

COMPONENT-BASED DESIGN SYSTEM AND DEVELOPMENT

Tereza Novotná **April 8, 2019**
Dávid Halász **Göteborg, Sweden**

Dávid Halász

- Software Engineer @Red Hat
- Works on ManageIQ mostly in Ruby
- Used to be the maintainer of PatternFly Sass
- Self-proclaimed JavaScript hater
- Passionate guitarist and ukulele player



@halaszdavid

Tereza Novotná

- Interaction Designer @RedHatUXD
- Oversees designs for ManagelQ, Foreman, Insights
- Lived 7 years in North Carolina
- Loves working with people and bringing human perspective to technology.
- Enjoys running and traveling



@terezanvtn



redhat.®

Over 40 different products

They all looked different

JBoss by Red Hat

Dashboard Inventory Reports Bundles Administration Help rhqadmin | Logout

All configuration properties have valid values, so the configuration can now be saved.

mod_cluster MOD_CLUSTER

Tags: +

Summary Inventory Alerts Monitoring Operations Configuration

Current History

Save

Property	Unset?	Value	Description
Sticky Sessions		<input checked="" type="radio"/> Yes <input type="radio"/> No	Enables sticky sessions.
Sticky Session Remove		<input checked="" type="radio"/> Yes <input type="radio"/> No	Remove session when the request cannot be routed to the right node.
Advertise		<input checked="" type="radio"/> Yes <input type="radio"/> No	Enable autodiscovery of httpd servers.

CPUs

File Systems

Hosts File

JBossAS Servers

serverexample.com:1099 all

Applications

JBoss Cache subsystem

mod_cluster

mod_cluster Webapp Context

Context [path=/, host=loc

Context [path=/invoker, h

Context [path=/jbossmq-l

Context [path=/jbossws, t

Context [path=/jmx-cons

Context [path=/juddi, hos

Context [path=/loaddemo

Context [path=/web-cons

Resources

English (change) Knowledgebase Documentation USER: admin ORGANIZATION: RHN Satellite team Preferences Sign Out

RED HAT NETWORK SATELLITE

Systems

Search

Overview Systems Errata Channels Audit Configuration Schedule Users Admin Help

1 SYSTEM SELECTED MANAGE CLEAR

Satellite Test Client

remove from ssm delete system

Details Software Configuration Provisioning Groups Audit Events

List Scans Schedule

Schedule New XCCDF Scan

Command: /usr/bin/oscasp xccdf eval

Command-line Arguments:

Path to XCCDF document*:

Schedule no sooner than: July 23 2012 8:38 PM EDT

Schedule

Tip: The --profile command-line argument might be required by certain versions of OpenSCAP. It determinates a particular profile from XCCDF document.

Firefox Instance Overview - OpenStack Dashbo...

192.168.1.114/dashboard/nova/

redhat

openstack DISTRIBUTION

Project

CURRENT PROJECT

Manage Compute

Overview

Instances

Volumes

Images & Snapshots

Access & Security

Overview

Quota Summary

Used 1 of 10 Available Instances

Used 1 of 20 Available vCPUs

Used 2,048 MB of 51,200 MB Available RAM

Select a month to query its usage:

March 2013 Submit

Active Instances: 1 Active RAM: 2GB This Month's VCPU-Hours: 0.98 This Month's GB-Hours: 19.55

Usage Summary

Instance Name	VCPUs	Disk	RAM	Uptime
Test 3	1	20	2GB	58 minutes

Download CSV Summary

Displaying 1 item

Demo Center Munich

ENTERPRISE VIRTUALIZATION

Logged in user: rhevadmin | Sign out | Configure | About

Search: Host:datacenter = iSCSI-Prod

Bookmarks

New Edit Remove

Data Centers Clusters Hosts Storage Virtual Machines Pools Templates Users Events Monitor

New Edit Remove Activate Maintenance Approve Power Management Manual Fence Custom Actions

Name	Host/IP	Cluster	Status	Load	Memory	CPU	Network	SpmStatus
hV001.coe.muc.redhat.c	10.200.66.32	iSCSI-Prod	Up	1 VMs	8%	12%	0%	SPM
hV002.coe.muc.redhat.c	10.200.66.33	iSCSI-Prod	Maintenance	0 VMs	0%	0%	0%	None
hV003.coe.muc.redhat.c	10.200.66.34	iSCSI-Prod	Up	1 VMs	5%	6%	0%	None

Last message: Operation Add-Disk to VM Win2K8 has been completed.

Nov 13, 11:54 Operation Add-Disk to VM Win2K8 has been completed.

Nov 13, 11:54 Operation Add-Disk to VM Win2K8 was initiated by rhevadmin.

Nov 13, 11:54 Interface eth0 (e1000) added to VM Win2K8

OPENSHIFT | MANAGEMENT CONSOLE

My Applications Create Application Help My Account

MY APPLICATIONS / DEMO2 / NEXT STEPS

1 Choose a type of application 2 Configure and deploy the application 3 Next steps

Your application has been created. If you're new to OpenShift check out these tips for where to go next.

Accessing your application

Your application has one or more cartridges that expose a public URL to the Internet. Click the link below to see your application:

http://demo2-jbossmk.rhcloud.com/

The application overview page provides a summary of your application and its cartridges.

Making code changes

Adding capabilities

Cartridges are the components of an OpenShift application, and include databases, build systems, and management capabilities. Adding a cartridge to an application provides the desired capability without forcing you to administrate or update that feature.

To run a PHP application with MySQL (the M and P in LAMP) you embed the MySQL cartridge into your application. OpenShift gives your PHP code access to your new MySQL database, but manages the database server for you.

RED HAT CLOUDFORMS MANAGEMENT ENGINE

Administrator | EVM

Virtual Intelligence Services Cloud Infrastructure Control Automate Optimize

Providers Clusters Hosts Virtual Machines Resource Pools Datastores Repositories PXE Requests

Configuration Policy

Infrastructure Providers

(Check All) Sort by: Asc. by: Name Per page: 20 (Items 1-2 of 2)

4 RHEV

Host Name: rhc--rhevm.rhc.lab.eng.bos.redhat.com

IP Address: 10.16.132.32

Type: Red Hat Enterprise Virtualization Manager

EVM Zone: default

1 vSphere

Host Name: rhc--vcenter.rhc.lab.eng.bos.redhat.com

IP Address: 10.16.132.33

Type: VMware vCenter

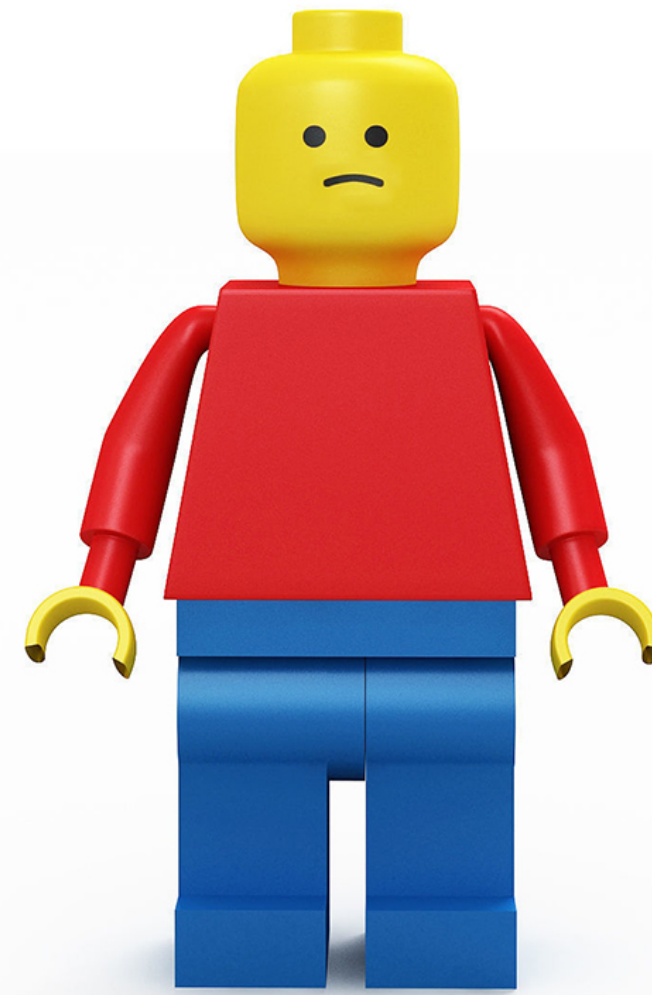
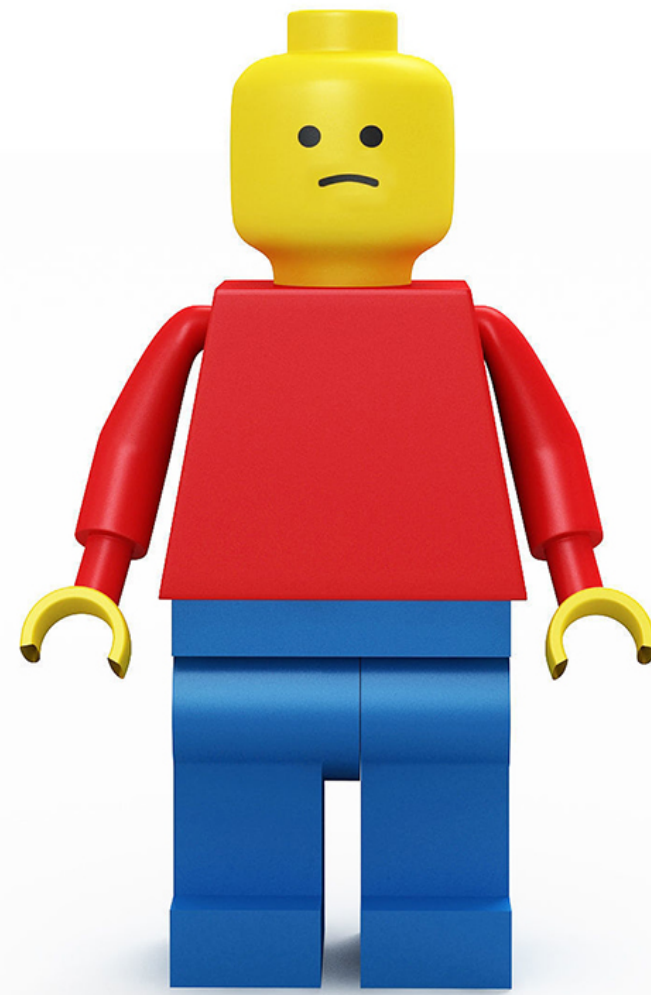
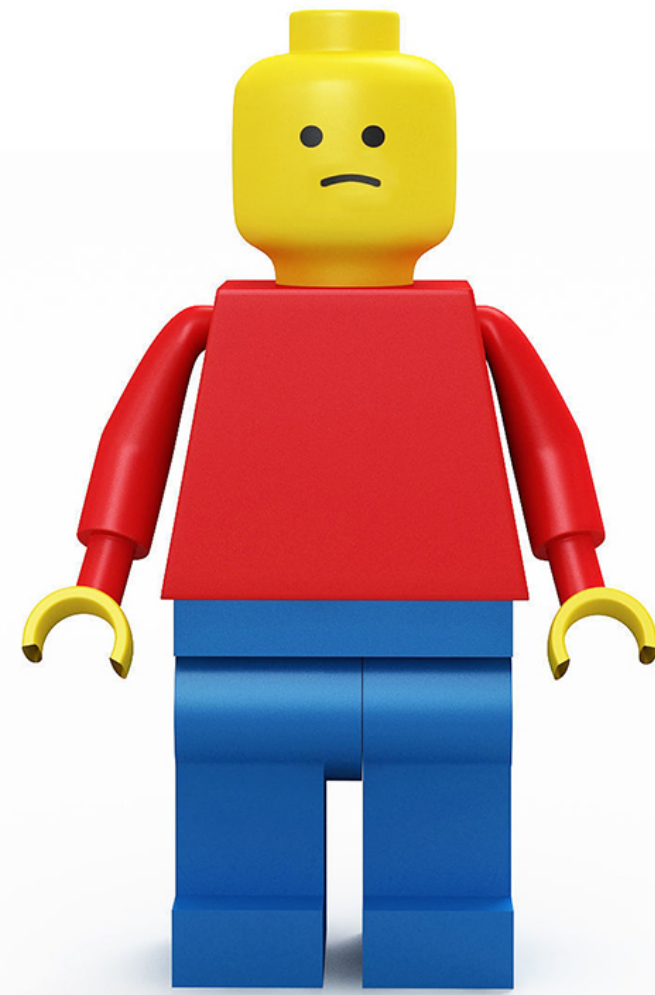
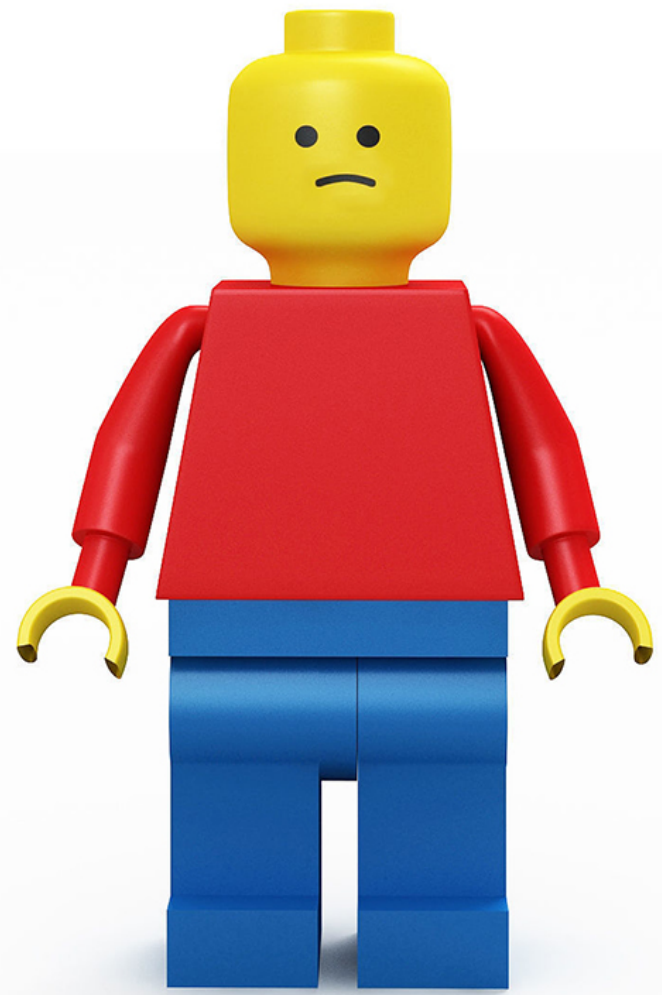
EVM Zone: default

Per page: 20 (Items 1-2 of 2)

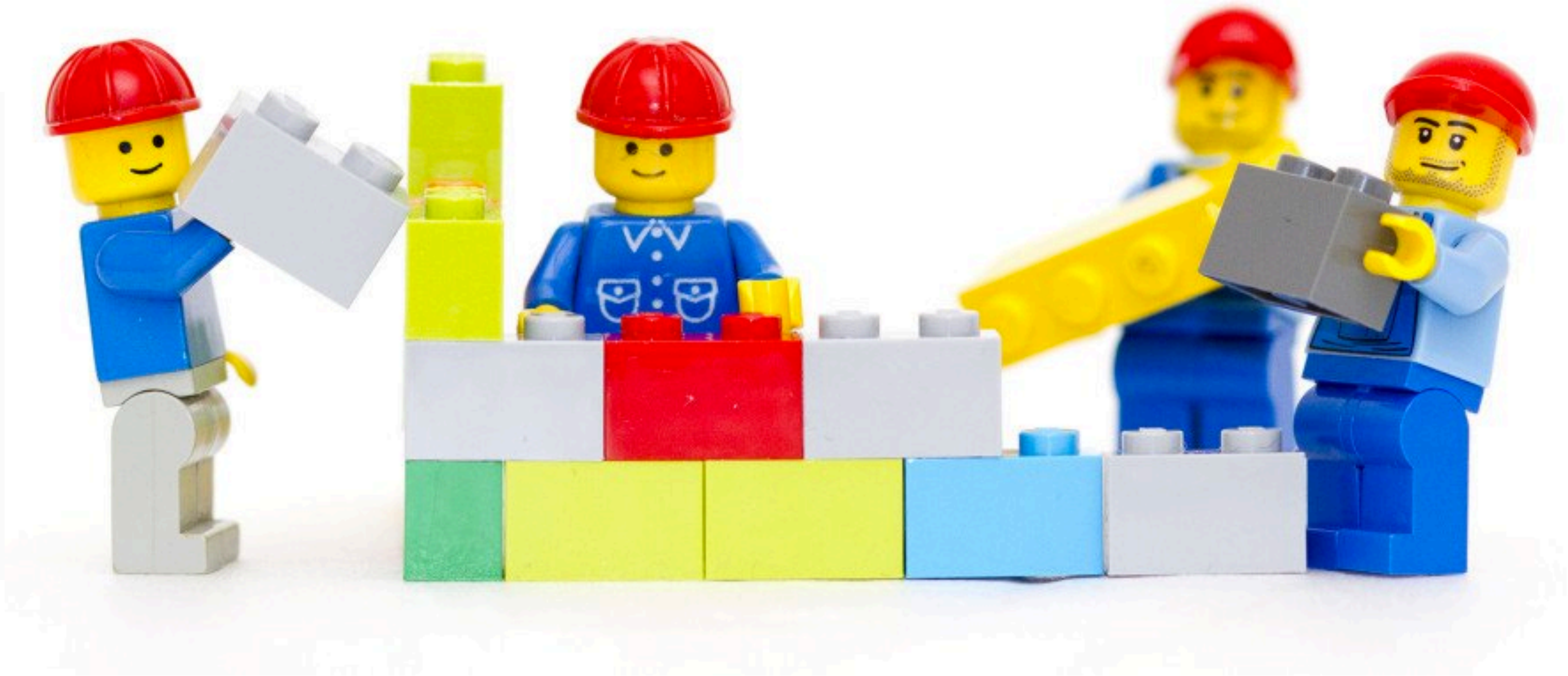
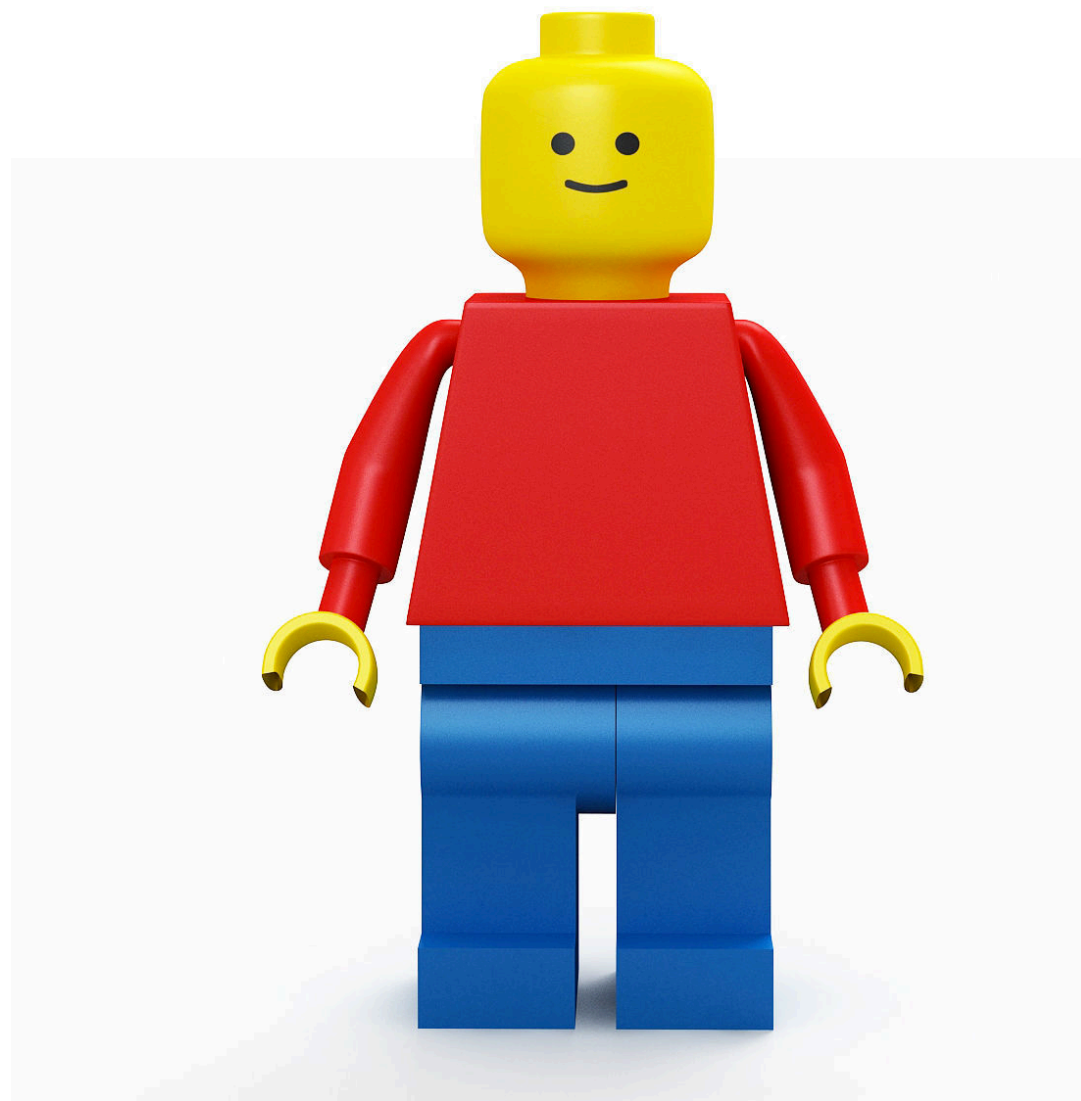


2013

UXD







Need of a design system

Modal Title

✕

Field One

Field Two

Field Three

Cancel

Save

Modal Title

✕

Field One

Field Two

Field Three

Cancel

Save

Modal Title

✕

Field One

Field Two

Field Three

Save

Cancel

THE WHY?

- Improve consistency
- Increase usability
- Reduce time and cost to market
- Share the best practices with the community


What is a design system?


**Rules, constrains, and
principles** implemented in
design and code.



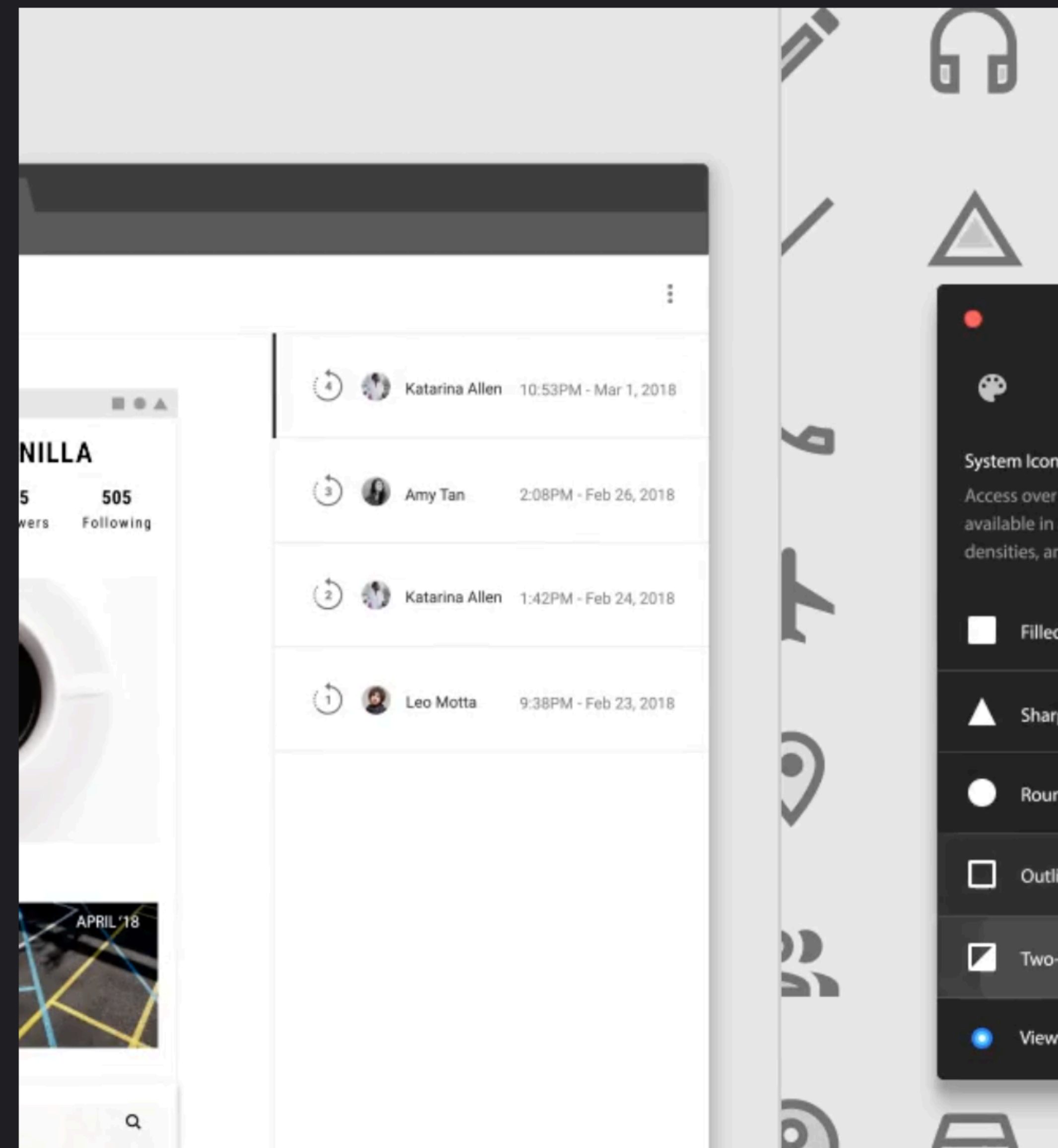
Make beautiful products, faster.
Material is a design system –
backed by open-source code – that
helps teams build digital experiences

 Design flexibly

 Develop across platforms

 Collaborate seamlessly

Design and build faster with new tools that make
it easy to customize Material and share work
across teams.



salesforce

Search



What's New

Getting Started

Platforms

Design Guidelines

Accessibility

Component Blueprints

Utilities

Design Tokens

Icons

Downloads

Articles

FAQ



LIGHTNING DESIGN SYSTEM

Create the world's best enterprise app experiences.

GET STARTED

Current release: [Winter '19 \(SLDS 2.7.0\)](#) | [Archives](#)



“Design system acts as a connective tissue that brings the portfolio together.”

Meet PatternFly



P A T T E R N F L Y

[Get Started](#)

[Pattern Library](#)

[Styles](#)

[Blog](#)

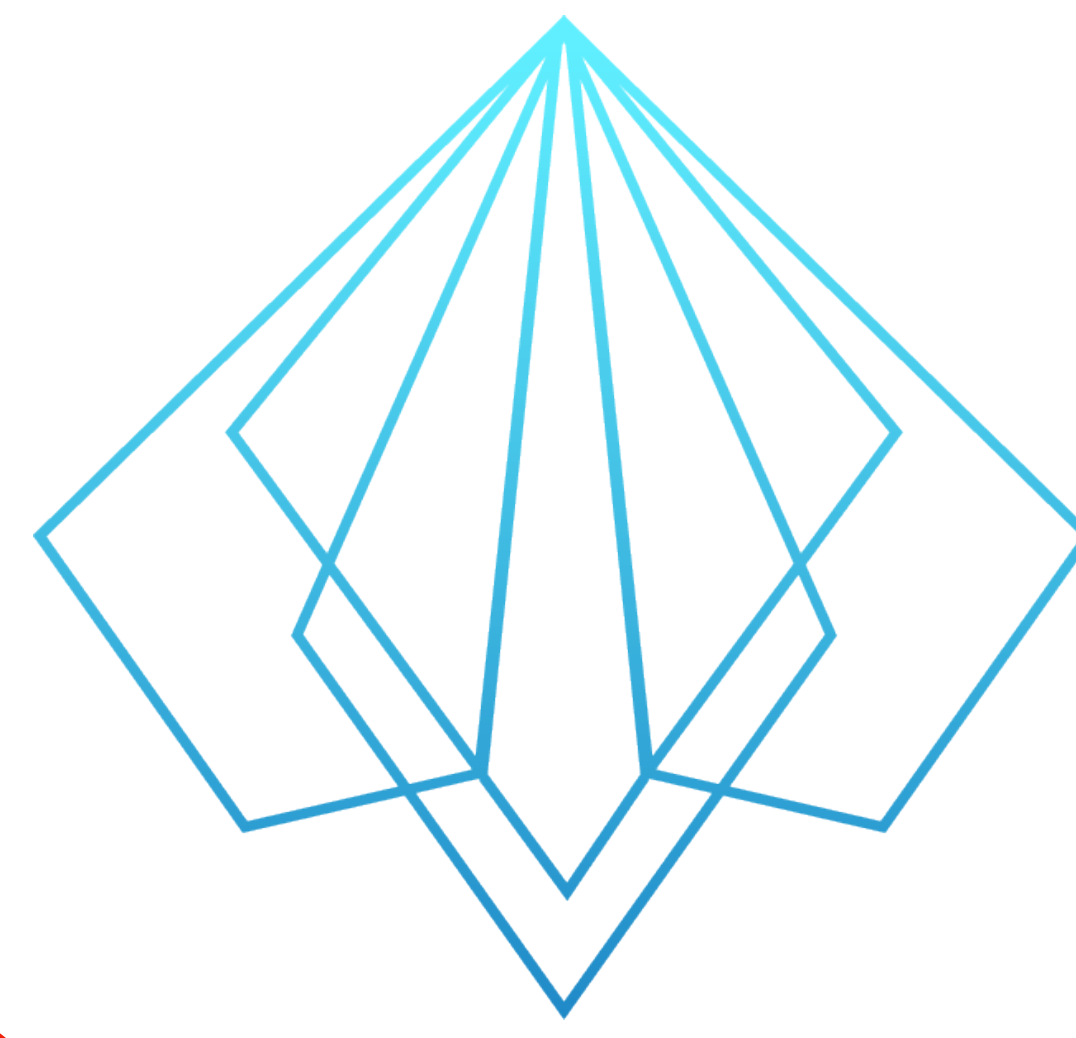
[Search](#)



PatternFly

A community of designers and developers collaborating to build a UI framework
for enterprise web applications.

Version 3.53.0



The first success

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hv002.coe.muc.redhat.c	10.200.66.33	iSCSI-Prod	Maintenance	0 VMs	0%	0%	0%	None
hv003.coe.muc.redhat.c	10.200.66.34	iSCSI-Prod	Up	1 VMs	5%	6%	0%	None

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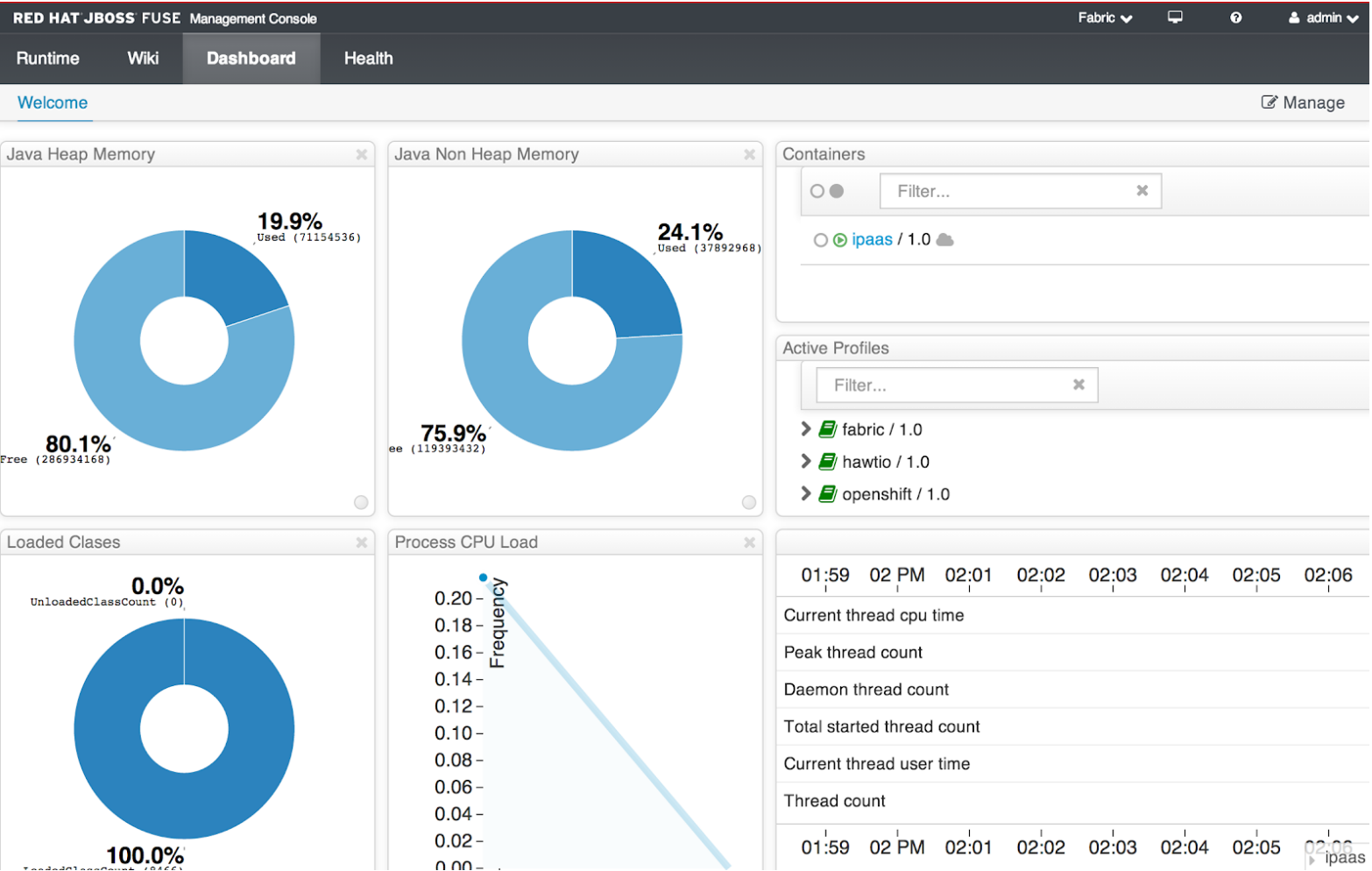
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Per page: 20 (Items 1-2 of 2)



RED HAT IDENTITY MANAGEMENT

Red Hat Access Administrator

Identity Policy Authentication Network Services IPA Server

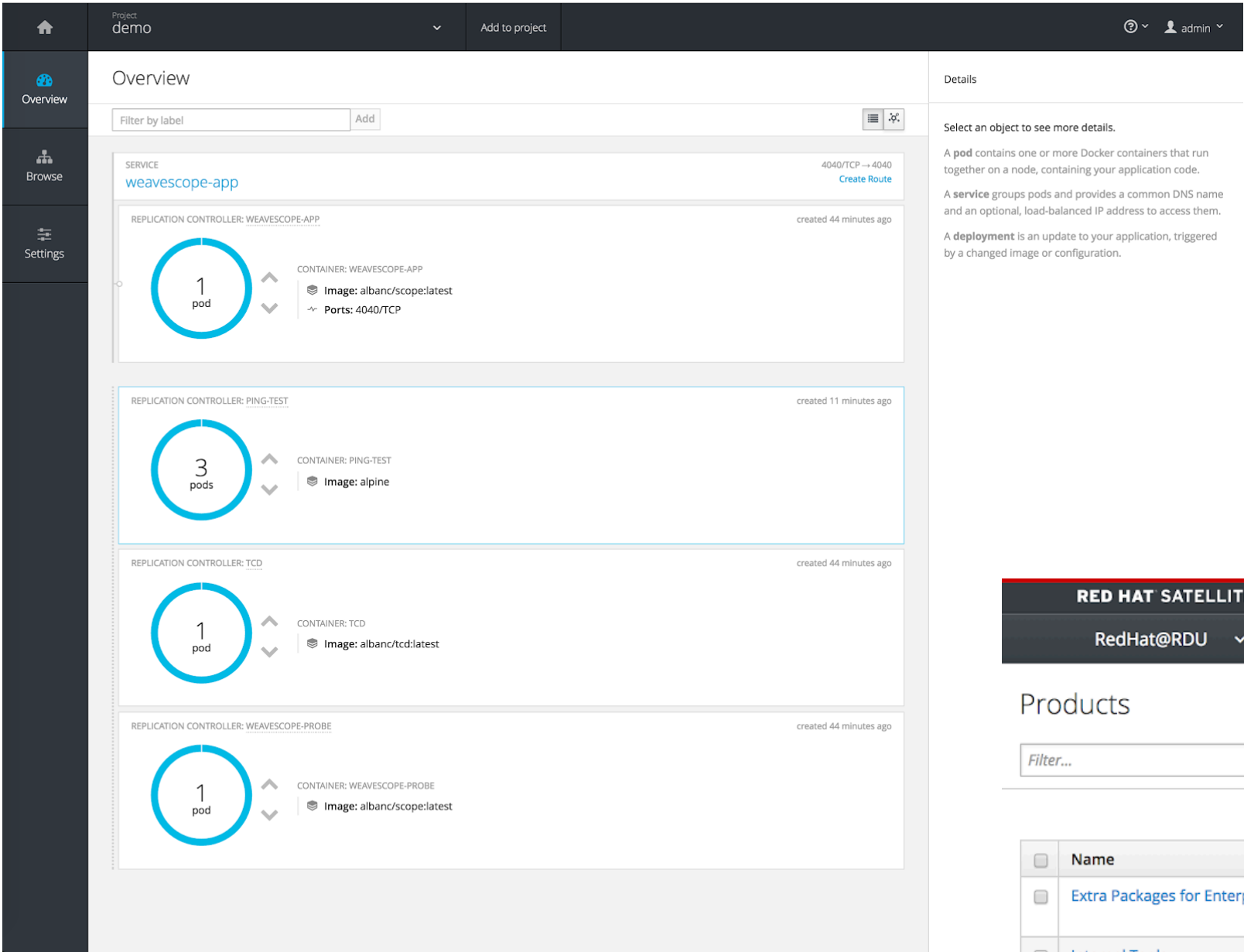
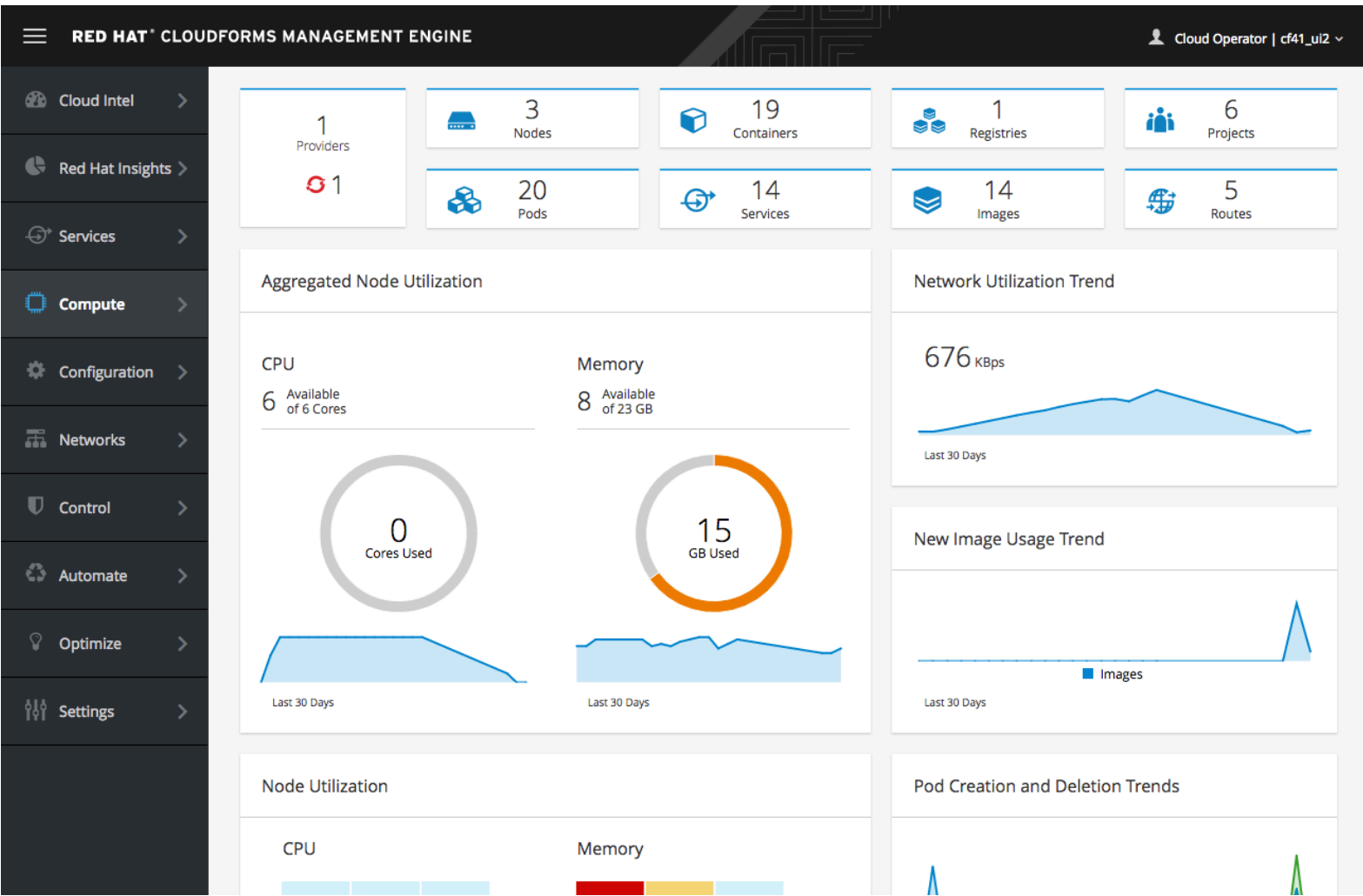
Users User Groups Hosts Host Groups Netgroups Services Automember

User categories

Active users

Search Refresh Delete Add Disable Enable Actions

	User login	First name	Last name	Status	UID	Email address
<input type="checkbox"/>	admin		Administrator	Enabled	1890600000	



RED HAT SATELLITE

Red Hat Access Roxanne Hoover

RedHat@RDU Monitor Content Containers Hosts Configure Infrastructure Red Hat Insights Administer

Products

Filter... Search Create Product Repo Discovery Select Action

0 of 6 Selected

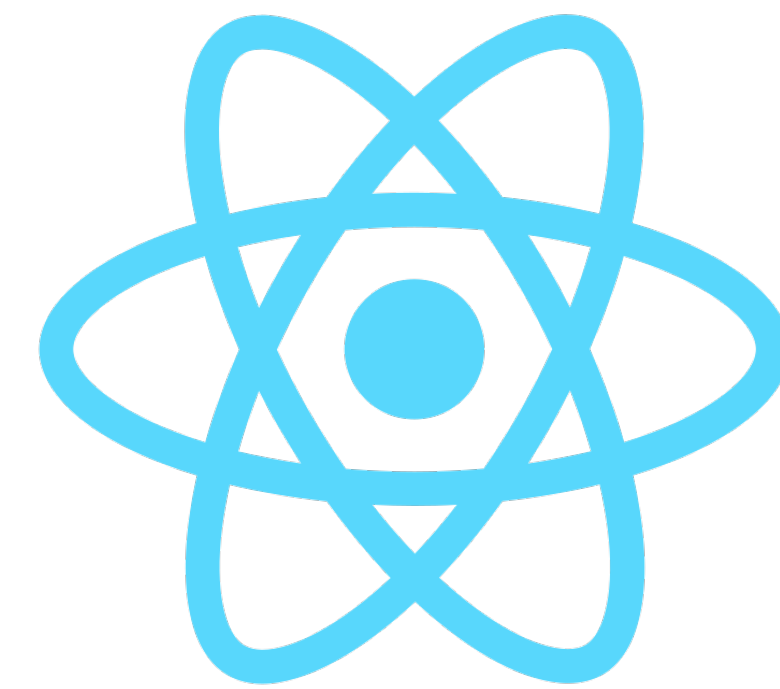
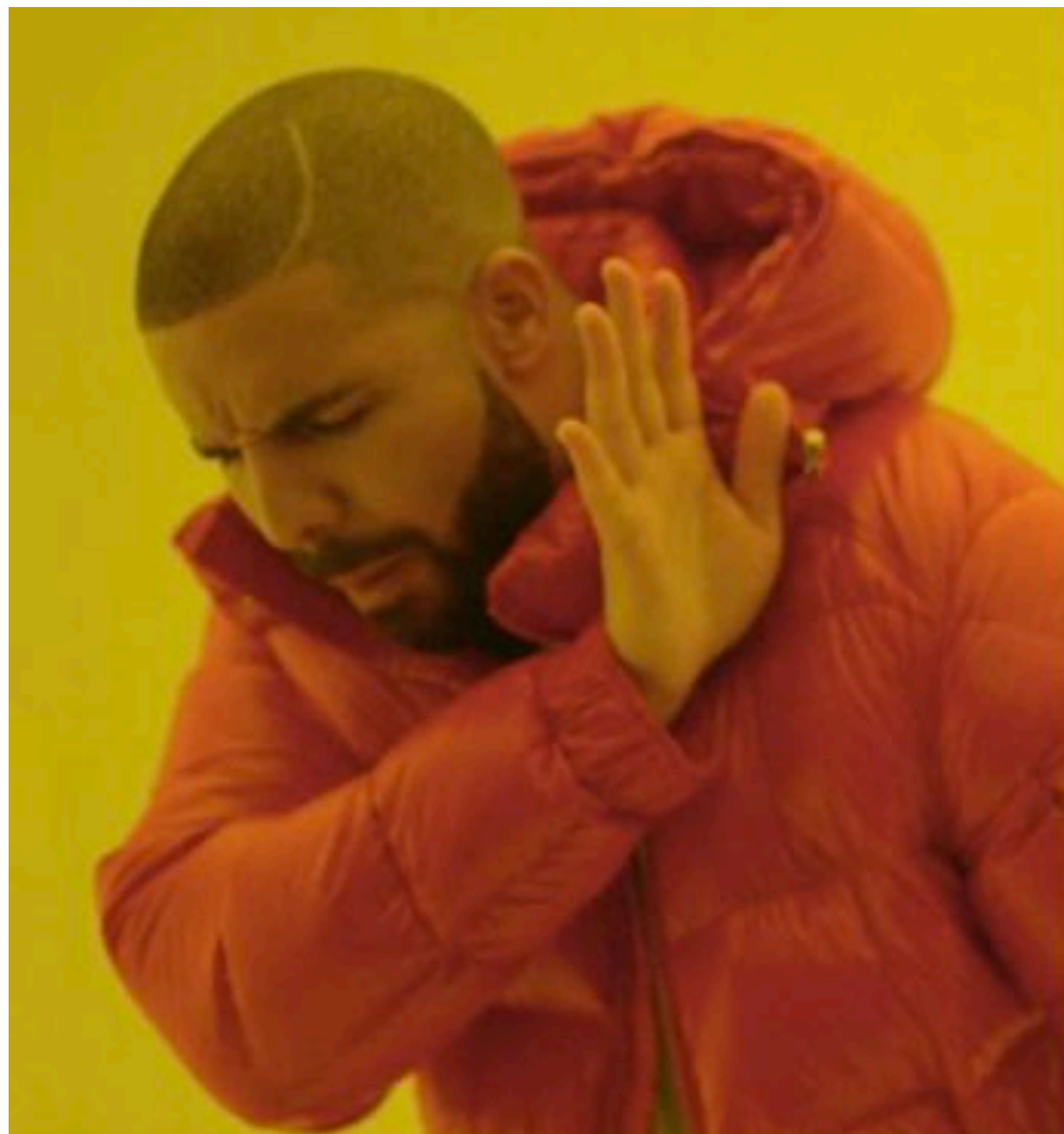
	Name	Description	Sync Status	Sync Plan	Repositories
<input type="checkbox"/>	Extra Packages for Enterprise Linux	Extra Packages for Enterprise Linux	Last synced about 13 hours ago. 1 successfully synced repository.	Daily Sync (daily)	1
<input type="checkbox"/>	Internal Tools		Never synced	None	1
<input type="checkbox"/>	Jenkins	Jenkins	Last synced 5 months ago. 1 repository syncs have errors.	None	1
<input type="checkbox"/>	OVAL Data		Last synced about 5 hours ago. 1 successfully synced repository.	Daily (daily)	1
<input type="checkbox"/>	Puppet Forge	Modules from Puppet Forge	Last synced about 13 hours ago. 1 successfully synced repository.	Daily Sync (daily)	1
<input type="checkbox"/>	Red Hat Enterprise Linux Server		Last synced 5 months ago. 4 successfully synced repositories.	Daily Sync (daily)	5

50 per page Showing 1 - 6 of 6 1 of 1



Frontend Libraries

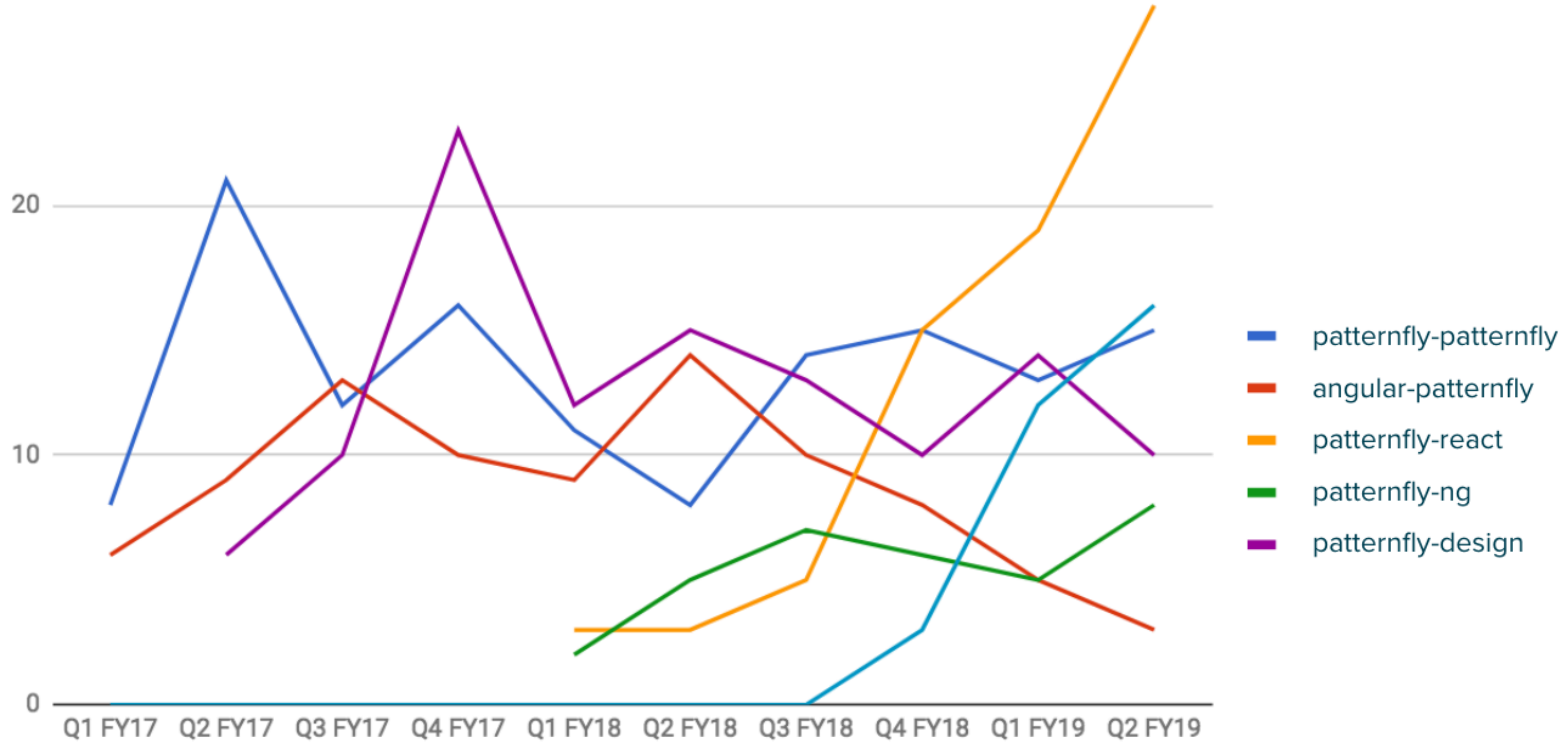
**The problem was
that our engineers started using these libraries
and we didn't have support,
so our engineers ignored PatternFly.**



INCONSISTENCY



CONSISTENCY



We learned

We need a universal solution

HOW STANDARDS PROLIFERATE:

(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)

SITUATION:
THERE ARE
14 COMPETING
STANDARDS.

14?! RIDICULOUS!
WE NEED TO DEVELOP
ONE UNIVERSAL STANDARD
THAT COVERS EVERYONE'S
USE CASES.



SOON:

SITUATION:
THERE ARE
15 COMPETING
STANDARDS.

components

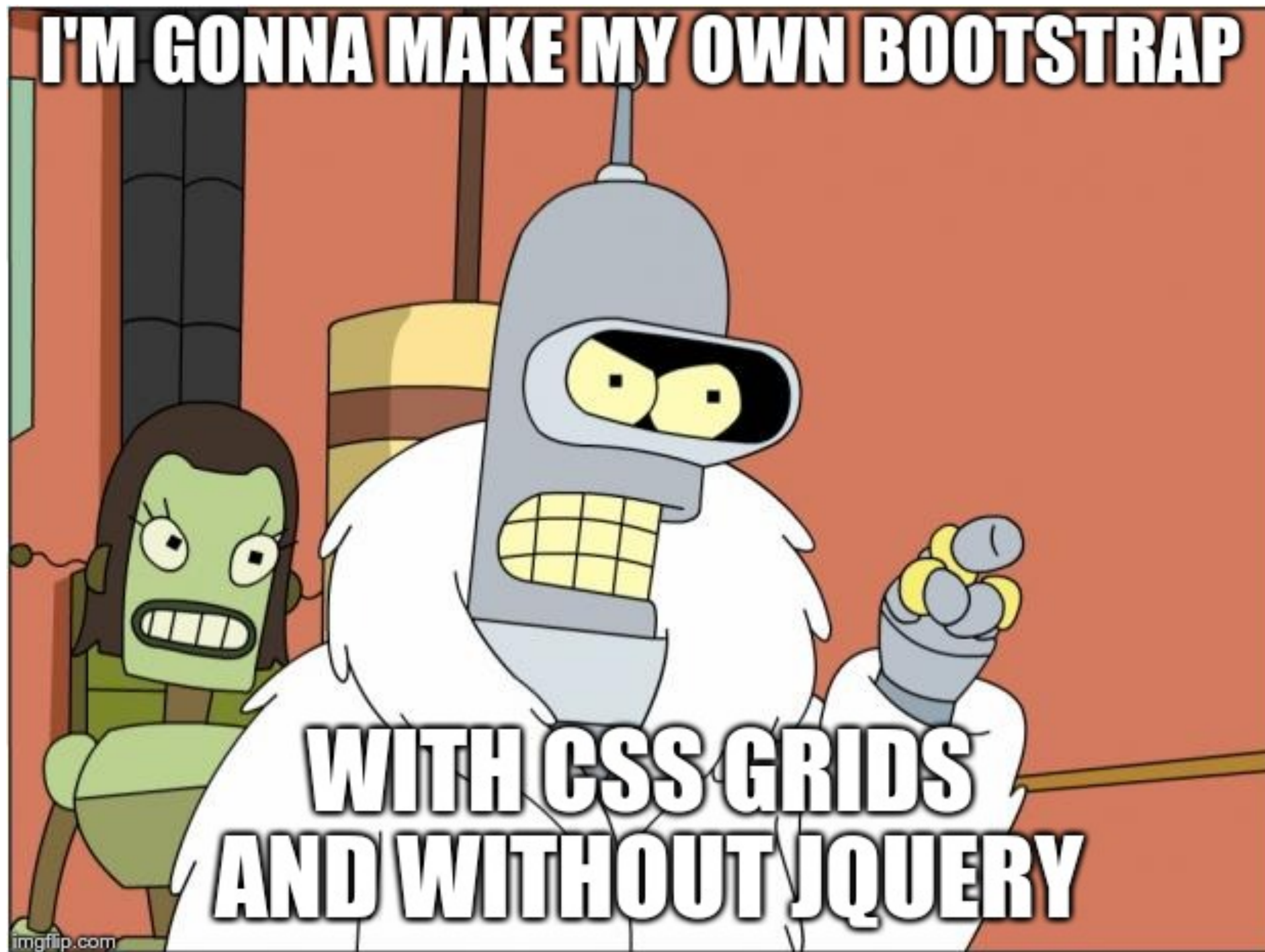
components

components

- Remove any JavaScript from the core repo
- Split up PatternFly to very small components
- Each component acts as a mini-library
- Use only one framework to implement them -> React
- It can coexist with other frameworks to ease transition

Bootstrap?

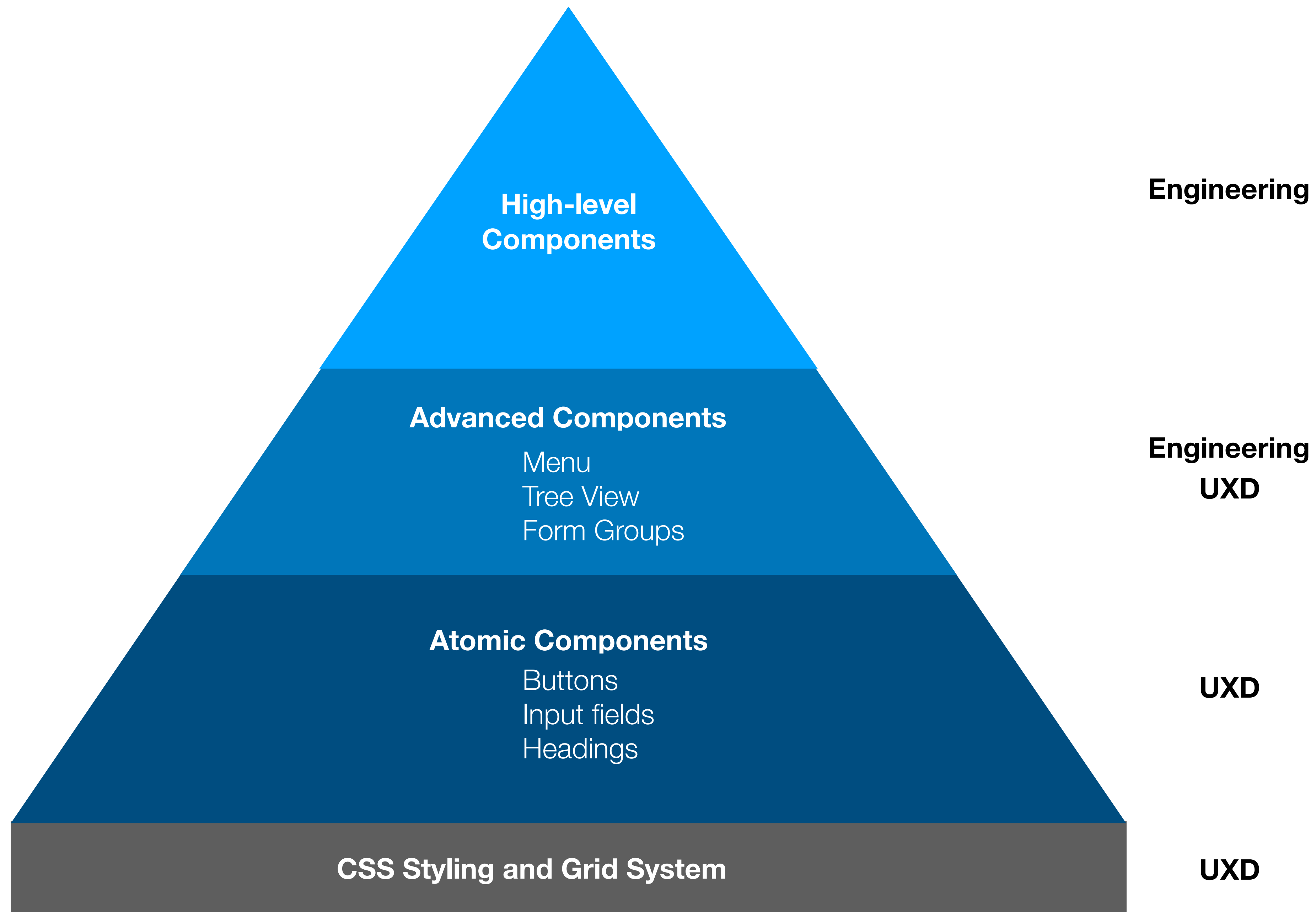
We no longer need Bootstrap





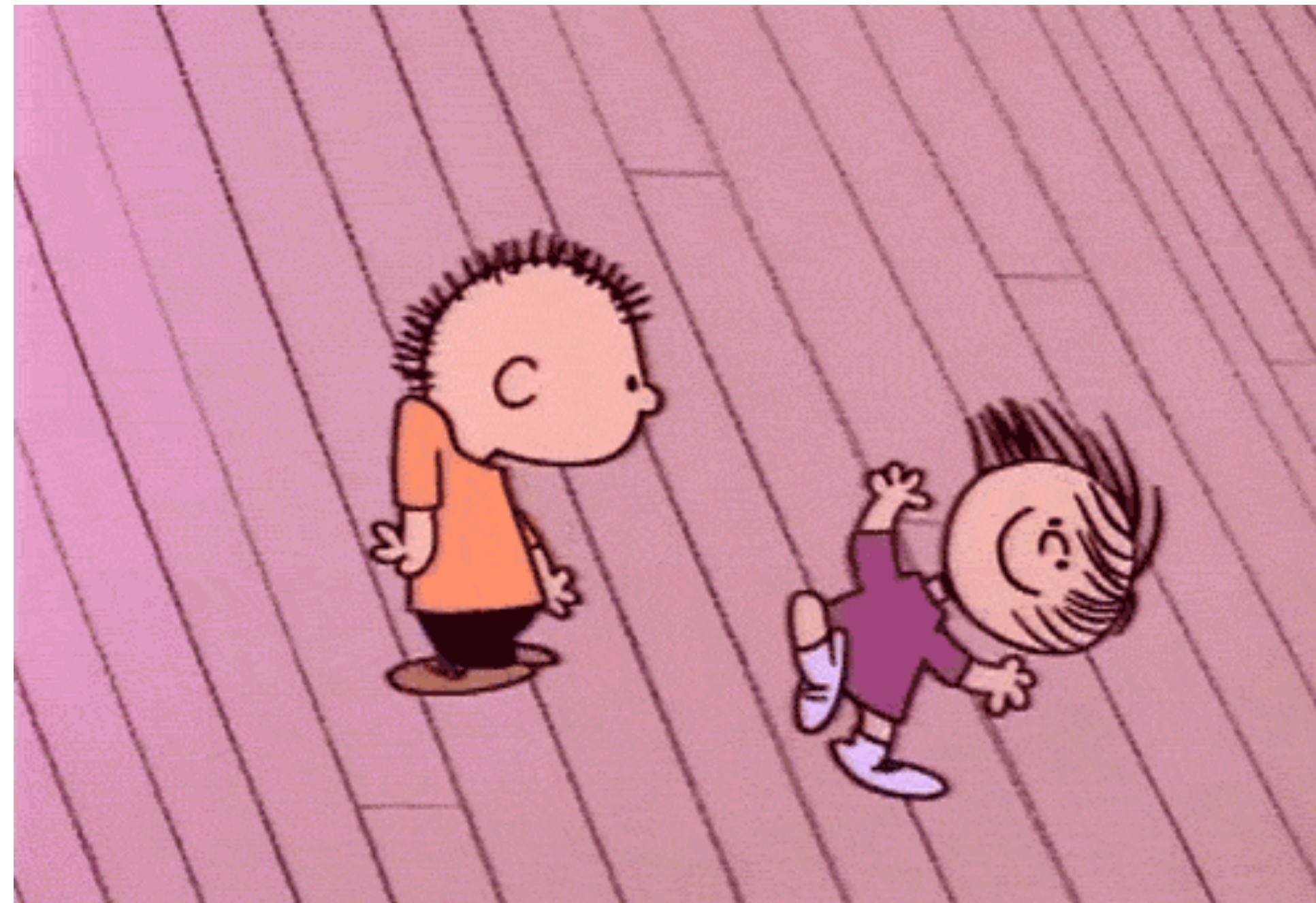
Meet **PatternFly** Next

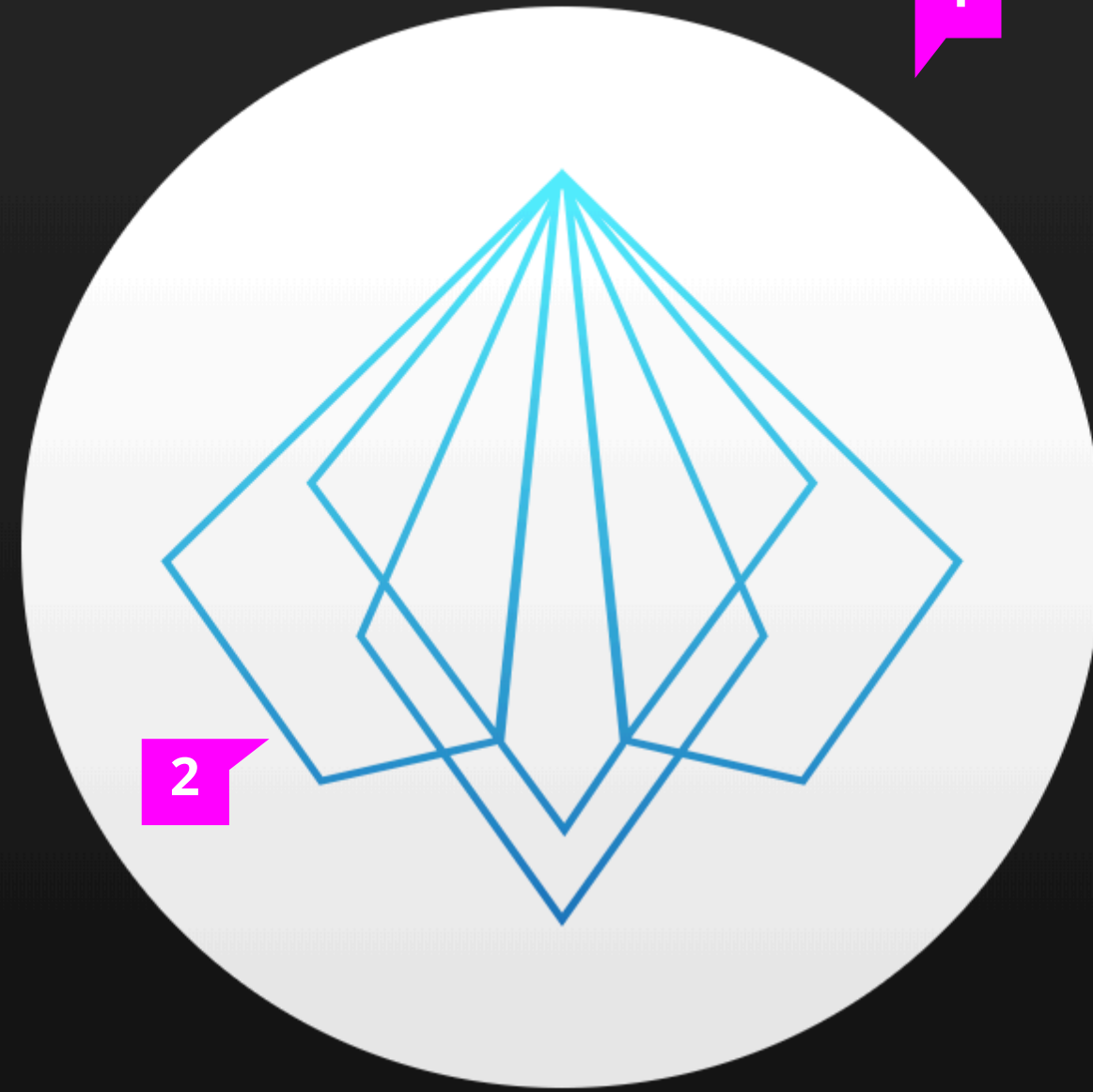
PF4



This is how we
collaborate.

It's *fun* to work with each other.





Font: Open Sans
Size: 14
Weight: Bold
Color: White

Markup
Color: FF00FF

PatternFly

A community of designers and developers collaborating to build a UI
framework for enterprise web applications.

55

“Consistency is one of the most powerful usability principles: when things always behave the same, users don’t have to worry about what will happen.”

Jakob Nielsen

Hey there is a problem! Yeah this is really messed up and you should [know about it](#).

There might be a problem here! We are not really sure, but [it might be bad](#).

Great job! This is really working out [great for us](#).

This is some general information. You should [know about this](#).

Hey there is a problem! Yeah this is really messed up and you should [know about it](#).

×

42

42

42

42

42

42

Default

Success

Danger

Warning

Primary

Info

Added Datasources TestDS

Modified Datasources ExampleDS

Clear Messages

The diagram illustrates five different popover configurations:

- Popover**: A box with a close button (X) in the top right corner. The text inside reads: "This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy."
- Popover**: A box with a close button (X) in the top right corner. The text inside reads: "Empty title example. This is more information about a smartproxy. This is even more information about a smartproxy. This is even more information about a smartproxy. This is even more information about a smartproxy."
- Popover**: A box with a close button (X) in the top right corner. The text inside reads: "This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy."
- Popover**: A box with a close button (X) in the top right corner. The text inside reads: "This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy."
- Title, No Close**: A box with a title bar "Title, No Close" and no close button. The text inside reads: "Title with no Close icon. This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy. This is more information about a smartproxy."

RED HAT® CLOUDFORMS MANAGEMENT ENGINE

Username

Password

[Update password](#)

Log In

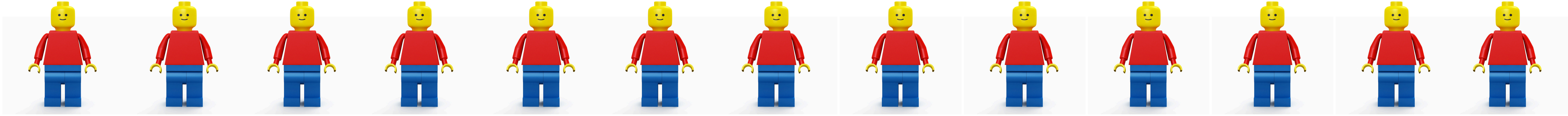
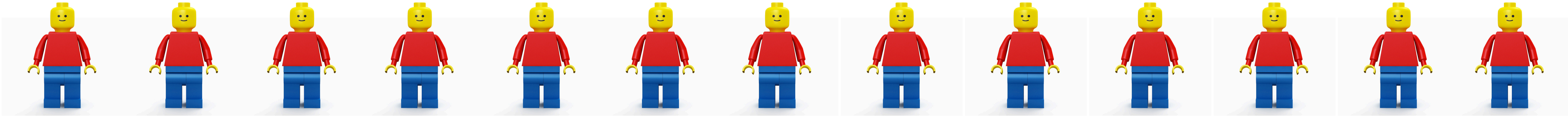
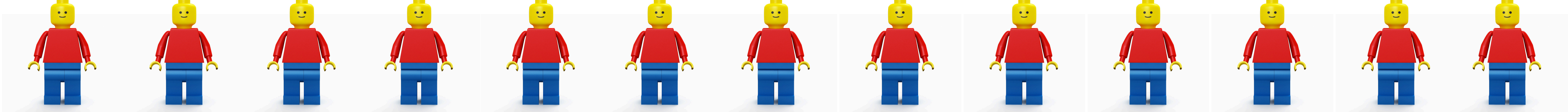
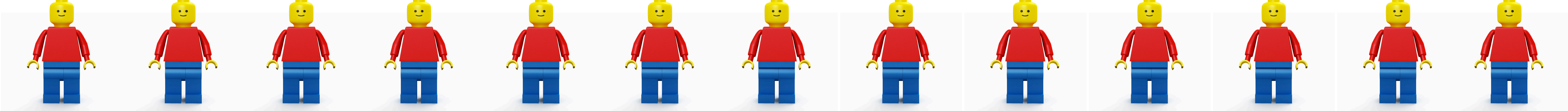
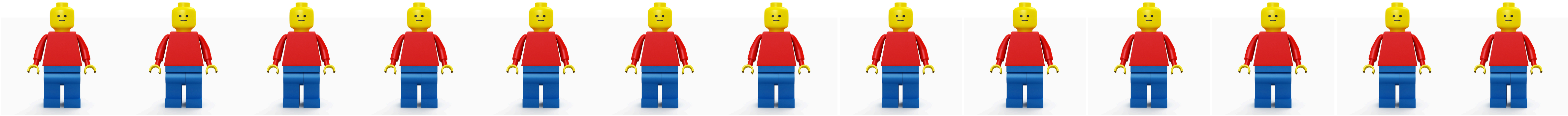
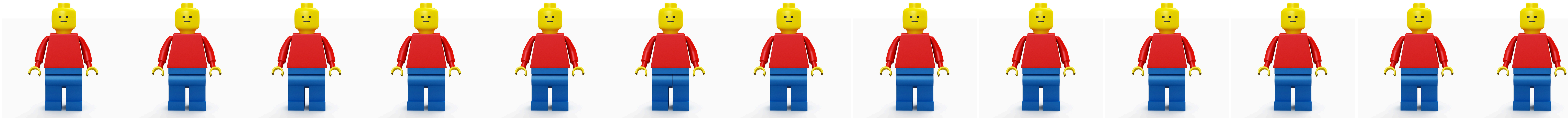
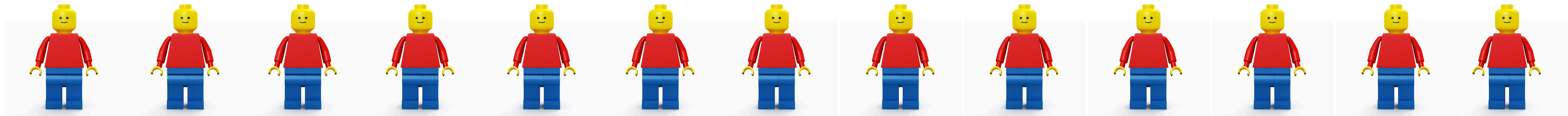
Region: Region 0
Zone: default
Appliance: cfme-5.9.1.2-TE12



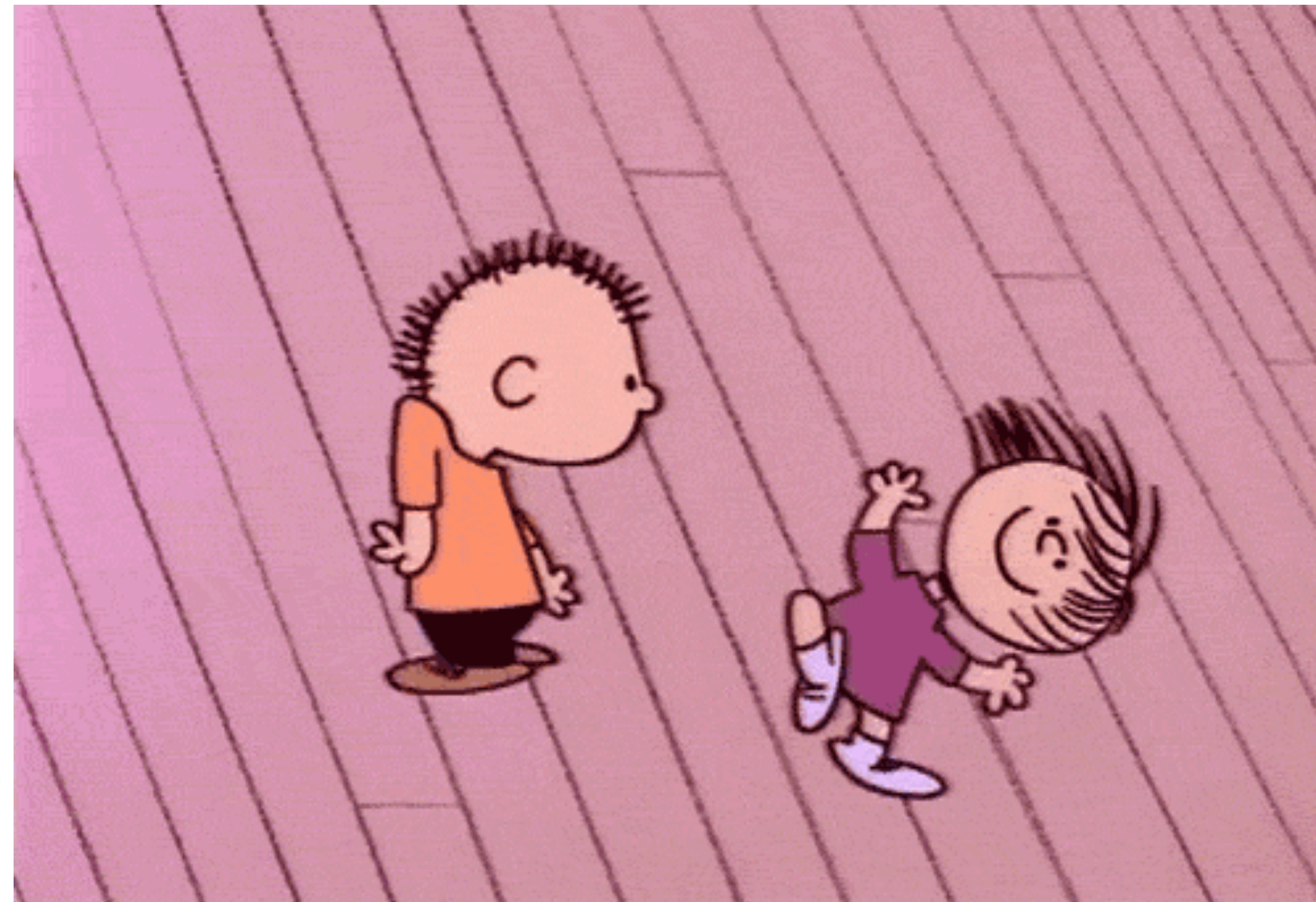




UXD



It's *fun* to work with each other.



Design + Engineer **teamwork**

“Systems are build to change.”

Tack så mycket!



Thank you.



Q&A

Tereza Novotná

tnovotna@redhat.com

@terezanvtn

Dávid Halász

dhalasz@redhat.com

@halaszdavid