CA Release Automation

Roadmap and Vision

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Agenda

1	**RELEASE AUTOMATION STRATEGY AND SOLUTION SET**
2	**RELEASE AUTOMATION 6.3**
3	**THE FUTURE...**
4	**RELEASE AUTOMATION 6.4**
5	**DESIGN PARTNER PROGRAM**
6	**Q&A**

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CA Release Automation Strategic Goals

SHIFT LEFT

Bring release pipeline closers to developers via release-as-code innovation

SHIFT CLOUD

Deploy applications to target on prem and cloud environments; offer Release-as-a-Service (SaaS)

END TO END

Automate dev-to-release pipeline via model-driven metadata

CONTINUOUS IMPROVEMENT

Predict and improve release visibility, quality and reduce risk

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CA Release Automation Solution Set

CA RELEASE AUTOMATION

Proven foundation for companies to execute a successful DevOps, continuous delivery strategy

Rapidly and reliably automating application releases from development to production—the automation engine

Planning, managing and optimizing the continuous delivery pipeline

CA RELEASE AUTOMATION CONTINUOUS DELIVERY EDITION

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Release Automation 6.3

GA: December 16th

Release Automation For Mainframe

- Part of "Continuous Delivery for Mainframe" initiative
- Automates and orchestrates sequential and parallel deployments of mainframe applications
- Supports rollback of mainframe application deployments
- Integrates with CA Endevor® Software Change Manager, the market leading mainframe SCM solution
- Support the following scenarios
  - z/OS advanced support
  - Data set
  - CICS
  - DB2
  - WebSphere on MF

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Release Automation Express Mode

- Supporting trial version of RA
- Simplify deployment of common technologies

Release Track

- Help to break releases to smaller deliveries and track progression and status
- Adopt Continuous Delivery practices
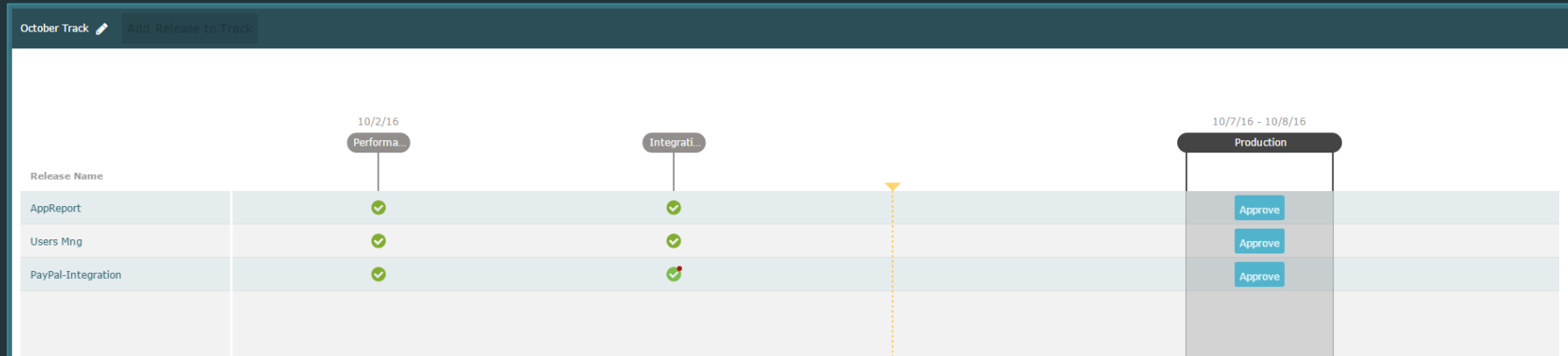
The Future

Release Automation 6.4

GA: April 10th

Release Automation 6.4

- "As Code" Capabilities
  - Onboard new applications
- Improve Debug Capabilities
  - Reduce MTTR
  - Simplify process execution data retrieval
- Technical Debt
  - RDK Improvements
  - High Availability Improvements
  - Cases Backlog

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DSL Editor

- Schema and data validation
- Use existing model as template
- Supporting:
  - New Applications
  - New Environments
  - New Components
  - Creating new processes (with flows from shared components)

Improve Debug Capabilities

Retrieve all data of the deployment

Improve Debug Capabilities

- Clear emphasis of beginning/end of step, flow and action
- Parameter's value
- Action result

```
1    2016-12-21 14:34:25.10 Starting Step Pre Tomcat Express (ID P233433405)
2    Agent: asec-1234
3    ============================================================================
4    Getting Parameters value:
5        IsOK = True
6        WorkDir = C:\Tmp
7        TomcatHome = c:\Apache7.5
8        xmlContent = <?xml version="1.0" encoding="UTF-8"?>
9    ============================================================================
10   2016-12-21 14:34:25.15 Starting Flow "Pre", Loop type: No Loop (ID F233439305)
11   ============================================================================
12   2016-12-21 14:34:25.18 Starting Action "Create Working Directory" (ID F233439305.E233439738)
13       Action Type: Create Folder
14       Pause on Fail: Y
15       Input Fields:
16           New Folder Path = c:\tmp
17           Fail If Exist = True
18   ============================================================================
19   2016-12-21 14:34:26.00 Ending Action "Create Working Directory" (ID F233439305.E233439738)
20       Action Finished successfully: Folder created c:\temp
21       Action Results:
22       Action State: Success
23       Next is "Create Backup Directory" Action
24   ============================================================================
25   2016-12-21 14:34:26.50 Starting Action "Create Backup directory" (ID F233439305.E233439739)
26       Action Type: Create Folder
27       Pause on Fail: Y
28       Input Fields:
29           New Folder Path = c:\tmp
30           Fail If Exist = True
31   ============================================================================
32   2016-12-21 14:34:26.00 Ending Action "Create Backup Directory" (ID F233439305.E233439739)
33       Action Finished successfully: Folder created c:\temp
34       Action Results:
35       Action State: Success
36       Next is "Backup Configuration Files" Flow
37   ============================================================================
38   2016-12-21 14:34:27.10 Starting Flow "Backup Configuration Files" (ID F233439305.F445782120)
39       Loop Type: Collection
40       Input Fields:
41           Loop Folder = C:\Tmp
42           Starting Iteration #1
43   ============================================================================
44   2016-12-21 14:34:27.50 Starting Flow "Backup application war file" (ID F233439305.F445782122)
45       Loop Type: Collection
46       Input Field:
47           Loop Folder = C:\Tmp
48       Starting Iteration #1
49   ============================================================================
50   2016-12-21 14:34:27.80 Starting Action "Check if application war file exists" (ID F233439305.F445782122.E235489231)
51       Action Type: Find file or Folder
```
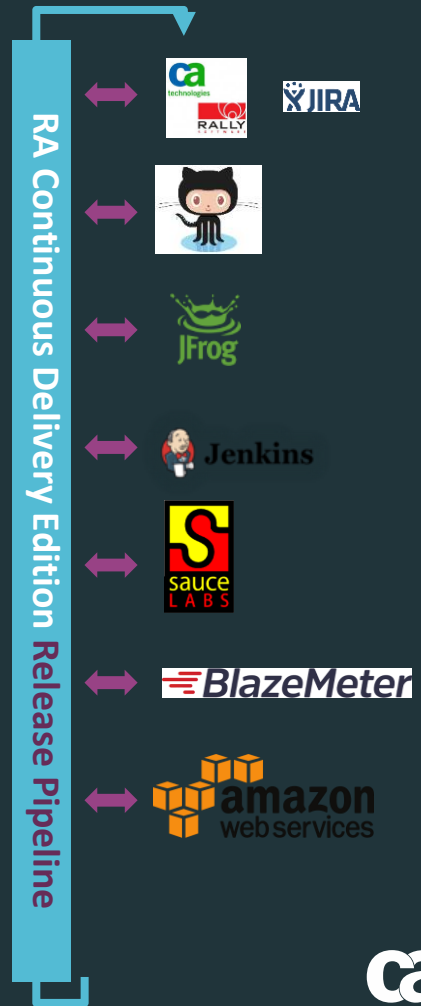
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Release Automation CDE SaaS
Part of RA CDE 6.4 (early access: April 10th)

- SaaS offering of CDE
  - Manage application delivery pipelines,
  - Orchestration and coordination end-to-end application releases

- Simple, straightforward experience
  - Sign in/up with Google and GitHub account, Invite friends
  - Sample release and app for easy ramp-up
  - In-product 'Walkme' embed to guide user experience to ramp up

- Integrated with multiple popular cloud Continuous Delivery services
  - Start pipeline execution upon **GitHub** commit new artifact in **Artifactory**
  - Deploy on Amazon using **CodeDeploy** and **Elastic Beanstalk**
  - Test with **BlazeMeter** and **Sauce Labs**

RA Continuous Delivery Edition Release Pipeline

Upcoming Capabilities

CA Release Automation Solution Set

Continuous Delivery DSL	REST API PLATFORM

SDK, Plugging Framework

Reporting and Dashboard

Continuous Delivery Insight

Release Deployment, Planning and Management | Hybrid Cloud Management

On Premise/ SaaS Offering

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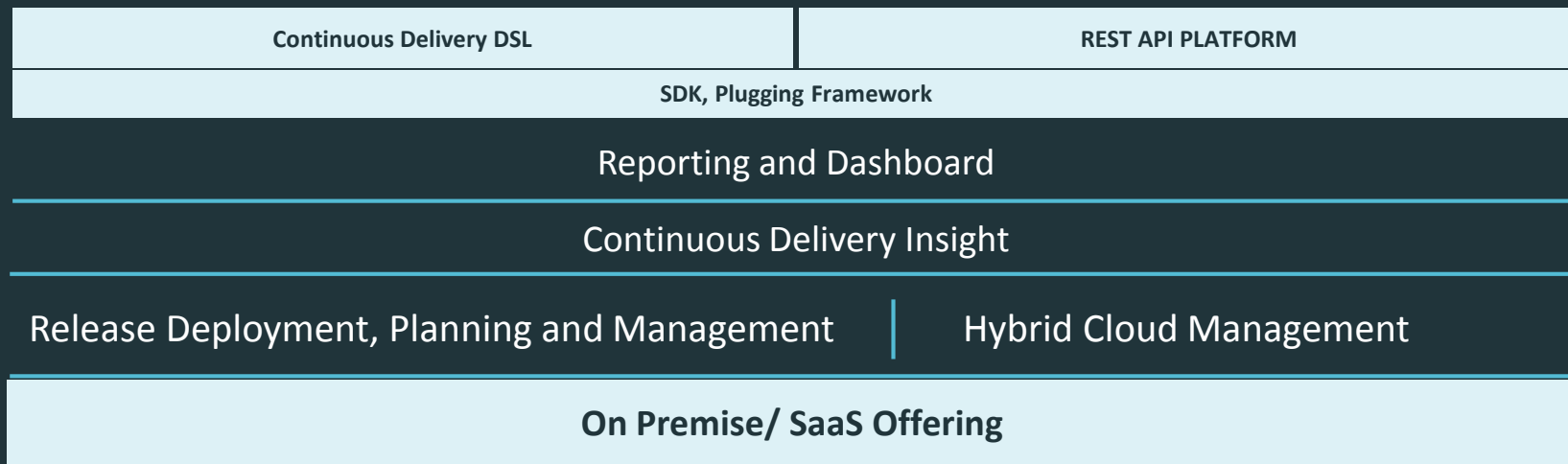
Release Deployment, Planning and Management

As Code Capabilities

Improving versioning and automation by allowing users to perform repeated tasks via in a descriptive and programmatically approach

Microservices and Containers

Improve Support end to end microservices based apps deployment

Enterprise Readiness

Improve performance and scale of the solution for high volume of deployments and enterprise environments

Test Asset Repository

Automate E2E scenario and improve continuous testing practices with built in mapping tool correlating test assets with respective deliveries

Debugging Capabilities

Simplify process of errors investigation and handling anti-pattern design practices

Integrations

Connect disparate DevOps tools together to allow seamless and repeatable release process

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Environment Management and provisioning

Cross Provider Support

- Cloud platform agnostic solution that simplify mobility between different solutions
- Deploy code on different environments (private and public)
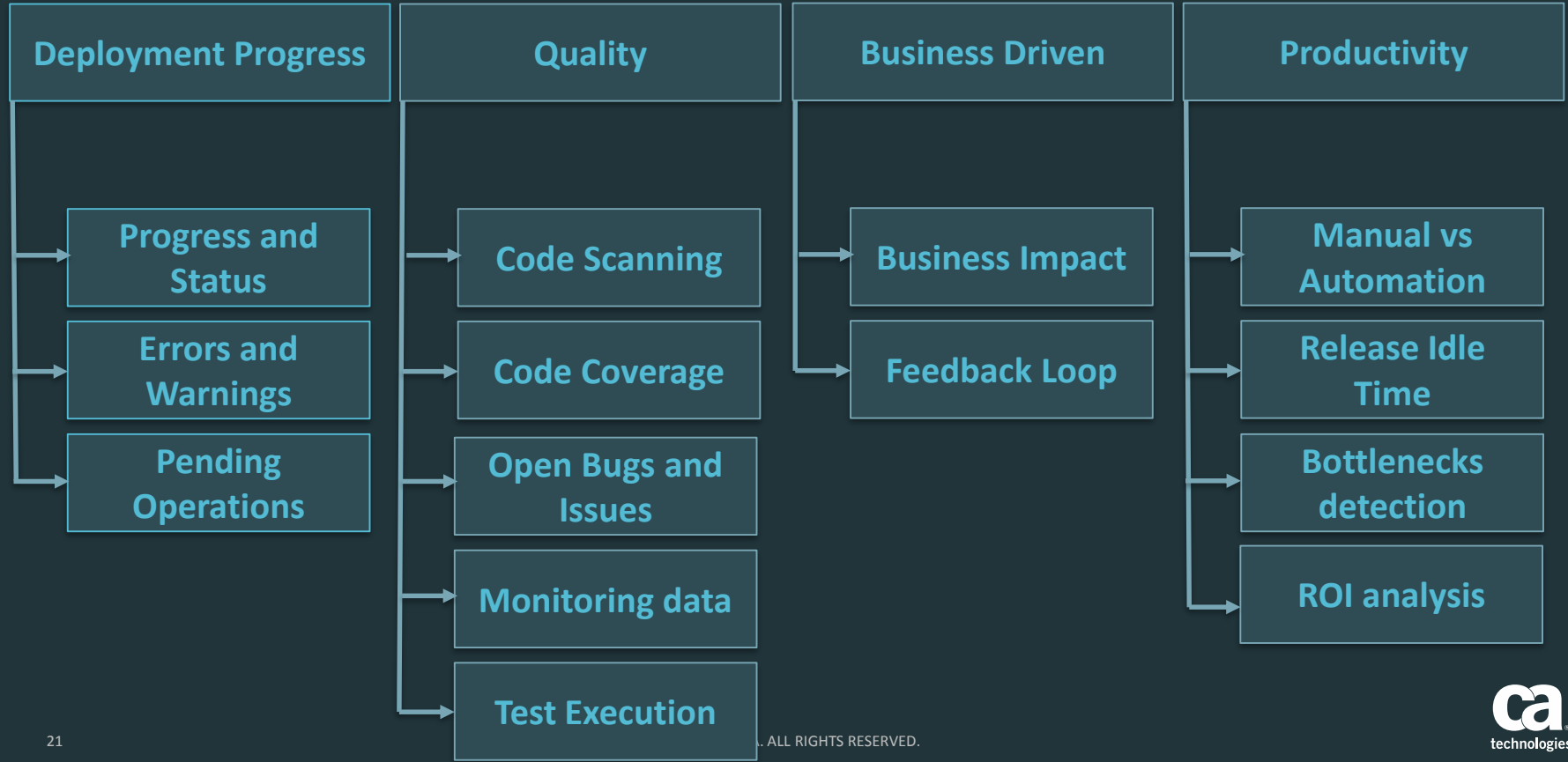- Design and version application blueprints that can be used across different providers

Resource Scheduling

- Rule based engine (time, load) for provisioning new instances for testing and scale
- Identify conflicts between different teams

Pluggable Design

- Support expanding solution for additional providers
- Can be customized for different flavors of existing solutions

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Dashboard and Reporting

Deployment Progress	Quality	Business Driven	Productivity
Progress and Status	Code Scanning	Business Impact	Manual vs Automation
Errors and Warnings	Code Coverage	Feedback Loop	Release Idle Time
Pending Operations	Open Bugs and Issues		Bottlenecks detection
	Monitoring data		ROI analysis
	Test Execution		

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Continuous Delivery Insight

Asses Release health and readiness

- Help with 'go/no go' decisions
- The product can link release status to different quality metrics (test results, code coverage, #of bugs opened in project)
- By analyzing historical execution information, we can build a model and use it to predict result of planned releases
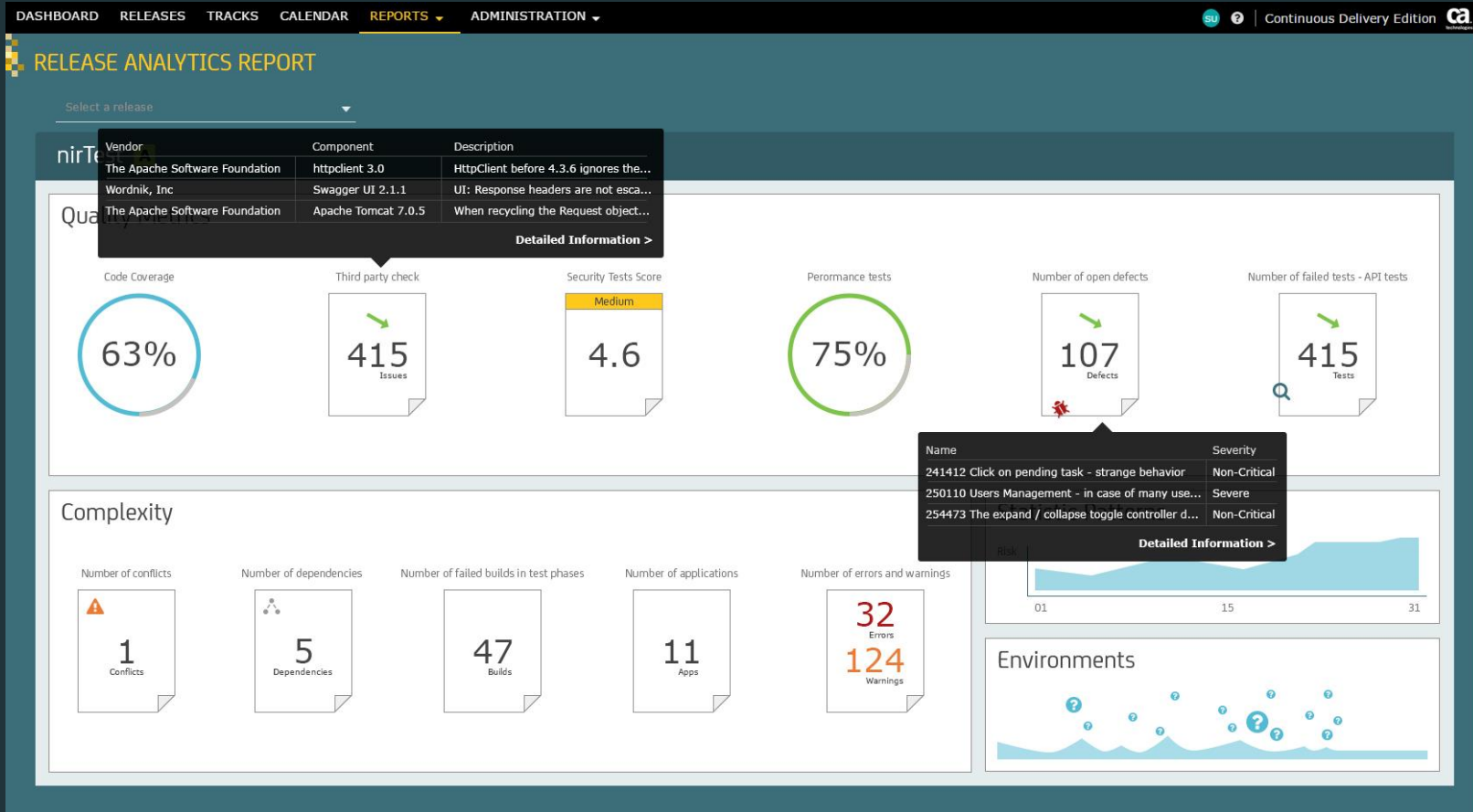
Match between APM and correspondent execution

- Leveraging APM data before and after deployment to identify delivery impact of a new change

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Continuous Delivery Insight (wireframe)

Continuous Delivery Insight (wireframe)

Help Shape the Future of CA Release Automation: Design Partner Program

Engage with PM and Engineering to provide input on new functionality

Share your thoughts	Network with other participants	Try new functionality first	Be a reference	Shape the future
Engage early & throughout the dev process to help ensure what we build fits your use case.	Share ideas, feedback, and best practices.	Get access to early releases.	Raise the profile of your self and your organization.	Be part of the future of RA.

Click here to begin!

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Q & A

Release Automation

Delivered	Planned	Roadmap

	Delivered	Planned	Roadmap
Product/ Releases	Release Automation version 6.2, 6.3	Release Automation versions 6.4	Release Automation version 6.5+
Marquee Features/ Business Value	▪ **Improve test efficiency with production related data** by integrating with CA TDM, allowing usage of test data as part deployment ▪ **Improve usability** by providing a Design Studio Web Interface, consolidated with Release Operation Center ▪ **Support mainframe deployments** with z/os connector, allowing jobs submission and manipulation and supporting CICS and DB2 technologies ▪ **REST API support** local user management	▪ **Reduce Administration efforts** with REST APIs for users, users groups, and permissions managements ▪ **Simplify Automation capabilities and increase flexibility** with Continuous Delivery Markup language ▪ **Improved debugging and efficient investigation** with new Deployment Execution log, and improved logs collection capabilities ▪ **Improve User Experience** by consolidating old ASAP GUI with web interface	▪ **Improve Automation** by fully implementing 'as code' across product (Deployment Plans, processes, components, etc) ▪ **Simplify CD by** improving artifact model ▪ **Optimize releases by skipping already-deployed content** with Incremental Deployments ▪ **Improve collaboration and simplifying extending product** with open sourcing action packs and providing marketplace for plugins ▪ **Complete exposing public REST APIs** for all product capabilities ▪ **Improve User Experience** by full consolidation of old ASAP capabilities with web interface

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Release Automation **Continuous Delivery Edition**

	Delivered	Planned	Roadmap
Product/Releases	Release Automation CDE version 6.2	Release Automation CDE version 6.4	Release Automation CDE version 6.5+

Marquee Features/Business Value

Delivered — Release Automation CDE version 6.2

- **Design & Execute a release** by creating phases and tasks inside the release and running the phases.
- **Application Model Definition** by creating local applications and environments or importing them from a third party.
- **Increase Agile Central integration** by checking test case results for user stories and defects.
- **Application Model Definition** by creating local applications and environments or importing them from a third party.
- **Pipeline Management** using the calendar view, where you can see all your releases.
- **Maintenance Windows** to define the time per environment when you are allowed to deploy.
- **Dashboard & Reporting** to track releases and highlight bottlenecks

Planned — Release Automation CDE version 6.4

- **BlazeMeter Integration** for performance testing
- **AWS Integration** with support for CodeDeploy, Elastic Beanstalk
- **GitHub Integration** for automated CD use case following a new commit
- **Artifactory Integration** for automated CD use case following a creation of a new artifact
- **Kubernetes Integration** for docker orchestration
- **Slack Integration** for swift communication between the team members

Roadmap — Release Automation CDE version 6.5+

- **Test Asset Repository** Improve continuous testing process by automating test scenarios execution across delivery cycle
- **CDE Insight** use system data to asses release risks, help optimize releases and make 'go/no go decisions'
- **Support Cloud Initiatives** with hybrid environments management (AWS, Azure, Google Cloud, OpenStack, OpenShift)
- **Freeze Environment** to define time ranges when an environment cannot be changed.
- **Simplify Automation** by providing pipeline as a code capabilities
- **Additional Integrations** with CI, testing, security, user management and APM solutions

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