

WISDOM



A CURATED  
GUIDE FOR A  
**TABLEAU  
SERVER**  
— TO —  
**TABLEAU  
CLOUD**  
**MIGRATION**

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# INTRODUCTION

As a cloud-based world is becoming more and more appealing to organizations, moving from Tableau Server to Tableau Cloud is an attractive option for many companies today. However, a Tableau Server to Cloud migration can seem like a daunting project, especially if you're dealing with large volumes of data and complex dashboards. But fear not! This guide is designed to simplify this process and provide you with everything you need to ensure a smooth migration.

Whether you're planning on doing part of the process and delegating the rest to others, or carrying it all out yourself, this guide will equip you with the knowledge and advice needed to successfully migrate from Tableau Server to Tableau Cloud, and the important steps to take post-migration.

Let's first understand why migrating to Tableau Cloud is a smart move for your organization.





# WHY ORGANIZATIONS ARE MIGRATING TO **TABLEAU CLOUD**

Scott Smith, Senior Product Manager at Salesforce

For over two decades, Tableau has been focused on helping people see and understand their data. As data technology, volume, and complexity have increased, helping customers see and understand their data has evolved. One of the largest changes we've seen around the globe is a shift to SaaS as the preferred deployment model for organizations of all sizes. While Tableau Server used to be the preferred deployment option, today **>90% of net new Tableau customers chose to deploy on Tableau Cloud**. We are also witnessing a growing number of existing Tableau Server customers migrate to Tableau Cloud. The decision to migrate to Tableau Cloud is up to the preference of each customer. However, for those who make the leap, we often see these four themes drive their decision:

## 1 INNOVATION

Tableau Cloud is always on the latest version of Tableau, which means you get access to all of our innovations as soon as they're available. That means all [Tableau AI](#) features that we develop are available to your data community right away. As transformational technologies like LLMs are integrated into [Tableau Pulse](#) and Einstein Copilot for Tableau, your teams gain access to them immediately.

## 2 INCREASED ROI

Shifting to analytics as a service, customers like [Juniper](#) find productivity gains and increased data access that maximize the end user value from analytics. With access to Tableau Pulse, customers have seen significant increases in the amount of data driven decisions, amplifying the value of unlocked data at an organization. Additionally, letting Salesforce manage your deployment as a service frees up valuable time and resources while eliminating your hosting and hardware costs. This also increases ROI by lowering deployment costs.

## 3 SECURITY

Migrating to Tableau Cloud means you immediately benefit from Salesforce's industry-leading Trust posture and unified security team. Tableau Cloud meets strict security requirements and undergoes regular security reviews to ensure your data is safe. Every customer benefits from the many compliance certifications like SOC 2 [and Tableau Cloud's HIPAA compliance](#) just by using the platform. For years, [Trust](#) has been Salesforce's #1 value and as new technologies emerge like LLM's, you can rest assured that data security will always be our top priority.

## 4 SCALE

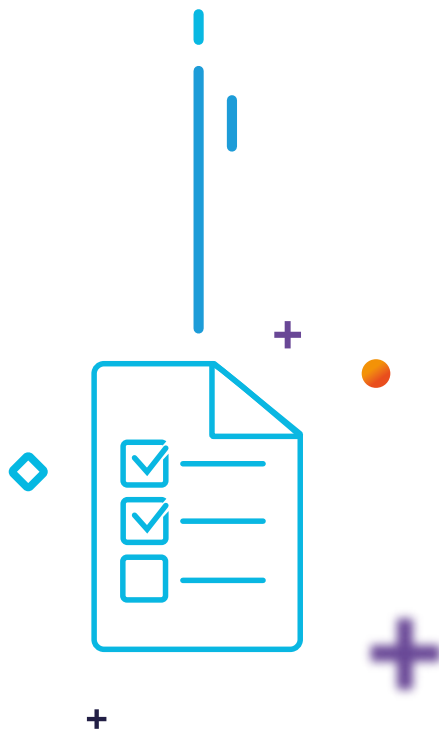
Tableau Cloud has pods distributed across the globe to ensure data access, performance and resiliency no matter where your users are. Customers like [Jaguar Land Rover](#) were able to scale data analysis securely from anywhere by migrating to Tableau Cloud. Instead of going through extensive IT cycles with Tableau Server to align on a growth strategy, assess hardware requirements and rollouts plans, Tableau Cloud customers simply add new Users to the platform and they are up and running that day.





## YOUR GUIDED MIGRATION TO **TABLEAU CLOUD**

The decision has been made—your organization is migrating from Tableau Server to Tableau Cloud and you're wondering where to start! Successfully migrate to the Cloud using steps from the following 3 categories; Preparation, Execution, and Validation & Monitoring:



# PREPARATION



# 1

## Plan your Migration

### STEP

Before moving to Tableau Cloud, it requires key planning to ensure a smooth journey for your data and users. We all know the expression “By failing to prepare, you are preparing to fail”. Here is a pre-migration checklist to help you kick-start this project:

- **Migration type:** Determine if you want to perform a Lift & Shift or Partial migration. Note that in the process, you'll likely move to a newer version of Tableau.
- **Multi environments vs. Single site:** Tableau Cloud offers a single site, unlike Tableau Server which offers multiple environments that have Dev/Test/Prod Servers and each server could have a number of sites. It's common to create project folders to represent the different servers/sites set up you had on Tableau Server. It's also possible to use the multi-site approach, in such case make sure you talk to Salesforce due to licensing.
- **Data Sources:** Take inventory of all your data sources (databases, applications, files) and identify those supported by Tableau Cloud. [Tableau Bridge](#) will establish a connection between Tableau Cloud and your on-premise data. Cloud data sources can be white-listed and can connect directly to Tableau Cloud without Tableau Bridge. It's also recommended to check how many workbooks leverage embedded data sources.
- **Authentication:** Determine if you will use the built-in TableauID (with multi-factor authentication for extra security) or leverage your organization's existing identity provider (IdP). IdP integration is needed regardless of the SAML Methods (Okta, Salesforce, Google, etc.).
- **Tableau Server Extensions:** Make an inventory of all Tableau Server extensions used and ensure they are supported on Tableau Cloud.

You should also consider the following at this stage:

- **Content Cleanup:** Before migrating, use Tableau Server's "Stale Content" view to identify unused workbooks, data sources, projects, and flows. Storage can become pricy on the cloud so it's advisable to not move what isn't used. *Tip: it's recommended not to keep content that hasn't been used in the past 13 months.*
- **Project timelines:** Exchange with your business to determine when is the best time to impact the least the business and exchange on the timelines. This is an IT project and rarely a business project.
- **Backup:** As a safety net, do a backup of your Tableau content in case you need to access content that isn't available or working on Tableau Cloud after having decommissioned Tableau Server.

It's important to understand your current Tableau Server environment and prepare for post-migration testing. For this to be successful, involve and collaborate with consumers, developers, and testers from the Business units impacted by this migration to identify:

- **Operational reporting and sources to be tested and certified:** These are mission-critical reports essential for daily operations.
- **Self-Service dashboards and sources to be tested and certified:** These are user-created dashboards frequently used for analysis.
- **Embedded analytics content:** These are Tableau dashboards integrated into other applications, web portals, or customer-facing platforms.

It's recommended to leverage metadata to understand what the content usage is, which can be done via Tableau Server Admin Views. Tableau Server Views provide some usage data such as:

- **Last Accessed Date:** This can indicate how recently a specific dashboard or workbook was accessed.
- **Number of Views:** This can show how many times a piece of content has been viewed, though it doesn't differentiate between unique users or repeat views.

Leveraging custom Views using Tableau's Data Extract API helps create custom views or dashboards. This approach involves extracting relevant metadata from Tableau and combining it with other data sources (e.g., user access logs) to create a more comprehensive picture of content usage.

When migrating to Tableau Cloud, you'll also want to test certain elements of your dashboards to ensure they continue to work as expected. These will include:

- **Visualizations:** Checks if charts, graphs, and other elements render correctly and haven't undergone unintended formatting changes.
- **Data Representation:** Confirms that the data displayed in the dashboard accurately reflects the underlying information.
- **Worksheet Details:** Ensures the structure and content of underlying worksheets haven't shifted, impacting the final dashboard view.
- **Functionalities:** Confirms the dashboard interactions work as expected.
- **Filter and Parameter Values:** Verifies any filters or parameters haven't been accidentally modified, potentially altering the data displayed.
- **Performance:** Measure dashboard loading leveraging specific loading scenarios.

# 3

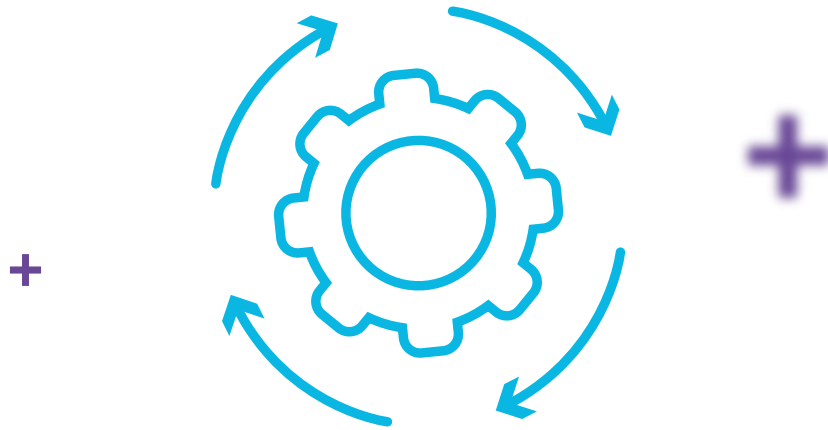
## Create and Configure a Tableau Cloud Site

### STEP

This step is taken care of by Tableau itself. Once your Tableau Cloud site is created, you can then move on to the configuration part of your Tableau Cloud site. For example, Authentication, Bridge, Extensions, Integrations, Connected Apps, Mobile, and more—this configuration part is well documented on the [Tableau website](#).







# EXECUTION



Now you're ready to start migrating your content from Tableau Server to Tableau Cloud.

**N.B:** Before migrating to Tableau Cloud, make sure Tableau Bridge set up for local data sources while cloud data sources connect directly to Tableau Cloud. Tableau Bridge handles live data connections and scheduled extracts for your on-premise data sources. Note with Tableau Bridge that when you schedule extract refreshes or do live queries, the data sources need to be published separately. They can't be embedded in the workbooks and they can't automatically refresh via Tableau Bridge.

To migrate to Tableau Cloud, there are two options depending on the size of your Tableau environment:

### 1 Manual Migration

For small environments (<20 workbooks), you can migrate workbooks individually (open workbook on Tableau Server, download it, and upload it on Tableau Cloud).

### 2 Leveraging the Content Migration Tool (CMT)

For larger environments, you can use the [CMT](#). Make sure you have admin permissions on Tableau Server and Tableau Cloud, and the ability to run the CMT from a location that can access both Tableau Server and Tableau Cloud.

Please note that the CMT will move sites, projects, workbooks, etc., but has limitations in moving users, groups, site settings, project permissions and locked states, subscriptions, etc. Additionally, it can show limitations when moving large amount of objects.

Keep in mind that data extract schedules will not be kept going from Tableau Server to Tableau Online. Once you've started migrating your Projects, pay attention to workbooks with embedded sources (during this step you can repoint data sources to a new data source) and your published data sources.



# 5

## Recreate Refresh Schedules for Tableau Cloud

### STEP

Once you've successfully migrated your data sources and workbooks from Tableau Server to Tableau Cloud, ensuring your data remains up-to-date is crucial. This is where refresh schedules come in.

Tableau Server refresh schedules don't automatically carry over to Tableau Cloud. For each data source or workbook requiring a refresh, navigate to the scheduling options in Tableau Cloud. Here, you will create new schedules that closely mirror those documented from Tableau Server, specifying the exact frequency, day, and time for each refresh. Tableau Bridge might be needed depending on the source type to maintain live connections to your on-premises data sources.

Here are some extra considerations at this stage:

- **Tableau Prep Flows**

You will need to check any Tableau Prep Flows as these objects in Tableau Server will need to be migrated as they will have scheduled flow tasks.

- **Workbook Subscriptions**

You need to check your workbook subscriptions have migrated over so that people will receive their workbooks as expected.



## 6

## Configure Permission and Content Access for Migrated Users

## STEP

You've now migrated your Tableau content and users, but migrating users to Tableau Cloud is just half the battle. You need to ensure they have access to the right content—in case permissions were not migrated successfully, here are some considerations to take into account:

- **Pre-defined Roles:** Leverage Tableau Cloud's built-in user site roles like Viewer, Explorer, Analyst, and Publisher. Assign these roles based on user needs—it's a quick way to establish basic permissions.
- **Granular Control (Optional):** For more nuanced access control, explore setting permissions at the project, workbook, and data source level. This allows you to tailor what users can see and interact with.
- **Project Access:** Grant users membership in relevant projects in Tableau Cloud. Users can only see and interact with content within the projects they're assigned to.
- **Content Sharing (Optional):** Content owners can directly share workbooks and data sources with specific users or groups for broader access within Tableau Cloud.
- **Row-Level Security:** Revisit your row-level security permissions and calculations.





# VALIDATION & MONITORING



*How can I guarantee my worksheets and dashboards that were migrated to Tableau Cloud are accurate?*

*How do I know that my dashboards are functioning the exact same way?*

*Are my data sources still reliable and working as they should be?*

These are just a few of the questions that will most likely come up after the migration is over. That's why once the migration to Tableau Cloud is complete, it's critical to make sure everything is working as it should be to avoid any unhappy users. At this stage, it's where testing becomes the priority. Testing validates that the migration was successful with documented results to build trust and ensure a proper adoption. At [Wiiisdom](#), we can help organizations not only [accelerate this validation process](#) but also ensure it can be executed at scale thanks to automated testing capabilities. The following are good examples in the context of a migration:

**N.B.:** *During this period, Tableau usually allows you to continue to have Tableau Server and Tableau Cloud coexist to carry out testing.*

#### ● Side by Side Regression Testing

Ensure the same content exists on Tableau Cloud by testing Tableau Server against the same content in Tableau Cloud. Regression testing allows to pinpoint:

- Visual differences
- Worksheet data differences
- Metadata differences such as filter types, filter values, parameter types, parameters values, number of columns, etc.
- Functional aspects such as ensuring the dashboard opens

Additionally, after performing the regression testing, detailed results should be documented to justify the accuracy of the migration. Dashboards should all be certified after passing the test to guarantee reliability and maintain the trust of business stakeholders.

#### ● Performance Testing

The performance of a dashboard is typically the second issue consumers notice after checking if the dashboard opens. The Business unit will expect Tableau Cloud to perform at least as fast as Tableau Server, and in most of the cases they will expect it to perform faster. Performance testing will ensure the dashboards are performing and delivering the right user experience within the defined [SLAs](#) after the migration is completed.

### ● **Functional Testing**

Ensure that the dashboards and views open successfully, and can be refreshed, and the navigation of filters, parameters, and selecting marks work as expected.

### ● **Accuracy Testing**

You can do three different types of test here to validate the data:

- Validate the accuracy of data on the visualization compared to the backend database tables.
- Validate the accuracy of data both at summary (aggregate) or full data (row level) against expected rules based on user defined rules.
- Ensure that users only see the data relevant to them.

### ● **Content Certification or Decertification**

Business stakeholders will want to be confident that their dashboards are still accurate, recent and reliable post-migration to avoid running the risk of poor decision-making. With Wiiisdom, you can deliver trusted data at scale thanks to dynamic certification (and de-certification!) of dashboards and data sources. Be reassured when they pass and get notified when they fail so you can proactively rectify errors before business stakeholders notice.

For the latter, the dashboard will be decertified, avoiding the risk of making decisions based on bad data.

The two types of certifications available are:

- Certify the data source for developers (Creators) to identify accurate data sources.
- Certify the dashboards for wider audience (content consumers) to identify accurate workbooks.

[Certify your dashboards today](#)



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Congratulations—you're now part of the Tableau Cloud community. Migrating from Tableau Server to Tableau Cloud is a significant step for any organization looking to leverage the cloud's scalability, flexibility, and reduced infrastructure management, and you've now achieved this momentous milestone. However, this transition isn't just about moving data and dashboards; it's about ensuring that your Tableau environment continues to deliver the insights and performance your business relies on now and in the future.

Now you have started to embrace analytics governance the right way, keep running tests regularly (this could be daily, or weekly, it's up to you how often you carry it out). Migrating to Tableau Cloud will provide access to new capabilities and feature functionalities, but be aware of the forced upgrades that you can't control. It's advisable to continue to run tests after every upgrade, embrace the analytics governance journey, and continue to implement more and more tests to deliver trusted analytics at scale. The following tests should be the ones to prioritize:

#### ● Data Integrity and Accuracy

Ensuring that your dashboards migrated correctly and continue to work as expected is paramount. Equally, ensuring that your data sources accurately populate your worksheets is crucial. Wiiisdom facilitates the comparison of worksheets against their associated data sources (such as Snowflake, Databricks, CSV, etc.) through SQL testing.

#### ● Performance Optimization

After migrating to Tableau Cloud, performance considerations will arise for dashboards and embedded dashboards, with businesses maintaining stringent SLA requirements. Whether you want to test a few concurrent users or a 100 concurrent users, Wiiisdom employs its unique Load and Performance engine enabling the simulation of load to verify adherence to SLAs.

#### ● Dashboard Functionality Validation

Dashboard functionalities, including filters, parameters, and custom calculations, need to work as expected after each forced upgrade. Monitoring would alert you in case this wasn't the case.

#### ● Regression Testing

Tableau takes care of the upgrades for Tableau Cloud which means you are always using the latest version. Allbeit a positive, you cannot control these upgrades, so regressions may arise by new functionalities being added in Tableau Cloud. Running regression tests will show you any differences before and after an upgrade, and it is the most critical when it comes to a Cloud migration as the dashboard is what is visible to the business stakeholders. It's a very manual and error prone work without an automated testing solution.

#### ● Regulatory Compliance

Post-migration, it's important to verify that security settings and access permissions have been correctly applied and that the content is accurate to comply with regulatory requirements. Tableau Cloud provides a tool called [Admin Insights](#) to help you manage user roles and sign-in activity.





# HOW CAN WIIISDOM HELP?

Wiiisdom for Tableau provides automated testing and certification/decertification capabilities and enables you to monitor your BI content and analytics environment at scale so you can catch and resolve issues proactively. Here's your post-migration checklist to ensure your BI content remains continually accurate:

## ● Define Testing Strategies

Plan for complexity of testing scenarios and the cadence of each test (hourly, daily, weekly, monthly, etc.).

## ● Introduce Continuous Testing

Implement a combined approach of continuous testing, monitoring, and CI/CD integration with Wiiisdom to have faster development cycles, improved dashboard quality, early detection of issues, and to increase confidence in deployments and to be alerted for decertified content.

## ● Set Up Email/Slack/Microsoft Teams/Webhook Integrations

Always be notified of your tests status' so you can proactively troubleshoot any issues before your stakeholders notice them.

## ● Keep Track of Testing Results Over Time

Document your testing process and rules put in place, and most importantly document the testing results which may be needed for audits and regulatory requirements. You also need to continually monitor for discrepancies and trends.

By implementing our solution, you can be reassured that your dashboards remain fast and responsive for business stakeholders. Regularly monitoring and testing your Tableau dashboards can help you adapt to changes, improve dashboard performance, and enhance user satisfaction over time.



## TABLEAU MIGRATION SDK

Tableau unveiled its Migration Software Development Kit (SDK) in early 2024 to help organizations migrate from Tableau Server to Tableau Cloud more efficiently. The SDK allows you to automate and optimize the migration process, saving you time and resources, and ensures a successful transition to Tableau Cloud. Every migration process is unique and this kit provides the tools to create your own migration application in the technical movement of users and content.

With the Migration SDK, you can:

- Migrate users and groups
- Migrate content such as data sources and workbooks
- Migrate your governance structure for your content in Tableau Cloud

Bear in mind that the Migration SDK is designed for those with experience with Python and .NET.

[Learn more about SDK](#)

If you migrate using this toolkit, make sure you complete post-migration tasks such as data validation. Tableau doesn't support automated data validation testing to manage load on multi-tenant environments, but to assist organizations with this, Wiiisdom provides automated solutions to validate assets are working as intended.



# TIPS & TRICKS FOR A SUCCESSFUL TABLEAU CLOUD MIGRATION

Benny Benford, Former CDO at Jaguar Land Rover

Carrying out a migration project such as this can be daunting but what can help is learning from those who have already migrated from Tableau Server to Tableau Cloud. Former CDO at Jaguar Land Rover, Benny Clive, shares his tips and tricks for a successful migration:

## 1 FOCUS ON THE VALUE THE MIGRATION CAN BRING TO YOUR ORGANIZATION

Teams can often spend time worrying more about the performance and usage of the Tableau platform rather than the added value the migration can bring to the organization. Make performance Tableau's problem and focus on supporting data and trying to get value from it for your organization.

## 2 ENGAGE WITH YOUR COMMUNITY

Look at the migration as a positive and ask your community why they have frustrations and take this opportunity to understand their issues so they can be rectified after the migration. Of course, you might not be able to solve everything so don't make any promises, but they will appreciate being involved.

## 3 TAKE THE OPPORTUNITY TO RESTRUCTURE

Jaguar Land Rover took advantage of this project to restructure their operating model and the way the site was structured. They were able to plan a site restructure and new security model thanks to their years of experience with Tableau. They engaged and listened to their community so they could address issues raised and work on them during this restructure.

## 4 TEST TEST TEST

It's all well and good migrating from Tableau Server to Tableau Cloud but if you're not testing then how can you know everything is working as it should be? Testing is a must to ensure you can validate the migration.

## 5 MAKE THE COMMUNITY A PART OF THE MIGRATION

The community will be happy to put the work in if it's going to benefit them. Talk to your community and say "you told us you have problems with XYZ, we're going to give you all of that but we need your help to get there". Plus, get them to do additional testing so they feel even more part of the project and get to see the benefits the migration has on the organization and their work. At the end of day, the fun bit is solving business problems and not managing a server!

[Learn more about Jaguar Land Rover's migration](#)



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# ARE YOU READY TO MIGRATE TO TABLEAU CLOUD?

This guide provides you with the benefits of moving to Tableau Cloud, a step-by-step process of how to carry out the migration, and the importance of automated testing and monitoring post-migration. By carefully planning, executing, and validating your migration, you can unlock the full potential of Tableau Cloud, ensuring your organization continues to derive valuable insights from data analytics.

[Validate your migration with Wiiisdom](#)





# ABOUT WIIISDOM

Wiiisdom provides governance solutions for analytics & BI content to restore trust in data-driven decision making. Wiiisdom enables organizations to implement automated testing, content lifecycle management, and continuous monitoring to ensure BI and analytics leaders make reliable decisions at all times.

[Visit wiiisdom.com](https://wiiisdom.com)



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