HOW DOES CSC APPLY AGILE PRINCIPLES TO DELIVER NEXT GENERATION IT SERVICES

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2015.04.13

AGILE DEVELOPMENT AS AN OVERALL TERM

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2015.04.13

Agile Manifesto

Manifesto for Agile Software Development

We are uncovering better ways of developing
software by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on
the right, we value the items on the left more.

AGILE DEVELOPMENT
IS A METHODOLOGY

Why do we need agile?

Managing Uncertainty – Origin of Agile

Uncertainty cannot completely be covered at the start, but has to be managed along the way.

Predictive Planning (Plan your Work - Work your Plan).
Requires stable requirements up-front.

Following a Plan — Traditional

- Long wait time before going to market
- 35% of requirements change during the project
- 60 % of the functionalities are never used

Agile — Responding to Change

- Less wait for the delivery
- Team embraces Change.
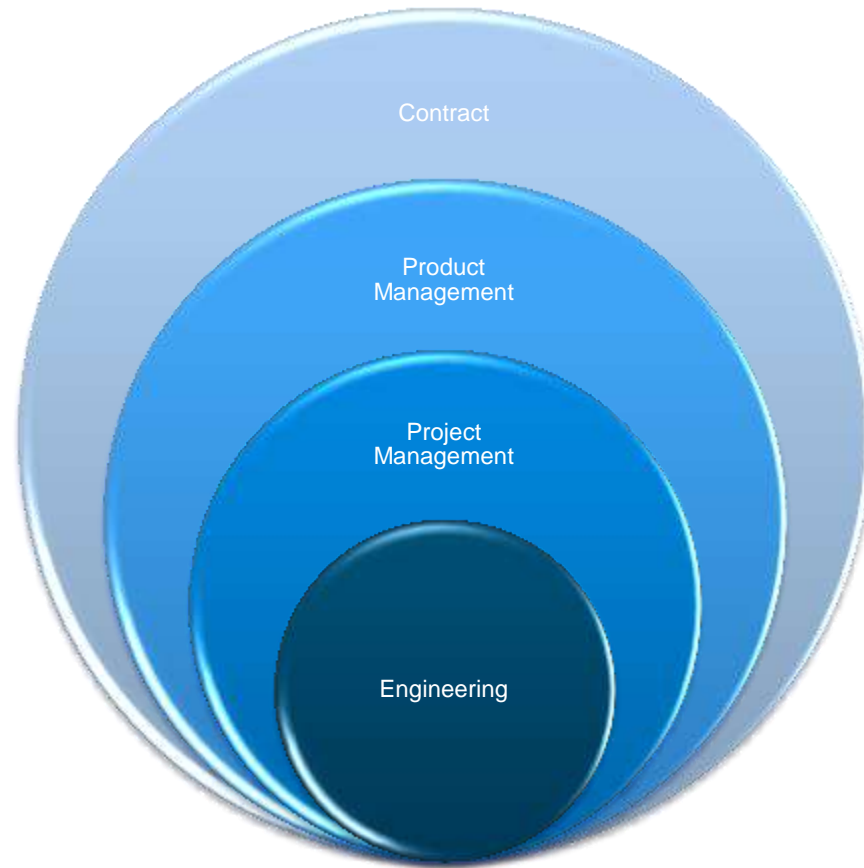- Only high value generating features are developed

Adaptive Planning.
Evolutionary Software Design.
Can cope with unstable requirements.
Software Designed for Change.
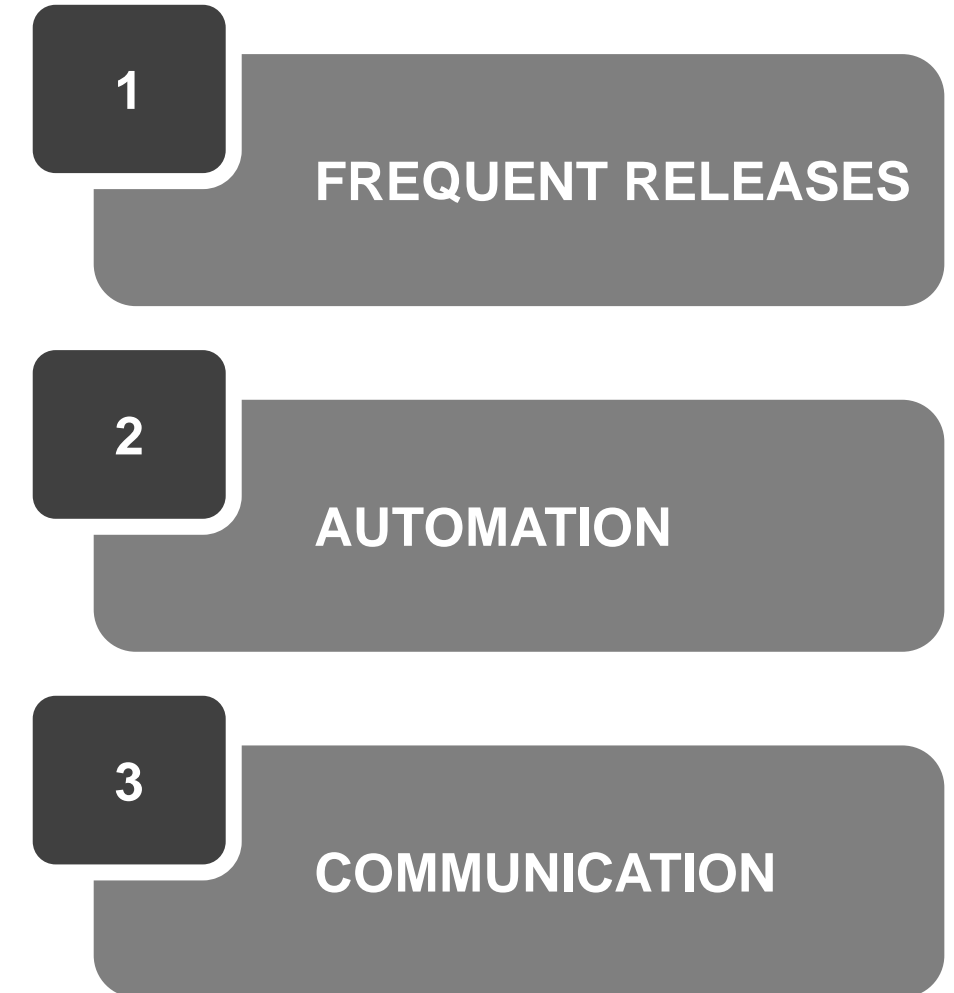Can be more competitive.

To avoid the blame game

What's it means to be agile?

A Layered Agile Approach

- **Agile Engineering**
  - Continual Delivery
  - Test Driven Development
    - Acceptance TDD
    - Internal TDD
  - Design / Refactoring
- **Project Management**
  - Scrum
  - Kanban
  - Scrumban
  - Estimating & Planning
- **Product Management**
  - Client-Oriented Product Ownership
  - Cadence & Synchronization
  - Just-in-Time Requirements
  - User Stories, Visualization, Use Cases
  - Traditional Product Management
- **Contract**
  - Shared Risk
  - Foster Collaboration
  - Optional Scope

Agile Development Highlights

1   FREQUENT RELEASES

2   AUTOMATION

3   COMMUNICATION

The Agile Umbrella

Agile

Scrum
ASD
XP
DevOps
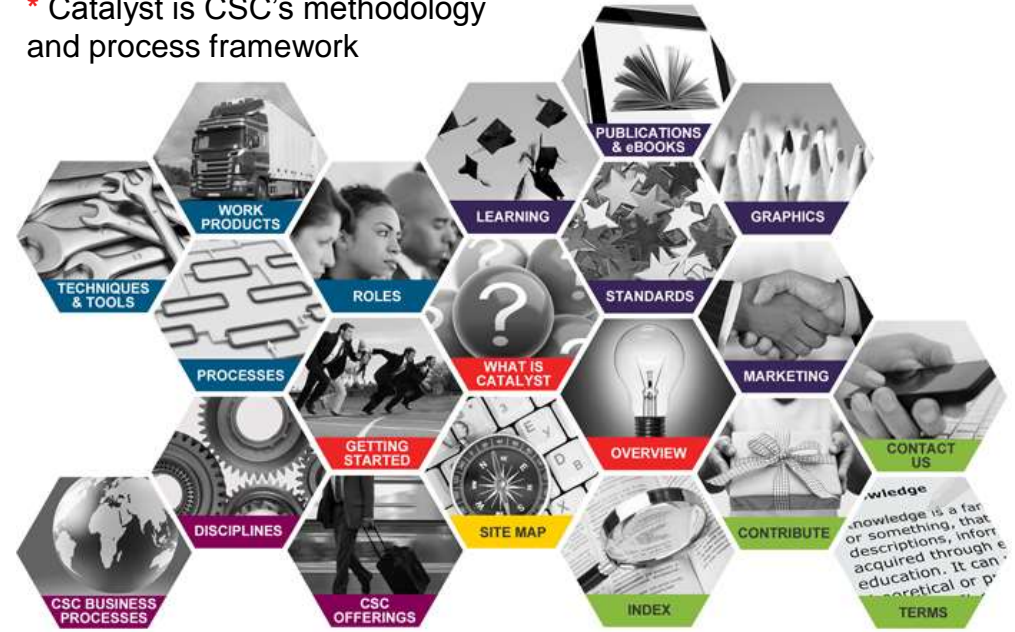Crystal
FDD
Lean
Kanban
DSDM
DAD
RUP
RAD
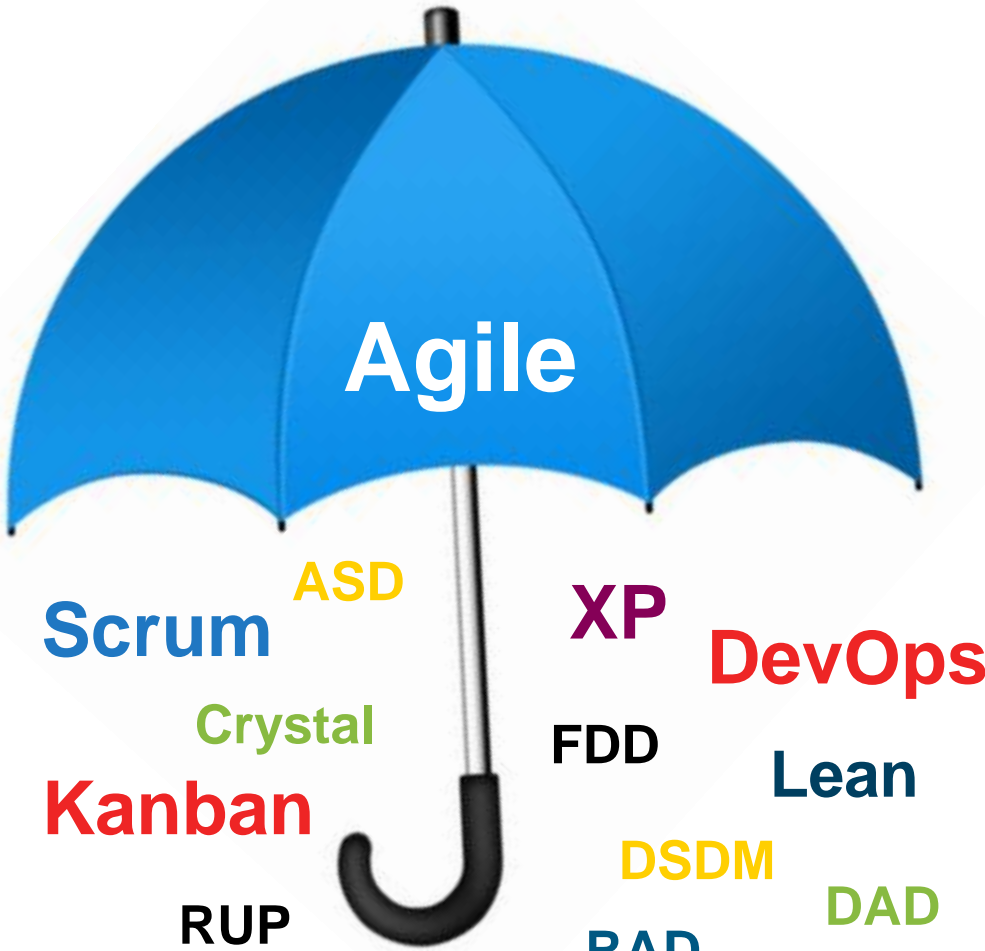
Many different agile methods, each with a slightly different focus.

Most promote teamwork, collaboration, and process adaptability throughout the project life-cycle.

and few more…
… plus all the hybrids…

CSC has embedded Agile in Catalyst*

* Catalyst is CSC's methodology and process framework

Agile Scrum UX
- incorporates user experience elements into the Scrum process.

Applications Agile Scrum
- supports CSC's Global Business Services' Applications organization's Agile Scrum process.

Agile Scrum++
- is a hybrid agile process framework built on top of Scrum, with a focus on architecture and visualization.

OpenUP Lifecycle
- process is published as part of the open-source Eclipse Process Framework as an accompaniment to the EPF Practices Library.
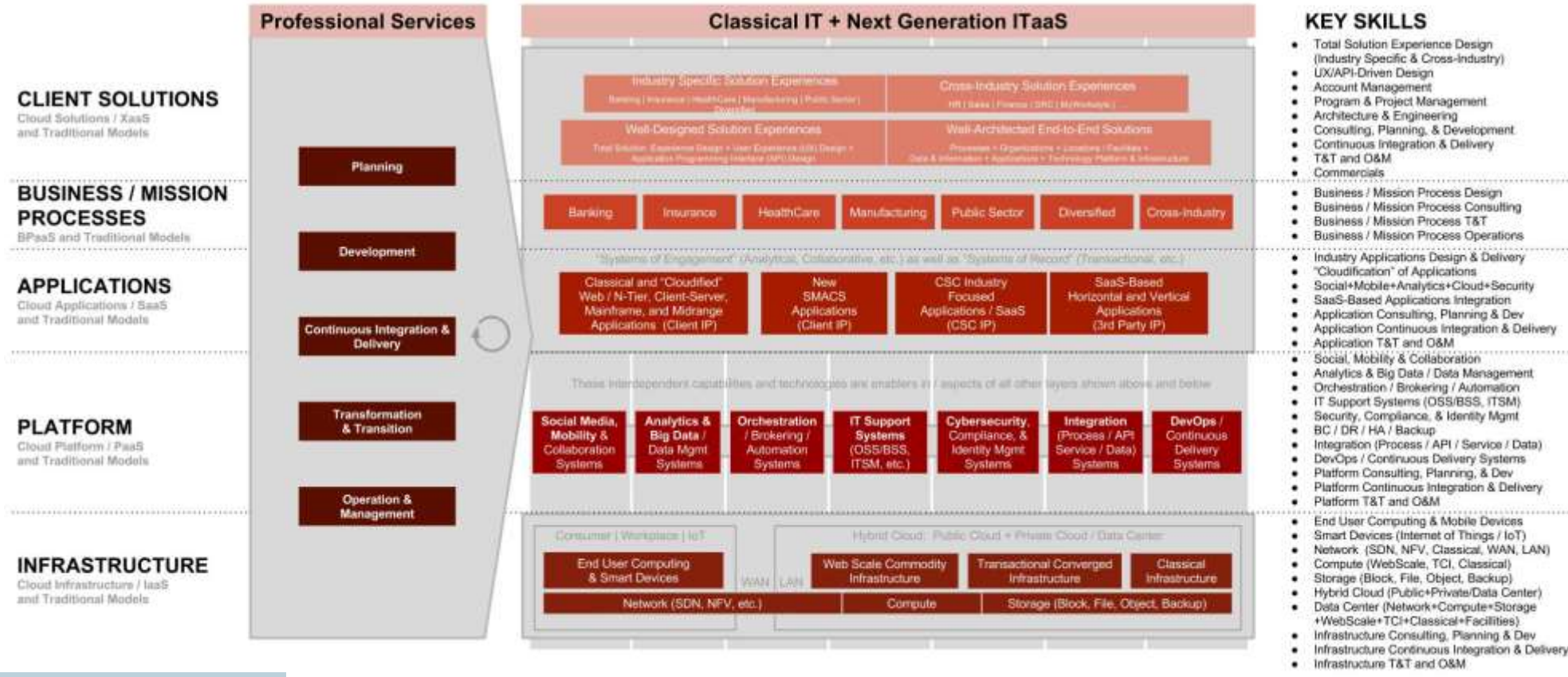
Agile Learning as part of CSC Technology Transformation

Our Focus Areas

Big Data & Analytics

Cybersecurity

Internet of Things

Mobility

Cloud

Social

For more insight take a look at January 27 2015 Technology Transformation Town Hall and CrowdChat:
https://www.youtube.com/watch?v=wps74rvyG-Q
Next talk will take place April 14'th 2015
https://www.youtube.com/watch?v=0_f6fjD5neA

We offer capabilities, products, and services that we combine to create industry relevant client solutions

CLIENT SOLUTIONS
Cloud Solutions / XaaS and Traditional Models

BUSINESS / MISSION PROCESSES
BPaaS and Traditional Models

APPLICATIONS
Cloud Applications / SaaS and Traditional Models

PLATFORM
Cloud Platform / PaaS and Traditional Models

INFRASTRUCTURE
Cloud Infrastructure / IaaS and Traditional Models

Professional Services
- Planning
- Development
- Continuous Integration & Delivery
- Transformation & Transition
- Operation & Management

Classical IT + Next Generation ITaaS

KEY SKILLS
- Total Solution Experience Design (Industry Specific & Cross-Industry)
- UX/API-Driven Design
- Account Management
- Program & Project Management
- Architecture & Engineering
- Consulting, Planning, & Development
- Continuous Integration & Delivery
- T&T and O&M
- Commercials
- Business / Mission Process Design
- Business / Mission Process Consulting
- Business / Mission Process T&T
- Business / Mission Process Operations
- Industry Applications Design & Delivery
- "Cloudification" of Applications
- Social+Mobile+Analytics+Cloud+Security
- SaaS-Based Applications Integration
- Application Consulting, Planning & Dev
- Application Continuous Integration & Delivery
- Application T&T and O&M
- Social, Mobility & Collaboration
- Analytics & Big Data / Data Management
- Orchestration / Brokering / Automation
- IT Support Systems (OSS/BSS, ITSM)
- Security, Compliance, & Identity Mgmt
- BC / DR / HA / Backup
- Integration (Process / API / Service / Data)
- DevOps / Continuous Delivery Systems
- Platform Consulting, Planning, & Dev
- Platform Continuous Integration & Delivery
- Platform T&T and O&M
- End User Computing & Mobile Devices
- Smart Devices (Internet of Things / IoT)
- Network (SDN, NFV, Classical, WAN, LAN)
- Compute (WebScale, TCI, Classical)
- Storage (Block, File, Object, Backup)
- Hybrid Cloud (Public+Private/Data Center)
- Data Center (Network+Compute+Storage +WebScale+TCI+Classical+Facilities)
- Infrastructure Consulting, Planning & Dev
- Infrastructure Continuous Integration & Delivery
- Infrastructure T&T and O&M

App Strategy to enable Agile Learning

CSC FORWARD TOGETHER   CSC MyLaunch   CSC GO TO MARKET   CSC FINANCE HUB   …

CSC Utilizes Big Data Analytics to provide Agile Learning

CSC has built its own Big Data Analytics Solution

Invent
C³
FutureTense
Predictive Modeling Lab
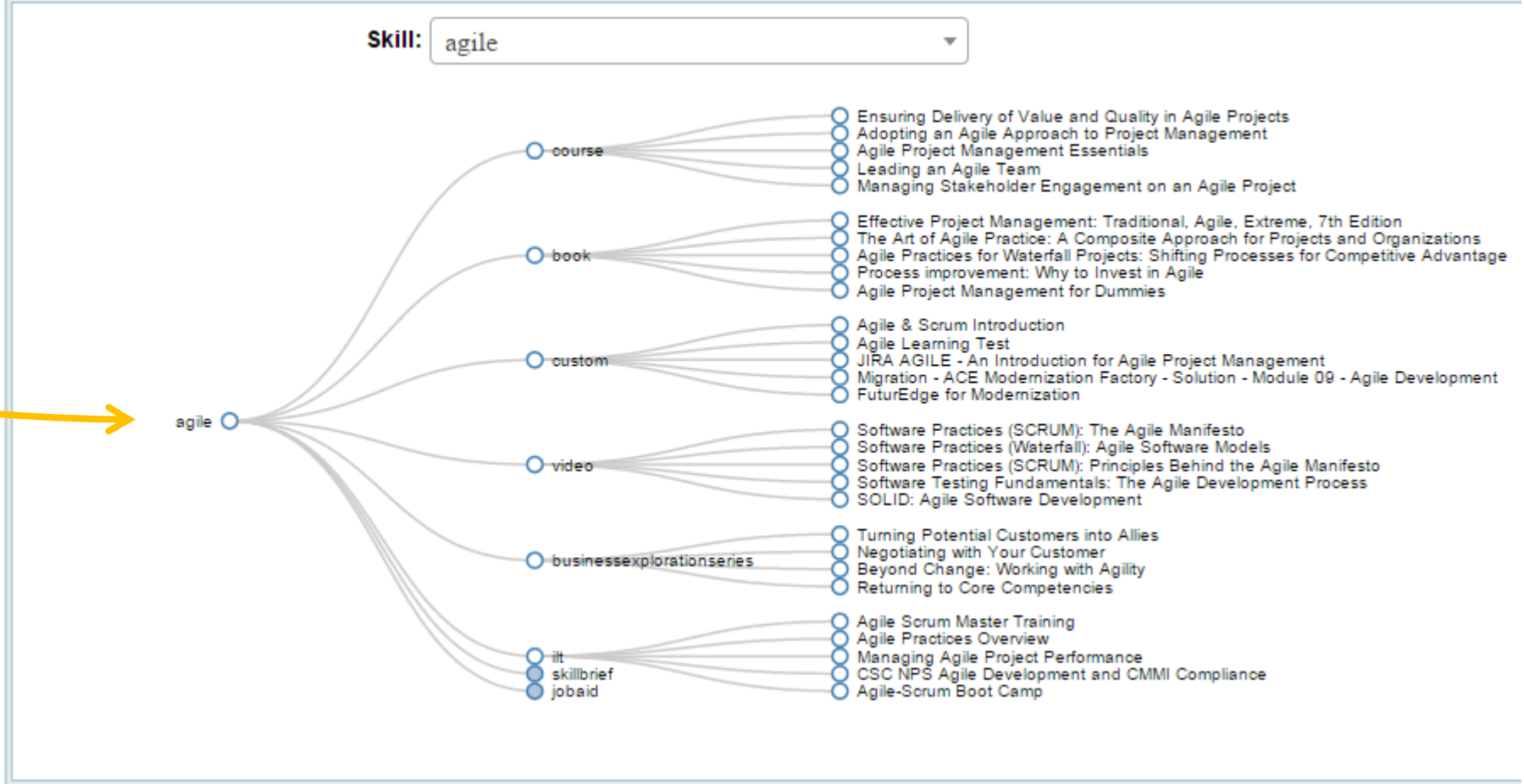
For more insight take a look at CSC TechTalk Soundbites:
Using Analytics to Guide Skills Development Planning and Enhance Our HR Systems
https://www.youtube.com/watch?v=KIVrZxrGh4c

Skill Importance by IT Domain: A bar chart of skills priorities by IT domain.

CSC University Learning Resources by Skill: Click on an asset type to find resources

Skill: agile

course
- Ensuring Delivery of Value and Quality in Agile Projects
- Adopting an Agile Approach to Project Management
- Agile Project Management Essentials
- Leading an Agile Team
- Managing Stakeholder Engagement on an Agile Project

book
- Effective Project Management: Traditional, Agile, Extreme, 7th Edition
- The Art of Agile Practice: A Composite Approach for Projects and Organizations
- Agile Practices for Waterfall Projects: Shifting Processes for Competitive Advantage
- Process improvement: Why to Invest in Agile
- Agile Project Management for Dummies

custom
- Agile & Scrum Introduction
- Agile Learning Test
- JIRA AGILE - An Introduction for Agile Project Management
- Migration - ACE Modernization Factory - Solution - Module 09 - Agile Development
- FuturEdge for Modernization

video
- Software Practices (SCRUM): The Agile Manifesto
- Software Practices (Waterfall): Agile Software Models
- Software Practices (SCRUM): Principles Behind the Agile Manifesto
- Software Testing Fundamentals: The Agile Development Process
- SOLID: Agile Software Development

businessexplorationseries
- Turning Potential Customers into Allies
- Negotiating with Your Customer
- Beyond Change: Working with Agility
- Returning to Core Competencies

ilt
skillbrief
jobaid
- Agile Scrum Master Training
- Agile Practices Overview
- Managing Agile Project Performance
- CSC NPS Agile Development and CMMI Compliance
- Agile-Scrum Boot Camp

Our Messages

- **CSC**
  - Faster Feedback on Ideas
  - More effective communication
  - Development never stops
- **Client**
  - Integrated into the process (elaborate on what the client put forward)
  - Decisions are not dangerous
  - Demands more
- **Generel**
  - Better products
  - More happy people
- **Learning**
  - People can more easy fit learning into busy schedule
  - Just in time learning creates better results due to close links to practicing new skills
  - Focused learning through CSC Future Tense (Big Data Analytics) and Individual Development Plans

To learn more you can read the CSC Paper *The Performance of Agile Methods: Comparison to Traditional Development Methods.*
http://www.csc.com/innovation/insights/109353-the_performance_of_agile_methods_comparison_to_traditional_development_methods

Other CSC Papers from 2014 are available here
http://www.csc.com/innovation/flx/108753-2014_csc_papers_winners

Thank You

DEVOPS, AGILE DEVELOPMENT AND OPERATIONS

Claus Ljunggren
CSC Solution Architect
2015.04.13

What is Operations?

WALL OF CONFUSION

Dev

Ops
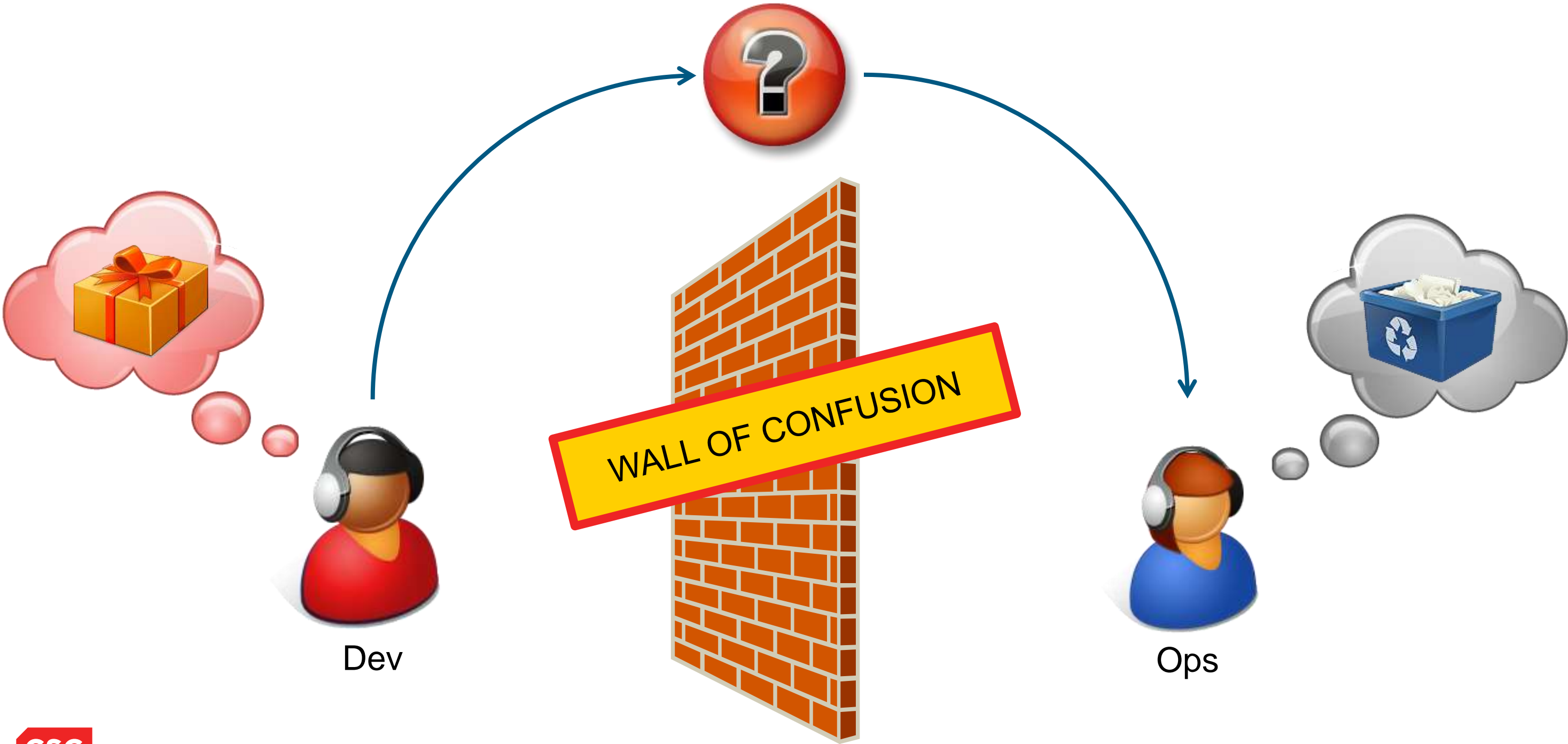
@DEVOPS_BORAT

Confuse of Dev or Ops? Simple rule: if you are praise for Web site success, you are Dev; if you are blame when Web site down, you are Ops.

BuzzWord
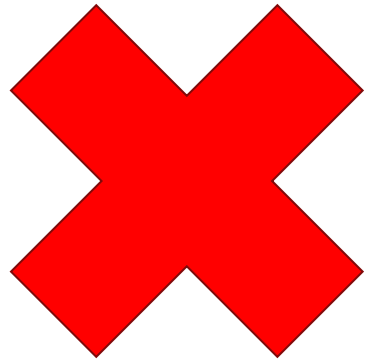
DevOps is NOT a tool!
DevOps is NOT a role!
DevOps is not Dev and Ops!
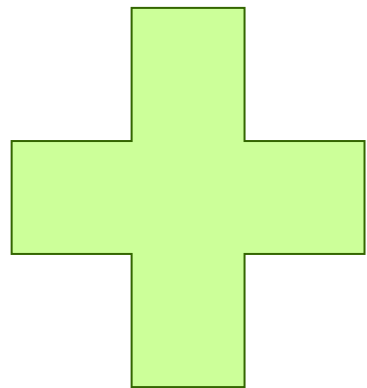
Portmanteau of "Development" + "Operations"
Culturel And Professional Movement
*Dev*Ops*

What is DevOps?

Culture

No traditional development/operations silos, promotes communication between everyone involved in delivering applications, and emphasizes constant process and product improvement.

Automation

Automation is key. Treating infrastructure as code (using tools like Chef, Windows PowerShell® DSC, StatsD/Graphite, logstash, and Github) helps make operations a seamless fabric.

Measurement

Continuously monitoring applications and environments iteratively improves code and processes. Constant improvement is central to DevOps, and you can't improve what you can't measure.
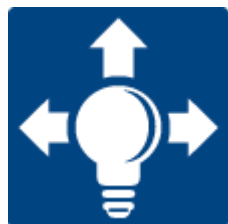
Sharing

Combining siloed teams helps eliminate the pursuit of different, —and often conflicting—goals and metrics. Sharing ideas and improvements, creates a vital feedback loop for the entire app delivery process.

Application of DevOps Principles

Increased collaboration across competence areas, e.g. Business, Development, Integration, Test and Operations.

Increased automation, less errors, more time for value-adding activities.

Increased frequence in deployment of software services.

Increased quality of the deployed solutions and faster releases of new versions.

plan › code › build › test › release › deploy › operate

DevOps

Continuous Delivery

Continuous Integration

Agile Development

value

collaboration

Time to Market

Cost

Quality
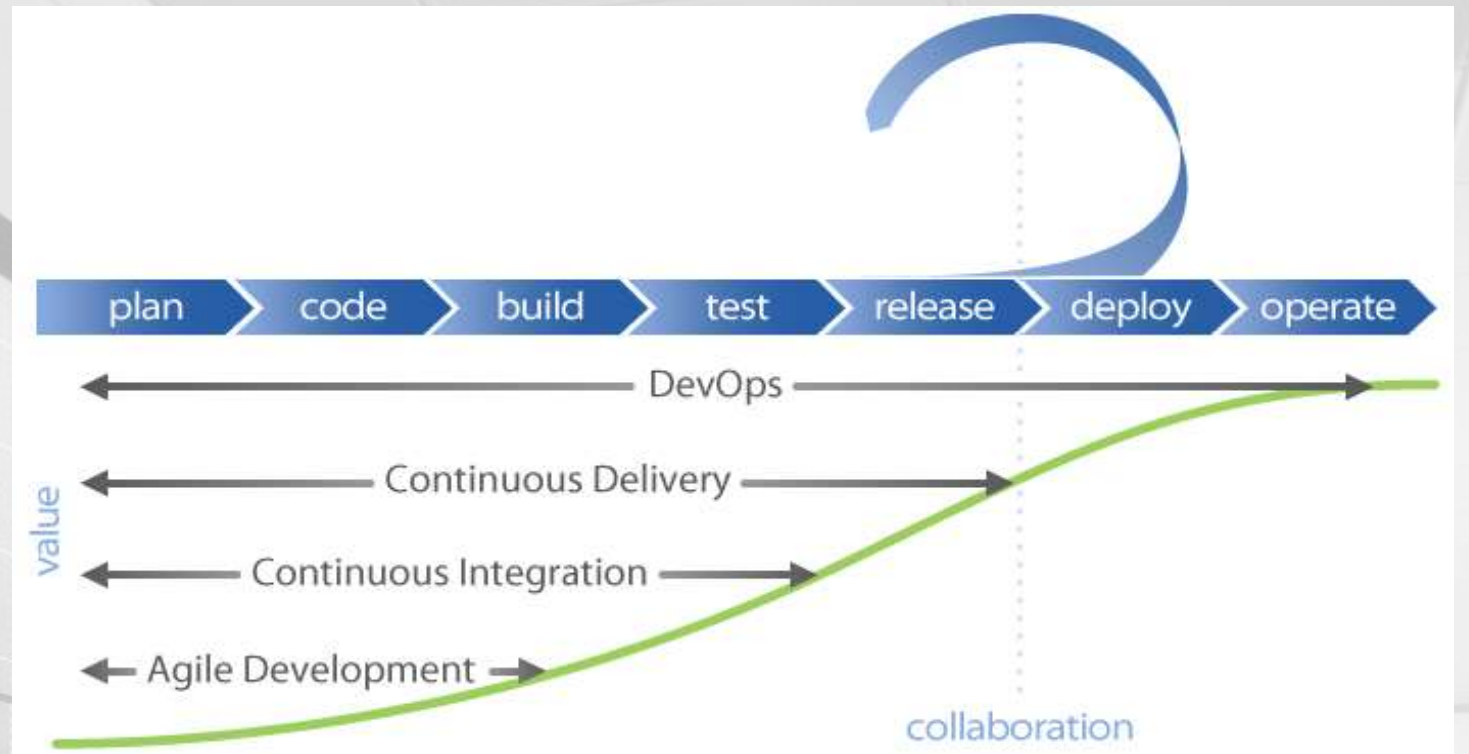
Automation

- **Reasons for Automation**
  - Speed
  - Reliability
  - Security

- **What to automate**
  - Everything ☺
  - Infrastructure
  - Build + Deploy
  - Test
  - Documentation

Automation - Infrastructure

The servers in today's data center are like puppies – they've got names and when they get sick, everything grinds to a halt while you nurse them back to health. Servers must be managed like cattle – you number them, and when they get sick and you have to shoot them in the head, the herd can keep moving.

It takes a family of three to care for a single puppy, but a few cowboys can drive tens of thousands of cows over great distances, all while drinking whiskey.

– Joshua McKenty (Adapted from a quote from Bill Baker, Distinguished Engineer @ Microsoft)

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Automation - Infrastructure

**A SINGLE, INTEGRATED PLATFORM FOR HYBRID CLOUD LIFECYCLE MANAGEMENT**

- Application-centric cloud management
- Extensible policy-driven governance
- Application release automation
- End-to-end security model
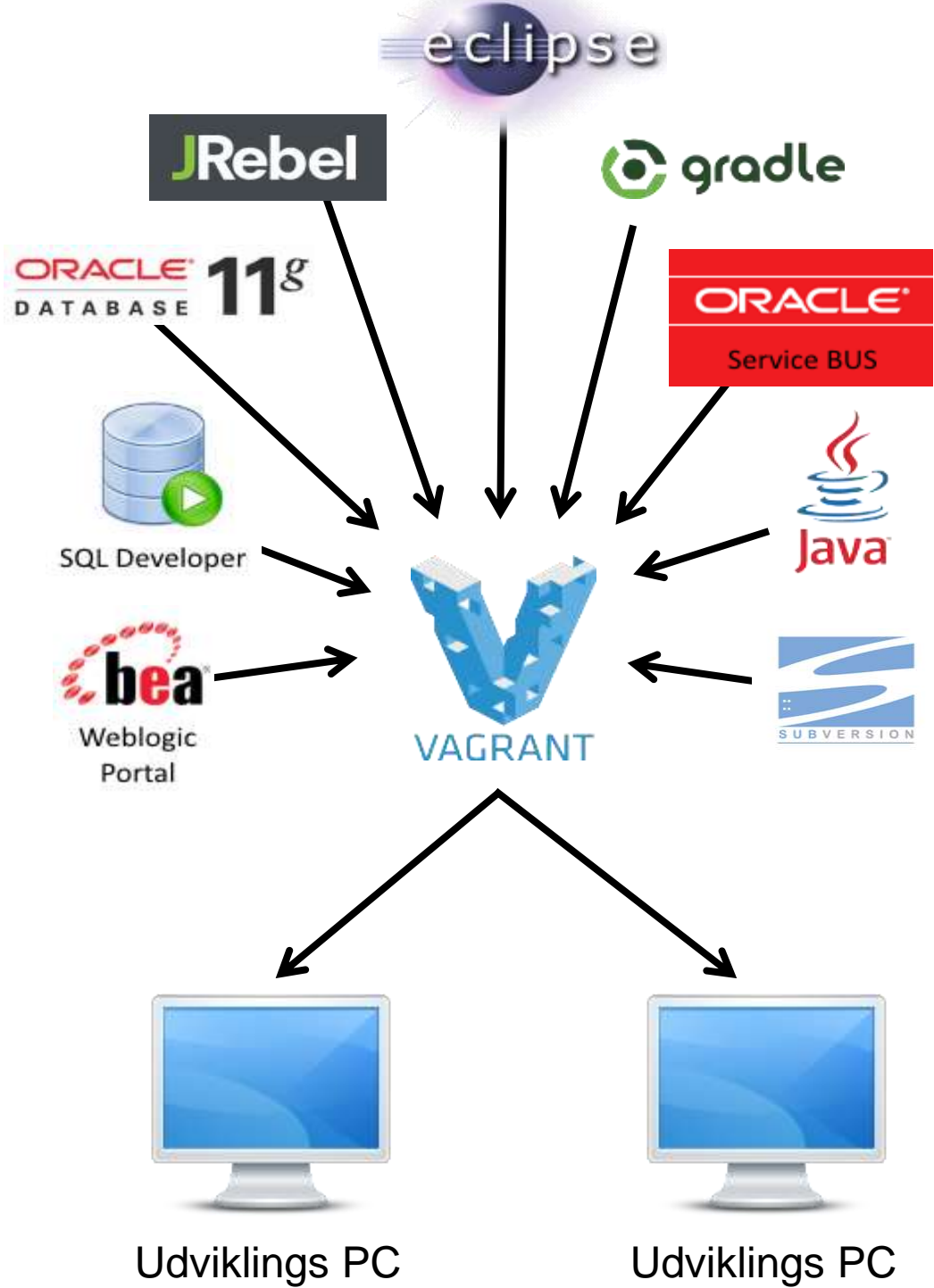- Self-service store
- Enterprise scalability
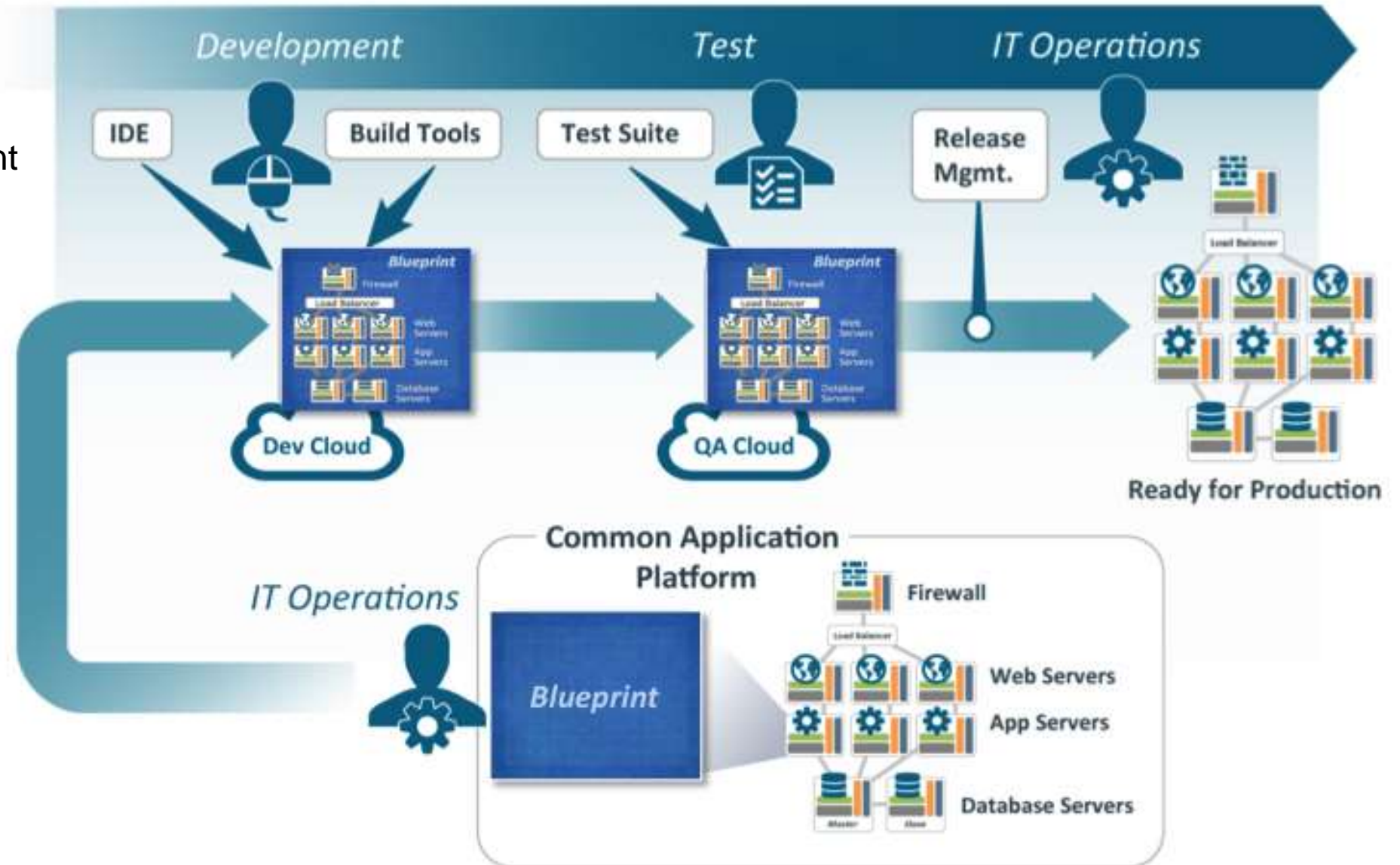
Practical Examples
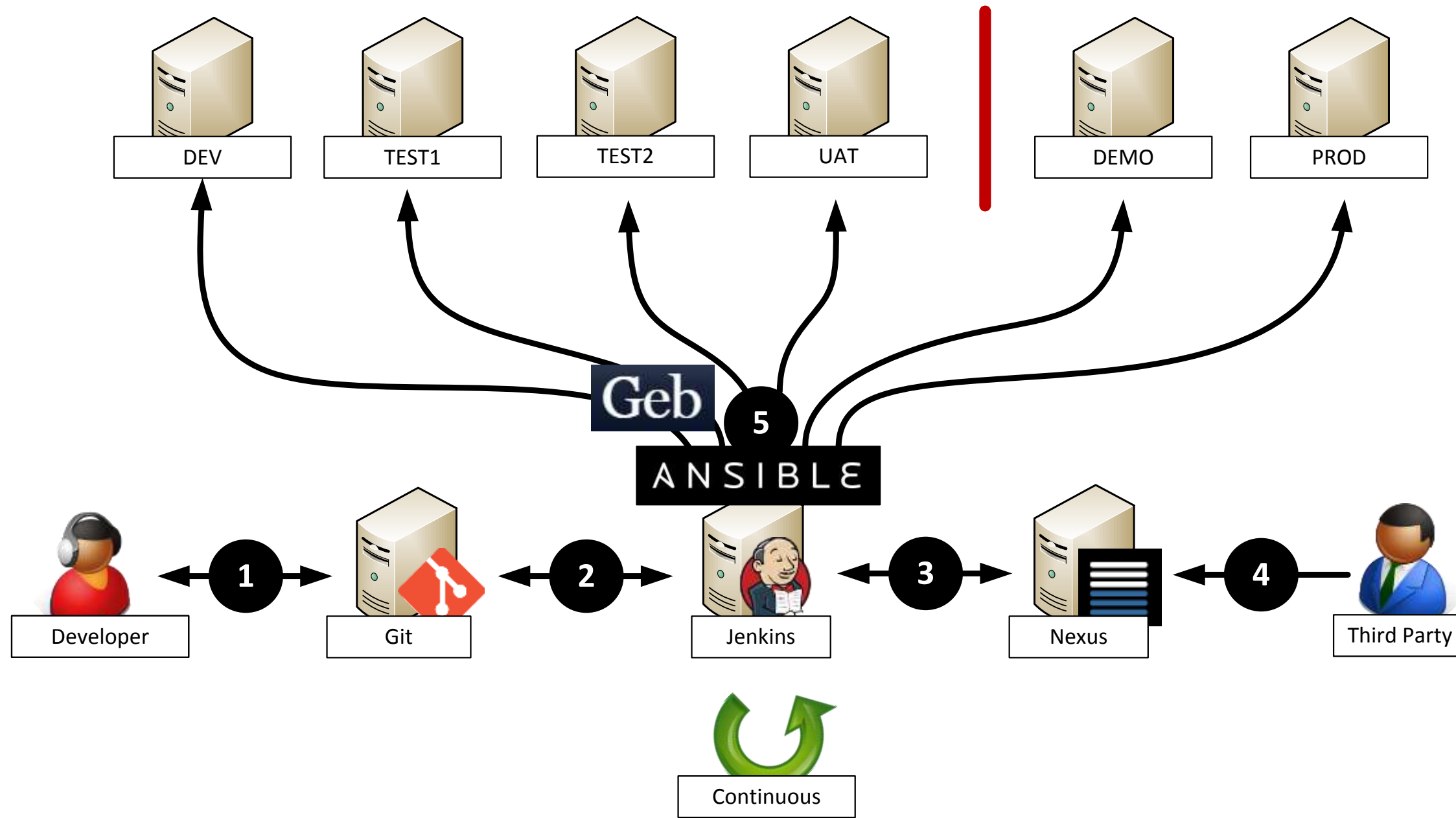
Practical Examples – Public Sector

Practical Examples – Public Sector

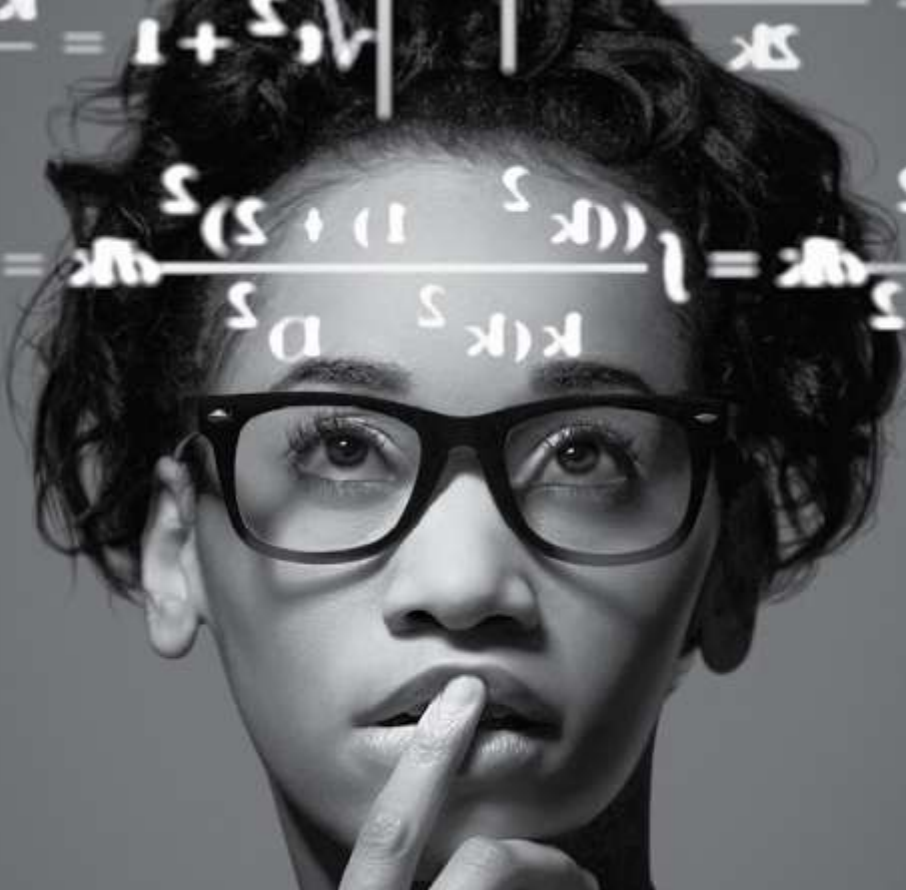Udviklings PC   Udviklings PC
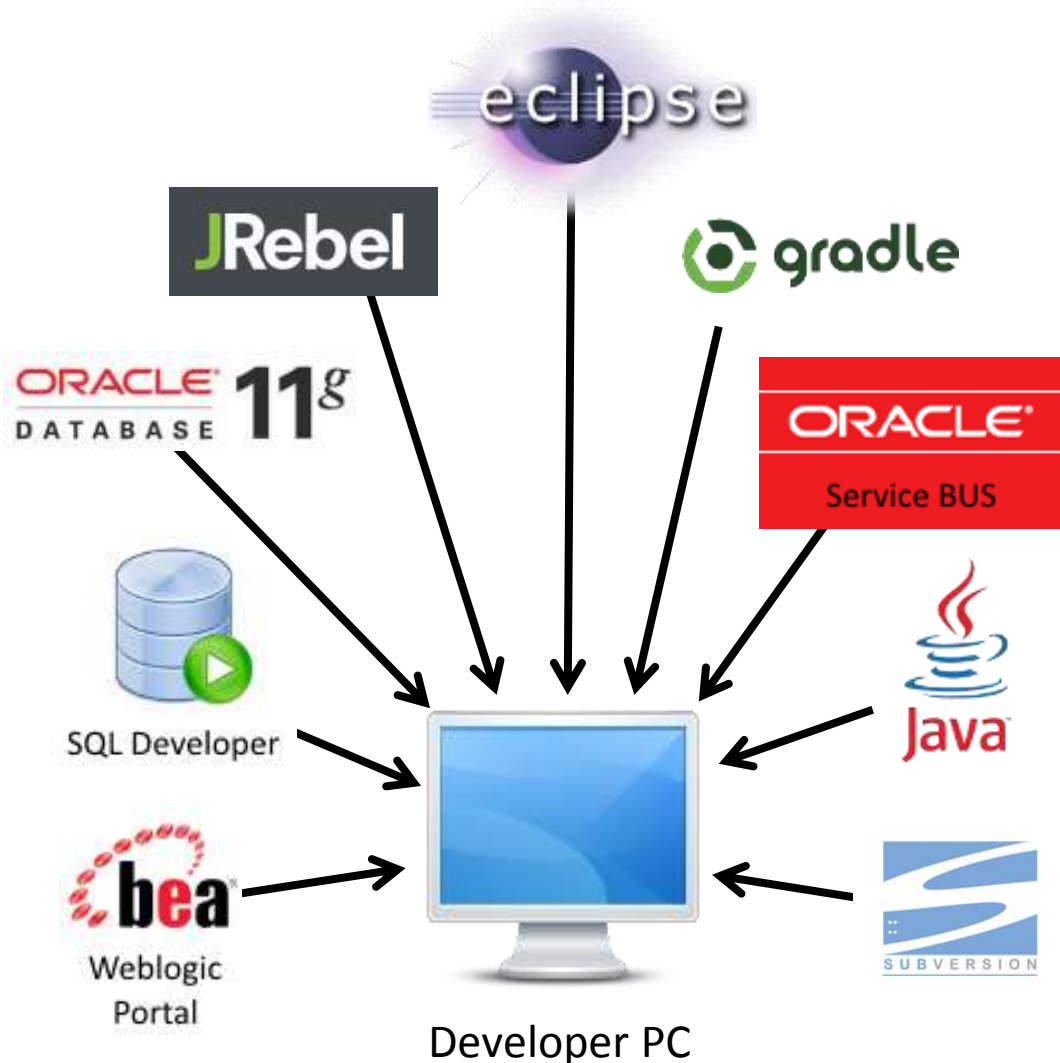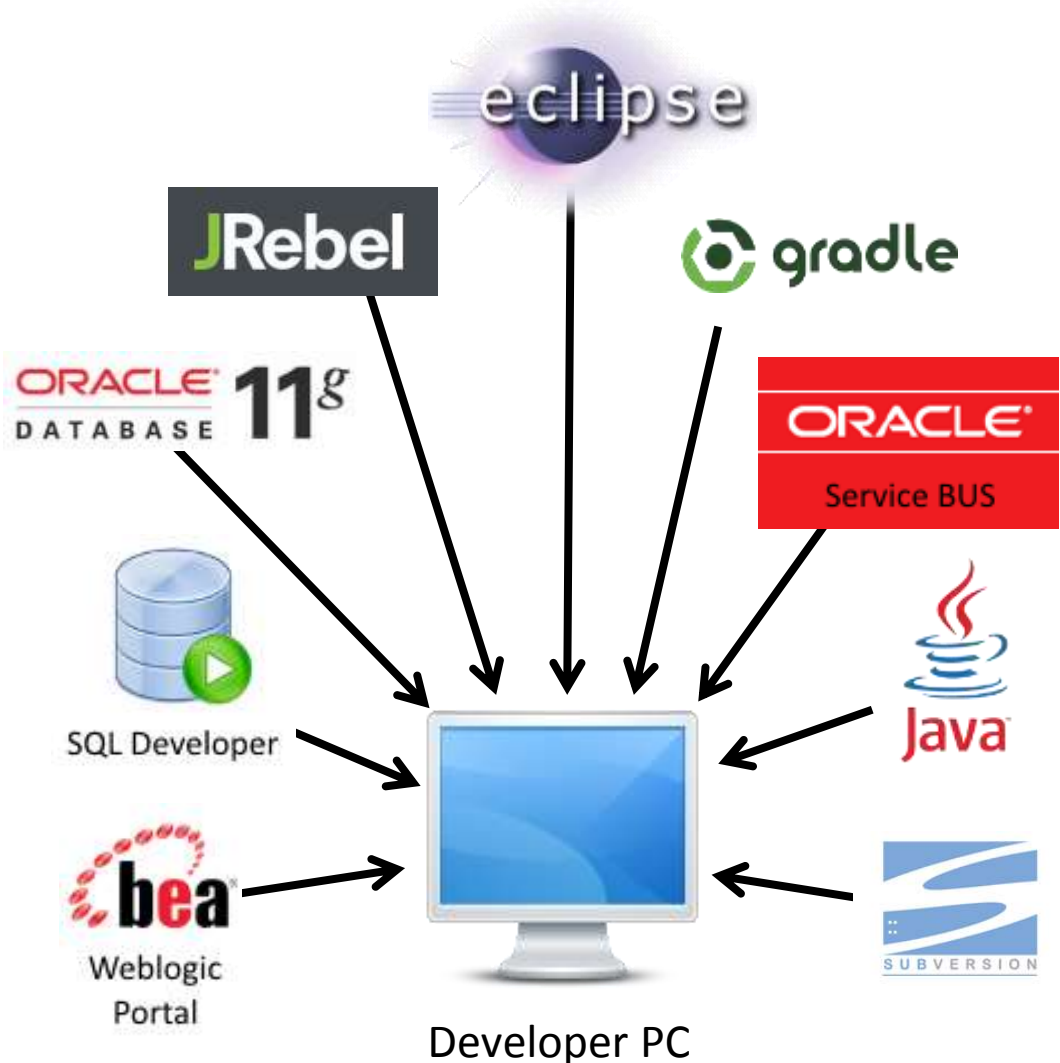
CSC NORDIC GRADUATE PROGRAM

Svitlana Tsiukh
Junior Manager
2015.04.03

GROW IN AMAZING WAYS

CSC

- 2-year program
- Mentoring and individual training & development
- A flexible structure with an individual approach
  Allows for adaptations during the program to support training and desire for future career
- Rotations - depending on qualifications and goals you might get the chance to rotate to further strengthen your profile
- Positions offered in 7 different tracks - business and technical profiles needed;
  Account Delivery Management | Finance | Sales | Project Management |
  Application Delivery | Application Design & Analysis | Infrastructure Delivery

Who are we looking for?

- You have *recently* have completed college/university or postgraduate studies in business, management, computer science or similar with outstanding grades.
- You have work experience from your studies.
- You are fluent in English and preferable one/or more of the Scandinavian languages.

Positions in

- *Denmark*
- *Norway*
- *Sweden*
- *Lithuania*

APPLY BY 21 APRIL 2015

CSC's Graduate Program starts 1 September 2015. Read more about the program and find out how to apply on www.csc.com/talent

CSC

BUSINESS SOLUTIONS

TECHNOLOGY

OUTSOURCING