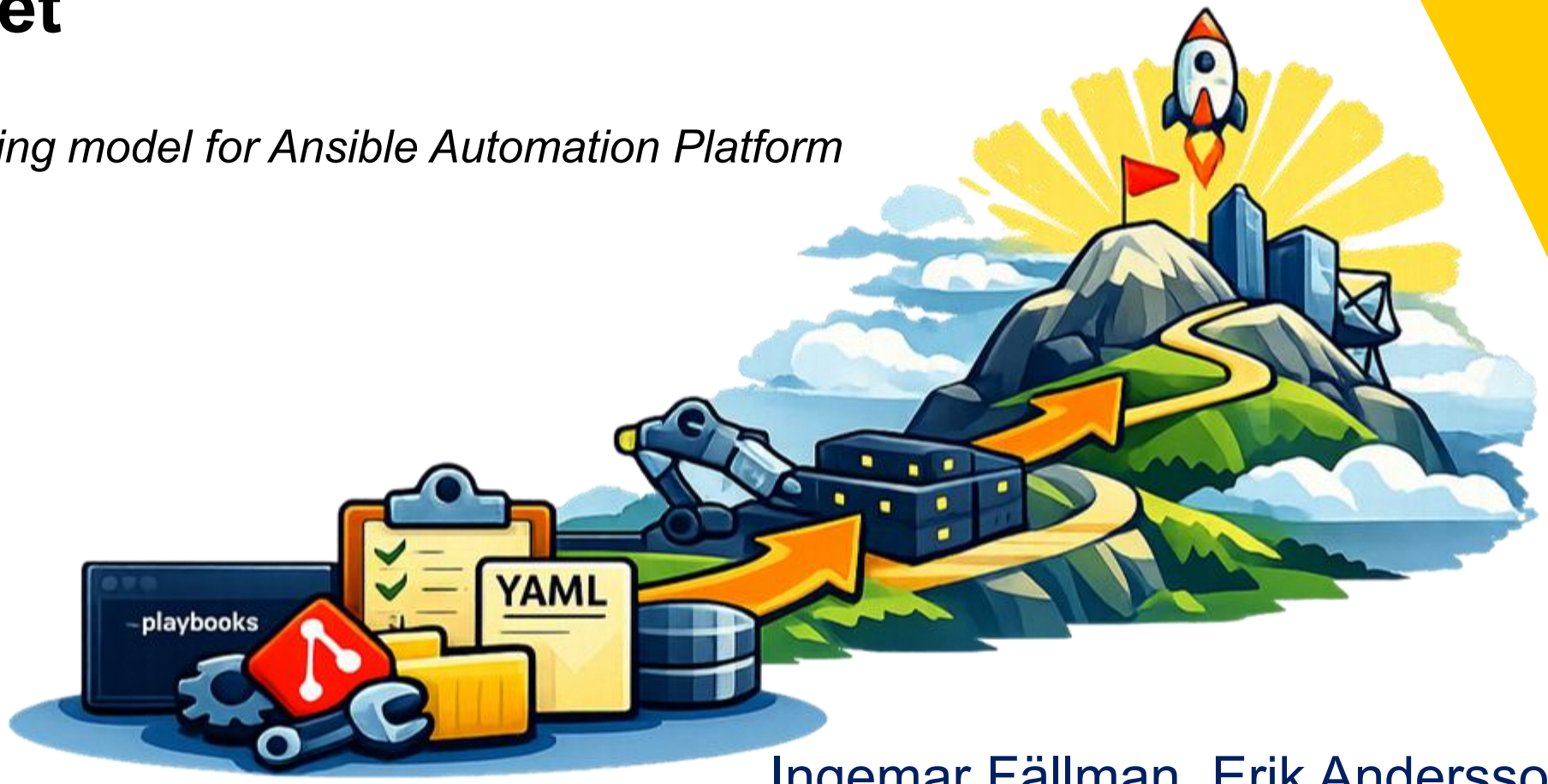
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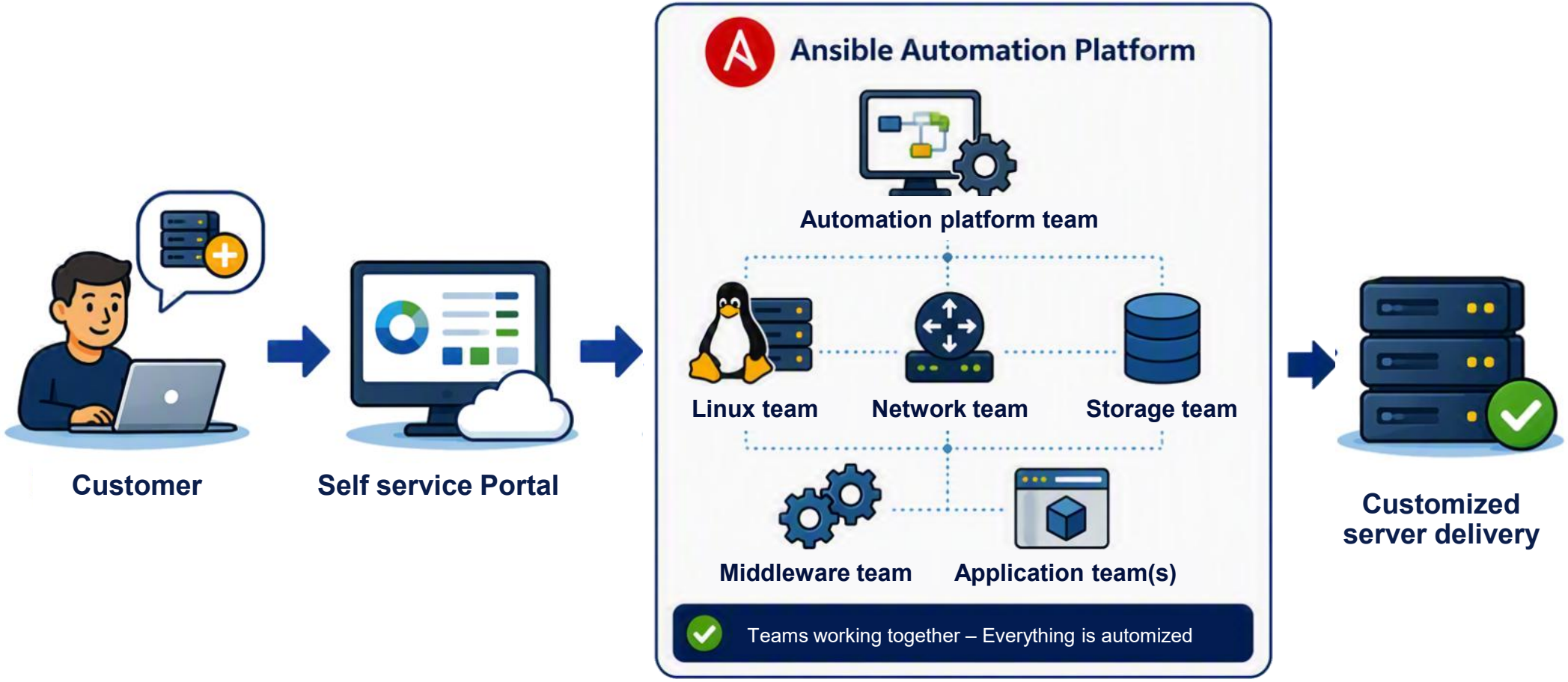
Configuration as Code from Dev to Prod @ Skatteverket

A practical operating model for Ansible Automation Platform



Ingemar Fällman, Erik Andersson

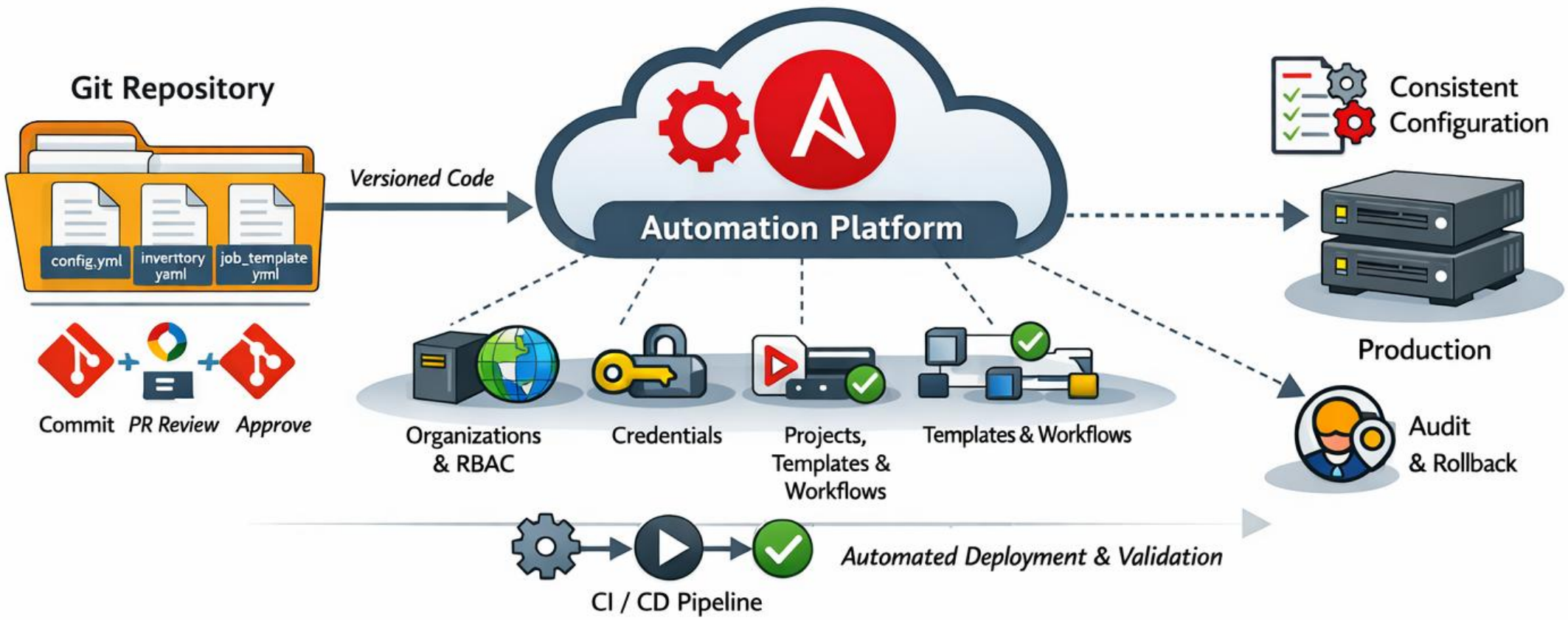
Successful delivery of end-to-end automation together



Standardized | Secure | Fast | Traceable | Reusable

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Ansible Automation Platform



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Infrastructure as Code builds it



Environments can be built from scratch



Fully declarative platform



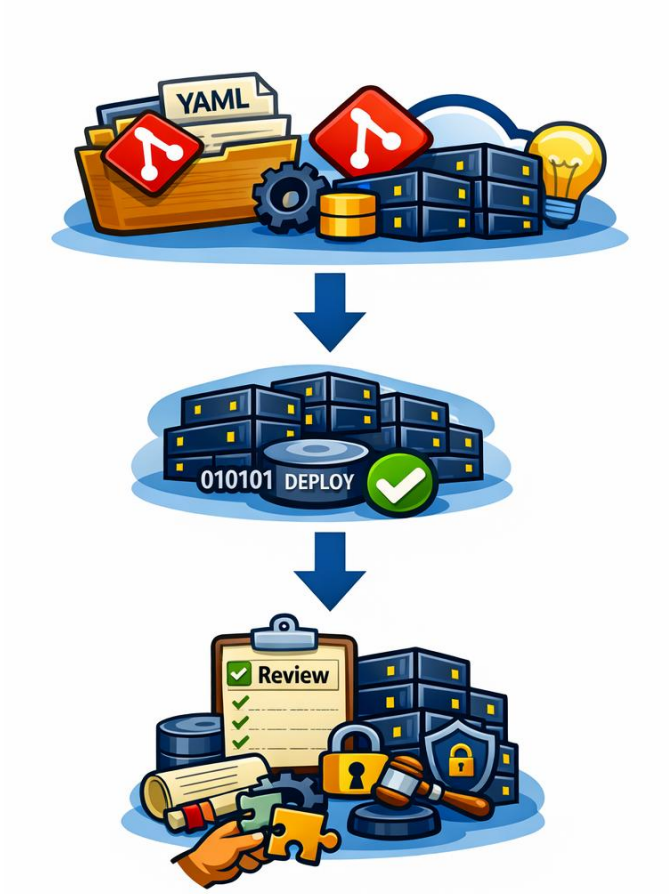
Easy scaling of the platform



Fast recovery from incidents

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Configuration as Code defines it



- Configuration is managed as code
- Reduced configuration drift
- Version control and traceability
- Reproducible environments
- Easy disaster recovery

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Core Principles



All configuration is code in prod and staging environments



ansible.platform collection for platform configuration



Git is the single source of truth



Declarative and reproducible model



Pull request approval from reviewer before merge

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Two Layers of Environment Separation

AAP environments control platform changes. Organizations separate customer automation targets.

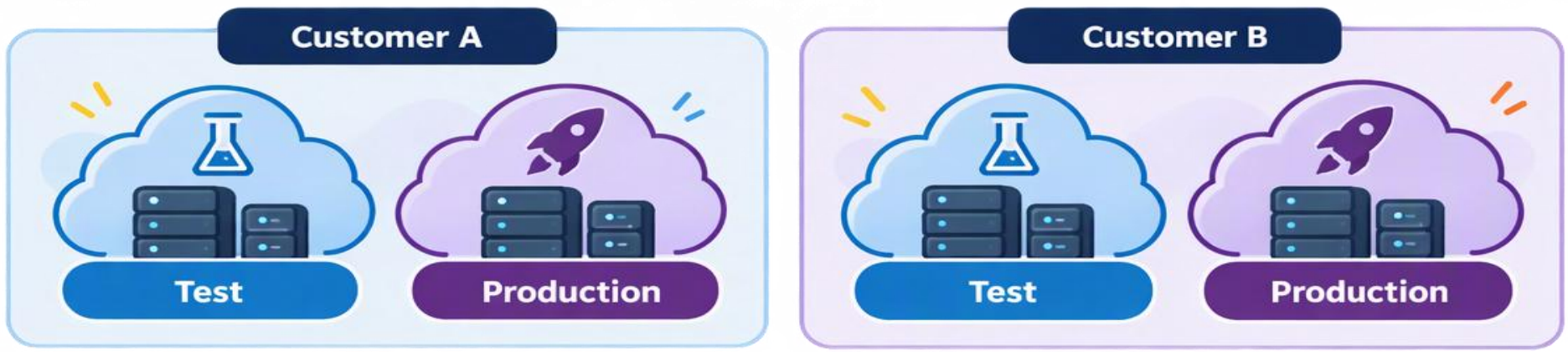
AAP PLATFORM LIFECYCLE

Controls how changes move through the AAP platform lifecycle.



CUSTOMER AUTOMATION TARGETS

Controls where users and automation are allowed to operate.



Customer Test and Production are automation targets, not AAP platform environments.

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Environment Separation

For platform and automation development

Development



Test



Production



Each environment has a clear purpose and restrictions

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Development Environment



- Manual changes allowed (clickops)
- Rapid iteration and experimentation
- Prototyping and learning
- Stable solutions are moved into code

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Test Environment



- Full Configuration as Code
- No manual GUI changes allowed
- Tests run against staging Git tags
- Ad-hoc commands allowed for troubleshooting

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Production Environment

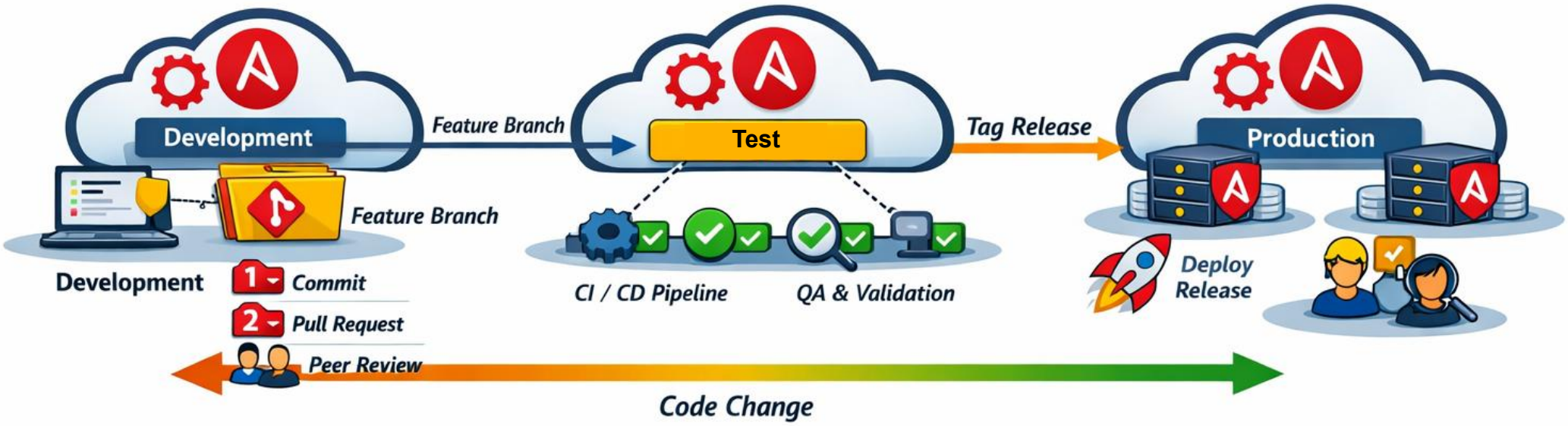


- Strict Configuration as Code
- No manual changes allowed
- No ad-hoc commands
- Maximum stability and control

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Git-Driven Release Flow Across Environments

- Everything is stored in Git
- Same repository across environments
- Git tags control what runs where
- Easy rollback and full traceability
- Automated code testing



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Organizations in AAP

OWN RESOURCES

CLEAR OWNERSHIP

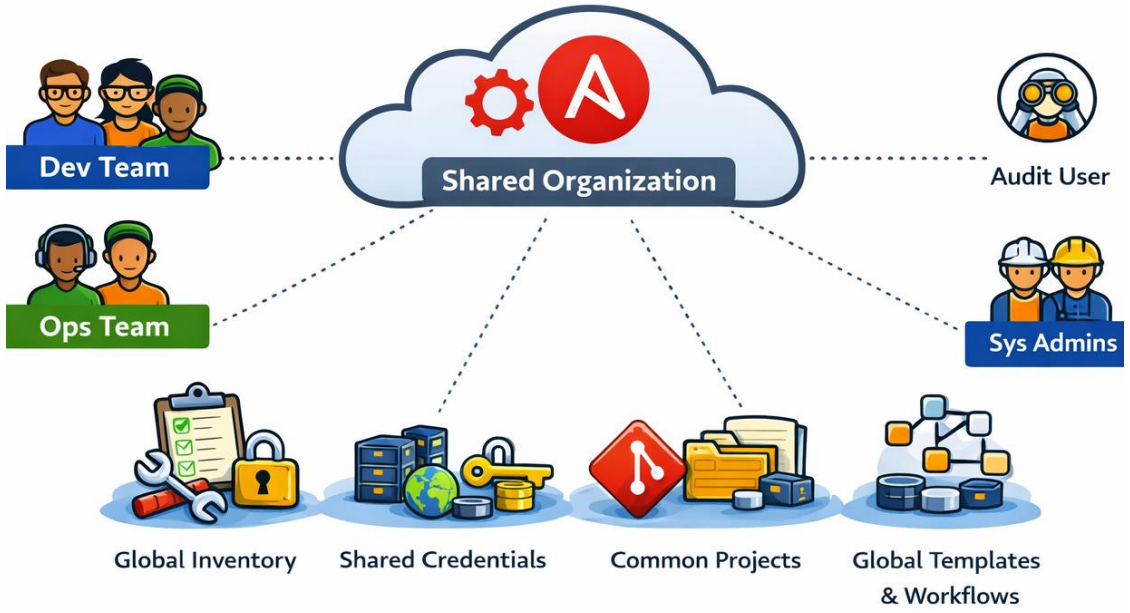
STRONG ISOLATION
BETWEEN TEAMS

EACH TEAM IS ITS OWN ORGANIZATION



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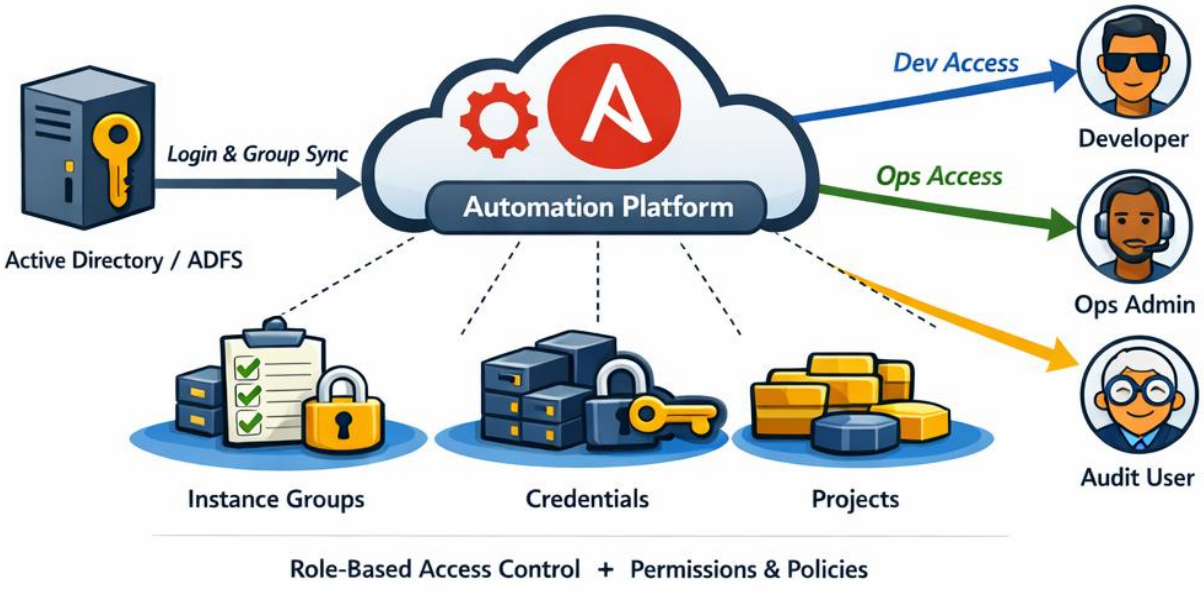
Shared Organization



- Central management of host inventory
- Contains all servers
- Server metadata as variables
- Servers organized in groups
- Inventory reused by teams

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Access and Permissions



- Authentication via SAML
- AD groups mapped to roles
- RBAC per organization
- AD groups for instance group access

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Select Customer and Environment at Sign-in

Each customer’s own Test and Production environments are isolated in dedicated AAP organizations with separate access, resources and automation scope.



Choose where to work

Customer	Environment
Customer A	→ Test
	→ Prod
Customer B	→ Test
	→ Prod

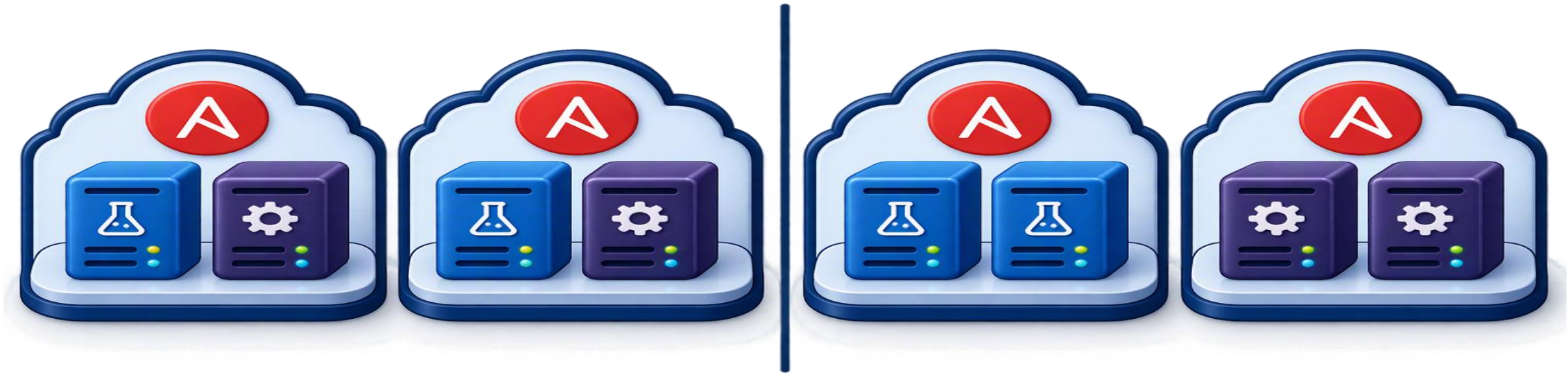
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Easy to split into multiple platforms

Infrastructure as Code enables us to split customers on multiple platforms for enhanced security

Split by customer

Split by environment



Customer A platform

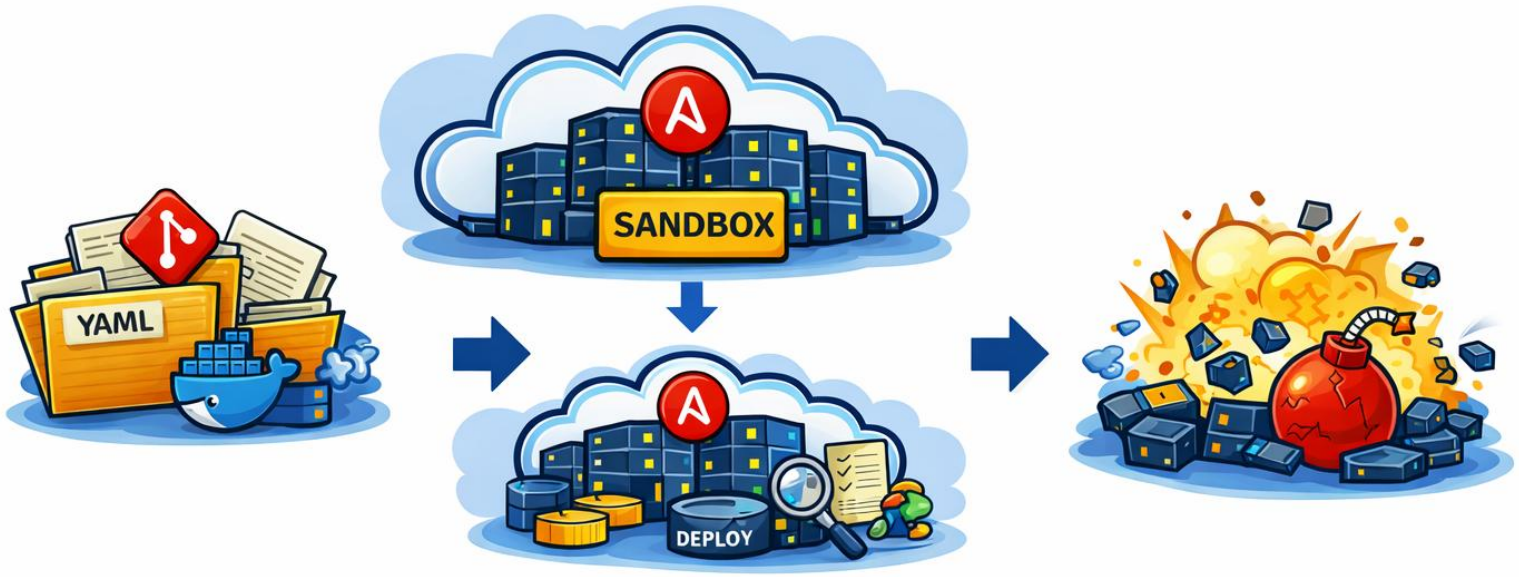
Customer B platform

Test platform

Production platform

Choose the boundary that best matches ownership, change pace and risk.

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Sandbox Environments

- Rapid provisioning of AAP sandboxes
- Safe testing without risk
- Environments are disposable
- Enables innovation and experimentation

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Challenges



Scaling requires controller restarts



API breaking changes between versions



Performance and tuning



Frequent patching of critical issues (CVE)



ansible.platform collection is under very active development

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Summary

- Everything managed as code
- Git as the source of truth
- Controlled promotion across AAP
- Customer isolation through organizations and RBAC
- Platform separation when needed



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