

# PTC® Live Global

## CUST 105 - One PLM

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Architect

**Saketh Mathur**

Administrator

June 8<sup>th</sup> 2015



PTC® Live  
Global

Who Are We

# Boston Scientific

Advancing science for life™

## MISSION:

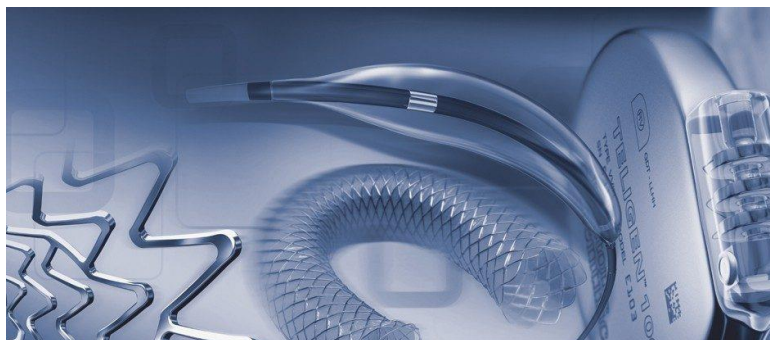
Boston Scientific is dedicated to transforming lives through innovative medical solutions that improve the health of patients around the world.

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## About Us

35 years of innovative solutions for patients and physicians

- Our journey of innovation began in 1979
- A World Wide Business
- HQ in Massachusetts
- 11 Medical Specialties
- 16+ Health Conditions
- 70+ Product Categories
- 25,000+ Employees
- \$8+ Billion in Sales



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## Our Journey Began

## Our Journey ....

Started with an Aging PLM Solution needing a Replacement

- Athena Document management System
- PTC Windchill 8 / 9
- 10+ Years Old Un-supported platform
- 17000+ Demanding Users
- 3+ TB of Metadata
- 17+ TB of Documents Pushing Storage to its Limit
- Multiple PLM Vendor Choices
- Many Technology Choices





# UNIFIED ONE PLM

A SINGLE SOURCE OF TRUTH

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## CHANGE IS

HARD AT THE BEGINNING  
MESSY IN THE MIDDLE  
GORGEOUS AT THE END



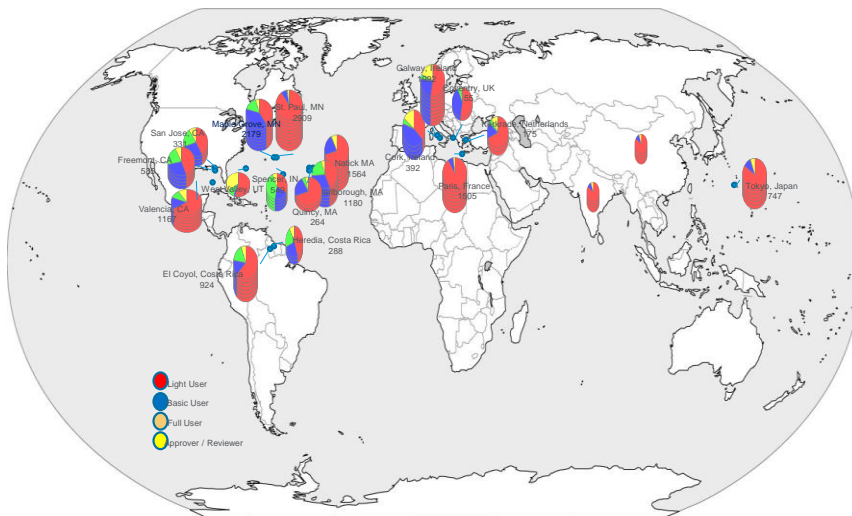
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Windchill 10.2. M30 CPS 03	
PDMLink	Platform Structures
ProjectLink	Nonconformance
PTC Creo View – Clients	Customer Experience Management
MPMLink	Info Engine
Information Modeler	CAPA
Common Base	UDI
Quality Management System	Windchill Bulk Migrator 4.0-M020

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Our Reach

World wide....



17000+ Users....

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## Our Team

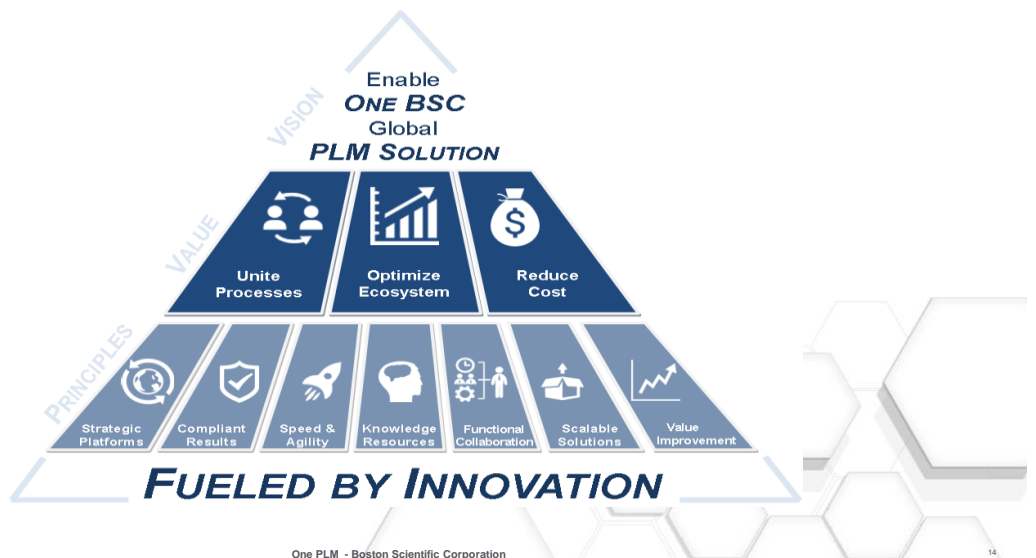
## Project Work streams

Right SMEs at Right time



## Our PLM CoE

## PLM CoE Strategy



# PLM Business Strategy Influences

Unified Product Lifecycle Management with a single ecosystem at the lowest cost to BSC



# PLM CoE Platform Capabilities & Services

Activity	Unified PLM	Connect PLM	Other PLM
Project Intake	Y	Y	Y
Acquisition Assessment and Solution Definition	Y	Y	Y
Vendor Management	Y	Y	N
CoE Release Planning	Y	Y	N
Platform Upgrade Roadmap	Y	Y	N
Functional Review Board (FRB)	Y	Y	P
Cross Program Risk & Issue Management	Y	Y	Y
Environment Planning and Management	Y	P	P
High Level Design	Y	Y	P
Solution and Data Architecture Alignment	Y	Y	P
Code Review	Y	P	N
Customization Review	Y	Y	N
Build and Deploy Planning and Execution	Y	N	N

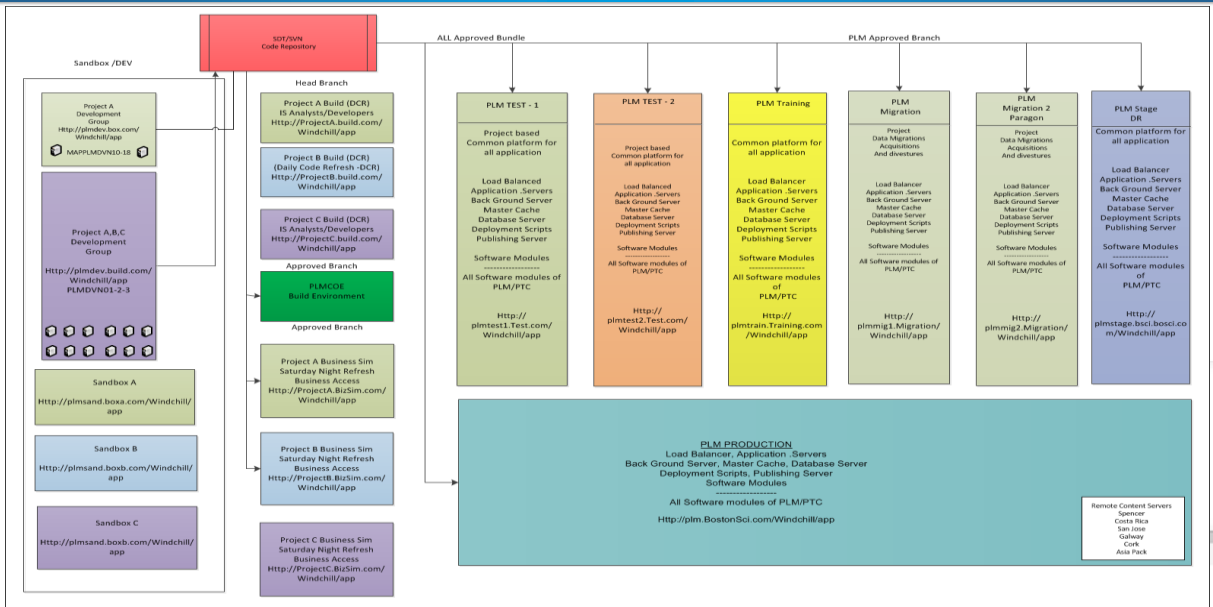
Y - In Scope, N - Not in Scope, P - Partially in Scope





# Our Architecture

## Architecture Overview

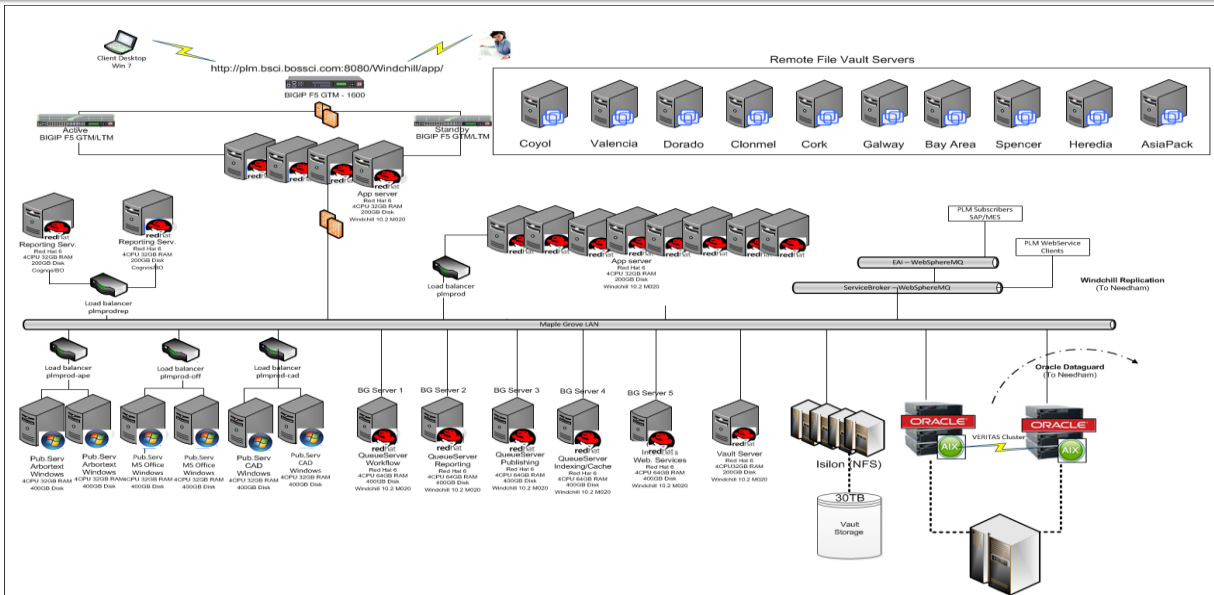


TO WORK TOGETHER



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## Production Environment



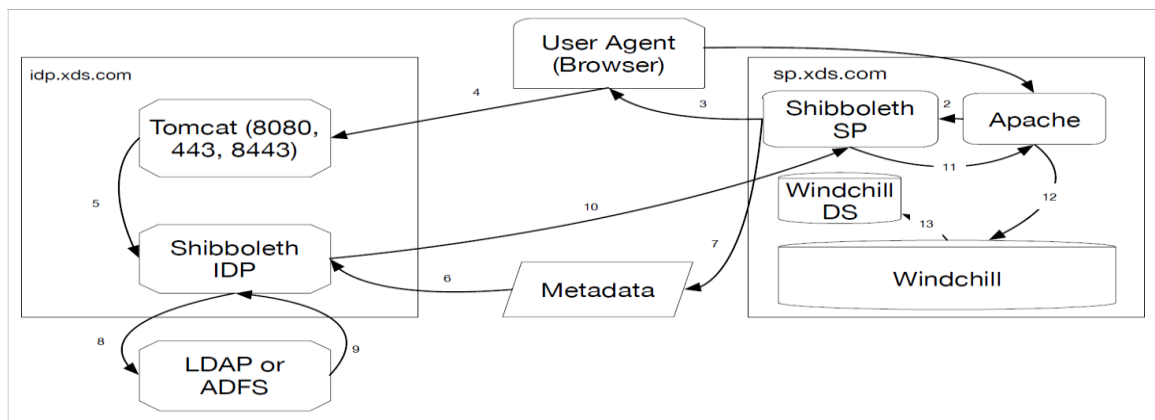
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- Application Performance Tools
- Single Sign on
- Load Balanced
- Application Cluster
- Publishing
- BGMS
- Remote Vaulting
- Cognos Reporting
- High Availability Database
- Disaster Recovery



SSO

Single Sign-on



Shibboleth.



SECUREAUTH



- External Users / Internal Users
  - » User Principle Name
  - » Service Principle Name



## F5 Load Balancer in Use

**Edit listeners**

The following listeners are currently configured for this load balancer:

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port	Cipher	SSL
HTTPS (Secure HTTP) ▼	443	HTTPS (Secure HTTP) ▼	443	Change	upnd

**Add**

**Edit stickiness** [X]

Disable stickiness

Enable Load Balancer Generated Cookie Stickiness

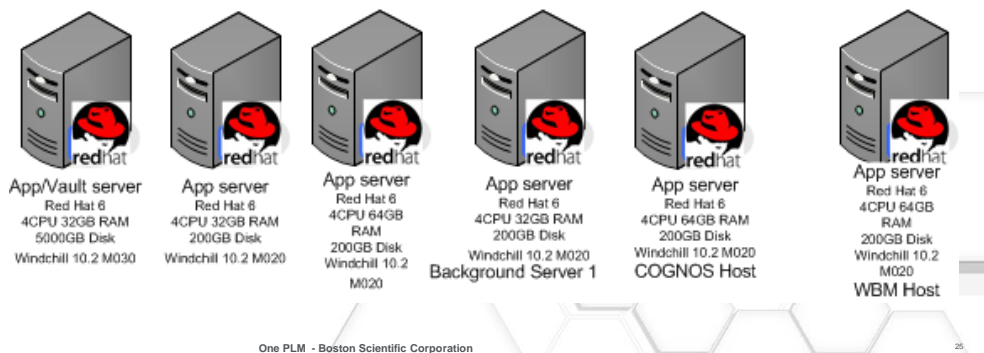
Enable Application Generated Cookie Stickiness

Expiration Period:  seconds  
Leave blank to disable cookie expiration

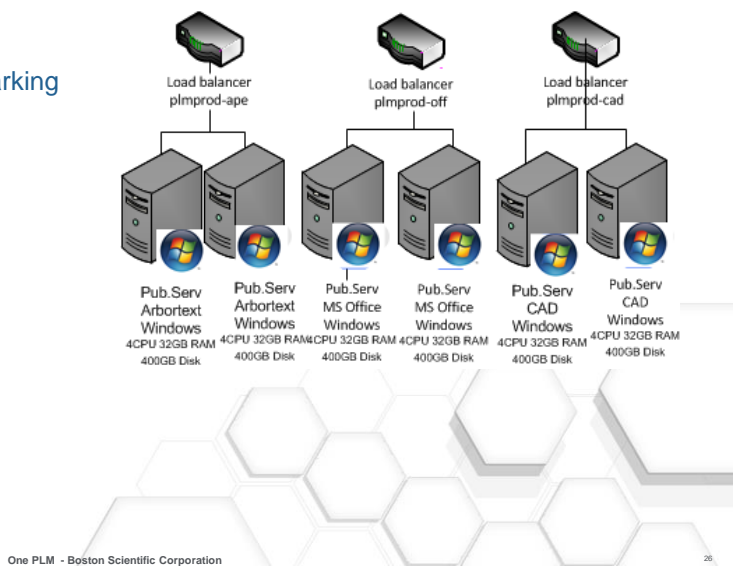
**Cancel** **Save**



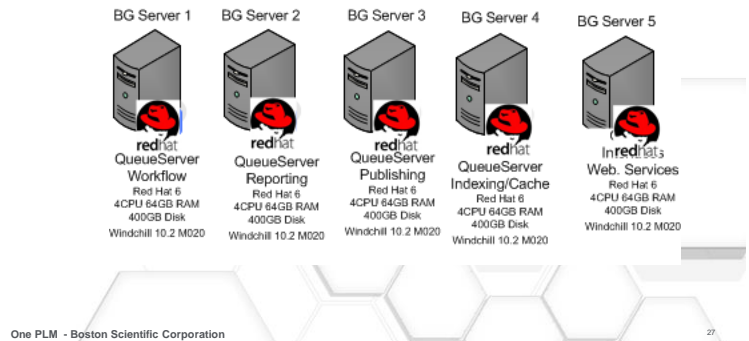
- Identical Node Cluster



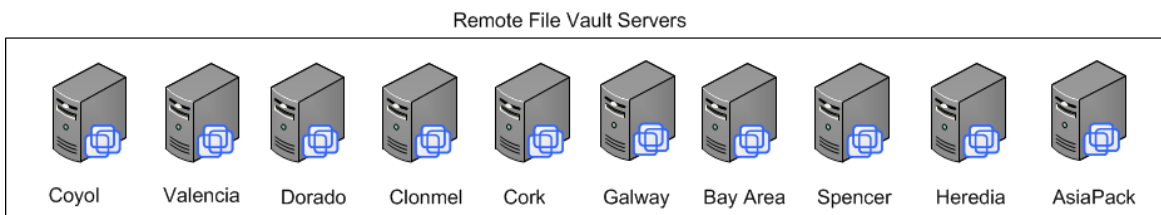
- Dedicated Office Publishing Servers
- Adobe LiveCycle Software for Watermarking
- Dedicated CAD Publishing Servers



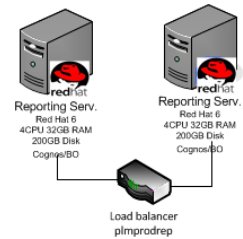
- Dedicated Processing Power
- Enhancing End user Experience in Queue Process
- Custom Report Queues to Offload heavy Reports



- Remote Vaults to Enhance End user Experience in
  - Check-in/Check-out
  - Download Content
  - Revaluating rules to synch



- Cognos Enables a Better UI for Users
- Dedicated Cognos Host
- Shared File Mount
- Cognos Gateway on ALL Windchill Cluster Nodes



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- Oracle 11g Database
- A Cluster Database Hosts for High Availability
- Veritas Clustering Software For Active/Passive Cluster
- EMC Data Domain for Backup and Recovery
- RMAN Backup Solution for better Up-Time



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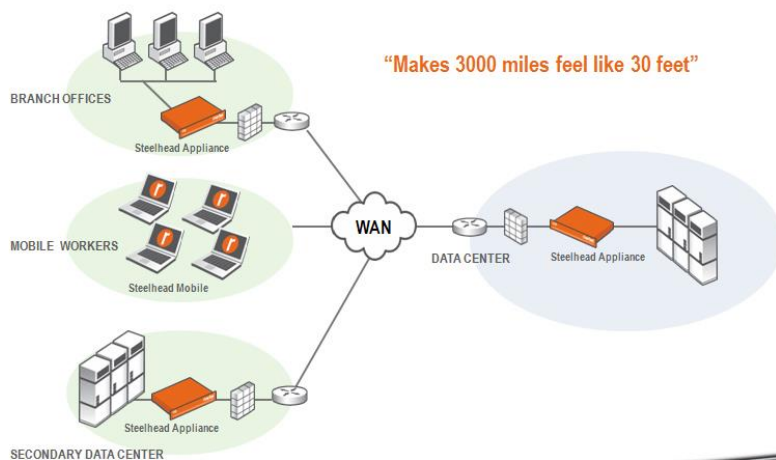
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- Separate Disaster Recovery Environment
- Sized to Support Production Volume
- DR Hardware is Designed to use for Staging for a Better Value
- LDAP on DR is replicated real-time
- Database replication using Oracle Data Guard
- 12 Hour Lag to Synch Data to minimize errors
- Real-time Vault Synchronization

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## Riverbed Solution

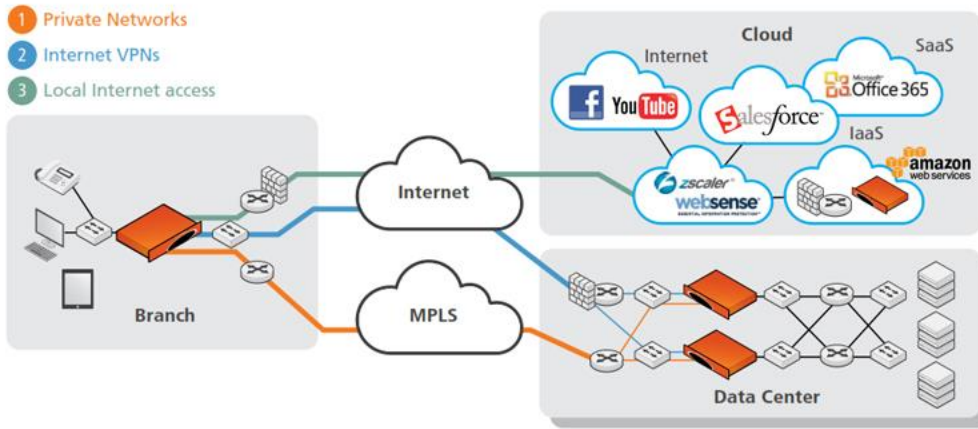


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## Riverbed Solution



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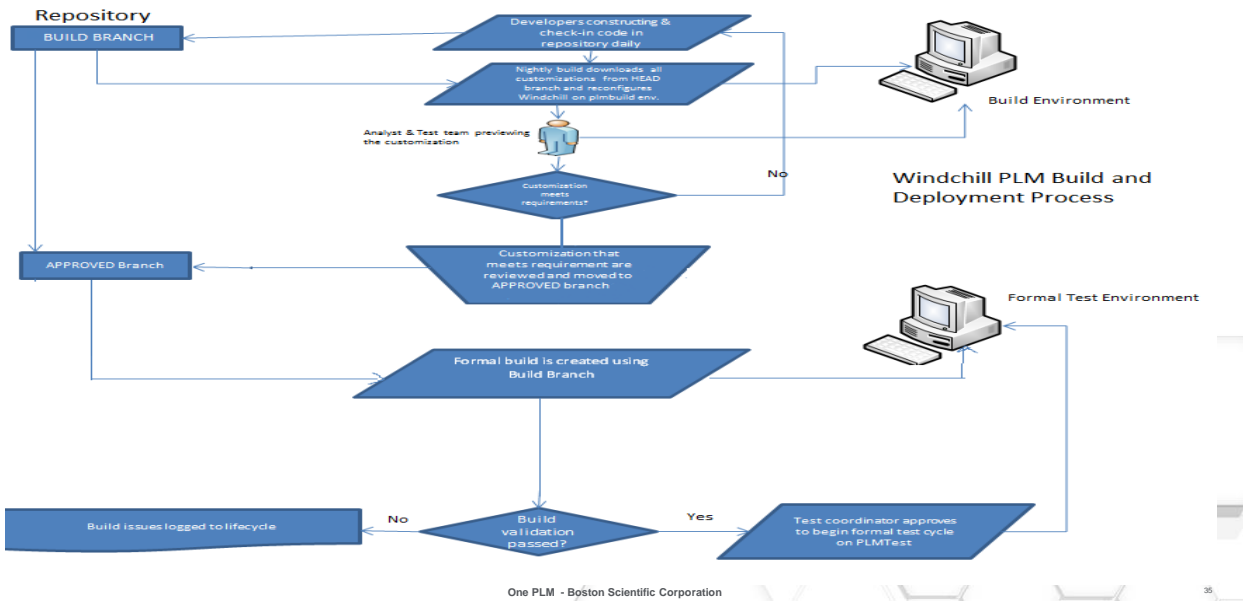
## Our Release Management

Saketh Mathur

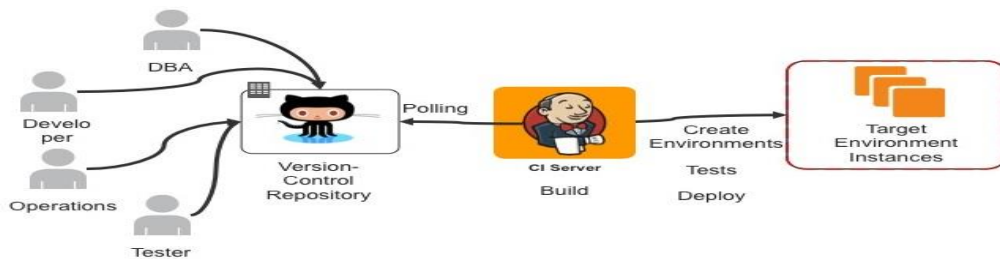
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# Code Promotion Process



# Continuous Integration (CI) tool



- Web based simple tool.
- Open source tool.
- Automates build and deploy process based on event/time/ad-hoc.
- No need to log into target servers to deploy builds.
- Ability to store historical logs.
- Ability to notify if job fails.
- Ability to support deployment on clustered environments.
- Ability to integrate with code review plugins.
- Ability to execute JUNIT Code.
- Execute shell script or bat file on target server.
- Eliminates risk of human errors during manual build and deploy process.
- Reduces human effort!



# Jenkins

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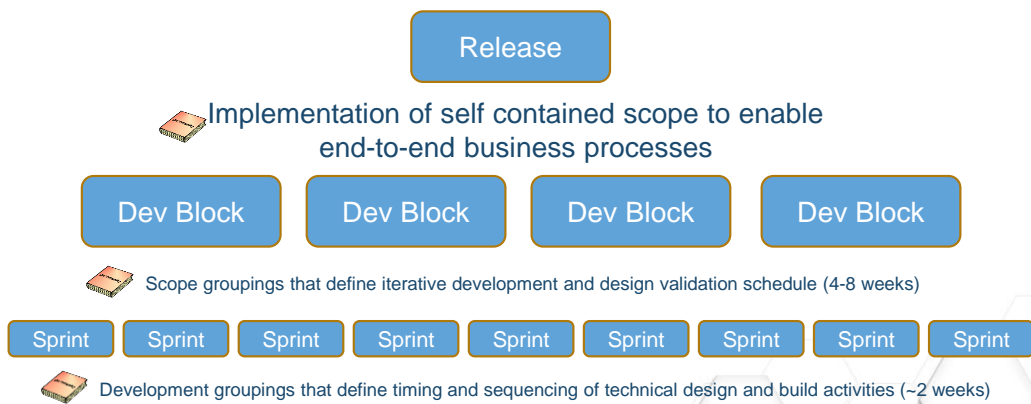
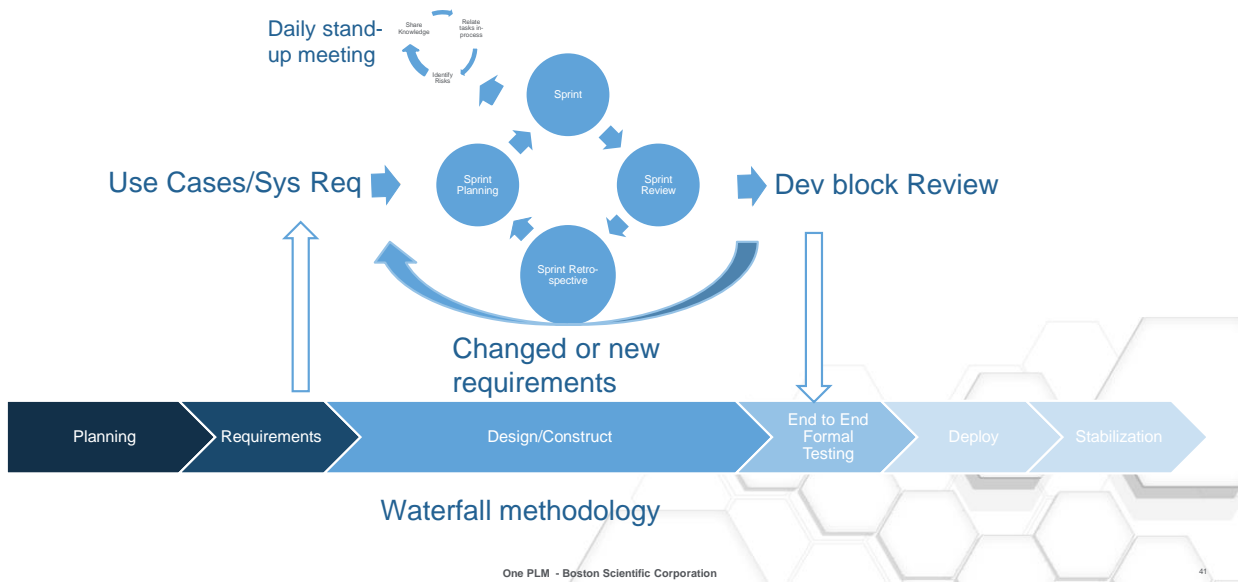


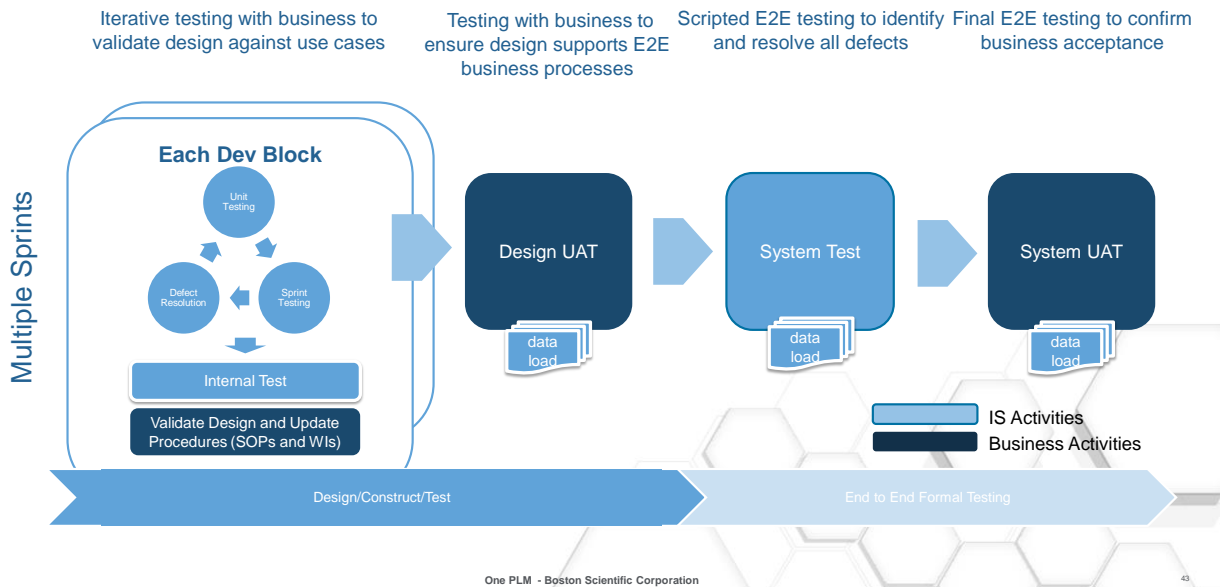


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## Our Development Approach

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- Your feedback is valuable
- Don't miss out on the chance to provide your feedback
- Gain a chance to win an instant prize!
- Complete your session evaluation now

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ADVANTAGE<sup>™</sup>