RED HAT JBOSS BPM SUITE PRIMER:
CAPABILITIES, VISION AND ROADMAP

Mark Proctor, Consulting Software Engineer, Red Hat
Prakash Aradhya, Director of Product Management, Red Hat
Robb Harvey, Entando

May 2, 2017

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RED HAT'S ROADMAP
PROCESS AND DECISION MANAGEMENT

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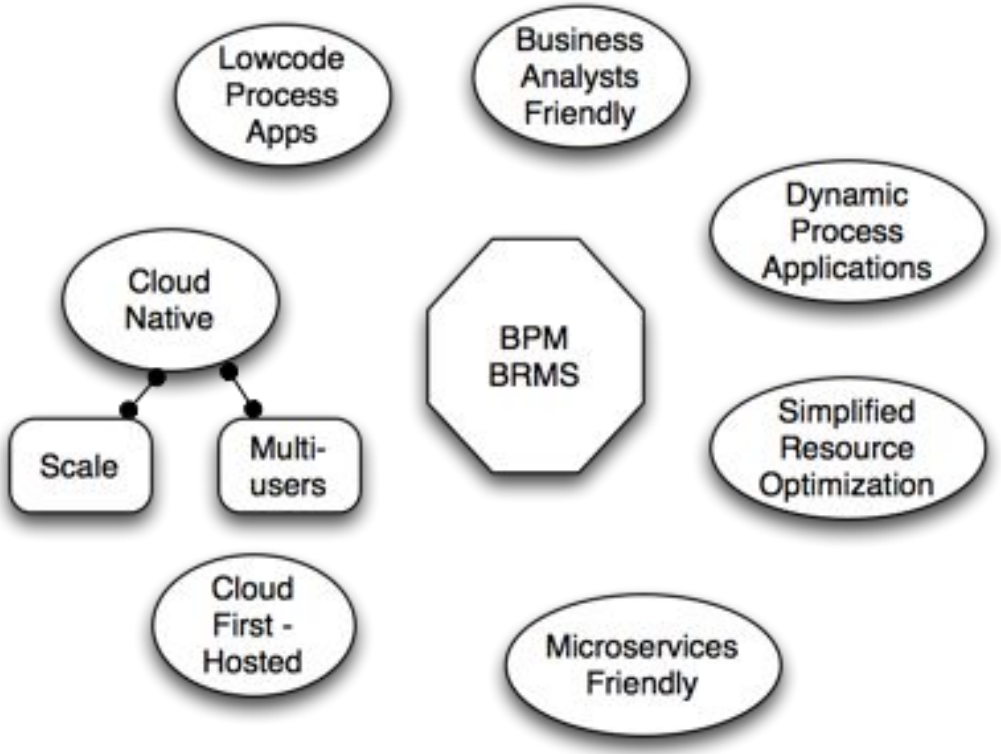
Year in Review

- BPM and BRMS 6.4 Release
- Cloud enabled - Intelligent Process Server and Realtime Decision Server
- EE 7 Support
- Integrated Red Hat SSO
- Enhanced User experience
- Enriched APIs
- Improved stability and Several RFEs

Vision Refresh

- Comprehensive Productivity Tools: Appealing end to end BRMS and BPMS Core capabilities that support developer agility
- Low code / No code Platform: Empower citizen developers to build simple to moderately complex business applications faster and efficiently
- Dynamic Case Management: Comprehensive set of tools to build and manage dynamic case management solutions
- Appcelerators: Industry specific templates and solutions
- Simplify Planner solution development
- Expand decision management solution development tools
- Cloud based business application development and deployment

Roadmap in works



Agenda - Backend

- Execution Server
- jBPM
  - Case Management
- Drools
  - DMN, OOPath, Units, Parallel Scaling
- OptaPlanner
  - Performance
- Cloud Ready

Agenda - Frontend

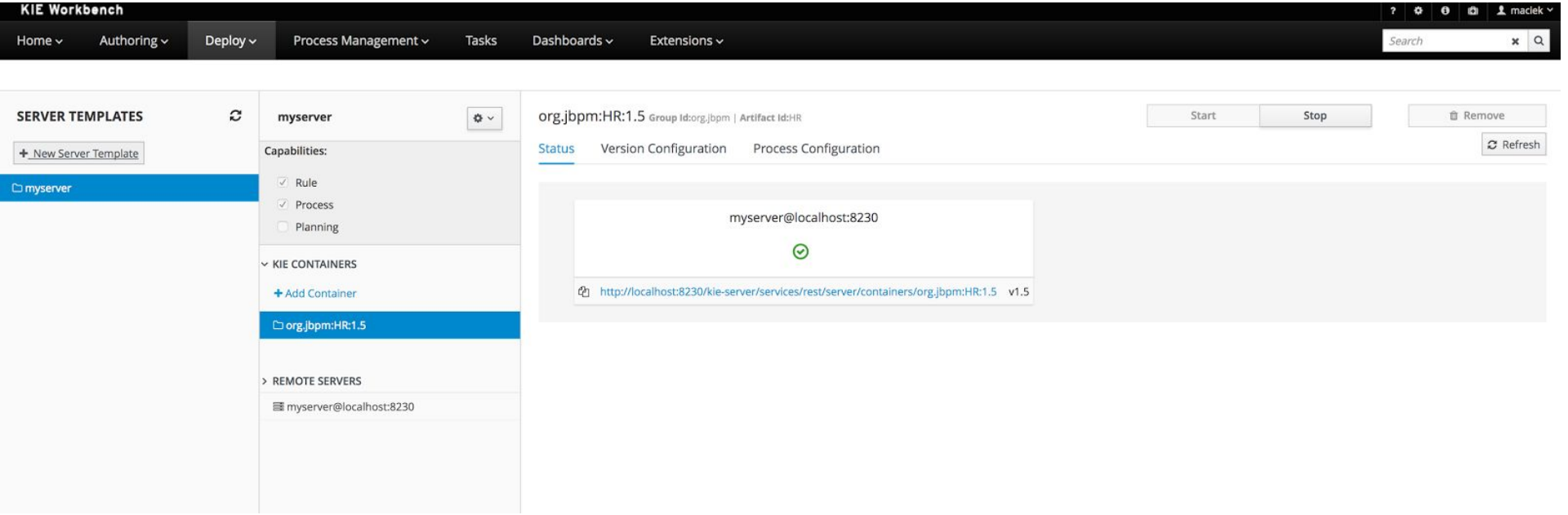
- AppFormer
  - Workbench, Data Management, Data Modelling, Forms, Pages,
- DashBuilder
- jBPM
  - BPMN Designer, Case Modeller
- Drools
  - Decision Tables

Backend

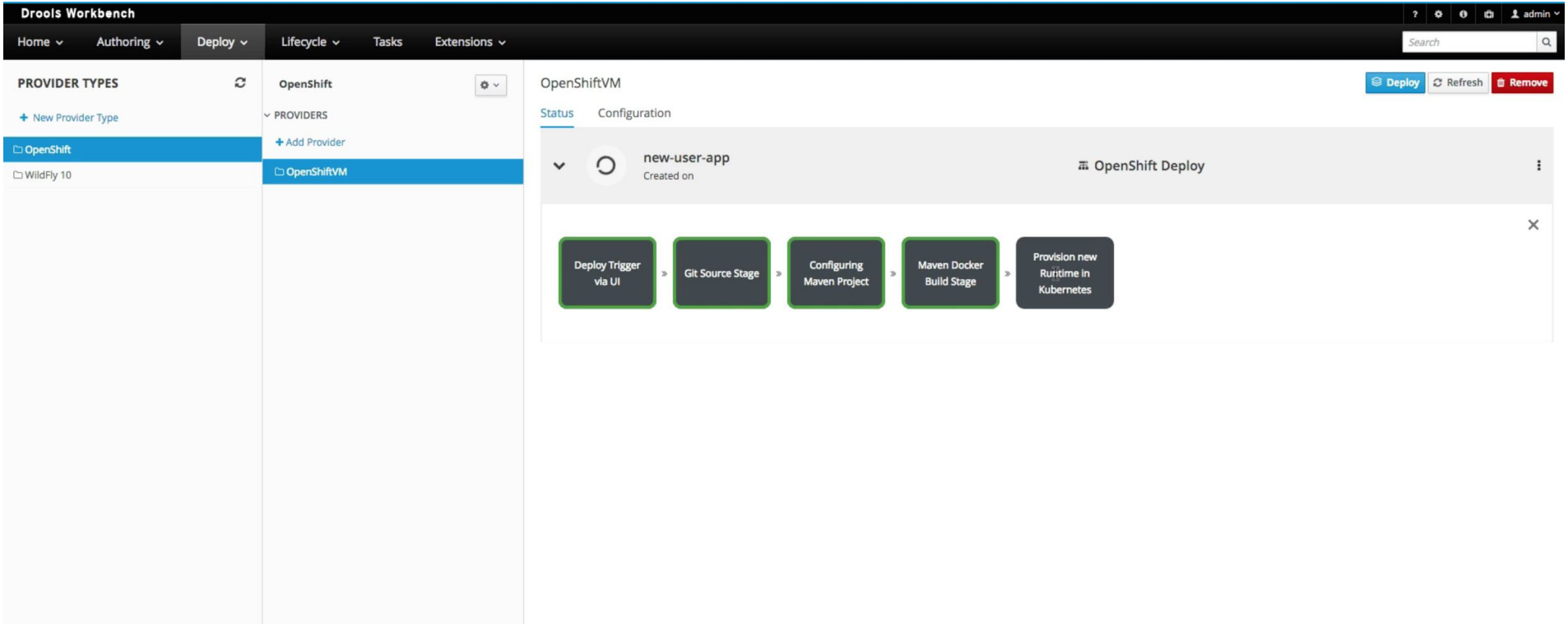
Execution Server

- Unified Execution Server - Drools, jBPM and OptaPlanner
  - Previously Separate impl for Drools and jBPM
- Improved UI
  - CI/CD support
- Monitoring and Metrics
- Cloud First on OSE

Provisioning

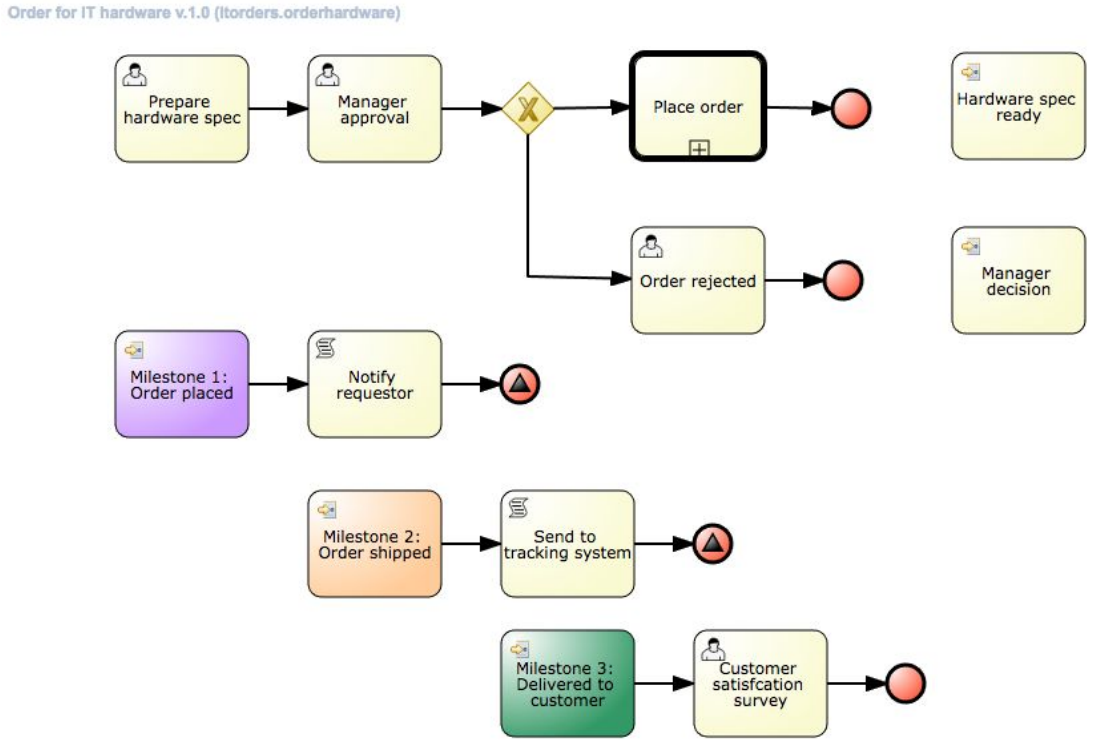


Pipelines

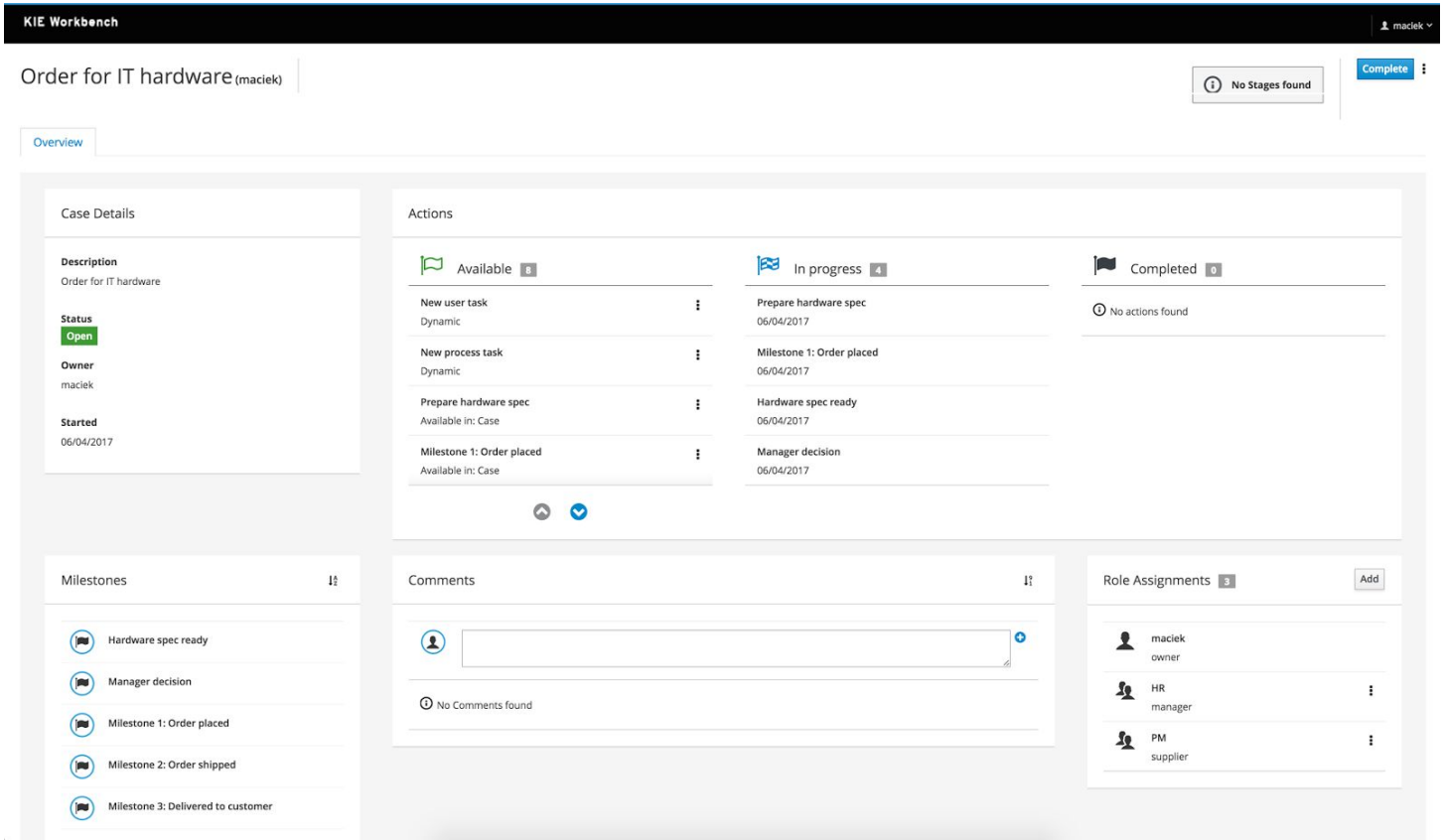

Drools Workbench
admin
Home
Authoring
Deploy
Lifecycle
Tasks
Extensions
Search
PROVIDER TYPES
New Provider Type
OpenShift
WildFly 10
OpenShift
PROVIDERS
Add Provider
OpenShiftVM
OpenShiftVM
Deploy
Refresh
Remove
Status
Configuration
new-user-app
Created on
OpenShift Deploy
Deploy Trigger via UI
Git Source Stage
Configuring Maven Project
Maven Docker Build Stage
Provision new Runtime in Kubernetes

jBPM

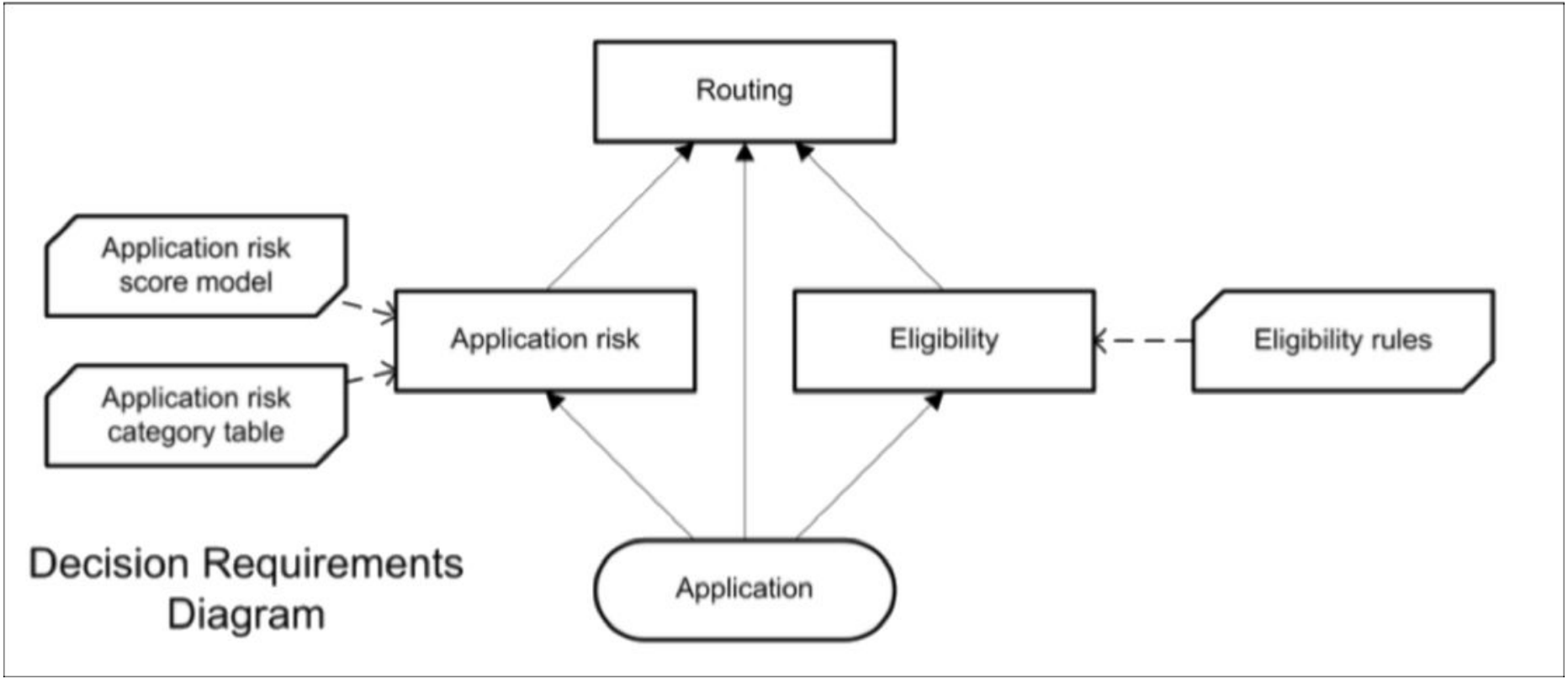
- Pluggable Task Assignment
- Smart Router
- Case Modeller



jBPM - Case Management



Drools - DMN


Routing
Application risk score model
Application risk category table
Application risk
Eligibility
Eligibility rules
Application
Decision Requirements Diagram

DMN

Post-bureau risk category table

U	Existing Customer	Application Risk Score	Credit Score	Post-Bureau Risk Category
1			< 590	*HIGH*
2			[590..610]	*MEDIUM*
3		< 120	> 610	*LOW*
4			< 600	*HIGH*
5			[600..625]	*MEDIUM*
6		[120..130]	> 625	*LOW*
7	false	> 130	-	*VERY LOW*
8			< 580	*HIGH*
9			[580..600]	*MEDIUM*
10		<= 100	> 600	*LOW*
11			< 590	*HIGH*
12			[590..615]	*MEDIUM*
13	true	> 100	> 615	*LOW*

Drools - Units

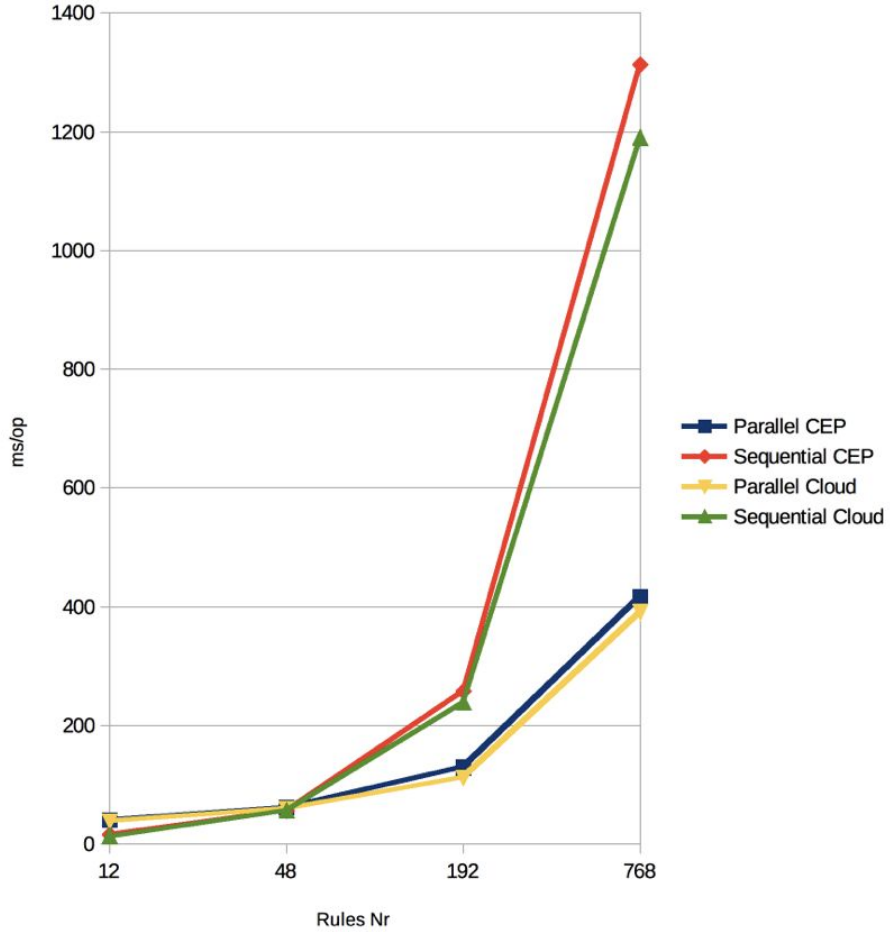
- Decouple Working Memory and Rules
- DataSources now standalone
- A unit can have 1..n DataSources, passed at Unit construction time
- OOPath Statements and Patterns are now ‘from’ DataSources

```
DataSource<Person> typedDataSource;
DataSource<? extends Object> unypedDataSource;
---
rule MyRule when
    Person p : /typedDataSource[age > 30]
    var r : /untypedDataSource#Restaurant[location == p.location]
then
    System.out.println( p.name + “ “ r.name );
end
```

Drools - OOPath

```
rule R when
  /men/wife/children[age > 10]/toys
then
  list.add( $child.getName() );
end
```

Drools - Scaling



Cloud First

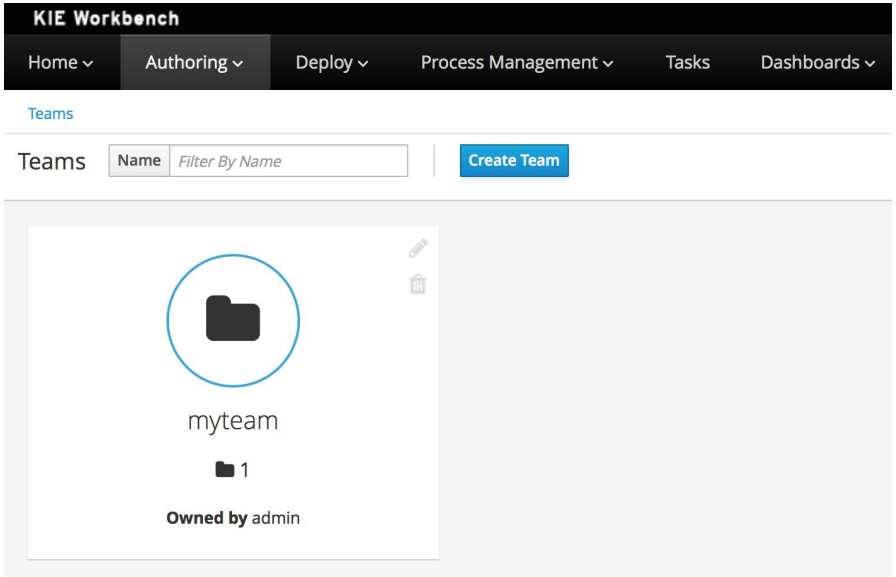
- Horizontal Scaling Execution Servers
- Horizontal Scaling git/maven workspaces

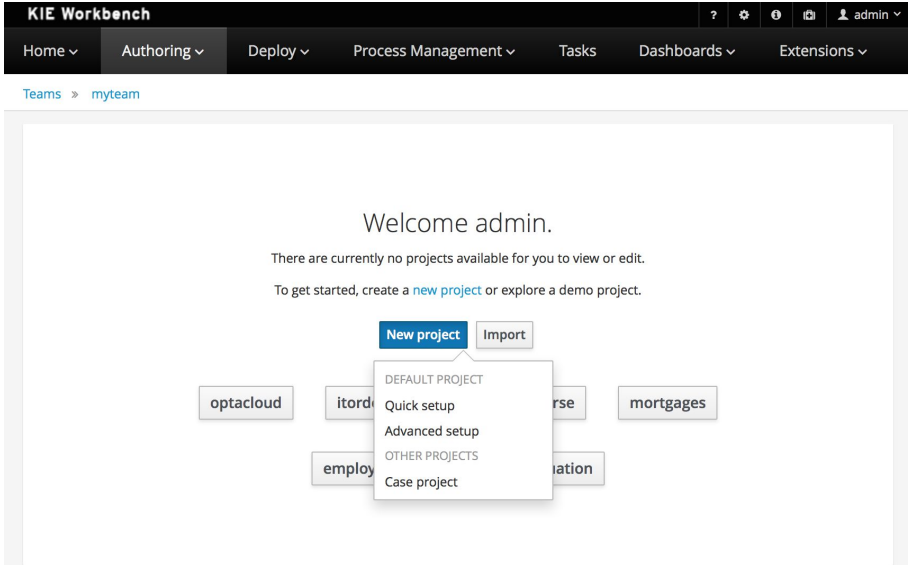
OptaPlanner

- Multi Partition Search
- Smart Inbox (jBPM integration)
- Project Templates for domains
  - Scheduling, Routing

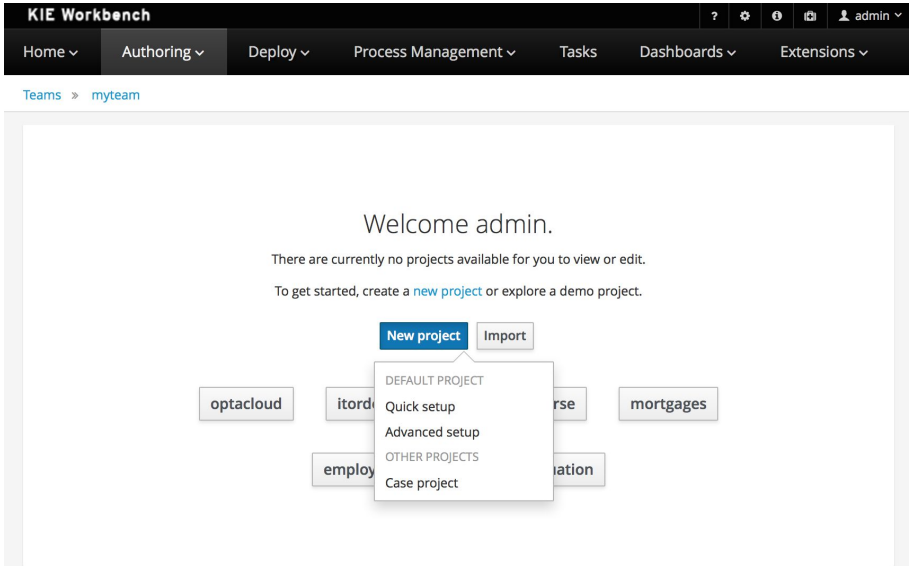
Frontend

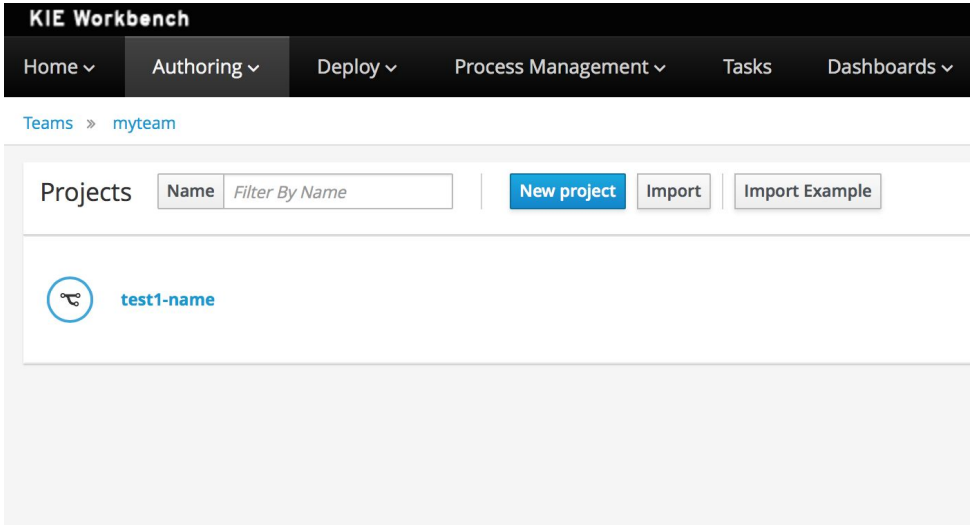
AppFormer-Workbench



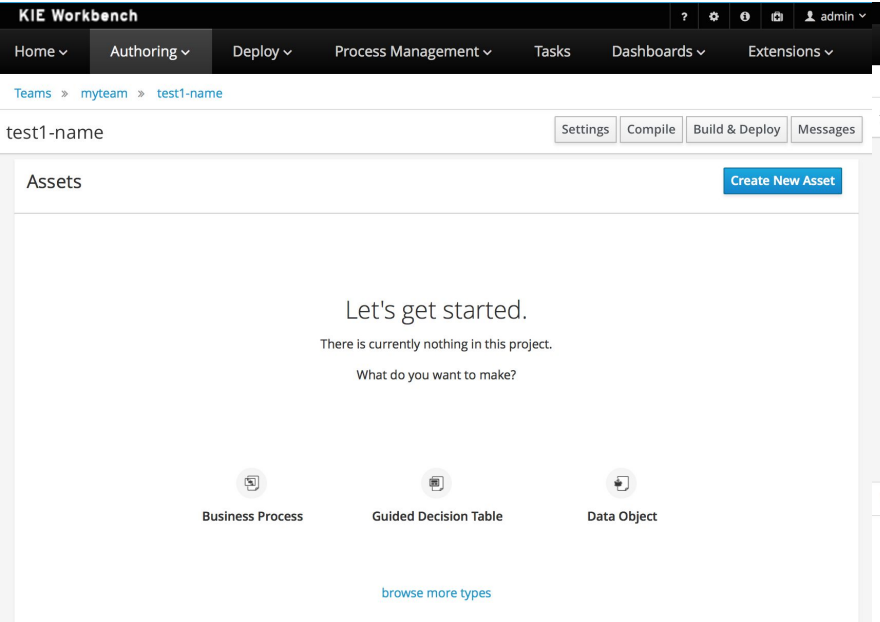


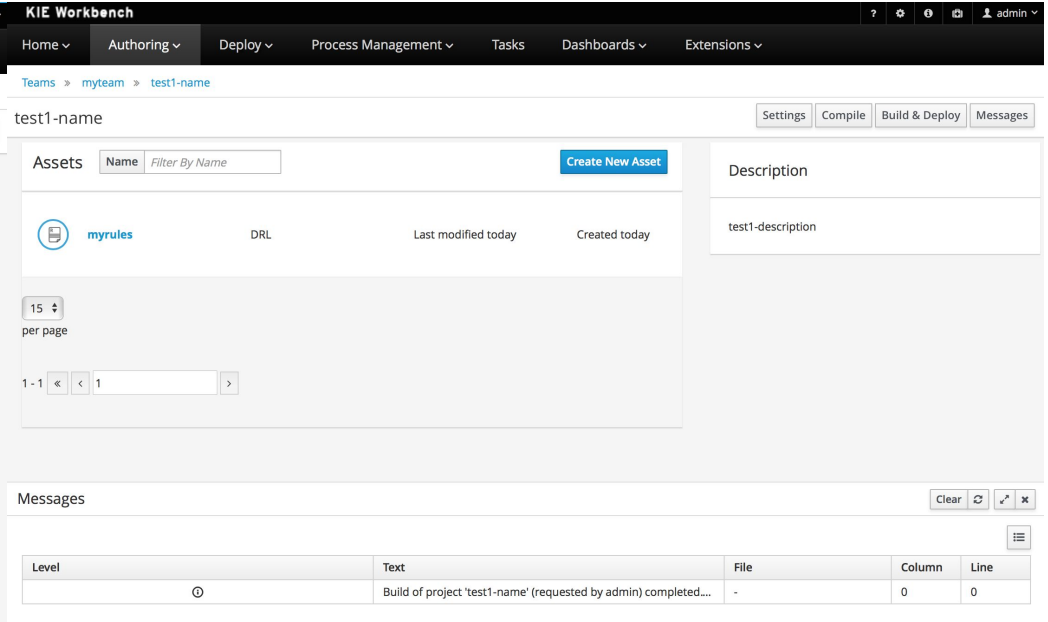
AppFormer - Workbench



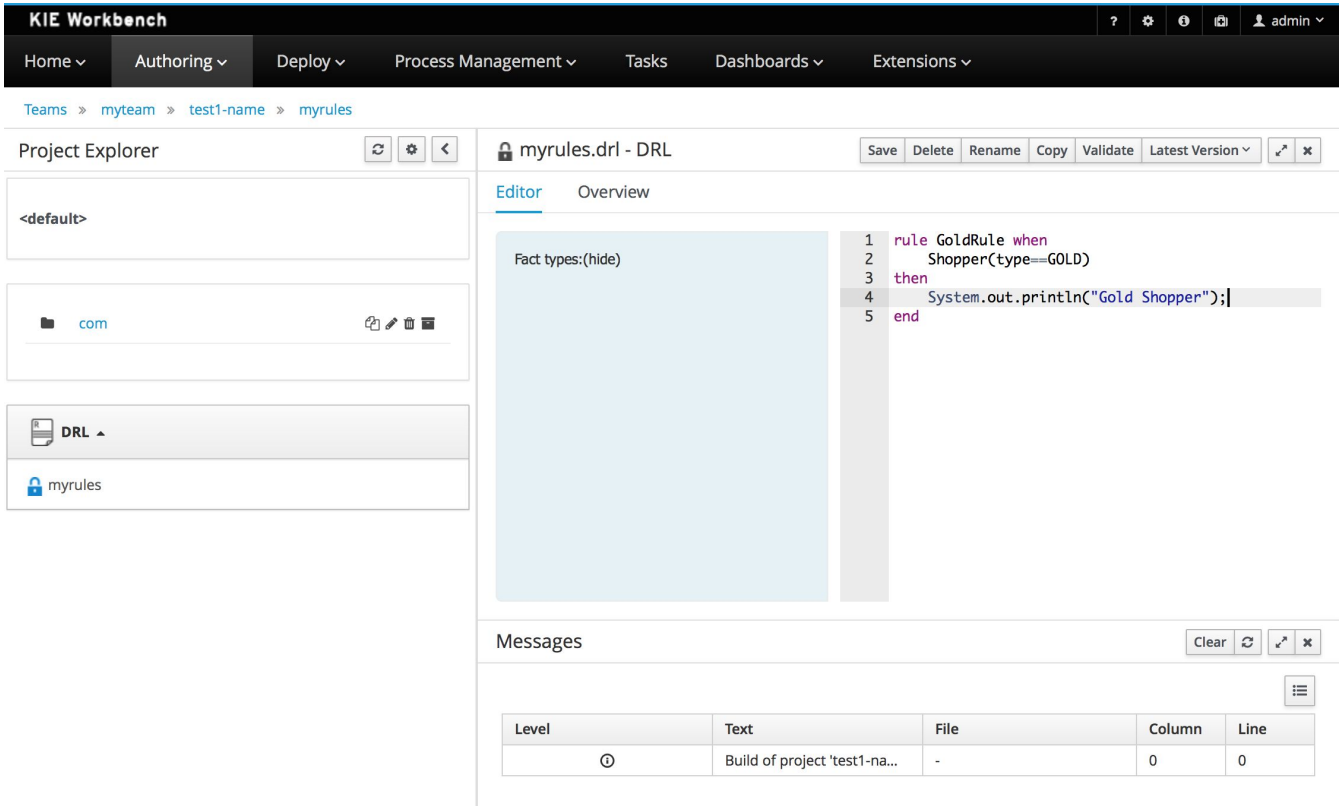


AppFormer - Workbench



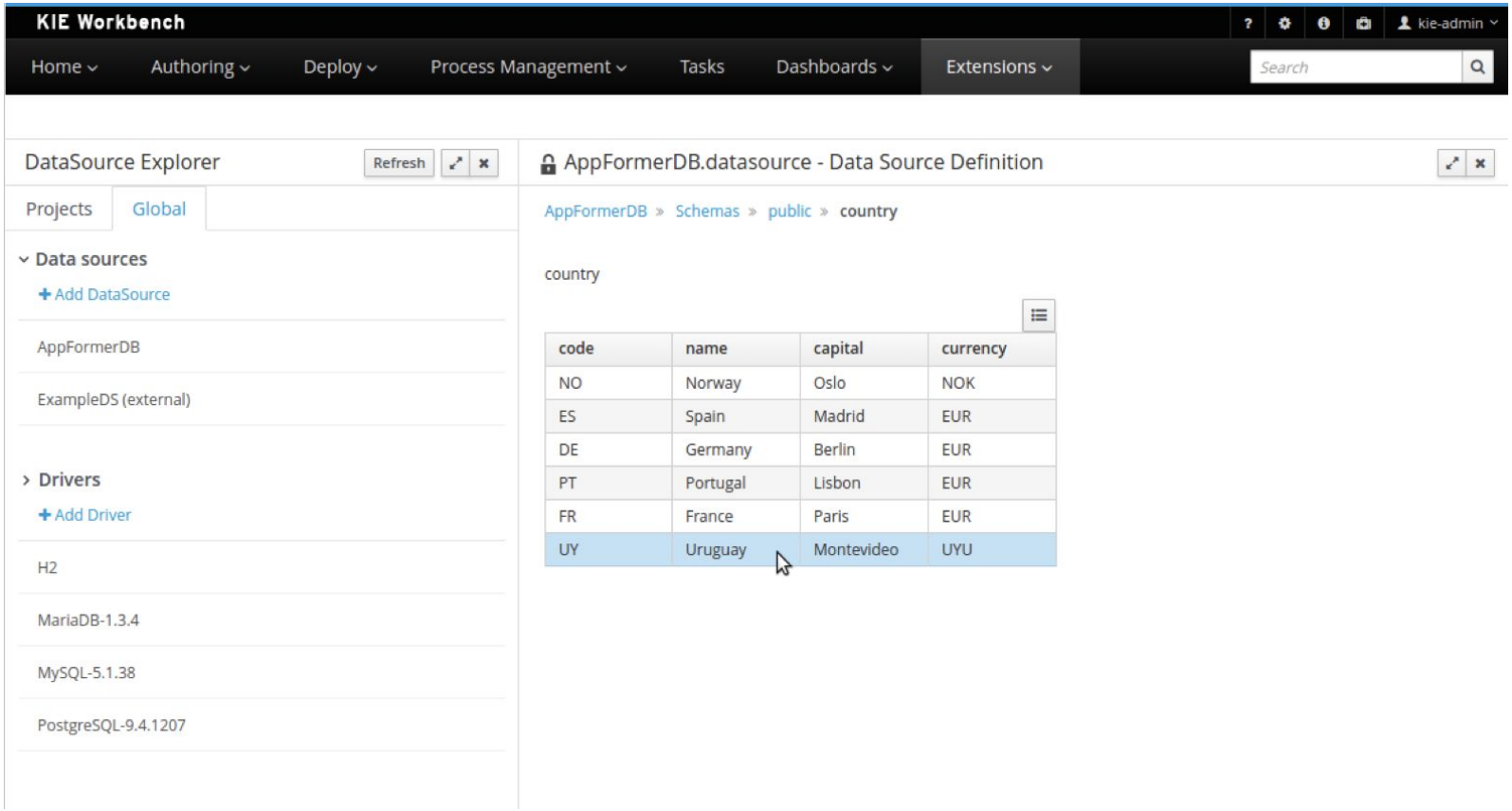


AppFormer - Workbench

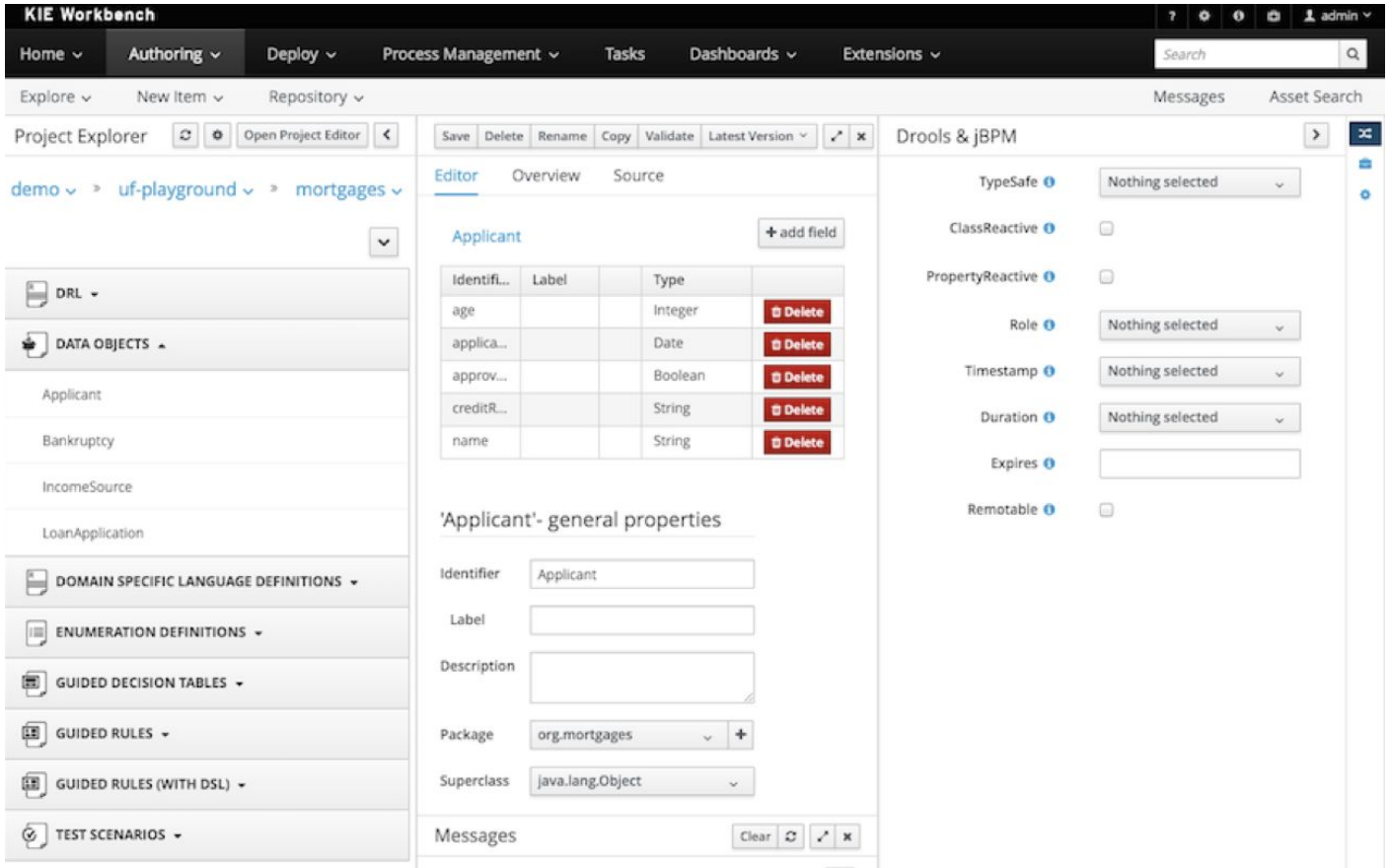


AppFormer - Workspaces + Git Flow

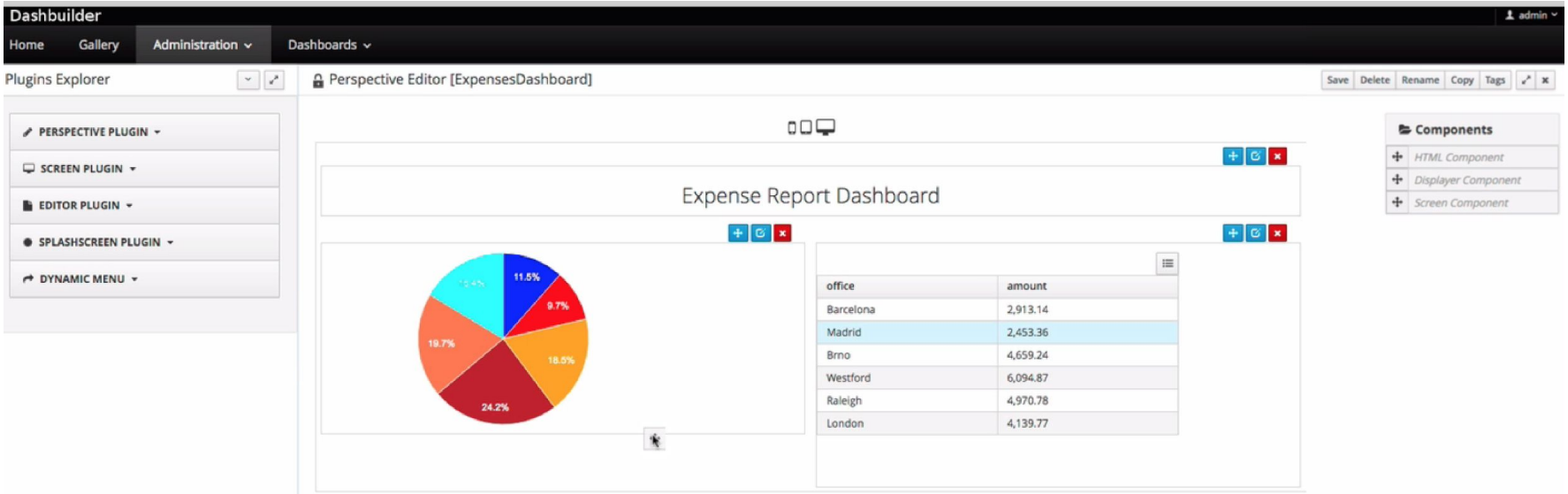
AppFormer - Data Management



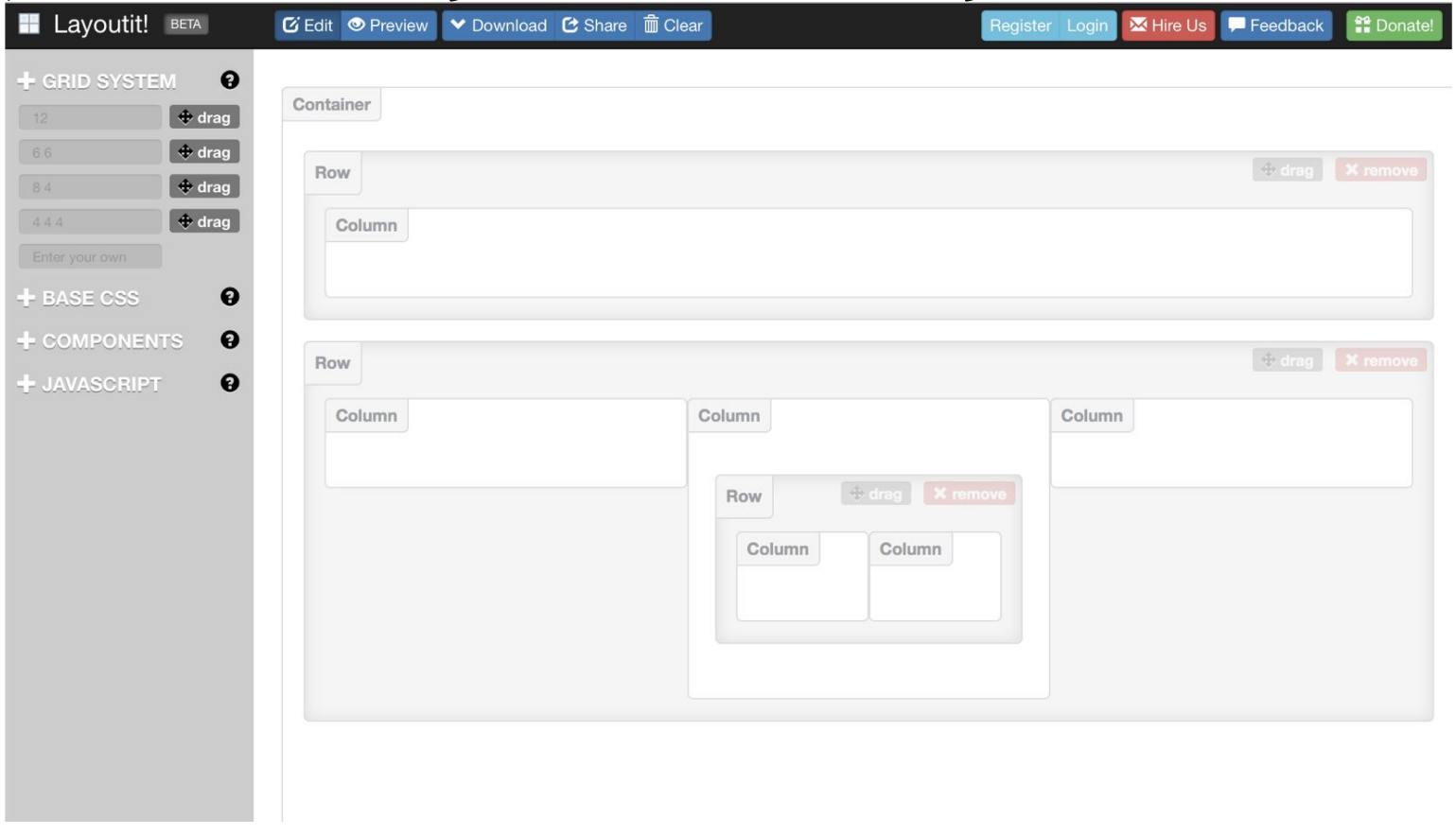
AppFormer - Data Modelling



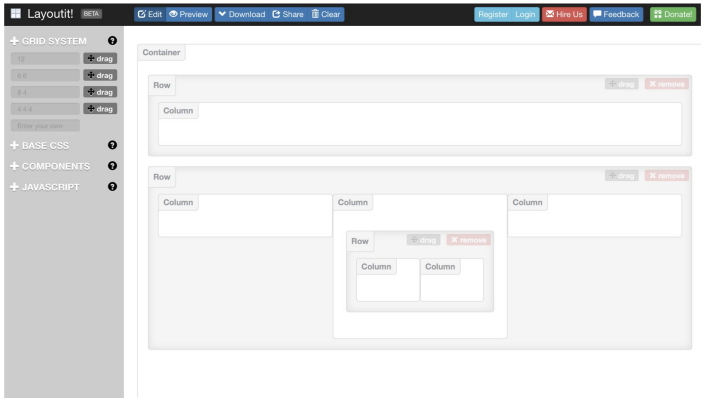
AppFormer - Page/Form Building

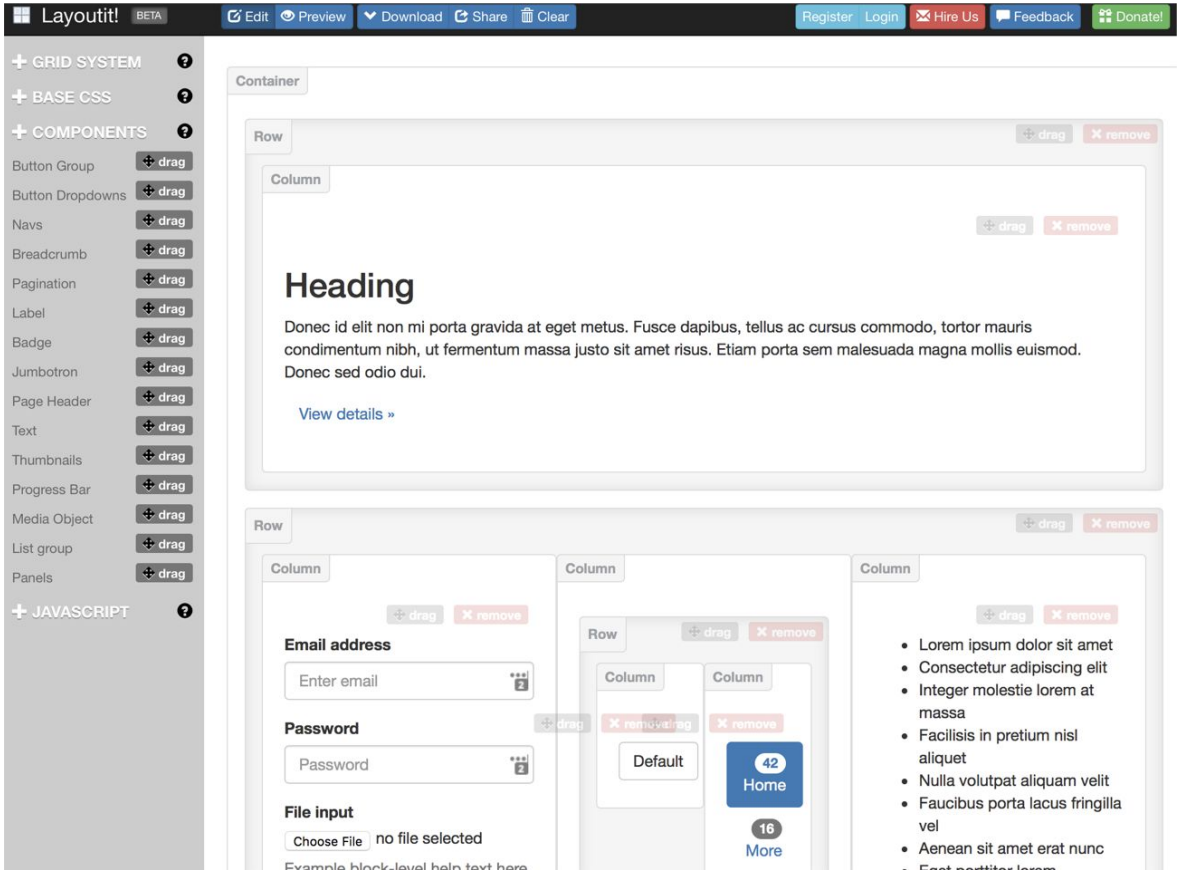


AppFormer - Page/Form Building



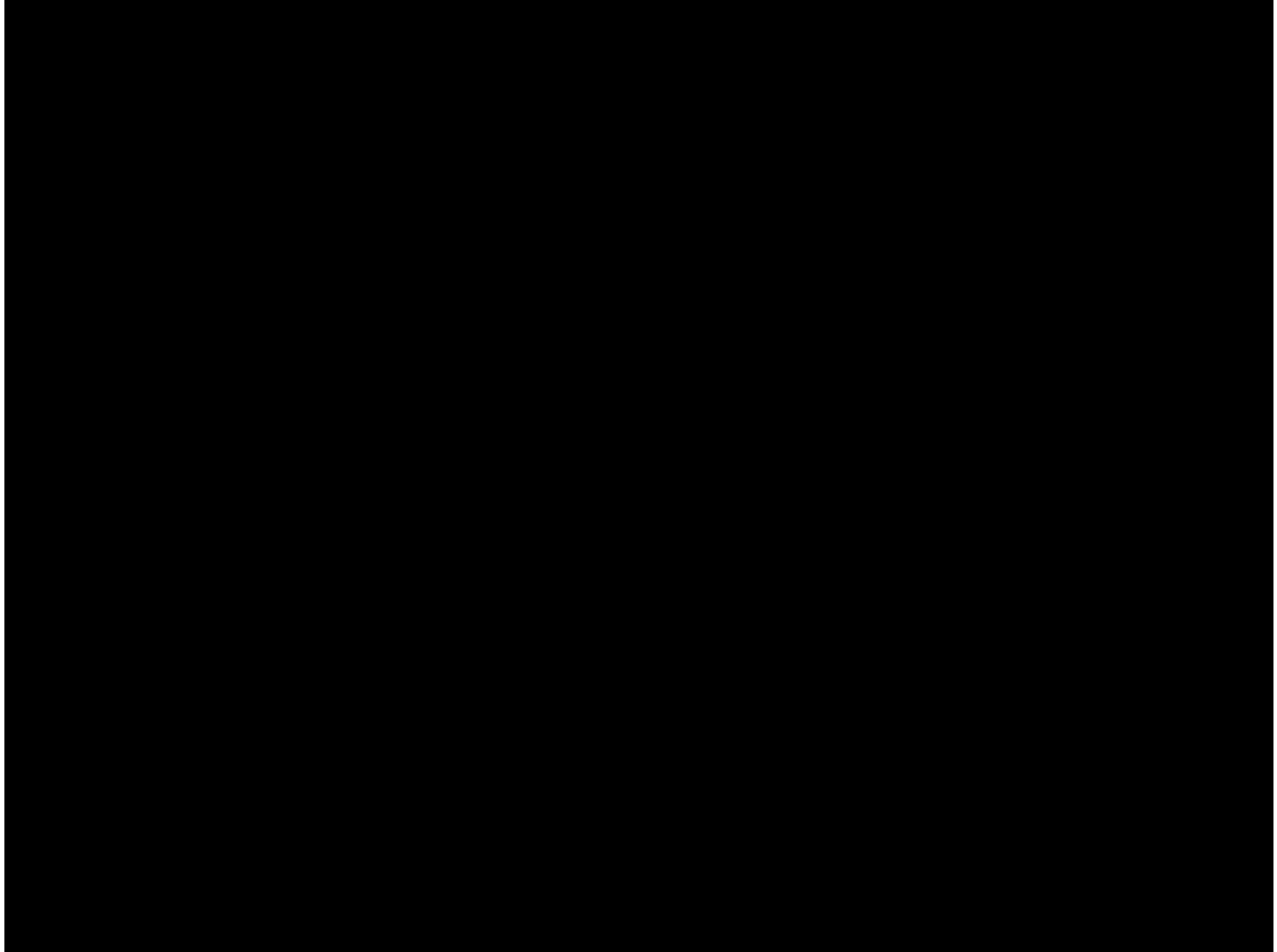
AppFormer - Page/Form Building



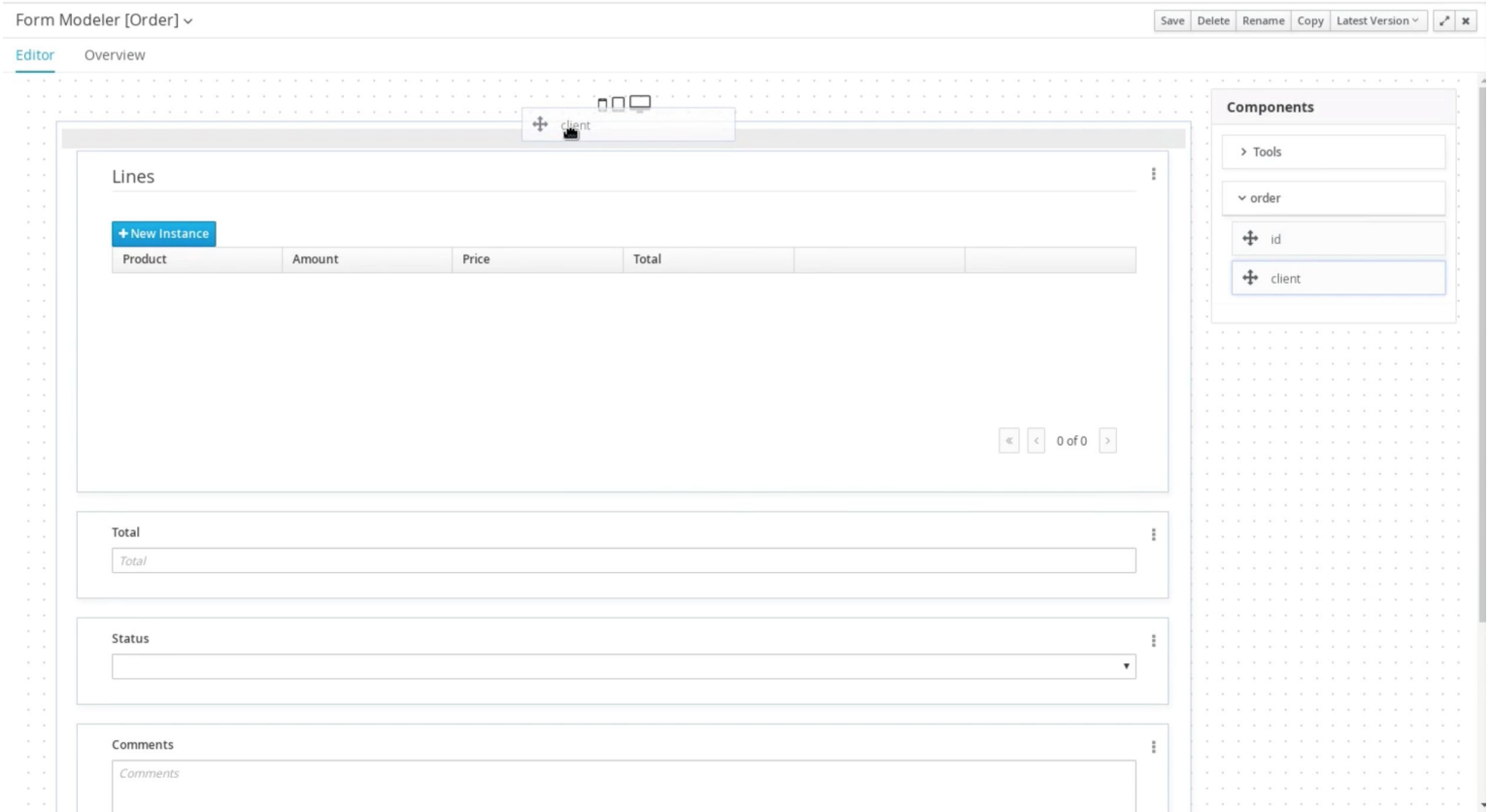


AppFormer - Page Builder

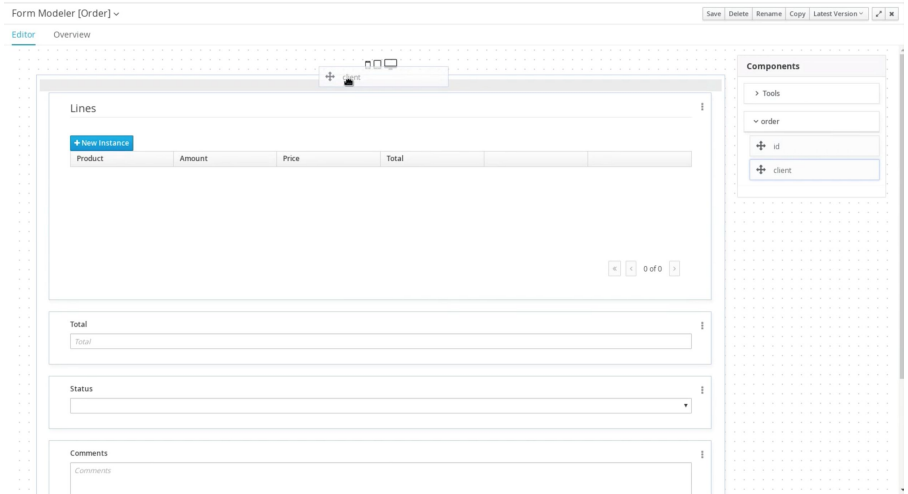
Video

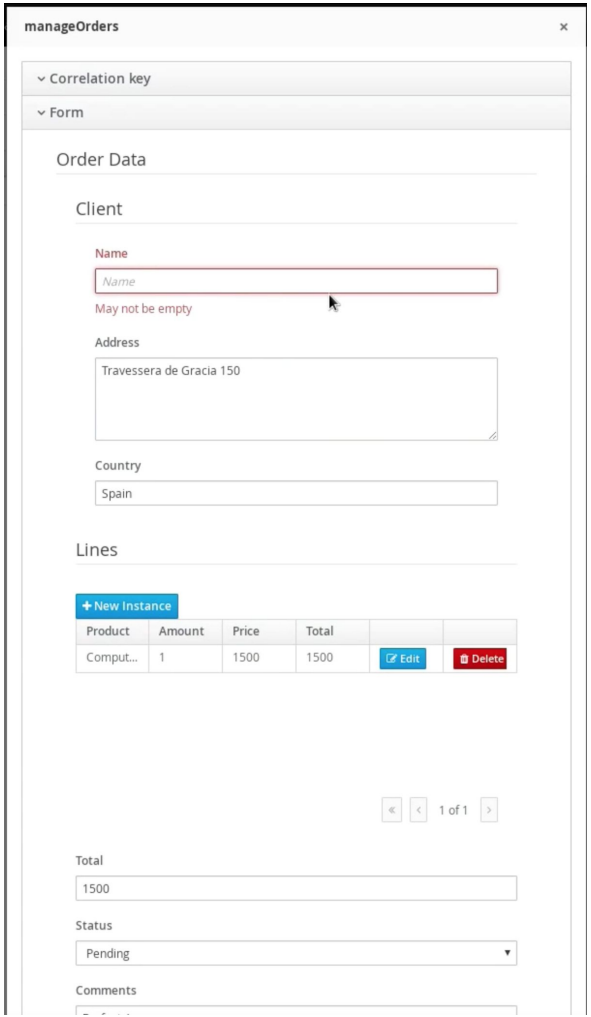


AppFormer - Form Building



AppFormer - Form Building



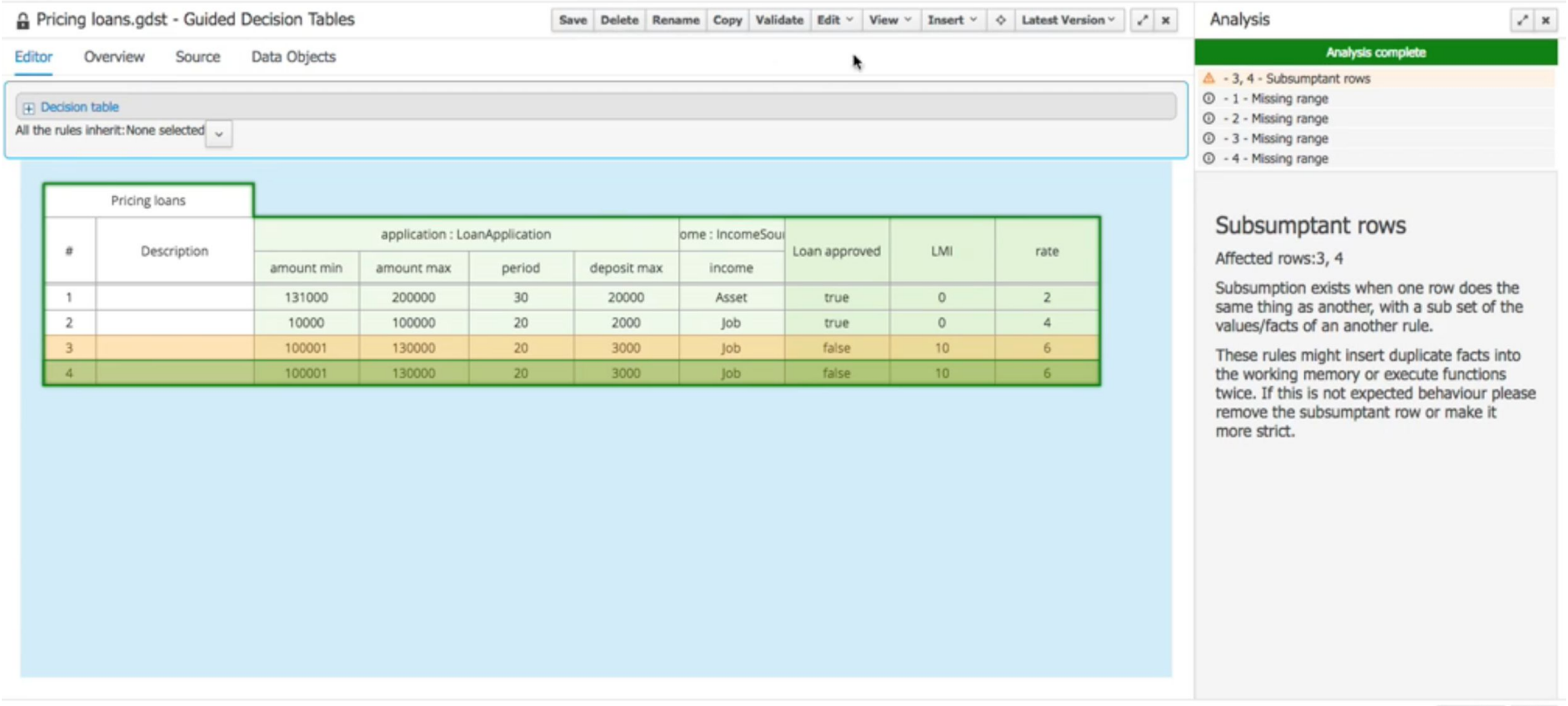


DashBuilder - BAM/Reporting

Video

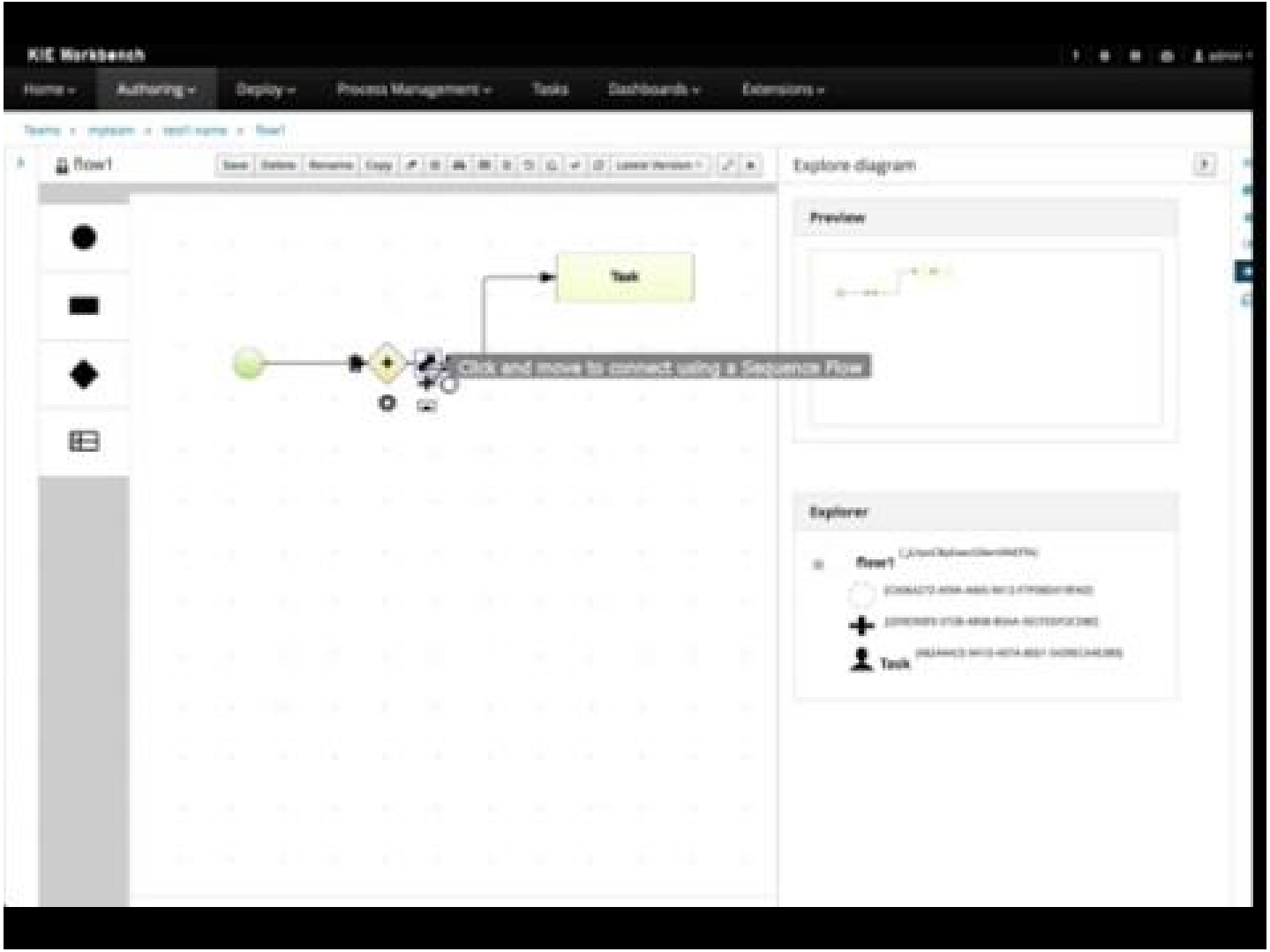
Sales pipeline $20,763 K

Drools - Decision Tables

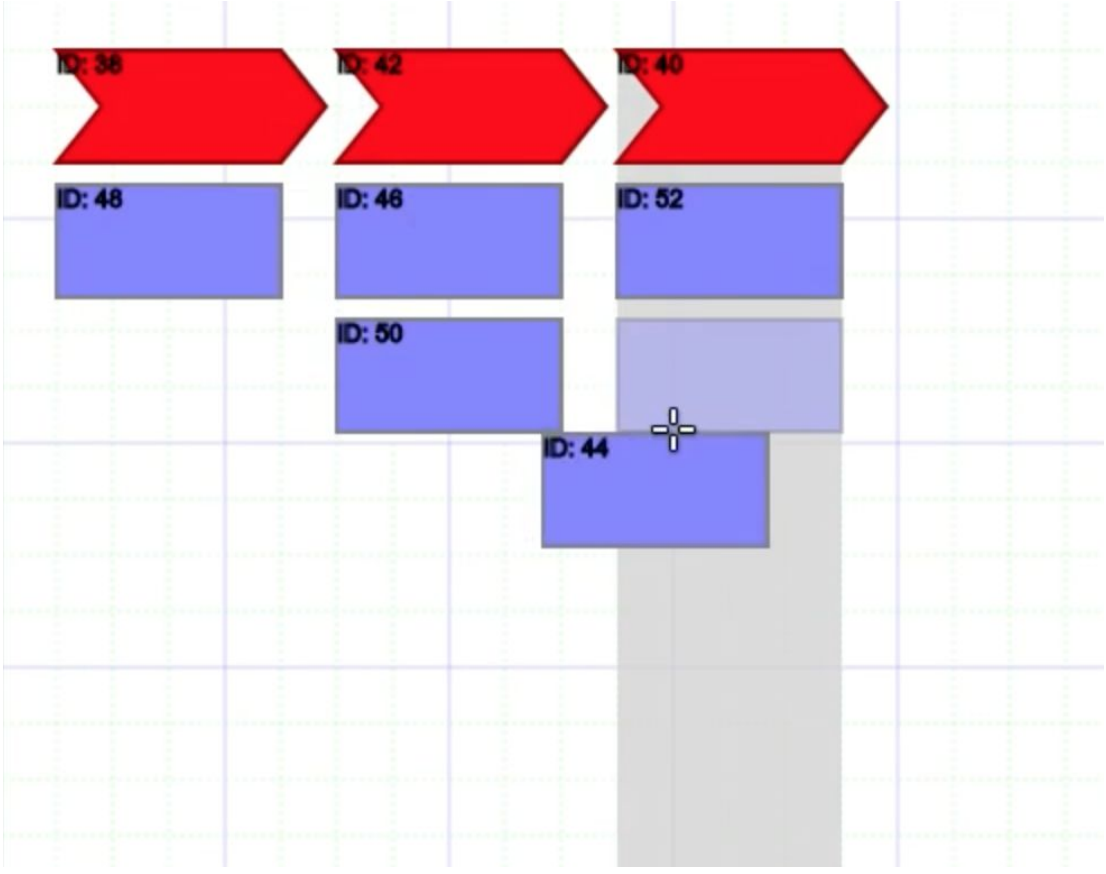


jBPM - BPMN Modeller

Video


KIE Workbench
Home
Authoring
Deploy
Process Management
Tasks
Dashboards
Extensions
Flow1
Explore diagram
Preview
Task
Click and move to connect using a Sequence Flow
Explorer
Flow1
Task

jBPM - Case Modeller



MODERN APPLICATION DEVELOPMENT & UX CONVERGENCE

Robb Harvey, Entando

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entando

A Digital Experience Platform (DXP) for Modern Application Development.

Robb Harvey
COO

Gartner 2015 Cool Vendor

MARKET CONDITIONS

Radical Transformation of the Modern Enterprise

New Architectures, Processes, Platforms

E.g., Hybrid Cloud Computing, DevOps

Enterprise Experience

Proliferation of UX, Apps, Devices & Content

ENTERPRISE SILOS

Threatening Customer Experience

Fragmentation

Disincentivized BU's

Organizational Culture - Centralized IT has lost control

APP MODERNIZATION

Not just a modernization of your infrastructure

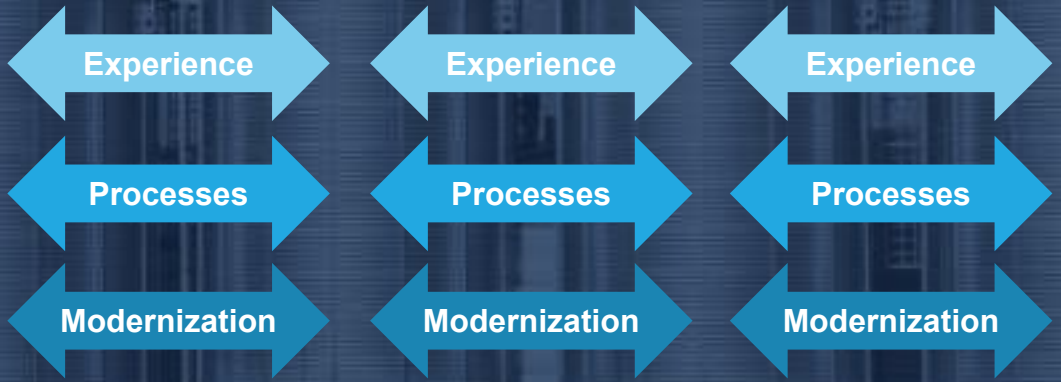
- Application Composition (Forms, Navigation, Roles, etc)
- Low-Code Tooling
- Process-Driven Design & Modelling
- Collaboration
- Real-Time Analytics & Behavioral
- Agnostic UI Integration
- Application MarketPlace
- Founded on Principles of Continuous Integration

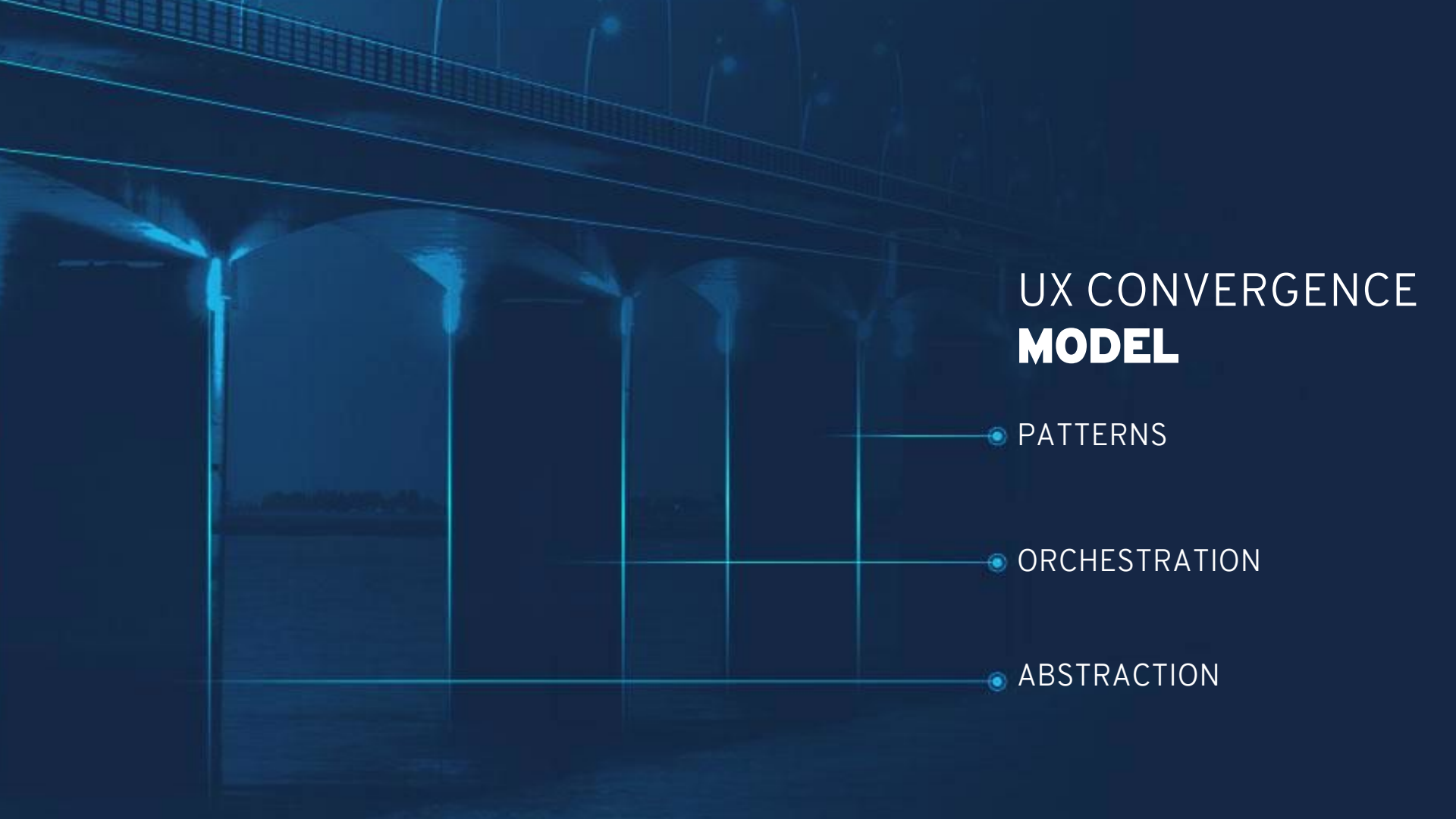
THE UX CONVERGENCE

SOLUTION

BRIDGING THE SILOS

UX Convergence Delivers Omnichannel Experiences Across Silos




UX CONVERGENCE
MODEL
PATTERNS
ORCHESTRATION
ABSTRACTION

EXAMPLE

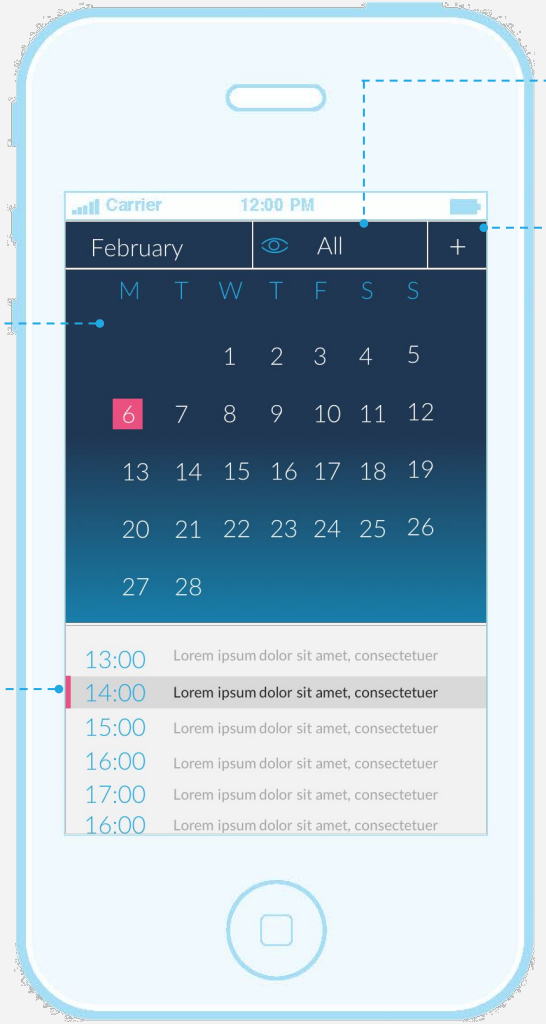
THE CALENDAR

Month View

Standard View for
Appointment Dates & Times

Today View

Appointment Details



Filter Calendar View

From
available/integrated
calendars

Create New Appointment

From available/integrated
calendars

RED HAT® JBOSS® BPM SUITE

entando

Interested in learning more?
Head over to the **Modern Application Dev** area to learn more.

Partner Pavilion
Exhibit Hall A

Lightning Talk Theatre @ Dev Zone
UX Convergence - Harmonizing User Experience Across the Enterprise

Date/Time:
Wednesday, May 3rd - 10:40am

CASE STUDY
JBOSS BRMS AT ASAHI TEKKO, JAPAN

Masahiko Umeno, Principal Solution Architect, Red Hat
Tetsuya Kimura, CEO, iSmart Technologies
Ryuji Kurokawa, COO, iSmart Technologies

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Speakers

iSTC i Smart Technologies

Asahi-Tekko CEO
iSTC CEO

Tetsuya **KIMURA**

iSTC COO

Ryuji **KUROKAWA**

Red Hat
Principal
Solution Architect

Masahiko **UMENO**

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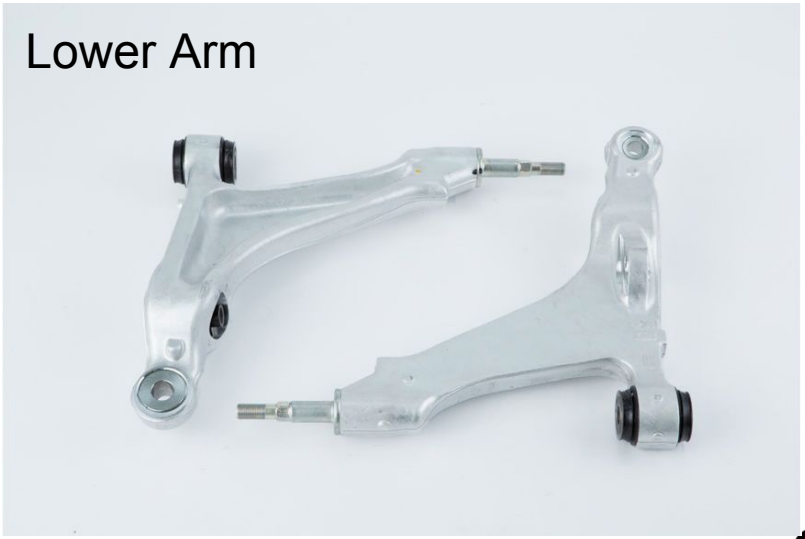
Company Profile

ASAHI
旭鉄工株式会社

- Automobile parts supplier mainly for TOYOTA group
- Annual sales : 140M US$
- Number of employees: 480



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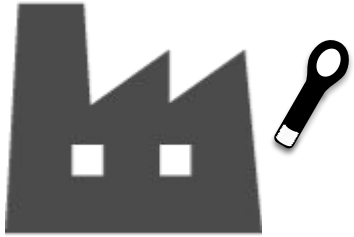
More order from TOYOTA but…

Factory space was short by 3,200yard

Not enough…
Build new factory?



Maximize
productivity

IoT Solution

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To increase the number of production

Reduce Downtime

$$\text{Number of Production} = \frac{\text{Operating Time [s]} \times \text{Operating Ratio [\%]}}{\text{Cycle time[s]}}$$

Shorten Cycle Time

IoT Solution to visualize

downtime and cycle time

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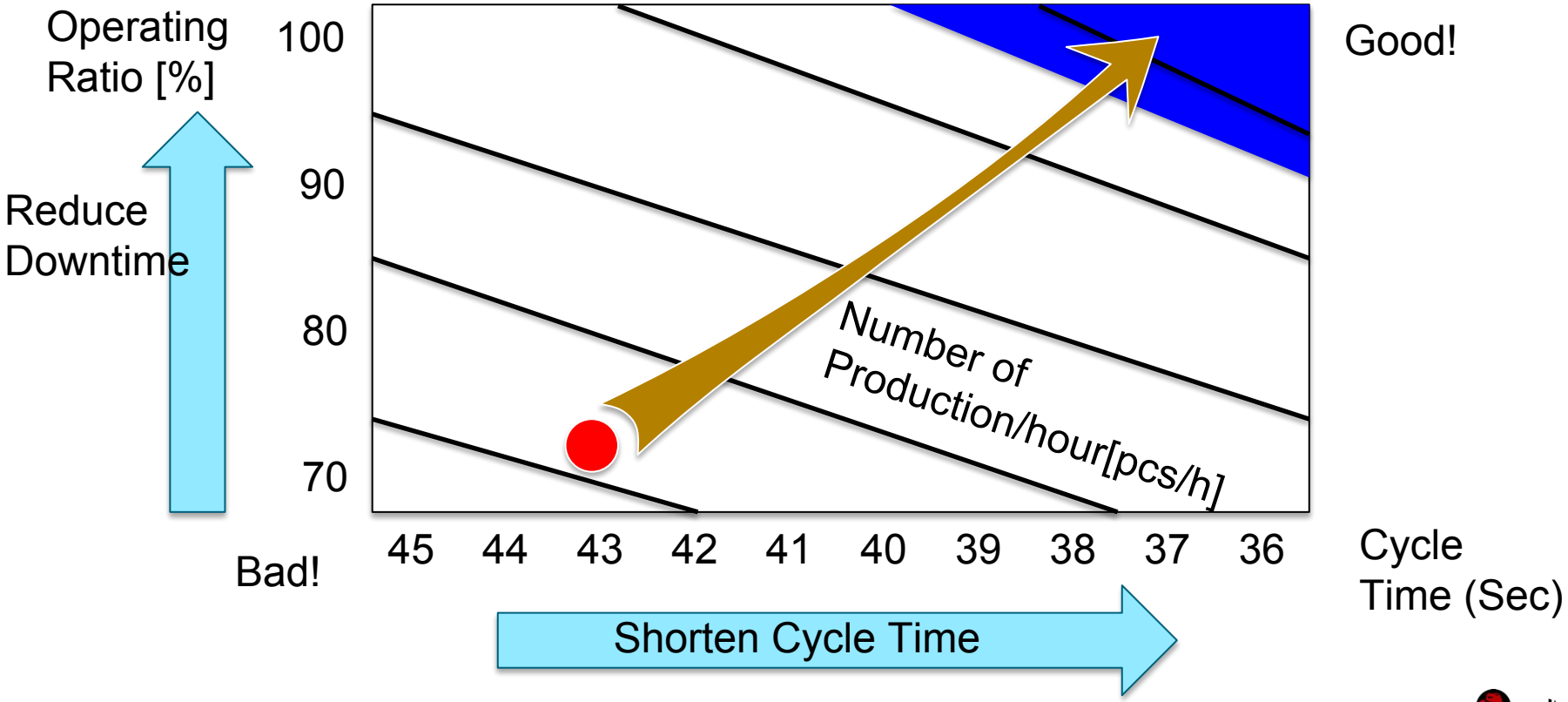
To increase number of production



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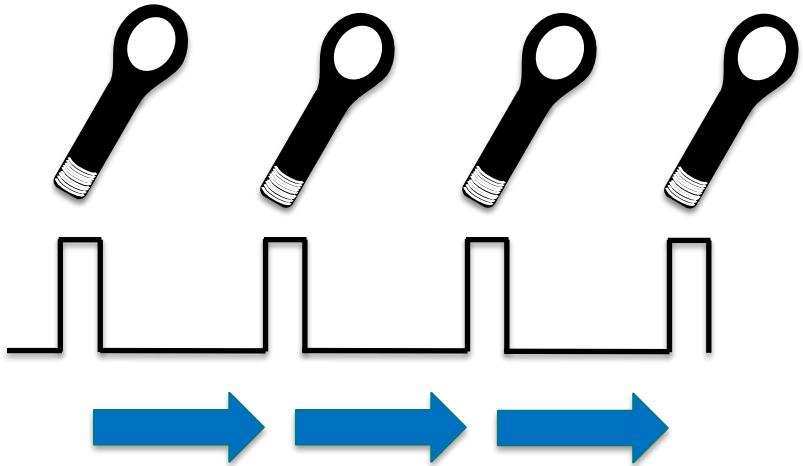
What is Cycle Time?



The period required
to complete one piece of production

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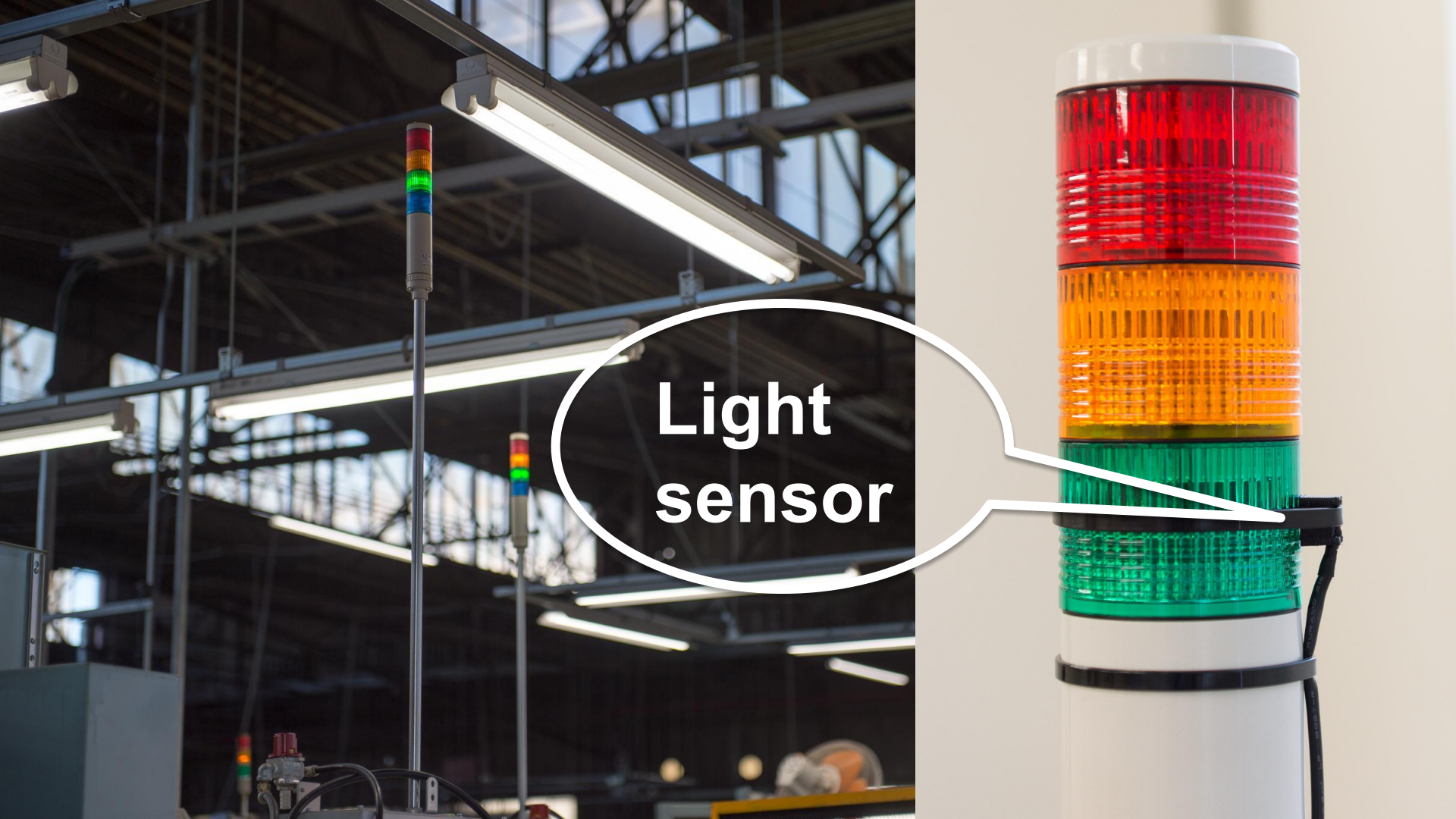
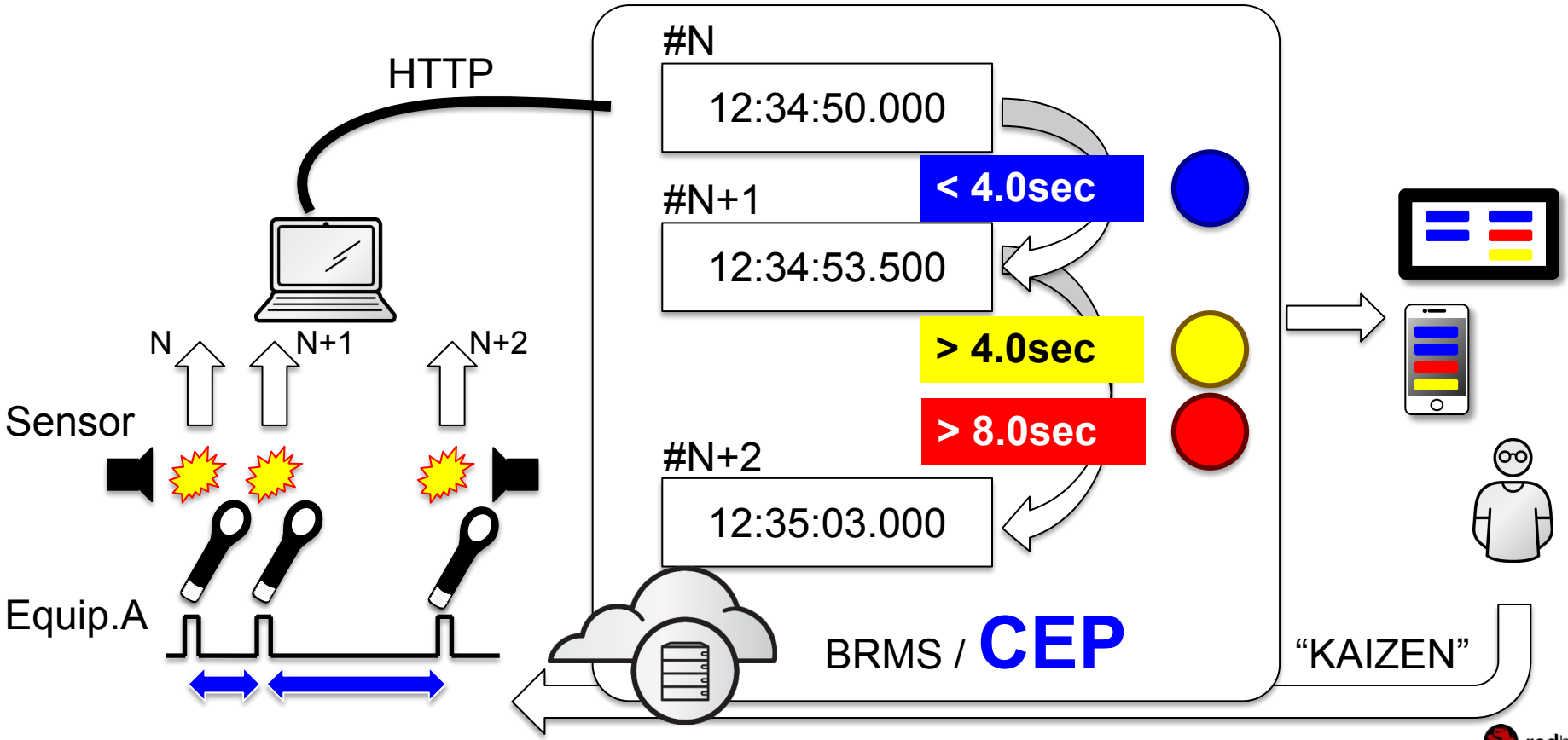

Light
sensor

Cycle Time Monitor

Alert Threshold:4.0 for Equip.A



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ストラット工場

稼働状況

バー工場

稼働状況

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CTモニター詳細

Aライン / A-05

2017/04/11 05:00:00 ～ 2017/04/11 14:30:00

Downtime

停止時間

51分26秒

停止要因情報

ランク	発生時刻	復帰時刻	停止時間	
1	09:32:09	10:23:35	51分26秒	
2	07:51:37	07:54:20	02分42秒	
3	05:40:35	05:41:55	01分20秒	設備停止
4	09:06:26	09:07:36	01分09秒	設備停止
5	05:31:47	05:32:44	00分57秒	設備停止

信号詳細

CT 平均値 4.7
LQI 平均値 73.3

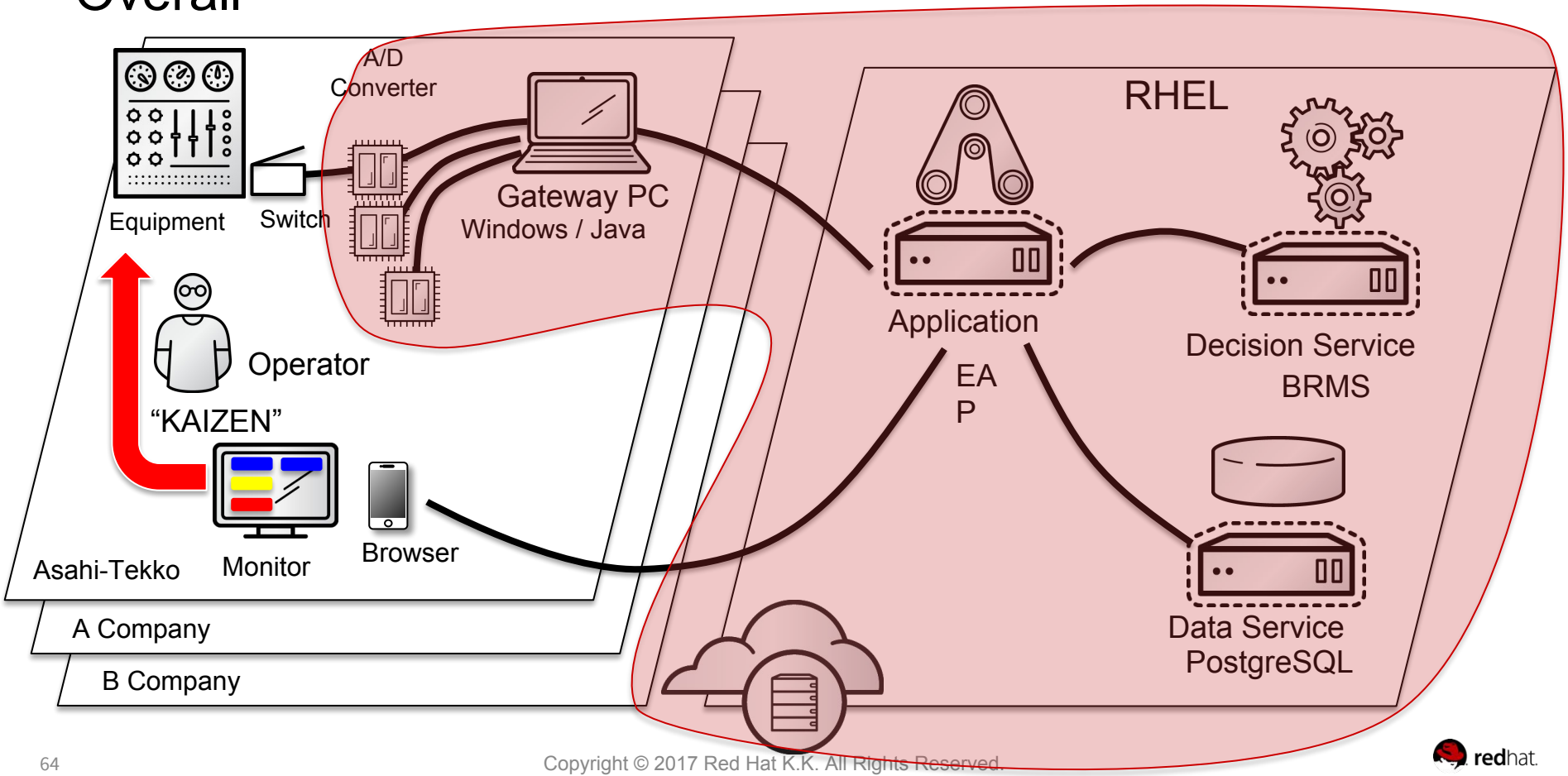
Cycle Time

13:01:34 3.8

13:01:30 4.4

13:01:38	3.8	0	72
13:01:34	3.8	0	72
13:01:30	4.4	0	72
13:01:26	3.8	0	75
13:01:22	3.9	0	75

Overall



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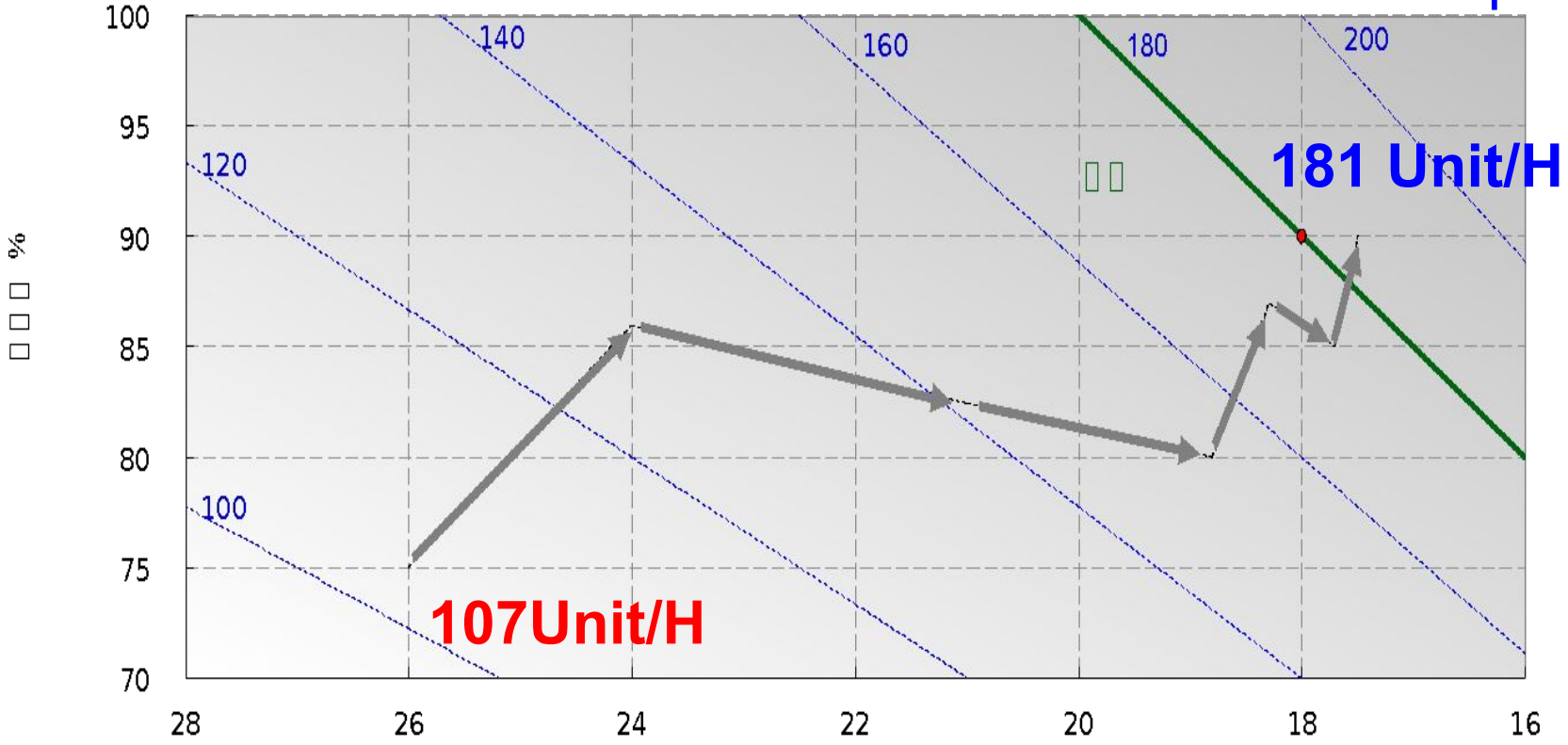
Tow Hook

69%↑



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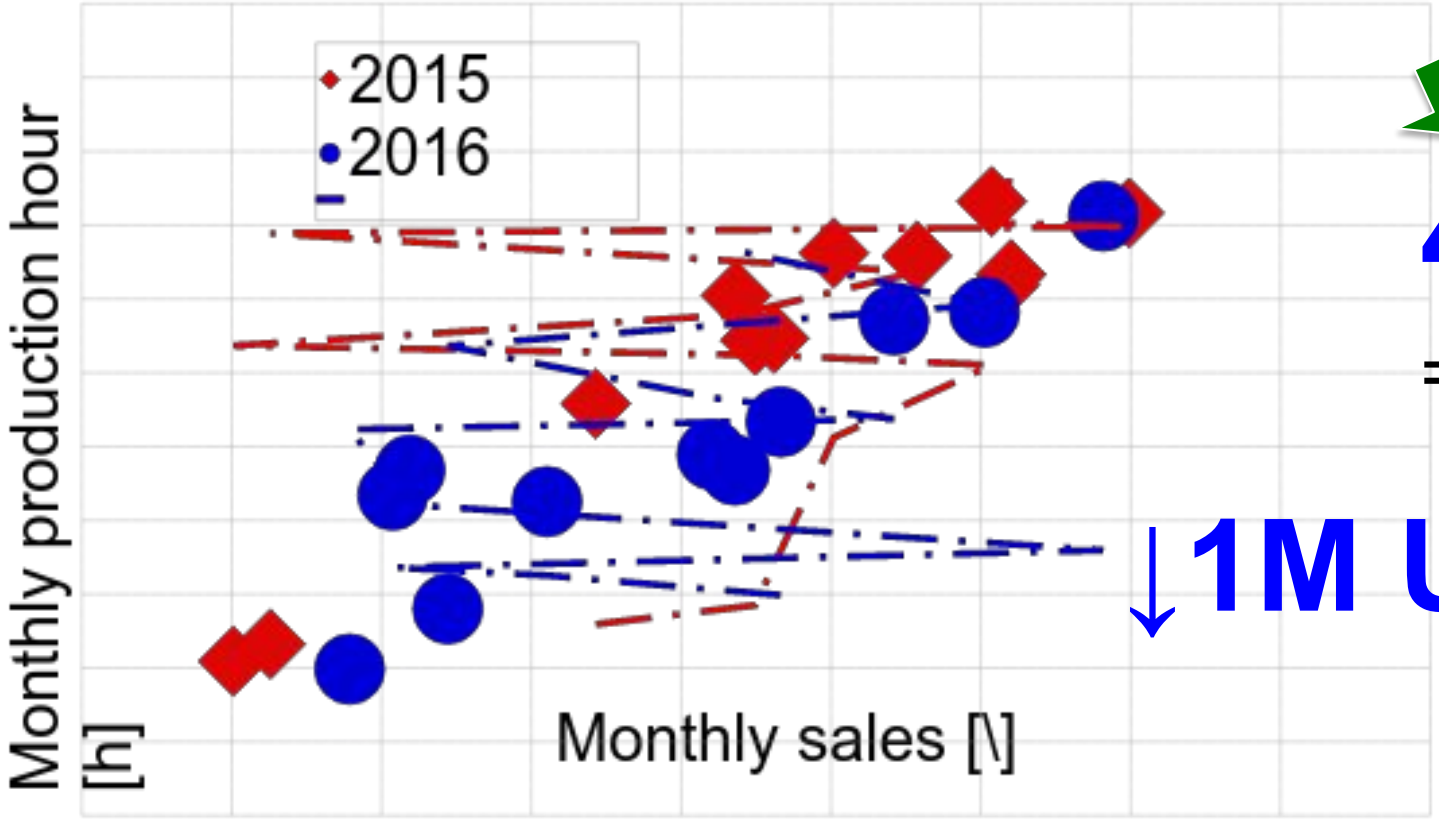
Labor cost



4% ↓

=20,000h

↓1M USD

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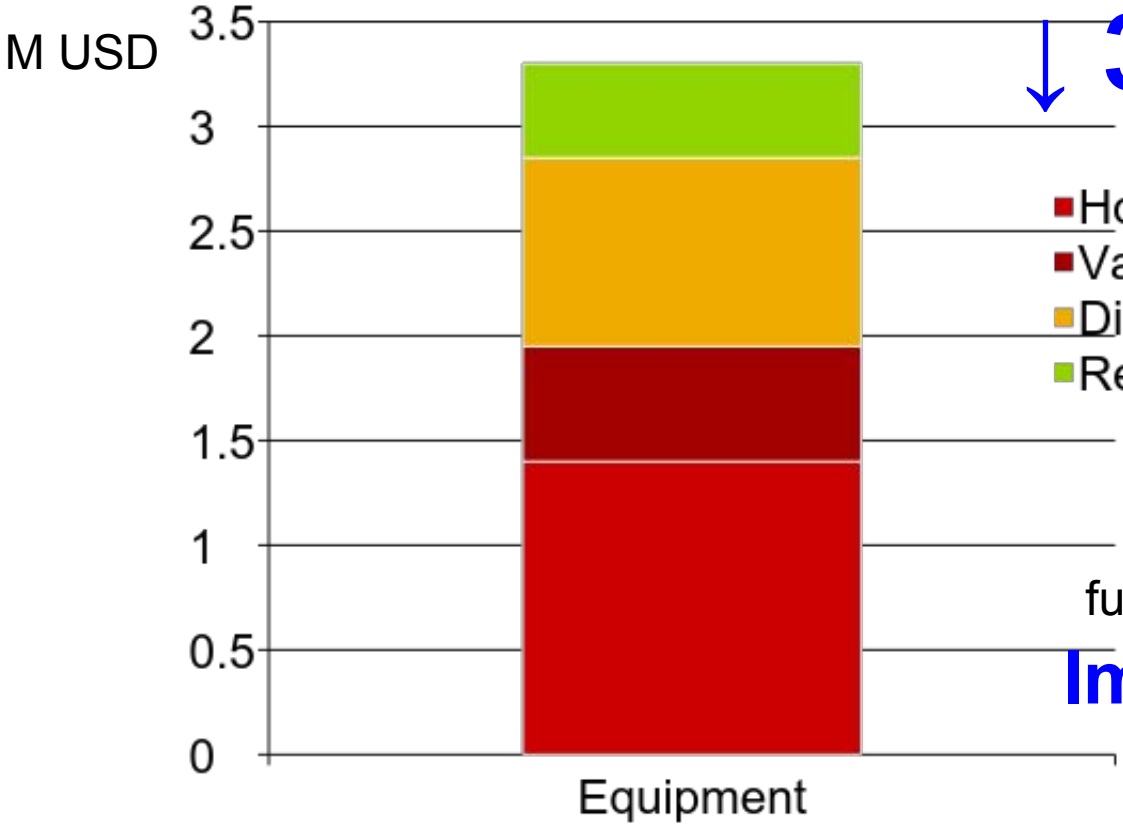
Capital investment reduction



↓ 3.3M USD!

further

Improved Quality!!

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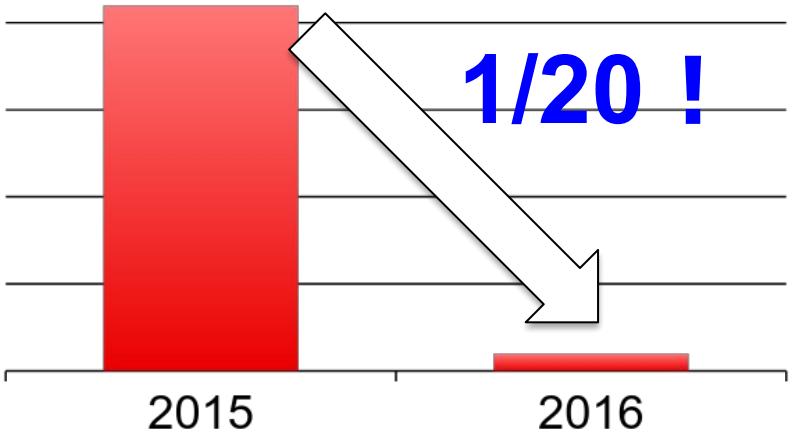
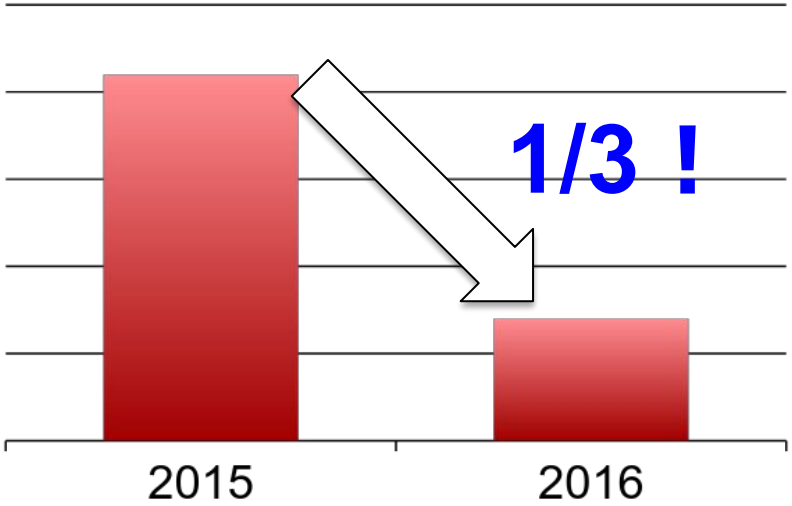
Quality of production

Fraction defective of Tow Hook



Fraction defective of ALL



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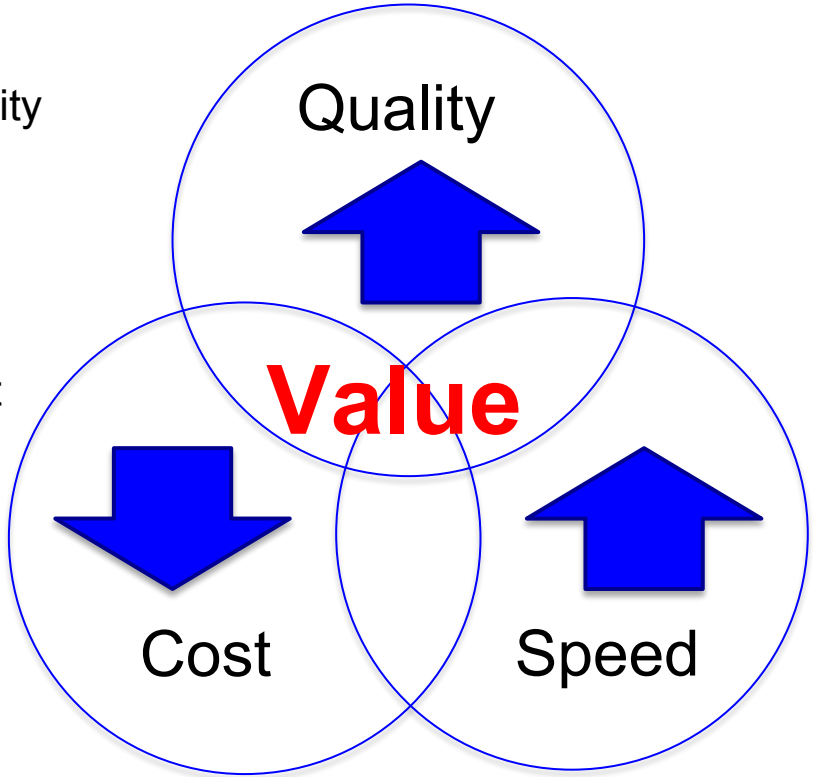
Lesson and Learned

- Improved QoS
- Improved Software Quality
- Reduced Failure
- Reduced miss operation



Same as

DevOps

- Reduce Production Cost
- Effective use Resource
- Reduce Labor Cost
- Reduce unnecessary Operation

- Automated Operation
- Shorter interval
- “KAIZEN”
- Reduce stopping time

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Related Talks

Time	Topic	Room
Tues 11:30am	Transforming a Process-Driven Enterprise to a Digitally Engaged Enterprise	157B
Tues 3:30pm	Decision Modeling & Notation 101	154
Tues 3:30pm	Show me the money!!!: optimize your business with JBoss BRMS Business Resource Planner	153
Weds 10:15am	BoF - Preview BPM Suite 7 And meet the brains behind it	158
Weds 4:30pm	Deep dive on Case Management	151B
Thurs 10:15am	Case management applications with BPM	153C
Thurs 11:30am	Advanced Drools BoF	158

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A DESIGN APPROACH TO BRIDGE DEVOPS AND BUSINESS AUTOMATION

Ron Murhammer, NA Business Automation Practice Lead
David Bush, Business Automation Consultant

Tuesday, May 2, 3:30 PM - 4:15 PM

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UXD

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Partner Pavilion
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