Splunk Developer Cloud Services & Features

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Our Speakers

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Splunk Developer Cloud Overview

What and Why?

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Splunk Developer Cloud
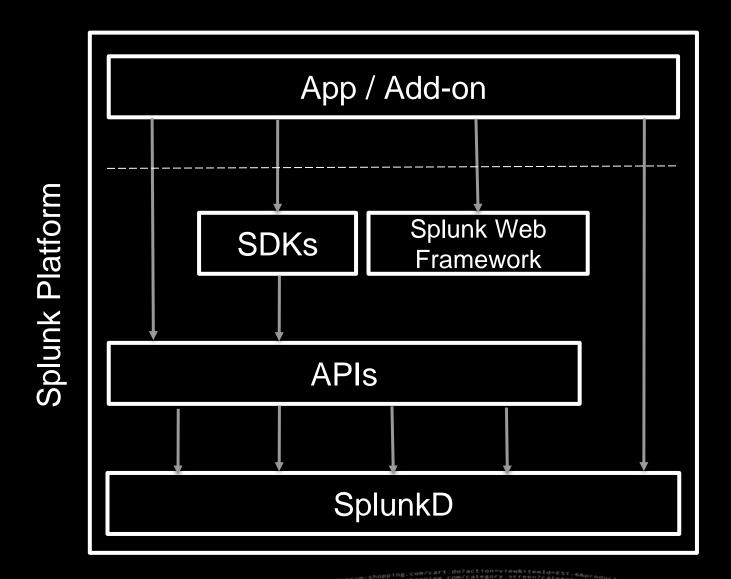
- API-Driven

- Scalable

- Rapid iteration

- Easy

Developer Choice!!!

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developer
cloud

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App for Enterprise and Cloud

Splunk Platform
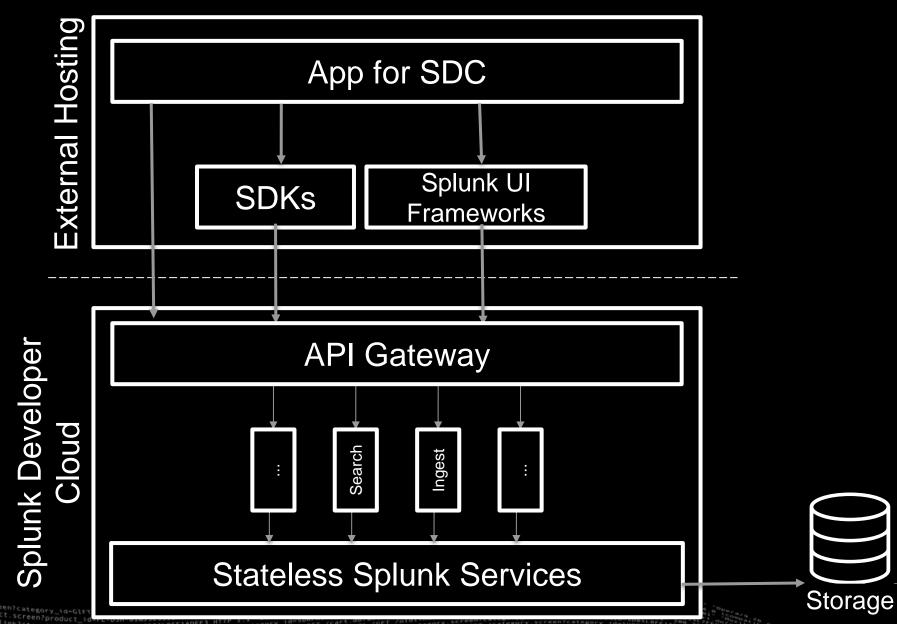
App / Add-on

SDKs

Splunk Web Framework

APIs

SplunkD

App with Splunk Developer Cloud

Splunk Developer Cloud

What's in there?

▶ Cloud-native development platform for machine-generated data
- APIs
- SDKs
- Tools
- UI Components & Frameworks
- Developer Portal

Familiar

Flexible

Fast

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SDC Services & Features

Services & Features

With Demos!

1. Tenants, Identity, and Access

2. Data Ingest, Search, and Catalog

3. Apps!

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Tenants

▸ Most basic container of resources

▸ API calls specify a single tenant

No cross-tenant access

Principals

▸ Actors making API calls
...targeting a specific tenant

▸ Users vs. Services

▸ Can be a <u>member</u> of many tenants; not a resource *contained* by a specific tenant

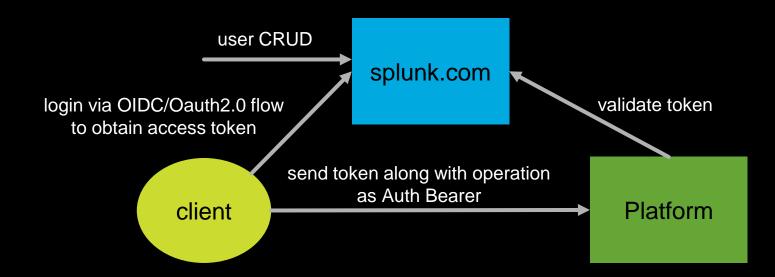**Principals cannot access tenants they are not a member of**

Identity Access Control

▸ Identity and Access Control (IAC) service manages

- Tenants

- Principals

- Groups

- Roles

- Permissions

Enables Authentication and Authorization
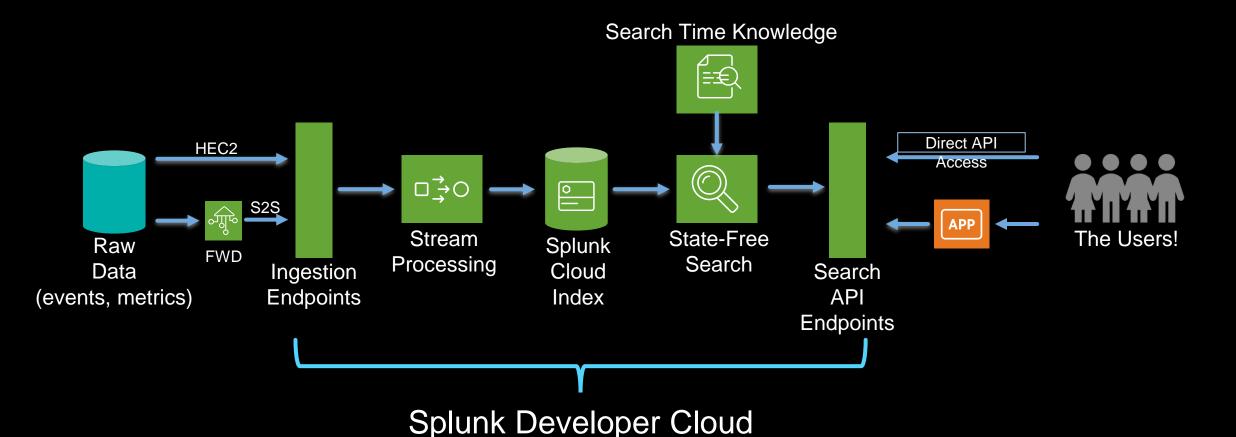
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Authenticating

▸ Registration of accounts happens on splunk.com
▸ SDC leverages splunk.com as an *Identity Provider* using the OIDC protocol
▸ SDC never "sees" a user password; instead all services accept a *token* that is validated against the splunk.com OpenID Connect Provider
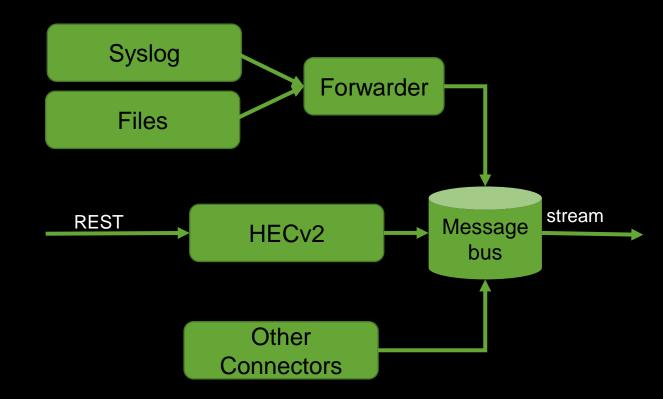

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DEMO 1

Data Ingest

Ingestion & Stream Processing

▸ Forwarders w/ S2S
▸ HEC v2 API
▸ Connectors

▸ First-class ingest-time stream processing engine

- Fully parallelizable engine
- Core: Filter, project, transform, group, aggregate, join, sort, limit, window
- REST API-driven centralized configuration

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Indexing and Search

▸ The stream processing engine feeds data into a Splunk indexer that produces buckets and uploads them to S3

- Using the S2 (Smart Store) technology

▸ A new Search Service enables insights with better scale and simplicity

- SPLv2: a variation of SPL designed to be more consistent and extensible
  - Currently only a subset of SPL commands

Catalog
"Source of truth"

▸ Central repository for metadata: indexes, search time extractions, lookups, etc.

▸ Models metadata information around *datasets*

▸ *Datasets* act as an interface, defining a schema; core abstraction

- Indexes, KV Store collections, alerts, etc. are implementations of the interface

▸ *Rules* are search-time operations (field extractions, knowledge objects, etc.)

- *Field extractions, aliases, etc. in props/transforms.conf*

▸ *Modules* act as a namespace and execution context; contain datasets and rules
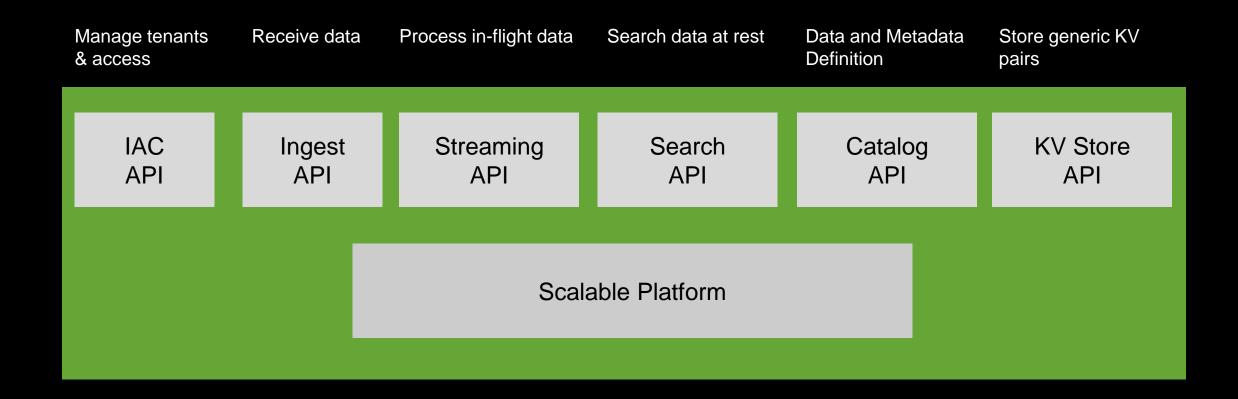
- Config stanzas, user/app context, etc

Just scratching the surface

DEV2043 Thursday at 1:30pm

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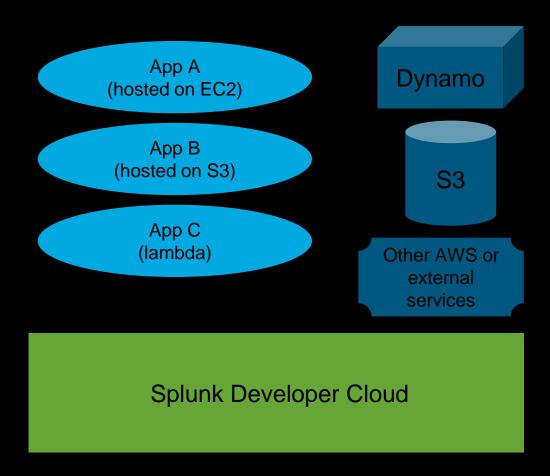*DEMO 2*

Apps - Enterprise vs. SDC

A new paradigm

▸ **With Splunk Enterprise, apps are essentially hosted in the platform**
  - Ship tarball, provide executables

▸ **With SDC, apps can run anywhere and be anything**

▸ **Developers can interact with any external services they like in any way it's useful for their app**

▸ **Developers are in control of how their app works and its characteristics - not limited to specific extension points**

App A
(hosted on EC2)

App B
(hosted on S3)

App C
(lambda)

Dynamo

S3

Other AWS or external services

Splunk Developer Cloud

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App Services

Do more

▸ Enable developers to build richer app experiences that have greater reach

- App Registry

    - Manage OIDC clients/apps with SDC

- Machine Learning

    - Make predictions and generate insights via the power of ML

- Action Service

    - Send outgoing webhooks

        – Programmatically

        – via SPLv2

    - *More to come*

DEMO 3

App Enablement

Build faster and easier

- ▸ SDKs

- ▸ Tooling

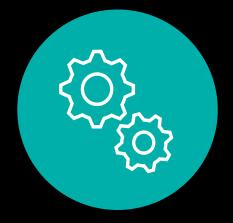- ▸ UI Components & Frameworks

- ▸ Developer Portal

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Key Takeaways

How's that for an overview?

1. Overview of Splunk Developer Cloud

2. SDC Services...*in action*

3. Application Enablement

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Six Great Sessions on Splunk Developer Cloud

If you're here in a session, just stay here!

- ~~11:30am~~ ~~Building Apps for Splunk Developer Cloud DEV1902~~ ✓

- ~~12:45pm~~ ~~Splunk Developer Cloud Services and Features DEV1552~~ ✓

- 2:00pm Developer Tools for Splunk Developer Cloud DEV1841

- 3:15pm Partners Build Apps on Splunk Developer Cloud DEV1846

- 4:30pm Dashboards and Analysis UI Components for Developers DEV1703

- Thu 1:30pm Intro to SPLv2, the Module System and the Catalog DEV2043

Sign up at splunk.com/sdc

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Join the SDC Beta Program!

▶ Help test out the Splunk Developer Cloud!

▶ We're looking for developers with:

- Experience in building cloud-hosted applications
- Experience with building Splunk apps
- Interest in building new solutions on our beta SDC

▶ Be among the first to try SDC! Apply to join the beta!

- splunk.com/sdc
- splunk.com/projects

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Thank You

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Q&A

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