Self-Service for the Enterprise

Deploying Tableau at scale to drive enterprise adoption

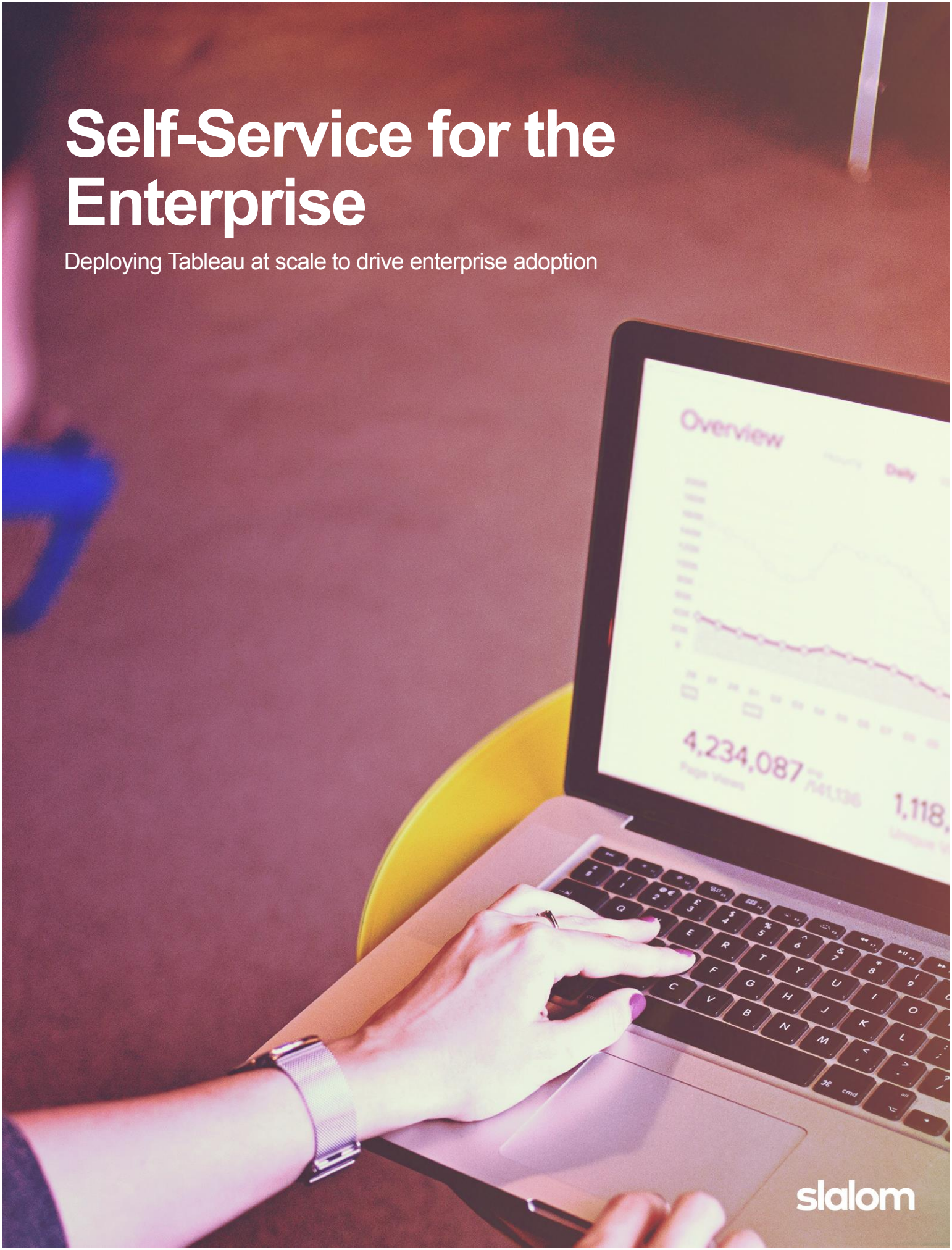

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Tableau for the Enterprise Drives Maximum Value

Why Tableau matters

Traditional reporting tools are an essential part of your Business Intelligence strategy. They provide necessary information in a reliable, regular, and repeatable fashion. These reporting tools are not without their constraints. First and foremost, there are limitations to the number of questions a user can answer: Reports often answer the most basic questions, and any follow-up usually ends up being done by the user in tools on their desktop that are error-prone and difficult to manage.

When users get their hands on Tableau, instead of spending their time figuring out how to get things done in Excel and manage files, they are able to quickly visualize, analyze, and share their work in intuitive and appealing ways. By handing off those tasks to analysts who are empowered to rapidly create and modify visualizations, identify data issues, and easily share their results directly with their colleagues and with executives, both efficiency gains and better insights are the result.

Organizations that are already invested in a great data infrastructure are well primed for visual analytics: A great warehouse, database, and even a big data appliance will not only make analyzing your data with Tableau easier but will also drastically enhance insights gained. Tableau has a wide variety of native database connections that make it very easy to quickly and effectively source data from anywhere for powerful use.

By maintaining a more focused approach, IT is able to dive deeper into managing high quality information and underlying data platforms, and provide analysts with clean, concise, and organized data in a well-managed and high performance environment, giving analysts even more time to focus on analyzing data and gaining insights.

What products does Tableau offer

Tableau models their product line after one of their core mantras: simplicity. Tableau only offers 3 products relevant to the enterprise: Tableau Desktop, Tableau Server, and Tableau Online.

Tableau Desktop

Tableau Desktop is the development interface for creating visualizations and dashboards. It is the heart and soul of Tableau, combining visual and intuitive creation process with the ability to organize and customize to adapt to an organization's needs; it is a great marriage of ease of use and flexibility. This allows content

creation to move from solely a development task performed by IT to a drag and drop experience performed by business and data analysts that familiar with the business processes they support.

There is a science and art to building the best dashboards and both should be considered to achieve the best results for information consumers. With this comes the need to have competency off the tool, but allows these individuals to have a deep level of technical expertise like SQL.

Tableau Online and Tableau Server

Organizations often find that Desktop can be a great design time tool, but having to leverage the Tableau Reader to consume the content created is not always the preferred method of distribution especially when information consumers are spread across an Enterprise. Hence the value of Tableau Online and Tableau Server products.

These products help distribute content into the hands of the information consumers with enhanced experience oriented towards an Enterprise use scenario. The products help address this scenario in the following ways:

- Website accessibility to Tableau dashboards
- Security including role based and row level filtering within a dashboard
- Mobile access to content
- Embedding of Tableau content within other applications or sites

Tableau Server provides these capabilities within customer owned and operated software. Solutions leverage Server can be deployed on premise or in the cloud, and the customer has complete control over the operations and maintenance of the server.

When deploying Tableau Server there are some good general recommendations to take into consideration:

- 70-100 concurrent users can be supported by 8 cores (irrespective of how many machines you split the cores on)
- 8 GB RAM/Core is a good rule of thumb
- In a heavy extract environment, you'll want to split out the data engine and the VizQL engine onto separate servers
- High availability (support the same load on the server if any machine goes down) requires a minimum of three machines (Primary/Gateway and Workers) and you should account for having a backup primary for failover support.
- To compensate for a geographically diverse user base, consider geo-specific server environments, and replicate "primary environment" content files between the other environments.
- As you add users onto your server, plan to add additional servers. You'll also need to add VizQL processes—a big component to concurrency.

Tableau Online offers the same feature set as Tableau Server without the need to manage the server in house. Tableau hosts a secure, cloud based solution that is publicly accessible. Tableau Online connects exclusively to extracts, with the exception of connecting live to Google Big Query and Amazon RedShift. Licensing has no minimum number of users, so it's easy pilot it as a 'test drive' for Tableau Server.

The Journey to deploying Tableau for the Enterprise

Many organizations don't start with Tableau for the enterprise. They often start with a single download of a trial version of Desktop which starts them on their journey of discovery. We've often found that customers very commonly follow a similar path along this journey as illustrated below:

Tableau Enterprise Journey

	Tableau Desktop	Department Servers	Enterprise
Description	Tableau Desktop purchased by individuals and departments	Tableau Server purchased and deployed by single departments allowing web-enabled access to dashboards and reports.	Tableau Server deployed across the enterprise giving departments a standard, shared environment for accessing reports, dashboards and data.
Benefits / Enables	Users can visually explore data Users can do ad-hoc analysis Users can build dashboards	Users can share data within their dept. Users can collaborate via web/mobile Departments can standardize on metrics	Standardization of Data & Analysis Merge Corporate Data Robust support structure and processes
What does it take?	Licenses Training	*Desktop +* Server Infrastructure Departmental Security, Process, Governance	*Desktop +* Standards / Guidelines Enterprise Class Infrastructure (HA, DR) Enterprise Data Strategy Change Management Governance Support

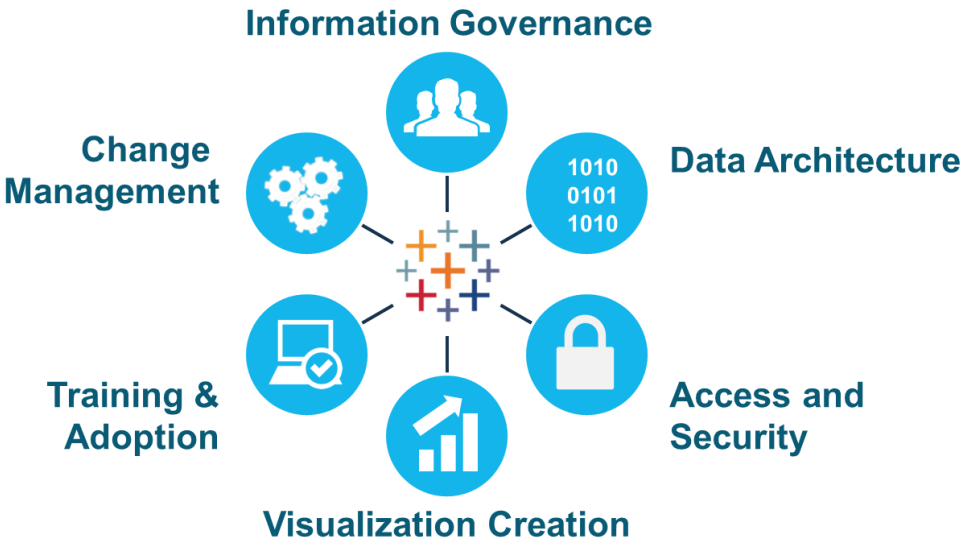
Questions to ask when thinking about Tableau for the Enterprise

There are many keys when Organizations move from a Desktop deployment to a Server deployment. Typically they are enamored with the ability to visualize their data in new and unique ways, but are also sensitive to the access, creation, and interpretation of information across the organization. When IT organizations here self-service with any analytics tool, they typically meet it with some skepticism. Common questions are typically asked by both IT and business users as they begin to embrace Tableau in the Enterprise use scenario:

Fit / Usage within Enterprise Landscape	▪ How does Tableau fit with my other tools? ▪ When should we use Tableau vs others?
Governance	▪ What are the roles of IT and the business? ▪ How do we manage what gets published?
Security	▪ How do we ensure our data is secure? ▪ How do you track what user's access and publish?
Standards	▪ What standards should we define? ▪ How do we enforce them across the enterprise?
Architecture	▪ Is it scalable and can it perform across the enterprise? ▪ How do we architect for DR and High Availability?
Training and Adoption	▪ What training is required? ▪ How do we measure success and adoption?

Think about Tableau as a program and not a solution

Slalom has found that an enterprise deployment of a self-service analytics tool such as Tableau, is not just a technology or product challenge, but is a holistic challenge including many aspects of which can be articulated as a Program across people, process, and technology. The following illustration outlines the typical tracks that we see relevant to not only deploying Tableau for use, but really guiding an organization to a healthy insight driven culture around Tableau:



As the usage of Tableau permeates through an organization, the first questions that will be asked of your Tableau analytics are, “Where did the data come from?” and “How did you calculate the values?” Data governance and proper content management controls will lend credibility and confidence to the reports and dashboards you produce using Tableau. People and processes need to be in place to provide oversight, security, and protocols for publishing. This is not to say that every visualization you create in Tableau should go through review, but rather that the level of governance should be dictated by the degree of risk and visibility associated with the information. The last aspect is the fundamental shift that an organization will go through to maximize the value of Tableau. An acknowledgement of the change impacts, along with training and adoption is needed to drive value of this investment and should not be overlooked.

Embrace an Enterprise Framework

Taking a holistic view on how to address this program across these various aspects of an Enterprise Tableau Program requires ongoing discipline in order to achieve not only short term success, but long term success as well. As mentioned before, the deployment for Tableau is a journey, but also the discipline and success of creating an analytics culture enabled by Tableau is a journey unto itself.

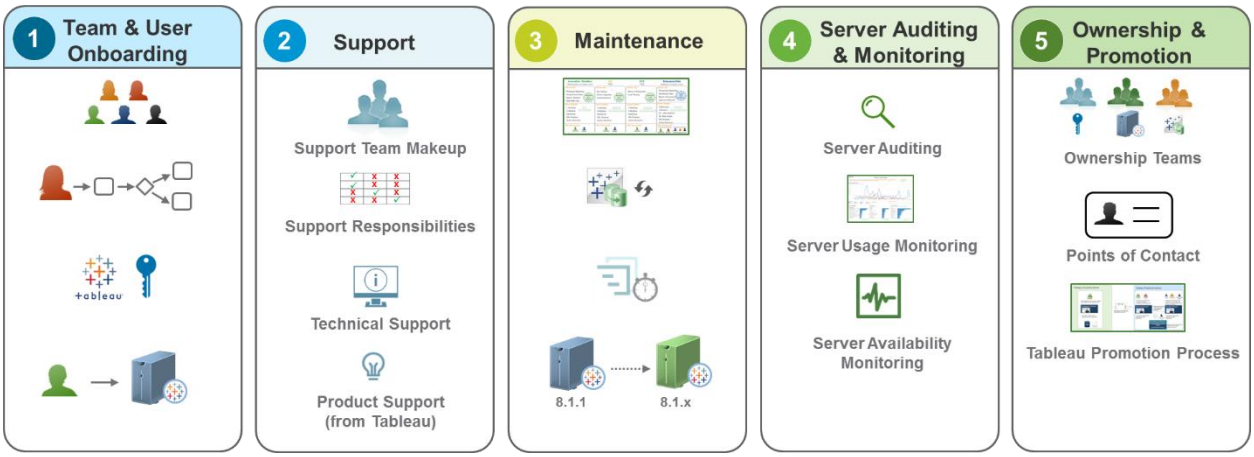
Sample: Tableau Enterprise Framework

Each organization will have a unique deployment and usage of Tableau based on the requirements, environments, and culture of the organization itself. However, thinking about this framework will help guide an organization to create and execute a roadmap that is foundational for success.

Establish the ongoing Operating Model

The Program Operating Model is a key element to succeeding in establishing the Enterprise scenario by supporting and facilitating the ongoing capability of Training, Support, Maintenance, and Ownership of the platform and the assets that are created. Having a solid Operating Model will develop the right set of principles for driving satisfaction across the user base while enabling the better insights organizations are trying to achieve.

Sample: Tableau Operating Model



Establish ownership and responsibility for Tableau success

Unfortunately, Tableau alone does not resolve organizational challenges, data governance issues, and process inefficiencies. Organizations that are most successful with Tableau tend to have a strong business and IT partnership around analytics; a strategy around data governance; and defined Tableau processes and best practices. The business understands its current and future analytics needs, as well as the pain points around existing processes. And IT knows how to support an organization's technology needs and plays a critical role in how data is made available to the enterprise. Formalizing this partnership between business and IT in the form of a Tableau Center of Excellence (COE) is one of the best ways to maximize the value of a Tableau investment. Areas that a Tableau COE may oversee include:

- Data governance
- Project lifecycle processes
- System architecture and support
- Tableau administration
- Training
- Dashboard development

Business or IT Led COE?

While there are times when a business-led Tableau COE can be more effective, do not discount an IT-led COE. Why? For starters, IT understands how to safely and accurately expose an organization's data and can standardize how data is exposed to Tableau users with Tableau Data Server. In addition, IT has a centralized view of reporting needs, which can help the enterprise develop streamlined, reusable processes and leading practices to help business groups be more efficient using the tool. IT can also centralize functions such as infrastructure, licensing, administration, and level 2/3 development, all which further cuts down costs and mitigates risks.

When to make Tableau an enterprise solution

Now! As technology continues to mature, the Business Analytics landscape continues to tip even further in the direction of empowering the business user. Tableau, at the forefront of self-service analytics, takes business empowerment to a new level by enabling end users to easily create highly interactive dashboards and reports and analyze data on their own. Don't be left behind from a world of engaging, insightful content built by the people that care the most about it.

About Slalom

At Slalom, we **partner** with our clients to deliver **comprehensive solutions** by leveraging our capabilities and deeply-skilled practice areas. We establish **seamless teams** that deliver **amazing quality** across the following practices:

If you'd like to know more about deploying Tableau for the Enterprise please contact us at tableau@slalom.com.