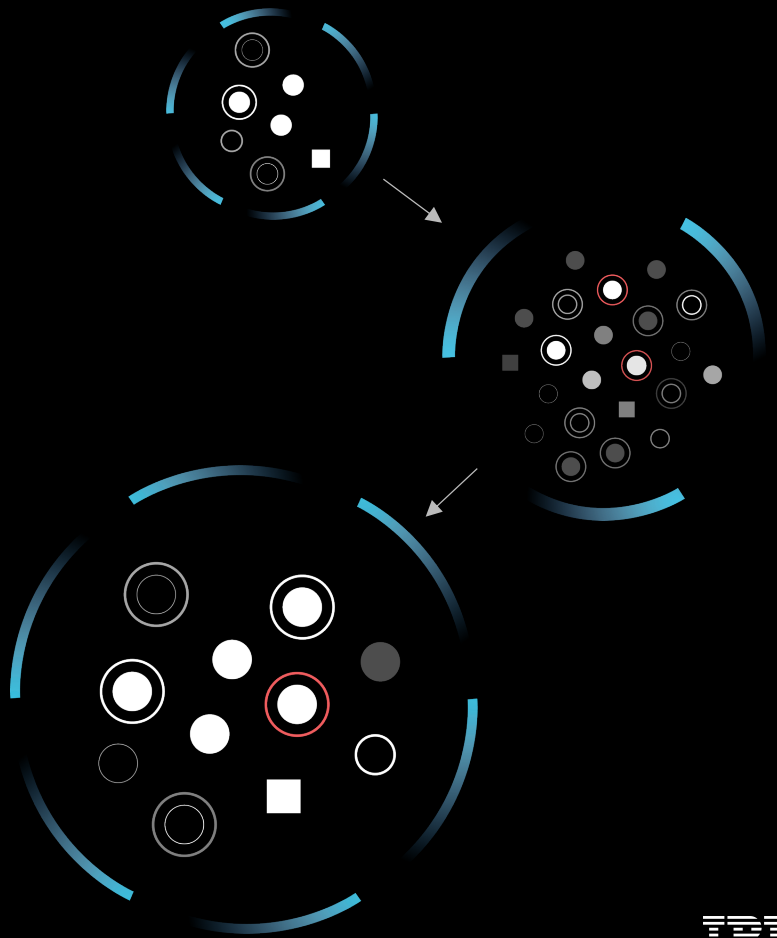
Value Stream Management
DevOps End2End



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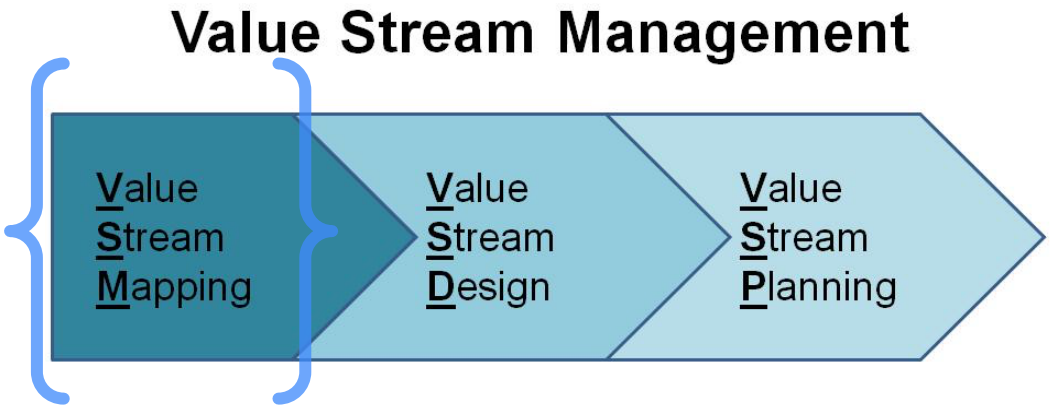
IBM

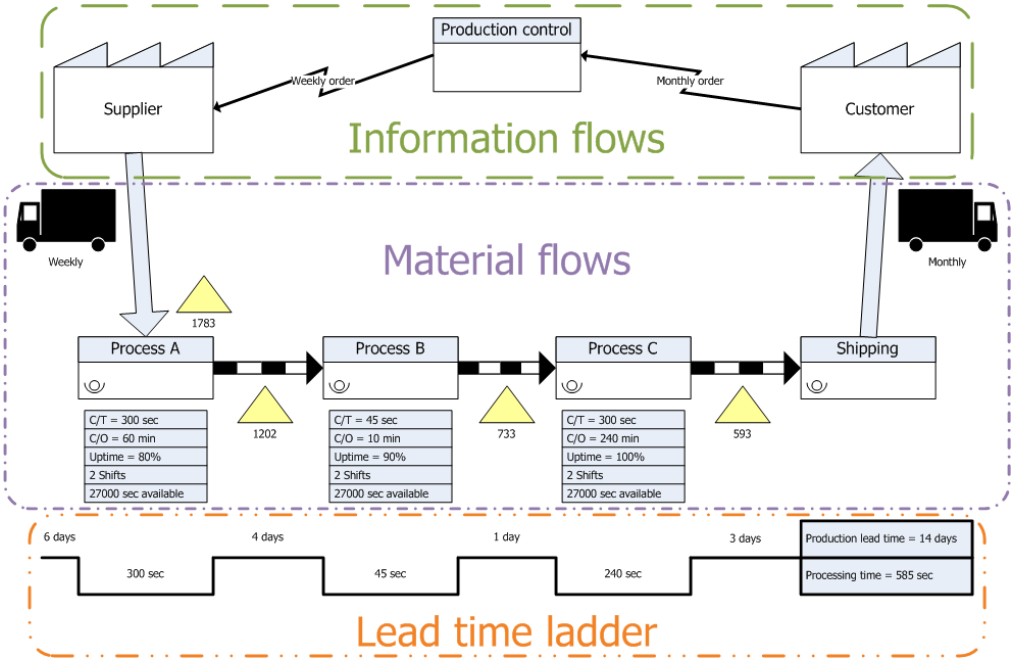
What is Value Stream Management?

- Value stream management is a lean business management tool from the area of production and supply chain management to improve the flow of production and materials as well as the associated flow of information.
- Value stream management encompasses three main sub-areas



Value Stream Mapping

- Also known as "material- and information-flow mapping"
- Lean-management method to analyze the current state and design a future state
- A value stream map is a visual tool that displays all critical steps in a specific process and quantifies easily the time and volume taken at each stage
- The purpose of value-stream mapping is to identify and remove or reduce "waste" in value streams

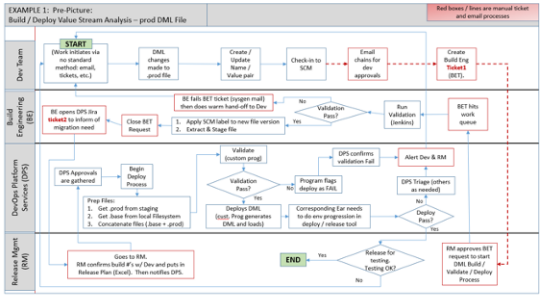


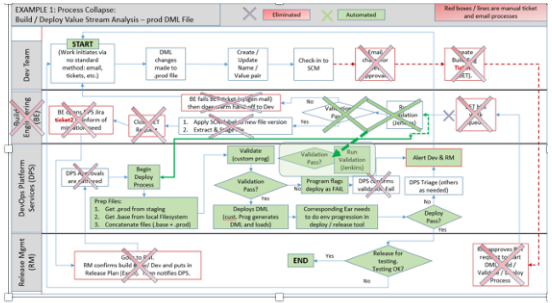
Value Stream Terms

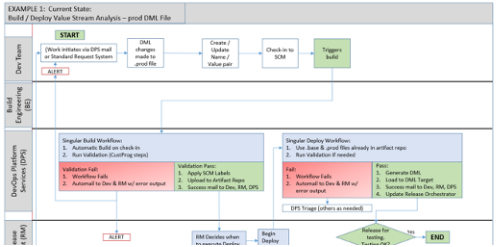
- **Cycle Time: Time between start and finish of a production cycle**
- **Lead Time: Time between customer order and delivery**
- **Process Time: Time spent creating the product (value-add time)**
- **Wait Time: Time spent waiting for next activity**
- **Work In Progress (WIP): Actual units of work – stories, incidents…**
- **Changeover Time: Reconfiguration time between orders**

What is waste?

- Faster-than-necessary pace
- Waiting
- Processing
- Conveyance
- Excess Stock
- Unnecessary motion
- Correction of mistakes







Event	Legacy	DevOps
Team Handoff	5-11	1
Email/MOC / Coordination	2-5	0-1 (other than auto)
Service Reqs Filed	2-4	0
Process Steps	2R Manual or isolated auto.	5 Manual 12 Automated
Tools Used (includes WAS)	5 different vendors	1 vendor, suite of 4 tools
Primary Support Team Count	4 (BE,ASC, WAS,BL)	2 (DevOps, WAS)

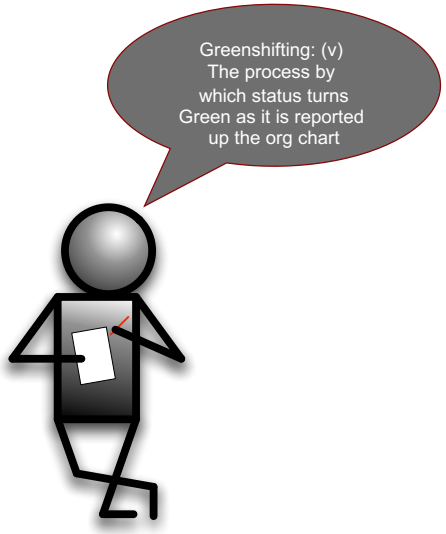
And what’s the relation to DevOps?

106x faster

2019 State of DevOps Report from DORA measuring code commit to production. ‘Elite’ teams deliver in less than a day, ‘Low’ performers deliver in 1 to 6 months.

Reality hidden from leaders

Most companies are slower and riskier than they think they are.



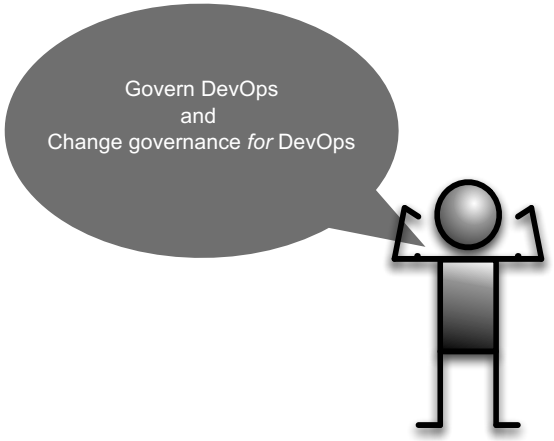
Differences in perception of DevOps practices in use

	C-Suite	Management	Team
Teams contribute improvements to tooling provided by other teams	64%	46%	35%
We balance lowering technical debt with new feature work	61%	44%	33%
Incident responses are automated	**57%**	**38%**	**29%**
Security teams are involved in technology design and deployment	64%	48%	39%
A cross-functional review is done before implementation of a project	58%	47%	36%
Experiences and lessons are shared externally (e.g., meetups / conferences, blog posts, etc.)	49%	38%	28%
Success metrics for projects are visible	58%	46%	38%
Rearchitect applications based on business needs (e.g., reduce operational costs, ease of deployment, etc.)	57%	46%	37%
Resources (e.g., accounts, infrastructure, etc.) made available via self-service	**53%**	**42%**	**34%**
Before starting a project, we establish concrete success criteria	61%	51%	43%
Service changes can be made during business hours	61%	46%	43%
Teams use continuous delivery	**58%**	**47%**	**41%**
We create learning opportunities across teams (e.g., training, internal DevOps workshops, etc.)	54%	48%	38%
Automate security policy configurations	**54%**	**44%**	**38%**
We have post-incident reviews and share results	64%	56%	48%

2018 State of DevOps Report – Puppet Labs

We need DevOps Governance

- Help for teams trying to improve
- Honest visibility
- Modernize legacy processes



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2018 State of DevOps Report – Puppet Labs

This is hard

The data is scattered across many tools and disconnected

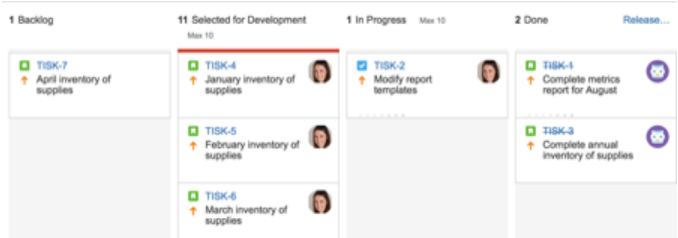
Does the Deployment engine know about epics?

What tests were run against the various services that changed for this new feature?

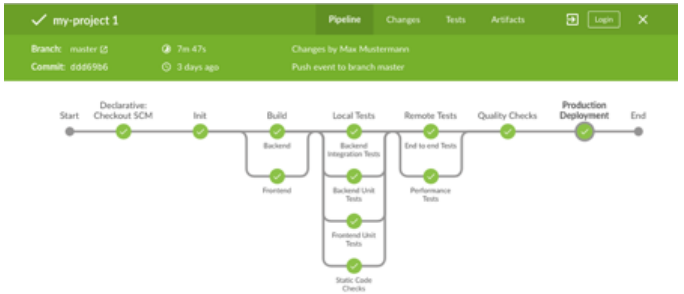
Did we run static security checks? Dynamic? What about container security scans?

Most dev teams use Agile tools and CI/CD pipelines…

Kanban boards cover only part of the Value Stream and relies on manual movement of cards to depict state--often out of sync with reality



CI/CD tools provide views of automation, but not of waste— inventory, rework, waiting, etc – or business value

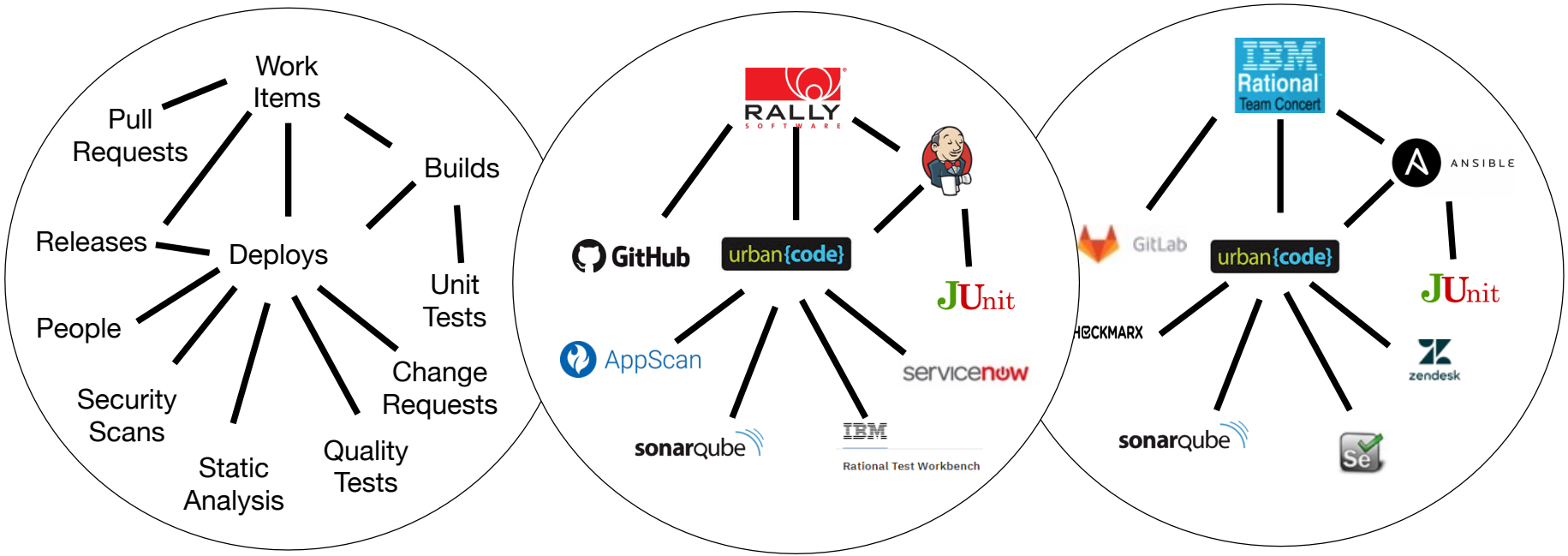


Neither offers deep insight end-to-end into questions such as:

- Should I release this code?
- Where is my epic?
- Where are we slow?
- What do my high performing teams do differently?
- Did the feature deliver the planned value?

Dashboards like Prometheus could help….

…but the magic is in RELATIONSHIPS



And there is a tool to help?

FOR TEAMS, A DIGITAL VALUE STREAM

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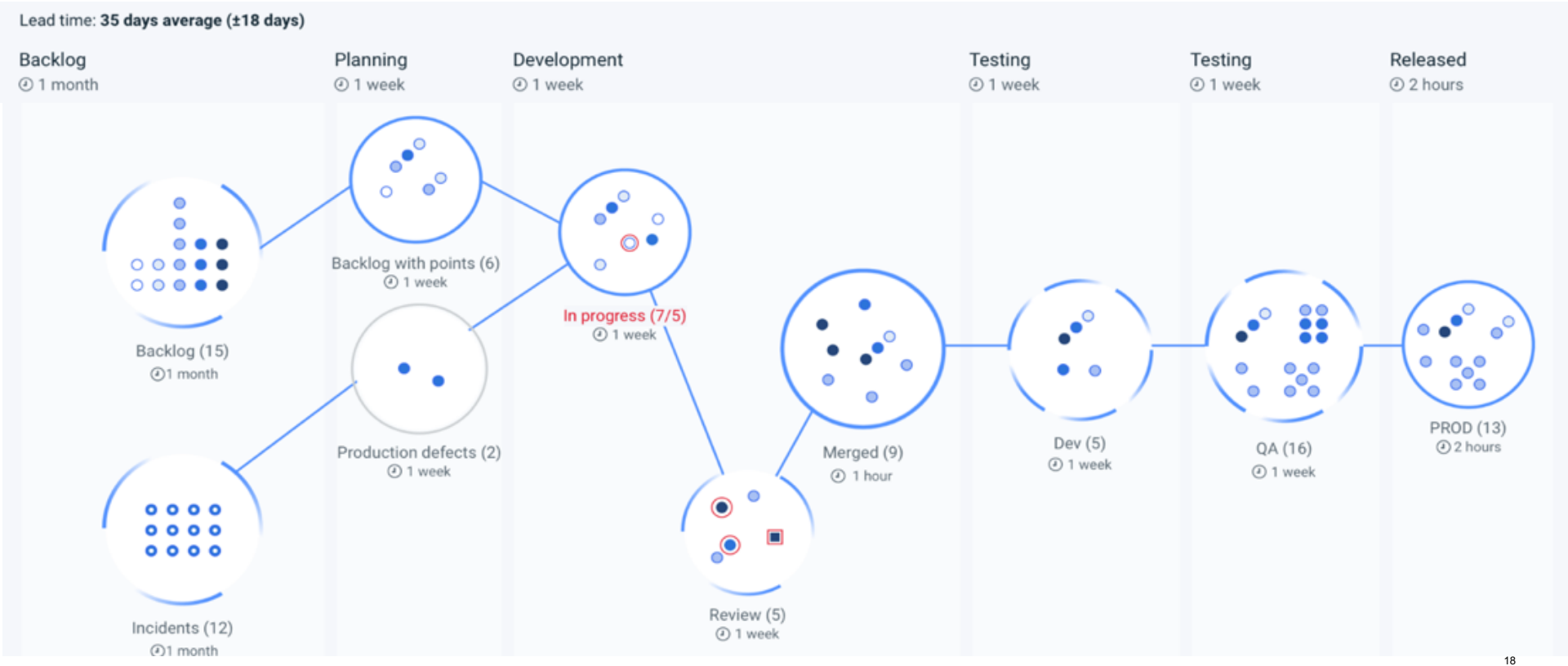

VELOCITY ENABLES DATA DRIVEN DEVOPS

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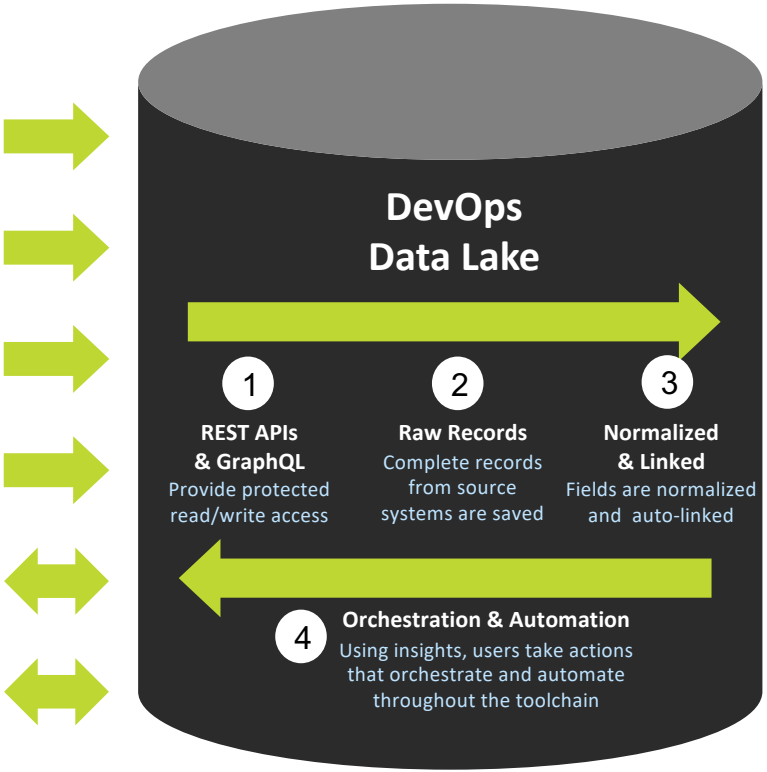

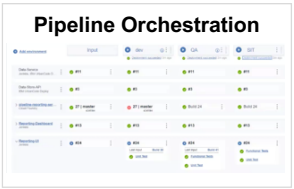

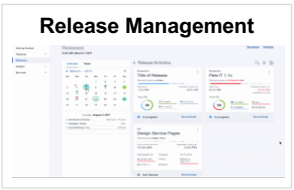

The most common bottlenecks are manual deployments and testing!

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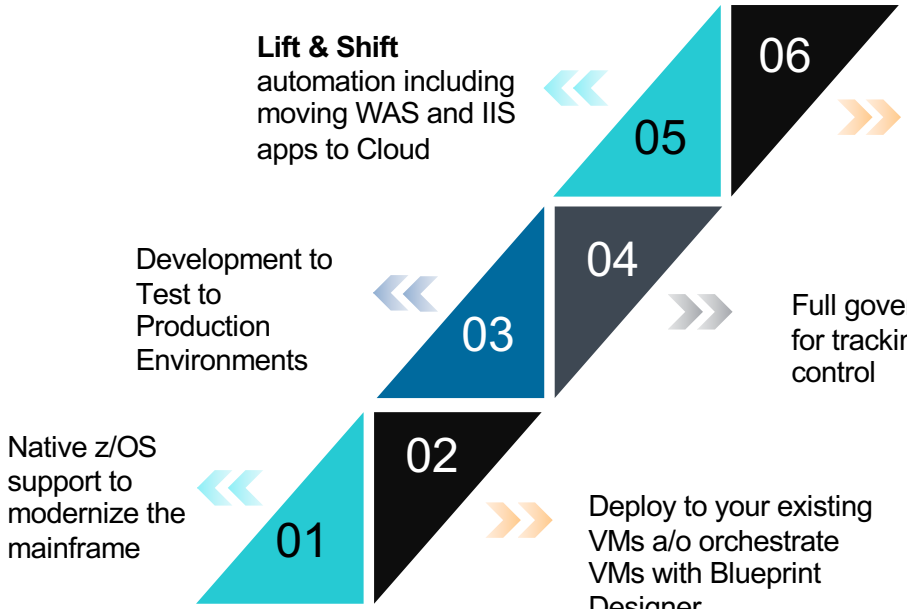
URBANCODE DEPLOY is Designed to Support the Complex Enterprise

FROM MAINFRAME TO DISTRIBUTED TO CLOUD-NATIVE



Native z/OS support to modernize the mainframe

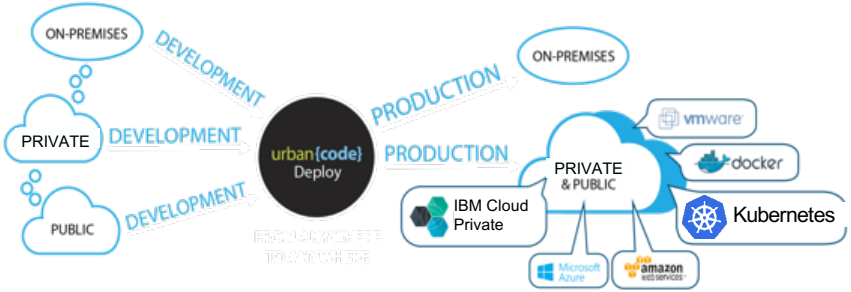
Deploy to your existing VMs a/o orchestrate VMs with Blueprint Designer

Development to Test to Production Environments

Full governance for tracking and control

Lift & Shift automation including moving WAS and IIS apps to Cloud

Kubernetes container orchestration for **cloud native** microservices

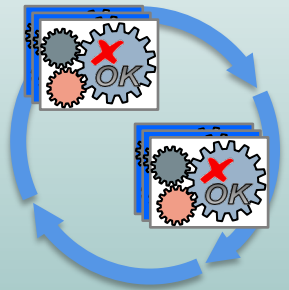


*Deploy Anything **From** Anywhere **To** Anywhere*

THREE KEY SOLUTIONS TO SHIFT LEFT TESTING

Test Automation

= Test repeatedly and continuously

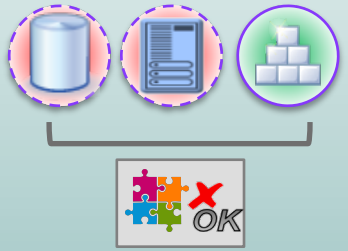


Rational Test Workbench
Rational Performance Test Server

+

Service Virtualization

= Start testing earlier



Rational Test Virtualization Server

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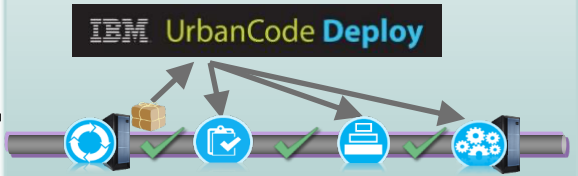
Deployment Automation

= Provision and orchestrate testing



UrbanCode Deploy

URBANCODE SOLVEs DEVOPS DAY 2 CHALLENGES

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Deploy Everything

UrbanCode Deploy automates application deployments, middleware configurations and database changes to on-premise and cloud-based dev, test and production environments

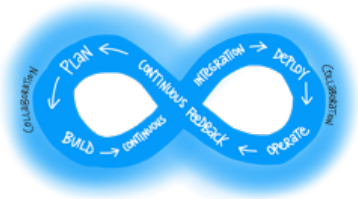
- First class container deployment support and product hosting
- Hybrid cloud and mainframe Continuous Delivery support
- Enterprise Scalability - Go big and scale globally to 100K+ deployment targets

Optimize Flow

UrbanCode Velocity optimizes software delivery beyond automation by providing visualization, insights and orchestration across the value stream

- Visualize the value stream to optimize within a product team
- Actionable insights across the enterprise application portfolio
- Self-service release with predictive analytics and smart gating

Infinite Ecosystem



UrbanCode provides over 200 off-the-shelf plugins at no additional cost and connects all of your tools across the entire software delivery pipeline

- Extensible plugin framework makes adding new plugins easy
- Makes open source better by supplementing with enterprise-level capabilities
- Additional support for commercial off the shelf products