

Architect Valley



The session color is **WHITE**

How to use the headsets:

1. Find a headset on the rack.
2. Make sure the headset is on the right colour.
3. Enjoy the talk.
4. Please put the headset back on the rack
where you found it.





Metadata - our Secret Sauce

Mikkel Flindt Heisterberg
Technical Architect, Salesforce



Forward Looking Statement



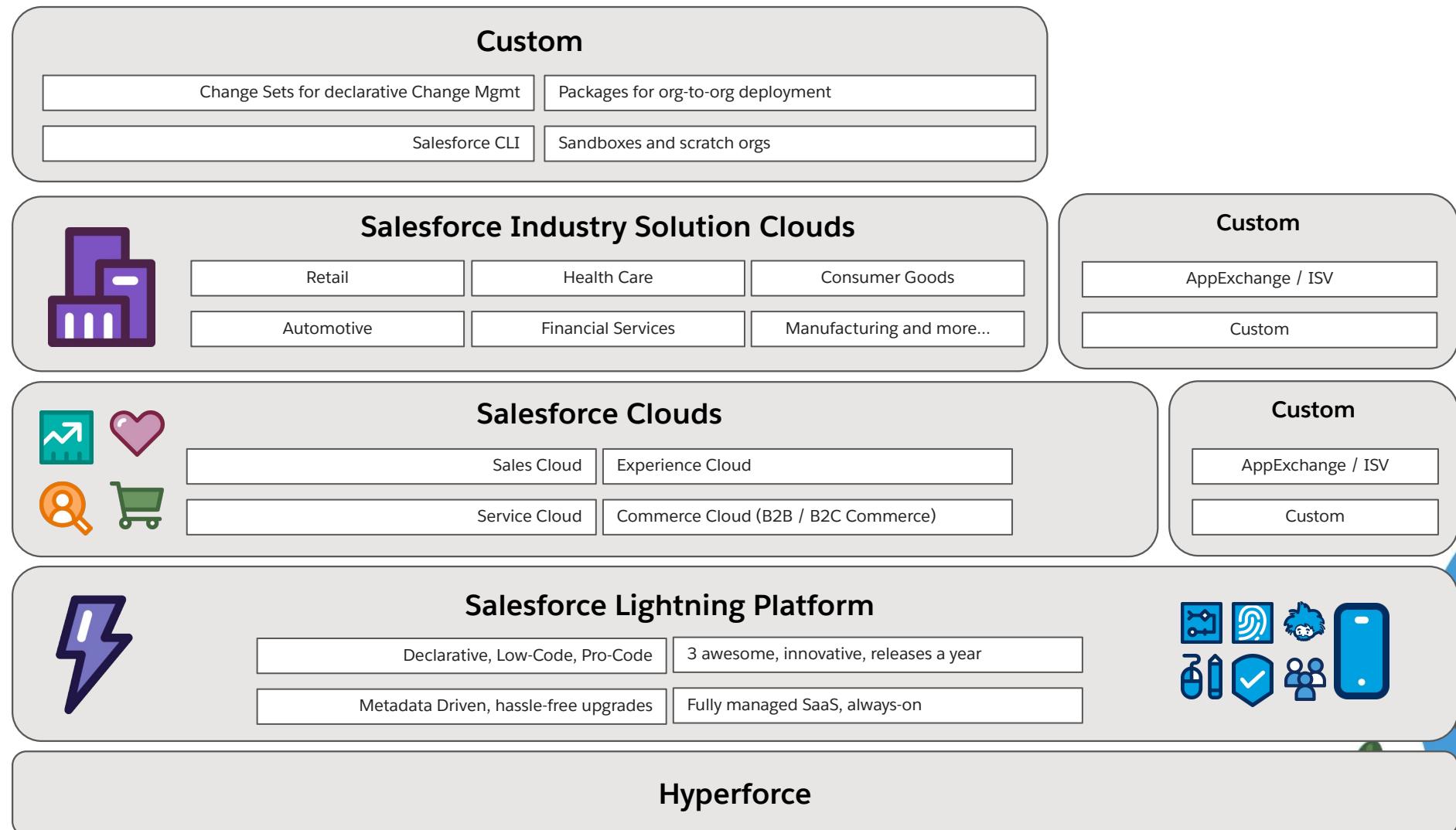
This presentation contains forward-looking statements about, among other things, trend analyses and statements regarding future events, future financial performance, anticipated growth, industry prospects, environmental, social and governance goals, our strategies, expectation or plans regarding our investments, including strategic investments or acquisitions, our beliefs or expectations regarding our competition, our intentions regarding use of future earnings or dividends, and the expected timing of product releases and enhancements. The achievement or success of the matters covered by such forward-looking statements involves risks, uncertainties and assumptions. If any such risks or uncertainties materialize or if any of the assumptions prove incorrect, Salesforce's results could differ materially from the results expressed or implied by these forward-looking statements. 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current and potential litigation involving us or our industry, including litigation involving acquired entities, and the resolution or settlement thereof; regulatory developments and regulatory investigations involving us or affecting our industry; our ability to successfully introduce new services and product features, including any efforts to expand our services; the success of our strategy of acquiring or making investments in complementary businesses, joint ventures, services, technologies and intellectual property rights; our ability to complete, on a timely basis or at all, announced transactions; our ability to realize the benefits from acquisitions, strategic partnerships, joint ventures and investments, and successfully integrate acquired businesses and technologies; our ability to compete in the markets in which we participate; the success of our business strategy and our plan to build our business, including our strategy to be a leading provider of enterprise cloud computing applications and platforms; our ability to execute our business plans; our ability to continue to grow unearned revenue and remaining performance obligation; the pace of change and innovation in enterprise cloud computing services; the seasonal nature of our sales cycles; our ability to limit customer attrition and costs related to those efforts; the success of our international expansion strategy; the demands on our personnel and infrastructure resulting from significant growth in our customer base and operations, including as a result of acquisitions; our ability to preserve our workplace culture, including as a result of our decisions regarding our current and future office environments or remote work policies; our dependency on the development and maintenance of the infrastructure of the Internet; our real estate and office facilities strategy and related costs and uncertainties; fluctuations in, and our ability to predict, our operating results and cash flows; the variability in our results arising from the accounting for term license revenue products; the performance and fair value of our investments in complementary businesses through our strategic investment portfolio; the impact of future gains or losses from our strategic investment portfolio, including gains or losses from overall market conditions that may affect the publicly traded companies within our strategic investment portfolio; our ability to protect our intellectual property rights; our ability to maintain and enhance our brands; the impact of foreign currency exchange rate and interest rate fluctuations on our results; the valuation of our deferred tax assets and the release of related valuation allowances; the potential availability of additional tax assets in the future; the impact of new accounting pronouncements and tax laws; uncertainties affecting our ability to estimate our tax rate; uncertainties regarding our tax obligations in connection with potential jurisdictional transfers of intellectual property, including the tax rate, the timing of transfers and the value of such transferred intellectual property; uncertainties regarding the effect of general economic, business and market conditions, including inflationary pressures, general economic downturn or recession, market volatility, increasing interest rates, changes in monetary policy and the prospect of a shutdown of the U.S. federal government; the potential impact of financial institution instability; the impact of geopolitical events, including the ongoing armed conflict in Europe; uncertainties regarding the impact of expensing stock options and other equity awards; the sufficiency of our capital resources; our ability to execute our share repurchase program; our ability to comply with our debt covenants and lease obligations; the impact of climate change, natural disasters and actual or threatened public health emergencies; expected benefits of and timing of completion of the restructuring plan and the expected costs and charges of the restructuring plan, including, among other things, the risk that the restructuring costs and charges may be greater than we anticipate, our restructuring efforts may adversely affect our internal programs and ability to recruit and retain skilled and motivated personnel, our restructuring efforts may be distracting to employees and management, our restructuring efforts may negatively impact our business operations and reputation with or ability to serve customers, and our restructuring efforts may not generate their intended benefits to the extent or as quickly as anticipated; and our ability to achieve our aspirations, goals and projections related to our environmental, social and governance initiatives, including our ability to comply with emerging corporate responsibility regulations.



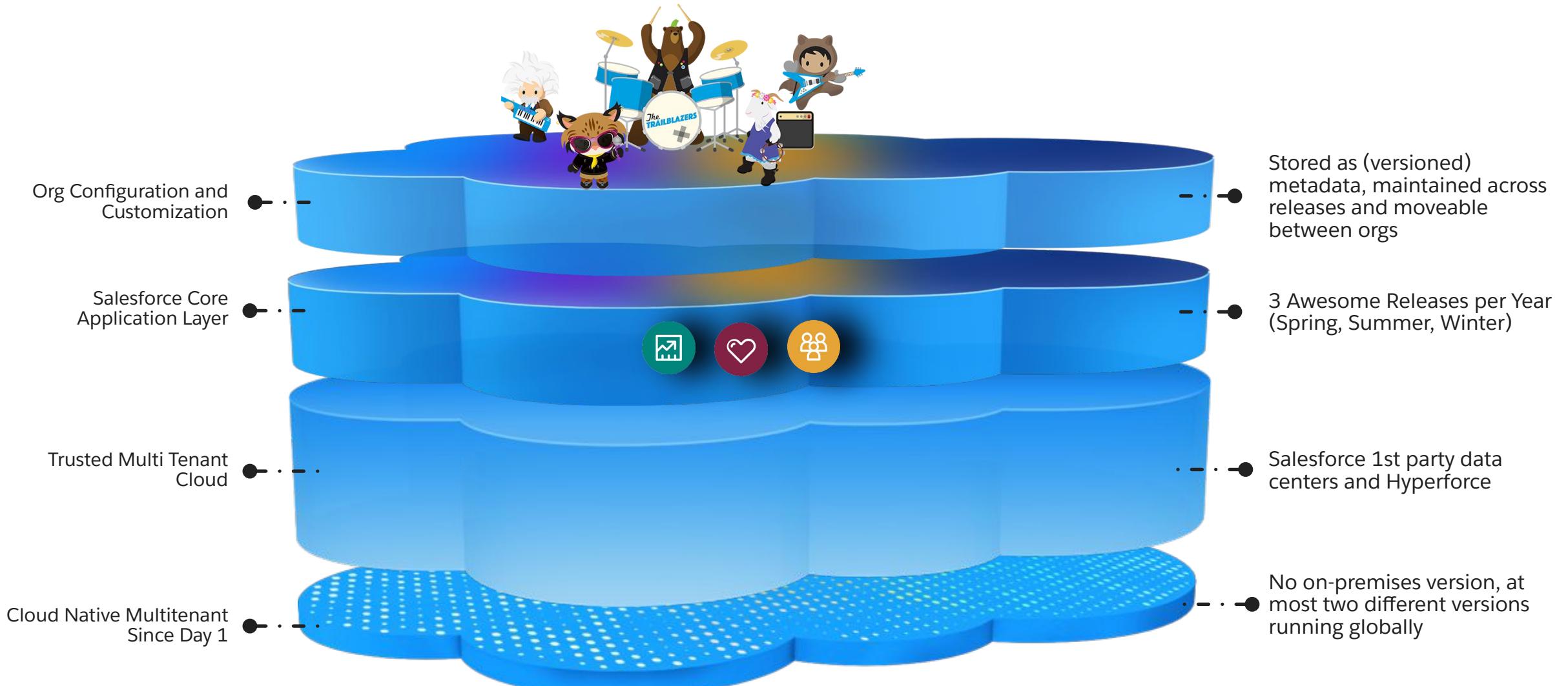
Thank You



Salesforce Layering



Metadata-Driven Platform



Value of Metadata



Packageable

Metadata can be put into packages (“bundles”) to enable Salesforce, customers, partners and ISV’s to deliver functionality in a safe, dependable manner - potentially through the AppExchange.

Extensible

Metadata from Salesforce or packages can be extended i.e. new fields added to data types provided by others. The platform handles security and backwards compatibility.

Moveable

Metadata can be moved between environments i.e. from test to QA or UAT to production. Enables agility, speed, predictability, consistency, governance and compliance.

Versionable

Metadata is (also always) versioned so it doesn’t break with upgrades of the underlying platform. It allows customers to always have the latest innovations available without breaking customizations.

Discoverable

Metadata allows for discovery. This allows the platform to dynamically react to changes in capabilities. It enables low code tooling and makes development easier, safer and fast.



Two Metadata Formats

Salesforce DX / CLI

A Salesforce DX / CLI structure for an Account object. It shows different levels of metadata definition:

- Account object meta (Account.object-meta.xml)
- Object translations for English (Account-en_US)
- Field translations for various fields (e.g., account_name, Active_c, CustomerPriority__c, etc.)

Metadata API

Even though the structure is similar, the files are XML-based.

This is the standard format used by the Metadata API.

```
main
  default
    objects
      Account
        Account.object-meta.xml
      objectTranslations
        Account-en_US
          account_name.fieldTranslation-meta.xml
          Account-en_US.objectTranslation-meta.xml
          Active_c.fieldTranslation-meta.xml
          CustomerPriority__c.fieldTranslation-meta.xml
          NumberofLocations__c.fieldTranslation-meta.xml
          SLA_c.fieldTranslation-meta.xml
          SLAExpirationDate__c.fieldTranslation-meta.xml
          SLASerialNumber__c.fieldTranslation-meta.xml
          UpsellOpportunity__c.fieldTranslation-meta.xml
```

This format is the format used by the Metadata API and when moving metadata between orgs with change sets.

Metadata API uses a Manifest



```
<?xml version="1.0" encoding="UTF-8"?>
<Package xmlns="http://soap.sforce.com/2006/04/metadata">
    <types>
        <members>*</members>
        <name>CustomObject</name>
    </types>
    <types>
        <members>MyAwesomeClass</members>
        <name>ApexClass</name>
    </types>
    <version>60.0</version>
</Package>
```



Ant Migration Tool End of Life...

```
<?xml version="1.0" encoding="UTF-8"?>
<Packag>
```

SALESFORCE HELP > DOCS > SALESFORCE RELEASE NOTES

Salesforce Ant Migration Tool End of Life

The Salesforce Ant Migration Tool is retired with Spring '24. The tool continues to function for future API versions but isn't updated with new functionality and isn't supported. To manage metadata changes, switch to Salesforce CLI for a modern, supported developer experience.

The Salesforce Ant Migration Tool is a developer tool. For developer tool policies, review [Program Terms for the Salesforce Developers Program](#).

SEE ALSO

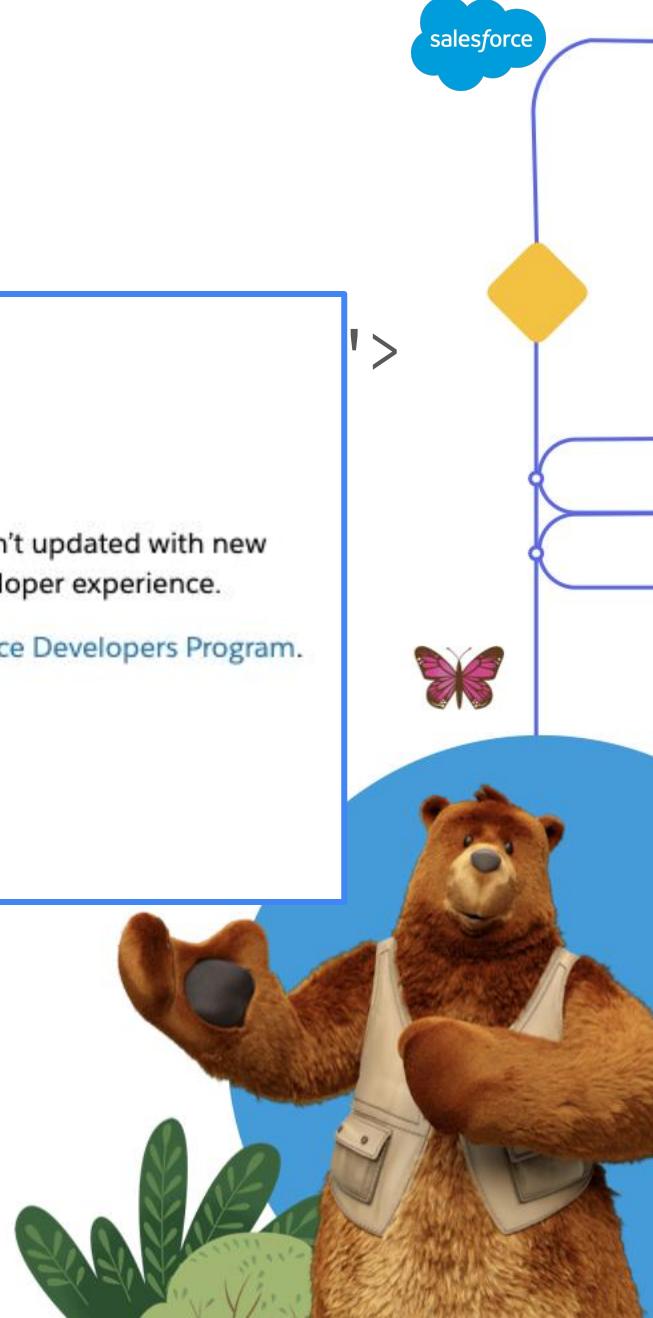
[Salesforce CLI Setup Guide](#)

[Salesforce CLI Command Reference: project convert mdapi](#)

```
</types>
```

```
<version>60.0</version>
```

```
</Package>
```



Salesforce CLI style... (1)



```
sf project retrieve start \
  -m ApexClass:MyAwesomeClass \
  -m CustomObject
```

Retrieving v60.0 metadata from foo-90igu7@example.com using the
v60.0 SOAP API
Preparing retrieve request... Succeeded



Salesforce CLI style... (2)



```
sf project retrieve start \  
  -m ApexClass:MyAwesomeClass \  
  -m CustomObject \  
  --api-version=58.0
```

Retrieving **v60.0** metadata from foo-90igu7@example.com using the
v58.0 SOAP API
Preparing retrieve request... Succeeded

```
sfdx-project.json  
{  
  "packageDirectories": [  
    {  
      "path": "force-app",  
      "default": true  
    }  
  ],  
  "name": "salesforce-wte24-metadata",  
  "namespace": "",  
  "sfcdLoginUrl": "https://login.salesforce.com",  
  "sourceApiVersion": "60.0"  
}
```



Trusted enterprise AI architecture



Einstein 1 Platform

UI

Apps &
Workflows



Sales



Service



Marketing



Commerce



Tableau



Industries

Einstein Copilot

Model

Einstein 1
Studio

Copilot
Builder

Prompt
Builder

Model
Builder

RAG,
Semantic Search

Monitoring,
Governance

Einstein
Trust Layer

Secure Data
Retrieval

Dynamic
Grounding

Data
Masking

Toxicity
Detection

Auditing

Zero Data
Retention

Data

Data Cloud

Real-Time
Lakehouse

Structured &
Unstructured

Unified
Profiles

Data
Actions

Vector
Database

Your
Lake



Unified Metadata Framework



Data Cloud is deeply integrated into the Einstein 1 Platform

Data Cloud Reports

Create Report

Category

Recently Used

All

Data Cloud

Accounts & Contacts

Opportunities

Customer Support Reports

Leads

Campaigns

Select a Report Type

Report Type Name

Category

Account

Data Cloud

Case

Data Cloud

Individual

Data Cloud

Contact Point Email

Data Cloud

Contact Point Phone

Data Cloud

Contact Point Address

Data Cloud

Data Action Publish Event

Data Cloud

GA | Today

Data Cloud-Triggered Flows

- Launches when a platform event message is received. This autolaunched flow runs in the background.
- Data Cloud-Triggered Flow
Launches when Data Cloud data model object (DMO) or calculated insight object (CIO) conditions are met.
- Prompt Template Flow (Pilot)
Launches from a prompt template. Adds prompt instructions to the associated

GA | Today

Sales Console

Contact Ms. Rachel Morris

Senior Product Manager

BigCo

Phone (2) (830) 222-5687

Email r.morris.52881@gmail.com

Contact Owner Rob Devenutro

Related

Details

We found no potential duplicates of this Contact.

Opportunities (1)

Shipping Renewal Stage Qualification Amount Close Date: 2/29/2024

Individual Email Results (1)

Notes & Attachments (0)

Activity

Upcoming & Overdue

Call Followup with International Shipping

The Customer has not reached Expected Shipment

Recent Shipments (Databricks) (5+)

Native access to Data Cloud data

Rearchitected Salesforce Metadata for 100X Scale

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The Customer has not reached Expected Shipment

February - 2024

Call You logged a call

Before Data Cloud

Sales Console

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BigCo

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Call You logged a call

Demo time...



Resources

Links and slides...



Thank You

