

# Deploying Tableau across your organization:

Which product is right for you?

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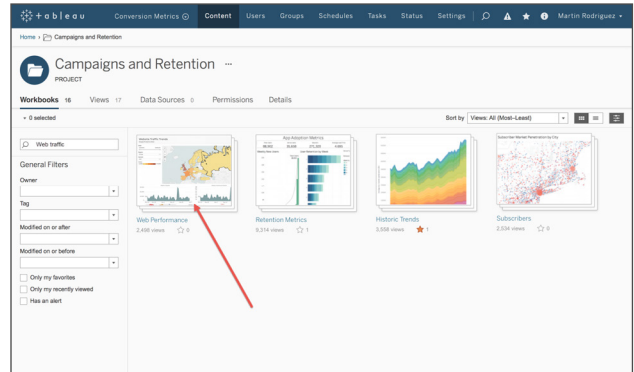
# Introduction

Data in the hands of a few can be useful. Trusted data in the hands of the many, working in collaboration with each other, can transform an entire organization.

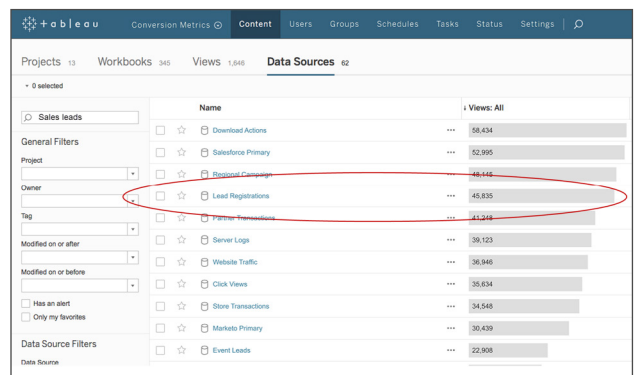
Imagine: Your marketing team is working on a website redesign and needs to understand your website's conversion rates. The marketing manager logs into your analytics portal from a web browser and searches for web traffic, returning a dashboard published by the web team. It shows organic traffic to the corporate website, but it's only a snapshot of the current week's numbers. The manager needs data to see how prior redesigns affected traffic and, ultimately, the lead flow for your sales team.

The marketing manager does another search in your analytics portal for sales leads. This returns a data source published by a sales analyst, but there's no accompanying dashboard. Not to worry—in just seconds, the marketing manager connects the sales-leads data source to the original web-traffic dashboard. With a few clicks, she changes the date filter, includes historical data, and voila, sales leads are now part of the dashboard. In just a few minutes, the team performed the analysis they needed and created a time-series view of lead flow compared to web traffic—all from their browser and without requiring help from the BI team.

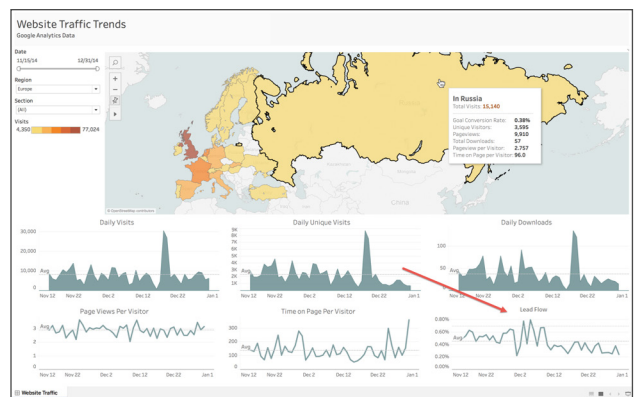
Best of all, because the data sources are connected live, the data will always be fresh and up to date. This new dashboard can now serve as the starting point for future discussions on website changes with the rest of the team. Everyone trusts the information as it was built on data securely maintained in the analytics environment by the IT and BI teams.



*A quick search returns a dashboard with web traffic and performance.*



*Tableau Server makes it easy for the marketing manager to find a relevant data source to supplement her dashboard and continue her analysis.*



*The marketing manager can now see all of the website traffic compared to the sales lead flow.*

This is the power of Tableau. More than just self-service analytics, this modern approach to business analytics lets each team within your business focus on what they do best. IT teams create and publish accurate data sources and sanctioned reports to Tableau Server. The subject-matter experts in the business consume and customize analytics to answer their own daily questions. This modern approach ensures:

- **Data is trusted and accurate.** Your company's analytics are accessible and safe. They live on a trusted, secure platform that allows IT to govern, manage, and track both data and analysis.
- **Self-service analysis and collaboration flourish.** People share their work including data, metadata, and advanced analysis. They answer business questions, tell stories with their findings, and easily iterate on each other's work. They have the agility and flexibility to self-serve their own problems, because they trust the data.

This guide will help you choose the Tableau deployment option that fits you best so you can benefit from the transformational power of putting trusted data in the hands of the many.

## The Tableau platform: an overview

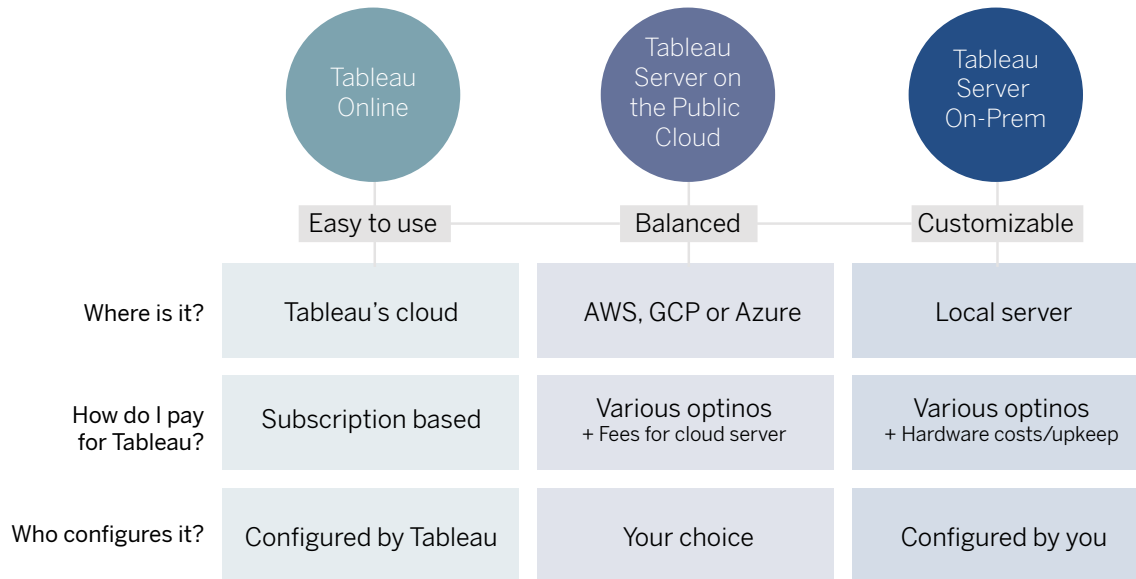
Tableau's platform provides the secure and collaborative environment where a culture of analytics can thrive. Tableau easily integrates into your unique data environment to leverage your existing assets, data, and platform investments.

Choosing how to deploy the Tableau platform is easy, and easy to change in the future. All three deployment options share common skill requirements and most of the same features. Tableau's approach to enterprise analytics is all about giving you the choice to deploy wherever you need today, and the flexibility to quickly adapt when those needs change. Whether your data is on-premises, in the cloud, or somewhere in between, there's a solution for you. This guide will help you choose the deployment option that best addresses your company's existing and future data needs.

Tableau is an analytics platform composed of Tableau Desktop and either Tableau Online (SaaS—hosted by Tableau) or Tableau Server (deployed on the operating system of your choice – Windows or Linux – and hosted on the public cloud or on-premises). Tableau Desktop lets you connect to any data, explore, analyze visually, and build interactive dashboards. Tableau Server and Tableau Online are for sharing, collaborating, managing, and governing data and content across your entire organization in a unified and trusted environment.

# Deployment options

Tableau’s analytics platform offers three different deployment options depending on your environment and needs. The below graphic shows each option at a glance:



- **Tableau Online:** Get up and running quickly with no hardware required. Tableau Online is fully hosted by Tableau so all upgrades and maintenance are automatically managed for you.
- **Tableau Server deployed on public cloud:** Leverage the flexibility and scalability of cloud infrastructure without giving up control. Deploy to Amazon Web Services, Google Cloud Platform, or Microsoft Azure infrastructure to quickly get started with Tableau Server (on your choice of Windows or Linux). Bring your own license or purchase on your preferred marketplace.
- **Tableau Server deployed on-premises:** Manage and scale your own hardware and software (whether Windows or Linux) as needed. Customize your deployment as you see fit.

# 5 questions to help you choose your deployment option

Which deployment options is best for you? Ask yourself these five questions.

## 1. Where is your data?

- a. In the cloud
- b. On-premises
- c. A mix of both

Additionally:

1. Futureproof your solution: Where will your data be tomorrow? Are you planning to transition to the cloud?
2. Does your data come with baggage? Some industries require specific data compliance measures, i.e.: government, healthcare, education.

Most organizations have data in a variety of formats and systems, and they continue to add more. Is your data predominantly stored in the cloud or on-premises? If your data is hosted mostly in the cloud, consider a cloud-based solution for your analytics platform. With Tableau Online or Tableau Server hosted on your preferred public-cloud platform, you can establish live data connections to your cloud-hosted databases and applications. If most of your data resides behind your company's firewall, deploying Tableau Server on-premises is likely the best option for you.

But don't just stop at your current data architecture; also consider your future data strategy. Are you likely to move your data to the cloud in the near or medium term? All three options — Tableau Online, Tableau Server on-premises, and cloud-hosted Tableau Server — support hybrid data scenarios, allowing you to connect to your data still on-premises while you add new databases and applications in the cloud.

Also, take into consideration all data-related compliance policies for your industry and region. For example, is your data mandated to be stored in a specific geographical location? Aside from North America, Tableau Online is also available in the EU, in ISO 27001-compliant data centers. The service is SOC2 compliant and features encryption of data at rest. Most public-cloud providers offer availability in many regions around the world. If you need to keep up to date with regulatory compliance but want to avoid incurring the associated costs in-house, the cloud is the best way to go. Tableau Online as well as our public-cloud partners will meet the industry standards on your behalf.

## 2. What resources and skills do you have available for ongoing management of your server?

- a. You have dedicated server admins and access to server hardware
- b. You have the skills to manage software but want your hardware hosted
- c. You don't have many resources; managing a server is not something you plan to do

If you are currently running your software on-premises and plan to keep it that way, you probably already have the people and skills in place to manage and maintain Tableau Server on-premises. Administrators will be responsible for looking after both the hardware and software, managing users, performing maintenance work, and securing the system. Upgrading and scaling the server when new releases become available will also be their responsibility.

Alternatively, if you're already using public-cloud infrastructure or if it's part of your strategic roadmap, you can choose to deploy Tableau Server to your preferred cloud platform. This will eliminate the need to look after your hardware, so your team can focus purely on managing the Tableau Server and user community. It will still be up to the Tableau Server administrator to manage the **security of the server** (allowing the right access to the right people) and maintain the operating system the server runs. Additionally, many IT organizations are increasing the cloud competencies within their teams. Deploying Tableau Server to the cloud can be part of these efforts as our documentation and support offer a low-risk start for your cloud journey.

If you don't want to spend any resources on hardware provisioning or management, Tableau Online is hosted in the cloud as a SaaS offering. We don't ask you to manage a server or worry about configuration, scaling, and maintenance. If this is music to your ears, then Tableau Online is right for you. You can set up your own site in minutes and never have to worry about software updates or patches. We can take care of that for you.

## 3. Who will be using your data and dashboards?

- a. Internal only? External clients? Or a combination of the two?
- b. Mobile or distributed workforce?
- c. A rotating group of non-permanent guests?

It's important to think about the people who will use your dashboards and data. The first question to ask is whether you are planning to have only internal users, (i.e. belonging to your corporate network) or external users accessing your analytics as well. External users could be clients or customers but also partners or suppliers.

If you deploy Tableau Server behind your organization's firewall, enabling access for external users should be accounted for when setting up the server architecture. Configuring a secure external-facing server within your on-premises deployment may require some effort and knowledge about additional infrastructure, such as, configuring a reverse proxy server. In contrast, Tableau Online is deployed in the cloud, so setting the permissions to grant access to users internal or external to your company is more straight-forward. If your users are often on the go and prefer not to use VPN, Tableau Online allows them to log on from anywhere.

We also see customers who prefer a hybrid on-premises Tableau Server/Tableau Online environment for the internal and external use cases, respectively. Before you decide on an option, it's a good idea to partition your external and internal use case scenarios. If you have data meant only for your customers and other data meant only for internal users, Tableau generally does not recommend mixing both internal and external workloads on the same deployment. With Tableau Server on-premises, it is highly recommended that the server is dedicated only to either internal or external users while Tableau Server on public cloud will depend on your configurations. With Tableau Online it is easy to set up two distinct sites - one for internal users and one for external - giving each audience the access to the content they need, while keeping them separated.

If you have a use case in mind where anonymous users will access certain dashboards without the need to authenticate themselves, only Tableau Server supports guest user access using **trusted tickets**. For example, you might want to embed dashboards with non-confidential data on your external-facing website. Your customers will be able to view these without having to log in. Alternatively, you may already have a secure internal portal and choose to embed visualizations there without requiring each user to have a Tableau license and instead use the guest account.

#### **4. How quickly do you need to deploy a solution?**

- a. ASAP. Time is a limiting factor.
- b. Time is less of an issue. You have an extended roadmap. Corporate software vetting is part of your policy.

Timelines are different for everyone. Tableau is designed to be easily and quickly deployed. However, there are still a few things to consider. Tableau Online is managed by Tableau. When you sign up, we immediately provision your site, and in a matter of minutes, you can start adding users, dashboards, and data sources. Tableau Online is the quickest way to get going since you don't have to acquire and provision hardware or install software.

Tableau Server, on the other hand, is installed and configured by you. Deploy on your own hardware or to your preferred cloud platform. Getting the right hardware can sometimes take time, so make sure to consider this in your project plan. Deploying Tableau Server to the cloud removes the hassle of sourcing and setting up hardware, but you must still take the time to choose and configure your server instance.



## 5. Do you anticipate the need to quickly scale your analytics deployment up/down?

- a. You have a long-term roadmap; you know where we are going. You can account for scalability needs upfront and as you go.
- b. You want to quickly and flexibly scale as demand grows.
- c. You'd like us to take care of that all for you.

If you prefer that we take care of all the server and hardware configuration and scaling, then Tableau Online is exactly what you need. We provision your site; all you need to do is add new users as needed. All it takes is a few clicks.

If you need total control of both your hardware and software, deploying Tableau Server either on public cloud or on-premises is the most flexible choice. This gives you the ultimate control over the hardware you use, whether you run on Windows or Linux, and allows you to configure Tableau Server to your exact needs. As demand grows, you will also need to ensure the system scales as the user base grows. Tableau Server can scale up and scale out as preferred by you. Scaling up Tableau Server might include adding more physical resources to the same server, upgrading to newer and more powerful hardware, or increasing the number of particular processes. Scaling out Tableau Server involves adding more server nodes to the environment and load-balancing or distributing the workload. Tableau also supplies TabJolt, a point-and-run load and performance testing tool designed to work seamlessly with Tableau Server.

However, to decide whether to deploy Tableau Server on the public cloud or on-premises will depend on how fast you need to scale. With Tableau Server on the public cloud, you not only decide on which cloud infrastructure to deploy on, Amazon Web Services, Google Cloud Platform, or Microsoft Azure; you can also scale up and down very quickly making changes when necessary. Switching your hardware becomes much easier when the deployment is in the cloud, as does updating your configuration options. For example, you can go from a single node to multi-node cluster without having to worry about changes to your hardware. It's as easy as using the [CloudFormation templates on AWS](#) to help you set up your cluster automatically.

Whether deployed on-premises or on public cloud, you are responsible for planning out usage requirements to ensure your Tableau Server is set up to successfully handle growing demand. One major difference here is that while on the public cloud, the ability to respond and fix issues is much easier.

Both deployment methods of Tableau Server give you complete control over configuration and setup. This is especially important if your use case is heavily customized or you need to make use of additional administration and performance monitoring tools (Note: since Tableau Online is a hosted option, the ability to customize or have access to these tools is not readily available). On top of your production environment, a Tableau Server license allows up to two additional non-production installations which can be used for testing and QA. This allows you to try upgrades, determine user concurrency, and general server performance on your network without affecting your production servers.

## Deployment options: a side-by-side comparison

### Tableau Online

Benefits	Tableau Online is your preferred option if
<ul style="list-style-type: none"> <li>• Software-as-a-Service, hosted and managed by Tableau</li> <li>• Get started in minutes</li> <li>• No need to worry about maintenance, upgrades, or scalability</li> <li>• Easy to incorporate internal and external users on various devices</li> <li>• Live connection to cloud hosted data and scheduled refreshes of on-prem data via the <a href="#">Tableau Bridge</a></li> </ul>	<ul style="list-style-type: none"> <li>• Your data is predominantly hosted in the cloud</li> <li>• Your company runs its software in the cloud, preferably as a service</li> <li>• You have a mix of internal and external users</li> <li>• You frequently access analytics on mobile, outside the corporate network</li> <li>• You don't want to deal with software or hardware configurations and want your application to scale as demand grows</li> </ul>

### Tableau Server on-premises

Benefits	An on-premises Tableau Server is your preferred option if
<ul style="list-style-type: none"> <li>• Full control of configuration and management of hardware and software</li> <li>• Live connections to on-premises and cloud hosted data</li> <li>• (If in place) use of existing hardware</li> <li>• Can operate completely behind your organization's firewall, without access to the internet.</li> <li>• Choose to deploy on the operating system of your choice - Windows or Linux</li> </ul>	<ul style="list-style-type: none"> <li>• Your data is predominantly hosted on-premises, behind your firewall</li> <li>• Your company prefers to run most of their software on their own servers</li> <li>• You might need to provide anonymous access to certain dashboards without the need to identify each user (guest user account)</li> <li>• You have existing hardware or have factored in acquisition times into your project plan</li> <li>• You want to be in control of both the hardware and the software</li> </ul>

## Tableau Server on public cloud

<b>Benefits</b>	<b>A cloud hosted Tableau Server is your preferred option if</b>
<ul style="list-style-type: none"><li>• Full control of configuration and management of software</li><li>• Full control and ease of using virtual hardware</li><li>• Continue to use existing public cloud providers</li><li>• Leverage scalability and cost efficiency of the public cloud</li><li>• Live connections to on-premises and cloud hosted data</li><li>• Co-locate Tableau Server installation with cloud hosted data providers (i.e. AWS EC2 and AWS Redshift)</li><li>• Secure your data by configuring your hosted solution within a private subnet</li><li>• Choose to deploy on the operating system of your choice - Windows or Linux</li></ul>	<ul style="list-style-type: none"><li>• Your data is predominantly hosted in the cloud, or you have a mix of cloud and on-prem</li><li>• Your company already runs its software on public cloud infrastructure</li><li>• You have a mix of internal and external users, who will also be accessing their analytics on mobile</li><li>• You might need to provide anonymous access to certain dashboards without the need to identify each user (guest user account)</li><li>• You prefer to quickly upgrade to the latest virtual hardware</li><li>• You want to be in control over the configuration and management of the software, while being able to quickly add machines to scale your service</li></ul>

## Start your Tableau journey today

This paper is meant as a reference to our deployment options and should be the starting point in your evaluation of the options provided by Tableau's analytics platform. The next step for you is to talk to your Tableau representative to ensure the specifics of your organization's environment are taken into consideration. We also recommend reading our Knowledge Base article for a granular, feature-by-feature comparison.

Curious to see what our platform looks like in action? Try any of our deployment options free for 14 days. You can also explore a live Tableau site with the same functionality as Tableau Online and Tableau Server. Start your trial today.

# About Tableau

Tableau helps people transform data into actionable insights that make an impact. Easily connect to data stored anywhere, in any format. Quickly perform ad hoc analyses that reveal hidden opportunities. Drag and drop to create interactive dashboards with advanced visual analytics. Then share across your organization and empower teammates to explore their perspective on data. From global enterprises to early-stage startups and small businesses, people everywhere use Tableau's analytics platform to see and understand their data.

## Resources

[Evaluation Guide: How to choose the right modern BI & analytics platform](#)

[Redefining the role of IT in a modern BI world](#)

[Tableau for the Enterprise: An IT Overview](#)

[Tableau Server Scalability – Introductory overview to scaling Tableau Server across your enterprise](#)

