The Ultimate Guide to
Salesforce Metadata

*Understanding and Utilizing
Metadata in DevOps*

autorabit

Introduction

Metadata is one aspect of a Salesforce environment that many might be aware of without fully understanding. This is understandable since metadata exists in the background. We might have heard the basic definition of metadata as "data about data" and left it at that.

However, Salesforce metadata is a crucial aspect of your platform that can have an impact on data security, functionality, and even regulatory compliance.

Understanding, properly handling, and protecting this important information is crucial to a complete approach to fortifying your Salesforce functions. This is why we've put together this guide that outlines everything you need to know about what metadata is, how it impacts your Salesforce environment, and what you need to do to protect it.

We'll address these important considerations for Salesforce metadata:

1. What Is Salesforce Metadata?
2. Metadata + DevOps
3. The Relationship Between Data and Metadata
4. Metadata + Customer Experience
5. The Importance of Guarding Your Salesforce Metadata
6. Properly Handling Metadata Protection

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What is Salesforce Metadata?

"Data about data" is a very basic definition of metadata—it's vague enough to be technically correct, but there are many more refinements that can be made to encapsulate all that is addressed by metadata. There are numerous types of metadata, but they can be combined into two main buckets when talking about how they function within Salesforce.

PLATFORM METADATA

Platform metadata is information that describes functions and fields within your Salesforce environment.

When a piece of data was created, an identifier for who created it, and other descriptive data will be included within the subset of metadata types. This metadata is important to your Salesforce environment and needs to be protected like other forms of sensitive data.
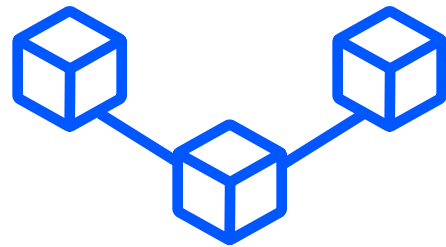
CUSTOM METADATA

Custom metadata allows you to create relationships between objects and is commonly what we're referring to when talking about metadata in Salesforce.

For example, this could define which cities belong to which states or countries, business logic or rules that define workflow or business processes, or how data is handled or validated. This information might not contain identifiers, but it does have a direct impact on the functionality of your Salesforce environment. Losing custom metadata can be a severe setback for the operational capacity of your platform.

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Metadata + DevOps

Metadata plays a variety of essential roles in the proper functionality of your Salesforce DevOps efforts.

1. CUSTOMIZED PLATFORM

The Salesforce platform is very flexible. Customizations built into your Salesforce platform are dictated by metadata which can be used to tailor the interface to your DevOps teams' needs.

The components that make up your Salesforce environment are driven by metadata. This includes the user interface that your DevOps teams utilize when contributing to the next update or application in the pipeline.

2. RELATED FIELDS

The various input fields in your Salesforce environment can be connected through metadata. These relationships can save team members time as they perform their tasks by automatically filling linked areas.

A well-known example of linked fields is when you're filling out your address in the checkout phase of an online order. You fill in your city and state, and all of a sudden, the zip code auto-populates in the next field.

3. CUSTOM FRAMEWORKS

Metadata can be used to customize the frameworks within the development environment. Applications can then be defined and driven by metadata rather than using the data itself.

The Setup function within Salesforce can be used to create, edit, and delete custom metadata records and types. Metadata API can be leveraged to carry these tasks out. This process saves your DevOps team time and can increase the overall productivity of your pipeline.

4. AUTOMATION ASSISTANCE

Automation is an essential aspect of an optimized and streamlined DevOps for Salesforce strategy. Metadata allows custom application logic to save time, reduce errors, and make processes faster through the implementation of workflow automations. This enables processes like CI/CD that streamline DevOps efforts and create more stable and reliable applications.

The Relationship Between Unstructured Data and Metadata

Information that either doesn't fit into current organizational models or isn't organized in any other pre-defined way is considered to be "unstructured." Salesforce metadata can be used to house and structure this data, which is essential for categorizing and organizing various sets of information.

The analysis of each piece of unstructured data can be automated if this metadata exists. This can organize the files by type, date, or a variety of other factors that make it easier to compile and analyze.

Creating a system that will add structure to this information increases the accessibility of it and provides a rubric to organize future data that would have otherwise been unstructured.

This information can be used to improve customer experience. Insights into how they relate to your goods and services—as well as how they feel about these interactions—can be useful to refine your practices.
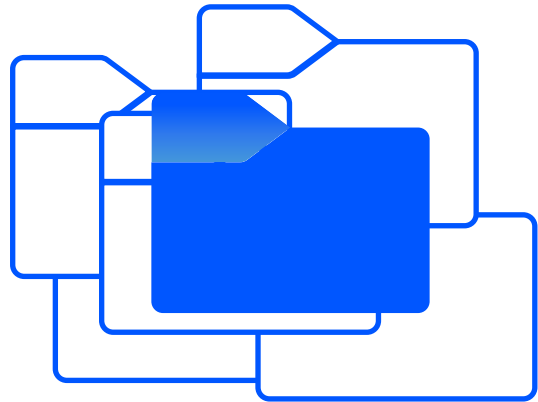
Adding metadata to unstructured data can be tedious. This can be done manually, but those with large data pools will find this to take an unrealistic amount of time.

A code scanning tool can be used to find and flag various data sets, drastically improving the process of instituting an organizational structure.

And once these files contain the appropriate metadata, they can be arranged and filed. Systems can be put in place to categorize similar data in the future so you can make use of the full potential of your data.

Metadata + Customer Experience

Salesforce metadata provides the framework for presenting information and functionality that can create a unique and specialized experience for customers.

Customer experience (CX) plays a huge role in where people choose to do business. A full understanding of your customers and how they interact with your company will provide stronger insights into how to address their needs.

Here are a few ways metadata helps with this:

AUTOMATED REPORTING

Metadata describes data points, and these descriptions can be used as a roadmap toward better understanding current—and maybe even future—customer habits. Tags can be assigned and attached to value definitions within metadata to track performance of various aspects of your platform. Granular information such as this provides intricate and useful insights that can be compiled over time.

DATA ENRICHMENT

The data currently being collected in your system is being arranged according to an existing set of definitions and dimensions. Metadata allows you to change these dimensions to better fit your goals and unique qualities. Adding metadata tags groups specific items together to give you a unified source of performance metrics.

IMPROVEMENT OF FUNCTIONALITY

Customer experience is an ever-evolving effort. Here are a few areas of focus that can be helped by metadata:

- **Next Best Step:** A well-timed suggestion or call-to-action can guide them in the right direction.
- **Process Digitization:** Proper flows of information between users on the front end and processes on the back end are essential to creating a smooth experience.
- **Omnichannel:** Consistent functions between your various channels can be directed by metadata and make your customer interactions more intuitive.

The Importance of Gaurding Your Salesforce Metadata

As we've learned, metadata impacts various aspects of your Salesforce environment. A lot of importance is placed on data security—and for good reason—but we also need to include metadata in the scope of these efforts.

FUNCTIONALITY

Your Salesforce environment likely has a series of customizations to best serve the needs of your business, and metadata is at the heart of this personalization.

This metadata comes from hours upon hours of work from your team. Losing this information can result in the need to trace back old tasks and recreate the results.

Backing up this metadata and putting restore protocols in place can be done with a little time and attention. Compared to the potential losses, this effort can be a great asset to your organization and the systems you use every day.

DATA SECURITY

Cybercriminals are always looking for a weak point to exploit. This comes in many forms and is always evolving, so constant care and attention to the various aspects of our systems needs to be maintained.

Your Salesforce metadata is one such consideration that needs to be guarded. Proper protection of Salesforce metadata is necessitated both by user trust as well as regulatory requirements.

COMPLIANCE

Your company's data needs to be accurately labeled and arranged in order to adhere to the various regulatory standards. These definitions are necessary to understand which sections of your data are subject to certain regulations.

For example, you're not going to know you are under the umbrella of HIPAA if you don't know you have medical data or where it is.

Data and customer information might be the focus of many of these requirements, but your Salesforce metadata will play a large role in creating systems to properly adhere to regulations.

Properly Handling Metadata

> *"We have been using AutoRABIT since 2015, and it has transformed the way we deliver Salesforce applications."*

DANIEL MUCHUMARRI

Now that we understand why metadata is so important to your Salesforce environment, let's discuss how to work with it.

KNOW HOW TO FIND METADATA

Being aware of metadata is only the first step. Retrieving and protecting metadata means you need to be able to locate it. Here are a few ways you can find Salesforce metadata:

- **Application Programming Interface (API):** APIs allow users to create repeatable functions and organize code. It can be used to manage platform customizations and gather metadata.

- **ANT Migration Tool:** This is a command-line tool that can be used to move metadata out of a Salesforce org and into a local filing system.

- **Managed Packages:** These pre-packaged collections of application components can be used to send and retrieve metadata as needed.

- **Manual Searches:** We love to tout the benefits of automation, but manual searches can also be useful for finding metadata even if it isn't a streamlined process.

PROTECT YOUR METADATA

Salesforce metadata needs to be protected and monitored just as vigorously as other types of data. Not only will this keep your system secure, but it also helps to remain compliant with data security regulations.

- **Include Metadata in Scheduled Backups:** A reliable data backup tool is an essential aspect of a complete data security strategy. Setting this tool to include metadata in the repeated snapshots guarantees the stability of your system and aids compliance efforts.

- **Ensure Strong Code:** Coding errors create backdoors for cybercriminals and the potential for destructive errors. Use a code scanning tool to verify proper coding structures and healthy metadata.

- **Store Metadata On-Prem:** Salesforce is a cloud-based program, which provides a lot of great benefits. However, systems are most secure when they are hosted on the premises of your company. This allows you more control over the access points to your system.

Conclusion

Metadata is a crucial aspect of your Salesforce environment, whether you are aware of what it's doing in the background or not. It needs to be protected, organized, and verified through intentional attention as well as with the assistance of automated DevOps tools.

A failure to properly address Salesforce metadata can have drastic effects on functionality, data security, compliance, and end-user experience.

Automation is a great asset in the effort to properly secure Salesforce metadata. AutoRABIT Vault offers data backup and recovery functionality that can be set to include metadata along with standard data backups. And should a data loss event occur, Vault can restore metadata along with system data to ensure operations remain smooth.

CodeScan by AutoRABIT analyzes the code of your system, which includes metadata. Notifications of errors in these structures help you find and rectify problematic areas before they have a chance to negatively impact your Salesforce environment.
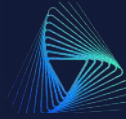
Metadata might exist behind the scenes, but it is an ever-present and important part of your Salesforce instance. Understanding and properly protecting metadata is an essential aspect of a proper DevOps strategy.

WHO WE ARE

autorabit

AutoRABIT is a Continuous Delivery suite for SaaS platforms. We automate and accelerate the entire application development and release process. This enables continuous integration and delivery by providing fast, simple, and secure end-to-end automation across all Salesforce implementations. We help enterprises achieve higher release velocity and faster time-to-market.

AutoRABIT provides static code analysis, automated metadata deployment, version controlling, advanced data loading, orgs and sandbox management, test automation, and reporting. Our services complement and extend Salesforce DX. AutoRABIT Vault—our backup and recovery solution—streamlines Salesforce data, simplifies data backup challenges, offers disaster recovery, and endpoint data protection on the Cloud. CodeScan provides full visibility into code health from the first line written through final deployment into production. Record Migrator provides automatic bundling of all feature dependencies for Salesforce managed packages and deployment of templates ensures fast, efficient, and seamless releases.

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