# Qlik Sense February 2019 Patch 5

Release notes

Published: November 20, 2019

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# What's new in Sense February 2019

Please refer to the What's new sections of the online help for information about the new and updated features of the Qlik Sense February 2019 release:

What's new in Qlik Sense February 2019

What's new in Qlik Sense February 2019 (Developers)

## Sense February 2019 Patch 5

**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 now 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 available in all patches listed below. It is disabled by default. If you wish to enable it, do the following on each node of the cluster running the Qlik Sense Scheduler Service:

1. Open the Scheduler.exe.config, which by default is located in: "C:\Program Files\Qlik\Sense\Scheduler\Scheduler.exe.config"

2. Add the string `<add key="DisableLegacyLoadBalancingBehavior" value="true" />` in the section `<appSettings>`

3. Restart Qlik Sense Scheduler Service

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

- Qlik Sense November 2018 Patch 7

- Qlik Sense February 2019 Patch 5

- Qlik Sense April 2019 4

- Qlik Sense June 2019 Patch 4

- Qlik Sense September 2019 Patch 1

## Sense February 2019 Patch 2

## Improper Access Control Issue

This release addresses a security weakness filed with Jira issue ID: QLIK-94388. For more information, read the following security bulletin.

## Sense February 2019 Patch 1

We have improved the responsiveness of the Qlik Sense Hub Client by improving the way security rules, database access, and hub service work together.

The results of these improvements are the following:

- Initial time required to access the Hub is significantly reduced. This is particularly noticeable in Qlik Sense installations with a high number of apps, streams, security rules, and custom properties.
- Subsequent access time is reduced.
- Stream navigation and access times is now faster.

Qlik Sense installations that currently have long access times will especially benefit from these improvements. If the time required to access the Hub for your installation is currently high (over 30 seconds), it is supposed to be reduce to a few seconds following these improvements. If the time required to access the Hub for your installation is already reasonably short (under 30 seconds), these improvements will be less noticeable.

## Sense February 2019

### New Analyzer Capacity license type

With the Qlik Sense February 2019 release we are introducing a new user license type named Qlik Sense Analyzer Capacity. This additional license type consumes time during an active session with the minimum session length set to 6 minutes. An Analyzer Capacity license type would typically be used by users not assigned to any of the available named user types (Professional or Analyzer). The capabilities for the Analyzer Capacity license type are similar to the current Analyzer user type.
See also: Analyzer capacity license on help.qlik.com.

To use the new Qlik Sense Analyzer Capacity license type, you must install Qlik Sense February 2019 and activate it using the new License Service component, which is also introduced in this release. Internet access is required. 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.

# Bug fixes

Qlik Sense February 2019 comes with fixes for the issue described below.

## February 2019 Patch 5

**Duplicated app contained no script**

Jira issue ID: QLIK-94550
Description: If an app is duplicated with no script available because of access rules) we insert empty script already at duplication.

## Expression is not working properly in Line Chart with Color

Jira issue ID: QLIK-96303
Description: Fixed an issue with Total measures getting broken when color by dimension used on some visualizations (Line chart and stacked bar chart).

## Fetching list of extensions is taking too long

Jira issue ID: QLIK-97301
Description: When loading certain extensions, an additional call to the QRS was being made that caused the extension to take longer to load. This issue has been fixed by making sure only one call is made.

## Section Access application works poorly with large key fields

Jira issue ID: QLIK-96840
Description: Section access application in OpenDoc on a new session scaled poorly with section access key field length. Concurrent sessions all performing OpenDoc entangled in an internal low level lock, causing badly degraded performance (and detected fiber loop stalls) compared to a single-session scenario or with a short section access table. The entanglement has been resolved and sessions not proceed with a high degree of independence, as expected.

## Publish and Replace time is much longer with applications that have a lot of AppContent

Jira issue ID: QLIK-97206
Description: Publishing via replacing an app with lot of AppContent would take long time to complete due to unnecessary for that operation generation of virtual properties.

## Excel exports in NPrinting fail

Jira issue ID: QLIK-92824
Description: An error in Qlik's Engine could make Excel exports in NPrinting fail with the error code -128 when several exports are made in a quick succession. This is now fixed.

## Improve redirect URL validation

Jira issue ID: QB-189
Description: It was possible to bypass URL validation by using HTML encoding, allowing redirection to arbitrary URLs.

## Maps in iframes get size 0 if iframe is hidden before map is drawn

Jira issue ID: GEO-1419
Description: Fix for GeoAnalytics Mapchart staying invisible indefinitely when in an iframe that is hidden before being drawn once.

## Cannot open apps in IE11

Release Notes
JIRA Issue: QB-391
Description: Opening an app in February 2019 Patch 4 Update 1 would result in a blank page being displayed to the user.

# February 2019 Patch 4

**Wrap text issue in straight table**

Jira issue ID: QLIK-93399
Description: Straight Table extension did not respect turning of "Wrap text in headers" and "Wrap text in cells" settings.

**Objects not rendered in full screen**

Jira issue ID: QLIK-94369
Description: Objects are rendered blank in "full screen" mode in some cases. This fix makes sure the object gets rendered properly in full screen mode.

**Engine fail during reload of ODAG selection apps**

Jira issue ID: QLIK-94841
Description: Fixed an issue with Suspend handling so that it does not get corrupted and causing the Engine to crash.

**"General Script Error" when Binary reload a qvf**

Jira issue ID: QLIK-95577
Description: Saving a document after a reload can under some circumstances result in an incorrectly persisted data format. The saved document (QVW/QVF/QVD) cannot be opened (with data) by the engine or be binary loaded from. It is table and field data of certain byte sizes that are incorrectly encoded.
Note: On versions with the fault, the only way to get the data to save correctly is to run with the setting ParallelFieldWrite=0 in the appropriate Settings.ini. This setting does not restore incorrectly encoded files.

**Donut chart not showing the values for the measure**

Jira issue ID: QLIK-96101
Description: After upgrading from Qlik Sense April 2018 to Qlik Sense February 2019, the Donut chart stops showing the values for the measure.

**Odag Create Link returns error ODAG-ERR-1127**

Jira issue ID: QLIK-96318
Description: Fix for Non admin user get "ODAG-ERR-1127: Failed to get the fields of the selection app" message when creating an odag link.

**Excessive /qrs/license/requestaccesstype calls with capacity-based license**

Jira issue ID: QLIK-96326
Description: With capacity-based license proxy service would make excessive calls to /qrs/license/requestaccesstype when evaluating access type.

**REST Connector cannot load data from NPrinting API after upgraded to June 2017 release**

Jira issue ID: QVXREST-837
Description: A connection successfully reloaded data in Qlik Sense 3.2.4.
But after upgrade to June 2017 and later September 2017 release, the reload does not work anymore in either version. This issue is a duplicate of QVXREST-593.

## February 2019 Patch 3

**Set expression with single quotes does not match textual part of dual field**

Jira issue ID: QLIK-87570
Description: Fixed problem with set expression containing single quotes does not match the textual field.

**Qlik Sense November 2018 Pie chart error related to- qliktech.jfrog.io**

Jira issue ID: QLIK-93251
Description: Disabled source maps on js-files to prevent Internet Explorer 11 from opening unexpected login prompt.

**Performance degrade in List object search and high impact on concurrent engine performance**

Jira issue ID: QLIK-93883
Description: List object search was performing poorly on large text fields due to excessive RAM memory usage in the parallelized field search. The intense memory usage caused other users on the engine node to experience poor responsiveness.

**Scheduler can end up in a state where reloading tasks will fail with 'Engine not alive' error**

Jira issue ID: QLIK-94286
Description: Under certain circumstances scheduler could end up with a cached error causing some reload tasks to fail when triggered in batches.

**Parsing lengthy library item expressions resulting in availability issues with cognitive rules engine**

Jira issue ID: QLIK-94635
Description: The cognitive rules engine now avoids parsing lengthy library item expressions to ensure availability.

**ODAG - Create button is missing from App Navigation links in the Hub when using a professional license**

Jira issue ID: QLIK-94638
Description: Problem caused by an error in the object schema for OdagLinkUsage. Solved by changing the schema of OdagLinkUsage to remove the offending "_reverseDirection": true attribute.

**'GetLayout' causing engine to become unavailable**

Jira issue ID: QLIK-95139
Description: Fixed race condition issue with getting data while it's being deleted.

## February 2019 Patch 1

**Qlik Sense Nprinting Ondemand extension is not able to pass specific selections**

Jira issue ID: QLIK-92723
Description: If a selection is made on a value >200 the extension cannot pass the selection(s) to NPrinting.

Note: This fix enables the extension to pass any selection, or number of selections, to NPrinting.

**Qlik Sense On Demand sends wrong connection ID when there is more than one connection in a single NPrinting App**

Jira issue ID: QLIK-93565

Description: Users with more than one NPrinting App Connection for an NPrinting App were unable to select what Connection to use. This resulted in either failed reports or reports using a setup that the user did not intend.

Note: This fix adds the possibility for the users to select what Connection to use when setting up the on-demand reporting extension. Users that doesn't select a Connection, will use the first valid Connection associated with the current Qlik Sense App.

**Performance decrease of the Oracle ODBC connector version 5.12.0**

Jira issue ID: QVXODBC-1615

Description: The fix addresses the performance slowdown experienced when loading data from Oracle database with November 2018 release. The Fetch Buffer Size can now be controlled using MEMLIM parameter.

# February 2019

**Aborted task(s) no longer start task(s) with trigger condition set to "Task failed"**

Jira issue ID: QLIK-26694

Description: The Aborted state has been removed from the list of states which start a task with trigger condition set to Task failed.

**SAP HANA table name with a mix of upper and lower-case characters fails to load**

Jira issue ID: QLIK-85459

Description: If a SAP HANA table name has a mix of upper and lower-case character, load of data will fail unless it has quotations around the table name.

Note: Following the fix, column names are always quoted in SAP HANA tables. However, column names only containing uppercase characters don't have to be quoted.

**Filter pane: in Dimension Field get =[] after the same field is used in other chart**

Jira issue ID: QLIK-86820

Description: Derived fields with and without [] should be treated as the same field.

Note: This fix solves also bug QLIK-91406.

**Operations Monitor: Export Overview, Output format, Export to data (Excel) is not shown**

Jira issue ID: QLIK-86945

Description: In Operations Monitor, Export Overview, if the user exports data, it is not included in "Export Details". The Output Format doesn't have the category "data".

**Unable to use SearchListObjectFor with quotations**

Jira issue ID: QLIK-87367

Description: Field searches containing quoting where inconsistently parsed.

Note: Double quotes are now handled like in the script, searching for quotes requires the search to be quoted and quotation chars to be escaped. For apps using EnableSingleQuoteExactSearch exact match is extended to field searches.

**Separate cookies for http and https**

Jira issue ID: QLIK-87951

Description: Two different cookies for secure and insecure connections. Proxy suffixes the session cookie name with -HTTP if users access the system over http.

**Upgrade of Qlik Sense Repository Database with exclusive SSL Fails**

Jira issue ID: QLIK-88196

Description: When using SSL to secure the connection to the Qlik Sense Repository Database, upgrades across versions where PostgreSQL is upgraded will fail.

**Count expression in KPI objects fails to autoformat numbers**

Jira issue ID: QLIK-89485

Description: Auto abbreviation for numerals was not working. Numbers such as millions, or thousands were not abbreviated to M and K. For more information on this function, see help document for "NumericalAbbreviation" on help.qlik.com.

**Under certain circumstances rim node's repository might fail to start after restart**

Jira issue ID: QLIK-89529

Description: With the fix incorrect 'ModifiedDate' timestamp is updated by rim node's repository on its very start. Incorrect timestamp is also updated to an actual one upon service's state change, in example going from 'Running' to 'NoCommunication' or vice versa.

**Correct privileges not returned for newly created GenericObjects**

Jira issue ID: QLIK-89803

Description: Engine did not check privileges on newly created objects which caused UI privileges not be in sync.

**Space in Directory Name should not be allowed**

Jira issue ID: QLIK-90362

Description: Back-end validation prohibiting spaces in the user directory name when configuring virtual proxy's authentication method has been introduced. For SAML and JSON Web Tokens authentication this applies only when user directory name is embraced in rectangular brackets.

**Cannot add SSO login details before a connection is successfully created**

Jira issue ID: QLIK-90592

Description: The fix adds the Single Sign-On checkbox to the Create Connection dialog.

**'FileReferences' not removed according to 'ExecutionResultsAmountKept' when running Sense on low number of CPUs**

Jira issue ID: QLIK-90739

Description: In environments with low number of CPUs, removal of entries from the 'FileReferences' table was not always performing in a consistent way leaving orphaned entries in the database and physical files.

**Scrollbar not displayed in Firefox**

Jira issue ID: QLIK-90832

Description: Scrollbar in script execution screen is displayed in Chrome, but not in Firefox.

**Current selections stop working after making selections in a histogram**

Jira issue ID: QLIK-90916

Description: Selection Bar is out of sync with the actual selection states and cannot be cleared when a recalculation of the field is triggered.

**Excel export shows incorrect data format**

Jira issue ID: QLIK-90982
Description: The fix concerns Engine's data format detector before transforming to Excel.

**Line Chart Top Values not applied Mashup in Sept. 2018**

Jira issue ID: QLIK-91005
Description: Do not remove property qOtherTotalSpec.qGlobalOtherGrouping in mashup or object conversion.

**Copy/paste from Excel into Qlik Sense search not working properly in Internet Explorer**

Jira issue ID: QLIK-91053
Description: Copy/paste excel rows into Smart search with IE only pasted the first cell.

**Displayed message hides layers on Sense map**

Jira issue ID: QLIK-91071
Description: When the legend is turned off and the calculation condition fails, the displayed message is placed on-top of the map. If the map contains more than one layer, the displayed message will obscure these layers.

**UI stops working due to parsing of long expressions**

Jira issue ID: QLIK-91145
Description: Improve performance of client expression parsing to prevent UI from freezing when selecting objects with long expressions in edit mode.

**UDC - Generic LDAP / AD: Unable to use custom port for LDAPS**

Jira issue ID: QLIK-91150
Description: Documentation updated with information on lack of support for custom ports and issue fixed with usage of lower and upper case for LDAPS string in the path

**Error message publishing objects in Section access app when access rights had been updated during user's session**

Jira issue ID: QLIK-91160
Description: Sometimes when a Section access app had been reloaded during a user session leading to changed user privileges, a user would get error messages publishing sheets or other objects. The sheets were however correctly published in accordance with current access rights.

**The "ExportData" API from .NET SDK returns an error when exporting an empty table**

Jira issue ID: QLIK-91224
Description: Fix allows for hypercubes that only have field titles and no data to be exported.

**'Today' and 'now' functions behave differently in Data manager and Chart Expressions**

Jira issue ID: QLIK-91226
Description: The parameters for the 'today' and 'now' functions in Qlik Sense are optional. However, the expression editor in Data Manager incorrectly treated any method that only had optional parameters as having required parameters. The expression editor highlighted these expressions and indicated them as being invalid incorrectly.

**Incorrect selection bar and data preview when Section Access is applied**

Jira issue ID: QLIK-91265
Description: When making selection on a single field value, the value does not show up in the selection bar, and Preview pane in Data Model Viewer shows empty table.

**Column with Japanese characters replaced with numbers when exporting a Pivot table**

Jira issue ID: QLIK-91302
Description: Fixed issue with Excel export causing header columns being wrong formatted when creating a pivot table that has pseudo dimension with multiple measures.

**Export Story Alignment issues**

Jira issue ID: QLIK-91360
Description: When a story with an embedded sheet aligned to right-hand and text object to the left-hand side is exported to PowerPoint, the sheet object is realigned to the left-hand side. When exported to PDF, not enough space is left for the text objects.

**Sorting is not working for pivot tables in Visualization API**

Jira issue ID: QLIK-91372
Description: Sorting pivot tables in Visualization API using qSortCriterias didn't work and is now fixed.

**Turning on Database traffic encryption causes AppDistributionService Error "SSL off"**

Jira issue ID: QLIK-91393
Description: App Distribution, Hybrid Deployment and Entitlement Provisioning now supports secure DB connections preventing App Distribution from being non responsive when invoked system wide.

**Data preview showed empty when Section Access is applied**

Jira issue ID: QLIK-91407
Description: Applying section access on data preview model caused the preview get no data set

**Chart line/values not lining up with the grid lines**

Jira issue ID: QLIK-91417
Description: Fix mismatch few pixels between the line layer and the grid line layer in a line chart.

**Only 1 month of data is available after upgrading to September 2018**

Jira issue ID: QLIK-91418
Description: The fix addresses the data migration where a duplicate QLogs database is created. The bug affects Qlik Logging Service version 0.3 (from Qlik Sense November 2017 to Qlik Sense June 2018), and version 0.4 (Qlik Sense September 2018), and has been fixed in version 0.5 (Qilk Sense November 2018 and later releases).

**Selections with special characters is not working in App Integration API**

Jira issue ID: QLIK-91495
Description: Selections are not being applied with App Integration API if the selection value contains special characters. This is now fixed.

**Column definitions are overwritten in Visualisation API**

Jira issue ID: QLIK-91504
Description: Leveraging the Visualisation API to create visualizations on the fly, the optional column definitions could be specified by the user but was overwritten.

**Extended sheets are not working in Single Integration API**

Jira issue ID: QLIK-91508
Description: Extended sheets are not showing the full sheet in the sheet mode of Single Integration API. This is now fixed.

**Take snapshot option displayed in a published app even when not allowed**

Jira issue ID: QLIK-91516
Description: Take snapshot option is displayed in a published app even when security rules do not allow the user to create snapshots.

**Mashup is not scrollable when scroll it on the chart object**

Jira issue ID: QLIK-91589
Description: When accessing mashups collections in the Qlik Sense hub on a mobile device, the mashup page is scrollable only if fingers are on chart object. In the expected behavior the page should be scrollable seamlessly.

**Setting a Default Bookmark remove Background Image from App**

Jira issue ID: QLIK-91615
Description: Selecting "Set selections as app default" on the created bookmark caused the removal of the background image from the app.

**Unhandled exception can corrupt communication between services**

Jira issue ID: QLIK-91638
Description: Under specific circumstances the communication between services could get corrupted and neither recover or get cancelled leading to the request not finishing correctly.

**URL label blanks out straight table**

Jira issue ID: QLIK-91670
Description: Update URL label property so that engine can evaluate it properly.

**Ineffectual custom property assignment on ODAG generation**

Jira issue ID: QLIK-91671
Description: Custom property assignment on ODAG generation is ineffectual when used in sophisticated load balancing.

**Discrepancy in data rendered in Qlik Cloud hub**

Jira issue ID: QLIK-91738
Description: Fixed degrade of bug fix QLIK-86820 where [] brackets did not evaluate correctly when included in expression.

**Pivot Table Flicker**

Jira issue ID: QLIK-91912
Description: Certain combinations of manual column widths and screen resolutions would make Pivot table "flicker".

**Export to excel changes the number format of only one cell**

Jira issue ID: QLIK-91926
Description: When exporting to Excel, not all cells are updated with the expected format.

**Sheets and objects are not showing up in the menu in Single configurator**

Jira issue ID: QLIK-91935

Description: Sheets and objects are not showing up in the menu in Single configurator, but if you search for an object it will show up the list.

**It should be possible to duplicate an app regardless of ownership**

Jira issue ID: QLIK-91952

Description: The app ownership check has been removed to allow the duplication of apps regardless of ownership.

**Set analysis with derived calendar fields not working with P(), E()**

Jira issue ID: QLIK-91968

Description: Fixed issue with parsing set analysis expression when using fields on the fly.

**Pie Chart Master Visualization labels missing after upgrade from Qlik Sense February 2018**

Jira issue ID: QLIK-92003

Description: If a pie chart has been converted from a line chart, bar chart or combo chart, the labels in the pie chart are not visualized.

**Some charts are not rendered properly after update to latest Sense version**

Jira issue ID: QLIK-92021

Description: Fix of a missing color property that was causing a failure in rendering some charts in latest Sense release.

**Export image and pdf in remotely hosted mashup not working**

Jira issue ID: QLIK-92114

Description: Exporting an image or a pdf using exportImg or exportPdf methods of Capability API does not work for mashups deployed in a domain that is different from the domain in which Qlik Sense Enterprise is installed for authenticated users. This is now fixed.
Note: Export works for anonymous only if the mashup is deployed in the same domain as Qlik Sense.

**No access to DLE in navigation bar and no possibilities to reload via Fields in assets panel**

Jira issue ID: QLIK-92165

Description: Intermittent loss of access to DLE and Data manager in navigation menu and no possibilities to reload via Fields in assets panel.

**Incorrect translation to Japanese in the Qlik Sense hub**

Jira issue ID: QLIK-92170

Description: The heading "Published" that describes the stream for published Sense apps is wrongly translated in Japanese.

**Sort order in line chart issue after upgrading to Qlik Sense November 2018**

Jira issue ID: QLIK-92197

Description: Fix sorting order of the second dimension of a line chart.

**Access Denied error when exporting data from chart on a newly created sheet**

Jira issue ID: QLIK-92205

Description: Objects created on newly added sheet could not be exported.

### App overview page (/sense/app/(appid) is returning 404 when "se" is used as a virtual proxy prefix

Jira issue ID: QLIK-92209
Description: Some parts of the sub-path from the URL were removed when the sub-path was extracted.

### Tables not referring to line characters

Jira issue ID: QLIK-92247
Description: Straight table and Pivot table did not respect new line characters.

### Percentage formatting for Num() function does not work consistently in charts

Jira issue ID: QLIK-92252
Description: Inconsistent behavior of percentage formatting of the labels between grouped bar chart and stacked bar chart in Qlik Sense September 2018.

### Dashboard Bundle - Button disappears with "Qlik Sense Focus" and smallest grid size

Jira issue ID: QLIK-92404
Description: Button was not visible with smallest grid size and Sense focus theme.

### Date Range Picker extension allows only selection of 5.000 dates

Jira issue ID: QLIK-92415
Description: The date picker only allowed 5.000 selections. The limit is now set to 10.000.
Note: 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.

### Wrong evaluation of color label in Pie Chart

Jira issue ID: QLIK-92437
Description: Apply altLabel for attributeExpression in pie chart.

### Reload issues after upgrading to Qlik Sense September 2018

Jira issue ID: QLIK-92426
Description: After upgrading to Qlik Sense September 2018 reloads do not result in the app being updated on all servers. Instead, sometimes the old data remains in the engine cache on other nodes, causing the node to display outdated data until the engine is restarted.

### Object not exported in presentation when Stacked option is used

Jira issue ID: QLIK-92539
Description: Fix calculation of the number of stacked bars in case of a stacked bar chart with two dimensions.

### Unexpected behavior of the STORE statement in Qlik Sense November 2018

Jira issue ID: QLIK-92555
Description: When you try to store the data in TXT format then only the value in the first line gets stored in the version November 2018.

### Operations Monitor "Reload CPU Heatmap" displays "No activity associated with current selections"

Jira issue ID: QLIK-92630
Description: Operations Monitor sheet "Task Planning" includes a pivot table "Reload CPU Heatmap" which might display "No activity associated with current selections" even when no selections are made or reloads are indeed associated with current selections.

Note: This fix properly displays Reload CPU data by correcting logic in the app load script which identifies the underlying CPU data for reloads.

**Variable value is not passed to DLE script**

Jira issue ID: QLIK-92646
Description: Variable value didn't load in the Data load editor while in the same tab as the app.
Note: The fix was done by external dependencies. No code changes ware done from our side (Advanced Authoring).

**For sheets in Single Integration API, the selection menu ends up under nearby charts**

Jira issue ID: QLIK-92819
Description: The chart selection menu was ending up under nearby charts, which made the menu hard to use. This is now fixed.

**Date Picker in Custom Objects: Start Date and End Date Off By One day**

Jira issue ID: QLIK-92879
Description: Depending on your time zone, the date picker didn't always show the correct dates.

**Snapshot creation security rule requires Bookmark creation rights**

Jira issue ID: QLIK-93479
Description: Client would always look at bookmark when evaluating privileges for snapshot items. Privileges for snapshot have been introduced in the backend.

**ODBC package 5.2 fails to make SQL UPDATE after upgrading to Qlik Sense June 2018**

Jira issue ID: QVXODBC-1406
Description: By default, non-SELECT queries are disabled in the Qlik ODBC Connector Package and user will get an error message indicating this if the query is present in the load script. In order to enable non-SELECT queries, allow-nonselect-queries setting should be set to True by the Qlik administrator.

**PostgreSQL Connector fails to load table with OID larger than 2147483647**

Jira issue ID: QVXODBC-1418
Description: When attempting to retrieve an OID value that is greater than 2147483647, the driver returns an error.

**Oracle connector fails to load Timestamp with Time Zone datatype**

Jira issue ID: QVXODBC-1425
Description: The connector is now able to work with the TIMESTAMP WITH TIME ZONE data type from Oracle databases, mapping it to the SQL_TYPE_TIMESTAMP data type.

**ODBC Connector Package - Error: ERROR [HY000] ORA-00936: missing expression**

Jira issue ID: QVXODBC-1496
Description: Qlik ODBC Connector is updated to correctly handle nested select queries for Oracle database.

**Comment is removed from Oracle SQL query**

Jira issue ID: QVXODBC-1515
Description: When reloading an app, the optimizer hint comment contained in an SQL query to Oracle database is removed, before the query is sent to Oracle.

**Rest connector is missing icons in cloud/QSD/QSE**

Jira issue ID: QVXREST-718
Description: Certain icons were missing from the dialog screens/UI.

**WITH CONNECTION cannot handle multi-line request body**

Jira issue ID: QVXREST-762
Description: With this fix, the connector is able to execute SELECT STATEMENT (load data) when a multi-line text was provided into POST BODY via WITH CONNECTION.

# 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

- 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.
- For security reasons, all URLs are encoded before displaying them to a user. Therefore, certain characters are encoded in a URL that is presented to the user even if it was intentionally not encoded by the app creator. The standard JavaScript functions **encodeURI** and **encodeURIComponent** are used to perform the encoding. See
  https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/encodeURI
  https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/encodeURIComponent
- 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
- 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).

### 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

- 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.

## 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

- 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

- 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.
- Google BigQuery Connector in ODBC Connector Package: If a user selects Standard SQL as a Language dialect in the **Create connection** dialog, queries written or views created using Legacy SQL dialect will not work.
- 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.

## Multi-Cloud

- 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.

- When multiple applications are distributed in parallel from Qlik Sense Enterprise for Windows to Qlik Sense Enterprise for elastic deployments and/or Qlik Cloud Services (QCS), the distribution might fail partially, with only some of the apps being successfully distributed. Check Application Distribution Service log in from Qlik Sense Enterprise for Windows for details on the distribution process.
  **Workaround**: identify which applications failed to be distributed and try distributing them one-by-one instead of as a group. For example, execute a reload on individual applications.
- 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 read access or 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

## 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 end-point 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.

## "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".

## 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.

## 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 November 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.

# Previous upgrade notes

## 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.

## 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
```

## 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

## 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.

## 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.

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

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. 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

# 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.

# 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.

# 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.

# 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.

# 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).

**IdevioMaps**

IdevioMaps of version 5.7.5 is supported by Qlik Sense 3.2.

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### 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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