

SaaS Readiness App

Qlik Sense Enterprise Client-Managed

Introduction

This guide covers the configuration of the SaaS Readiness application for Qlik Sense Enterprise Client-Managed. Designed to run on a Qlik Sense Enterprise Client-Managed site, the application is used with support from a Qlik Technical Field member or Qlik Partner to assist existing clients considering a move to Qlik Cloud Analytics. It profiles applications, assigns them to appropriate Qlik Cloud Analytics tiers, and provides sizing estimates for “Large Apps” and “Data for Capacity.” The application also includes session usage, data connection metadata, and task cadence information—all key factors in assessing and prioritizing the complexity of asset migration.

Dashboard

App is Published

Stream Name

App Name

App Last Accessed

SaaS Tier

Standard

95.9%²¹⁰

Apps

Large Apps

3.7%⁸

Apps

Requires Optimization

0.5%¹

Apps

Consumers

4

Sessions

27100.0%

% Sessions

Consumers

0

Sessions

00.0%

% Sessions

Consumers

0

Sessions

00.0%

% Sessions

Application Inventory

Apps Reloaded Since June 2018 | Sessions Last 90 Days | Task Executions Last 90 Days

App Name	Stream Name	SaaS Tier	Base RAM GB	Peak Reload RAM GB	Large Apps Consume	Large Apps Reload	Distinct Users	Max Concurrent Users	Max Concurrent Users (Last 90)	Sessions	Sessions (Last 90)	% Overall Usage	File Size GB	Task Execut...	Last Reload
Totals			0.86	1.83			4	1	1	27	0	100.0%	0.44	26,151	
3.1LargeApp	Load Test	Requires Optimization	62.27	0.00	No	No	0			0	0	0.0%	20.10	0	2019-1
PT Sales 500	Load Test	Large Apps	11.85	28.03	Yes	No	0			0	0	0.0%	11.70	0	2020-1
App Size Generator	[My Work (Unpublished)]	Large Apps	10.19	11.46	Yes	No	0			0	0	0.0%	8.20	0	2021-1
Orders	Large Apps	Large Apps	6.99	32.69	Yes	No	0			0	0	0.0%	4.40	0	2023-1
Enormous Reload App	Large Apps	Large Apps	6.86	45.88	Yes	Yes	0			0	0	0.0%	2.96	181	2024-4
SalesDetail_200-barebones	Sales	Large Apps	6.31	0.00	Yes	No	0			0	0	0.0%	4.58	0	2019-1
Frequent Reload	Large Apps	Large Apps	6.19	30.68	Yes	No	0			0	0	0.0%	3.90	3,582	2024-4
TPCH Benchmark (Full)	Load Test	Standard	4.93	8.79	No	No	0			0	0	0.0%	2.08	0	2020-1
TPCH Benchmark (Full)(1)	[My Work (Unpublished)]	Standard	4.93	8.79	No	No	0			0	0	0.0%	2.08	0	2020-1
Really Big Reload App	Large Apps	Large Apps	4.69	40.77	No	Yes	0			0	0	0.0%	2.02	2,277	2024-4
TPCH - 250M	Everyone	Standard	4.57	7.54	No	No	0			0	0	0.0%	3.22	0	2021-1
Sales	Large Apps	Standard	4.31	16.65	No	No	0			0	0	0.0%	2.86	973	2024-4
Big Reload App	Large Apps	Standard	3.49	31.63	No	No	0			0	0	0.0%	1.36	548	2024-4
Another Big Reload App(1)	isla flotante	Standard	3.49	31.62	No	No	0			0	0	0.0%	1.36	0	2023-1
TPCH-Test-03	Everyone	Standard	3.39	7.54	No	No	0			0	0	0.0%	1.54	0	2020-4
TPCH-Test-04-Round2	Everyone	Standard	3.13	6.56	No	No	0			0	0	0.0%	1.30	0	2020-4
TPCH-Test-04-M	Everyone	Standard	3.13	6.56	No	No	0			0	0	0.0%	1.30	0	2020-4

Refer to the "Definitions & Additional Notes" sheet for a detailed description of the calculated recommendations.

Refer to the "Definitions & Additional Notes" sheet for a detailed description of the calculated recommendations.

Disclaimer

These Tools provide general guidance regarding your organization's possible migration to Qlik Cloud Analytics. Estimates are based on information provided by Customer about your applications, data sources, data updates and expected usage patterns. The information provided by the Tools are general guidelines, and any assessment of migration paths to Qlik Cloud Analytics for your organization's needs will require additional due diligence.

The suggestions provided by the Tools are for informational purposes only, and do not represent a warranty or representation by Qlik of the actual Qlik Cloud Analytics deployment that may best suit your business requirements and preferences. The suggestions are based on the information provided by Customer, and any inaccuracy of, or changes to, the information provided by the Customer may result in significantly different evaluations and results. In the event of any conflict between the results of use of the ESR Tools and Qlik's standard Documentation, the terms of Qlik's standard Documentation shall control.

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Pre-requisites

The following pre-requisites are essential for the SaaS Readiness application to gather the data that it requires.

Qlik Sense Enterprise Client-Managed February 2020+

The Qlik Sense Enterprise Client-Managed version requirements are as follows. Refer to the numbered prerequisites below for complete detail. As of SaaS Readiness version 3.x and later, version February 2020 or later is required, as it is the earliest release that generates the full set of metadata necessary for migration analysis. These data points are essential for evaluating migration complexity, estimating Large App sizing, and calculating Data for Capacity sizing in Qlik Cloud Analytics. While the chart below provides useful historical context on version capabilities, only February 2020 and later captures the metadata required for accurate assessment.

	June 2018+	June 2019+	February 2020+
App Metadata	✓	✓	✓
App Lineage		✓	✓
Peak Reload RAM			✓

Session Log Level (Info)

The Session log level must be set to Info on all Engines. This setting is default on all Qlik Sense Enterprise Client-Managed installations. Session usage information per application is integral to weighing and prioritizing the migration of applications to Qlik Cloud Analytics, as applications that are highly used are typically of greater priority, and commonly have larger impacts on hardware savings.

TRACING	
Performance log interval (minutes)	5
System log level	Info
Performance log level	Info
QIX performance log level	Warning
Audit log level	Info
Session log level	Info
Traffic log level	Off
Analytic connection log level	Info

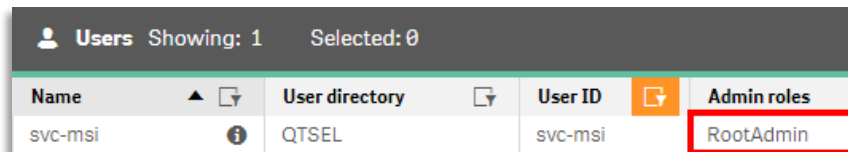
Task Execution Log Level (Info)

The Task execution log level must be set to Info on all Schedulers. This setting is default on all Qlik Sense Enterprise Client-Managed installations. Task execution information is helpful for clients that are interested in migrating applications to Large Apps in Qlik Cloud Analytics, as it provides the application the ability to calculate maximum task concurrency along with maximum concurrent peak reload RAM.

TRACING	
Application log level	Info
Audit log level	Info
Performance log level	Info
Security log level	Info
System log level	Info
Task execution log level	Info

Qlik Service Account has Role of RootAdmin

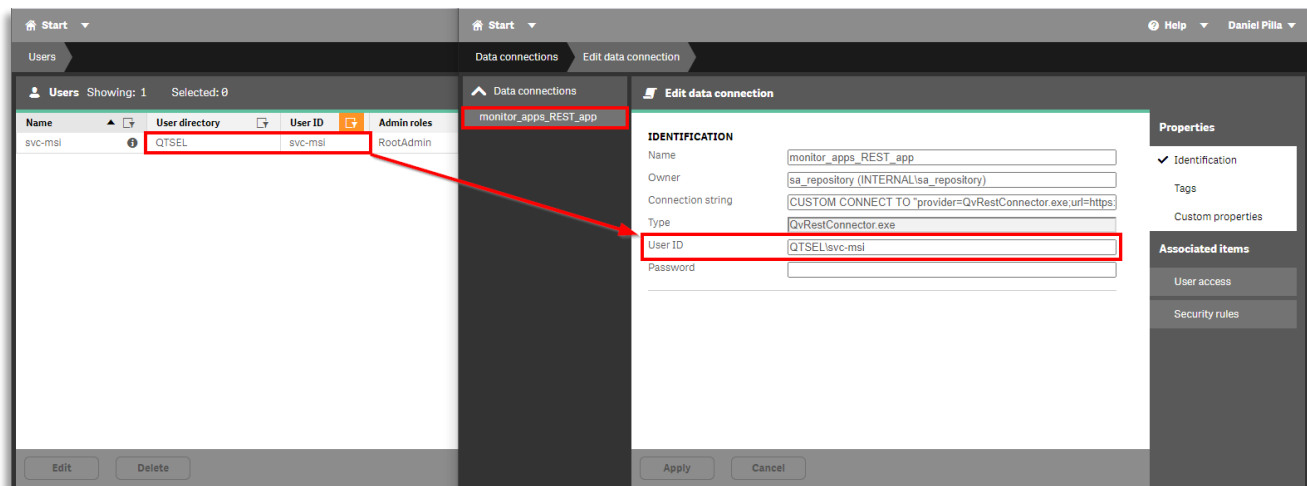
The Qlik service account must have the RootAdmin role, as this application gathers metadata across licenses, apps, app metadata, app lineage, tasks, nodes, and data connections.



Name	User directory	User ID	Admin roles
svc-msi	QTSEL	svc-msi	RootAdmin

Validate Qlik Service Account is the User Account Associated with Monitoring Connections

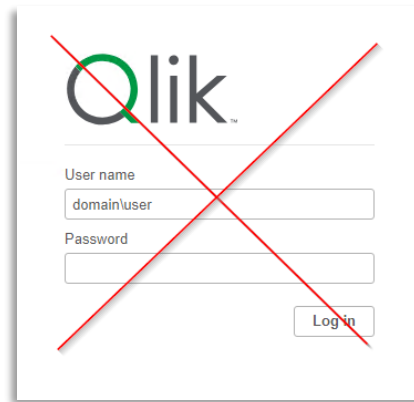
The Qlik service account needs to be the same account found in the User ID field of the `monitor_apps_REST_app` data connection. If this has been modified to another user, ensure that the user is also a RootAdmin as per the step above.



The screenshot shows the Qlik Sense interface with the Users table and the Edit data connection dialog for the 'monitor_apps_REST_app' data connection. The Users table has columns: Name, User directory, User ID, and Admin roles. The row for 'svc-msi' shows 'QTSEL' in the User directory, 'svc-msi' in the User ID, and 'RootAdmin' in the Admin roles column. The 'RootAdmin' role is highlighted with a red box. The Edit data connection dialog for 'monitor_apps_REST_app' shows the User ID field set to 'QTSELsvc-msi', which is also highlighted with a red box. A red arrow points from the 'RootAdmin' role in the Users table to the 'User ID' field in the Edit data connection dialog, indicating that the User ID in the data connection must match the User ID of the service account.

Virtual Proxy with Windows Authentication Enabled

A Virtual Proxy with Windows authentication must be enabled, as this application leverages the monitor_apps_REST_app data connection that ships with the product, which uses Windows authentication over the Qlik service account. Forms must not be enabled.

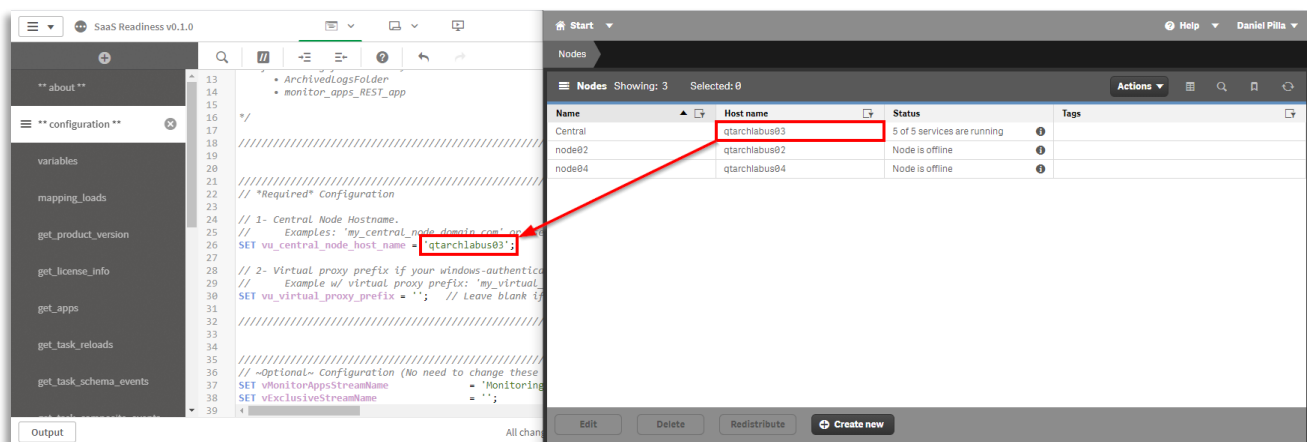


If a virtual proxy with Windows authentication does not exist, an additional can be created if necessary. This is a requirement for all Qlik monitoring applications as well (Operations Monitor, License Monitor, etc). If the monitoring apps are not currently operational, refer to this [Qlik Support Knowledge Base Article](#). In addition, do note that Kerberos is not supported.

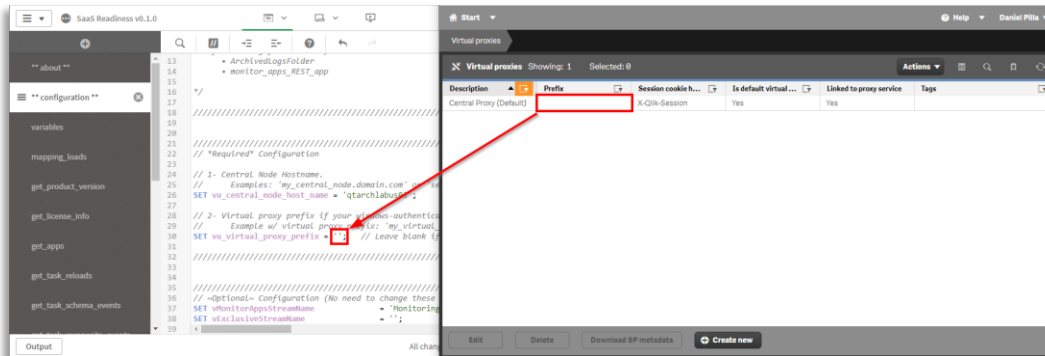
Setup

Primary Variables

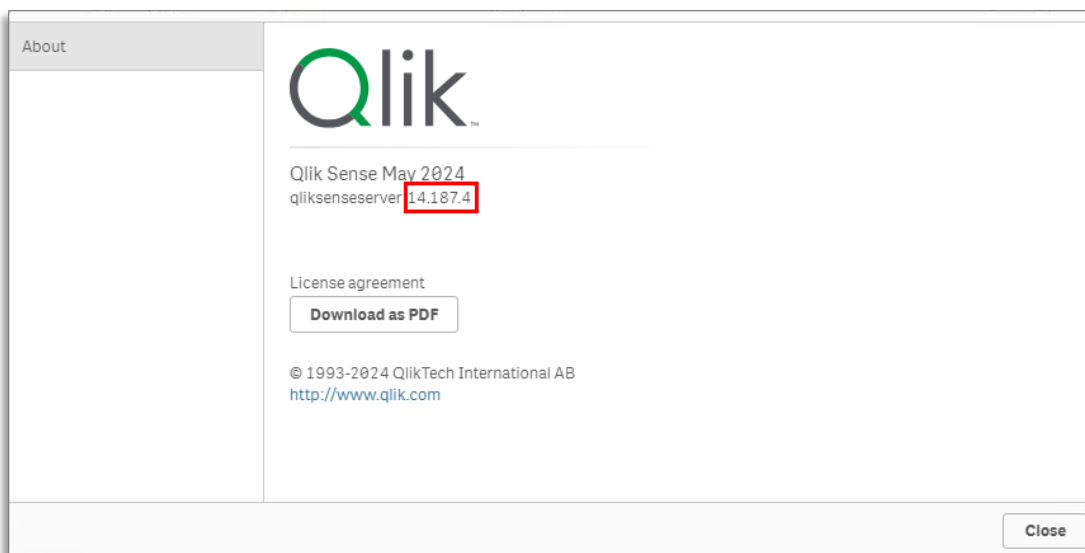
1. Import the SaaS Readiness app into the customer's Qlik Sense Enterprise Client-Managed site.
2. Open the application and navigate to the ****configuration**** tab in Data Load Editor.
3. Find the **vu_central_node_host_name** variable and set it to either the FQDN or machine name of the site's Central Node. If this is a single node site, the value of **localhost** may also be used. As this application needs to gather metadata from *all* applications, using the central node ensures this is possible.



4. Find the **vu_virtual_proxy_prefix** variable. If the prefix-less Virtual Proxy linked to the central node is using Windows Authentication (without forms enabled), leave this blank (this is the default). If there is a prefix set for the virtual proxy using Windows authentication, enter it here (e.g. **SET vu_virtual_proxy_prefix = 'prefix'**). Be sure to not include any **/** characters in the string.



- Find the `vu_product_version` variable. Enter the product version found in the About section of either the Hub or QMC. Enter in the dot notated digits, for example: `SET vu_product_version = '14.187.4';`



- Find the `vu_folder_scan_is_dynamic` variable. By default, all data connections of the type "folder" are scanned automatically for the presence of specific file types (e.g., .qvd, .csv, .txt, etc.). The default setting for this scan is `1`, and the outcome of this process directly impacts capacity sizing estimations. If you prefer to manually specify folder paths, set the configuration value to `0`, and then manually enter the names of the data connections into the inline table `IndividualFolderConnectionsToScan`. This will be set in the Execution section below.

7. **vMonitorAppsStreamName** – this is the default name of the monitoring apps stream. If it has been changed, modify it here. This is so all monitoring apps are excluded from analysis, as they have no relevance in Qlik Cloud Analytics.
8. **vSessionLogDaysBack** – this variable is further documented below, however note that it controls the amount of session logs that are brought in (e.g. only the last 90 days). If the Qlik Sense Enterprise Client-Managed site is many years old, or if the goal is to check if the application successfully reloads (trial reloading), set this value to something lower, e.g. **30**. This will be set in the Execution section below.
9. **vTaskLogDaysBack** – this variable is further documented below, however note that it controls the amount of task execution logs that are brought in (e.g. only the last 90 days). If the Qlik Sense Enterprise Client-Managed site is many years old, or if the goal is to check if the application successfully reloads (trial reloading), set this value to something lower, e.g. **30**. This will be set in the Execution section below.
10. **vAppLastReloadedDaysBack** – this variable is further documented below, however note that it controls the amount of applications that are scanned for metadata (e.g. only applications that have been reloaded in the last 90 days). As application metadata only became available as of the June 2018 release of Qlik Sense Enterprise Client-Managed, the default date minimum date for an application to be reloaded is June 15th, 2018 (roughly the release date). This variable allows that time to be overridden to something more recent. This is helpful for either trial reloading the application or for reloading the application in batch (e.g. reloading with it set to 30, then 90, then 180, and so on). This variable will be explored more in the Execution section below.

Additional Variables & Settings (Optional)

1. Open the application and navigate to the ****optional configuration**** tab in Data Load Editor.
2. Find the **vSubscriptionType** variable. *This variable should only be configured by a Qlik Technical Field member or Qlik Partner.* Set this to the appropriate Qlik Cloud Analytics subscription type based on the customer's licensing. Valid values include **'User'**, **'Standard'**, **'Premium'**, or **'Enterprise'**. The default is **'Premium'**.
3. Find the **vFileScanMonthsBack** variable. Set this to define the lookback period (in months as an integer) for including modified files. Use **-1** to include all files regardless of modification date.
4. Scroll to the **FileExtensions** inline table. This table defines which file types are scanned from directories. You can add or remove file extensions as needed. The *File Scan Analysis* sheet highlights file extensions found in lineage but not scanned, helping identify any missing extensions that may need to be added.
5. Scroll to the **DataConnectionsToExclude** inline table. This table excludes specific data connections from being scanned. By default, it includes **ArchivedLogsFolder** and **ServerLogFolder**. Only modify these if the names have changed, or if additional log folders are present in a multi-node environment. Add additional data connections to exclude as required.
6. Scroll to the **FileNamePatternToExclude** inline table. This defines filename patterns that should be excluded from the analysis. Wildcards (*) are supported. Modify this list if there are specific files you want to ignore during the scan.
7. Scroll to the **DirectoryPatternsToExclude** inline table. This defines directory name patterns to exclude from scanning. No files will be scanned within any directories that match these patterns. By default, it includes paths like ***archivedlogs*** and ***programdata***. Extend this list to exclude additional directories as needed.

8. Scroll to the `AppNamePatternsToExclude` inline table. This table excludes lineage from apps with names matching known internal or irrelevant apps. You may update this list based on your environment.
9. Scroll to the `AppDescriptionPatternsToExclude` inline table. This table filters out lineage from apps based on description patterns. It helps exclude internal apps even if they've been renamed. Update the list only if needed.
10. Find the `vu_include_lineage_files_without_match` variable. Set this to `1` if you want to include files referenced in lineage but not physically found via data connections. These will appear without file size information.

Execution

Trial Reload

First and foremost, the application should be reloaded with a limited set of data to confirm successful operation, as this application may take multiple hours to reload on large sites.

Adjust Variables

1. Find the `vu_folder_scan_is_dynamic` variable and set it to `0`. This limits scanning to only selected "folder" data connections, instead of scanning all possible ones.

```
SET vu_folder_scan_is_dynamic = 0;
```

2. Find the `IndividualFolderConnectionsToScan` inline table and add the name of a single "folder" data connection to scan. In the example below, the name of the data connection is `Data (qtset_dpi)`.

```
IndividualFolderConnectionsToScan:  
LOAD * INLINE [  
    DataConnection  
    Data (qtset_dpi)  
];
```

3. Find the `vSessionLogDaysBack` variable, and set it to a small number of days as to only fetch data from a minimal amount of session logs, as this will allow the application to reload more quickly, e.g.

```
SET vSessionLogDaysBack = 7;
```

4. Find the `vTaskLogDaysBack` variable, and set it to a small number of days as to only fetch data from a minimal amount of task execution logs, as this will allow the application to reload more quickly, e.g.

```
SET vTaskLogDaysBack = 7;
```

5. Find the `vAppLastReloadedDaysBack` variable, and set it to a small number of days as to only fetch application from applications that have been reloaded within the last x days (the current time – the variable), as this will allow the application to reload more quickly, e.g.

```
SET vAppLastReloadedDaysBack = 7;
```

6. Reload the application as a Task. The application must be reloaded as a task so that it can access all of the “folder” data connections.

Full Reload Options

After confirming the trial reload is successful, there are two options in which the application can be reloaded. Given the number of applications in the site, choose one or the other:

- **In batches**
 - This option is best for Qlik Sense Enterprise Client-Managed sites that have greater than 500 applications. It allows the application to be reloaded in progressively larger chunks while taking advantage of incremental loads using QVDs.
- **In a single reload (full)**
 - This option is best for Qlik Sense Enterprise Client-Managed sites that have a maximum of 500 applications. The application will fetch metadata for all applications at once.

Batch Reload

1. Navigate to the Hub and open the SaaS Readiness application.
2. After having reloaded the application in a trial reload as per the [Trial Reload \(Subset of Data\)](#) section of this document, confirm that the `vSessionLogDaysBack` and `vTaskLogDaysBack` variables are both set to a low number, e.g. `7`. In addition, make sure that the `vu_folder_scan_is_dynamic` variable is set to `0` along with the `IndividualFolderConnectionsToScan` inline table containing a single “folder” data connection. These logs will be loaded in bulk on the very last reload.

```
SET vu_folder_scan_is_dynamic = 0;
```

```
IndividualFolderConnectionsToScan:  
LOAD * INLINE [  
    DataConnection  
    Data (qtsel_dpi)  
];
```

```
SET vSessionLogDaysBack = 7;  
SET vTaskLogDaysBack = 7;
```

3. Find the `vAppLastReloadedDaysBack` variable. If it was set to `7` on the trial run, set it to a higher number, say `30`.

```
vAppLastReloadedDaysBack = 30;
```

4. Reload the application as a task.
5. Repeatedly follow steps 3 and 4 by continuing to increment the `vAppLastReloadedDaysBack` variable. If it was set to `30` on the last run, set it to a higher number, say `90` (these chunks can get larger on each iteration, as there *should* be less applications that haven't been reloaded the further back the variable is set). Continue this process up until the desired number of days has been reached, say `365`, or after reaching `365`, set the variable to `-1` to reload all of the remaining metadata for all applications (back to June 15th, 2018).
6. Set the `vu_folder_scan_is_dynamic` variable to `1`.

7. Lastly, set the `vSessionLogDaysBack` and `vTaskLogDaysBack` variables to the desired range, e.g. `180`.

```
SET vSessionLogDaysBack = 180;
SET vTaskLogDaysBack = 180;
```

8. Reload the application for the last time.

BATCH PROCESS SETTINGS AS A TABLE

	vAppLastReloadedDaysBack	vSessionLogDaysBack	vTaskLogDaysBack	vu_folder_scan_is_dynamic	IndividualFolderConnectionsToScan
1	30	7	7	0	Single "folder" data connection
2	90	7	7	0	Single "folder" data connection
3	180	7	7	0	Single "folder" data connection
4	365	7	7	0	Single "folder" data connection
5	-1	180	180	1	

Full Reload

1. Navigate to the Hub and open the SaaS Readiness application.
2. After having reloaded the application in a trial reload as per the [Trial Reload \(Subset of Data\)](#) section of this document, confirm that the `vu_folder_scan_is_dynamic` variable is set to `1`.

```
SET vu_folder_scan_is_dynamic = 1;
```

3. Find the `vSessionLogDaysBack` and `vTaskLogDaysBack` variables and set both to the desired number, e.g. `180`.

```
SET vSessionLogDaysBack = 180;  
SET vTaskLogDaysBack = 180;
```

4. Find the `vAppLastReloadedDaysBack` variable. Set it to `-1` (which turns off the custom range) or `365` if only a year of data is desired.

```
vAppLastReloadedDaysBack = -1;
```

5. Reload as a Task. Note that a full, initial reload can take many hours on larger sites, in some cases over 24 hours. Ensure that the timeout of the task is set to accommodate this.

FULL RELOAD SETTINGS AS A TABLE

<code>vAppLastReloadedDaysBack</code>	<code>vSessionLogDaysBack</code>	<code>vTaskLogDaysBack</code>	<code>vu_folder_scan_is_dynamic</code>
<code>-1</code>	<code>180</code>	<code>180</code>	<code>1</code>



Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade AI/ML and pervasive data quality. We excel in data integration and governance, offering comprehensive solutions that work with diverse data sources. Intuitive and real-time analytics from Qlik uncover hidden patterns, empowering teams to address complex challenges and seize new opportunities. Our AI/ML tools, both practical and scalable, lead to better decisions, faster. As strategic partners, our platform-agnostic technology and expertise make our customers more competitive.

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