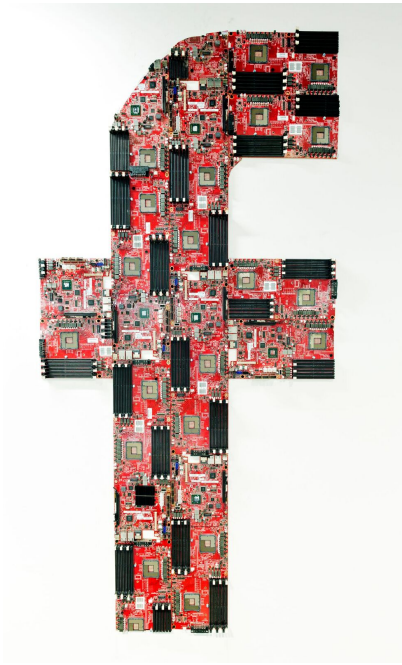

OPEN
Compute Project
OCP U.S. SUMMIT 2017
Santa Clara, CA



Overview of FAVA

Manufacturing testing framework

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Infrastructure Foundation

OPEN HARDWARE. OPEN SOFTWARE. OPEN FUTURE.

Project Fava

OPEN Compute Project

Agenda

1. Problem
2. Framework
3. Next
4. Community

2011

Compute Server
Freedom

Rack & Power
Freedom triplet

2012

Compute Server
Windmill

2013

Compute Server
Winterfell

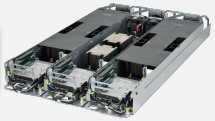
Storage Server
Knox

Rack & Power
Open Rack V1

2014

Rack & Power
Open Rack V2

2015



Compute Server
Leopard

Storage Server
Honey Badger

Network Switch
Wedge

Storage
BluRay

2016

Compute Server
Yosemite

GPU
Big Sur

Network
Six Pack

Storage
Lightning

2011 Supply Chain

Build to Order

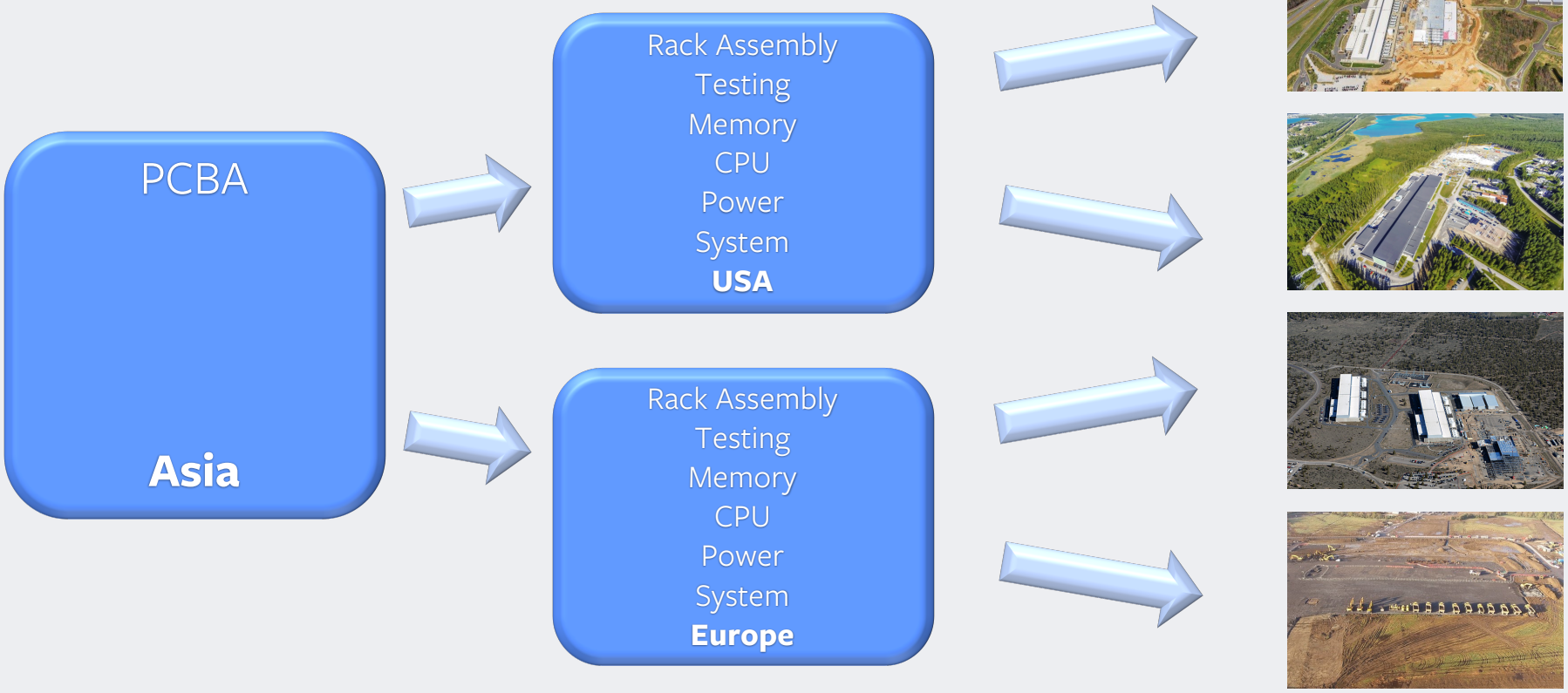
PCBA
Memory
CPU
Power
System
Asia

Rack Assembly
Final Test

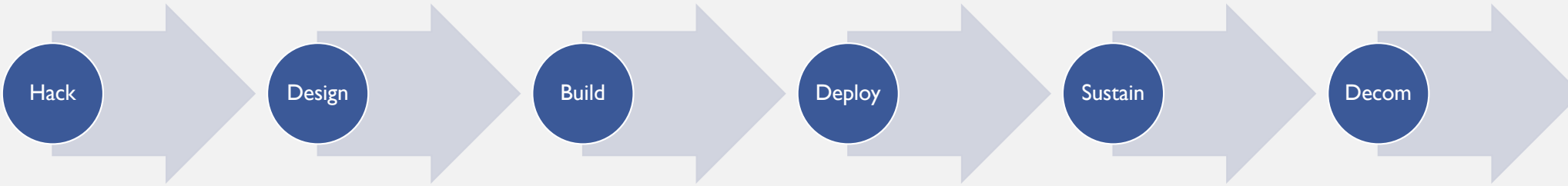
USA

Redesigned Supply Chain

Configure to Order



Hardware Development Lifecycle



Every stage has specific test requirements that vary by program

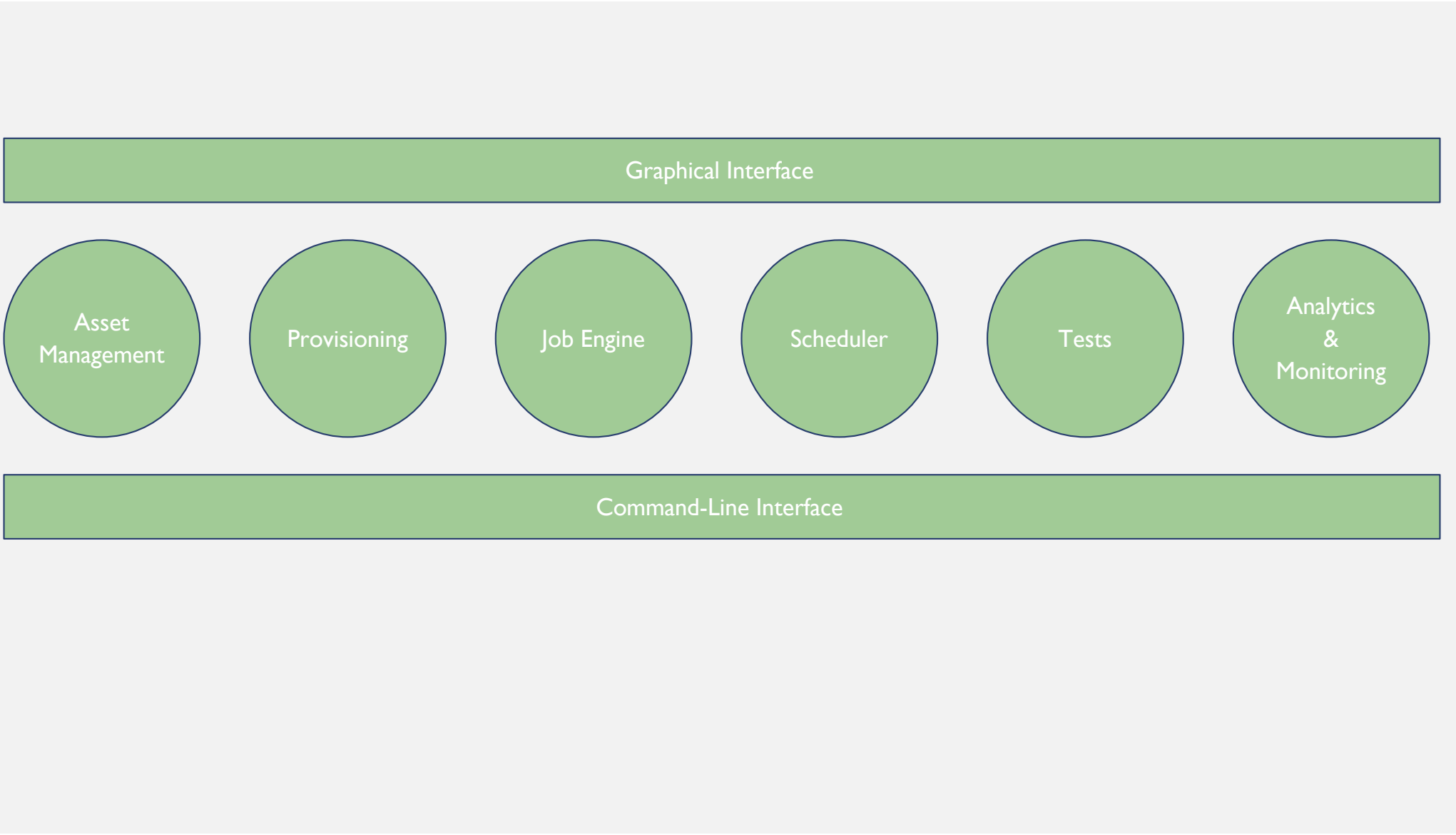
Problem Statement

- **Standardization**
- **Unilateral Development**
- **Visibility**
- **Continuity**

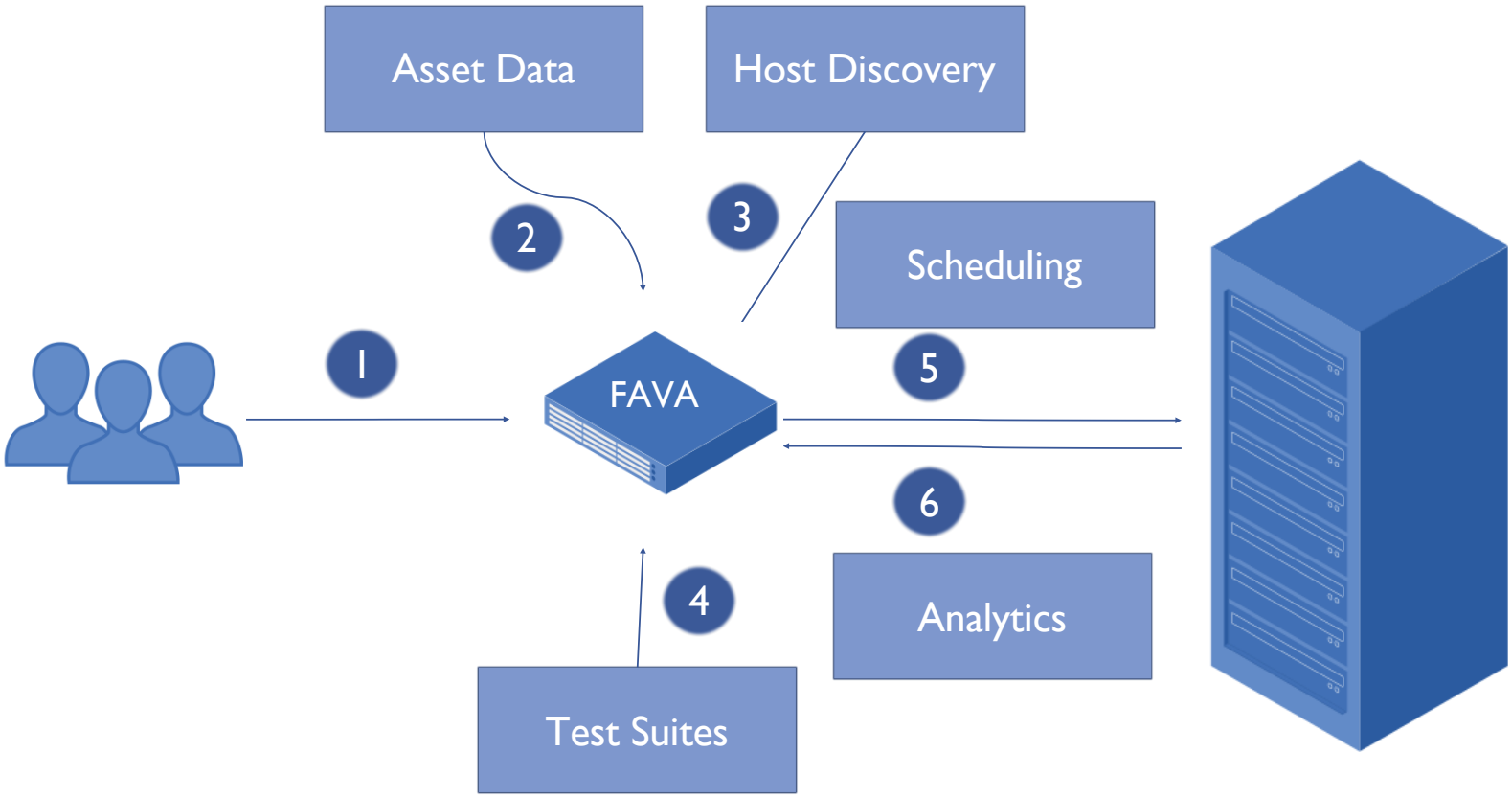
Manufacturing Validation

- **Ensure Quality**
- **Stress Testing**
- **Configuration Check**

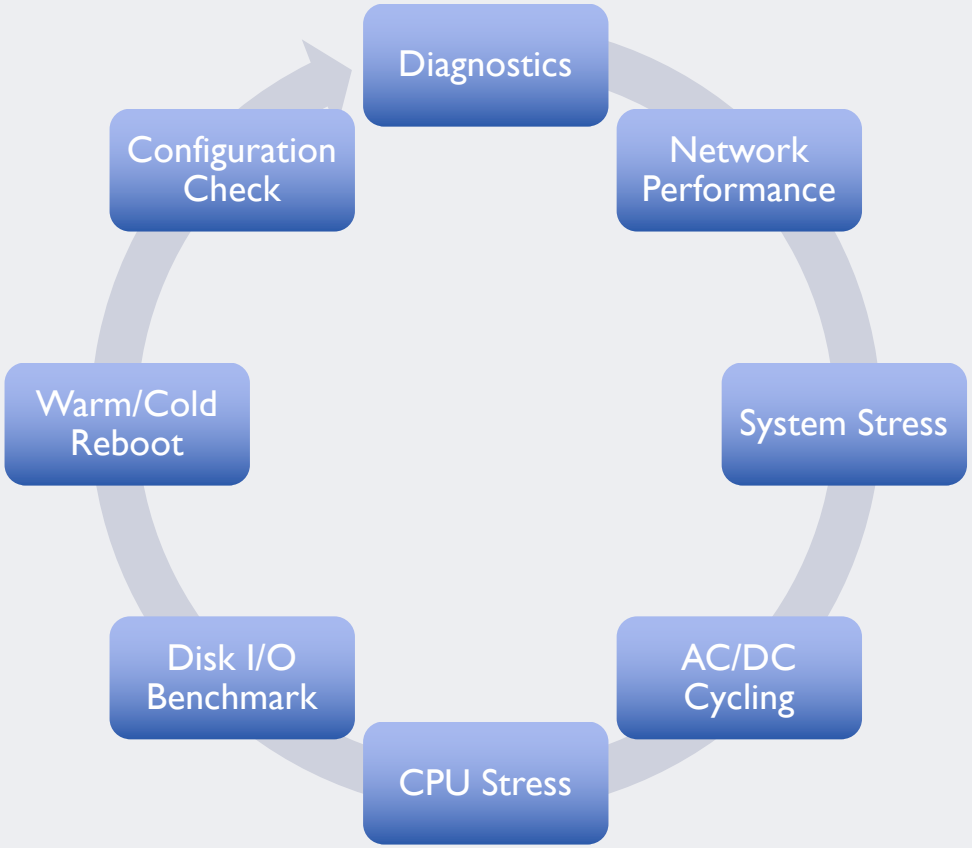
Overview of the framework


Graphical Interface
Asset Management
Provisioning
Job Engine
Scheduler
Tests
Analytics & Monitoring
Command-Line Interface

Operational Overview

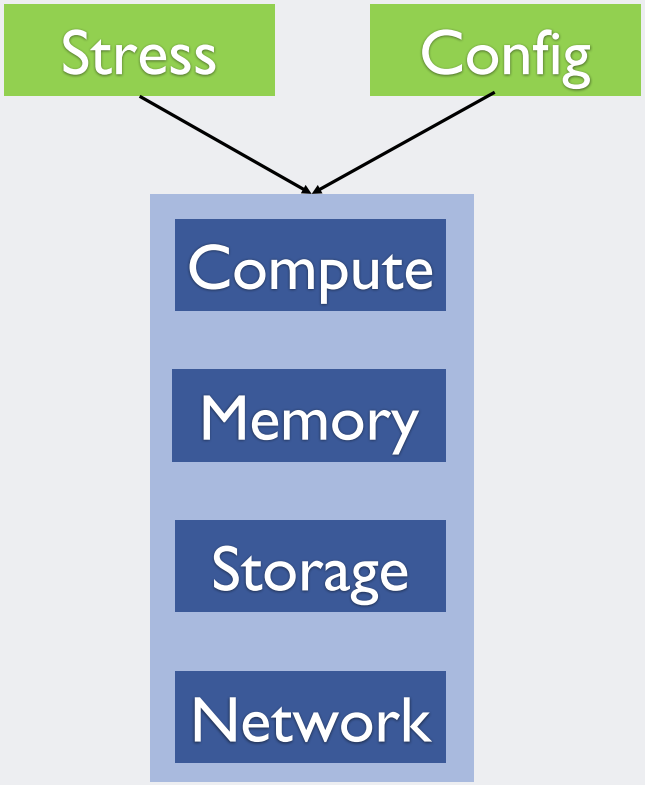


Manufacturing Testing

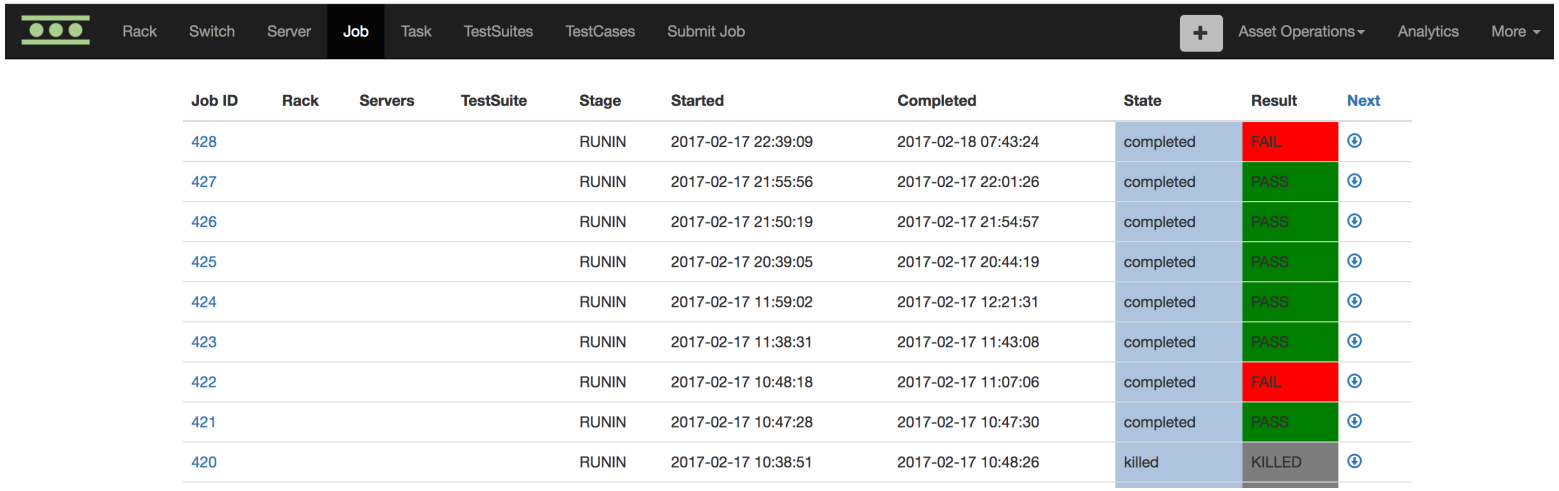


Test Suite Definition

- YAML definition for clarity and simplicity
- Supported parameters:
  - name: Uniquely identifies a test case
  - pre: test case to execute before executing the test
  - post: test case to execute after the main test
  - args: Arguments to pass to the test case
  - repetition: number of times to repeat a test case
  - onrestart: test case to run on a reboot
- Properties
  - runner, cmd, retries...

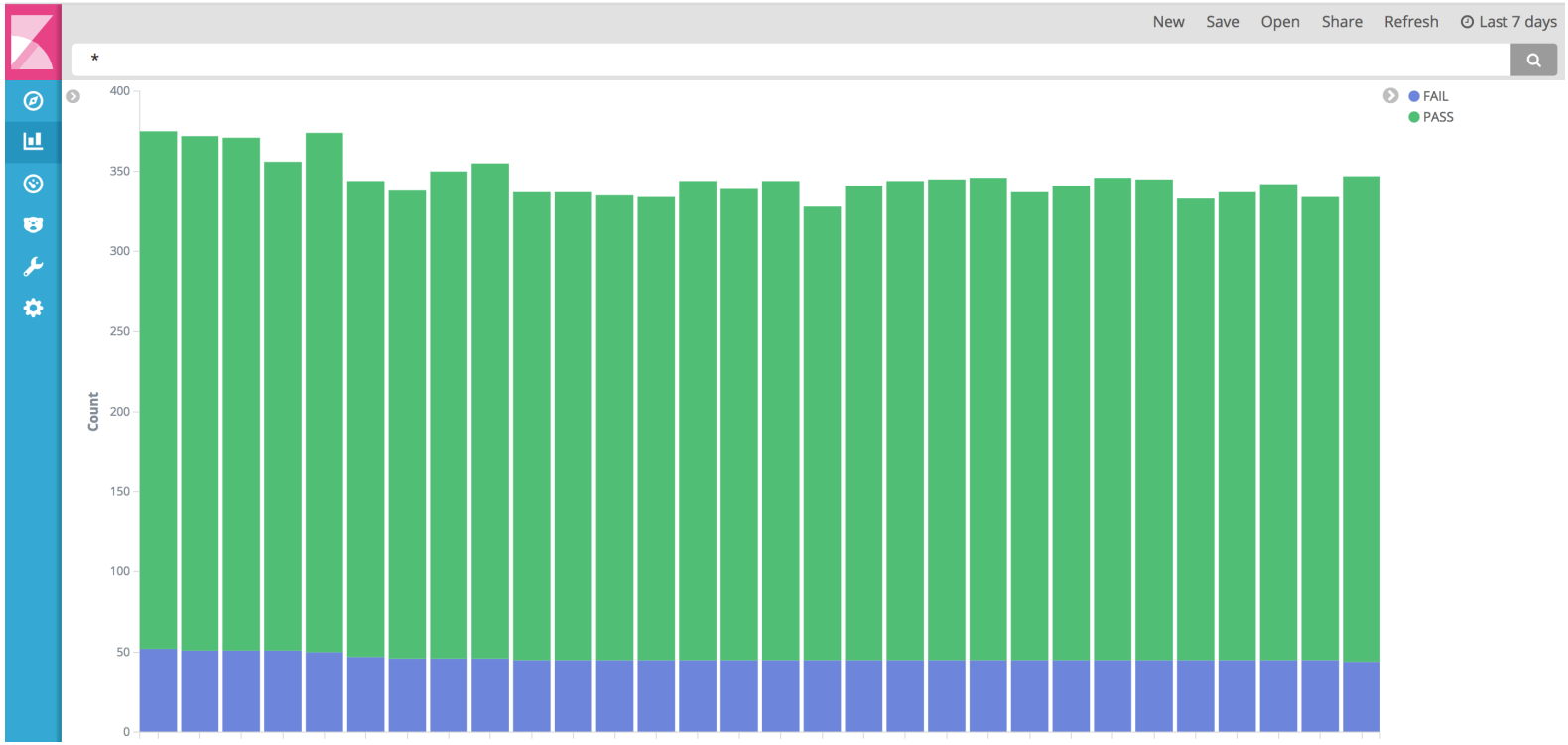



```
- name: ConfigurationCheck
  timeout: 600
- name: Memory_Stress
  args:
    threshold: 5
- name: Cpu_Stress
  args:
    runtime: 3600
- name: AC_Cycle
  reboot: true
...
```



Job ID	Rack	Servers	TestSuite	Stage	Started	Completed	State	Result	Next
428				RUNIN	2017-02-17 22:39:09	2017-02-18 07:43:24	completed	FAIL	
427				RUNIN	2017-02-17 21:55:56	2017-02-17 22:01:26	completed	PASS	
426				RUNIN	2017-02-17 21:50:19	2017-02-17 21:54:57	completed	PASS	
425				RUNIN	2017-02-17 20:39:05	2017-02-17 20:44:19	completed	PASS	
424				RUNIN	2017-02-17 11:59:02	2017-02-17 12:21:31	completed	PASS	
423				RUNIN	2017-02-17 11:38:31	2017-02-17 11:43:08	completed	PASS	
422				RUNIN	2017-02-17 10:48:18	2017-02-17 11:07:06	completed	FAIL	
421				RUNIN	2017-02-17 10:47:28	2017-02-17 10:47:30	completed	PASS	
420				RUNIN	2017-02-17 10:38:51	2017-02-17 10:48:26	killed	KILLED	

	1	2	3
A40	AG35006811		
A39			
A38			
A37			
A36			
A35			
A34			
A33	Job 314 PASS	Job 314 PASS	Job 314 PASS
A32			
A31	Job 314 PASS	Job 314 PASS	Job 314 PASS
A30			
A29			
A28			
A27			
A26	Job 314 PASS	Job 314 PASS	Job 314 PASS
A25			
A24	Job 314 PASS	Job 314 PASS	Job 314 PASS
A23			
A22	Job 314 PASS	Job 314 PASS	Job 314 PASS
A21			
A20			
A19			
A18			
A17			
A16			
A15			
A14	Job 314 PASS	Job 314 PASS	Job 314 PASS
A13			
A12	Job 314 PASS	Job 314 PASS	Job 314 PASS
A11			
A10			
A9			


New
Save
Open
Share
Refresh
Last 7 days
*
FAIL
PASS
Count
400
350
300
250
200
150
100
50
0

Next Steps

- Ongoing Reliability Test Pilot
- Framework Enhancements
  - Reliability
  - Analytics
  - Graphical interface
  - Storage Management
  - Integration with MES

Community Engagement

- We want to hear about your manufacturing testing story
- Pain points
- Desired features
- Hardware types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