

Qlik Sense April 2020 Patch 14

Release notes

Published: March 10, 2021

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The following release notes cover the versions of Qlik Sense Enterprise on Windows released in April 2020. Solved issues and limitations for Qlik Sense Enterprise on Cloud Services are also listed.

What's new in Sense April 2020

Please refer to the What's new sections of the online help for information about the new and updated features of the Qlik Sense Enterprise on Windows April 2020 release:

[What's new in Qlik Sense April 2020](#)

[What's new in Qlik Sense April 2020 \(Developers\)](#)

April 2020 Patch 1

Security filter result caching available for Extension resource

Results of rule engine's evaluation of security rules using Extension as resource filter are now cached. This cache exists in Qlik Sense Repository Service's memory. Using this cache avoids using the rule engine and will result in performance benefits when repeatedly accessing above resource.

This improvement is available in all patches listed below. It is disabled by default. If you wish to enable it, do the following:

1. Open the Repository.exe.config, which by default is located in: "C:\Program Files\Qlik\Sense\Repository".
2. Add the `<add key="UseSecurityCacheForExtensions" value="true" />` string in the `<appSettings>` section.
3. Restart Qlik Sense Repository Service.
4. Repeat these actions on each node of the cluster running the Qlik Sense Repository Service.

Available in the following and later patches for Qlik Sense (when released):

- Qlik Sense September 2019 Patch 10
- Qlik Sense November 2019 Patch 10
- Qlik Sense February 2020 Patch 3
- Qlik Sense April 2020 Patch 1

For the upgrade notes, refer to the "Upgrade notes" section in this document.

This document covers the following releases:

Qlik Sense April 2020

Release: April 14, 2020

Qlik Sense April 2020 Patch 1

Release: May 6, 2020

Qlik Sense April 2020 Patch 2

Release: May 20, 2020

Qlik Sense April 2020 Patch 3

Release: June 3, 2020

Qlik Sense April 2020 Patch 4

Release: July 1, 2020

Qlik Sense April 2020 Patch 5

Release: July 13, 2020

Qlik Sense April 2020 Patch 6

Release: August 26, 2020

Qlik Sense April 2020 Patch 7

Release: September 23, 2020

Qlik Sense April 2020 Patch 8

Release: October 7, 2020

Qlik Sense April 2020 Patch 9

Release: October 21, 2020

Qlik Sense April 2020 Patch 10

Release: November 4, 2020

Qlik Sense April 2020 Patch 11

Release: December 3, 2020

Qlik Sense April 2020 Patch 12

Release: December 16, 2020

Qlik Sense April 2020 Patch 13

Release: January 27, 2021

Qlik Sense April 2020 Patch 14

Release: March 10, 2021

Resolved issues

Qlik Sense April 2020 comes with fixes for the issues described below.

April 2020 Patch 14

Data Model Viewer sometimes opens instead of Data Load Editor

Jira issue ID: QB-2904

Description: In some cases, clicking the navigation menu to open the Data Load Editor would instead navigate to the Data Model Viewer.

Geo data contained invalid values and we got error while parsing it

Jira issue ID: QB-2431

Description: Geo data contained invalid values and we got error while parsing it.

April 2020 Patch 13

Filterpane objects inside container not displayed correctly

Jira issue ID: QB-2993

Description: Having multiple filterpane objects inside a container might cause that some of those objects are not visible or partially visible in the container object.

Virtual proxy with Underscore in name cause image URL issues

Jira issue ID: QB-2660

Description: Fix problems with images in text and image object when the virtual proxy path contains underscore

Two-dimensional line chart incorrectly showing gaps in lines

Jira issue ID: QB-2343

Description: Fix for an issue where a two-dimensional line chart with "Missing values" set to either "Show as gaps" or "Show as zeroes" in certain cases incorrectly showed gaps where data points existed

Fixes issue with NPrinting export of some specific charts

Jira issue ID: QB-1448

Description: An issue could occur when using NPrinting to export some specific charts that had been converted from a table.

April 2020 Patch 12

Unable to create SessionApps with SessionApp custom rules

Jira issue ID: QB-3069

Description: Fixing a problem where Engine never sent SessionApp meta data to Repository for rule evaluation.

No word wrap in chart descriptions

Jira issue ID: QB-2151

Description: The descriptive text does not wrap in the asset panel preview, which causes scrollbars to appear.

April 2020 Patch 11

Pie charts have incorrect colors when exported

Jira issue ID: QB-2560

Description: Pie charts sometimes have incorrect colors when exported. This may happen if the app is set to use the Sense Classic theme.

Modified dates not consistent with Qlik NPrinting reports published to the Qlik Sense Hub

Jira issue ID: QB-3037

Description: When selecting a report in the hub, there was no guarantee that the latest version is used.

Measure axis

Jira issue ID: QB-2400

Description: Handle 'NaN' value in explicit min and max values.

Odp numbers being output to Excel as 14dp

Jira issue ID: QB-2322

Description: Fixed a special case where REAL numbers with 0 decimals resulted in excel export with 14 decimal number.

April 2020 Patch 10

Open App could cause Engine to crash

Jira issue ID: QB-2614

Description: Precondition: App with Section Access and Single selection

When opening an app at the same time as another user, an exception is triggered for the app. This would cause Windows to kill Engine process.

Fix dots of tooltip on color row

Jira issue ID: QB-2290

Description: In this Jira ticket, the visual bug of the text of the tooltip that sometimes is cut off has been fixed.

Coloring by measure a chart inside a container is ignored or turns it gray.

Jira issue ID: QB-2170

Description: Coloring by measure a chart inside a container is ignored or turns it gray.

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ODAG fail to regenerate app

Jira issue ID: QB-2501

Description: When pressing "Regenerate using current selection" or "Regenerate copy using current selection" on a generated ODAG app, an error is in some cases reported and no app is generated. This happens only if the user is not the owner of the link. This case is now handled and no error is generated.

Configure log level in Capability Service

Jira issue ID: QB-1031

Description: The logging level in the Capability Service in Qlik Sense Enterprise can now be configured in the services.conf file with a --log-level parameter.

The parameter can be one of [info(default) | warning | error | off]

Example: --log-level error

Undo visualization properties can make property panel unresponsive

Jira issue ID: QB-860

Description: In some odd scenarios undoing a property change made the property panel unresponsive.

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Qvd async write improvement causing reloads to fail due to the QVD being locked

Jira issue ID: QB-2367

Description: QVD asynchronous writing will be disabled by default. This is to prevent QVD files to get locked. This change may impact performance with QVD store.

To re-enable this feature, add "EnableQvdAsyncWrite=1" to settings.ini file (see Qlik Knowledge base: <https://tinyurl.com/y3n4me6x>)

The decision on enabling this feature in the future is dependent on compiler upgrade and can only be done in future releases as compiler related issues cannot be back ported to patch versions.

Unable to rearrange variable extension dropdown values

Jira issue ID: QB-1821

Description: The variable extension allows for specified values in a drop down, that are then set to the variable when used. The value list should support rearranging these values but a different fix caused that to stop working.

April 2020 Patch 7

Overlapping text in wordcloud extension

Jira issue ID: QB-2133

Description: Issue was due to a bad font being used in certain cases. Should now be more consistent.

Save operation can fail to update App

Jira issue ID: QB-2107

Description: When another process interacted with file locking the save operation could fail. This could happen after reload, resulting in stale data.

Qlik Sense Repository API with filter returns error 400 Bad request

Jira issue ID: QB-1995

Description: Qlik Sense Repository API with filter was returning 400 Bad Request error. This issue is fixed now.

Text and Image

Jira issue ID: QB-1353

Description: Add sanity check on switching context for text and image object.

April 2020 Patch 6

Data handling

Jira issue ID: QB-2031

Description: Fix line chart issue when there is no data point.

Publish & Replace not working when duplicated meta data exists in the Repository DB

Jira ID: QB-1961

Description: Improved handling of duplicated data in the Engine. Will also remove duplicated meta data against the Repository when a Replace operation is triggered (Publish&Replace or Import&Replace). Engine System logs will log out for each object that is removed.

To disable duplicate clean up part of the fix:
Add the following line in settings.ini file: RemoveDuplicateAppObjects=0

Alternative dimensions and measures

Jira issue ID: QB-1773

Description: Restore alternative dimensions and measures after viewing data of chart as a table.

Multi-KPI object is blinking

Jira issue ID: QB-1740

Description: Multi-KPI object starts blinking when adding a visualization to a measure.

Rate limit added for file uploads in Hub

Jira issue ID: QB-1640

Description: File uploads in Data Manager section of an app in Hub are now rate limited.

April 2020 Patch 5

Qlik Insight Bot icon is not appearing

Jira issue ID: QIBDEV-773

Qlik Insight Bot icon is not appearing in certain scenarios where 1. Qlik Sense proxy service is running on different port than 443 2. Qlik Sense multi node environment 3. custom authentication (ex. SSO, web authentication) is applied over QS authentication and QIB is not installed.

April 2020 Patch 4

Fixed dimension label visibility

Jira issue ID: QB-1059

Description: The labels above each dimension are now visible again.

Publish and replace not working as expected

Jira issue ID: QB-1284

Description: Publish replace don't work towards the QRS if there is object owner in the data stream not present in the QRS database. Object owners are not intended for use with QRS and is now removed in the import step, also for import replace.

Fix can't switch to alternative dimensions when has a drill-down dimension

Jira issue ID: QB-1405

Description: When has alternative dimensions and contains drill-down dimension, can't select alternative dimension when is in drill-down dimension.

Alternative dimensions and measures

Jira issue ID: QB-1657

Description: Fixed class name conflicting for alternative dimensions and measures.

Dynamic Views failure for published app

Jira issue ID: QB-1763

Description: A dynamic views chart failed with "Refresh Error" in a published app on Windows where the user was not the owner of the template app and the template app had no attached files.

April 2020 Patch 3

Reload tasks get stuck randomly

Jira issue ID: QLIK-101023

Description: Additional logging and error handling added for cases where database communication fails during task status management.

Algorithmic improvements to object read

Jira issue ID: QB-1186

Description: Some apps with a large number of objects spent an unusual amount of time and memory during OpenApp. An improvement to object reads have been delivered to a number of releases.

Dollar-expansion of variables in certain dimension-expressions did not update with the variable

Jira issue ID: QB-1430

Description: Dimension expressions that resulted in a field-on-the-fly being setup did not correctly cause a dependency chain between the object using the field-on-the-fly and a variable used in a dollar expansion in the dimension expression.

This has been corrected, and the objects refresh when the variable changes.

The workaround of using the CalcDim() function wrapper in the dimension expression, to avoid a field-on-the-fly, is likely to be preferable, both technically and functionally.

Ensure correct KPI color with negative values and fallback value range

Jira issue ID: QB-1509

Description: Previously, negative values could result in the wrong color being shown for KPI objects. This was caused by an incorrect way of determining which segment a value belongs to when having a) negative values combined with b) a value range not yet calculated with respect to the value (resulting in a fallback value of zero, which escaped the mapping to the correct segment).

Straight table: Link representation added equal signs to empty query string parameters

Jira issue ID: QB-1519

Description: When the Straight table link representation encoded the URL of displayed links it would add an equal sign after all query string parameters, even the ones with empty values. Now it's only added if it was there in the original URL.

Oracle connections failing after upgrade to April 2020

Jira issue ID: QB-1558

Description: Oracle connections failing after upgrade to April 2020 is fixed by adding missing driver dependencies.

Engine fails to start when simple initial database calls take long to execute

Jira issue ID: QB-1597

Description: Occasionally, even very simple database operations needed during Engine startup can take time to execute, for example when the database is deployed as a cloud service. The Qlik Engine had insufficient timeout limits built into the startup sequence.

The Engine Windows service would start but then stop without logging "CNTService: The service (Engine) was started" to the Windows Event log.

Timeouts have now been increased to ensure that the intermediary Repository service is the entity enforcing timeout limits on database access.

April 2020 Patch 2

Straight table: Problem using the vertical scrollbar with touch mode on

Jira issue ID: QB-1427

Description: When trying to use the vertical scrollbar with touch mode on, the view would jump back to the top left corner of the table.

Improved performance for resolving linked master objects in OpenApp

Jira issue ID: QB-1426

Description: When resolving linked master objects in sheet objects, OpenApp exhibited poor and undue performance scaling with the number of sheets and sheet objects present in the app. This has been resolved and the proper object indices are now used in this lookup, taking practically negligible time.

Invalid field selection in URL leads to blank sheets

Jira issue ID: QB-1340

Description: Fixed a problem where adding a selection in the field to the URL led to a blank sheet if the field did not exist. An example URL that would trigger the problem: <https://my-tenant.qlikcloud.com/sense/app/a69a4e17-8793-42a9-9612-df73771bb6fb/sheet/0e66e73-a43d-435f-af17-f9b85ab240fb/state/analysis/select/Dim4/x>.

Visualization details pane not rendering new line

Jira issue ID: QB-1331

Description: New line characters were not respected in the visualization details pane anymore, making it hard to present the details in a good way.

New selection action

Jira issue ID: QB-1326

Description: A new alternative in the actions list, that uses search to make selections. Works for all type of values, but a bit slower.

Canceling reload of ODAG app sometimes removes the app

Jira issue ID: QB-1303

Description: Canceling a reload of an ODAG app should no longer remove the app.

400 Bad Request returned by the proxy service because of the URL encoding differences

Jira issue ID: QB-1116

Description: Qlik Sense Proxy service strips query parameters before caching a URL for its built in protection from a burst of simultaneous requests. During that process URL got encoded and would not be matched with the next incoming request, and 400 Bad Request error was thrown. Fix removes the URL encoding before caching it. A new alternative in the actions list, that uses search to make selections. Works for all type of values, but a bit slower.

April 2020 Patch 1

Same app open on additional engine due to /api/precedent/v1/precedents/scraper?appld=<Appld> request

Jira issue ID: QLIK-99996

Description: Opening Insight Advisor in a multinode configuration can open apps on multiple Engines, or Engines that aren't in the load balancing rules.

Space and enter key are blocked on an input field inside a container

Jira issue ID: QB-820

Description: When pressing the Space key and/or the Enter key on an input field within a container, the default action events were stopped.

Selections remain active due to additional session created

Jira issue ID: QB-502

Description: Proxy service would send REST calls to DataPrep service residing on a node other than the one app was opened on, in a round-robin fashion. This would result in a websocket connection being established by DPS on both nodes. When browser was closed, only one session was closed along. Now proxy service is looking at both X-Qlik-ServerNodeId header included in the REST call and query parameter, and if both are present, first one will take precedence when making the routing decision.

Mashups: Fixes crash when loading in IE11

Jira issue ID: QB-1244

Description: New ES2015 syntax was used in code that loaded mashups, this broke in IE11 where this syntax is not supported.

April 2020

Export to Excel after switching tab doesn't export the right data

Jira issue ID: QB-1077

Description: Change tab on a container doesn't change the cell that is active on the container. This causes that when data is exported to Excel from the new tab, it is exported the data of the tab that was first active when the sheet was loaded.

Fixed dimension label visibility

Jira issue ID: QB-1059

Description: The labels above each dimension are now visible again.

400 Bad Request returned by the proxy service because of the URL encoding differences

Jira issue ID: QB-1116

Description: Qlik Sense Proxy service strips query parameters before caching a URL for its built in protection from a burst of simultaneous requests. During that process URL got encoded and would not be matched with the next incoming request, and 400 Bad Request error was thrown. Fix removes the URL encoding before caching it.

Single and block comments on expressions could interfere to validate expressions correctly.

Jira issue ID: QB-216

Description: Single and block comments on the expression editor could cause expressions not to be verified correctly by the Engine.

Date Picker bundle extension, selection not working on Iphone

Jira issue ID: QB-244

Description: Date Picker dropdown was not visible on an iOS or Android phone.

Note: The date picker dropdown is now visible on both iOS as well as Android phones and has a scroll bar also to account for the smaller screen size.

Expression editor is not editable when opened in a new tab from the Data model viewer

Jira issue ID: QB-284

Description: The expression editor opened in a new tab from the Data model viewer would result in not loading the layout of the expression editor correctly, users won't be able to see or edit the expressions on the editor.

Fixed dimension label visibility

Jira issue ID: QB-295

Description: The labels above each dimension are now visible again.

Issues within the environment with many errors of "failed to update heartbeat"

Jira issue ID: QB-32

Description: In case "ModifiedDate" value for any of the rim nodes from "ServerNodeHeartbeats" table got corrupt, Qlik Sense Repository service would end up in a loop trying to correct it but continuously failing to do so, because the value in the database was always newer than the one stored in QSR's memory. This would result in "Failed to update heartbeat for Repository service status on node <node_name>" errors in the logs and QMC showing services as offline.

Issues with Set Analysis for AutoCalendar fields in the Expression editor

Jira issue ID: QB-325

Description: Advanced Authoring can now generate expressions for FoTF (Fields on the Fly).

WeekName and WeekYear now respect the locale parameters

Jira issue ID: QB-334

Description: The functions WeekName and WeekYear now respect the locale parameters FirstWeekDay, BrokenWeeks and ReferenceDay and take the optional inputs to overwrite those values. They reflect the behavior of the Week function for consistency.

Date Picker extension is adding 1 day to any date selected.

Jira issue ID: QB-465

Description: For timezones behind UTC, the date picker resulted in adding one day to the selected dates.

Note: The dates are now first converted to UTC and then compared so that we do not get any unexpected results due to different formats. And this works correctly for all time zones.

P&L Pivot extension is mixing values when using two or more columns

Jira issue ID: QB-493

Description: The data values were displayed in wrong columns whenever the data set had missing values.

Note: The fix calculates the values of cells based on header, it shall be placed in, so the values show up in correct order.

Selections remain active due to additional session created

Jira issue ID: QB-502

Description: Proxy service would send REST calls to DataPrep service residing on a node other than the one app was opened on, in a round-robin fashion. This would result in a web socket connection being established by DPS on both nodes. When browser was closed, only one session was closed along. Now proxy service is looking at both X-Qlik-ServerNodeid header included in the REST call and query parameter, and if both are present, first one will take precedence when making the routing decision.

Weak ciphers are still found on port 9200

Jira issue ID: QB-504

Description: The licenses.exe service has the cipher suites TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA and TLS_RSA_WITH_3DES_EDE_CBC_SHA in the preferred list for compatibility reasons. See documentation on how to customize the preferred cipher suites by using the -cipher-suites command line parameter.

https://help.qlik.com/en-US/sense-admin/Subsystems/DeployAdministerQSE/Content/Sense_DeployAdminister/QSEoW/Deploy_QSEoW/LicenseServiceCipherSuite_QSEoW.htm

Published Master objects inside a container are editable by users

Jira issue ID: QB-508

Description: All Master objects inside a container, which are published into everyone stream, are editable by users duplicating the sheet where those objects are located.

Going to source from a story will not trigger selections from default bookmark

Jira issue ID: QB-515

Description: Previously, when there was a default bookmark saved and the user clicked on "Go to source" from a snapshot the default bookmark was applied. This should no longer be the case and any selections made for creating the snapshot will not be overridden.

Press Enter Key after selections are made displays View data mode

Jira issue ID: QB-541

Description: Confirm selections of a bar chart in a container using Enter Key leads to show the View data mode.

Deselect in a layer in a map having another layer using calculated dimension and calculation condition cause error

Jira issue ID: QB-543

Description: If two layers were used in a map where one layer had a calculated dimension and a calculation condition that failed (was always false) would cause an error dialog to appear stating that an error occurred with the following error message: "invalid hypercube object state".

Avoid applying default bookmark when re-attaching to a user session

Jira issue ID: QB-547

Description: When attaching to an existing user session default bookmark will no longer be applied.

Pivot table: Slowly scrolling up when using horizontal scrollbar

Jira issue ID: QB-562

Description: In certain situations when the user had scrolled all the way to the bottom of a Pivot table, scrolling using only the horizontal scrollbar would make the Pivot table slowly scroll up.

Data load error when "Always one selected value" is set to field

Jira issue ID: QB-577

Description: Fix problem with "One And Only One" field selected by a numerical search string. The saved app caused engine restart when opened from file.

Fix physical keyboard causing listbox close issue on iPad on iOS13

Jira issue ID: QB-620

Description: When connecting to a physical keyboard on iPad with iOS13 version, search listbox is forced to close if tap and type into the listbox.

Table: Manual column resizing broken in RTL-mode

Jira issue ID: QB-636

Description: When the app was set in RTL-mode the Tables manual column resizing functionality was not working. In LTR it still worked fine.

Not possible to select last value of a grouped or stacked bar chart

Jira issue ID: QB-641

Description: Fix the problem of not being able to select a value inside the last selected group or stack in a two dimensional bar chart

Not able to update Qlik DataMarket license

Jira issue ID: QB-693

Description: Incorrect set of privileges was returned by GET /qrs/license/datamarket call, which resulted in no ability to update Qlik DataMarket license.

Titles within a story cause an export to hang

Jira issue ID: QB-707

Description: Title elements are not imported correctly in recent versions of a third-party library (Aspose), their internal import format needs updating.

Mashup 404 error for csrf-token endpoint

Jira issue ID: QB-733

Description: A console.log message is now shown when the error occurs, explaining that the error is expected in non-QSEoK environments.

Pivot table: Double byte character titles gave unexpected line breaks

Jira issue ID: QB-771

Description: When placing measure titles containing double byte characters (CJK) in the left tree they would word wrap even though there was enough room to expand the column and avoid word wrapping.

Fix for context menu in mashups

Jira issue ID: QB-856

Description: The in-browser context menu can be used on mashup pages again.

Chart tries to render even if show condition is false

Jira issue ID: QB-864

Description: In box plot, distribution plot and histogram adding a calculation condition with an initial value that is not met. It did not apply correctly causing the object to calculate. But still show that calculation condition was not met.

P&L Pivot - Column separator is misaligned

Jira issue ID: QB-959

Description: Column separator between headers is not showing correctly in P&L Pivot when using two or more dimensions

Store into QVD statement creates a QVD when switching into the Data Manager without performing any reload

Jira issue ID: QLIK-97888

Description: When a user enters Data Manager a load script was created. This ensures no load script is created and gives the user the ability to run the load script if required or wanted.

Files cannot be added from Folders that are named with only numbers

Jira issue ID: QLIK-97883

Description: Files cannot be added from folders that are named only with numbers. An error message will now be displayed if someone attempts to do this.

Sankey chart: Fixed formatting of numerical abbreviation

Jira issue ID: QB-420

Description: Numerical abbreviation is corrected in Sankey chart.

MultiKPI: Fixed formatting of numerical abbreviation

Jira issue ID: QB-271

Description: Numerical abbreviation is corrected in MultiKPI object.

MultiKPI: Fixed PDF export option

Jira issue ID: QB-459

Description: Export multi KPI into PDF option is enabled/activated now.

Using condition in dimension of line graph changed number to date

Jira issue ID: QB-561

Description: Updated checking if a dimension is a time dimension.

MultiKPI: Fixed label visibility

Jira issue ID: QB-675

Description: Now the labels are shown/displayed after making a selection in Multi KPI extension.

MultiKPI: Fixed dimension label visibility offset

Jira issue ID: QB-998

Description: The dimension labels are now set/aligned properly.

MultiKPI: Selected icon size not getting updated

Jira issue ID: QB-216

Description: In Multi KPI, after selecting an icon, when the icon size was changed (to small, medium etc.), the icon size remained unaltered. This has been fixed.

P&L Pivot allows to export data to users that don't have privileges to export data

Jira issue ID: QB-262

Description: Pivot table allowed the users to export data despite switching off the permissions on QMC.

Right click on Heatmap object to export limits the result set

Jira issue ID: QB-374

Description: Right-clicking on a Heatmap object makes a selection and thus limiting the result set for export. The issue is fixed by disabling the selection in Heatmap object on right-click.

Radar chart looks blurry in multi browser

Jira issue ID: QB-437

Description: The glow effect in the Radar Chart was quite blurry and had non-consistent behavior across multiple browsers. This issue is fixed by removing the blur effect for the standard behavior of the chart view.

BAR&AREA chart goes blank on maximizing

Jira issue ID: QB-468

Description: In Bar&Area when the user tries to maximize the chart the sheet goes blank as multiple updates happen in the background at the same time. This issue has been fixed.

Known issues and limitations

The following issues and limitations were identified at release time. The list is not comprehensive; it does however list all known major issues and limitations.

Clients

- If you have an object inside the container with a show condition that evaluates to false you are not able to edit properties of this object.

Workaround:

- Option One: Make sure your show condition evaluates to true. Either by triggering an action/selection so that your show condition evaluates to true, or temporary remove the show condition. Now you can edit properties of the object inside the container.
 - Option Two: If you use master items inside the container you could edit the properties of the master item and it would propagate to the master item inside the container.
 - Option Three: Comment the expression that defines the condition, by entering two slashes in front of the equals sign, e.g. `//=Count(Customer) <= 2`
- Third-party extensions are currently not supported on mobile devices, and the Qlik Trusted Extension Developer program does not accredit extensions for use on mobile devices. Depending on individual device specifications, mobile OS, and size of the Qlik Sense app, items generated using a third-party extension might fail to be visualized properly on a mobile device.
 - Calculated dimensions is not supported by NPrinting when generating reports.
 - When consuming Qlik Sense apps using Microsoft Edge browser, touch screen mode is activated by default even when it is run on a non-touch device.
Workaround: turn 'touch screen mode' off from the navigation menu.
 - When consuming Qlik Sense apps using Microsoft Edge browser on touch/hybrid devices, the long-press action does not work. This limitation prevents from accessing functions such as an object's context menu, which on touch mode requires a long-press. This is a Microsoft Edge's issue.
Workaround: if using an hybrid device, turn the touch mode off and turn it back on again.
 - In Qlik Sense February 2019 or later, the Date Range Picker extension allows for a maximum of 10.000 date selections. In Qlik Sense November 2018, the limit was 5.000 selections. To use the new limit of 10.000 selections, you must delete any Date Range Picker created with previous releases (Sense November 2018 and relative patches) and create a new date picker object in Sense February 2019.
 - When using a wildcard with selectmatch, the selection is found but the selection is not rendered on a chart.
 - Column values swapped in a table.
 - When selecting excluded values, the associated values are also cleared.
 - Alternate states are not supported for Qlik Sense Mobile.
 - Export as Anonymous does not work for mashups deployed in a domain that is different from the domain in which Qlik Sense is installed. Export only works for Anonymous if the mashup is deployed in the same domain as Qlik Sense.
 - When changes are made to sheets in Qlik Sense Desktop, some unspecified changes are sometimes also made. Most often happens when drawing objects.
 - Cannot add a deep link to a text and image object. For example, the following link does not work:
`qliksenselink://rd-bda-deep1.rdlund.qliktech.com/windows/sense/app/28637e5c-ec17-44b2-bd52-03ecf79d7c29/sheet/4b040373-1a3b-44ca-926c-3c43d4155e33/state/analysis`
 - When using the new "Load Extension" syntax in the load script, the **Data load editor** syntax completion does not work well after the keyword "Extension" when trying to write the call to an SSE function (AAI function). Nevertheless, the script executes correctly.

- Connecting to a web page through a web file fails in **Data load editor**.
Workaround: Open Settings.ini file and change “WebFileUseWinAPI = 0” to “WebFileUseWinAPI = 1”.
- Creating and editing of On-demand app navigation links on published apps is not currently supported.
- Legend does not show dimension values that are after row number 3000.
- The Exists function now requires the field_name to be loaded before its values are evaluated with the exists function. If the field_name you are evaluating is not yet loaded, you will receive a script error. The previous behavior was that the function returned neither TRUE nor FALSE, but NULL instead, so the result was dependent on the NULL handling of the surrounding context/expressions.
Workaround: Use FieldNumber('field ') to check the existence of the field before you use the field in an Exists.
- Coloring does not work for alternative dimensions in Qlik Sense 3.1 and later. The color is grayed out.
- Color schemes on charts with multiple measures, such as bar charts, that use the Multicolored setting cannot be changed.
- Exporting a chart as an image, using a DPI setting different from the default, may result in an unexpected output.
- If using the on-screen touch keyboard within the Add Data Wizard in docked mode on a Windows Tablet, the keyboard may cover much of the screen making it impossible to edit.
Workaround: Use the keyboard in standard mode (not docked).
- Moving sheets with the mouse is not supported for hybrid devices with Internet Explorer or Edge.
- It might not be possible to scroll to the beginning or to the end in the Expression editor when using an Android tablet.
- If running Qlik Sense on a Nexus 5 phone using Google Chrome version 41, input fields will not work as expected.
Workaround: Fixed in later version, so use Google Chrome version 55.
- On iPhone, it is not possible to use the toolbar in landscape because the iOS user interface covers/hides it.
- Generation of the test script by pressing Ctrl+00 does not work in Qlik Sense Desktop environment when using Google Chrome or the Qlik Browser on hybrid devices.
Workaround: Launch Qlik Sense Desktop in Internet Explorer.
- Maps may take a long time to display if the association between the first dimension and the geographical field results in a large number of items.
- Internet Explorer supports a maximum of six web socket connections.
Workaround: See [https://msdn.microsoft.com/library/ee330736\(v=vs.85\).aspx](https://msdn.microsoft.com/library/ee330736(v=vs.85).aspx)
- If you convert an existing visualization to another type of visualization, the thumbnail in the App overview may not be updated to depict the new visualization type.
- It is not possible to upload more than one image file at a time from a device running iOS 8.
- You need to enter username and password to download an Export image/pdf on Windows phone devices
- If dimension limits (others) is set in a straight table or Pivot table, the subtotals and totals are incorrectly calculated.
- Exporting a story to PowerPoint limitations:
 - Titles are not rescaled as HTML, font settings are not yet exported.
 - Storytelling effects are not applied.
 - Exported charts may show fixed scroll bars, depending on the export resolution.
- It is not possible to pivot dimensions in a Pivot table on devices using IOS 8.4.1.
- If you select data from web files with UTF-8 decoding and non-ASCII characters in the caption, data may be garbled.
- In Data manager, date and timestamp field classification is disabled If the table is a result of concatenation of two or more tables.
- It is not possible to select values in the search box of filter panes that are set to select one and only one field value.
- It's not possible to insert breakpoints in the data load editor on an iPad, as tapping the line number activates the virtual keyboard.
- The hub doesn't work properly when using Internet Explorer 11 and IPv6.

- Due to a degrade introduced in Mozilla Firefox versions 52 and 53, those versions are not supported to use together with Qlik Sense 3.2 SR1 or later.
- Generating a new on-demand app – or reloading with new selections – may fail with "Payload too large" error if the overall number of selected values on bound fields is very large (i.e. many hundreds of distinct values).
- Opening the first application after login takes longer time in in Chrome version 78 or older.
- It is not possible to open the context menu of an orc chart on a touch device.
- Layouts saved in bookmarks will not be applied for a chart using chart suggestions
- When you choose to view data in the context menu in a Dynamic Chart and make a new selection in the app, you need to refresh the browser for the chart to be displayed again.
- OnDemand reporting extension is not supported in QCS or QSEoK

Dynamic views

- Dynamic views that are deleted from one app are also deleted from every other app that was using the same view. There is no work-around for this issue other than to avoid deleting views that may already be in use by one or more other apps as a result of having made copies of these apps.
- When creating a new dynamic view in the assets panel, if there is one or more existing dynamic views, the dropdown menu item does not automatically change to show the the charts of the newly created dynamic view. The user must click on the dropdown menu to choose the newly created view.
- The data for a dynamic view is automatically refreshed (i.e. re-queried from source) whenever a user enters a sheet containing any charts for that view. The same occurs when entering and then returning from the global selections panel as well as when adding a new chart for the same view. To prevent triggering this automatic refresh behavior, users should refrain from performing these actions on the base app.
- The view of a dynamic chart is cleared and overlaid with a message indicating a view constraint violation condition whenever the user changes the selection state of the base app such that the view's constraints are violated. Users should refrain from altering the selection state of the base app at least until they are finished making use of the data in any one of the dynamic view charts.
- The right-click "Go to source" option on a Snapshot slide for a dynamic chart does not select the actual dynamic chart when changing the view to the base app sheet.
- Chart settings changes made to dynamic view charts using the Exploration menu are lost following refresh operation of the view.

Multi-node

- Multi-node only synchronizes log files when they roll from .txt to .log files. The monitor apps will not receive the data before the log has rolled.
- You may not be able to connect to a RIM node if the usage of FIPS compliant algorithms has been enabled on that RIM node.

Globalization

- Some Operating Systems have not been updated with the new Russian currency symbol. Apps created in Qlik Sense installed on an Operating System that has the updated currency symbol will show as square or scrambled when the app is opened on an Operating System that does not have the updated currency symbol.
- When creating a web-file connection, Qlik Sense cannot decode UTF-8 tables with non-ASCII characters in the caption.
- When using Internet Explorer or Chrome, and if the App name is defined with Japanese characters, you may experience the app name on browser tab being defined with Chinese characters.

- When having PC locale as Turkish, the currency symbol for Lira might be displayed as a square in the Data Load Editor instead of the actual currency symbol.
Workaround: Set the monospace font in the browser.
- The use of Chinese, Japanese and Korean input methods in the data load editor and extension editor might not behave entirely as expected.
Workaround: Should you run into any difficulty, you can always use a desktop editor, and copy/paste into the data load editor or extension editor.

Managing a Qlik Sense site

- In a scenario with an invalid session cookie and a burst of *appcontent* requests in the hub or within the app, the rendering of app thumbnail, sheets, or stories fails until page is refreshed or the user navigates between the streams or app sections.
- If you set up your REST data connections with a regular user account and not a service account (not meaning Qlik Sense internal service accounts, but an AD/LDAP/other user directory service account), the maximum number of parallel sessions for a single user account (5) will be consumed, and the user will be locked out.
Workaround: Use a service account instead, and do not allocate any user/professional/analyzer access to that account.
- The QMC Custom Property Edit page can currently handle a limited number of custom properties. If you want to edit custom property values in the QMC, we recommend keeping the amount of custom property values to a maximum of 500. If you want to just apply values without modifying them, the QMC can handle up to 10.000 custom property values.
- The Qlik Logging Service handles communication outages with PostgreSQL by retrying three times to establish the connection and displays an error if unsuccessful. Communication outages with PostgreSQL can occur for a number of reasons and are not always recoverable in the limited time window of three tries.
- If you change the name of an unpublished app that is currently open in the Hub from the QMC or by using the QRS API, the new app name will not be visible until the Hub is refreshed and some errors may occur in the log.
- If you create your own Content library, the images imported to that library will not be visible when choosing an image for Story, App or Text & Image.
- If several apps with a large number of objects are imported at the same time, the import operations may fail due to timeout issues between the repository service and the database.
Workaround: Stop all services, change the setting of `seq_page_cost` to 2.0 in the PostgreSQL configuration file (`postgresql.conf`), and restart the services.
- If you want to use a sorting in the QMC that is different than the regional setting, you must create a new user account with the desired regional setting before installing the QMC. After installation, you cannot change sorting by changing regional setting.
- Users and groups in an environment with nested groups spread over different domains do not get synchronized.
- "Next execution" time will not be updated to show correct time if the time was altered under Date&Time on the server machine.
Workaround: If the time is changed on server machine, restart the Scheduler service.
- `nlp_parser_r` (Natural Language Processor) requires 1GB of memory. All Nodes will experience a service running which will consume approximately 1GB of memory. This is the natural language processing service which is used in the Insight Advisor to process natural language queries. This will be seen in all Windows versions of the product, namely Qlik Sense Enterprise and Qlik Sense Desktop.
- With the current architecture it is not possible, using security rule on `HubSection_*` resource, to hide "Open hub" link from the "Navigation" menu when accessing app as an anonymous user.
Workaround: Use reverse proxy configured to redirect "Open hub" link to a preferable landing site

Qlik Sense APIs

- If you add a dimension by dragging and dropping it onto the Horizontal listbox visualization extension example, or any other custom visualization extensions based on a ListObject, you may receive a *Replace invalid dimension* error message.

Workaround: Use the Add dimension button inside the visualization extension instead.

- Using the .NET SDK importApp method will not trigger any migration of the imported app. Apps imported with the importApp method will not be displayed in the hub and cannot be opened.

Workarounds:

- Migrate the app to the correct version in a Qlik Sense Desktop environment before importing it to a server installation.
- Trigger a manual migration in the QMC of the app that was imported with the .NET SDK importApp method. Alternatively, use the REST API.

Installation

- In Qlik Sense February 2019 or later, a new License Service component is delivered together with Qlik Sense. This service is used when the signed keys are used for product activations. This activation process is required for Multi Cloud deployments using Qlik Sense Enterprise on Kubernetes or Qlik Sense Enterprise on Cloud Services as deployment methods. The new activation process is also required to use the Analyzer Capacity license introduced with Qlik Sense February 2019. For more information, see “New product activation method using the License Service component for Qlik Sense February 2019 and later” in the “Upgrade notes” section of this document.

Workaround: Use the standard key with a serial and a control number product activation instead of the signed key method. To use the standard key activation method, you must run Qlik Sense November 2018 in your Multi-Cloud installation.

- After installing or upgrading to Qlik Sense February 2019, 'License management' section in QMC might not be showing all its subsections. The 'Site license' section might not present the user with the ability of switching between LEF ('Use serial number and control number') and signed-key ('Use signed license key') based licenses.

Workaround: To resolve that state refresh QMC, restart your browser, or restart all the services.

- In Qlik Sense November 2018 it is not possible to install Qlik Sense Extension bundles through a silent installation. Qlik Sense Extension bundles can only be installed via the regular install procedure, or separately, once Qlik Sense November 2018 is installed. To install Qlik Sense Extension bundles separately, see “Installing and removing Qlik Sense Extension bundles from a Qlik Sense installation” in this document.

Workaround: If you are installing Qlik Sense November 2018 by performing a silent installation, install Qlik Sense Extension bundles separately at a later moment.

- If an invalid superuser password is entered, a validation error message is shown after the installation process is complete.

Qlik Sense Desktop

- Qlik Sense Desktop does not support SAML-based authentication with an OKTA identity provider or more generally any identity provider that relies upon subresource integrity. See also: [Subresource Integrity](#).
- Export as an image and Export to PDF will not work from Qlik Sense Desktop if you have Qlik Sense (server) installed on the same machine.
- In Qlik Sense Desktop, you have access to the Basic data only through Qlik DataMarket. To access other data packages, you have to purchase a license key.
- Sorting by expression in a Pivot table may not work as expected.

- When opening Qlik Sense Desktop, the Welcome message may be displayed even though it has previously been selected not to display the message again.
- The first time Qlik Sense Desktop is started, a security alert may be shown regarding Evented I/O for V8 JavaScript and dataprepservice.exe.
- Adding desktop authentication links from the enterprise hub will not work if the following conditions are met at the same time:
 - You are logged in as the built-in administrator in Windows 10.
 - Qlik Sense Desktop is not running in the background.
 - You are using Google Chrome or Mozilla Firefox to click the desktop authentication link.

Workaround: To make the authentication link work when you are logged in as built in administrator you have to do the following:

1. Navigate to your local security policy on your Windows 10 workstation.
2. Under Local Policies/Security Options navigate to “User Account Control Admin Approval Mode for the Built-in Administrator Account “
3. Set the policy to Enabled.
4. Restart computer.

Connectors

- In a Qlik Sense Enterprise on Kubernetes installation, if while loading a file using the Amazon S3 connector you attempt to abort the load, the abort is not effective and the file keeps loading in the background although it might look like it has been successfully aborted.
- REST connector: After upgrading from version 1.7 or previous, to version 2.6 or later, the connector panel is not loaded and you cannot load data from any apps. This issue only appears if you used a custom directory instead of the default location during your initial install of the connector. To solve this, do the following:
 - Download and run installer for version 2.15 (June 2019).
 - Click Upgrade and follow the rest of the upgrade procedure.
 - Run the installer a second time. Select the repair option.
 - Click Repair.
- REST connector: The Next token pagination option does not work when the pagination token has the same value for each page.
- For connectors in the ODBC Connectors Package, only the data types listed as supported in the online help have been verified to work correctly in the Preview and Script editor. However, ODBC Connector Package does not prevent the loading of other data types, so in some cases unsupported data types can be loaded with the load script.
- DataMarket connector: Numbers may be loaded as strings if the locale has ‘,’ (comma) set as decimal separator.
- DataMarket connector: When upgrading Qlik Sense Desktop from version 2.2 or earlier to version 3.x, Qlik DataMarket may function incorrectly.

Workaround: Repair the installation using Control Panel/Programs/Programs and Features/Qlik Sense Desktop/Change/Repair.
- EssBase connector: The EssBase connector is not compatible with the SAP BEX connector 6.3.0.

Workaround: Upgrade the SAP BEX connector to version 6.3.2.

- ODBC connector: If the user name on the Microsoft Windows system running Qlik Sense Desktop contains letters that are not English alphanumeric characters, database connectors in the ODBC Connector Package do not work properly.
Workaround: Change the Windows system locale to the match the character set that contains the characters used in the user name. For example, if the System locale on the system running Qlik Sense Desktop is set to English and a user name contains Swedish characters, the System locale setting must be changed to Swedish for the ODBC connector to work properly.
- The Qlik Salesforce Connector does not support PK chunking on sharing objects. PK chunking is supported only on parent objects.
- Apache Phoenix connector does not support non-latin characters in metadata. Connector may return a corrupted data or unpredictable query results if running a query with non-latin characters in metadata: table names, column names, aliases, etc.

Cloud deployments and Multi-Cloud

- Version 2.15 or higher of Helm is not supported. Trying to install Qlik Sense Enterprise on Kubernetes using Helm 2.15 or higher will result in the installation procedure failing.
Workaround: make sure you are on a Helm version earlier than 2.15.
- In a Qlik Sense Enterprise on Kubernetes or Qlik Sense Enterprise on Cloud Services environment, a tenant administrator can open apps in spaces even without having been assigned access rights.
- In Qlik Sense Enterprise on Kubernetes or Qlik Sense Enterprise on Cloud Services, when exporting data from a generic object using ExportData, the user receives Access Denied error.
- When connecting to a remote MongoDB in a Qlik Sense Enterprise on Kubernetes installation, the service fails to start if SSL is not enabled for the MongoDB instance. This happens because some services assume that SSL is enabled in MongoDB by default.
Workaround: It is always recommended having SSL enabled in database connection. When this is not an option, you can disable ssl support by adding `?ssl=false`` to the end of the connection URI. A more consistent and lower maintenance option is using the DNS Seedlist format connection string. For more information, see the “DNS Connection Format” section in the following MongoDB documentation: Connection string URI Format.
- It is not possible to upload extension containing QVF files in Qlik Sense Enterprise on Kubernetes environments. If an extension contains a QVF file, the upload to Qlik Sense Enterprise on Kubernetes fails.
- In a Qlik Sense Enterprise on Kubernetes installation, if while loading a file using the Amazon S3 connector you attempt to abort the load, the abort will appear successful but the connector may continue the load using pod resources.
- When downloading a pivot table in cloud environments (Qlik Sense Enterprise on Cloud Services and Qlik Sense Enterprise on Kubernetes), expanded rows are not included but stay collapsed.
- A Qlik Sense Enterprise with Multi-Cloud environment can currently include only one Qlik Sense Enterprise for Windows deployment connected to Qlik Sense Enterprise for elastic deployments and/or Qlik Cloud Services (QCS).
- Collections with names that are more than 150 characters long are not properly displayed in the cloud hub. In a Qlik Sense Enterprise hub (Windows deployment), collection values (in the custom property) can contain up to 256 characters.
Workaround: make sure that app collections you want to distribute from Qlik Sense Enterprise for Windows to the multi-cloud environment have values with no more than 150 characters.
- In a Qlik Sense Enterprise with Multi-Cloud environment, if you delete apps included in a collection that has been previously distributed to the cloud environment, (QSE for elastic deployments and/or QCS), the collection remains visible in the cloud hub, though it is empty.
Workaround: the Qlik Sense administrator must manually delete the empty collection.

- If you try to access the Multi-Cloud Setup Console without read access on license information, an error message appears stating: “Failed to read the license. The Qlik Sense Repository service returned an unexpected error.”

Workaround: access the Multi-Cloud Setup Console once you are granted rootAdmin rights.

EMM solutions for Qlik Sense Enterprise

- If you use BlackBerry Access to consume Qlik Sense Enterprise apps, the Access browser does not display <Title> information. This means that when opening a Qlik Sense app through BlackBerry Access, the app retains the title of the initial Tab instead of showing the App Name.
Workaround: refresh the browser so to display the correct App title.
- If using BlackBerry Access instead on Qlik Sense Mobile app, the access browser does not provide any indication in case of loss of connection with Qlik Sense Enterprise. If trying to interact with a Sense App after the connection is lost, the app becomes unavailable.
Workaround: refresh the browser so to trigger a new log-in request.
- If using BlackBerry Access, when a Qlik Sense Enterprise log-in session expires, the Access browser provides an error message stating that the content is no longer available. In such a case using the refresh button does not trigger a refresh, but it only closes the error message.
Workaround: close the tab and access again Qlik Sense Enterprise from the link in the BlackBerry Dynamic environment.
- VMWare browser: session lost but refresh functionality not visible in browser.
Workaround: Click the browser’s Home button or restart the browser.
- When using the AirWatch browser to access Qlik Sense Enterprise, the refresh causes the content to be displayed in portrait mode even when the device is in landscape mode.
Workaround: rotate the device so that the correct orientation is detected.
- When using the AirWatch browser to access Qlik Sense Enterprise, the header of the browser shows the Server name, occupying more space than needed especially in Landscape mode.

Upgrade notes

Qlik Sense February 2020

Windows 7 and Windows 8.1 operating systems

From Qlik Sense February 2020 and forward, Windows 7 and Windows 8.1 are not supported operating systems.

Updated NodeJS version - recreating the Qlik Sense root CA certificate

The February 2020 version of Qlik Sense updates the version of NodeJS to a currently supported version and addresses several security vulnerabilities announced by the NodeJS project. Unfortunately, this requires recreating the root CA certificate generated with versions of Qlik Sense prior to the June 2019 release.

This procedure has been automated as much as possible and is included in the installer, but depending on the deployment, additional manual steps might be required. Please make sure to follow the upgrading instructions in the help:

https://help.qlik.com/en-US/sense-admin/February2020/Subsystems/DeployAdministerQSE/Content/Sense_DeployAdminister/QSEoW/Deploy_QSEoW/Upgrading.htm

For silent upgrades, refer to the following help topic:

https://help.qlik.com/en-US/sense-admin/February2020/Subsystems/DeployAdministerQSE/Content/Sense_DeployAdminister/QSEoW/Deploy_QSEoW/Upgrading-Major-Silent.htm.

Note:

You will also have to replace Qlik Sense root certificate with the newly created one in the following cases:

- Your Qlik Sense deployment is connected with Qlik NPrinting, Qlik multi-cloud setups, or any other external tools or configurations.
- You have configured QlikView Distribution Service for distribution of links to QlikView documents to the Qlik Sense hub.

Enabling Natural Language Processing

This release of Qlik Sense includes the ability to ask natural language questions in the Insights providing the same functionality seen on cloud editions of Qlik Sense since September 2019. The functionality is enabled by default for new installations of Qlik Sense, however, for upgraded environments this will be installed but switched off.

Customers wanting to enable this functionality can do so by executing the following steps on every node in the Qlik Sense cluster:

1. Navigate to "C:\Program Files\Qlik\Sense\CapabilityService" (or corresponding non-default location):

2. Edit the "capabilities.json" file.

3. Add the following flags. Make sure to separate them with comma (,) and enclose within the existing rectangular brackets ([]):

```
{"contentHash":"cf15d72343be5e4223b9e8de37e69aef","originalClassName":"FeatureToggle","flag":"NLU_INSIGHTS","enabled":true}
```

```
{"contentHash":"cf15d72343be5e4223b9e8de37e69aef","originalClassName":"FeatureToggle","flag":"NLU_INSIGHTS_VOICE_QUERY","enabled":true}
```

```
{"contentHash":"cf15d72343be5e4223b9e8de37e69aef","originalClassName":"FeatureToggle","flag":"CAO_DATA_VALUES","enabled":true}
```

4. Navigate to "C:\Program Files\Qlik\Sense\ServiceDispatcher" (or corresponding non-default location):

5. Edit the "services.conf" file.

6. Add "Disabled=false" under [nl-parser] and [nl-broker] sections.

Example:

```
[nl-parser]
```

```
Disabled=false
```

```
[nl-broker]
```

```
Disabled=false
```

7. Restart all the Qlik Sense services.

Note: Qlik Sense Desktop is not affected and the natural language functionality is enabled for both new installations and upgrades.

Qlik Sense November 2019

New load balancing scheme

Qlik Sense November 2019 introduces a new load balancing scheme. In previous versions of Qlik Sense, the algorithm always chose the load-balancing node with the lowest CPU load. The CPU load of all nodes was updated every 5 seconds, which might have resulted in consecutive reloads being distributed to the same node. To improve the handling of frequent consecutive reloads, the algorithm has been changed to select the node with the lower number of running tasks per "Max concurrent reloads" setting, tracking this value on the scheduler master node.

This improvement is enabled by default. If you wish to disable it, do the following:

- Open the Scheduler.exe.config, which by default is located in: "C:\Program Files\Qlik\Sense\Scheduler\Scheduler.exe.config"
- Set "DisableLegacyLoadBalancingBehavior" setting to false
- Restart Qlik Sense Scheduler Service
- Repeat these actions on each node of the cluster running the Qlik Sense Scheduler Service

Handle "invalid cookie bursts" in the Qlik Sense Proxy (QPS) Service

When a multiple cookie request arrives to the Qlik Sense Proxy Service for the same user and authentication method within a small-time frame, QPS reuses the session from the first request. This behavior avoids the creation of additional sessions, and therefore prevents reaching the maximum number of allowed sessions, which would result in temporary lock of that user. See the "Managing a Qlik Sense site" section of "Known issues and limitations" for a known limitation of this change.

This improvement is available in all patches listed below with the default value of 2 seconds **provided corresponding setting is enabled**. If you wish to **enable and** configure or disable it, do the following:

- Open the Proxy.exe.config, which by default is located in: "C:\Program Files\Qlik\Sense\Proxy"
- To **enable and** configure add the string `<add key="InvalidSessionRequestBurstLimit" value="00:00:02"/>` in the section `<appSettings>` with the desired value **greater than 0**
- To disable **without removing the flag** add the string `<add key="InvalidSessionRequestBurstLimit" value="00:00:00"/>` in the section `<appSettings>` with the value of 0. QPS will fall back to previous behavior with one difference – before it would initially overwrite the existing cookie with an empty one in the first request (Set-Cookie: X-Qlik-Session=), now Set-Cookie header will not be included.
- Restart Qlik Sense Proxy Service
- Repeat these actions on each node of the cluster running the Qlik Sense Proxy Service

License service must be active during startup of the Qlik Sense Repository service

From Sense April 2019, the Qlik Sense Repository service (QRS) contacts the Qlik License Service during startup phase. This means that during start-up of the QRS, the Qlik Sense Service Dispatcher (QSD), which manages the Qlik License Service, must be running, so that the Qlik License Service can be reached by the QRS. When executing repository.exe -bootstrap (also with additional parameters), if the QSD is not running the bootstrap does not fully complete and the System_Repository logs register the following error:

```
83      20190507T152440.101+0200      WARN      rd-AMW-2016-
03      System.Repository.Repository.Core.Licensing.LicensesInitializer      6      83b132fa-
fa98-44e4-9f86-338be262a014      RDLUND\svc-silver      There was an error contacting the
license service. Keep retrying... (1 failed requests) GET /v1/licenses/overview
StatusCode: InternalServerError Response: .      Could not connect to the license
service.      NO-STACKTRACE      83b132fa-fa98-44e4-9f86-338be262a014
```

'Version' column for apps in QMC and migration of apps created with Sense 3.1 or earlier

With Qlik Sense November 2019 and later releases, in the **Apps** menu of the Qlik Management Console (QMC), the 'Migration status' column has been replaced with 'Version'. This new field shows the version of the engine used last time the app was saved. Apps created with Sense 3.1.6 or earlier versions will be highlighted with a red 'Migration needed' string, which signifies that the app must be manually migrated via the QMC. Apps created with Sense 3.2 or a later version show the last saved version and do not require manual migration. This is because apps created with Sense 3.2 or a later version are automatically migrated by the client once opened and saved. Once an app is saved and migrated, the value in the 'Version' column is updated accordingly.

Change of log level QIX Engine API error codes

When a QIX Engine API call fails, an error code is returned and a message is logged to the Engine Service log. In previous versions of Qlik Sense, the log level of this message was always ERROR, even when, for example, the API client supplied invalid parameters or requested a resource that does not exist.

With Qlik Sense November 2019, client errors are now logged to the Engine Service log at WARN level.

Sample log messages are:

```
Command=Doc::GetFieldDescription;Result=8;ResultText=Warning: Invalid parameters
Command=Delete app;Result=404;ResultText=Warning: Not Found
Command=Duplicate app;Result=9003;ResultText=Warning: Resource not found
```

The same message is logged to the Engine Audit log.

Qlik Sense September 2019

Setting a sheet as the app landing page

With Qlik Sense September 2019, you can select a sheet to be the landing page of your app by setting a default bookmark. If in a app you had previously configured the setting “Set selections as app default”, the document will now open on the sheet where you have applied the setting instead of opening on the sheet overview. To change this behavior, do the following:

1. Open the app where the “Set selections as app default” setting is applied.
2. Go to the sheet you want to use as the app’s landing page.
3. Open the Bookmarks
4. Create a new bookmark
5. Right click on the newly created bookmark
6. Choose 'Set as default bookmark'
7. Repeat this procedure for all apps where the “Set selections as app default” setting is applied.

For more information on this feature, see the documentation page [Setting a default bookmark to create an app landing page](#).

Qlik Sense June 2019

Change of default theme for Single Integration and capability API

With Qlik Sense June 2019 or later releases, the theme for current selection for Single Integration and capability APIs is set to bright by default. Specifically, this change impacts the 'CurrentSelections' string for `getObject`, and `currse1` for [Single Integration API](#).

Qlik Sense February 2019

New product activation method using the License Service component for Qlik Sense February 2019 and later

In Qlik Sense February 2019 or later, a new License Service component is delivered together with Qlik Sense. This service is used when the signed keys are used for product activations. The License Service will connect to a License Backend Service, hosted by Qlik, for product activations and Entitlement Management. This activation process is required for Multi Cloud deployments using Qlik Sense Enterprise on Kubernetes or Qlik Sense Enterprise on Cloud Services as deployment methods. The new activation process is currently optional for Qlik Sense Enterprise on Windows. The use of this activation process is also required if you want to use the new Qlik Sense Analyzer Capacity license introduced with Qlik Sense February 2019.

The Qlik Sense Master node needs access to an internet connection. Port 443 is used for accessing the endpoint at <https://license.qlikcloud.com> and retrieving license information.

You can continue using the standard key with a serial and a control number product activation instead of the signed key method. However, to keep using the standard key activation method you must run Qlik Sense November 2018 in your Multi-Cloud installation.

Qlik Sense November 2018

Installing and removing Qlik Sense Extension bundles from a Qlik Sense installation

In Qlik Sense November 2018 and later it is not possible to install Qlik Sense Extension bundles through a silent installation. Qlik Sense Extension bundles can only be installed via the regular install procedure, or separately, once Qlik Sense November 2018 is installed. You can install or remove Qlik Sense Extension bundles from your Qlik Sense deployment at any moment. If you have a multi-node installation, Qlik Sense Extension bundles are installed on the central node.

Do the following:

1. In **Control Panel**, open **Programs and Features**.
2. In the list of programs, double-click the extension bundle that you want to install or remove.
3. The Extension Bundle Setup Wizard opens. Click **Next**.
4. Select **Change**.
5. Accept the End-User License Agreement and click **Next**.
6. On the **Custom Setup** screen, click on the bundle icon to select how to modify the bundle installation:
 - If the bundle is installed, select **Entire feature will be unavailable** to uninstall it.
 - If the bundle is not installed, select **Entire feature will be installed on local hard drive** to install it.Then, click **Next**.
7. Click **Change**.
8. When the setup modification is complete, a message invites you to manually restart the Qlik Sense Repository Service.
9. Click **Finish** to close the Extension Bundle Setup Wizard.
10. Manually restart the Qlik Sense Repository Service to make the changes effective.

You can verify that the changes have been correctly applied by checking the Extensions section in the Qlik Management Console (QMC).

You can find the above procedure also on help.qlik.com. See the “Modifying extension bundles installation” section in the following pages:

[Installing Qlik Sense on a single node](#)

[Installing Qlik Sense in a multi-node site](#)

“idpConfigs” moved to “identity-providers” in the values.yml file

The “idpConfigs” section in the *values.yml* file has been moved from “edge-auth” to “identity-providers”. In this release there is support for having the “idpConfigs” section either in “edge-auth” or “identity-providers”.

Qlik Sense September 2018

Change in privilege requirements for publishing apps from QMC

Beginning in Qlik Sense September 2018, the privilege requirements for users publishing app objects in the Hub have been modified. Previously publish rights were required for both the app object and stream. With this change only publish rights for the app object are required.

To ensure backwards compatibility, the default security rule OwnerPublishAppObject has been adjusted.

Previously, the Conditions for the security rule were:

```
resource.IsOwned()=user  
resource.owner=user  
resource.approved="false"
```

An addition has been made to the Conditions so that they now are:

```
resource.IsOwned()=user
```

```
resource.owner=user
resource.approved="false"
resource.app.stream.HasPrivilege("publish")
```

The effect of the rule is that publish rights to the stream and app object are required. For customers who wish to segment the ability to publish an app object from publishing to a stream, it is recommended that the default rule be disabled and the needed adjustments to a new rule be made.

Windows PowerShell 4.0 or higher required for installing Qlik Sense September 2018 or later

To install Qlik Sense September 2018 or later, you must upgrade Windows PowerShell to version 4.0 or higher.

Qlik Sense June 2018

New Duplicate action is required to duplicate apps in Qlik Sense June 2018 and later

Duplicate action has been added to the list of actions that can be assigned to users. Until Qlik Sense April 2018, duplication privileges were included in the Create action. When upgrading to Qlik Sense June 2018, duplicate permission is disabled by default. To duplicate apps in Qlik Sense June 2018 and later, Duplicate actions must be assigned to users via the Security rule editor in the QMC.

5 GB total disk space required for installation

To install and run Qlik Sense June 2018, 5 GB of total disk space is required.

Permissions required to call duplicate endpoint have changed

Behavior has changed for customers who upgrade and have previously changed the relevant default rule. The `/qrs/app/{id}/copy?name={name}` endpoint now requires "Read" and "Duplicate" permissions for App instead of "Read" and "Create." The default rules for Qlik Sense September 2017 and later releases have been modified to ensure that the behavior is the same as in the earlier release as long as the rules have not been previously changed.

Backup recommendations

It is important that you make a backup of the site before upgrading, to be able to recover the site if the upgrade fails.

Upgrade may fail if services are in Disabled state

If a service is in the Disabled state prior to an upgrade, it may lead to the service not being completely uninstalled, and a subsequent failure to install the new version of the service. The rollback of the service upgrade will also fail, which means that the service is not available anymore, and cannot be repaired. The most likely cause of this problem is that other processes are scanning the state of the service during uninstall or upgrade, hence preventing it from becoming completely uninstalled. Examples of such processes are Process Explorer and the built-in Control Panel > Administrative Tools > Services snap-in. This bug in Windows is documented here: <https://support.microsoft.com/en-us/kb/287516>

To minimize the risk of this occurring, do the following in order, before upgrading:

1. Stop all Qlik Sense services manually.
2. Verify that no service is in the Disabled state. This can be done by the **Services** snap-in, or another program that polls service state.
3. Ensure that all service state polling applications are closed, including applications you used in step 2. Setting all Qlik Sense services to Manual start, and then restarting the system is the most reliable way of making sure that all service state polling applications are closed.

Qlik Sense April 2018

Licensing changes to the April 2018 release

Qlik Sense Enterprise now has two new user types: Professional and Analyzer. See:

Overview of Qlik license usage

If you continue to use Token allocation, there is no change in your licensing requirements in the April 2018 release.

If you adopt user-based licensing, then prior to upgrade, check your current LEF. In the QMC, navigate to the License usage summary, Site license properties, and look for LEF Access.

If your LEF contains one or more of the following lines, you should make sure you record your current user allocation because when you apply the new LEF, the current allocations will be removed.

You have two options for adding users back:

- Manual allocation adding users to the correct user type.
- Change your current rules for auto allocation to allocate to the new user types per your preference.

PROFESSIONAL;NN;;

ANALYSER;NN;;

TOKENS;NN;; (sum of Professional and Analyzer)

IGNORE TOKENS;YES;; (The April 2018 release uses this to determine if it should continue to allocate Tokens to users or allocate the two new user types.)

Applying Analyzer license requires users to log in again

Starting in the April 2018 release, the license check occurs when the user accesses the Hub. If an Analyzer pass is applied after a user has established a QPS session, the user will get the message: "You cannot access Qlik Sense because you have no access pass." User would have to log in again. To avoid this situation, allocate the Analyzer pass before the user accesses the Hub.

Qlik Sense February 2018

Important notice

You cannot upgrade to Qlik Sense June 2017 from a Qlik Sense release earlier than 3.1 SR2. Make sure that you have upgraded to Qlik Sense 3.1 SR2 or later before starting an upgrade to Qlik Sense June 2017.

Upgrading from Qlik Sense 2.x to 3.x will modify the repository database. The upgraded 3.x database is no longer compatible with Qlik Sense 2.x. It is important that you take a backup of the Qlik Sense 2.x site before upgrading to Qlik Sense 3.x so that a rollback can be carried out if required.

Starting with the February 2018 release, the following endpoints changed

```
/qrs/about/api/default/content -> /qrs/about/api/default/app/content
/qrs/about/api/default/datasegment -> /qrs/about/api/default/app/datasegment
/qrs/about/api/default/internal -> /qrs/about/api/default/app/internal
/qrs/about/api/default/object -> /qrs/about/api/default/app/object
/qrs/about/api/default/detail ->
/qrs/about/api/default/executionresult/detail
/qrs/about/api/default/analyzeraccessgroup ->
/qrs/about/api/default/license/analyzeraccessgroup
/qrs/about/api/default/analyzeraccesstype ->
/qrs/about/api/default/license/analyzeraccesstype
/qrs/about/api/default/analyzeraccessusage ->
/qrs/about/api/default/license/analyzeraccessusage
/qrs/about/api/default/loginaccesstype ->
/qrs/about/api/default/license/loginaccesstype
```

```
/qrs/about/api/default/loginaccessusage ->
/qrs/about/api/default/license/loginaccessusage
/qrs/about/api/default/professionalaccessgroup ->
/qrs/about/api/default/license/professionalaccessgroup
/qrs/about/api/default/professionalaccesstype ->
/qrs/about/api/default/license/professionalaccesstype
/qrs/about/api/default/professionalaccessusage ->
/qrs/about/api/default/license/professionalaccessusage
/qrs/about/api/default/useraccessgroup ->
/qrs/about/api/default/license/useraccessgroup
/qrs/about/api/default/useraccesstype ->
/qrs/about/api/default/license/useraccesstype
/qrs/about/api/default/useraccessusage ->
/qrs/about/api/default/license/useraccessusage
```

Qlik Sense November 2017 and earlier

New security properties for the Qlik REST Connector

The Qlik REST Connector has new security properties in the connection dialog. Existing connections must be modified to conform to the requirements of the new properties.

The Qlik REST Connector supports the ability to include HTTP headers in the response object. Starting with the November 2017 release (version 1.2 of the REST Connector), loading of the headers does not happen by default. It must be explicitly allowed. Existing connections that load the response headers must be reconfigured with the **Allow response headers** parameter.

Upgrading from Qlik Sense 3.1 SR2 to Qlik Sense June 2017 or later

Please refer to the online help for instructions: [Qlik Sense upgrades and updates](#)

BNF script reload mode

A new script reload mode, BNF, has been introduced. In some unusual cases, users may need to disable the BNF reload mode using one of these methods:

- **Disabling BNF reload mode for the entire server:** Update the Settings.ini by adding the line `EnableBnfReload=0` under the [Settings 7] tag for the default reload setting "EnableBnfReload". Restart the engine.
- **Disabling BNF reload mode for individual apps:** Add the `///$bnf off` tag at the top of the script (it must be within the first 50 characters of the script). Reload the script.

Search history in smart search

Search history when using smart search is now implemented. Smart search history is not available for anonymous users. Smart search history is only visible for the user profile that performed the search.

Change of supported characters for virtual proxy prefix

Starting with the Qlik Sense June 2017 release, a change has been introduced regarding which characters may be used in a virtual proxy prefix. This entails that some users may need to change virtual proxy prefixes in existing Qlik Sense installations

Qlik Sense supports all unreserved characters specified in <https://tools.ietf.org/html/rfc3986> in lower case as proxy prefix. "/" is allowed but not as start or end of the prefix.

This means that the following characters are allowed:

"a-z", "0-9", "-", ".", "_", "~" and "/"

This is enforced by a `_pattern` regex attribute in the object schema which means that both QMC and QRS use the same validation.

Please refer to the online help for instructions: [Editing a virtual proxy](#).

Translation of Bar Chart changed for French and Traditional Chinese

The translation of Bar Chart has been altered for two languages. The new translations are for French: Graphique en barres, and for Traditional Chinese: 橫條圖.

Perform a database cleaning before migrating to 3.x

We recommend that customers with a large number of users or applications perform a database cleanup before migrating from 2.0.x to 3.x.

After performing an upgrade in a multi-node environment, it can take a very long time for newly created database items (such as sheets, applications, bookmarks, or tags) to appear on all nodes. This is caused by long synchronization queues between the nodes, as a result of the upgrade. All new items will be at the end of these queues. From Sense 2.2, the repository database is stored in RAM to improve the performance, for users with very large databases the database can become larger than the available RAM on the server which results in an error during startup. If you are running a large installation (users or apps) we recommend that you perform the steps described below before performing the upgrade.

Workaround: Synchronization queues will eventually finalize by themselves, but in very large environments this can take several hours. If you import a large Active Directory, it is recommended to do the following before upgrade to reduce upgrade synchronization queues:

- Make sure that you applied best practices for User Directory connectors:
<https://community.qlik.com/docs/DOC-14708>
- If a large Active Directory has been imported without filters, do the following:
 1. Setup LDAP import filters, according to the best practice guide, to reduce size of imported user attributes.
 2. Remove redundant users and perform a new import of the Active Directory.
 3. Run the Database Cleanup Script, provided by Qlik, to clean the repository database before upgrading. To acquire the Database Cleanup Script, log in to the Support Portal and search for article “17620”. The title of the article is “Qlik Sense Database Cleanup Script 2.x and 3.x”.
 4. Restart the system and start the upgrade.

Qlik Sense 3.2 includes jQuery version 3.1.1.

Qlik Sense 3.2 includes jQuery version 3.1.1, which is the latest version. If an extension uses a version of JavaScript that does not support the latest version of jQuery, it will produce an error indicating that a jQuery version lower than version 3 is required. It is recommended that the Bootstrap used with extensions be upgraded to version 3.3.7.

Deprecated functionality

Deprecation notice for Qlik Sense - Synchronized Persistence

The synchronized persistence mechanism to share data in multiple server deployments was officially deprecated by the Qlik Sense June 2017 release.

What does this mean?

Qlik Sense has had a synchronization mechanism for storing and sharing data in a multi-server deployment, which copied data to each machine (“Synchronized Persistence”). In Qlik Sense version 3.1, Qlik introduced a new architecture and additional method for storing and sharing data known as Shared Persistence, which is

more scalable than the Synchronized Persistence method. Until now, both Synchronized Persistence and Shared Persistence methods have been available in the product.

What is the impact?

Qlik has now retired the Synchronized Persistence method from Qlik Sense in the next feature release and later versions. Customers who wish to upgrade to Qlik Sense September 2017 from a version of Qlik Sense prior to June 2017 need to plan to reconfigure to use Shared Persistence first. For the majority of customers, the capabilities are the same. However, a small number of customers using geographically dispersed servers will be affected.

What do I need to do?

Customers can move from Synchronized Persistence to Shared Persistence by following some simple steps. The transition to Shared Persistence is not automatically done by upgrading, but the process to transition is not complex. For questions or assistance, please go to <https://help.qlik.com> or contact Qlik Support.

Repository Snapshot Manager tool removed

The automatic backup and restore tool Repository Snapshot Manager has been removed, as it was intended for deployments using synchronized persistence. Please refer to the online help for manual backup and restore procedures.

System requirements notes

Please refer to the online help for information about the requirements for Qlik Sense:

System requirements for Qlik Sense

Additional notes:

- On a machine with a server operating system, it is only possible to install Qlik Sense (server), not Qlik Sense Desktop.
- From Qlik Sense 3.1 SR2 and forward, you need to start the Qlik Sense Service Dispatcher (QSD) service before starting the Qlik Sense Repository Service (QRS).

Windows 7 and Windows 8.1 support ending

From Qlik Sense February 2020 and forward, Windows 7 and Windows 8.1 are not supported operating systems.

IdevioMaps

IdevioMaps of version 5.7.5 is supported by Qlik Sense 3.2.



About Qlik

Qlik is on a mission to create a data-literate world, where everyone can use data to solve their most challenging problems. Only Qlik's end-to-end data management and analytics platform brings together all of an organization's data from any source, enabling people at any skill level to use their curiosity to uncover new insights. Companies use Qlik to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward. Qlik does business in more than 100 countries and serves over 48,000 customers around the world.

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