



Seven Best Practices for Accelerating Continuous Testing



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Senior Solutions Architect

**“There is no continuous delivery
without testing”**

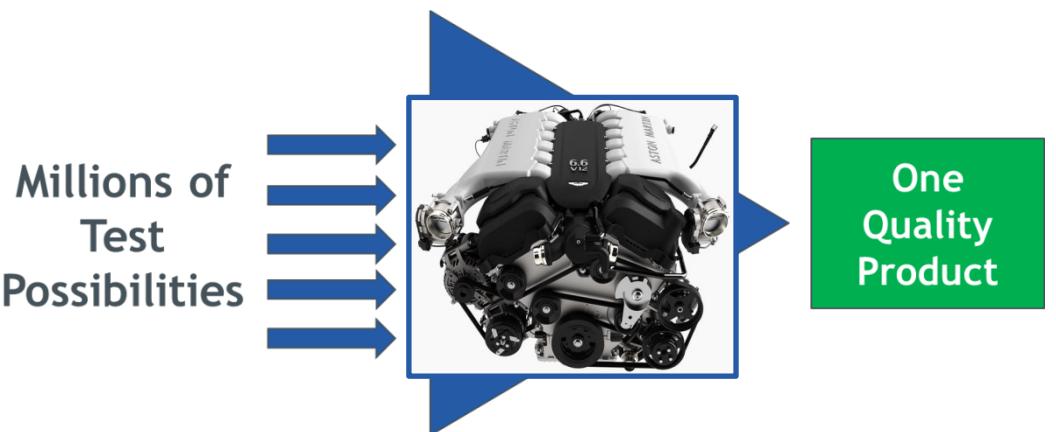
Dev



Ops



Fast CT is required to race through the many test steps in the pipeline from Pre-Flight through to Delivery



CT infrastructure must be stable and accurate because test failures at any point in the pipeline cause delays or roll-backs



Consequences of poor CT practices

80% failure rate when using current tools

*IDC Fortune 1000 survey,
December 2014*



Accelerated Continuous Testing

Best Practices Principles

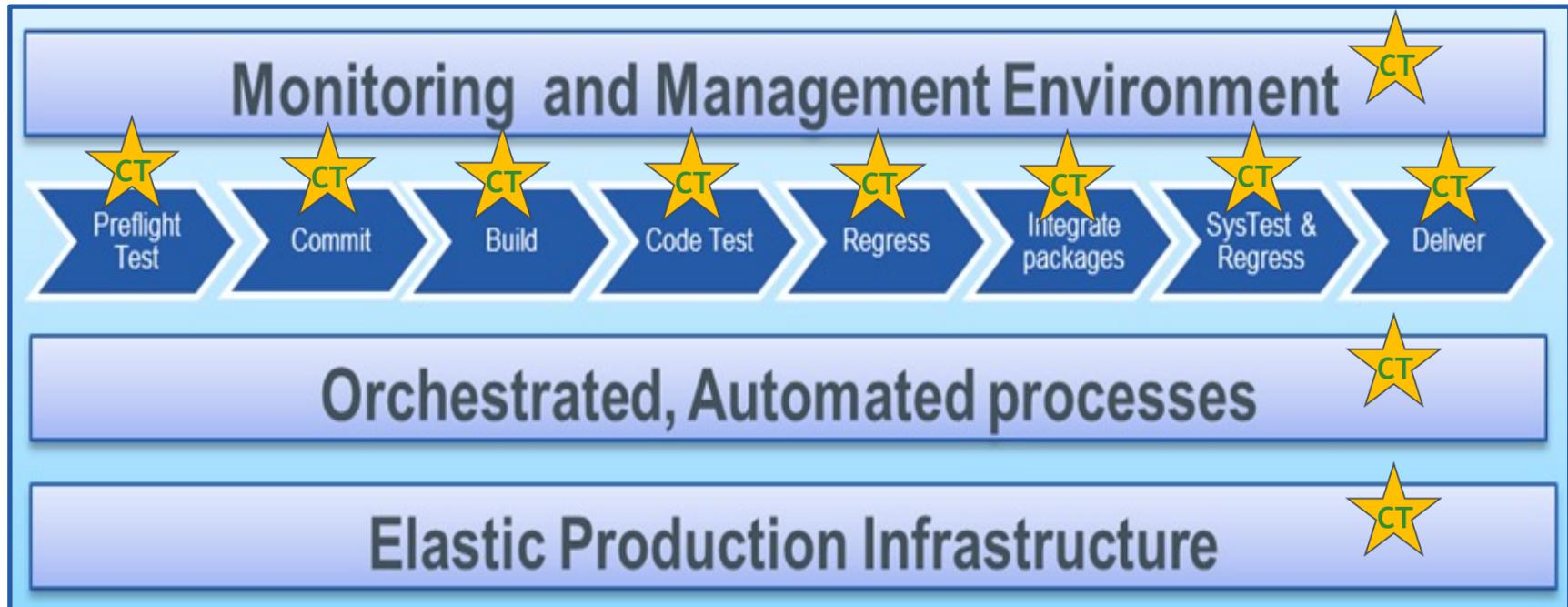


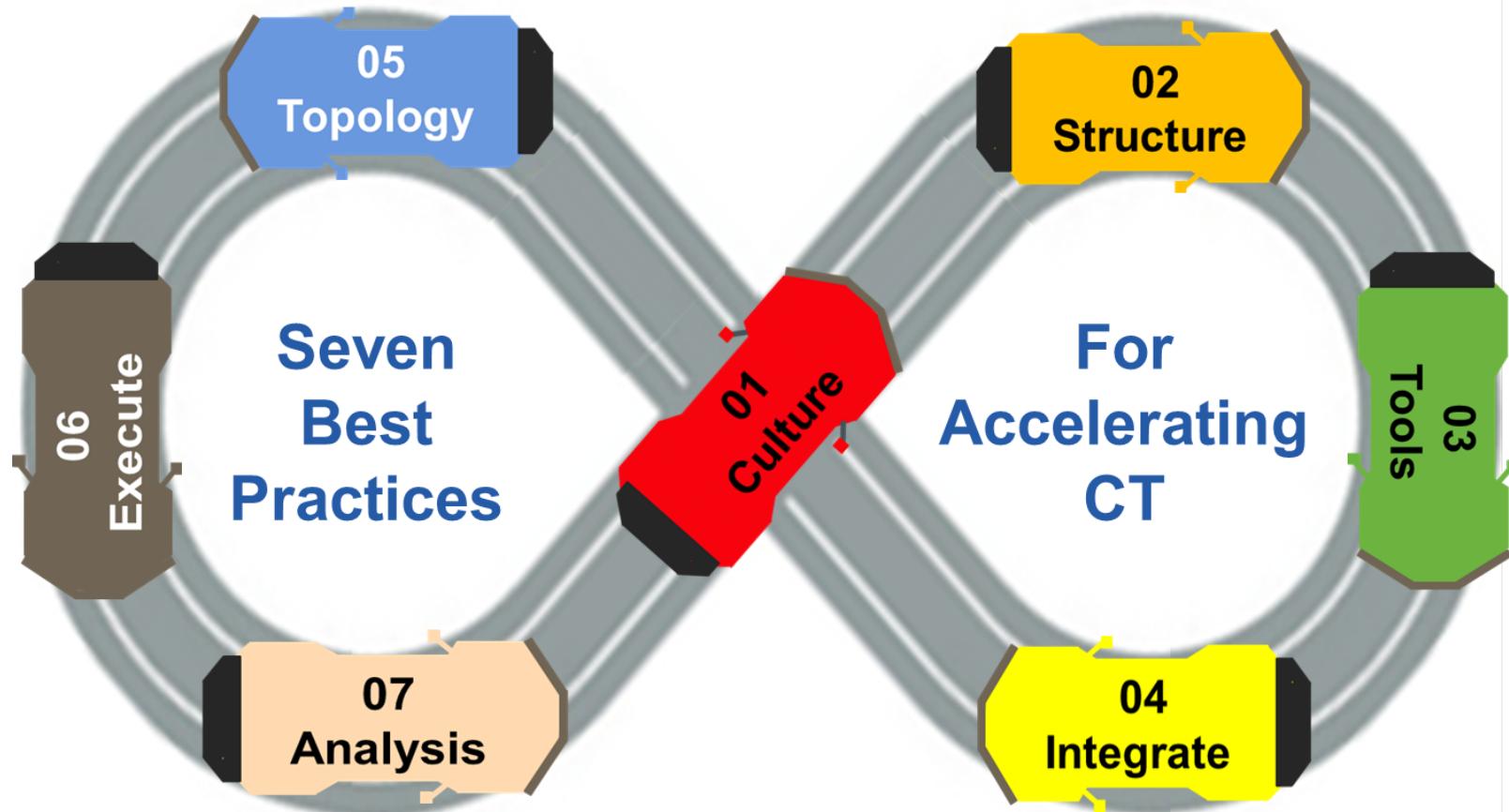
*Test fast
&
Don't Stop*

*Comprehensive
&
Results*



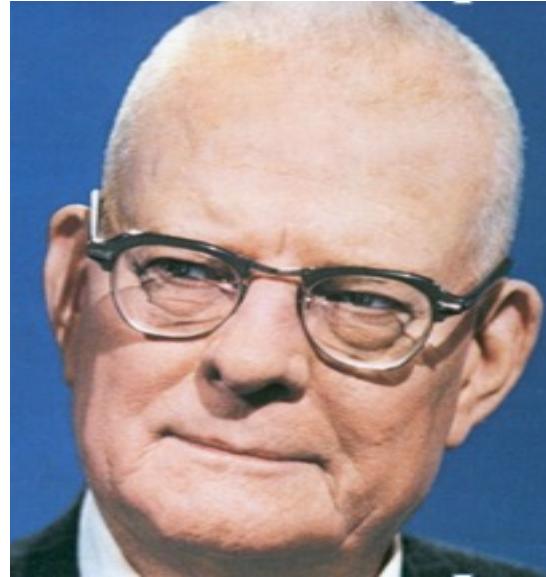
CT best practices are across the pipeline





*“Quality is everyone’s
Responsibility.”*

Dr. W. Edwards Deming

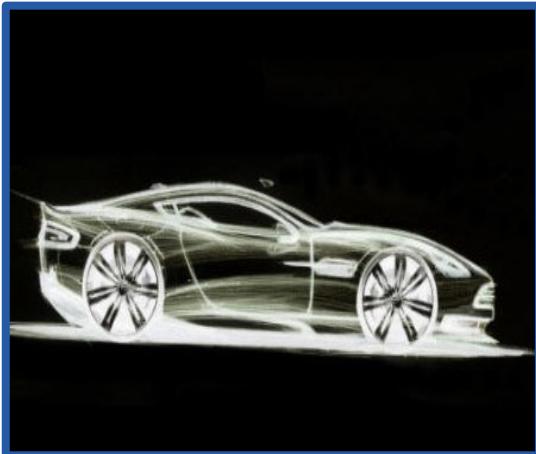


***Focus on customer relevant defects
not quantity of defects***

CT End-to-End Culture



Design for CT



Pre-Flight



Team-work



01
Culture

CT-Ready Infrastructure

- CT Process design
- Fault tolerant
- Obfuscation
- Intelligent dashboards



02
Structure

01
Culture

CT-Ready Tools



- Restful APIs
- Cache and pipeline
- Virtual and physical
- Program agnostic
- Large scale



03
Tools

02
Structure

01
Culture

CT Tools Integration



- Pre-Flight
- CI Tests
- Integration
- Regression
- System
- Deployment



Orchestrate Test Topologies



- Physical and Virtual
- Utilization measurement
- Topologies
- Test Automation



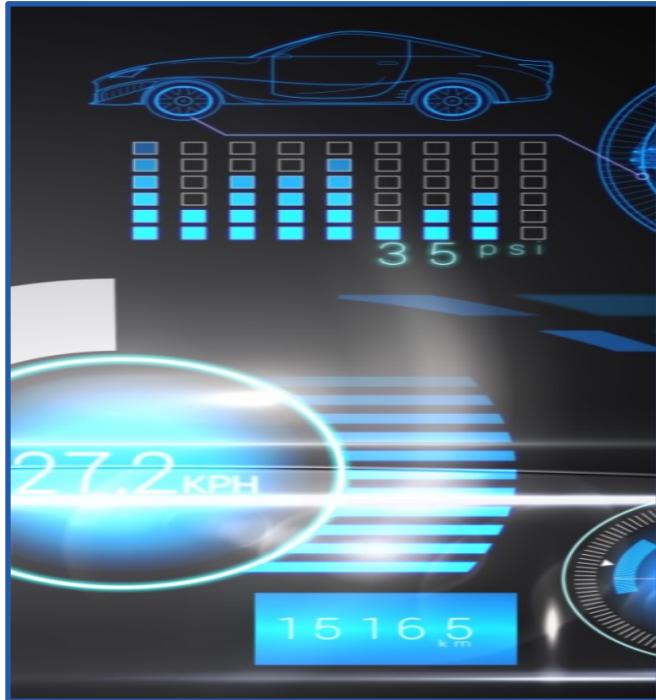
Accelerate Test Execution



- Powerful servers
- Test design
- Pipeline
- Scale horizontally
- Thresholds
- Dynamic test schedules



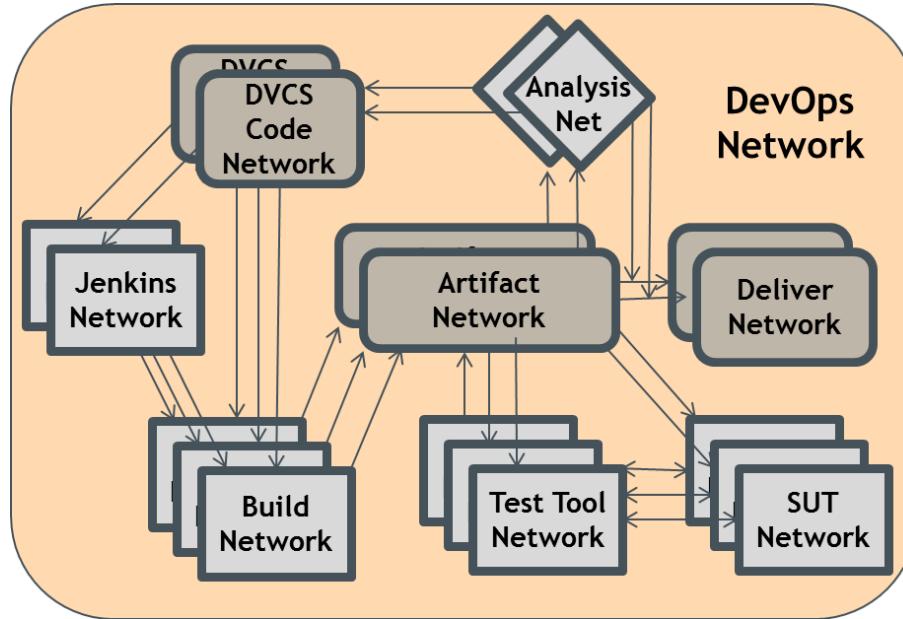
Fast Relevant CT Analytics



- **Continuous Monitoring (CM)**
- **Relevance**
- **Dashboards, Alerts, logs, thresholds**
- **Aggregation**
- **Snapshots and trends**
- **Telescope for diagnostics**



Case Study



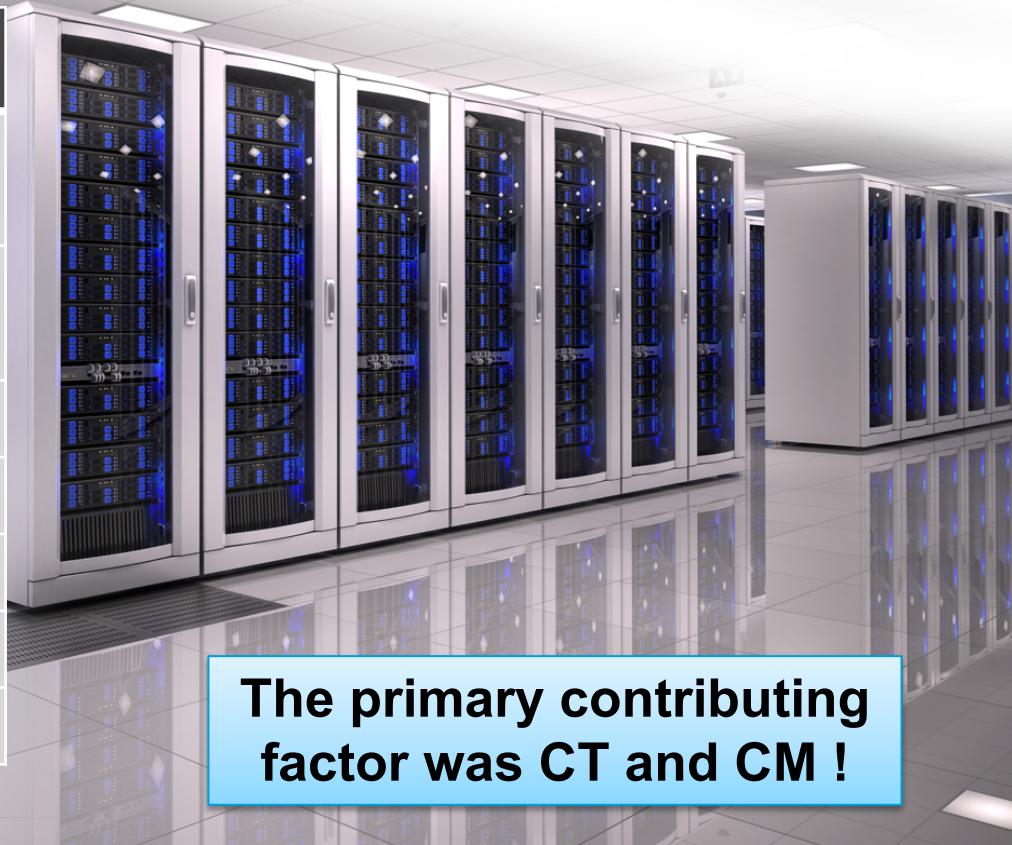
**1,280,000,000
test possibilities**

- 360 developers, six sites
- 36 MLOC+, 100+ features
- 86 build targets
- complex interdependencies
- 200+ topologies
- 12K test cases
- 80+ deployment packages (physical and virtual)

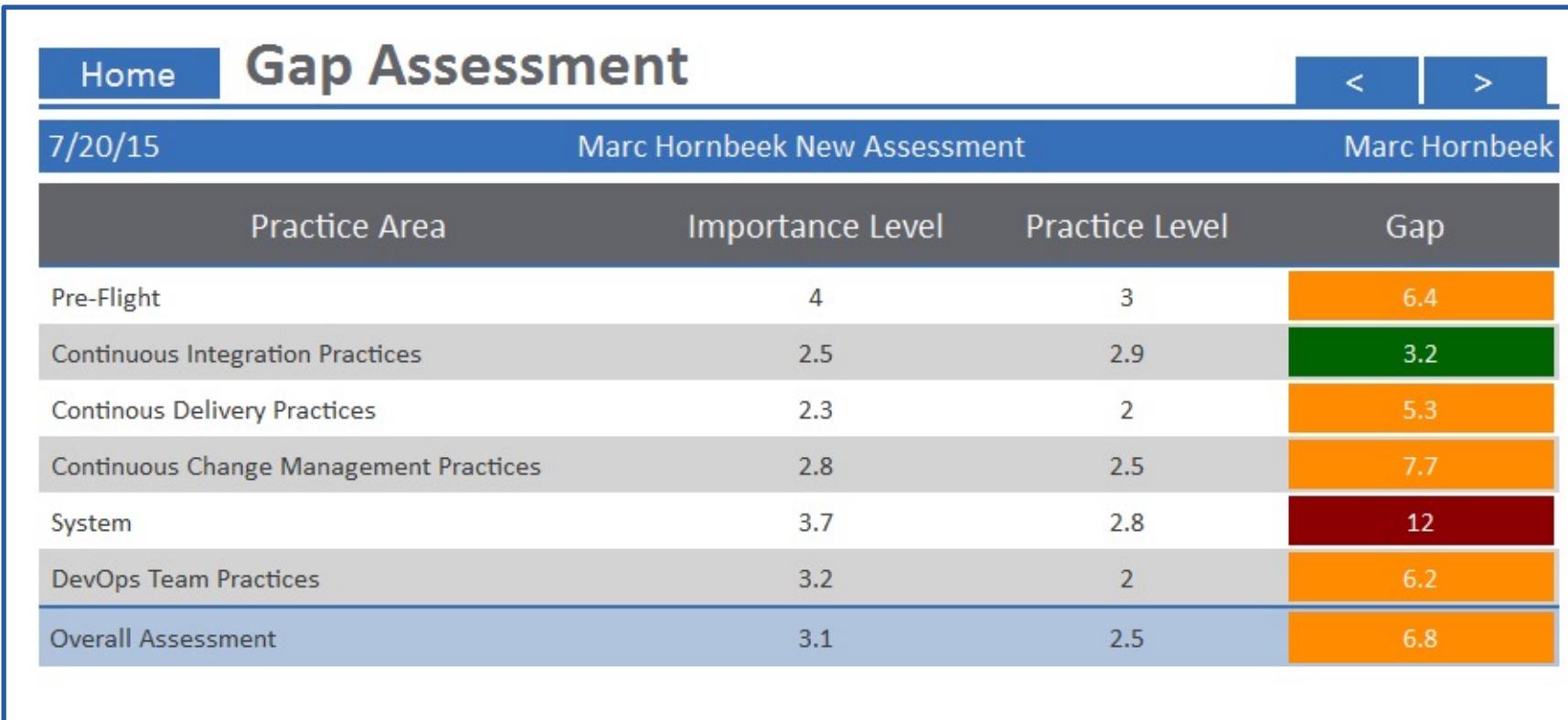
CT Case Results



Metric	Before	After
Major release (#months)	6	3
Minor release (#weeks)	4	2
# Features	113	150
Defects	1260	10
Integrations / day	0.5	100
Tests / day	0.3	10
Automated tests	5%	85%



Best Practices Assessment Tool simplifies the assessment process.



Summary

“There is no continuous delivery without testing”



- 7 CT best practices emphasize speed, don't stop, comprehensive and relevant.
- Benchmark against Best Practices Blueprint and DevOps Assessment.
- Don't fall into the “do-CT-yourself / NIH” trap!

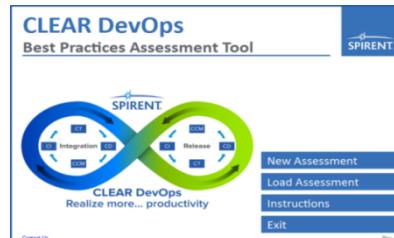




Take-aways



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- 1) CT Blueprint white papers
- 2) CT eBook
- 3) CT Assessment Tool



See Spirent live

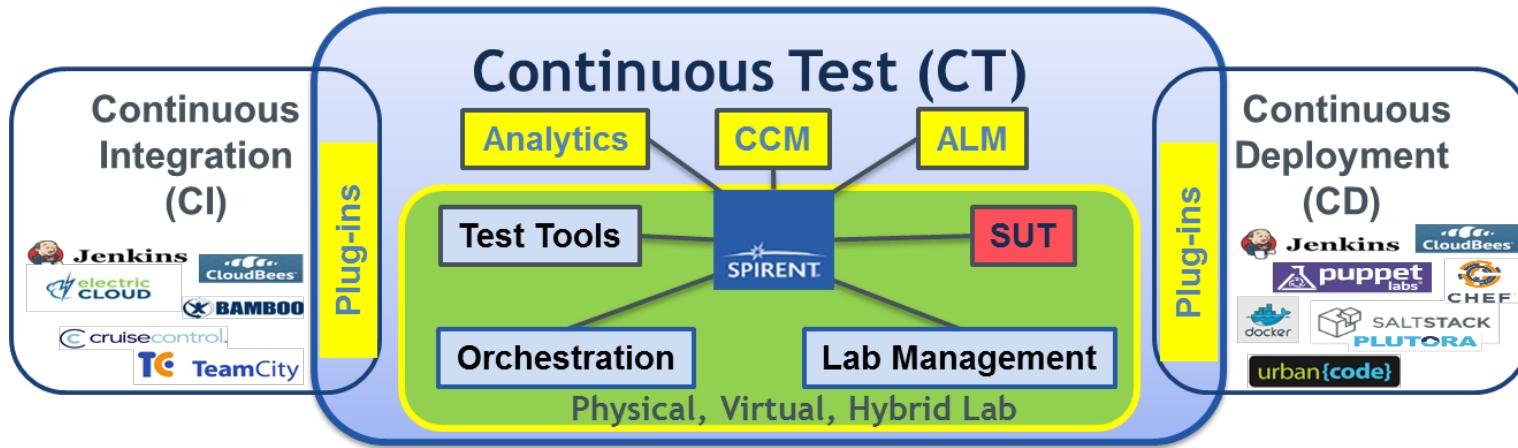
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How can Spirent help?:



**Test tools
CT Orchestration
Lab Management
Professional Services**



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Thank you

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