AMDOCS DELIVERY | POWERING FEARLESS TRANSFORMATIONS

Perspectives on Continuous Integration at Scale

Hrishikesh Karekar @hrishikarekar

Vinaya Muralidharan @vinaya1980

August 2016

amdocs embrace challenge eXperience success®

About us

Hrishi

Vinaya

DELIVERY CTO ORGANIZATION

EXPERTISE

CHANGE MANAGEMENT

Promoting the best ways to deliver software

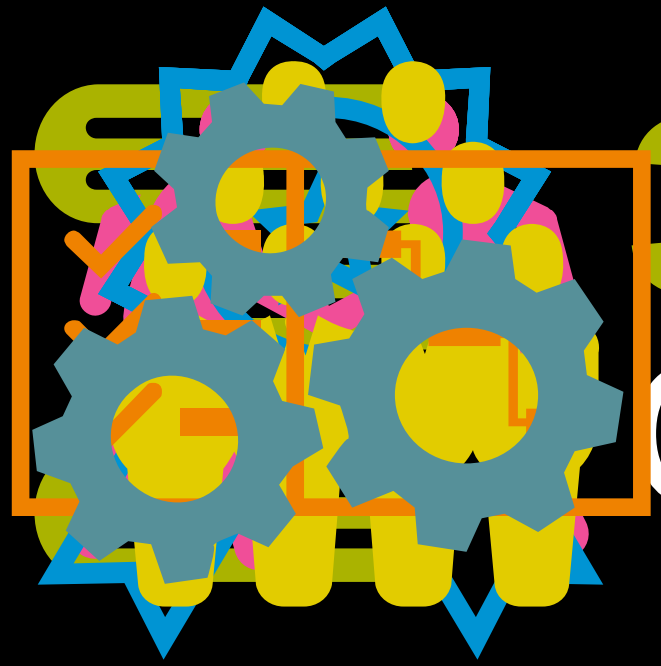
amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

TRACK RECORD

Our track record is unmatched



161 PROJECTS INTO PRODUCTION ACROSS 46 CUSTOMERS IN THE LAST YEAR

3700 FTE

95%

PROJECTS RUNNING

LAST YEAR

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

Projects @ Amdocs Delivery

What does Scale mean to you?

DISTRIBUTED SITES

MEGA TRANSFORMATIONS

MULTIPLE RELEASE TRAINS | SAFe

amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Our Operating Environment

amdocs embrace challenge eXperience success®

POWERING FEARLESS TRANSFORMATIONS

Amdocs CES

amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Technology

Service Delivery

Not Product Development

Integration Challenges

Multi Product – Multi Technology – Multi Team

Legacy Infrastructure

Source control, Build Systems

Code works on my machine

Traditional Automation

Record and Play

We are Unique

Array of homegrown tools & standards

Build is a big event

Takes days

amdocs embrace challenge eXperience success®

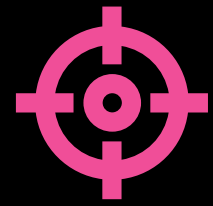
Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Process

Large transformation projects

Upfront planning due to multi-vendor environment



amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

People

Super specialization

Products

Competency Centers

No Scrum teams

amdocs embrace challenge eXperience success®

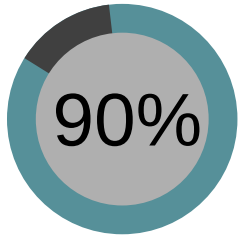
Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

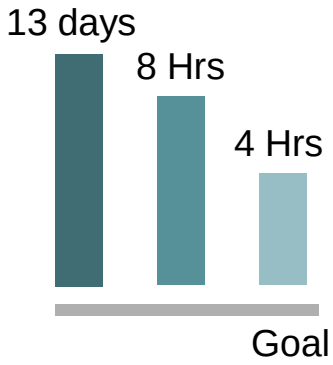
Where are we today

Environments

Time to clone environment reduced due to EaaS



Build Time



Build Running every

Compilation no longer a blocker

Monthly ability to deliver working software to UAT

With major scope

amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Crafting a New Reality

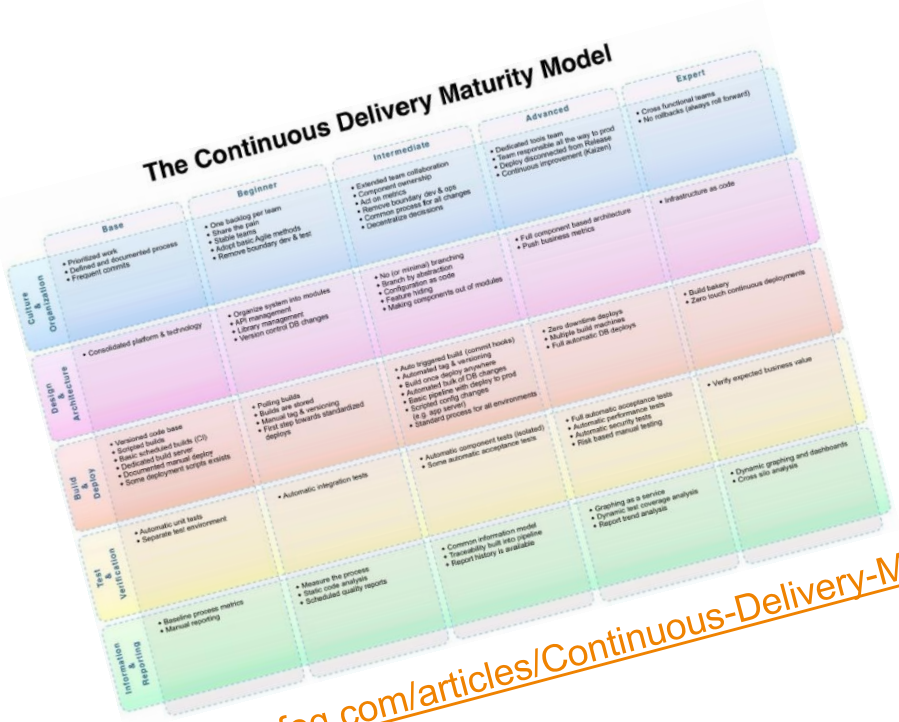
amdocs

embrace challenge
eXperience success®

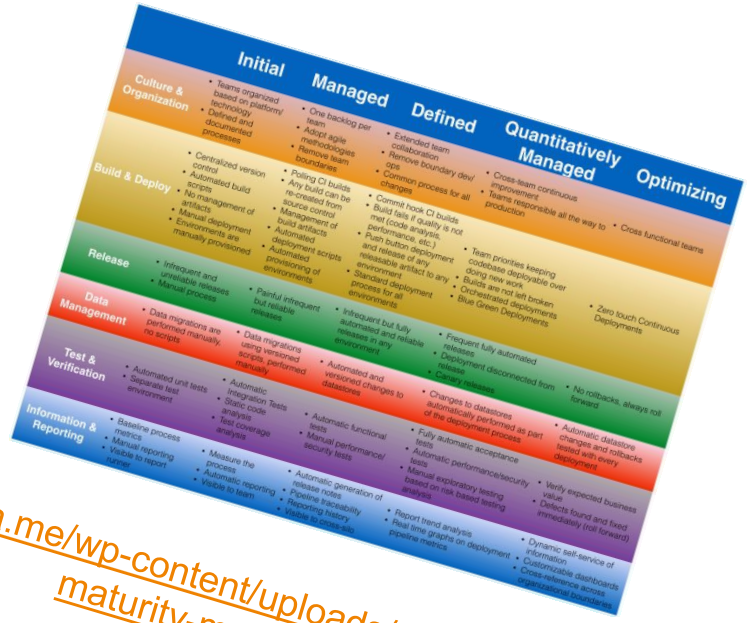
POWERING FEARLESS
TRANSFORMATIONS

representative

The Continuous Delivery Maturity Model



http://www.infoq.com/articles/Continuous-Delivery-Maturity-Model



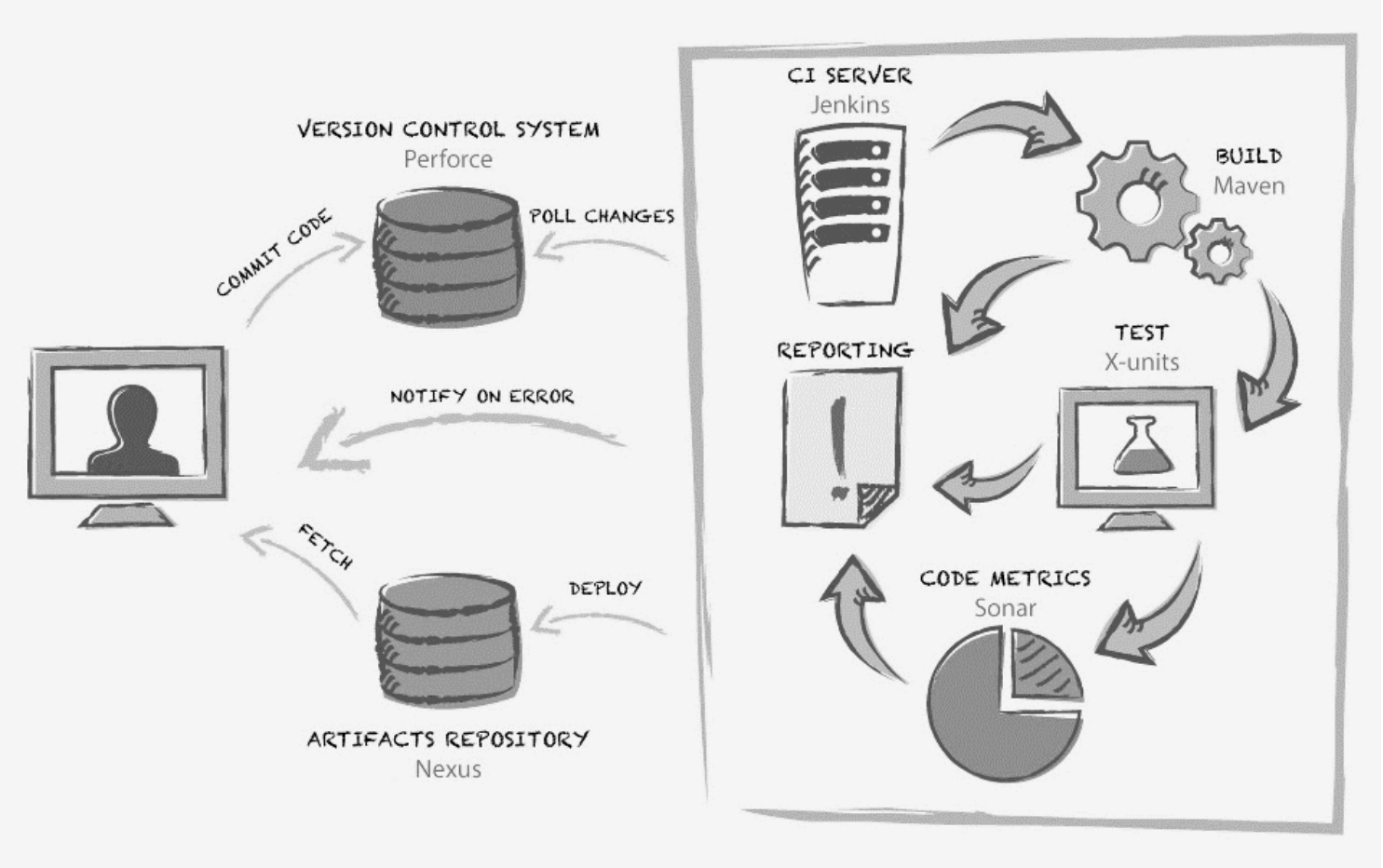
http://blog.arungupta.me/wp-content/uploads/2015/02/continuous-delivery-maturity-model-v1.0.png

amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Starting to modernize



amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

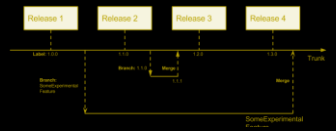
POWERING FEARLESS TRANSFORMATIONS

Technology

Technical debt

- Measured and managed

Modern Version Control system



Inverting the Test Automation pyramid

- UT automation
- Safety net for refactoring

Development Environment cloning

- Deploy portfolio integrated build

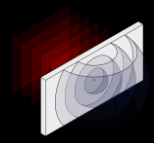
Simplified build order and dependency management

- Modular builds

Moving from imperative to declarative

maven

Artifact management



amdocs embrace challenge eXperience success®

© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Process

Lean and visual documentation

Code Inspection approach

- Lightweight and relevant

UT Defect logging

- Left to the teams

Software packages delivered more frequently

Frequent check-ins

- Several times a day

Stop the line

amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

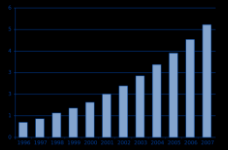
People

Developer viewed as craftsman

Developer engagement

- Gamification

Improving developer productivity



Quality is everybody's responsibility

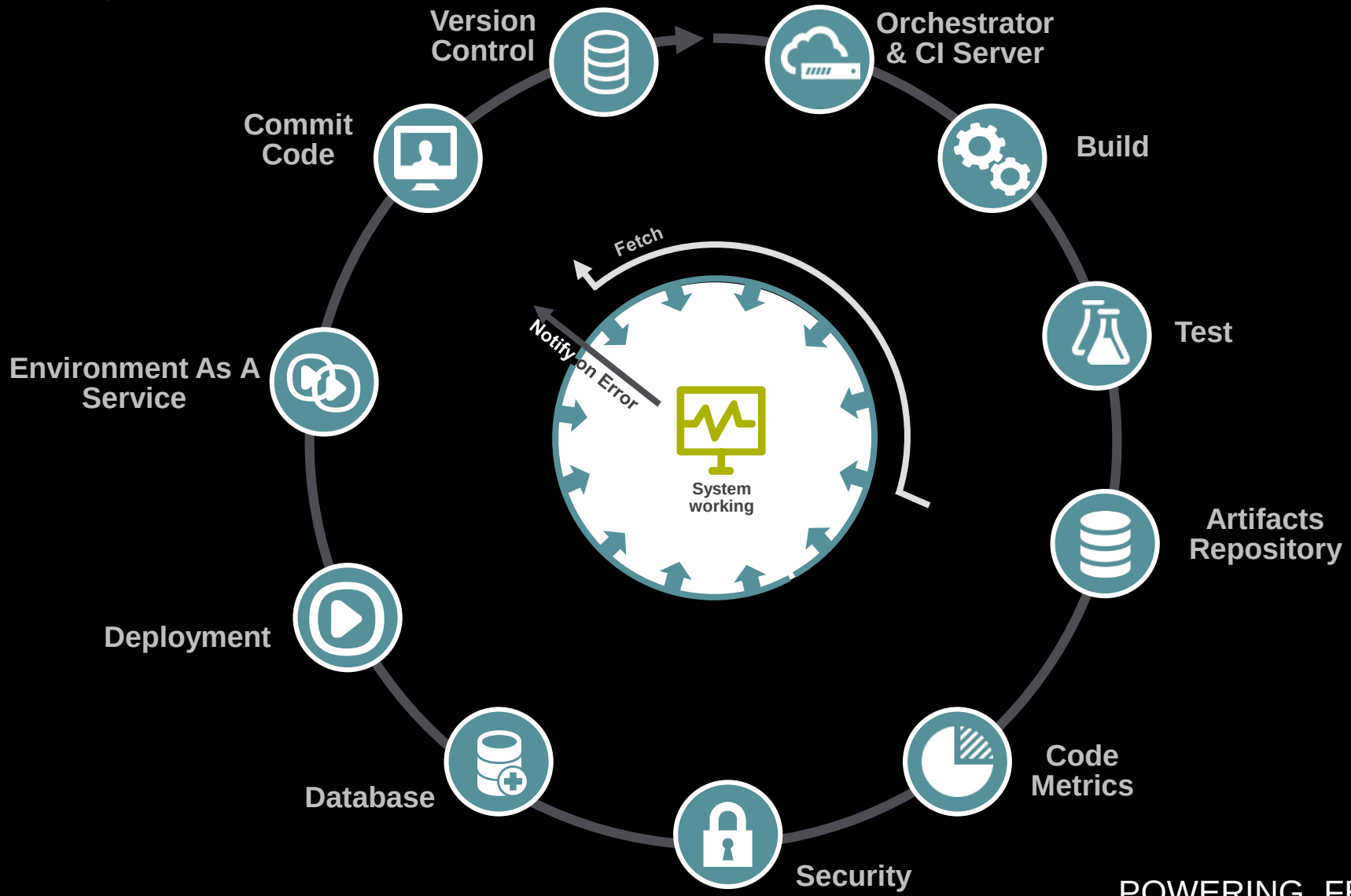
amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

EDGE OF INNOVATION

Continuous Integration



Information Security Level 2 – Sensitive
© 2016 – Proprietary and Confidential Information of Amdocs

Our learnings

One team cannot go CI

Daily check ins are a must

UT automation targets don't work

CI Useless without automation

STOP the line is critical

Focus on clean code will go a long way

Rely more on build, not Hot Fixes

Don't alienate middle management

Gamification

Sustain

Workshops

amdocs embrace challenge eXperience success®

Information Security Level x – Confidential
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

EDGE OF INNOVATION

Our roadmap

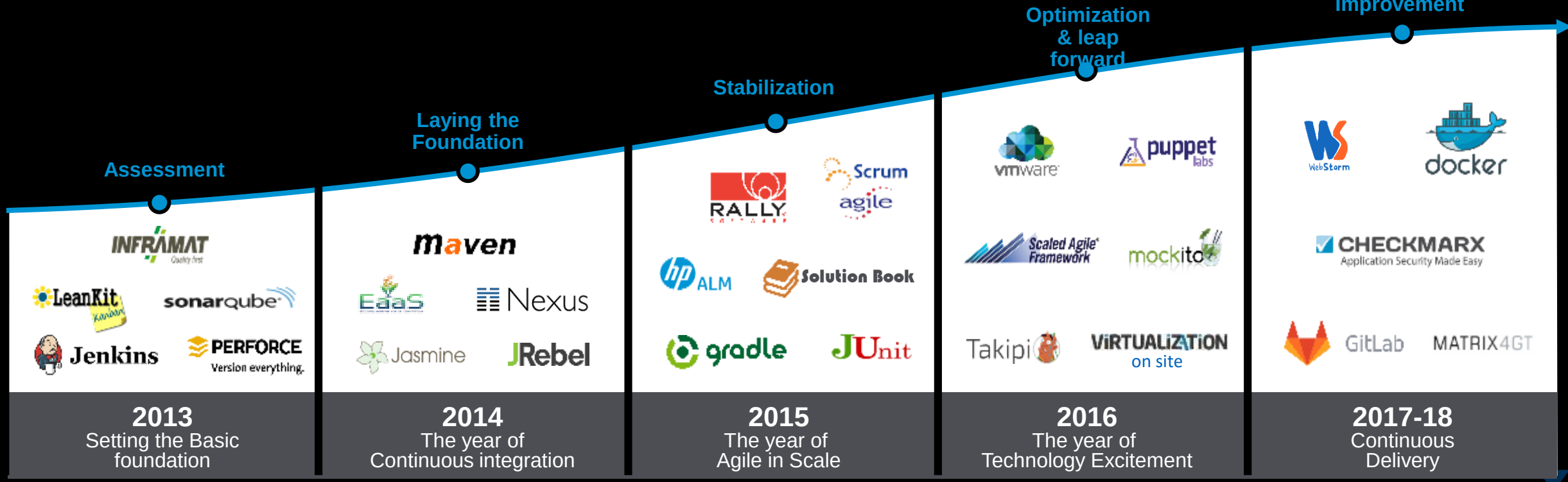
1 Improved Speed to Market

2 Continuous Integration & Delivery

3 Stability

4 Faster & Easier

5 Breaking Down Silos



2013
Setting the Basic foundation

2014
The year of Continuous integration

2015
The year of Agile in Scale

2016
The year of Technology Excitement

2017-18
Continuous Delivery

Information Security Level 2 – Sensitive
© 2016 – Proprietary and Confidential Information of Amdocs

POWERING FEARLESS TRANSFORMATIONS

Questions ?

Thank You

amdocs

embrace challenge
eXperience success®

POWERING FEARLESS
TRANSFORMATIONS