synchronization: Enhanced reliability and logging

Enhancements have been made to improve reliability of Folder Synchronization. Additionally, logging for synchronization tasks has been improved to better reflect the actual progress.

Folder Synchronization: New option 'Log event summaries'

RES ONE Workspace now offers the possibility to **Log event summaries** for Folder Synchronization. When selected, only one entry is written to the **User Event Log** per Synchronization. This entry contains the numbers of created, deleted, renamed and updated items, and the time it took for the Synchronization to complete. This new option can be useful to reduce log size and CPU usage, for example when using Folder Synchronization for locations that contain up to thousands of files.

The option to **Log event summaries** can be configured at **Composition > Actions By Type > Files and Folders > Folder Synchronization**, on the **Settings** tab. Apart from this global setting, logging can be configured for individual Folder Synchronizations, with three options:

- **Default** (follows global setting)
- **Log event details**
- **Log event summaries**

The individual setting can be configured on the **Properties** tab of Folder Synchronizations on both global level and on application level.

Installation: Desktop Sampler now only available as download from Success Center

The RES ONE Workspace Desktop Sampler installation file (MSI) is now only available as download from <https://success.ressoftware.com>. Previously, the Desktop Sampler was also included in RES ONE Workspace installers.

Microsoft App-V 5: Importing packages that do not contain shortcuts now possible

RES ONE Workspace can now **Import** Microsoft App-V 5 packages that do not contain shortcuts. Previously, applications for these packages could only be created using **New Application** or **New Application (using Wizard)**.

User Event Log: Enhanced logging when using Instant LogOff on Citrix XenDesktop 7.x

Logging for **Instant LogOff** has been enhanced to better reflect the configuration that is applied.

When **Instant LogOff** is enabled, the following entry will now be added to the **User Event Log** (below "Instant LogOff"):

```
"Disconnect user session when log off is initiated - <configured settings>"
```

When a user connects to a RES ONE Workspace session running on a Citrix XenDesktop 7.x published desktop using ICA, this new entry will be followed by:

```
"(but configured disconnect behavior is not supported on this platform version)"
```

Instant LogOff can be configured at **Administration > Performance > Instant LogOff**, on the **Settings** tab.

The **User Event Log** can be found at **Diagnostics > User Sessions** or at **Diagnostics > Workspace Analysis**.

Workspace Composer: Enhanced reliability of graceful restart

Reliability of the `pwrgate.exe -55` command has been improved.

This command can be used to initiate a graceful restart of a machine from within a RES ONE Workspace session, performing all logoff actions.

Workspace Composer: Improved performance of Workspace refresh by selectively applying registry tasks

The performance of the Workspace refresh has been improved. When a registry task is configured with access control based on language, it will only be applied during a Workspace refresh if the session-language has changed.

Previously, these tasks would be applied during every Workspace refresh.



Note

For details on how to set up registry tasks and access control based on language, please refer to the RES ONE Workspace Help.

Workspace Composer: Logoff splash now visible when logoff is initiated from Microsoft Windows Start screen

When a logoff is initiated from the Microsoft Windows 8 or Server 2012 (R2) Start screen, RES ONE Workspace now switches to the desktop to make the logoff splash visible.

Before, the session stayed on the Start screen, causing the logoff splash to be hidden.

Workspace Composer: Security notifications now have 'OK' button selected by default

RES ONE Workspace security notifications that are displayed in user sessions now have the **OK** button selected by default. Pressing ENTER will close the notification window.

Before, the option **Do not show this message again** was selected by default, which would be enabled if the user pressed ENTER. If the user then clicked **OK**, he (possibly) unintentionally prevented future notifications to be displayed.

Security notifications can be displayed for most RES ONE Workspace security features, such as **Managed Application Security** and **Removable Disks Security**.

Workspace Preferences: 'LDAP computer entry' now available on Diagnostics tab

In the **Workspace Preferences** tool, on the **Diagnostics** tab, the **LDAP computer entry** section has been added. This section contains the OU (Organizational Unit) and DC (Domain Component) information of the machine the session is running on. This information can be useful for troubleshooting.

The section displays the LDAP information, newly retrieved or cached, that was used at logon or refresh.

When cached information was used, for example because of an offline connection state, a **Cached** tag is shown. Clicking this tag will open a window with the date and time the information was cached.

The **Workspace Preferences** tool is available in user sessions, from the RES ONE Workspace Settings folder in the Start Menu.


1.6 Resolved Issues

Applications: 'Autolaunch at session start' presented incorrect options after installing RES ONE Workspace 2015 or 2015 SR1

After installing RES ONE Workspace 2015 or 2015 SR1, the option **Autolaunch at session start** (at **Composition > Applications**, on the **Properties > Settings** tab of an application) presented the incorrect options **Set voluntary shortcut** and **Set mandatory shortcut**. This has been resolved. Now, the options have been reverted to their correct descriptions **Voluntary** and **Mandatory**.

Applications: 'Run application now' could give error "This key is already associated with an element of this collection" after installing RES ONE Workspace 2015

Consider the following scenario:

- A user with the Administrative Role 'Technical Manager' (or another Administrative Role that granted access to **Composition > Applications**), logged on to a RES ONE Workspace session on a computer with RES ONE Workspace 2015 installed, and opened the Management Console.
 - At **Composition > Applications**, in the **Edit application** window of an application, the user clicked the **Run application now** button .
 - The user closed the application.

In this scenario, in the user session, the following error was displayed every two to five minutes:

Process	pfwsmgr.exe
Procedure	modMain.GetRestorableUserSettings
Error #	457
Error description	This key is already associated with an element of this collection

This has been resolved.

Applications: Applications configured with time restrictions could not be started from the Console

Consider the following scenario:

- At **Composition > Applications**, on the **Access Control > Date and Time** tab of an application, time restrictions were configured, for instance that the application was only available between noon and 2pm.
- From the RES ONE Workspace Console, the application was started at 11am.

In this scenario, the application could not be started. This has been resolved. Now, when an application is started from the Console, configured time restrictions are not applied.

Applications: Microsoft App-V application might not be imported

At **Composition > Applications**, when using **Import** (for example from the context menu) to add applications from a folder structure that contained both a Microsoft App-V application and a regular, non-App-V application, the App-V application was not imported. This has been resolved.

Authorized Files: Authorizing file could give error "Invalid procedure call or argument"

When authorizing:

- a file from the Managed Applications Log (at **Security > Applications > Managed Applications**, on the **Log** tab), or
- an incident from an application's Security Log (at **Composition > Applications**, on the **Security > Log** tab of the application),

the following error could be logged to the common Error Log (at **Diagnostics > Errors**):

Process	pwrtech.exe
Procedure	sharedSoftGrid.fstrReplaceAppVGUIDsWithStaticVariables
Error #	5
Error description	Invalid procedure call or argument

This has been resolved.

Building Blocks: Importing Building Block for second time failed if for first time an incorrect password was provided

When a Building Block was imported using an incorrect password for the Building Block, importing the Building Block for a second time with the correct password would fail for Applications and RES HyperDrive Integration. This has been resolved.

Building Blocks: Inconsistency in file type extension of Building Block files

When exporting Building Blocks from the RES ONE Workspace Console, the file type extension of the Building Block file was either 'XML' or 'xml'. This has been resolved. Now, only 'xml' will be used.

Citrix XenApp 7.x: Session for published Microsoft Windows Explorer might be logged off immediately

When a user opened a Citrix Xenapp published `explorer.exe` that was managed by RES ONE Workspace, under rare circumstances the Citrix session might be logged off immediately after logging on. This has been resolved.

Citrix XenApp 7.x: Starting published application might take a long time after installing Citrix Receiver 4.3

Consider the following scenario:

- An environment contained a Citrix XenApp 7.x server.
- In the RES ONE Workspace Console, at **Composition > Applications**, an application was configured.
 - On the **Properties > Publishing > Citrix XenApp Published Application** tab of the application, **Citrix XenApp Application Publishing** was enabled.
- A user logged on to a RES ONE Workspace session on a machine with Citrix Receiver 4.3 installed, and started the application.

In this scenario, in the user session, the application might take a long time to start or might not start at all. This was caused by the Workspace Composer waiting for the XML cache file, which contains the launch command line, to be generated by the Citrix Receiver. As of Receiver 4.3, generating the XML cache file might take longer than in previous versions. This has been resolved.

Now, in this scenario, before looking for the XML cache file, the Workspace Composer checks the following registry key:

```
HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Uninstall.
```

If the user added the application to the default screen of the Citrix Receiver, a key (<farm-name>@@<server-farm-name>.<app-friendly-name>) will have been added here, which also contains the launch command line.

If this key cannot be found, the Workspace Composer waits for the XML cache file to be generated, with an extended timeout of 300 seconds.



Note

Please refer to <http://support.citrix.com/article/CTX200337> for possibilities to shorten the time Citrix Receiver needs to generate its XML cache file.

Citrix XenApp Publishing: Folder Synchronization might cause empty desktop, Workspace Composer crash at logon

Under certain circumstances, if a Folder Synchronization was configured to **Run at Logon**, logging on to a RES ONE Workspace session running on a Citrix XenApp published desktop ended in a black, empty desktop and an Application error for the Workspace Composer (pfwsmgr.exe). This has been resolved.

Citrix XenApp Publishing: Starting published application with unsupported characters in title might give error "Application can't be started"

Consider the following scenario:

- An environment contained a Citrix XenApp 6.x server and used Citrix StoreFront.
- In the RES ONE Workspace Console, at **Composition > Applications**, an application was configured with the following settings:
 - On the **Properties > General** tab of the application, for **Title**, a name was entered that contained characters that are not supported by Citrix for published applications (for example `/\;#.?`).
 - On the **Properties > Publishing > Citrix XenApp Published Application** tab of the application, **Citrix XenApp Application Publishing** was enabled and the application was published to the Citrix XenApp 6.x server.
- A user logged on to a RES ONE Workspace session on a computer with Citrix Receiver 4.x installed and started the application.

In this scenario, in the user session, the following error message was displayed:

```
"The application can't be started"
```

This has been resolved.

Console: Unexpected warning messages displayed in environments containing non-Windows Agents

If a RES ONE Workspace environment contained non-Windows Agents (i.e. Linux and Apple Mac OS X Agents), these Agents could cause unexpected warning messages related to old versions of the RES ONE Workspace Agents to be displayed. The following actions caused such message to appear:

- Opening the Console: message about Compressed User Settings.
- At **Setup > Datastore**, splitting the Datastore: splitting was actually blocked by the incorrect identification.
- At **Setup > Datastore**, migrating the Datastore:
RES ONE Workspace Agents running version 9.4.0.1 or older must be manually switched to the new database.

This has been resolved. Now, the Agents are correctly identified and the messages only appear when they actually apply.

Datastore: Importing connection string might not work correctly

Consider the following scenarios:

- At **Setup > Datastore**, a Datastore connection was configured with Windows Authentication.
- In the **Datastore Connection Wizard**, a connection string was imported for a connection using SQL Authentication.

In this scenario, the **Login** field might not be filled with the data from the connection string.

- At **Setup > Datastore**, a Datastore connection was configured.
- In the **Datastore Connection Wizard**, a connection string was imported for a connection with identical settings as the current one.

In this scenario, the **Next** button did not become available.

Both issues have been resolved.

Drivers: Certificates might disappear when starting Microsoft Internet Explorer

Consider the following scenario:

- An environment used an Enterprise Certification Authority.
 - Root and/or intermediate certificates were used to authenticate:
 - computers in the network.
 - secure (HTTPS) connections to a website.
- In the RES ONE Workspace Console at **Composition > Applications**, Microsoft Internet Explorer was configured as a managed application.
- A user logged on to a RES ONE Workspace session on a computer that used a certificate from the Enterprise Certification Authority.
 - The user started Internet Explorer and, using HTTPS, browsed to a website that used the same certificate.

In this scenario, under very rare circumstances, the computer based enterprise root and intermediate certificates disappeared from the computer. This has been resolved by implementing a new RegGuard driver.



Note

For this issue to be resolved, a reboot is required after installing RES ONE Workspace 2015 SR2.

Files and Folders Security: Blocked file types might not be blocked in user sessions

Consider the following scenario:

- At **Security > Data > Files and Folders**, on the **Settings** tab:
 - **Files and Folders Security** was enabled.
 - In the Security events section, **Notify user about security events** was checked.
- At **Security > Data > Files and Folders**, on the **Files and Folders** tab, a **Block file type** was configured with the following settings:
 - **Type of blocked resource** was set to **File type**.
 - For **Blocked resource** `*.docx` was specified (as an example).
- A user logged on to a RES ONE Workspace session.
 - In the user session, on the user's desktop, several Microsoft Word documents with file type DOCX existed.

In this scenario, in the user session, when the user opened a DOCX file that was located on the desktop, he was permitted to view the file. This has been resolved. The user now gets, as expected, a message informing him that he is not permitted to open the file.



Note

This is an improved version of the change that was introduced in RES ONE Workspace Revision 5 (9.10.0.5) and reverted in RES ONE Workspace 2015 SR1 Revision 2 (9.10.1.2).

Installation: Master Installer for RES ONE Workspace 2015 SR1 not installing all selected components

When using the Master Installer for RES ONE Workspace 2015 SR1 (`RES-ONE-Workspace-2015-Installer-SR1.exe`) to **Select and install components**, not all selected components might be installed. This has been resolved.

Instant Reports: Results might be grouped when 'No grouping' was selected

Consider the following scenario:

- In the RES ONE Workspace Console, on the **Log** tab of, for example, **Managed Applications** (at **Security > Applications**), a Console user clicked the **More** button. Additional search options appeared.
 - For **Group by**, the user selected a value other than **No grouping**, for example **File**.
 - The user clicked **Search**.
The search results were rearranged, with **Number of incidents** and % displayed per file.
 - For **Group by**, the user now selected **No Grouping**.
 - The user clicked **Search**.
The search results were rearranged without grouping, listing every entry separately.
 - The user generated an **Instant Report**, for example by using **Action > Create Instant Report**.

In this scenario, the **Instant Report** still showed the data grouped by file. This has been resolved.

Licensing: 'Concurrent Users' tab might not be available even though concurrent licenses were claimed

Consider the following scenario:

- At **Diagnostics > User Sessions**, a session was listed that claimed a concurrent license.
- At **Setup > Licensing**, on the **Licenses** tab, no concurrent licenses were present anymore, for example because the licenses were removed from the Datastore after the session started.

In this scenario, in the Management Console at **Setup > Licensing**, the **Concurrent Users** tab was not available. This has been resolved. Now, in this scenario, the **Concurrent Users** tab will be available until all claimed concurrent licenses have been released.

Maintenance: "Search for non-existing users" not working correctly

Consider the following scenario:

- At **Administration > Maintenance**, a Console user started the **Verify SIDs for groups and users** action.
 - The results of the action contained one or more "Accountname could not be retrieved for SID <SID> for object [<object name>]" entries for Active Directory groups (SID) related to Workspace Containers (object).
- Next, the user started the **Search for non-existing users** action.

In this scenario, the results of the **Search for non-existing users** action did not contain the entries for Active Directory groups related to Workspace Containers that were returned by the **Verify SIDs for groups and users** action. This has been resolved.



Note

In the results of the **Verify SIDs for groups and users** action:

- only SIDs are listed for Active Directory groups, not the group names.
- only the RES ONE Workspace object *name* is listed, not the *type* of object.

Active Directory group names and RES ONE Workspace object types *are* listed in the results of the **Search for non-existing users** action.

Microsoft App-V 5: Packages created with App-V Sequencer 5.0 SP1 might give error "Application can't be started"

Consider the following scenario:

- A Microsoft App-V package was created using the Microsoft App-V Sequencer 5.0 Service Pack 1.
 - The App-V package was saved using the Sequencer's 'Save as' option, for example because it was a new version of the package.
- In the RES ONE Workspace Console, at **Composition > Applications**, an application was configured for the App-V package, with the following setting:
 - On the **Properties > General** tab of the application, **Package delivery mode** was set to a value other than **None**.
- A user logged on to a RES ONE Workspace session on a machine with the Microsoft App-V client installed and the App-V package not yet deployed.
 - The user started the application.

In this scenario, in the user session, the application did not start and the following error was displayed:

"Application can't be started"

This has been resolved.

Microsoft App-V 5: RES ONE Workspace Package delivery not working when Microsoft TS RemoteApp Application Publishing was enabled

Consider the following scenario:

- In the RES ONE Workspace Console:
 - At **Composition > Applications** a Microsoft App-V 5 application was configured with the following settings:
 - On the **Properties > General** tab of the application, the **Package delivery mode** was set to a value other than **None**.
 - On the **Properties > Publishing > Microsoft TS RemoteApp** tab, **Microsoft TS RemoteApp Publishing** was enabled.
 - On the **Properties > Publishing > Microsoft TS RemoteApp > Settings** tab, **Instant Passthrough** was enabled.
 - In the **Instant Passthrough settings** window, on the **Behavior** tab, the option **Do not passthrough if application is available on local computer** was selected.
 - or -
 - At **Composition > Applications** a Microsoft App-V 5 application was configured with the following settings:
 - On the **Properties > General** tab of the application, the **Package delivery mode** was set to **None**.
 - On the **Properties > Publishing > Microsoft TS RemoteApp** tab, **Microsoft TS RemoteApp Publishing** was enabled.
 - On the **Properties > Publishing > Microsoft TS RemoteApp > Settings** tab, **Instant Passthrough** was enabled.
 - In the **Instant Passthrough settings** window, on the **Behavior** tab, the option **Do not passthrough if application is available on local computer** was selected.
 - On the **Configuration > Actions** tab of the application, an Action (Execute Command or Microsoft ConfigMgr) to add and publish the App-V package was configured with the following options selected:
 - **Wait for task to finish before continuing**.
 - **Run outside App-V virtual environment** (only for Execute Command).
 - A user logged on to a RES ONE Workspace session on a computer with the Microsoft App-V 5 client installed.
 - The App-V application package was not yet available on the local computer.
 - The user started the App-V application.

In this scenario, in the user session, instead waiting for delivery the App-V application package to the local computer, the Workspace Composer would launch the published application from the Terminal Server. This has been resolved. Now, in this scenario, when a user starts the App-V application, the Workspace Composer will wait for delivery of the package by RES ONE Workspace Package delivery or by the configured Action, and start the application locally.



Note

For Microsoft App-V 5 applications that are published using Citrix XenApp Application Publishing (with an otherwise identical configuration), Microsoft ConfigMgr actions are now also taken into account as a possible way to add and publish the App-V 5 package. Before, only Execute Command actions were taken into account.

Printing Preferences: Printers from 'printers.lst' file might not be displayed

When a `printers.lst` file was used to create a custom list of printers for users to select, the printers in the file might not be displayed when users clicked **Connect** in the **Printing Preferences** tool. This has been resolved.



Note

For more information on how to configure a custom list of printers using a `printers.lst` file, please refer to the RES ONE Workspace Administration Guide.

Published applications: Console crashed when CTRL or ALT was pressed while selecting servers

At **Composition > Applications**, on the **Properties > Publishing** tab of an application, when either **Citrix XenApp Application Publishing** or **Microsoft TS RemoteApp Publishing** was enabled and the CTRL or ALT key was pressed while selecting (publishing) servers on the **Servers** tabs, the Console crashed. This has been resolved.

RES VDX Integration: No VDX license claimed when reconnecting to VMware View session

Consider the following scenario:

- On a VMware View virtual desktop, RES ONE Workspace and the RES VDX Engine were installed.
- A user logged on to a RES ONE Workspace session on the virtual desktop from a machine that did *not* have the RES VDX Plugin installed.
Because the plugin was not present, no VDX license was claimed.
 - The user disconnected from the session.
- The user reconnected to the session from a machine that *did* have the RES VDX Plugin installed.

In this scenario, in the user session, no VDX license was claimed. This has been resolved.

RES VDX Integration: Workspace refresh at reconnect might start delayed when using VMware View

Consider the following scenario:

- At **Composition > Desktop > Lockdown and Behavior**, in the **Workspace Composer** section, the option **Do not refresh Workspace when reconnecting to a session** was cleared.
- At **Setup > Integration > RES Software > RES VDX**, on the **Settings** tab, the following setting were configured:
 - **RES Virtual Desktop Extender (VDX) integration** was enabled.
 - **Enable VDX Engine** was selected.
- A user logged on to 'Computer 1', that had the following configuration:
 - The VMware View client was installed.
 - The RES VDX Plugin was not installed.
- From 'Computer 1', the user reconnected to an existing RES ONE Workspace session on a VMware View Agent, using PCoIP.

In this scenario, after reconnecting to the session, there was a delay before the Workspace refresh started. This has been resolved.

The delay was caused by the VDX Engine trying to connect to a VDX Plugin that was not there. Now, in this scenario, the Workspace refresh at reconnect will be performed *before* the VDX Engine tries to connect to the VDX Plugin. This allows for changes in the user context to be detected and applied, for example when an exception for a workspace container is configured not to start the VDX Engine.

User Event Log: 'Refreshing RES ONE Workspace session' entries logged without the reason

When two Workspace refreshes were triggered shortly after each other, the User Event Log entry for the second refresh might not state the reason for the refresh. This has been resolved.

User Event Log: No detailed logging for Folder Synchronization after installing RES ONE Workspace 2015 SR1 Revision 2 or higher

After installing RES ONE Workspace 2015 SR1 Revision 2 (9.10.1.2) or higher, Folder Synchronizations with the option **Wait for task to finish before continuing** not enabled, did not generate detailed logging in the **User Event Log**. This has been resolved.

User Event Log: No summary entry for Folder Synchronizations that run at interval


Folder Synchronizations that were configured to **Run at Interval** might not generate a summary entry (for example: `Synchronized a total of 10 create(s), 0 delete(s), 1 rename(s) and 2 update(s) in 0:00:12`) in the **User Event Log**. If **Log event summaries** was selected for **Logging** (on the **Properties** tab of the Folder Synchronization) this resulted in no logging for the Folder Synchronization in the **User Event Log**. This has been resolved.

User Settings: 'View stored settings' might give error "Type mismatch"

In **Workspace Analysis** at **Composition > User Settings**, in the **View User Setting** window of a User Setting that was configured with **Zero Profile mode: Track any...**, when a Console user clicked **View stored settings**, the following error might be displayed:

Process	pfwsmgr.exe
Procedure	frmViewActualUserPrefs.FillRegVals
Error #	13
Error description	Type mismatch

This has been resolved.

 **Note**
Workspace Analysis can be accessed in the RES ONE Workspace Console:

- at **Diagnostics > Workspace Analysis**, by double-clicking on a user in the search results.
- at **Diagnostics > User Sessions**, by double-clicking on an active session.

Workspace Composer: Actions with access control based on language might not be executed if language was not default

Consider the following scenario:

- At **User Context > Languages**, **MLS initial default language** was set to, for example, **English (United States)**.
- At **Composition > Actions By Type**, an action was configured, for example an Environment Variable.
 - On the **Access Control** tab of the Environment Variable, in the **Identity** section, a **Language** other than **English (United States)** was added, for example **Dutch (Netherlands)**.
- A user logged on to a RES ONE Workspace session and opened the **Workspace Preferences** tool.
 - On the **Options** tab of the tool, for **Language**, the user selected **Dutch (Netherlands)**, and clicked the **Apply new settings now** button.
 - The user logged off from the session.

In this scenario, when the user logged on again, the Environment Variable was not applied. This has been resolved.

Workspace Composer: Application might be available to all users even though no users were configured

Consider the following scenario:

- At **Composition > Applications**, an application was configured with the following settings on the **Access Control > Identity** tab of the application:
 - **Type** was set to **Users and groups**.
 - No users or groups were selected.
 - **All the rules must apply** was selected.

In this scenario, the application was available to all users, even though no users or groups were configured. This has been resolved.

Workspace Composer: Application User Settings option 'Extra process(es) to track' might not work

At **Composition > Applications**, on the **User Settings > Tracking** tab of an application, if **Start tracking** was set to **After application has started and is ready to be used** and a process name was entered for **Extra process(es) to track**, this process was not tracked in user sessions. This has been resolved.

Workspace Composer: Application window might lose focus when Folder Synchronization was active

Consider the following scenario:

- At **Composition > Actions By Type > Files and Folders > Folder Synchronization**, on the **Synchronizations** tab, a Folder Synchronization was configured with the following settings:
 - On the **Properties** tab of the Folder Synchronization, **Run at Interval** was configured.
 - or -
 - On the **Properties** tab of the Folder Synchronization:
 - **Run at Interval** was *not* configured.
 - **Show progress and allow cancel** was not selected
- A user logged on to a RES ONE Workspace session and opened an application.

In this scenario, in the user session, when the Folder Synchronization started, the application window lost focus. This has been resolved.

Workspace Composer: Cached credentials might not be updated when connection to Active Directory was restored

Consider the following scenario:

- At **Composition > Desktop > Lockdown and Behavior**, in the **Workspace Composer** section, the option **Do not refresh Workspace when network connectivity changes** was not enabled.
- At **Setup > Advanced Settings**, the option **Use cached user context if latency to AD is above: n ms** was enabled.
- A user logged on to a RES ONE Workspace session on a machine that already contained cached credentials, with no connection to Active Directory. RES ONE Workspace used the cached credentials to determine User Context.
 - An administrator changed, for example, the user's Group membership in Active Directory.
 - The connection to Active Directory was restored.

In this scenario, in the user session, the cached credentials were not updated with the new Group membership and the user's Workspace was not refreshed. This has been resolved.

Workspace Composer: Computer Active Directory Group membership not available when logged on with local account

Consider the following scenario:

- At **User Context > Directory Services**, a **Microsoft Active Directory** was configured as a Directory Service.
- At **User Context > Locations and Devices**, a Zone was configured with a rule based on Active Directory Group membership for group 'ABC'.
- A user logged on to a RES ONE Workspace session using a local computer account, on a computer that was a member of group 'ABC'.

In this scenario, in the user session, membership of group 'ABC' could not be determined using the local computer account and access to the Zone was denied. This has been resolved. Now, in this scenario, RES ONE Workspace will query Active Directory to determine group membership, using the credentials provided for the Active Directory in the Management Console at **User Context > Directory Services**, on the **Properties** tab of the **New/Edit Directory Service** window.



Note

The issue also occurred if, instead of a local computer account, a user logged on using an account from a domain other than used for the Zone.

Workspace Composer: Configuration for Internet Explorer not applied correctly on Microsoft Windows 8.x, Server 2012(R2)

Consider the following scenario:

- At **Composition > Applications**:
 - Microsoft Internet Explorer was configured as 'Application A', with the following settings:
 - On the **Properties > General** tab of the application, `www.res.com` was entered for **Parameters** (as an example)
 - On the **Configuration > Actions** tab of the application, actions were configured, for example a **Notification message for users who start the application**.
 - 'Application B' was configured with the following settings:
 - On the **Properties > General** tab of the application:
 - The **Command line** was identical to 'Application A'.
 - A different URL was entered for **Parameters**.
- A user logged on to a RES ONE Workspace session on a machine running Microsoft Windows 8.x, Server 2012 or Server 2012 R2.

In this scenario, in the user session, if the user started 'Application B' using the managed application shortcut, the configuration of 'Application A' might be applied. This has been resolved.

Workspace Composer: Configuration not applied correctly if '/appvve' was configured as a parameter

Consider the following scenario:

- At **Composition > Applications**:
 - Microsoft Internet Explorer (as an example) was configured as 'Application A', with the following settings:
 - On the **Properties > General** tab of the application:
 - For **Parameters**, a URL was filled in as the initial page to be opened, followed by an appvve pointer to a Microsoft App-V 5.x application bubble.
For example: `wikipedia.org /appvve:<PackageID>_<VersionID>`
 - **Intercept new process and apply configuration** was selected for **If managed shortcut was not used**.
 - Other actions were configured, for example a **Notification message for users who start the application**.
 - 'Application B' was configured with the following settings:
 - On the **Properties > General** tab of the application:
 - The **Command line** was identical to 'Application A'.
 - No **Parameters** were defined.
 - **Intercept new process and apply configuration** was selected for **If managed shortcut was not used**.
- A user logged on to a RES ONE Workspace session on a computer with the Microsoft App-V 5.x client installed.
 - The App-V application referenced by the PackageID and VersionID was available on the computer.

In this scenario, in the user session, if the user started 'Application A' using the managed application shortcut, the configuration of 'Application B' might be applied. This has been resolved.



Note

RES ONE Workspace automatically applies process interception to managed shortcuts for Microsoft Internet Explorer when using Microsoft Windows 8 or higher. Therefore, this issue could occur on these Operating Systems even when process interception was not configured for Microsoft Internet Explorer.

Workspace Composer: Configured actions for application executed even though application was blocked (hash denied)

Consider the following scenario:

- At **Security > Applications > Managed Applications**, on the **Settings** tab:
 - **Managed Application Security** was enabled.
 - In the **Additional security** section, **Only allow authorized file hashes** was selected.
- At **Composition > Applications**, an application was configured with the following settings:
 - On the **Properties > General** tab of the application, `notepad.exe` was entered for **Command line** (as an example).
 - On the **Configuration > Actions** tab of the application, one or more actions were configured.
 - On the **Security > Authorized Files** tab of the application, the file hash for a specific version of `notepad.exe` (e.g. version 'X') was configured to be denied.
- A user logged on to a RES ONE Workspace session on a machine on which version 'X' of `notepad.exe` was installed.
 - The user started the application.

In this scenario, in the user session, the application was blocked (hash denied), but the configured actions were executed. This has been resolved. Now, in this scenario, before executing configured actions for the application, RES ONE Workspace checks if the application executable must be blocked based on its file hash.



Note

Managed Application Security using file hashes can be configured to block a certain version of an executable in various ways. Please refer to the RES ONE Workspace Help for more information. For this scenario, it is only relevant that the executable was blocked based on its hash.

Workspace Composer: Empty desktop at logon on Terminal Server after setting Workspace Composer as shell in registry

On Terminal Servers users experienced an empty desktop at logon, after

`HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon\Shell` was set to `pwrstart.exe` or `pfwsmgr.exe`. This has been resolved.



Notes

- In the RES ONE Workspace Console at **Administration > Agents**, on the **Agents** tab, the value at **Run Workspace Composer** will not change when this registry setting is made.
- When uninstalling RES ONE Workspace from a Terminal Server, the registry setting will be reverted to `explorer.exe`.

Workspace Composer: Environment variable in User Settings Cache location might not be resolved

At **Composition > User Settings**, on the **Settings** tab, when a RES ONE Workspace environment variable was used in the path of the **Cache location**, this variable was not resolved and no valid cache location was available in the user session. This has been resolved.

RES ONE Workspace environment variables can be configured at **Composition > Actions By Type > Environment Variables**.

Workspace Composer: Execute Command with Dynamic Privileges could not create symbolic link

Consider the following scenario:

- An Execute Command was configured (on global level at **Composition > Actions By Type > Execute Command**, or on application level at **Composition > Applications**, on the **Configuration > Actions** tab of an application) with the following settings:
 - On the **Properties** tab of the Command:
 - `%script%` was entered for **Command line**.
 - **Run using Dynamic Privileges** was selected.
 - On the **Script** tab of the Command, `mklink` was used to create a symbolic link. For example: `mklink /d C:\Data "\\srv01\Data"`
- A user logged on to a RES ONE Workspace session.

In this scenario, in the user session, when the Command was executed, the symbolic link was not created and the following message might be displayed:

```
"You do not have sufficient privilege to perform this operation."
```

This has been resolved. Now, in this scenario, the symbolic link is created as expected.

Workspace Composer: Explorer.exe restarted repeatedly in RES ONE Workspace session of administrator

When an administrator was logged on to a RES ONE Workspace session, the `explorer.exe` processes in the session might be restarted repeatedly. This resulted in a flashing screen and/or explorer windows closing. This has been resolved. The issue was caused by a safeguard used by RES ONE Workspace to ensure that sessions stay responsive.

Workspace Composer: Folder Redirection not working correctly for Windows 10

Consider the following scenario:

- At **Composition > Actions By Type > Files and Folders > Folder Redirection**, any of the folders **Desktop**, **Documents**, **Music**, **Pictures** and **Videos** were configured to be redirected.
- A user logged on to a RES ONE Workspace session on a machine running Microsoft Windows 10 and opened the File Explorer.
 - The user expanded the Quick Access and This PC sections in the File Explorer.

In this scenario, in the user session, redirection was applied to the configured folders located under Quick Access, but *not* to the same folders under This PC. This has been resolved.

Workspace Composer: Folder Synchronization action on application not working when disabled on global level

Consider the following scenario:

- At **Composition > Applications**, an application was configured.
 - On the **Configuration > Actions** tab of the application, a **Folder Synchronization** action was configured
- At **Composition > Actions By Type > Files and Folders > Folder Synchronization**, on the **Settings** tab, **Folder Synchronization** was **Disabled**.
- A user logged on to a RES ONE Workspace session and started the application.

In this scenario, in the user session, the Folder Synchronization action was not executed. This has been resolved.

Workspace Composer: Folder Synchronization still executed at interval after moving to application

Consider the following scenario:

- At **Composition > Actions By Type > Files and Folders > Folder Synchronization**, a folder synchronization was configured to **Run at Interval** (on the **Properties** tab of the synchronization).
- Using the **Move** option from the context menu, the folder synchronization was then moved to an application.

In this scenario, in user sessions, the folder synchronization was still executed at the previously configured interval. This has been resolved. Now, in this scenario, the folder synchronization is only executed at application start and/or end.

When moving a folder synchronization, **Run at Logon** is translated to **Run at Application start**, **Run at Logoff** is translated to **Run at Application end** and vice versa. **Run at Refresh** and **Run at Interval** (only available at global level) are translated to **Run at Application start** when moving to an application.

Workspace Composer: Going to offline connection state could give error "Type mismatch"

In rare cases, when a session switched to an offline connection state, for example because of connectivity issues, the following error message was displayed repeatedly:

Process	pfwsmgr.exe
Procedure	frmTaskbar.tmrMenu.Timer
Error #	13
Error description	Type mismatch

This has been resolved.

Workspace Composer: Logging on to session could give error "Method '~' of object '~' failed"

Under rare circumstances, during the logon process of a RES ONE Workspace session, the following error was displayed:

Process	pfwsmgr.exe
Procedure	modShellLink.fysnPerformPinAction
Error #	-2144024864
Error description	Method '~' of object '~' failed

This has been resolved.

Workspace Composer: Logoff might fail when application using Dynamic Privileges was open

In a user session, when an application using Dynamic Privileges was open and the user selected the **Log off <username>** from the context menu of the Recycle Bin, the application was not closed and the following message was displayed:

```
"Workspace Composer cannot close your session because the application(s) listed below cannot be closed. Please close them manually and try again."
```

This has been resolved. Now, in this scenario, the session will log off as expected.

Workspace Composer: Logon might be slow after upgrading to RES ONE Workspace 2015 or 2015 SR1

Consider the following scenario:

- An environment was using RES Workspace Manager 2014 SR3 or earlier.
- At **User Context > Directory Services**, a **Directory Service** was configured.
 - On the **Properties** tab of the **Directory Service**, the option **Get group membership using Local tokens (faster)** was enabled.
- The environment was upgraded to RES ONE Workspace 2015 or 2015 SR1.

In this scenario, logging on to a RES ONE Workspace session might take longer than before the upgrade. This has been resolved.



Note

Starting with RES ONE Workspace 2015, the option **Get group membership using Local tokens (faster)** (which was enabled or disabled) has been changed to **Get group membership using**, where **Local tokens (faster)** is one of three possible options.

Workspace Composer: Managed application shortcuts might have blank icons after installing RES ONE Workspace 2015 Revision 7 or higher

After installing RES ONE Workspace 2015 Revision 7 (9.10.0.7) or higher, if the RES ONE Workspace registry value `LocalCachePath` was used, managed application shortcuts on Taskbar, Desktop, Start Menu and Start Screen might have blank icons. This has been resolved.

Workspace Composer: Message "Maximum reached" for TS RemoteApp disappeared too quickly

Consider the following scenario:

- At **Composition > Applications**, an application was configured with the following setting:
 - On the **Properties > Licensing** tab of the application:
 - **License type** was set to **Per concurrent user license**.
 - **# of licenses** was set to a value greater than 0.
 - On the **Properties > Publishing > Microsoft TS RemoteApp** tab of the application, **Microsoft TS RemoteApp Publishing** was enabled.
- The maximum number of concurrent users was already using the application.
- A user logged on to a RES ONE Workspace session and started the application. A "Maximum reached" message was displayed to the user, informing him that the maximum number of concurrent users for the application had been reached and who the current users were.

In this scenario, in the user session, the message disappeared too quickly. This has been resolved. Now, in this scenario, the message remains until the user clicks either the 'Retry' (if a license has become available) or 'OK' button.

Workspace Composer: Multiple applications for same executable could give error "This key is already associated with an element of this collection"

Consider the following scenario:

- At **Composition > Applications**:
 - On the **Settings** tab, **Merge with unmanaged shortcuts** was selected for **Windows Shell shortcut creation**.
 - Application 'A' was configured with the following settings:
 - On the **Properties > General** tab of the application, `C:\Windows\System32\mstsc.exe` was entered for **Command line** (as an example)
 - On the **Properties > Shortcuts** tab of the application, **Replace existing unmanaged shortcuts** was selected.
 - Application 'B' was configured with the following settings:
 - On the **Properties > General** tab of the application:
 - For **Command line**, the same filepath was entered as for application 'A'.
 - For **Parameters**, a (different) value was entered, for example `/v:Win7x64.resdemo.com`
 - On the **Properties > Shortcuts** tab of the application, **Replace existing unmanaged shortcuts** was selected.
- A user logged on to a RES ONE Workspace session that contained an unmanaged shortcut to `C:\Windows\System32\mstsc.exe`.

In this scenario, in the user session, the following error could be displayed:

Process	pfwsmgr.exe
Procedure	RetrieveMenus
Error #	457
Error description	This key is already associated with an element of this collection

This has been resolved.

Workspace Composer: Multiple applications for same executable might result in one pinned shortcut in Start Menu

Consider the following scenario:

- At **Composition > Applications**:
 - An application was configured with the following settings:
 - `C:\Windows\notepad.exe` was entered for **Command line** (as an example).
 - `C:\Temp\File1.txt` was entered for **Parameters** (as an example).
 - Another application was configured with the same command line, but with a different parameter.
- Both applications were pinned to the Start Menu, either manually by the user or by configuration in the Management Console.

In this scenario, in the user session, only one of the applications was pinned to the Start Menu. This has been resolved.

Workspace Composer: Multiple shortcuts with similar names could not be pinned if name contained period

Consider the following scenario:

- At **Composition > Applications**, an application was configured with the following settings:
 - On the **Properties > General** tab of the application, a name containing a period (.) was entered for **Title**.
For example: `Application.Mktg`
 - On the **Properties > Shortcuts** tab of the application, **Quick Launch / Pin to taskbar** was set to **Set mandatory shortcut**.
- At **Composition > Applications**, another application was configured with the following settings:
 - On the **Properties > General** tab of the application, the name that was entered for **Title** was similar to that of the first application, with only a difference in the part to the right of the period.
For example: `Application.Sales`
 - On the **Properties > Shortcuts** tab of the application, **Quick Launch / Pin to taskbar** was set also to **Set mandatory shortcut**.

In this scenario, in user sessions, the shortcut for only one of the applications was pinned to the taskbar. This has been resolved. The issue could also occur for applications configured with **Pin to Start Menu** set to **Set mandatory shortcut**. This has also been resolved.

The issues were caused by the Workspace Composer shortening the name to only the text that was to the left of the period. As a result, two applications with identical names had to be pinned to the taskbar, which Windows cannot do. Now, in this scenario, the full names will be left intact, allowing both applications to be pinned to the taskbar.

Workspace Composer: Screensaver not working until Workspace refresh on Microsoft Windows 8.1 and Server 2012 R2

After installation of RES ONE Workspace 2015 or 2015 SR1, the RES ONE Workspace **Screensaver** might not work until a Workspace refresh was performed, on machines running Microsoft Windows 8.1 and Server 2012 R2. This has been resolved.

The **Screensaver** can be configured at **Composition > Desktop > Screensaver**.

Workspace Composer: Starting Google Chrome for the first time might cause the Workspace Composer to crash

When a user logged on to a RES ONE Workspace session on a machine running Microsoft Windows 8, 8.1, Server 2012 or Server 2012 R2, if the user started a managed Google Chrome for the first time, the Workspace Composer might crash. This has been resolved.

Workspace Composer: Starting WinSCP from taskbar resulted in Microsoft Internet Explorer starting

Consider the following scenario:

- At **Composition > Applications**, WinSCP was configured as a managed application.
- A user logged on to a RES ONE Workspace session on a machine running Microsoft Windows 8.1 or Server 2012 R2.
 - The user started WinSCP using a managed shortcut that was pinned to the Taskbar.

In this scenario, in the user session, Microsoft Internet Explorer started instead of WinSCP. This has been resolved.

Workspace Composer: Temporary Internet Files stored by Global User Settings Tracking erroneously

Consider the following scenario:

- At **Composition > User Settings**, a User Setting was configured with the following settings:
 - On the **Properties** tab of the User Setting, **Zero Profile mode** was set to **Track any changed setting within scope immediately**.
 - On the **Tracking** tab of the User Setting:
 - Locations were configured that (also) contain Temporary Internet Files.
For example:
 - **Registry to track** was set to `HKEY_CURRENT_USER`.
 - **Folder to track** was set to `%USERPROFILE%`.
 - **Process(es) to track** was set to `iexplore.exe` or `MicrosoftEdge.exe`.
- A user logged on to a RES ONE Workspace session and visited some websites.

In this scenario, the default locations for Temporary Internet Files were not excluded from User Settings Tracking and were therefore stored in the User Setting. This has been resolved.

Workspace Composer: Unexpected security notifications might be displayed in user sessions

After upgrading to RES ONE Workspace 2015 SR1 or higher, unexpected security notifications might be displayed in user sessions when starting files that were located on the desktop. This has been resolved.

The option **Notify users about security events** can be enabled at **Security > Data > Files and Folders**, on the **Settings** tab.

Workspace Composer: User Settings might not be applied correctly if file already existed

Consider the following scenario:

- A User Setting was configured on global level (at **Composition > User Settings**, on the **User Settings** tab) or on application level (at **Composition > Applications**, on the **User Settings** tabs of an application) with the following settings:
 - On the **Properties** tab of the User Setting, **Zero Profile mode** was set to **Capture targeted items....**
 - On the **Capturing** tab of the User Setting, a **File, Folder or Folder tree** was configured as a **Targeted item to capture**.
For example: `%DESKTOP%\File.txt`
- A user had `File.txt` stored in a User Setting from a previous RES ONE Workspace session.
- The user logged on to a RES ONE Workspace session on a machine that contained another version of `File.txt` in the target location.

In this scenario, in the user session, after applying the User Setting, `File.txt` might contain incorrect data. This has been resolved.

Workspace Composer: Website Security could give error "Failed to verify signature of process '-1'"

Under rare circumstances, if Website Security was enabled, the following error might appear in the Microsoft Windows Event Log:

```
"Failed to verify signature of process '-1'"
```

This has been resolved.

Workspace Composer: Workspace refresh on Microsoft Windows 8.1, Server 2012 R2 might be slow when 'Only allow authorized file hashes' was configured

Consider the following scenario:

- At **Security > Applications > Managed Applications**, on the **Settings** tab:
 - **Managed Application Security** was set to **Learning or Enabled**.
 - **Only allow authorized file hashes** was selected.
- A user logged on to a RES ONE Workspace session on a machine running Microsoft Windows 8.1 or Server 2012 R2, and performed a Workspace refresh.

In this scenario, in the user session, the Workspace refresh might be slow. This has been resolved.

Workspace Composer: Zones based on Active Directory Group membership not applied in sessions with an offline connection state

Consider the following scenario:

- At **User Context > Locations and Devices**, a Zone was configured with a rule based on Active Directory Group membership.
- A user that was a member of the Active Directory Group, logged on to a RES ONE Workspace session.

In this scenario, when the user session was in an offline connection state, the zone was not applied. This was because the Active Directory Group membership data was not saved to the cached credentials. This has been resolved.

 **Note**
In order for this fix to work, after upgrading to RES ONE Workspace 2015 SR2, users must log on to a RES ONE Workspace session at least once while being able to connect to Active Directory.

Workspace Start Menu: Combination of keystrokes might give error

Consider the following scenario:

- At **Composition > Applications**, on the **Settings** tab, **Windows Shell shortcut creation** was set to **Merge with unmanaged shortcuts**.
- At **Composition > Desktop > Lockdown and Behavior**, in the **Microsoft Windows Shell** section, **Enable Windows 8.1 Start Menu (Windows 8.1/2012 R2)** was selected.
- A user logged on to a RES ONE Workspace session on a machine running Microsoft Windows 8.1 or Server 2012 R2.
 - The user pressed the Windows key to open the **Workspace Start Menu**.
 - The user pressed the DOWN arrow, and then pressed the ESC key twice.

In this scenario, in the user session, an "Unhandled exception" error might occur. This has been resolved.

Workspace Start Menu: Might not be displayed when Windows text size was enlarged

Consider the following scenario:

- At **Composition > Desktop > Lockdown and Behavior** the option **Enable Windows 8.1 Start Menu (Windows 8.1 / 2012 R2)** was selected.
- A user logged on to a RES ONE Workspace session on a computer that was running Microsoft Windows 8.1 or Server 2012 R2.
 - The display size of text and other items had been enlarged using the Windows option "Make text and other items larger or smaller".

In this scenario, in the user session, The Windows 8.1 Start Menu might not be displayed. This has been resolved.

1.7 Relay Servers: Enhancements and Improvements

Relay Servers: Enhanced performance when passing transactions from one Relay Server to another

The performance of the Relay Server has been enhanced. These enhancements were realized by making the throughput of transactions more efficient, especially when passing a transaction from one Relay Server to the next Relay Server. Also, the disk space that is used for these transactions was reduced.

Relay Servers: Improved transaction handling

In an environment with cascaded Relay Servers where more than 50,000 transactions exist in the queue of one of the Relay Servers, the Relay Server will now no longer accept new transactions from a RES ONE Workspace Agent or another Relay Server until the queue has been reduced. Previously, it might happen that files in the Temporary folder were not cleaned up correctly, and refused transactions might not be retried again by an Agent or another Relay Server.



Note

For this enhancement to work correctly, Relay Server 2015 SR2 or higher and RES ONE Workspace 2015 SR2 or higher must be installed.

Relay Servers: Reduced size of Objects folder

The size of a file to store object files in the Relay Server Objects folder has been reduced by 13%. This reduces the disk space that is needed to hold cache stages, and the number of disk I/O operations.



Note

For this enhancement to work correctly, Relay Server 2015 SR2 or higher must be installed.

1.8 Relay Servers: Resolved Issues

Relay Servers: Sometimes deadlock on "tblLicenses"

Under certain circumstances, a deadlock could occur on the Relay Server on `tblLicenses` (`RES.WorkspaceManager.DataAccess.LicenseDataAccess.TryGetUserCount`). This has been resolved.



Note

For this resolved issue to work correctly, Relay Server 2015 SR2 or higher must be installed.