



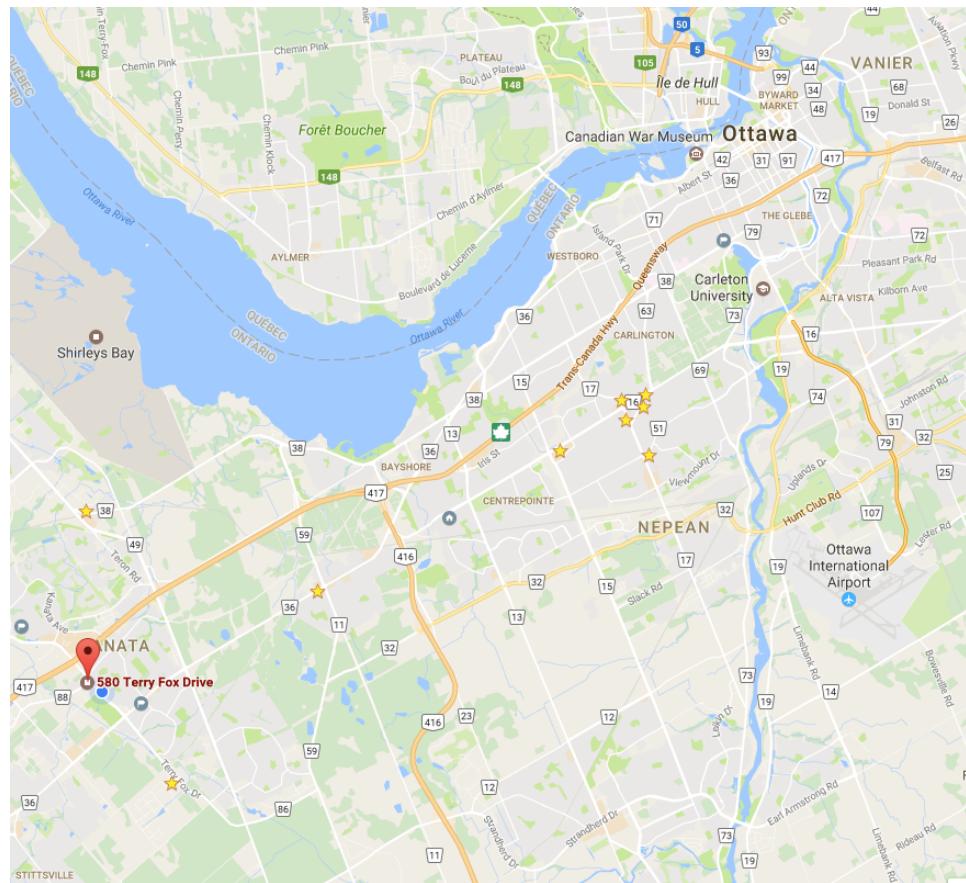
DevOps at inBay Technologies

Part 1 • Introduction

Nicolas Bettenburg, Chief Technology Officer



About Us



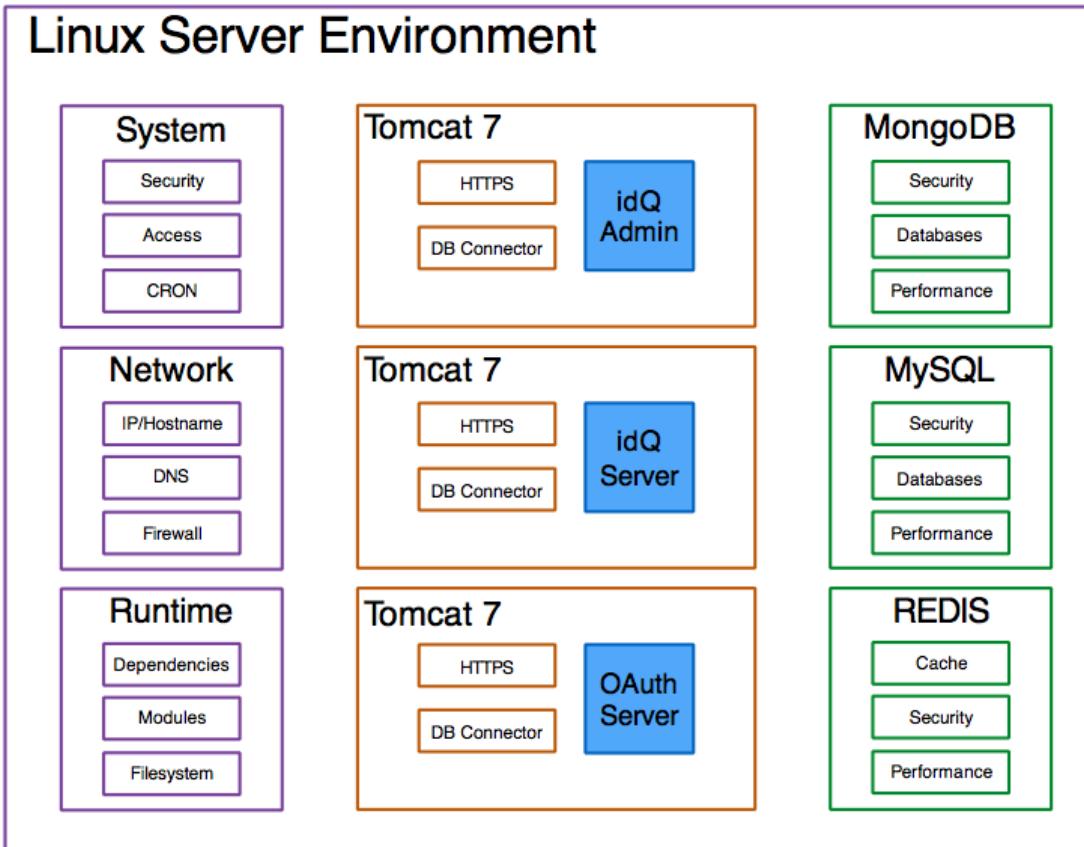
inBay Technologies Inc.
580 Terry Fox Drv, Kanata, ON
<https://inbaytech.com>

Founded in 2009 - 18 FTEs

Creators of the
idQ® Trust as a Service platform

- **Strong digital identity**
- Passwordless logins
- Digital real-time authorizations
- Quantum-resistant algorithms
- Delivered as a cloud service
- Backed by 19 patents

Back in 2014... Monolith



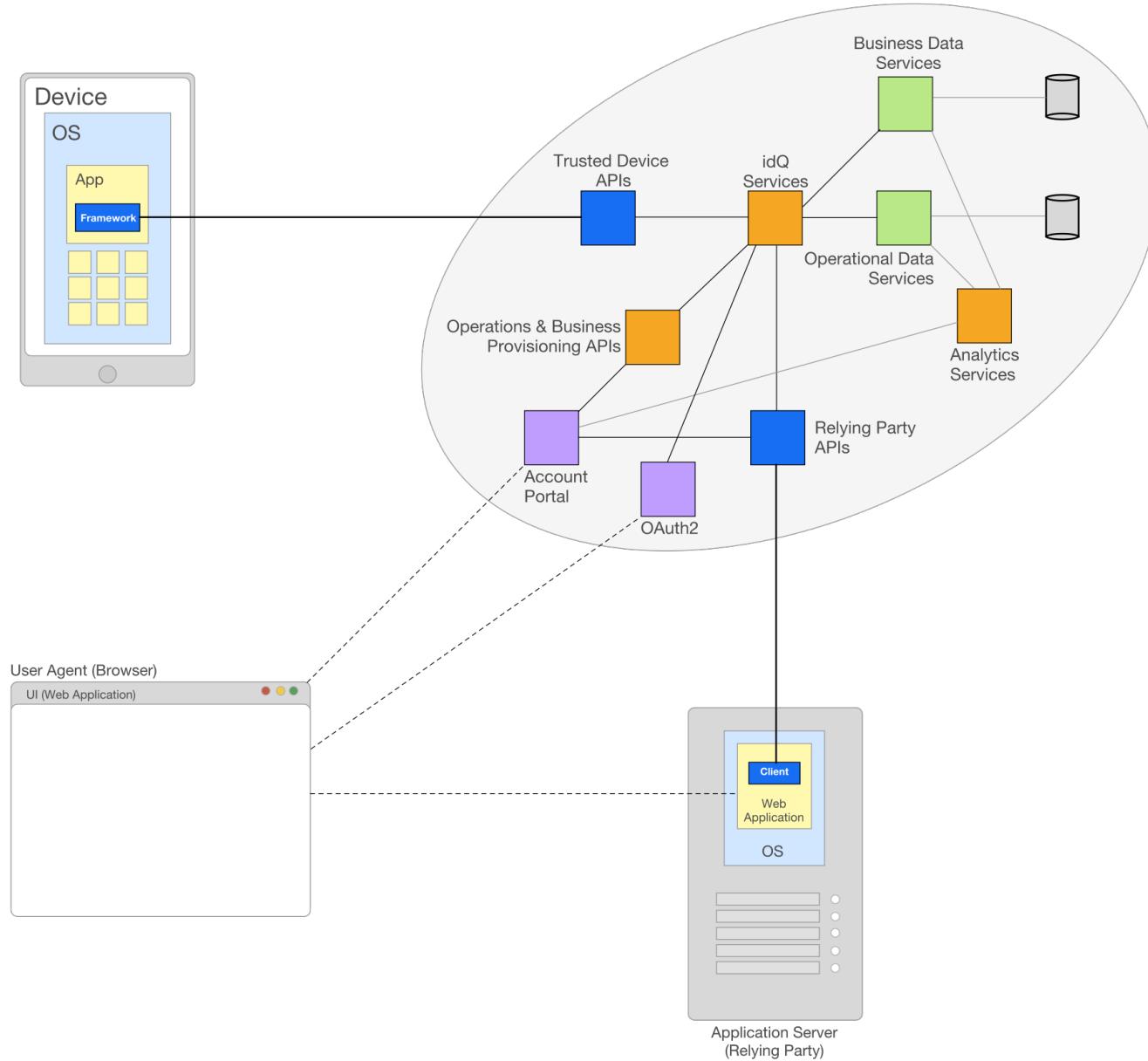
Server System Data
Runtime Environment Installation
and Configuration

Application
idQ
Configuration

Back in 2014...



Today: Micro-Services



• DevOps, CI & CD had a significant impact on corporate culture

- Reliability and Resilience
- Infrastructure as code: Cattle instead of pets
- Always be deployable: 9 days -> 9 minutes
- Distribution of Responsibility: Silos -> Integrated Teams
- Embrace the Cloud
- Working on: Multi-Cloud Strategy (fight vendor lock-in)
- Test-Driven: Significant impact on coverage
- Simpler, more automated, free up time for the fun stuff!
- Full insight end-to-end, what is deployed where and why

• Philosophically

The secret to building great software has to do more with the mindset and discipline of the developers than it does the tooling or the language





The Way of the Cloud

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When adding code, how often do you pray it will work after deploying?

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Favour Simplicity

Is your IDE optional? Can you build and deploy from your command line?

Can a new team member quickly figure out what's going on?

The Way of the Cloud

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Release Early, Release Often

Every code commit is a potential production release.

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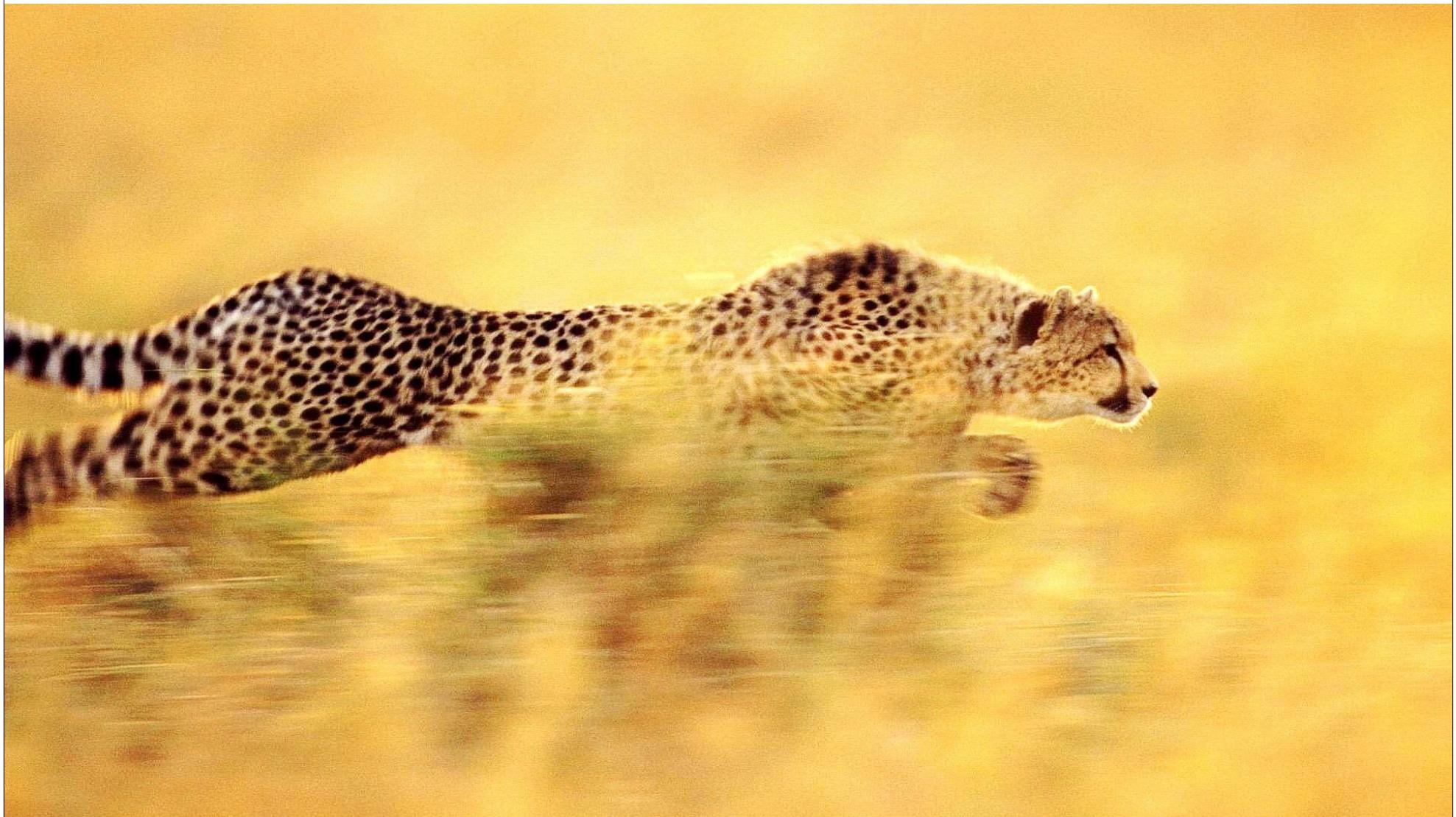
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Automate Everything

Everything that can be automated, should be automated.

The End Goal: Velocity with Confidence



General Setup

General Setup

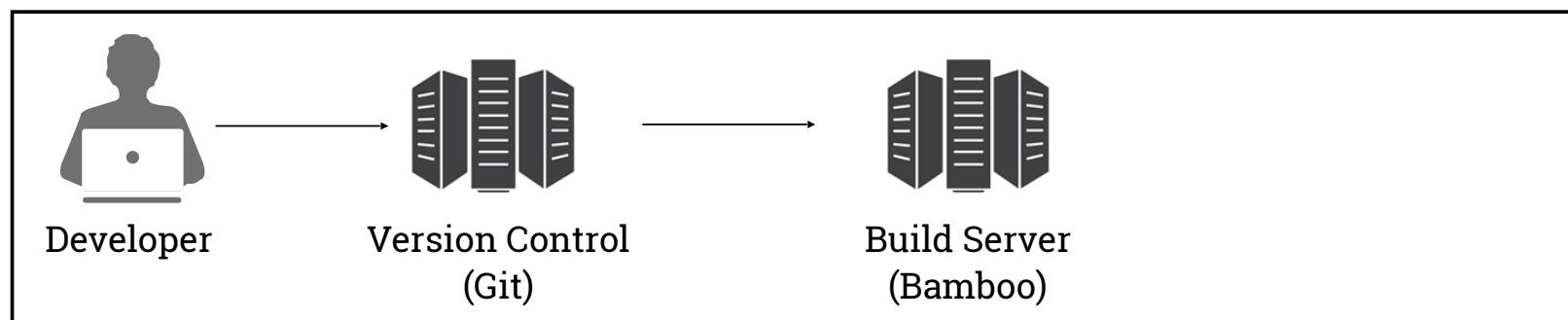


Developer

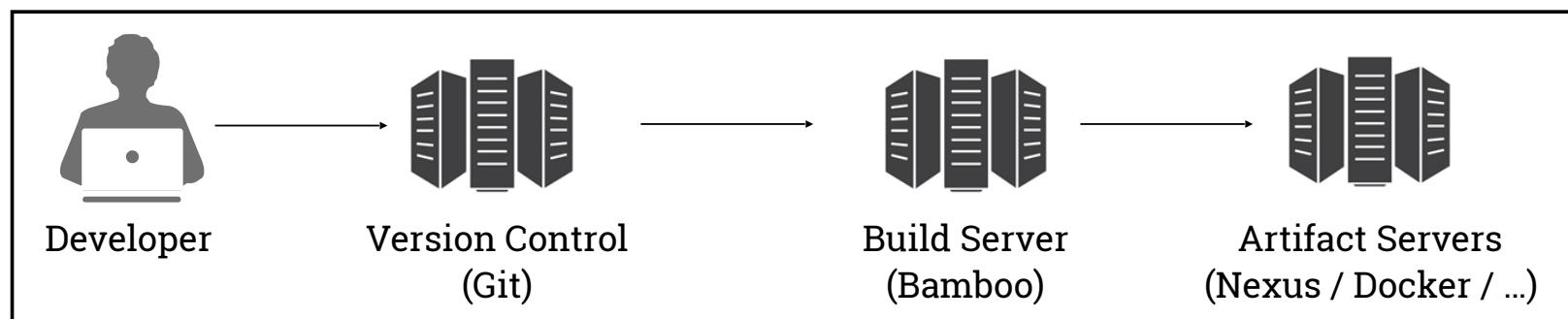
General Setup



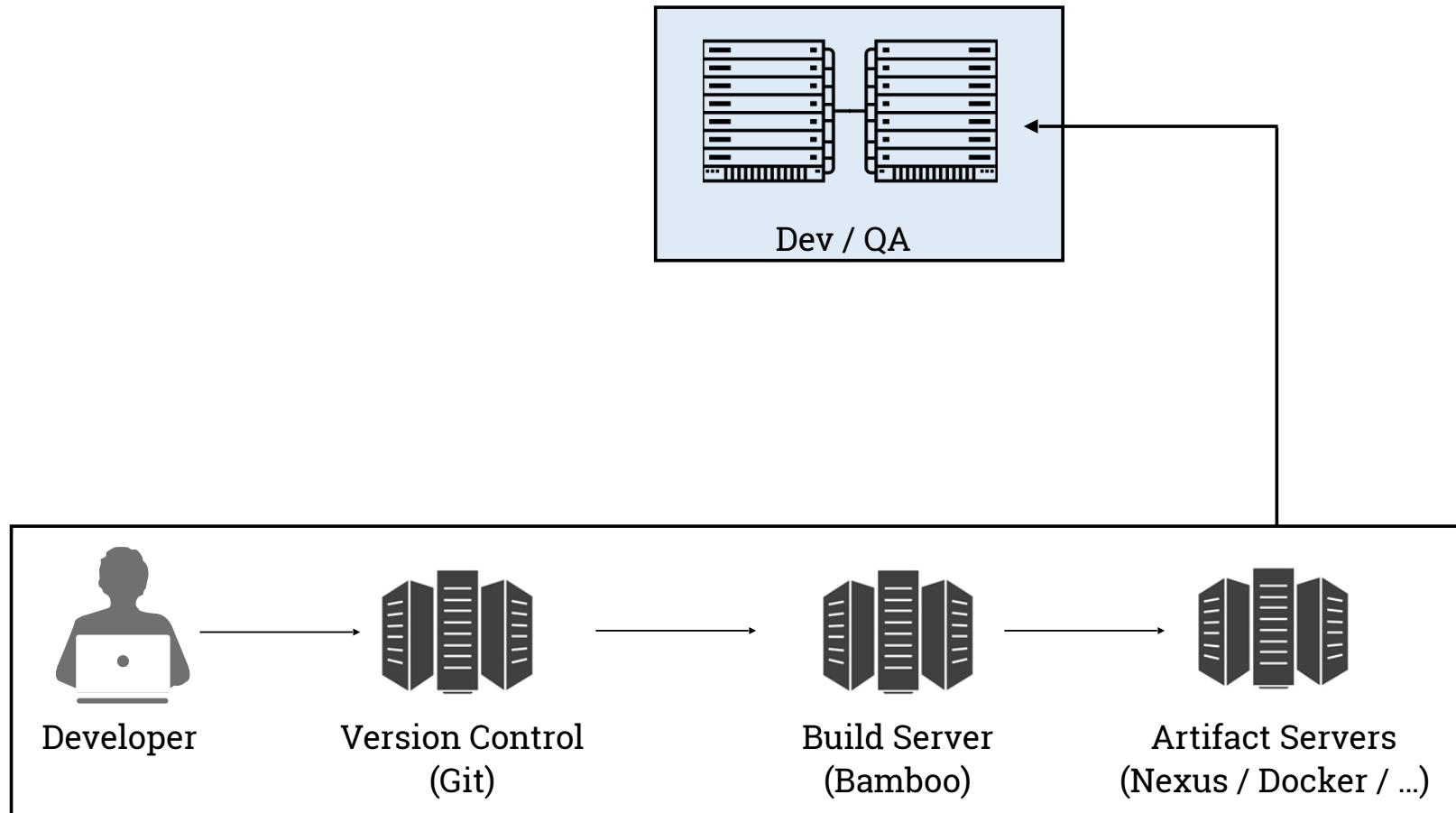
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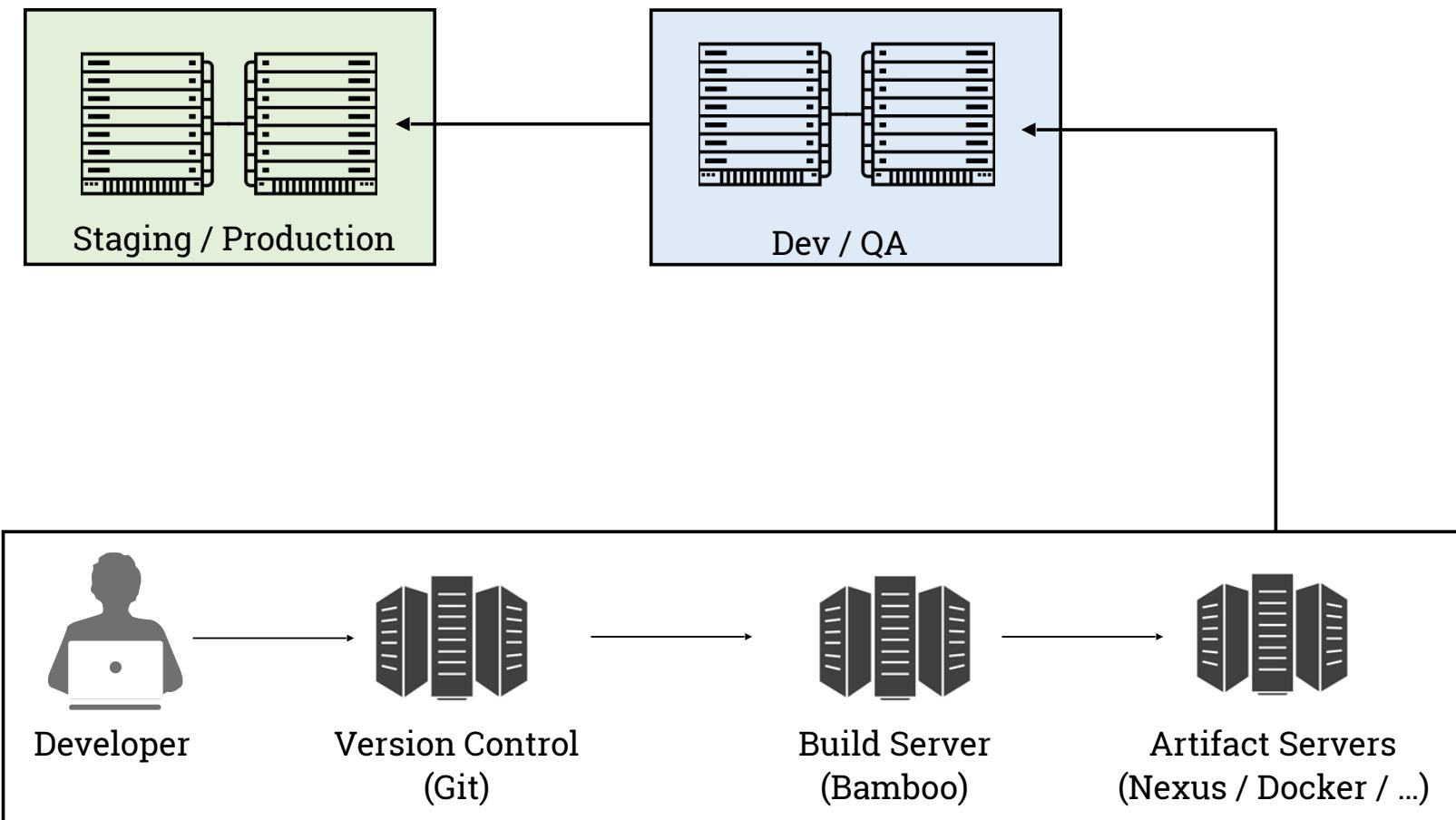
General Setup



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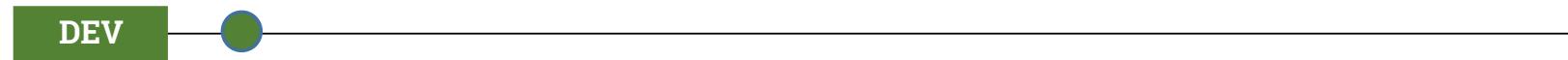


What does this look like?

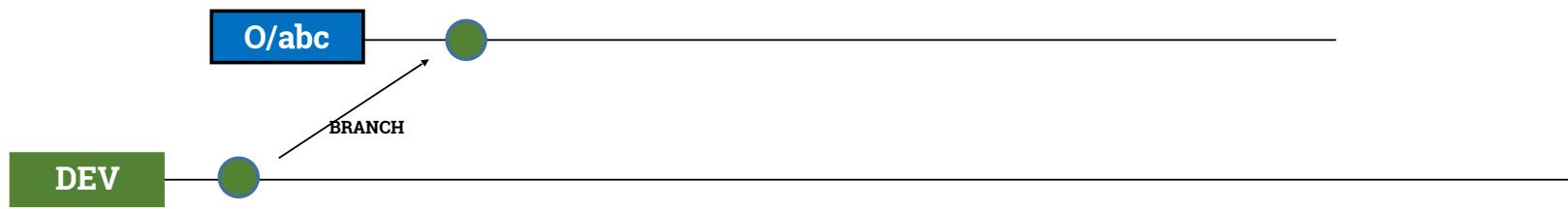
Clone → Code ← Test Locally → Push to Origin

Continuous Integration

Continuous Integration



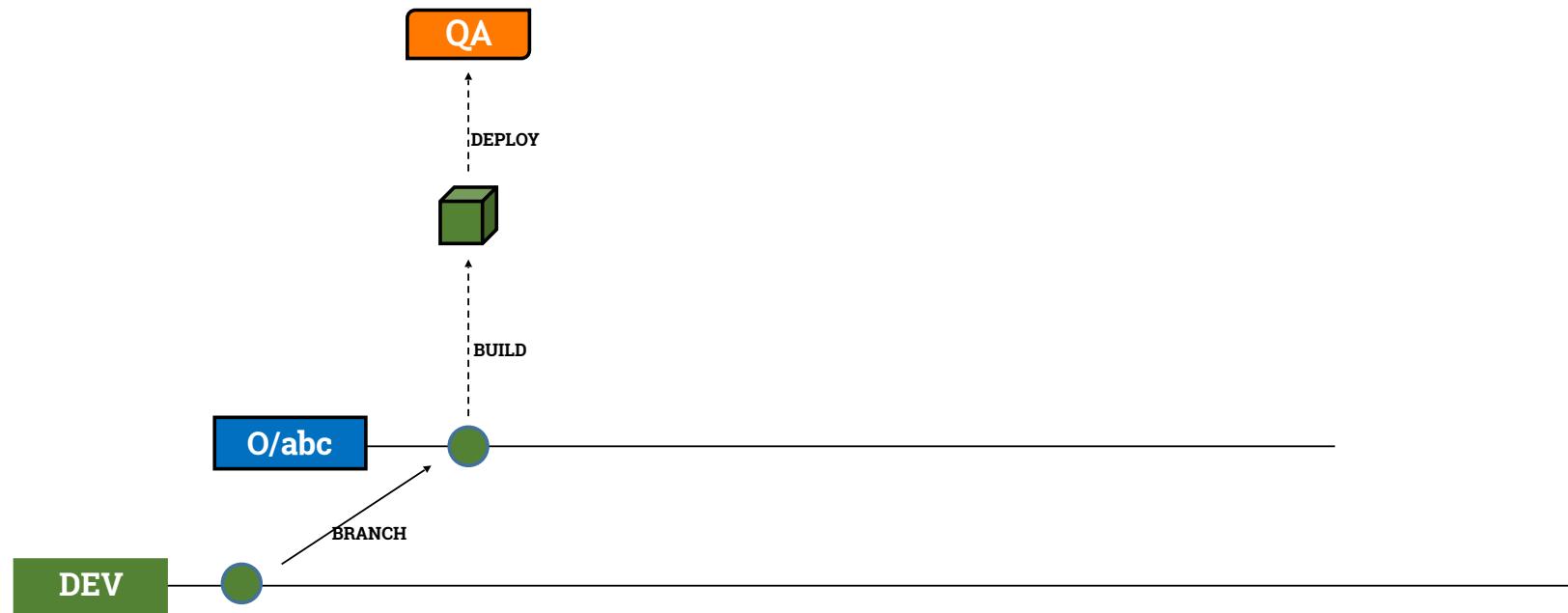
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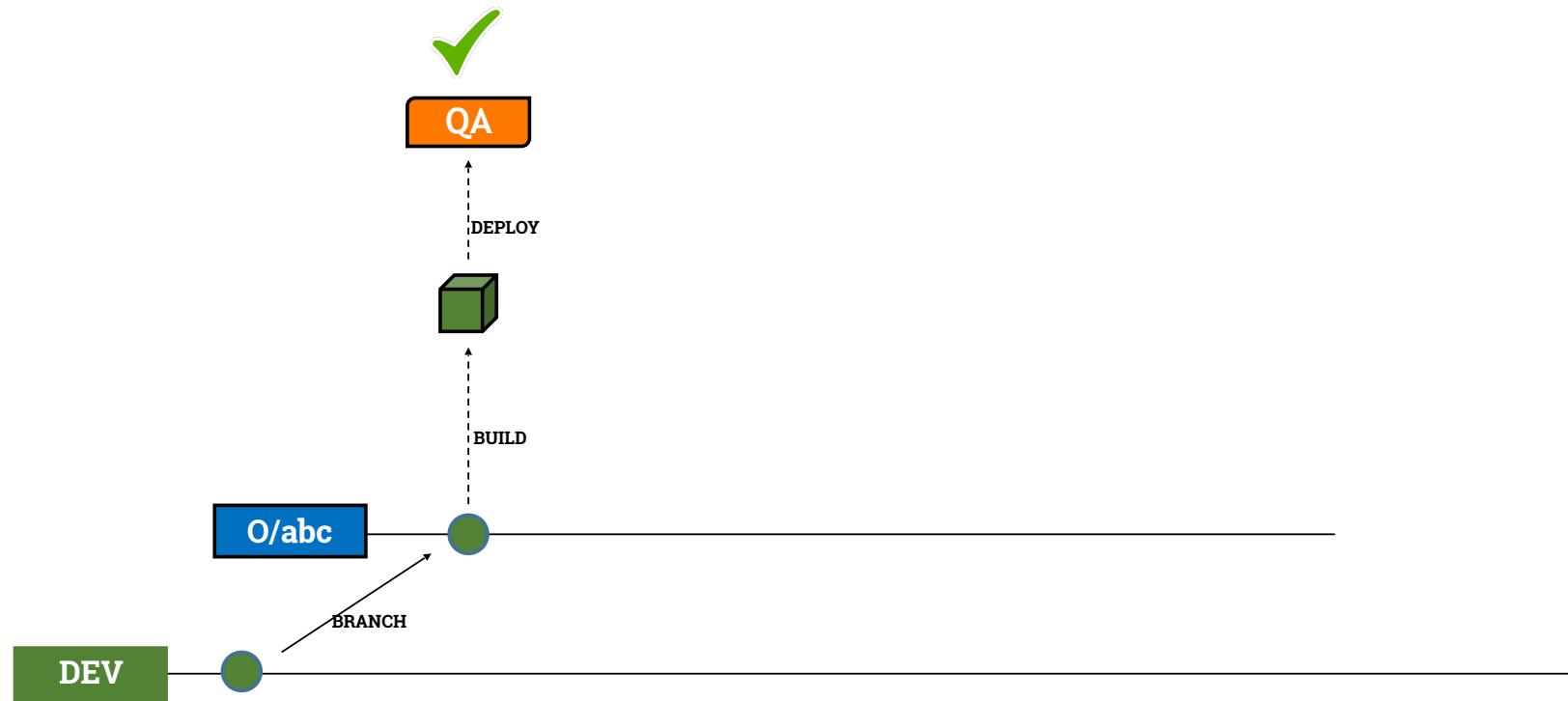
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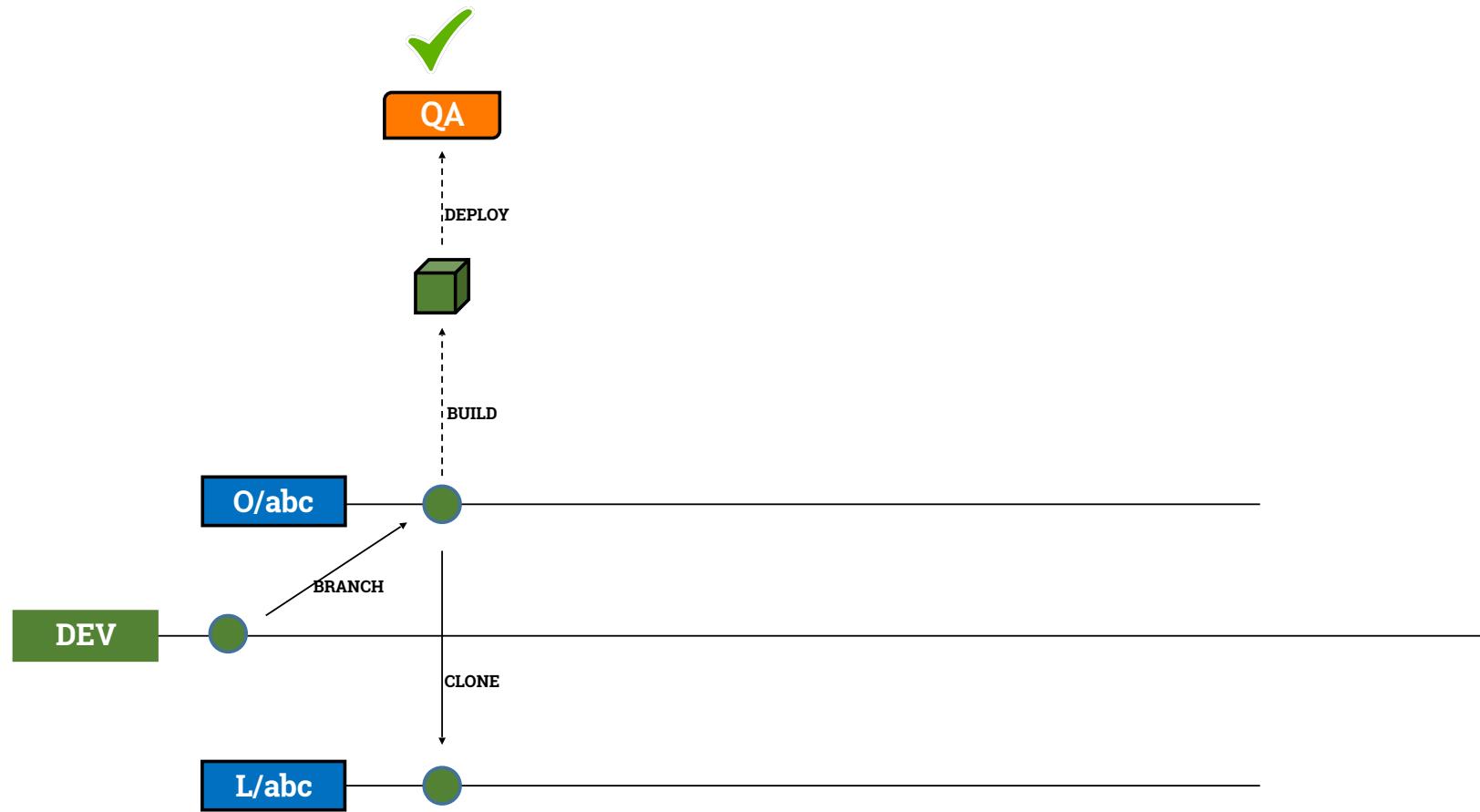
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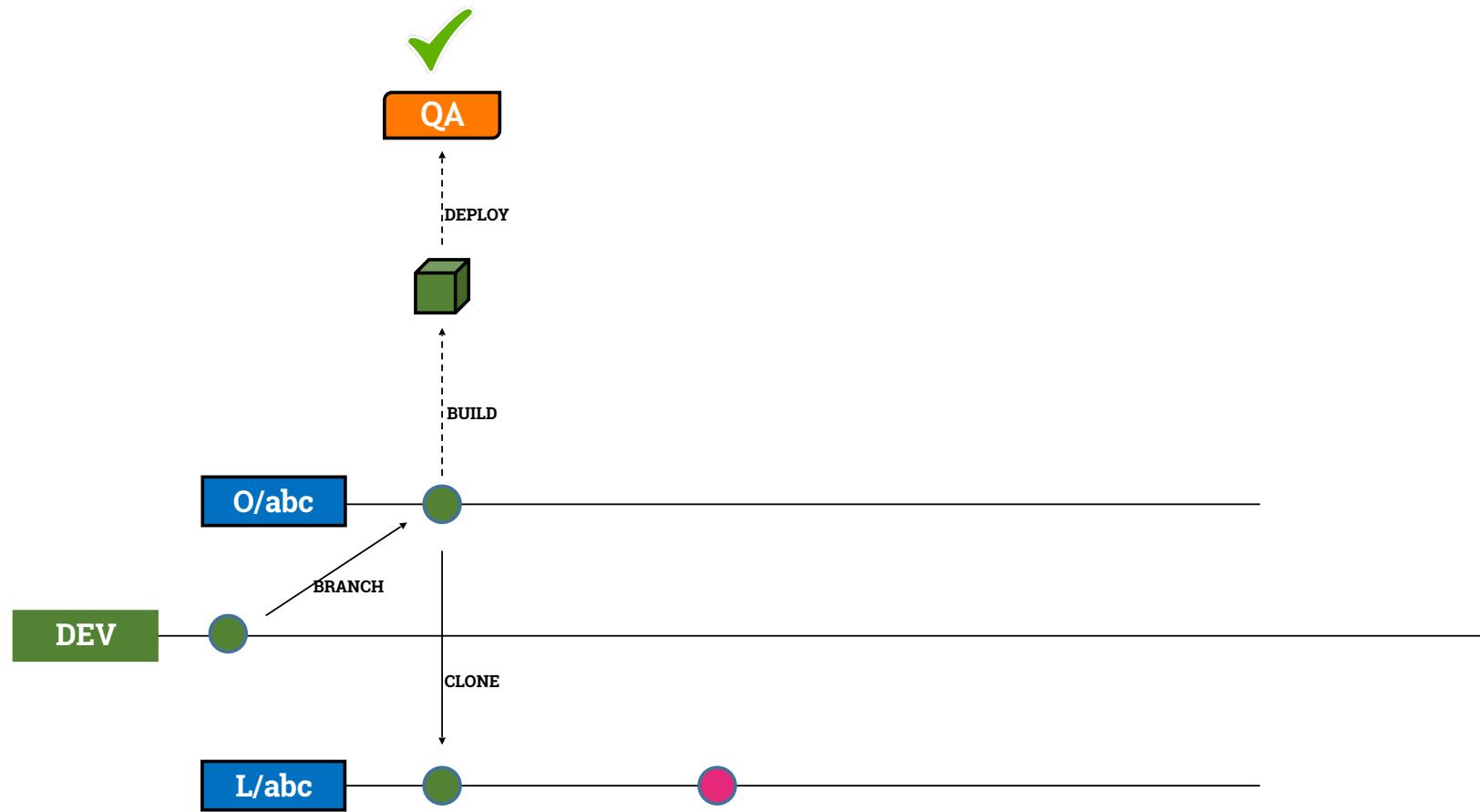
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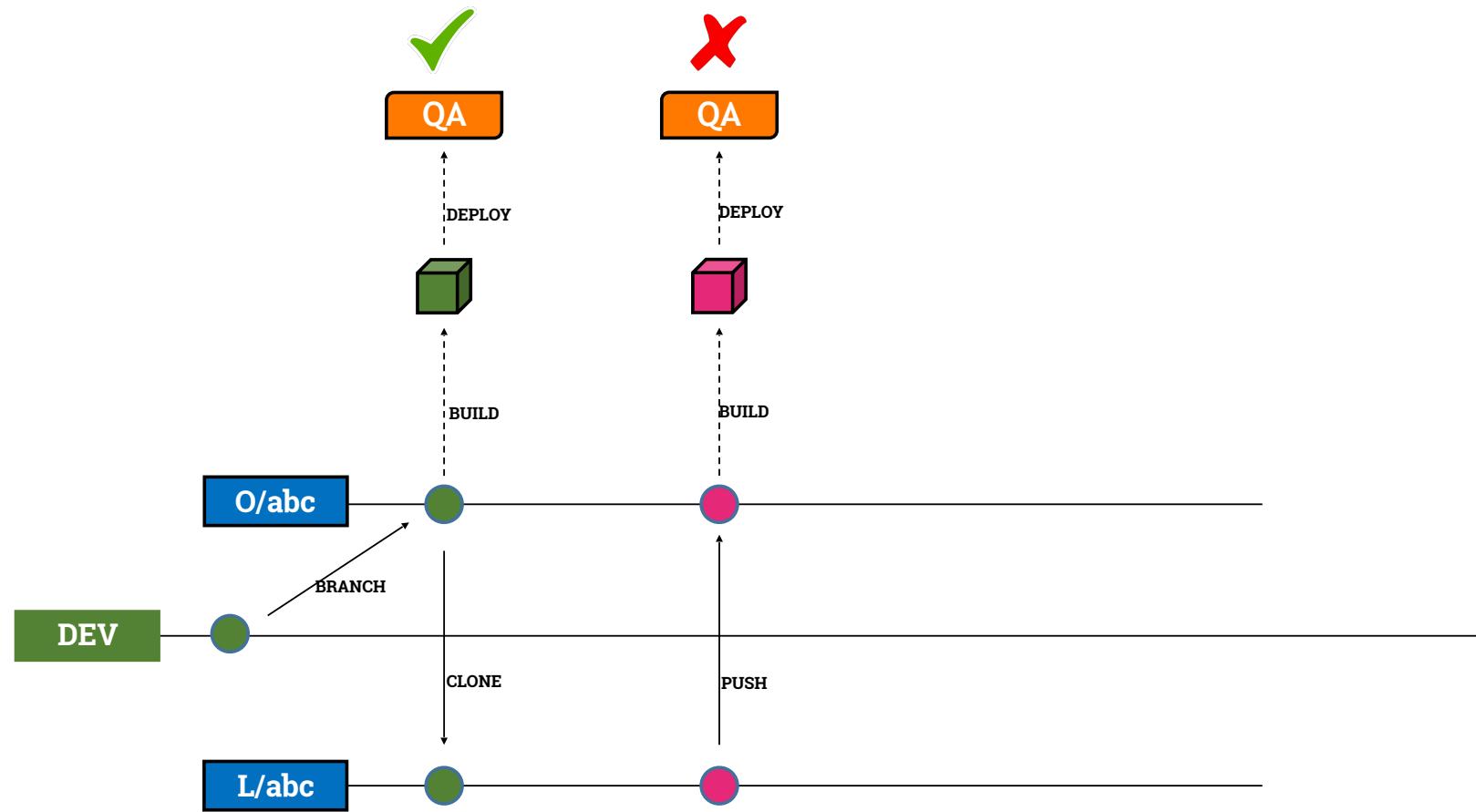
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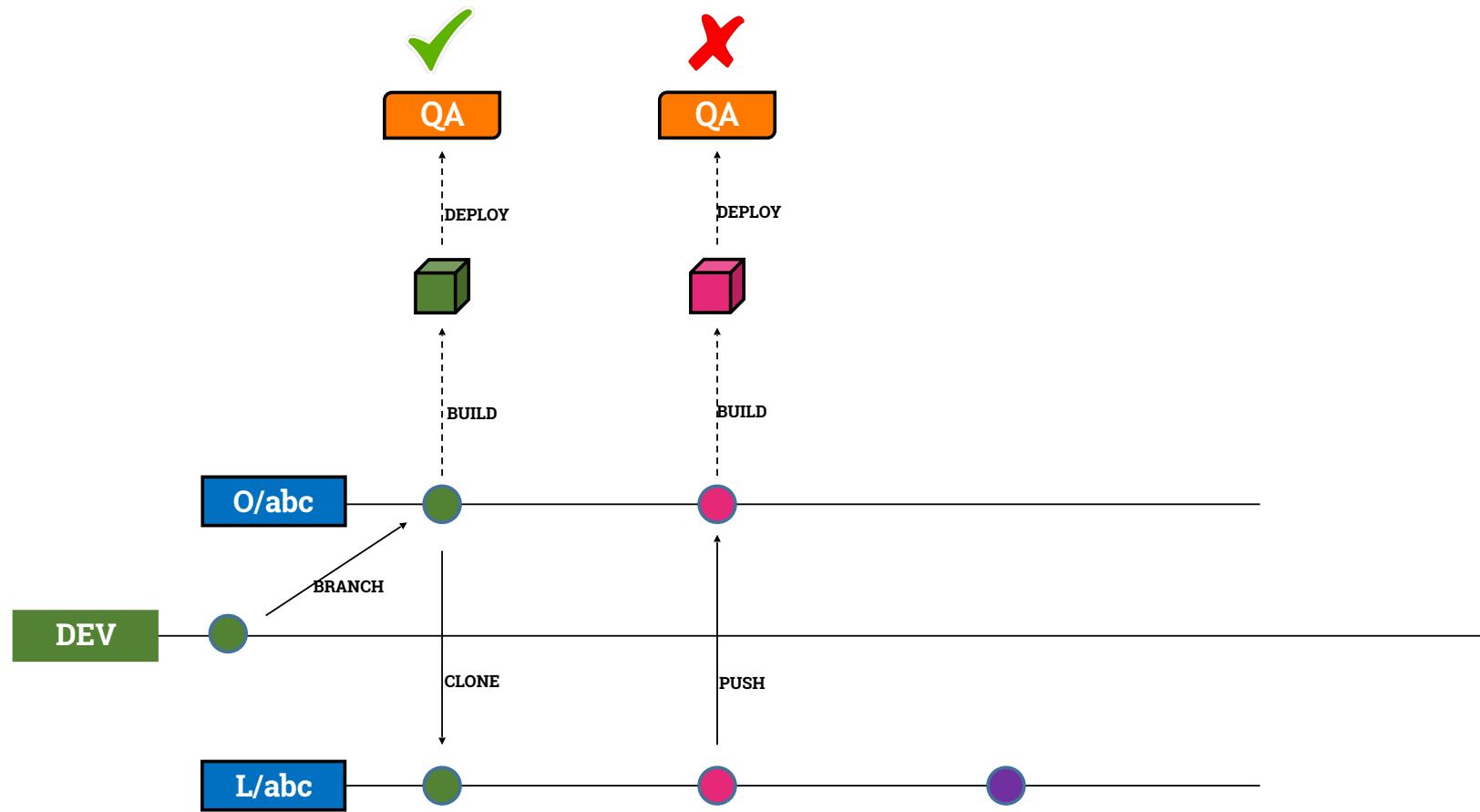
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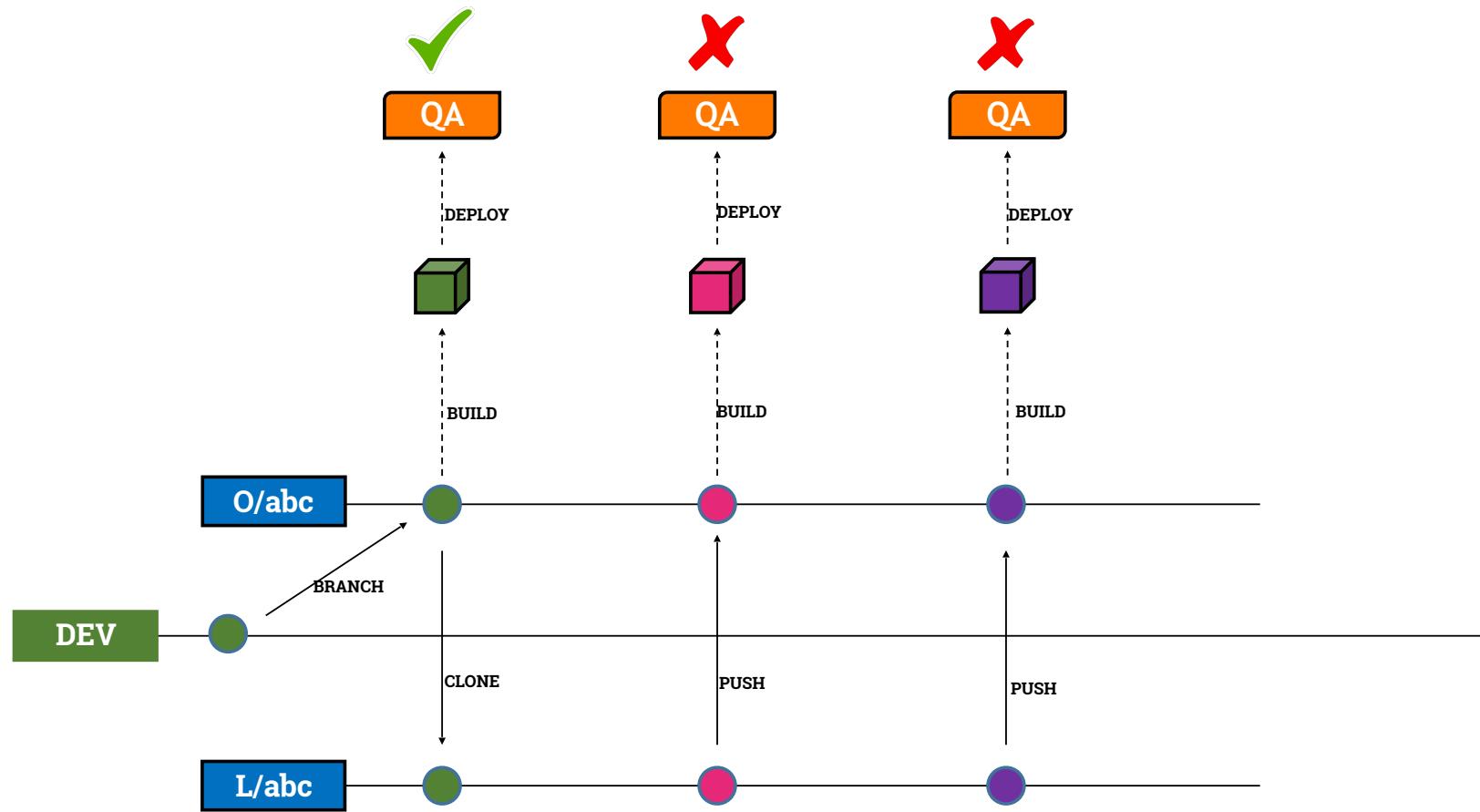
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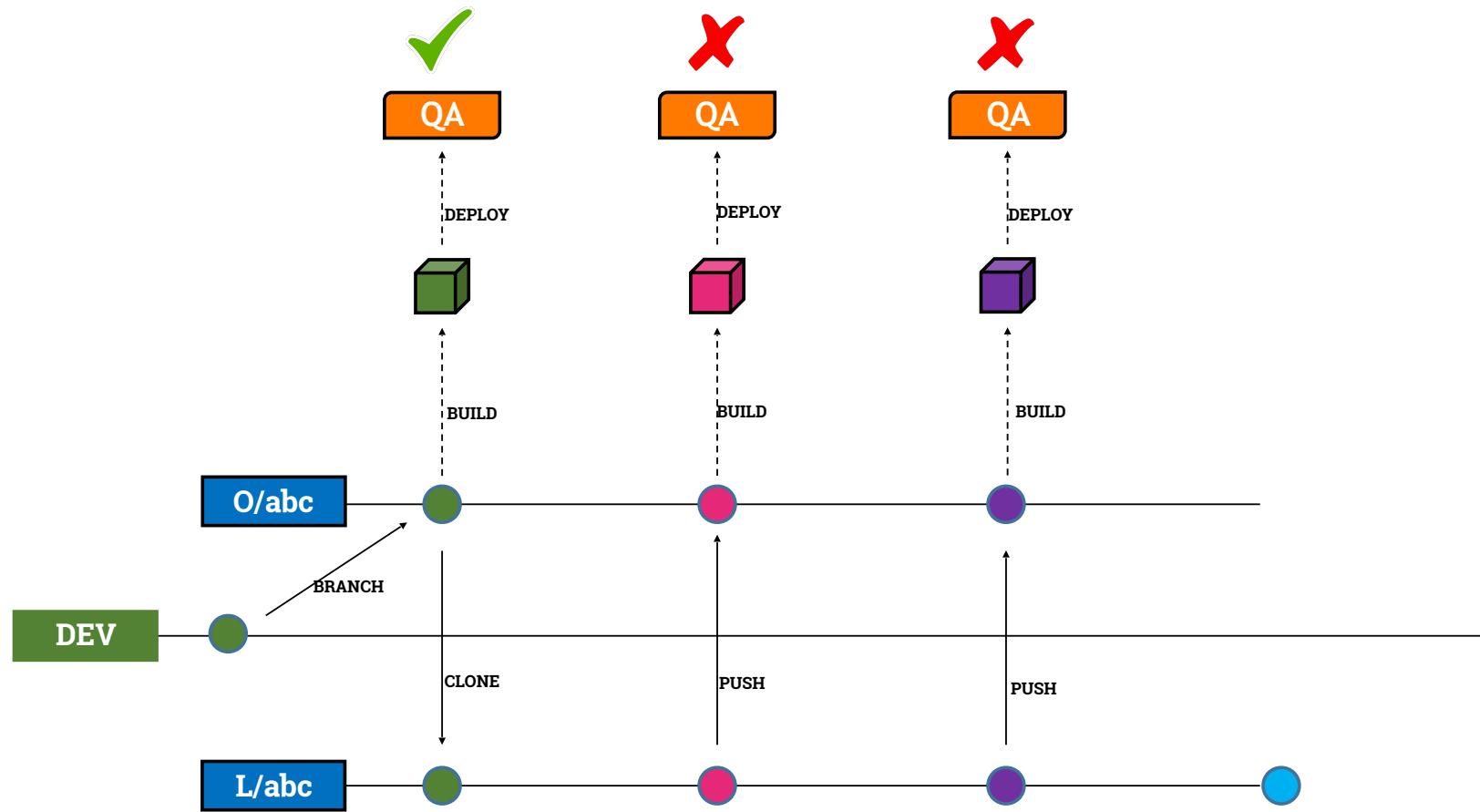
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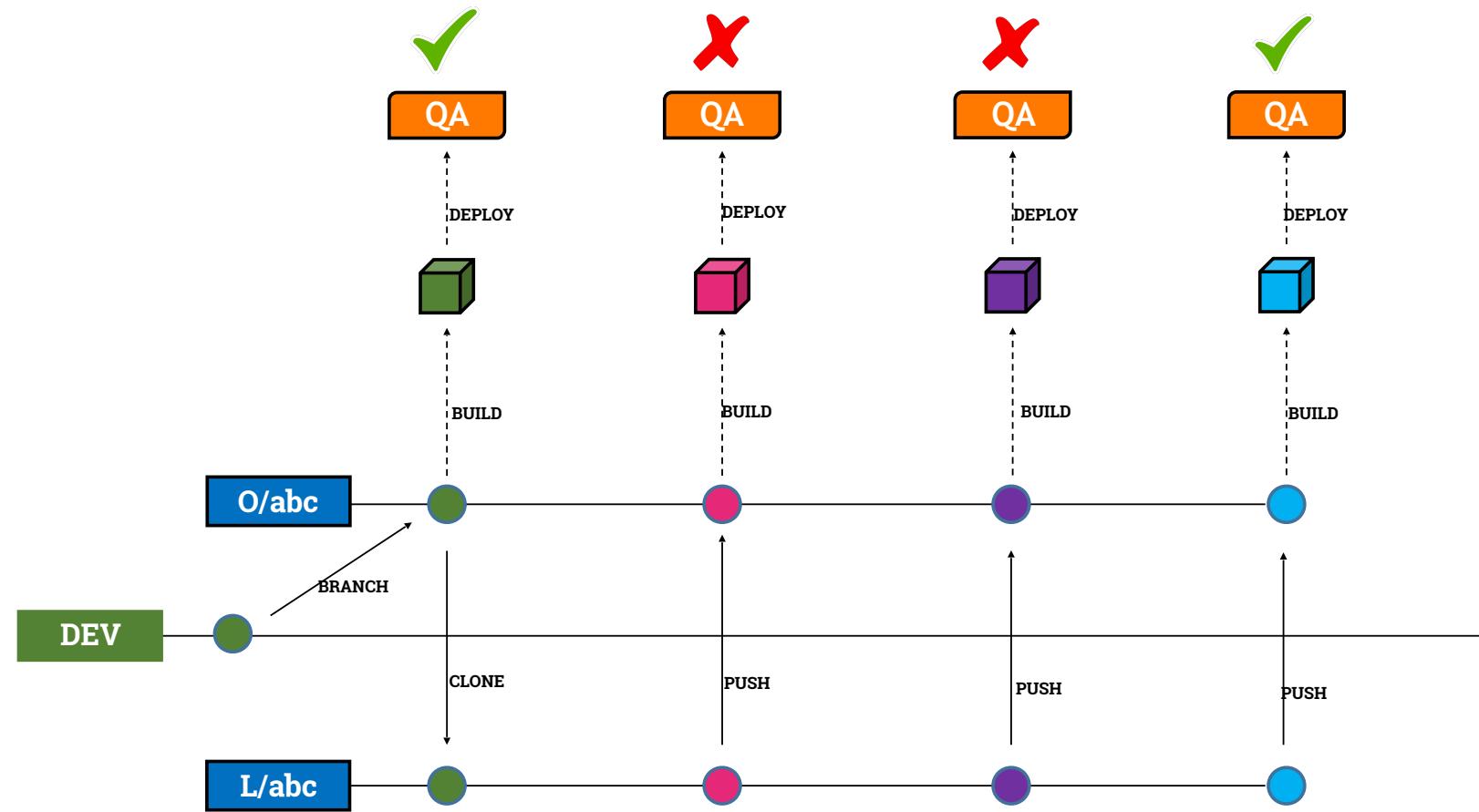
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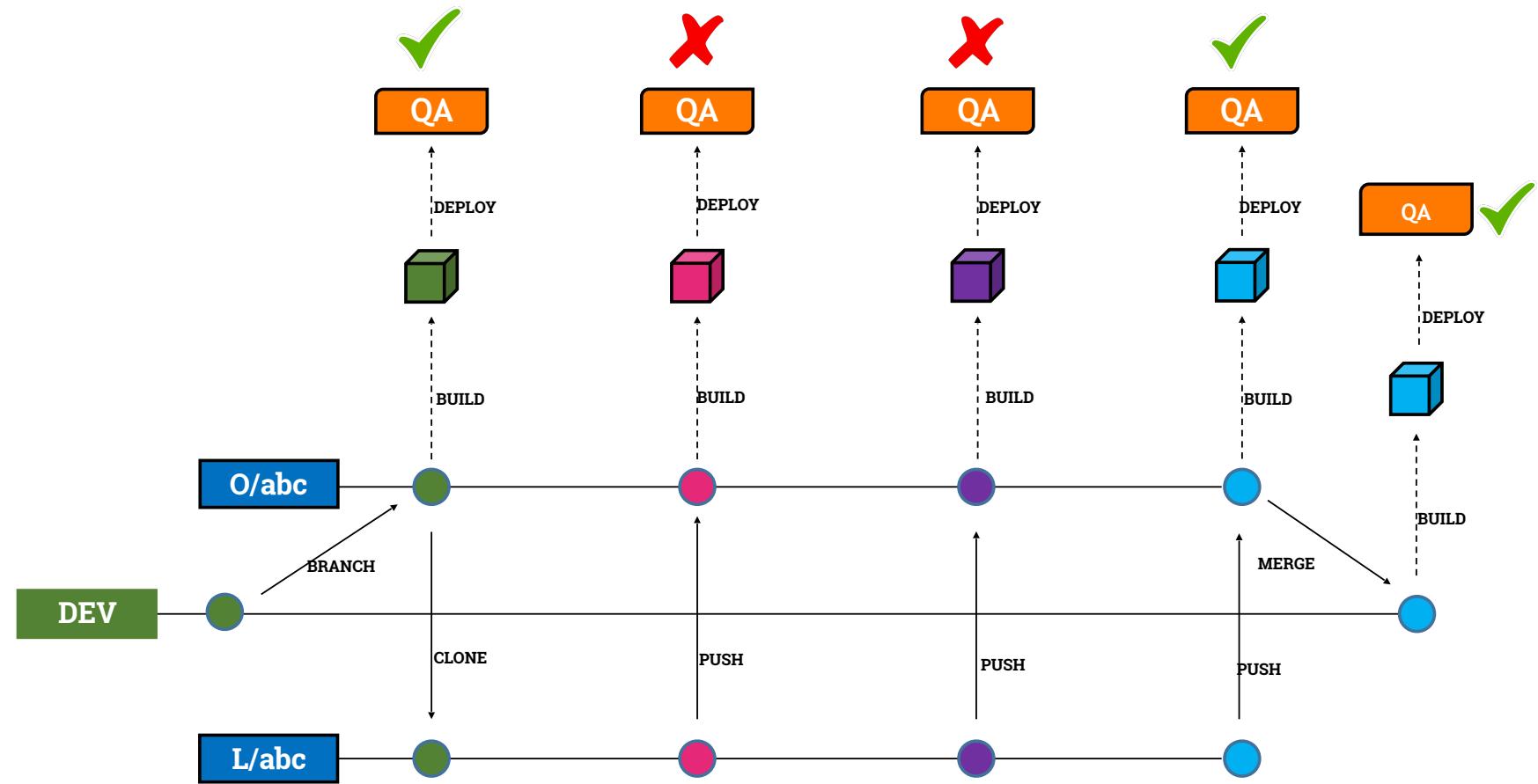
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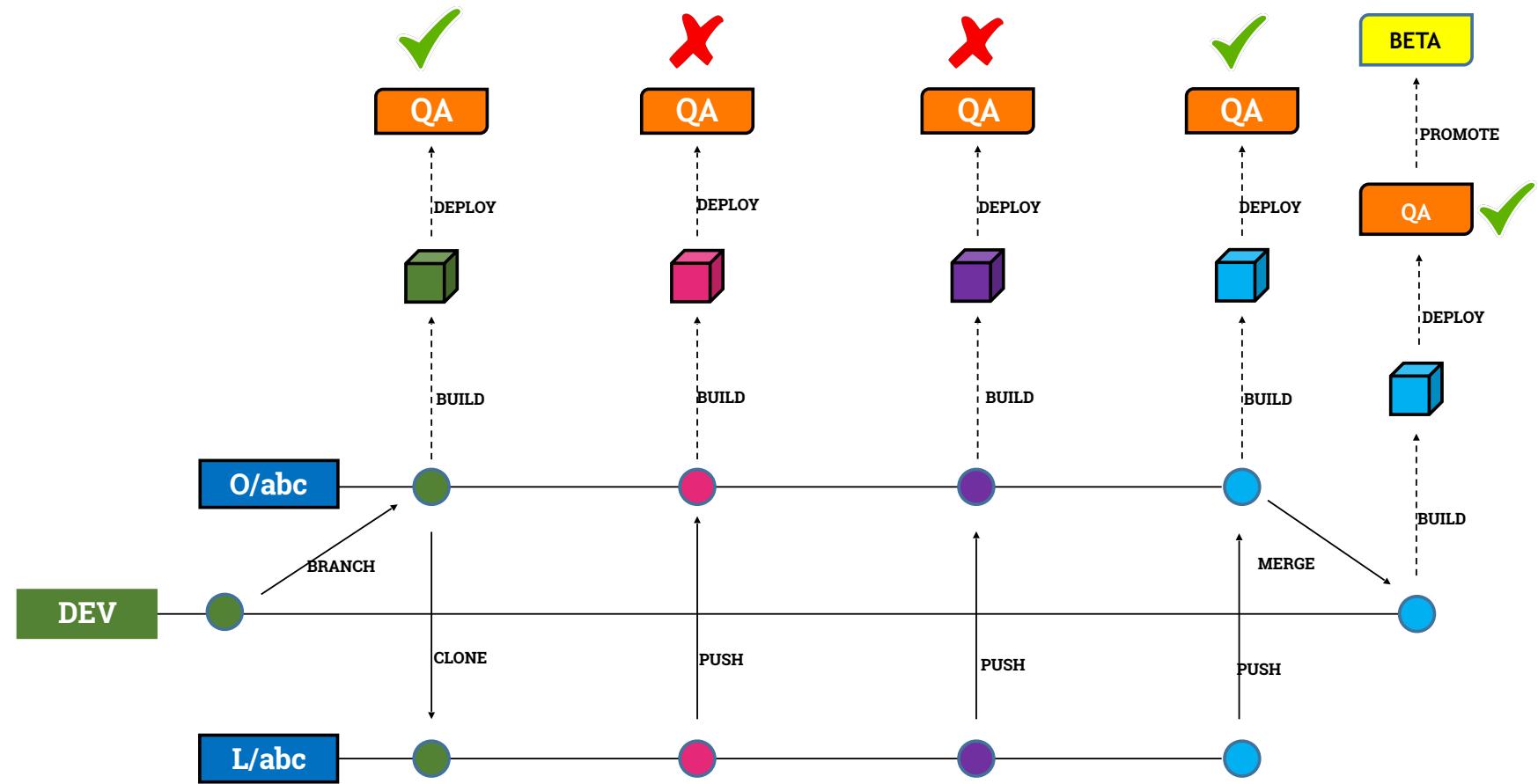
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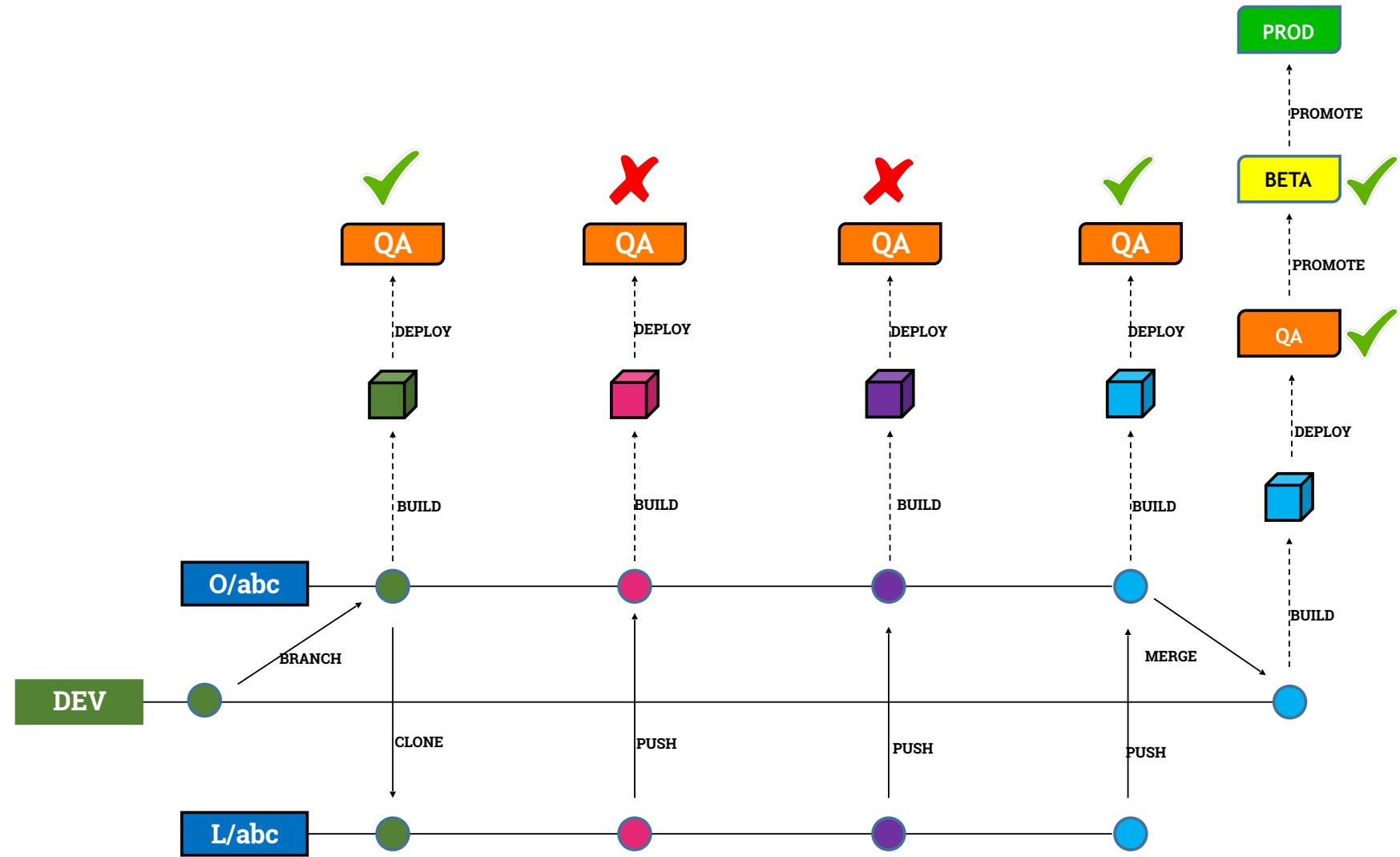
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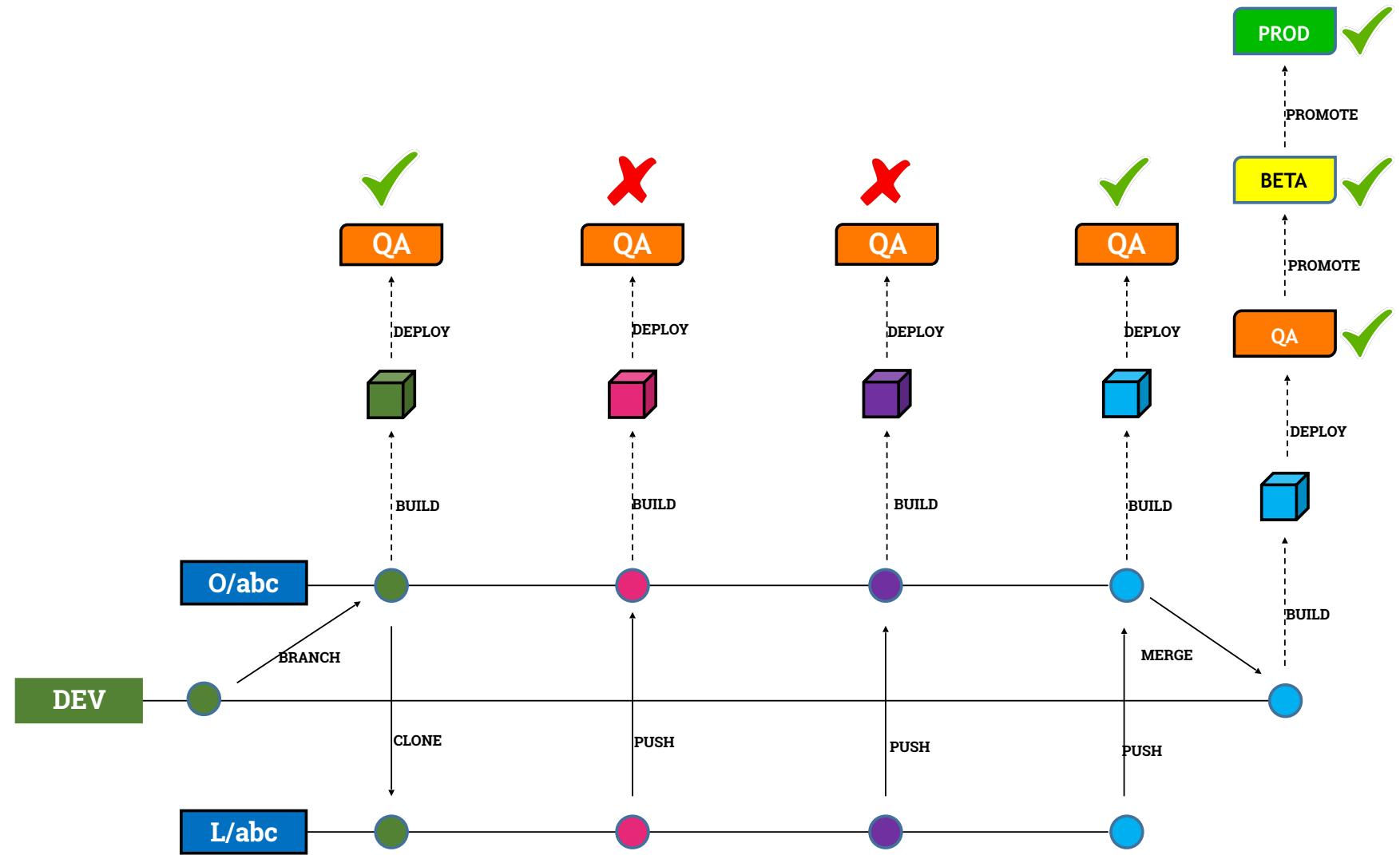
Continuous Integration



Continuous Integration



Continuous Integration



Build / CI Dashboard gives full insight

The screenshot displays a comprehensive Build / CI Dashboard with the following sections:

- Build result summary:** Shows completed at 04 May 2017, 12:38:08 PM – 3 hours ago, duration 43 seconds, and labels None. It features three large numbers: 0 New failures, 0 Existing failures, and 0 Fixed.
- Included in deployment project:** A table listing deployment environments and their status. All listed environments are marked as "REPLACED" or "SUCCESS".

Environment	Status	Actions
Automatic Build Testing	REPLACED	now at website-CI-20170504-1607
Development	REPLACED	now at website-CI-20170504-1607
Push image to Beta Staging registry 1 and 2	SUCCESS	
Beta 2.0 Staging 1	SUCCESS	
Beta 2.0 Staging 2	SUCCESS	
TaaS 2.0 Production 1	not deployed yet	now at website-CI-20170503-1527
TaaS 2.0 Production 2	not deployed yet	now at website-CI-20170503-1527
- Code commits:** A list of commits for the "Website" branch by Andrew Jones. The first commit (c96a482...) merges pull request #77 from feature/IDQ-459-terms-and-conditions-and-privacy to development. The second commit (8b4e6fd...) adds new terms and conditions.

Author	Commit	Message	Commit date
Andrew Jones	c96a482...	Merge pull request #77 in WWW/idq-website from feature/IDQ-459-terms-and-conditions-and-privacy to development * commit '8b4e6fd2e2c3dfb5793f94e623feee7e668c310': IDQ-459 Adding new terms and conditions. WWW-383 Update link to dropcrate demo	4 hours ago
Andrew Jones	8b4e6fd...	IDQ-459 Adding new terms and conditions. WWW-383 Update link to dropcrate demo	4 hours ago
- JIRA issues:** A table showing JIRA issues with their descriptions and statuses.

Issue	Description	Status
IDQ-459	Terms and Conditions and Privacy Policy should be html	IN STAGING
WWW-383	[Dropcrate] Change hostname to dropcrate.idquanta.com	DELIVERED
- Shared artifacts:** A section for shared artifacts, though no specific details are visible.

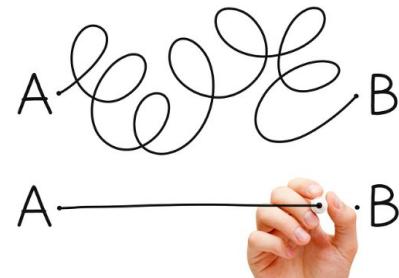
What's Next?



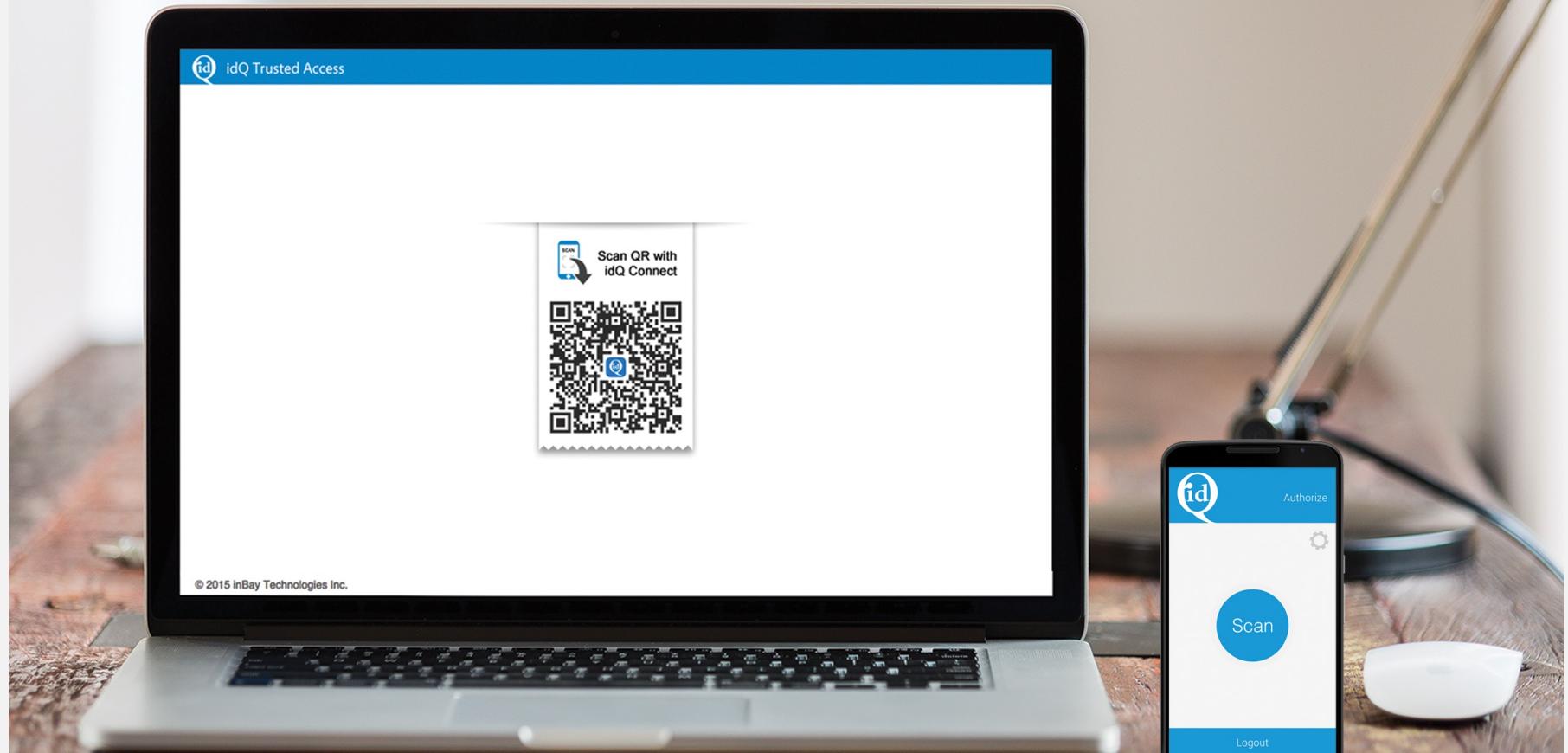
John Marshall
Director Softw. Dev.



Denis Plante
Director of DevOps



idQ® Trust as a Service



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 Inbay-Techologies

 inbaytech

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