## Rundeck by Pager Duty

## PagerDuty Commons/

**Virtual Meetup** 





Wednesday April 23

9am PDT | 12pm EDT



Fred Ellenberger Senior Solutions Architect Optum



Martin Van Son Automation Specialist PagerDuty





## **Agenda**

- Xenda Amici PD Commons Announcements
- Fred Ellenberger My Decade Orchestrating with Rundeck
- Martin Van Son Self-Service Automation with Rundeck
- Q&A

#### PagerDuty Commons/





## BE the NEXT SPEAKER! https://bit.ly/4dSpLeA community-team@pagerduty.com

We have swag up for grabs!

#### PagerDuty Commons/



**Webinar Series** 

#### Demo Roundups!

Monthly • Every 3rd Thursday 8am PST | 11am EST | 4pm GMT





#### Coming up:

April 24 • Identifying System Weaknesses to Improve Resilience

May 22 • What's New in Schedules & Services

**June 26 • Meet the PagerDuty Agents** 

July 24 • On-Call Culture in the Age of Al

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# Runbook Automation & Rundeck release notes v5.11

Thursday, April 17, 2025 10 am PDT | 1 pm EDT



twitch.tv/pagerduty



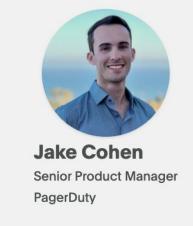
linkedin.com/company/pagerduty

## **WEBINAR** Supercharge Your **Rundeck Plugins with Al**

#### Tuesday 29 April — 8AM PDT | 11AM EDT

Join this webinar to learn how PagerDuty's Al capabilities can help you.

Save your spot and we'll see you there!



### **PagerDuty**

## Reimagining operations in the age of AI and automation

May 8th, 2025 @ 10 AM PT

Register now



David Williams
Senior Vice President, Product
PagerDuty

Rundeck by Pager Duty + 6 Cloud Bees + Coralogix

#### **Event**

### Tech-Mex Automation Fiesta





Tuesday, May 20 • 5:30 - 8:00 EDT
Rosa Mexicano (155 Seaport Blvd, Boston, MA 02210)





## Let's continue the conversation!

Connect with fellow PagerDuty users and digital operations enthusiasts at your one-stop community hub for real-time ops.

Join local groups, upcoming events & more!

#### Scan to join the Developer Community.

Leave a message in the "Introductions" forums telling about this event for a chance to win a special gift!







- We have an agenda but this is intended to be
   YOUR community and call we're happy to go off-topic!
- Please keep it interactive ask questions in the Q&A or make comments at any time, leave your feedback in the post meetup survey
- This session is being recorded but only the individual presentations will be uploaded to Youtube









# My Decade Orchestrating with Rundeck



Fred Ellenberger, Senior Solutions Architect at Optum

#### Agenda

- About DMS
- Rundeck Services Vision
- What is Rundeck
- High Level Architecture Overview
- Our journey with Rundeck
- Commitment to evolving Open-Source

#### Data Management Services: About Us

The DMS (Data Management Services) team specializes in developing technological capabilities that create value for our customers seeking data management and data-centric solutions. We are a DevOps organization that drives digital transformation in support of Optum Insight's Payer Operations pillar as well as offering SaaS and Open Source-based services to the Enterprise. Some of the services and support we provide include:

- •JIRA to manage work through planning, tracking, releases, and reporting
- •Confluence for team collaboration like project and marketing planning, meeting notes, product requirements, and blog posting
- •Knime for data analytics and data science applications
- •Nuxeo for extended content management services such as searching, storing, and retrieving large volumes of unstructured content
- •MongoDB, a highly scalable, flexible, and distributed NoSQL databases
- •Rundeck to schedule and orchestrate jobs and manage job automation
- Talend for data integration, big data, and data management solutions
- Data enablement services
- Product development services

#### Rundeck Services Vision

Develop technological capabilities that create value for our customers seeking to manage infrastructure and DevOps solutions....Solidify open-source position with Rundeck by making job execution and runbook processes available to the right people at the right time.

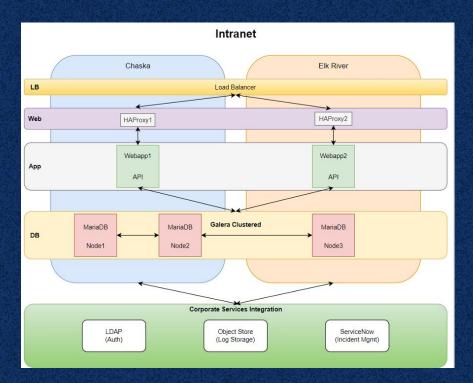


#### What is Rundeck

- Rundeck is a Runbook Automation / Orchestration engine that manages job automation and executes workloads on Windows and Linux based nodes. The platform is hosted internally on Optum Cloud (NGIS) infrastructure
- Rundeck is a platform which provides the ability to:
  - Centralize scheduled work by using a central interface to control when and where jobs will run
  - Give anyone self-service access to the operations capabilities that previously only your subject matter experts could perform.
  - Leverage any scripting languages or tools you want to use from one central interface
  - Manage job automation from legacy to cloud services
  - Curate and publish automation workflows and is pluggable into existing ecosystem.
  - Push job execution closer to users by providing limited access to users to run specific jobs
- Common uses of Rundeck include:
  - Operations Support: Automate Incident Response, Security and Compliance
  - Self Service Operations: Automate Service Requests
  - Deployment Automation
  - o Big Data and ETL

#### Rundeck Architecture

Rundeck is deployed as a traditional 3-tier application stack. Each Rundeck environment is fronted by a single Web Server, 2 clustered active-standby application nodes and 3 back-end database nodes (MariaDB, Galera clustered).



#### Our journey with Rundeck

- First standardized on Rundeck Pro in 2016
- Implemented with SaaS in-mind, with expected high-scale operations. Now....
  - o 60+ Tenants
  - o 11,000+ jobs
  - ~14,000 daily executions
- Common uses of Rundeck include:
  - Operations Support: Patching, Security and Compliance
  - Self Service Operations: Provisioning, Bootstrapping
  - Deployment Automation: Support CI/CD workflows
- Big Data and ETL job exec (Talend, KNIME, etc)
- Added Rundeck OSS offering in 2021
  - Cater to cost-conscious Organizations
  - Internal paradigm shift to begin standardizing on Open-Source solutions
- Exclusively operating on Rundeck OSS as of late 2024

#### Commitment to evolving Open-Source solutions

- Full scale staffing to support Open-Source SLDC
  - Business Analysts/Product Management: Requirements gathering, prioritization
  - Software Engineers: Enhancements, fixes, vulnerability remediation
  - Quality Engineers: Develop robust automated test plans, ensuring maximum code coverage when consuming open-source releases
- Contribute back to the open-source project!
- Coordinate with OSS PM's and ensure relevant efforts make their way back to the main line... both fixes and enhancements

Strength in Numbers!

Q&A

Thank You!

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## Self-Service Automation with Rundeck

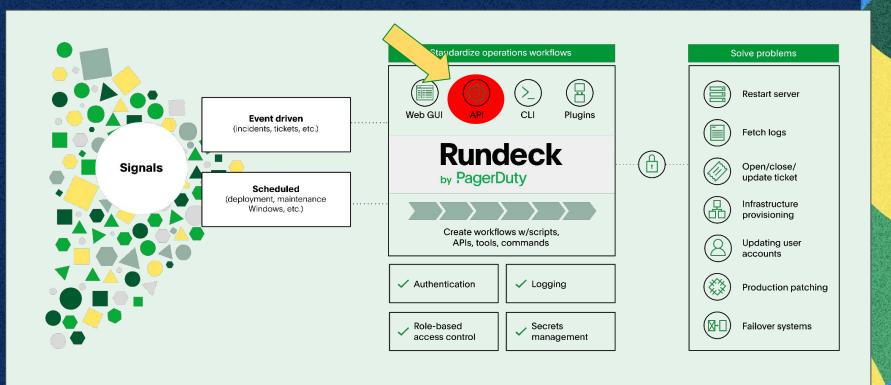




Martin Van Son, Automation Specialist at PagerDuty

**Platform engineering** is a rising <u>trend</u> focused on enabling developers through internal self-service portals that streamline access to infrastructure, automation, and tools—boosting productivity while reducing operational bottlenecks.

#### API



#### Rundeck API

#### Trigger Jobs with One Simple Call

Use a basic **POST** command to start an existing runbook — like pushing a button that kicks off a full process behind the scenes.

#### Send Custom Input to Your Runbook

Include details (like server/host names) in your API call so the runbook knows exactly what to work on. (Webhooks in the free version are limited and not meant for complex input )

#### Get Live Updates or Results Back

After starting a runbook, ask Rundeck what's happening or what the outcome was — like checking the status of your job.

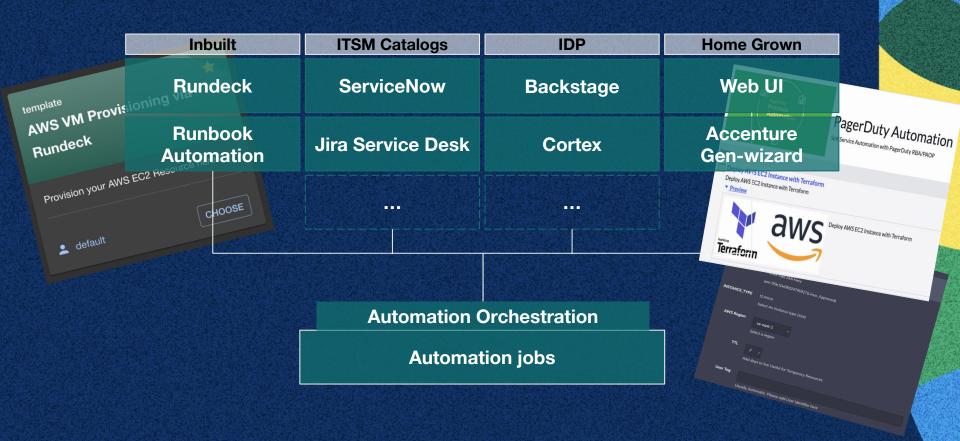
#### Embed Rundeck into Other Tools

Connect Rundeck to your own app or portal — users never have to leave your tool, but Rundeck still handles the work in the background.

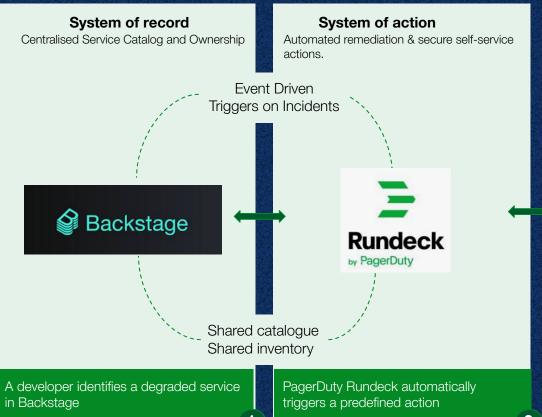
#### Build a Custom Dashboard or Front End

With the API, you can design your own interface — tailor-made for your users — while Rundeck does the heavy lifting underneath.

#### Rundeck "'s self service



#### **Backstage & Runbook Automation**



#### Data & Infrastructure:

Automate across diverse platforms & environments seamlessly.











Infrastructure issue resolved, updating status in Backstage.

#### **Backstage + Runbook Automation**

- 1. **Developed by Spotify**: Backstage was initially developed by Spotify to solve its internal infrastructure complexity and later open-sourced for use by other organizations.
- 2. **Plugin Architecture:** It's built on a plugin architecture, allowing users to add or develop custom features for their specific needs. This modularity makes it highly extensible and customizable.
- 3. **Software Catalog:** One of the core features of Backstage is the Software Catalog, which helps teams organize and manage their services, APIs, libraries, and other components in a single, centralized place.
- 4. **Unified Developer Experience:** Backstage focuses on improving the developer experience by offering a unified interface where teams can access all tools and documentation needed for development, which increases productivity.
- 5. **Open Source and Community Driven:** Backstage is open-source, supported by a growing community of contributors, and governed by the Cloud Native Computing Foundation (CNCF). This ensures ongoing development, support, and widespread adoption.

#### **Takeaways**

- Rundeck has always been about self service, scheduled and event driven automation
- You can use Rundeck in other creative ways to extend other platforms
- Use the Rundeck API documentation: https://docs.rundeck.com/docs/api/
- Enterprise tools ensure scale, security and support







Thanks for your participation! See you in the next meetup.







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