CRM Tableau



Cognitive Convergence is Subject Matter Expert in Office 365, Dynamics 365, SharePoint, Project Server, Power Platform: Power Apps-Power BI-Power Automate-Power Virtual Agents, Tableau, Tableau CRM and Tableau Prep.

We offer services in CRM tableau. We will provide reports and dashboards in sales cloud. We will deal with your data and extract what information you need for your business. You would be able to view your dashboards and reports even on your mobile phones.

Contents

Objectives	4
Background	4
What is CRM	4
what is tableau crm	4
a tool with Artificial Intelligence (tableau crm)	4
Data analysis platform with AI (Tableau CRM)	5
Einstein analytics	5
Predictive Analytics in Einstein Discovery	5
Difference between Tableau CRM and Tableau?	7
Difference between Tableau CRM, reports and dashboards	7
Tableau CRM Apps	8
Components of Tableau CRM	8
App	8
Lens	8
Dashboard	8
Widget	8
App template	8
Data Monitor	9
Dataflow	9
Dataset	9
Dataset builder	9
Data sync	9
Dimension	9
Digest	9
Query	9
Recipe	9
Register	9
Security Predicate	9
Story	9
Transformation	10
Visualization	10
Basic Tableau CRM Platform Setup	10

	Set Up the Tableau CRM Admin	10
	Enable Tableau CRM	10
	Select and Assign User Permission Sets	11
Fea	atures of tableau crm	11
	Get Al-powered insights instantly	11
	Connect and prepare any data	11
	Deploy anywhere want	11
	Explore the data in own way	11
	Share and collaborate with data	11
	Stay safe with industry-leading governance	11
	Data Management	11
	Business Intelligence	13
Wh	ny Tableau CRM?	14
Bui	ild the analytics app	15
Bui	ild the Lens	16
Cre	eate a Dashboard	17
	How to Setup Tableau CRM in Salesforce	18
Ber	nefits of Tableau CRM	21
	Improved Analysis and Visualization of Data	21
	Excellent Analytical Capabilities	21
	Seamless Blending of Data	21
	Improving Enterprise Coordination and Knowledge Sharing	21
	Enhanced Team Productivity	21
	Better Clarity for Making Informed Decisions	22
	Detecting and Tapping Untapped Opportunities	22
	Comprehensive Insights	22
sec	curity of tableau crm	22
	Using Security Predicates	22
	Types of Security Predicate	23
	Syntax	23
Tab	bleau CRM Encryption	24
	How Tableau CRM Encryption Works	24
	Features	25

Tableau CRM Limits	25
Localization and Internationalization	25
Field-Level Security	25
SAQL Query Limitations	25
Explorer Limitations	25
Tableau CRM on Mobile Devices	25
Tableau CRM Smart Dashboard and App Templates	26
Adoption Analytics Limitations	26
Client Segmentation App Limitations	26
Revenue Intelligence	26
Buying of Tableau CRM	26
Conclusion	26
Contact us	27

OBJECTIVES

The objective of this paper is to discuss CRM Tableau and its features, and how it can be used to make data useful. Its advantages and importance in Business intelligence. How does it make dashboards and reports? How does it transform data? How automatically analyze millions of rows of data and get predictive analytics with Einstein Discovery? Explore data guickly and automate actions with prebuilt apps.

Background

In practice, the need to deliver data in an understandable format that provides actionable insights extends beyond the requirements of Data Engineers and Scientists. Tableau CRM is a self-service data visualization and business intelligence (BI) platform that integrates Salesforce data with external data. Formerly known as Einstein Analytics, this product boasts some of the most powerful data analysis capabilities in the market.

WHAT IS CRM

Customer relationship management is a process in which a business or other organization administers its interactions with customers, typically using data analysis to study large

amounts of information. CRM stands for "Customer Relationship Management" and refers to all strategies, techniques, tools, and technologies used by enterprises for developing, retaining, and acquiring customers. This software ensures that every step of the interaction with consumers goes smoothly and efficiently in order to increase the overall profits. The software gathers customer data from multiple channels. Hence, CRM stores detailed information on overall purchase history, personal info, and even purchasing behavior patterns.



WHAT IS TABLEAU CRM

Tableau CRM (formerly Einstein Analytics) is a revolutionary customer and business analytics platform that's optimized for mobile use and brings flexible customer analytics to CRM. It works with any data, from any data source, and it will change the way company answers critical questions. Tableau CRM allows to explore data in powerful, contextual ways:

- Connect directly to CRM data and execute on insights directly in Chatter.
- Automatically analyze millions of rows of data and get predictive analytics with Einstein Discovery.
- Explore data quickly and automate actions with prebuilt apps.
- Use mobile device to act, whether on Android or iOS.

A TOOL WITH ARTIFICIAL INTELLIGENCE (TABLEAU CRM)

Tableau CRM, can offer Salesforce users artificial intelligence-sourced analysis in their workflow. Einstein Discovery, Salesforce's IA tool, goes hand in hand with Tableau CRM to use its machine learning for the creation of trustworthy predictions. Ethical and transparent AI is key for data scientists, analysts, and users to create predictive models without needing to write algorithms.

The biggest advantage of Tableau CRM is its direct integration with Salesforce, and this provides a competitive advantage for companies that are already using this management program. Tableau CRM is very simple at the beginning; the fields that are already available in Salesforce are very clear. It have the possibility to create templates to reuse in different ways, although this will require a bit more skill.

Don't confuse Tableau with Tableau CRM. Tableau CRM is part of the Salesforce cloud while Tableau is an independent application; it can be connected to Salesforce and to other CRMs as well. To sum it up, the benefits of

Tableau CRM for company are vast if learn to make the most of it; at Leadclic, it can help implement and guide in its use to maximize its benefits. Get in touch with us and we'll help out.

Data analysis platform with AI (Tableau CRM)

Tableau CRM is a program that's part of Salesforce and with which can obtain a comprehensive analysis of millions of data combinations and work with the sales team (or any department), offering key data already calculated in Salesforce.

Access to vital information in each area is easy. With Tableau CRM, have all the client information in hand, with information from Salesforce or from any other data creation point in the company. And all of this at a speed that no other data analysis solution offers.

- Instantaneous action
- Improves intelligence and connection capacity
- Works from any device
- Obtain contextual answers from data
- Discover hidden points of view, thanks to artificial intelligence analysis
- Native connection with Salesforce
- Tableau CRM was previously known as Einstein Analytics, so there is no battle between Einstein Analytics and Tableau CRM. One is an evolution of the other.

EINSTEIN ANALYTICS

Einstein Analytics is now called Tableau CRM. All the great functionality come to rely on is now part of Tableau CRM. Earlier known as Salesforce Einstein Analytics, the Tableau CRM has powerful features to facilitate contextual data

discovery and usage. Einstein Analytics was an Al-enabled analytics product and to add more capabilities to it, Salesforce acquired Tableau's analytics product. Tableau started as a standalone product for data visualization and other data exploration features. Due to its robust architecture and dynamic features, it soon gained extensive popularity among global clients. Salesforce recognized its potential and acquired it to deliver a better experience to its customers. To further enhance the analytical capabilities of Tableau, Salesforce integrated its Al-enabled Einstein into it and renamed it Tableau CRM. It helped Salesforce to create more value for the clients. Clients could not only view the



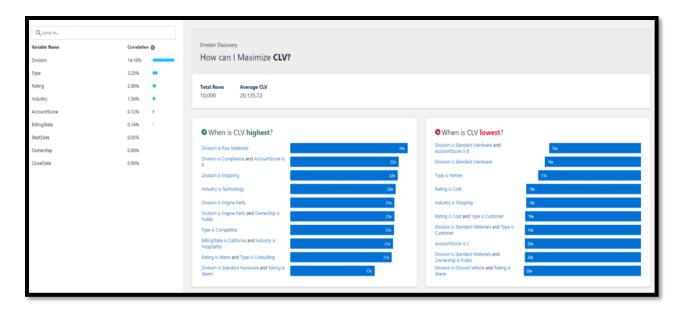
insights into the Salesforce dashboard but could take instant actions without leaving the dashboard or switching to another interface. Besides, the Al-enabled capabilities also multiplied the capabilities of the core product with the help of predictive analytics.

Predictive Analytics in Einstein Discovery

Einstein Discovery is Salesforce's data science toolkit. It connects directly to Tableau CRM datasets to generate descriptive, predictive, and prescriptive insights.

Einstein Discovery Stories

To explore relationships between input variables and a chosen outcome variable, create an Einstein Discovery Story. An example of an Einstein Discovery Story can be found below. The input variables, and their correlation to the outcome variable CLV, are shown on the left. The bar charts list which variables positively or negatively impact CLV in order of statistical significance.



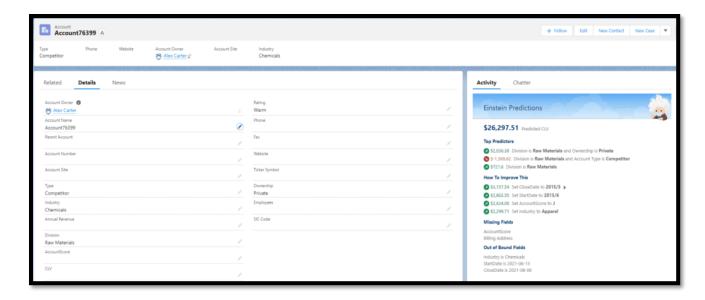
Einstein Discovery Models

If want Einstein to make predictions from data, build and deploy Einstein Discovery Models. Predictive models are automatically generated upon creation of a story in Einstein Discovery. Therefore, the model uses the same input variables to produce a predicted outcome. Not only do Einstein Discovery models predict outcomes, they also provide suggestions to improve predicted outcomes.



Embed predictions in Salesforce

Embed Einstein predictions throughout Salesforce, giving users real-time predictions and recommendations based on record-level details. In the image below, Einstein predicts CLV for a specific account based on the field values of that particular record.



DIFFERENCE BETWEEN TABLEAU CRM AND TABLEAU?

Tableau CRM is part of the broader Tableau portfolio of products. Together, Tableau CRM and the Tableau Platform create the world's leading analytics solution when used together. How leverage these products is based on one simple question: Where do users need to see their insights?

- Tableau offers an end-to-end analytics platform serving a broad range of enterprise use cases. If are looking for an enterprise-wide business intelligence solution, Tableau is the right product for.
- Tableau CRM is ideal for team members who need their analytics deeply integrated throughout their
 Salesforce CRM, providing action ability and Al-driven insights natively in the platform. If are looking to
 augment Sales Cloud or Service Cloud with insights to drive productivity in the CRM workflow, Tableau CRM
 is the best product.

DIFFERENCE BETWEEN TABLEAU CRM, REPORTS AND DASHBOARDS

- Reports and Dashboards in Sales Cloud and Service Cloud provide an instant snapshot of the metrics that
 matter to business, including team performance, lead volume, and conversion rates. It looks and behaves like
 Tableau CRM, but provides very different functionality.
- Tableau CRM is designed for self-service data discovery. It extends beyond Reports and Dashboards to give new views into pipeline, end-to-end customer insight, and historical analytics to help plan next best step. It can also help find trends and make discoveries weren't specifically pursuing, making it a much stronger choice for data-driven decision-making.

Key Difference	Salesforce Reports & Dashboards	
What it is?	Reporting on Salesforce data only to get a snapshot	Analytics discovery platform to explore any data from any source within Salesforce and outside Salesforce
Used for	Basic Metrics	Visualize complex KPIs and self-service analytics
Experience	Real-time reports and dashboards	Interactive data discovery on any device
Data	Salesforce only	Salesforce and data from any other sources
Historical	90-Days Analysis	Year over year historical analysis and trends of the data

TABLEAU CRM APPS

They're a series of purpose-built analytics apps for different lines of business to simplify setup and onboarding. They are designed to put relevant answers in the hands of every member of team, across every line of business, while adapting to ongoing business needs. With Tableau CRM Apps, everyone can explore data, uncover insights, and instantly take action from any device.

COMPONENTS OF TABLEAU CRM

Some of the basic components of tableau Crm are

App

An *app* contains dashboards, lenses, and datasets in any combination that makes sense for sharing data analyses with colleagues. Apps are like folders, which allow users to organize their data projects—private and shared—and to control sharing.

Lens

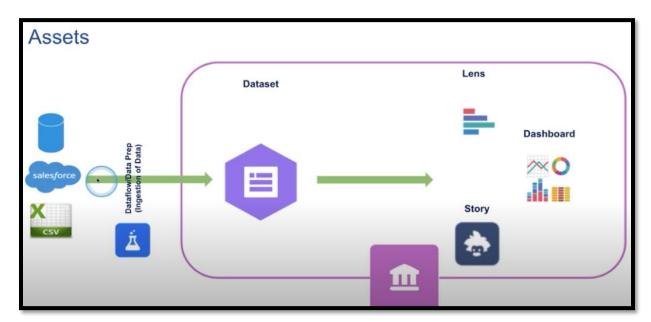
A lens is a visualization of data in a dataset. Use the lens to explore data graphically and to build queries for a dashboard. The lens can be saved and shared independently. It can also be clipped to a dashboard.

Dashboard

A dashboard is an interactive collection of widgets that visualizes data query results. A *dashboard* is a curated set of charts, metrics, and tables based on the data in one or more lenses. By default, Users have access to their private app and shared app.

Widget

A widget is a basic building block of a dashboard. Add a widget to dashboard to perform a certain function. Functions might include showing key performance indicators, filtering dashboard results, visualizing data using interactive charts, or showing record-level details in tables.



App template

An app template is a ready-made dashboard package that is automatically populated with Salesforce data.

Data Monitor

The data monitor tool allows to monitor dataflow and system jobs. Can also use it to start, stop, reschedule, download, and upload dataflows.

Dataflow

A *dataflow* is a set of instructions that specifies what data to extract from Salesforce objects or datasets, how to transform the datasets, and which datasets to make available for querying.

Dataset

A *dataset* is a collection of related data that is stored in a denormalized, yet highly compressed form that is optimized for interactive exploration. This is the datastore of Tableau CRM different data and rows.

Dataset builder

The *dataset builder* is a point-and-click user interface that allows to easily select and extract data from related Salesforce objects to create a single dataset

Data sync

A *data sync* is the method used to refresh connected data in Tableau CRM. It syncs the objects/Tables and Creates connections and schedules sync per connect.

Dimension

A *dimension* is a qualitative value that usually contains categorical data, such as Product Category, Lead Status, and Case Subject. Dimensions are handy for grouping and filtering data. Unlike measures, can't perform math on dimensions.

Digest

The *digest* transformation extracts data from connected objects in a dataflow. Use it to extract synced data from local Salesforce org or remote connections to include in a dataset.

Query

A *query* retrieves data from one or more data sources, including datasets, Salesforce objects, user-defined data, or external data. The query results can be displayed in different formats (such as a table or chart) or used as input to another query.

Recipe

A recipe is a user-interface tool that lets take data from existing datasets and connected objects, apply transformations, and the output the results to a new dataset.

Register

The *sfdcRegister* transformation saves the transformed data as a dataset, which can then be queried in Tableau CRM. Users can't view or run queries against unregistered datasets.

Security Predicate

A security predicate is a filter condition that defines row-level access to records in a dataset.

Story

A story is the output of Einstein Discovery's comprehensive statistical analysis of Tableau CRM dataset. A story represents a collection of insights around a metric (outcome) that highlights any of the following: important trends,

explanations on what may have influenced those trends, comparisons between factors, predictions on future outcomes, and suggested actions that may improve outcomes. It creates a story/model from the dataset. It helps to analyze.

- · What happened?
- Why does it happen?
- Predicts what can happen?
- What can be the Next Action?

Transformation

A *transformation* refers to the manipulation of data. Can add transformations to a dataflow to extract data from Salesforce objects or datasets, transform datasets that contain Salesforce or external data, and register datasets.

Visualization

A *visualization* is commonly a chart or graph, such as a bar chart, donut chart, timeline, or heat map. It can also be data in tabular form, such as a comparison table or pivot table. Every visualization has an underlying query, which is how Tableau CRM retrieves information from the source data.

BASIC TABLEAU CRM PLATFORM SETUP

These steps guide users in an organization access to the Tableau CRM platform, templates, and apps quickly. Basic setup uses permission sets included with the Tableau CRM Plus or Tableau CRM Growth licenses, which cover the majority of most organizations' analytics needs.

Set Up the Tableau CRM Admin

- 1. In Salesforce Setup, select Users.
- 2. Select Permission Sets.
- 3. Select one of the following prebuilt permission sets that is on org.
 - a. Tableau CRM Growth Admin enables all permissions required to administer the Tableau CRM platform, including permissions to create and manage creating Tableau CRM template apps and Apps.
 - Tableau CRM Plus Admin enables all permissions required to administer the Tableau CRM platform and Einstein Discovery, including permissions to create and manage Tableau CRM template apps and Apps.

That opens the page for the selected permission set.

- 4. Click Manage Assignments.
- 5. Click Add Assignments.
- 6. Select the Tableau CRM admin user by checking the box next to their name in the left-hand column.
- 7. Click Assign.

Enable Tableau CRM

1. Go to Salesforce Setup and enter Analytics in the Quick Find / Search field.

- 2. Select Getting Started.
- 3. Click Enable Tableau CRM.

Select and Assign User Permission Sets

- 1. In Salesforce Setup, select Users.
- 2. Select Permission Sets.
- 3. Select one of the following prebuilt permission sets that is on org.
 - a. Tableau CRM Growth User enables all permissions required to use the Tableau CRM platform and Tableau CRM template apps and Apps.
 - b. Tableau CRM Plus User enables all permissions required to use the Tableau CRM platform, Einstein Discovery, and Tableau CRM template apps and Apps That opens the page for the selected permission set.
- 4. Click Manage Assignments. The next page shows the users already assigned the selected permission set.
- 5. To see all the users in org click Add Assignments.
- Select one or more users by checking the box next to their name in the left-hand column. 3 Analytics Platform Setup Guide Basic Tableau CRM Platform Setup
- 7. Click Assign.

FEATURES OF TABLEAU CRM

Tableau features the most powerful, accessible, and engaging way to see and understand data. Anyone can quickly learn and start exploring with the most comprehensive enterprise-grade analytics available today.

Get Al-powered insights instantly

Our AI is driven by practical applications that provide accurate predictions and actionable insights. Make smarter decisions without leaving the flow of analysis.

Connect and prepare any data

Without proper cleaning and preparation, it's hard to extract insights from data. No matter where it lives or what condition it's in, Tableau can connect to data and get it ready for analysis.

Deploy anywhere want

Fit analytics into existing infrastructure, on-premises, in the cloud, or in CRM. It have the flexibility to decide where to integrate data visualization and who will use it.

Explore the data in own way

Drag, drop, ask, see, and learn with the analytics gold standard. Answer any data question with advanced visual exploration and natural language processing that's both powerful and intuitive.

Share and collaborate with data

Center conversations on data to drive business forward. Securely share insights across departments or the enterprise in Slack and in governed data environment.

Stay safe with industry-leading governance

Get most valuable data into the right hands with industry-leading security and governance models. Share access to actionable data and know it's safe.

Data Management

• Data Integration

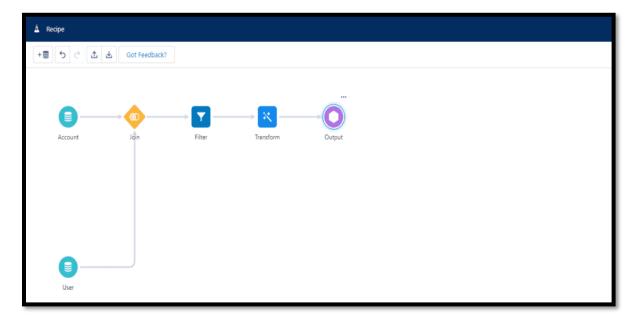
- **Data Preparation**
- Data Synchronization

Data Integration

In Tableau CRM, connectors give an easy way to connect to data inside and outside of Salesforce org. There are many configurable connectors that let bring data into Tableau CRM from Salesforce, external applications, databases, and data warehouses.

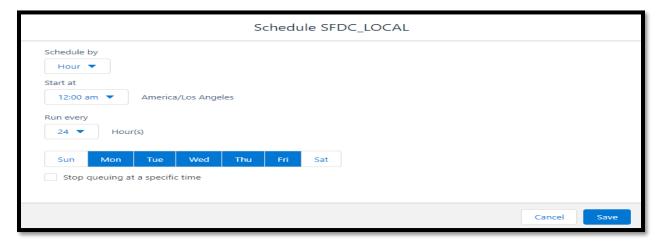
Data Preparation

There are two data preparation tools in Tableau CRM: Recipes and Dataflows. Both tools have an intuitive visual interface and can be used to design datasets from connected data. For example, the recipe below combines, filters, and transforms data before outputting as a dataset.



Data Synchronization

Prevent inconsistencies between source systems and Tableau CRM by scheduling data refreshes. Recipes and Dataflows can also execute on a time-based or event-based schedule. In the screenshot below, data from all connected Salesforce objects gets refreshed at 12:00 am every business day.



Business Intelligence

Data exploration using lenses

Lenses let visually explore data within a dataset. Lenses can be shared independently, or clipped and added to dashboards. The below lens uses a stacked bar chart to visually explore open and closed won opportunities by owner.



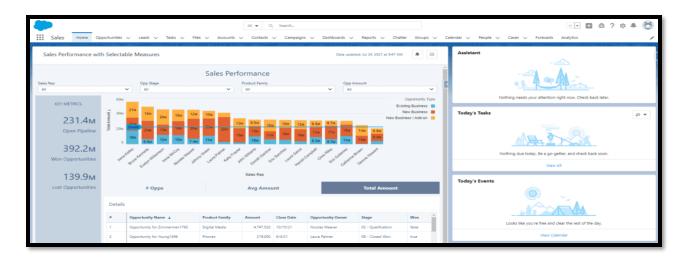
Dashboards

Tableau CRM dashboards consist of interactive widgets that visualize query results from datasets. As it can be seen, the lens created in the above gif has been added to the below dashboard to tell a story about sales performance.

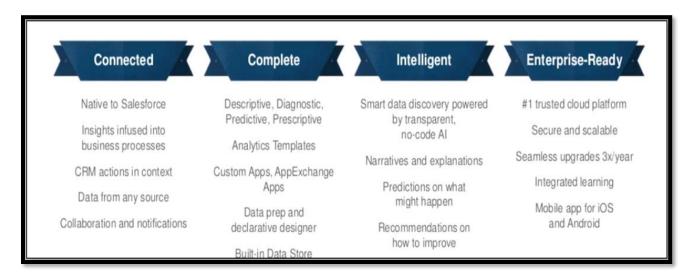


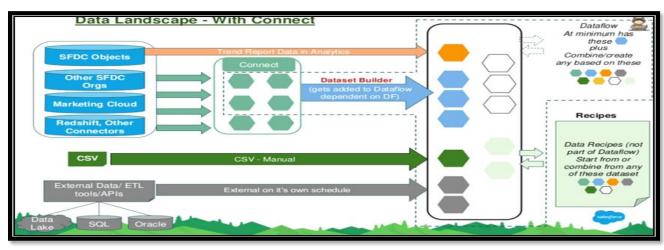
Embed Visualizations in Salesforce

Add Tableau CRM dashboards to Lightning home pages, record pages, and app home pages to provide interactive visualizations to end users. Here's an example of a dashboard embedded in the Lightning home page:



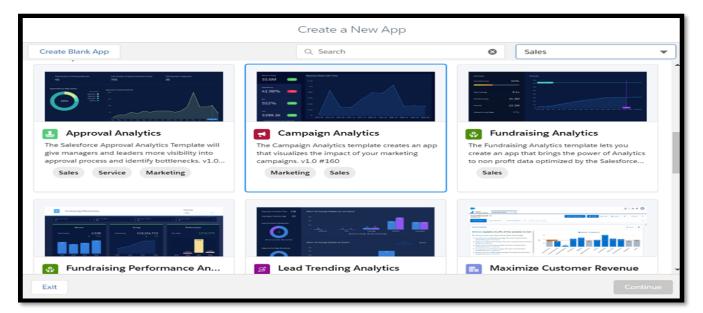
WHY TABLEAU CRM?





BUILD THE ANALYTICS APP

- . In App launcher (), Select Analytics Studio.
- 2. In Analytics studio **Home Page**, click create and select App; the pop-up windows show built-in templates that are ready to use; if want to create own, then click **Create Blank** App and click **Continue**.

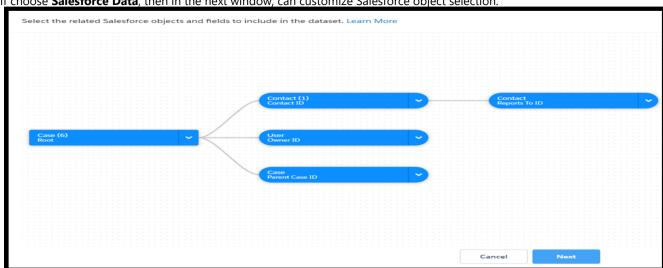


- 3. Enter the name of this App, "My first App."
- 4. Click **Create.**

Build the Dataset:

- 1. My first App will open in a new tab, and within the same tab, click **Create**.
- 2. Select Dataset and choose the data source.



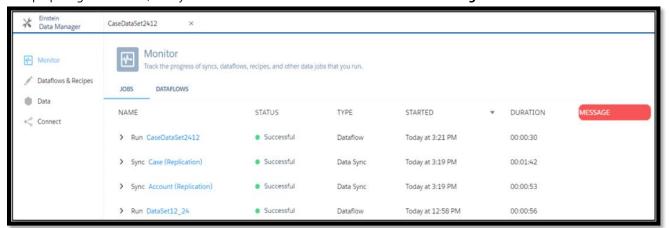


3. If choose Salesforce Data, then in the next window, can customize Salesforce object selection.

- 4. Salesforce Analytics Query Language (SAQL) is used to access the data in the data set.
- It can change the SAQL according to the requirement if out-of-the-box functionality does not meet the requirement.Click on run query to implement the changes.



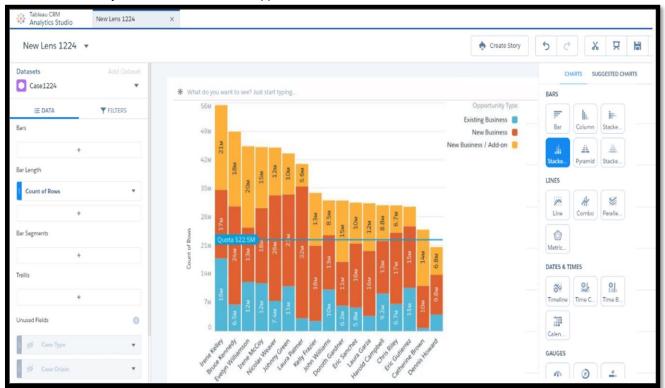
6. After preparing the Dataset, the sync status of the Dataset is available in the Data Manager -Monitor tab.



BUILD THE LENS

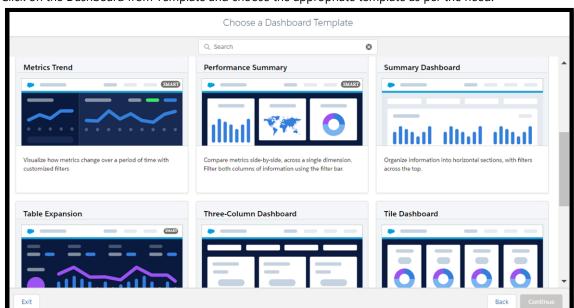
1. Once the Dataset is ready, click on the Dataset, and it will open a new lens page.

- Under the bars, can add the appropriate fields to prepare the lens.
- In the chart section, can select any chart that suits the requirement. 3.
- The changes and modifications on the lens are available in the lens history. It can go back to the previous lens at any 4.
- 5. Once the lens is ready, click save and select the App where want to store it.



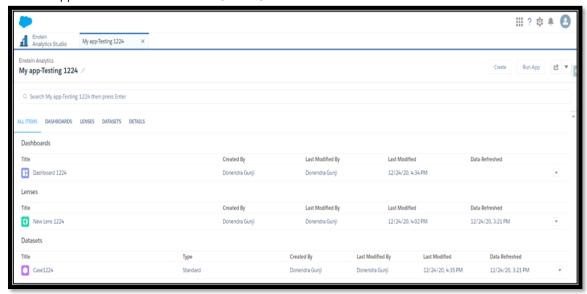
CREATE A DASHBOARD

- On the App page, click **Create** and select **Dashboard**.
- The pop windows shows two options:
 - Blank Dashboard a.
 - b. Dashboard from Template
- 3. The **blank dashboard** is used to create a dashboard from scratch, and the dashboard from **Template** allows to use predefined templates.



4. Click on the Dashboard from Template and choose the appropriate template as per the need.

- It can add any lens to the dashboard, and can create a lens with different data sets.
- 6. Click **Save** and select the App to store the newly created dashboard.
- 7. The final App contains all the dashboards, lenses, and datasets.



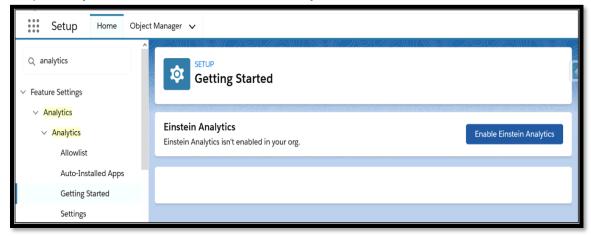
How to Setup Tableau CRM in Salesforce

- 1. Tableau CRM comes with two standard permission sets:
 - Einstein Analytics Plus Admin

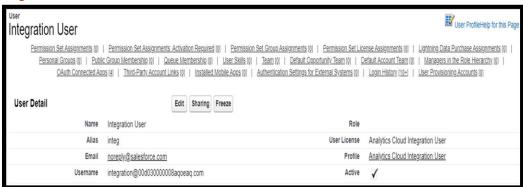
b. Einstein Analytics Plus User



- 2. Before start, assign yourself to Einstein Analytics Plus Admin permission set and for the other users, assign any of the two permission sets based on the user's requirement.
- Then start the setup with the following navigation:
 Set up -> Analytics -> Get started -> Enable Einstein Analytics



- 4. Once Einstein Analytics is enabled, then it will create two users.
 - a. Integration User



b. Security User

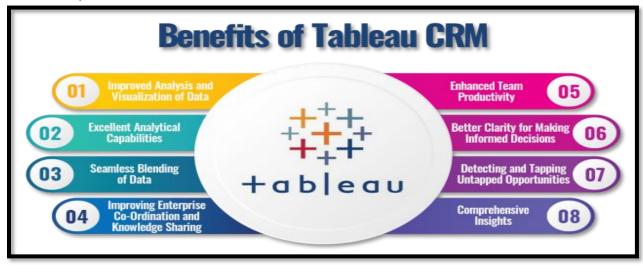


- Salesforce data access for Einstein Analytics is based on the permissions of two internal Einstein Analytics users.
- 6. The newly created users are assigned with standard profiles:
 - a. I. Analytics Cloud Integration User
 - b. II. Analytics Cloud Security User
- 7. As per the Salesforce recommendation, these profiles need to be cloned for customized use.
- 8. Enable the Annotations on Dashboard Widgets with the following navigation:
- 9. Set up -> Feed Tracking -> Analytics Asset -> Enable Feed Tracking -> Save
- 10. Use the following navigation steps to change the analytics settings as per the organization's requirements:
- 11. Set up -> Analytics -> Analytics -> Settings



BENEFITS OF TABLEAU CRM

There are several benefits that Tableau CRM offers to enterprises to grow their business and manage the customers more efficiently. Here are a few of them



Improved Analysis and Visualization of Data

With seamless integration between Tableau and Salesforce, the clients can enjoy powerful features of data visualization right within the Salesforce interface. It facilitates trends and pattern tracking and thus helps to tap more opportunities. It allows non-technical users to quickly understand the key insights at a glance. There is a detailed visual analysis for each key phase of sales flow. It significantly improves the decision-making capabilities of sales team at every vital point- right from prospecting to account management, pipeline coverage, etc. Overall it helps in strengthening possibilities of successfully closing the sales.

Excellent Analytical Capabilities

One of the major hurdles in data utilization is limited technical knowledge. Tableau frees sales staff from this limitation with its intuitive interface, easy analytics features, and extended point and clicks controls to manipulate the data. It simply means that entire sales team can be uniformly benefited from Tableau, regardless of their technical proficiency. Intuitive features and beginner-friendly functionalities also help team to attain proficiency in less time and without any challenges.

Seamless Blending of Data

Native data blending is another key capability of Tableau that adds more value to entire salesforce express. By blending data of multiple formats like marketing engagements and sales pipeline growth on a single chart it empowers to do a detailed multi-aspect comparison and see how different data types match with each other. It allows to access any desired Salesforce data at place even if it is in a different Salesforce module location.

Improving Enterprise Coordination and Knowledge Sharing

Tableau doesn't have any data restrictions. In that capacity, it facilitates seamless information sharing across different departments of the organization. It forms a seamless connection between disparate departments like operations, finance, and others. By enhancing team coordination it can significantly improve overall organizational productivity.

Enhanced Team Productivity

With reports of multiple departments available on the same page, the teams enjoy comprehensive analytical capabilities of diverse customer bases. It also saves their time and efforts. It greatly improves the data exploration and

manipulation capabilities of enterprise allowing to get more value out of Salesforce data. There are secured ways to access the data on multiple mobile or static devices which empowers teams to remain informed and collaborate in real-time- anytime, anywhere.

Better Clarity for Making Informed Decisions

Data visualization brings more clarity to the way look at the data. It improves pipeline-building capabilities. It would also be able to view more specific details of various campaigns/channels and see how fine they correlate with one another. The process can be optimized with strategic metrics that can act on. Using these features would be able to prioritize the leads according to their potential and thus increasing the Rol. With 360-degree insights about the current status, it helps make well-informed decisions that meet business/sales objectives. With Salesforce and Tableau together, be able to improve in-house communication, spend funds and energy wisely, and proactively identify the new trends by better understanding the key phases of the sales process. It will also help to identify the best platforms and mediums for marketing to get the maximum value out of efforts

Detecting and Tapping Untapped Opportunities

Data is called the new gold in the digital industry due to its immense importance. So, advanced data analysis can make a huge difference in organization's productivity and sales capabilities. With its sophisticated capabilities and easy-to-use features, the Salesforce Tableau assures robust data analysis that improves monitoring capabilities, tracks untapped growth opportunities, and enhances decision-making capabilities. Availability of the entire key data of a company within a single interface also helps to correlate and compare the data of disparate departments and decide the next moves accordingly.

Comprehensive Insights

With Tableau, one can get more comprehensive insights from complex reporting data of pre-designed reports and dashboards of the Salesforce CRM. It helps in overcoming the restrictions of default dashboards and reports by importing data from Salesforce and third-party sources into datasets.

SECURITY OF TABLEAU CRM

To implement effective dataset row-level security, most Salesforce orgs can use a combination of sharing inheritance and a backup security predicate. Sharing inheritance provides the correct record access to users who do not have many employees or shared records. For users with access to many of their own or shared records, like a CEO or dashboard builder, a security predicate is set as backup to sharing inheritance.

In Einstein analysis security can be achieved by following steps

- Using Security Predicates
- EA Application and Dashboard level Access Implementation
- EA Access Permissions
- Salesforce Sharing Inheritance

Security Inheritance/ Security Predicate Einstein Analytics Data set App

Using Security Predicates

When a new dataset is created, the security predicate is empty, which means everyone has access to the dataset, has access to all the data rows. Security predicate is a manually assigned filter condition that defines row level security for dataset. When a user submits a query against a dataset that has a predicate, Analytics checks the predicate to

determine which records the user has access to. If the user doesn't have access to a record, Analytics does not return that record.

Types of Security Predicate

- Record ownership Enables each user to view only records that they own.
- Management visibility Enables each user to view records owned or shared by their subordinates based on a role hierarchy.
- **Team or account collaboration** Enables all members of a team, like an opportunity team, to view records shared with the team.
- Combination of different security requirements Defines a predicate based on the Salesforce role hierarchy, teams, and record ownership.

The predicates can be formulated to control the data visibility based on the following scenarios:

- Role Hierarchy Security Predicates can apply row level filter on the
 data based on the logged in user's role in the Salesforce org. A
 user would have visibility to records that they own and the records
 owned by people below their role hierarchy in the org.
- Manager Hierarchy Security Predicates can be applied to filter
 data based on the Manager Field in the User object in Salesforce
 org. In this scenario, the logged-in user would be able to view the
 records that they own and the records owned by user who report to them in the manager hierarchy (record owner's
 manager, record owner's manager, etc.)
- **Logged in User's Country** Security Predicate can filter the data based on the logged in user's country. For example, records that are owned by users from Germany can be made visible only to user's from that country.
- Opportunity Team and Accounts Team Security Predicates can be used to filter data visibility based on the condition that the logged-in user is part of the Opportunity Team or Account Team of the record owner. This scenario is applicable only if the Opportunity Team and Account Team features are used in the respective Salesforce org.
- **User Territory** Security Predicates can be used to implement Row Level Security based on User Territory. If the Territory Management is used in the respective Salesforce Org.

Syntax

Predicate Expression Syntax for Datasets must use valid syntax when defining the predicate expression. The predicate expression must have the following syntax:

<dataset column> <operator> <value>

For example, can define the following predicate expression for a dataset:

'UserId' == "\$User.Id"

- UserId is the API name of the dataset
- == is the operator
- \$User.Id this is the current Salesforce User Id when open the dashboard or lens

It can create more complex predicate expressions such as:

('Expected Revenue' > 4000 || 'Stage Name' == "Closed Won") && 'isDeleted' != "False"

Consider the following requirements for the predicate expression:

- The expression is case-sensitive.
- The expression cannot exceed 5,000 characters.
- There must be at least one space between the dataset column and the operator, between the operator and the value, and before and after logical operators. This expression is not valid: 'Revenue' > 100. It must have spaces like this: 'Revenue' > 100. If try to apply a predicate to a dataset and the predicate is not valid, an error appears when any user tries to guery the dataset

TABLEAU CRM ENCRYPTION

The Tableau CRM Encryption solution enhances security for Salesforce customers by extending encryption capabilities to the data at rest that is stored on the Salesforce file system. If digital data is in transit, currently being processed, or stored in memory, that data is considered to be in use. By contrast, digital data is considered at rest if it is stored physically in persistent storage but is not currently in use. Tableau CRM Encryption is for encrypting registered datasets in Tableau CRM. To encrypt data at rest and preserve functionality, Tableau CRM Encryption services are built natively into the Tableau CRM platform. The solution applies strong, probabilistic encryption on data stored at rest. Platform encryption is based on the Advanced Encryption Standard (AES) with 256-bit keys using CTR mode for every write. All operations, including sort and group-by, function the same as without encryption.

How Tableau CRM Encryption Works

As a prerequisite to Tableau CRM Encryption, must be approved by the Tableau CRM Encryption Product Manager. Org must have a Shield Platform Encryption tenant secret. (Tableau CRM Encryption uses PE key management, so it's not necessary to encrypt objects and fields in core Salesforce.) When using Tableau CRM with encryption-enabled instance, data read from and written to disk is automatically encrypted with the unique key for account. For more information about the encryption technology, refer to the Shield Platform Encryption Architecture white paper. To verify that encryption is enabled, go to the Analytics Settings page in the Setup UI.



For Tableau CRM Encryption to function properly, must define IP ranges for the Analytics Cloud Integration and Analytics Cloud Security user profiles as documented in, Best Practices: Manage Integration and Security Users in Tableau CRM (Einstein Analytics). Also, add designated Salesforce IPs to allowlist, Salesforce IP Addresses and Domains to Allow.

Features

Key export, Bring Own Key, key rotation, key revocation, and key import are available. All Tableau CRM features are supported, with the following exceptions:

- Pre-existing data is not encrypted.
- Data that was in Tableau CRM before encryption was enabled is not encrypted.
- If pre-existing data is imported from Salesforce objects through the dataflow, the data becomes encrypted on the next dataflow run.
- Other pre-existing data (such as CSV data) must be reimported to become encrypted.
- Although pre-existing data is not encrypted, it is still accessible and fully functional in its unencrypted state when encryption is enabled.

TABLEAU CRM LIMITS

This section describes Tableau CRM limits.

Localization and Internationalization

Tableau CRM has been localized with the following exceptions.

- It do not support right-to-left languages, such as Arabic and Hebrew.
- A subset of error messages is available only in English.
- The mobile iOS app includes only English versions of sample datasets and dashboards. Tableau CRM provides internationalization support with the following limitations.
- Must set both locale and language to see translated labels.
- Data within datasets is not modified for localization or internationalization.
- Each dataset can have a single locale specified in the metadata. The metadata locale is not overridden by individual user locale settings. All users see the same date, time, and number formats, and dimension names, regardless of their own locale and language settings.
- Search in filters is not case-sensitive.
- Multicurrency is not supported. When Tableau CRM extracts organization's default currency, it uses the currency for monetary values and doesn't convert to another currency.

Field-Level Security

Field-level security isn't available for external data that is uploaded via files. Field-level security that was implemented in the original database or Salesforce object isn't preserved when the data is loaded into a Tableau CRM dataset. For more information, see the Tableau CRM Security Implementation Guide. Set Salesforce field-level security to enable the Tableau CRM Integration User to see all fields used in app—default fields and those selected in the configuration wizard. Integration users run the dataflow, and if they don't have proper field-level security permissions, the dataflow fails.

SAQL Query Limitations

The timeseries function requires a Tableau CRM Platform license.

Explorer Limitations

Can't filter or group by the hour, minute, or second components of a date field. Can't filter on values containing HTMLEncoded text.

Tableau CRM on Mobile Devices

To view Tableau CRM on a mobile device, connect to org using the native Tableau CRM mobile app for Android or iOS. For limitations of the Tableau CRM mobile apps, refer to the See Also links at the end of this page. Outside of the native Tableau CRM mobile app, for mobile devices the only supported access to Tableau CRM is via Lightning app pages viewed in the Salesforce mobile app. Embedded Tableau CRM dashboards accessed via mobile browsers aren't supported. Limitations for the Wave Dashboard component in a Lightning app page in the Salesforce mobile app are covered in View Embedded Dashboards on Mobile Devices.

Tableau CRM Smart Dashboard and App Templates

Use of the SAQL timeseries feature in the Time Series smart dashboard template requires a Tableau CRM Platform license. Limitations for most Tableau CRM app templates are covered in the Help topic for each template. See below for Adoption Analytics, Sales Analytics, and Service Analytics app limitations.

Adoption Analytics Limitations

These limitations apply to Adoption Analytics.

- Datasets created for the app count against row limits for Tableau CRM license.
- Includes only Tableau CRM logs. For any Salesforce logs, use Event Monitoring.
- The first time use Adoption Analytics, it may take 24 hours for data to collect in event logs before it can be registered in the app's datasets and dashboard.
- Salesforce stores event log data for 30 days.
- Tableau CRM stores event log data in a dataset for up to 365 days, which counts against license's row limit.

Client Segmentation App Limitations

Use of the Client Segmentation App app is covered by a restricted use license created for Financial Services Cloud customers. Usage of Client Segmentation App is limited to the following:

- Salesforce data only.
- Standard and custom objects.
- 10 million rows of data.

For access to additional Tableau CRM capabilities, purchase a Tableau CRM Growth, Tableau CRM Plus, or Einstein Predictions license.

REVENUE INTELLIGENCE

Revenue Intelligence, powered by Tableau CRM, equips sales teams with purpose-built analytics and actionable insights throughout the entire sales and revenue cycle. With out-of-the box intelligence, sales leaders can forecast accurately, manage pipeline like never before, and coach reps to close deals — all on a single platform that can be easily customized to business.

BUYING OF TABLEAU CRM

- Tableau CRM is designed to bring true business intelligence to every CRM user in every industry: from sales
 reps to service reps to business users and beyond. It is 100% mobile not just for tablets and not as an
 afterthought.
- It also allows to maintain control of data. With analytics from Salesforce, can ensure that critical company data stays in CRM system and isn't exposed through substandard security.

CONCLUSION

Tableau CRM is a powerful self-service application that helps understand data. If users need to see their insights in Salesforce, consider Tableau CRM and its many features. It provides a way to connect with data no matter it is on the

cloud or in the system. It also provides security and encryption. It will give reports and dashboards that are required. It gives a feature that your dashboards and reports can be seen on your local device Android or IOS both platforms. Tableau CRM allows you to explore data in powerful, contextual ways: Connect directly to your CRM data and execute insights directly in Chatter. Automatically analyze millions of rows of data and get predictive analytics with Einstein Discovery. Explore data quickly and automate actions with prebuilt apps.

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