SoftServe

Ability. Agility. Advantage.

Cisco:

Puppet Team

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Oleksiy Molchanov

"In God we trust, the rest we automate"

Oleksandr Martsyniuk

Vasyl Mykhailyshyn
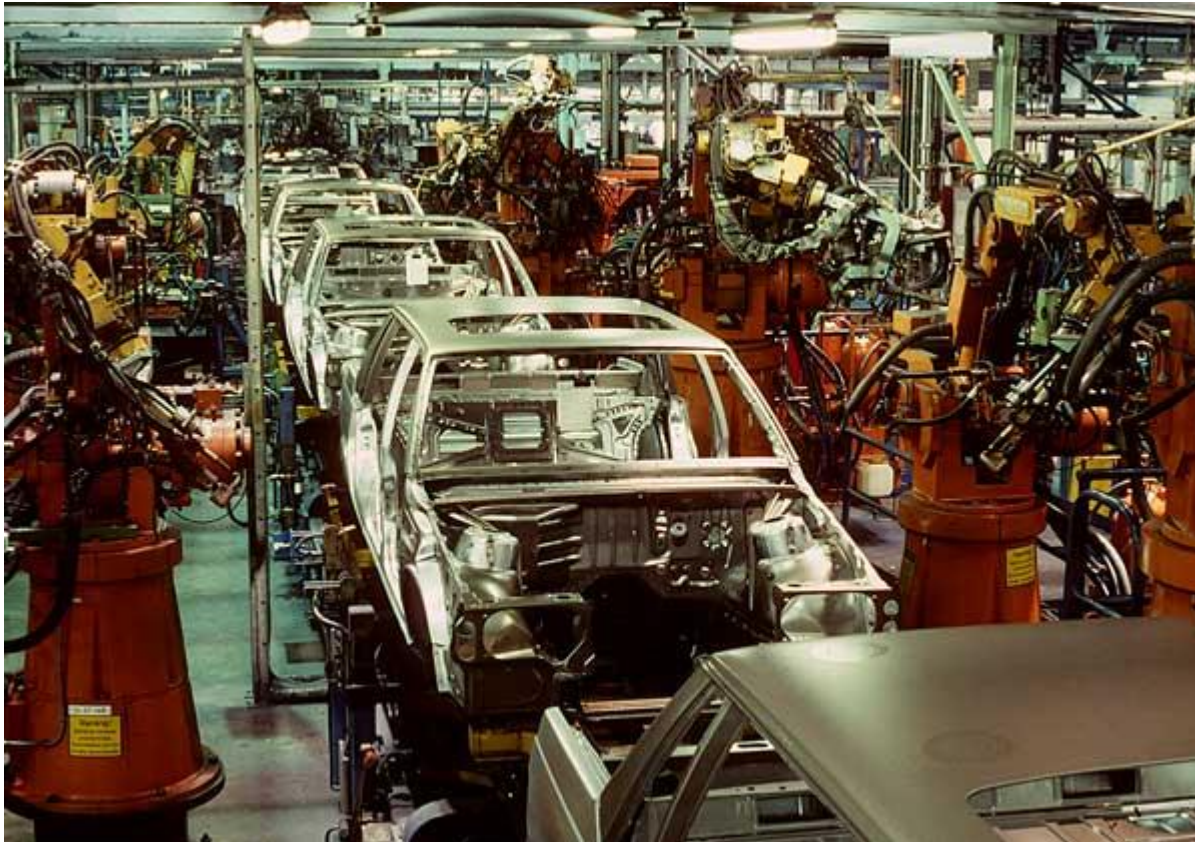
Automation is process

Puppet is a tool for implementation this process

What do you think ,when hear word ”Automation”?

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Automation is a process in the development of machine production. It occurs when management and control functions which were previously performed by a human are delegated to devices and automatic instruments.

Automation is one of the areas of science and technology, which uses a self-regulating hardware and mathematical methods to liberate human from routine work.

Automation is the next step in the Industrial Revolution.

Automation is the evolution.

After Automation

Human physical effort
is
reduced
with 100% to 20%

- The biggest benefit of automation is that it saves effort and time

- Significantly reduce the complexity of the operations

- Effective implementation of operations with high accuracy

- Improving product quality

- Add repositories
- Install packages
- Create folders
- NFS mounts
- Deploy Files

- And another actions

- Services
- Symlinks
- Crons

"1-click-deploy"
with Puppet

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Puppet is:

Functionality

Open source

Flexibility

Ruby

Multi-platform

Node

SSL secure
encryption
on all data
transport

1 Facts

3 Report

2 Catalog

Puppet Master

4 Report

Report Collector
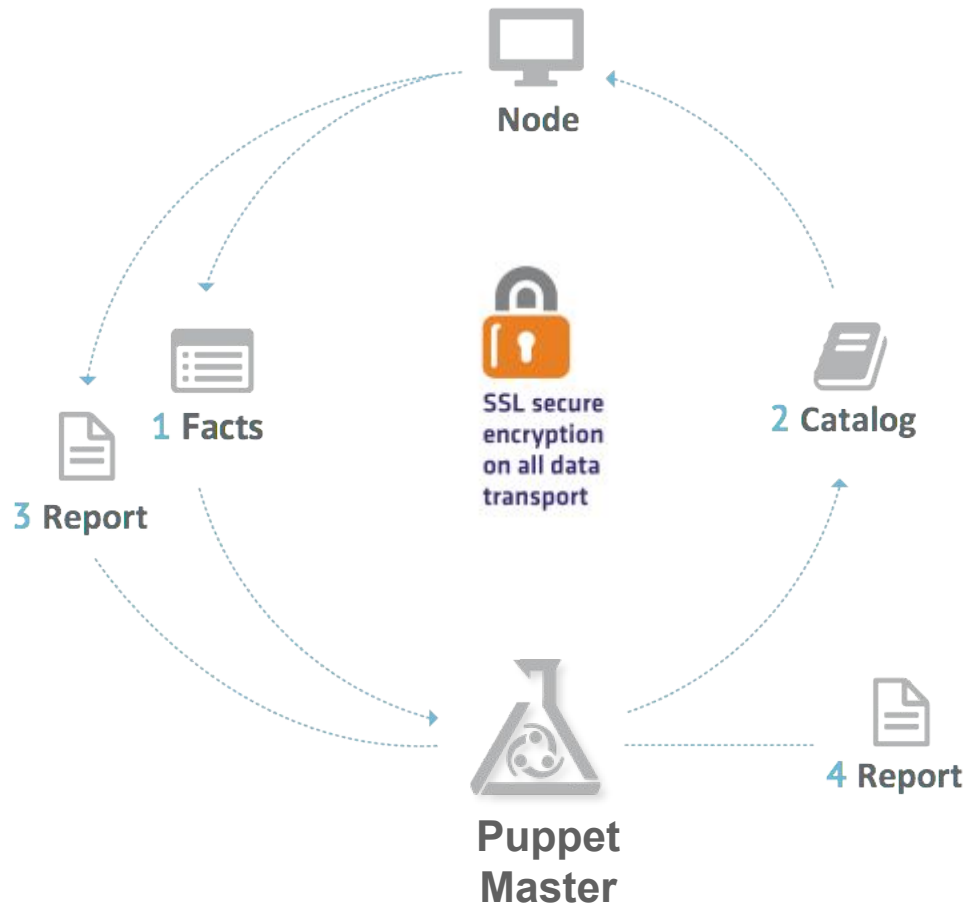
1. Facts
The node sends data about its state to the puppet master server.

2. Catalog
Puppet uses the facts to compile a Catalog that specifies how the node should be configured.

3. Report
Configuration changes are reported back to the Puppet Master.

4. Report
Puppet's open API can also send data to 3rd party tools.

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augeas cron exec file filebucket group host interface mailalias maillist mount nagios_* notify package resources router schedule scheduled_task selboolean selmodule service ssh_authorized_key sshkey stage tidy user vlan yumrepo zfs

- **Large developer base**
- **Automation**
- **Unification**
- **Accuracy**
- **Reproducibility**
- **Reduce time**
- **Save money**
- **Optimized and easier configuration language**
- **Better documentation**
- **Abstracted from underlying OS (more platform support)**
- **Easily scalable and customizable**
- **Large installed base (**Google, Siemens, Red Hat, Cisco)

Large installed base

FINANCIAL
- Bank of America
- NYSE Euronext
- London Stock Exchange
- TransUnion

TELCO/SP
- verizon
- MOTOROLA
- rackspace

INTERNET
- Google
- twitter
- PayPal
- Constant Contact

TECH
- CISCO
- McAfee
- QUALCOMM
- Apple

GOVERNMENT
- NASA
- U.S. DEPARTMENT OF ENERGY
- NATIONAL INSTITUTES OF HEALTH

DEFENSE
- LOCKHEED MARTIN
- NORTHROP GRUMMAN
- Los Alamos NATIONAL LABORATORY

EDUCATION
- HARVARD UNIVERSITY
- Cal
- University of Phoenix

MANUFACTURING
- GE
- BOEING
- HERSHEY'S The Hershey Company

RETAIL
- REI
- BARNES & NOBLE BOOKSELLERS
- NIKE

MEDIA
- Disney
- HBO
- CONDÉ NAST

Requesting a new automation project

To start a new project, the automation team needs:

- a deployment document (on that very wiki) per purpose. What's a purpose?
- a JIRA ticket

Step 1: creating the document

- Display the SecApps Automation(https://confluence.sco.cisco.com/display/AUT/SecApps+Automation) page
- On the top right, click "Add" and then "Page from template"
- Select "New project Page" -> Choose the right project name -> Add the right information -> Save
- Select "New Automation Form" -> Choose the right Automation project page name and enter correct information -> Save

Please choose a template from below:

	Name	Scope	Description
○	**Khalifa component template**	Space	[KHALIFA] creating a new component doc
○	**new Automation form**	Space	Automation form for a new project
○	**new Project page**	Space	Project page for grouping Automation project

Back   Next >>

Requesting a new automation project
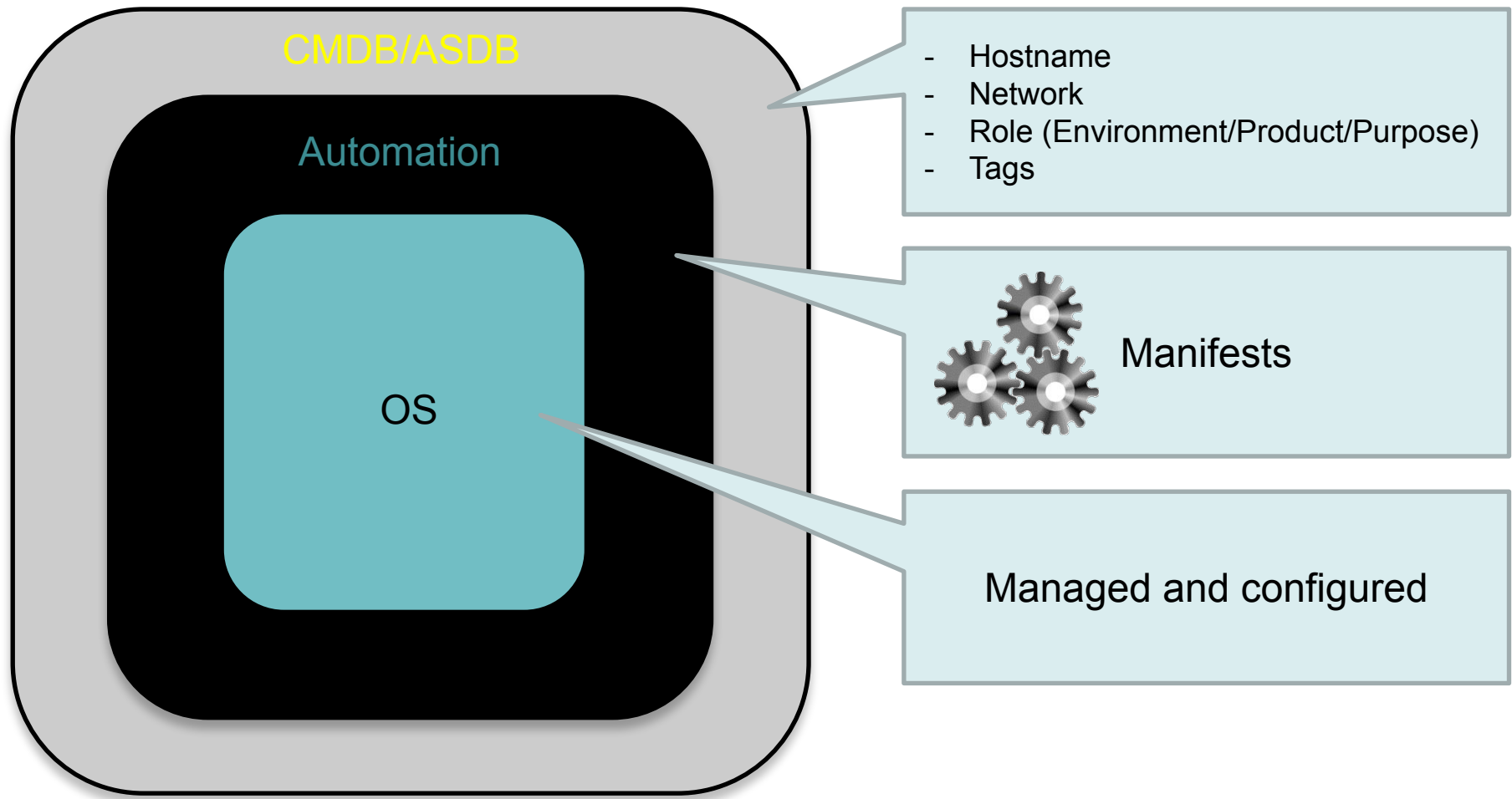
Step 2: create the JIRA ticket

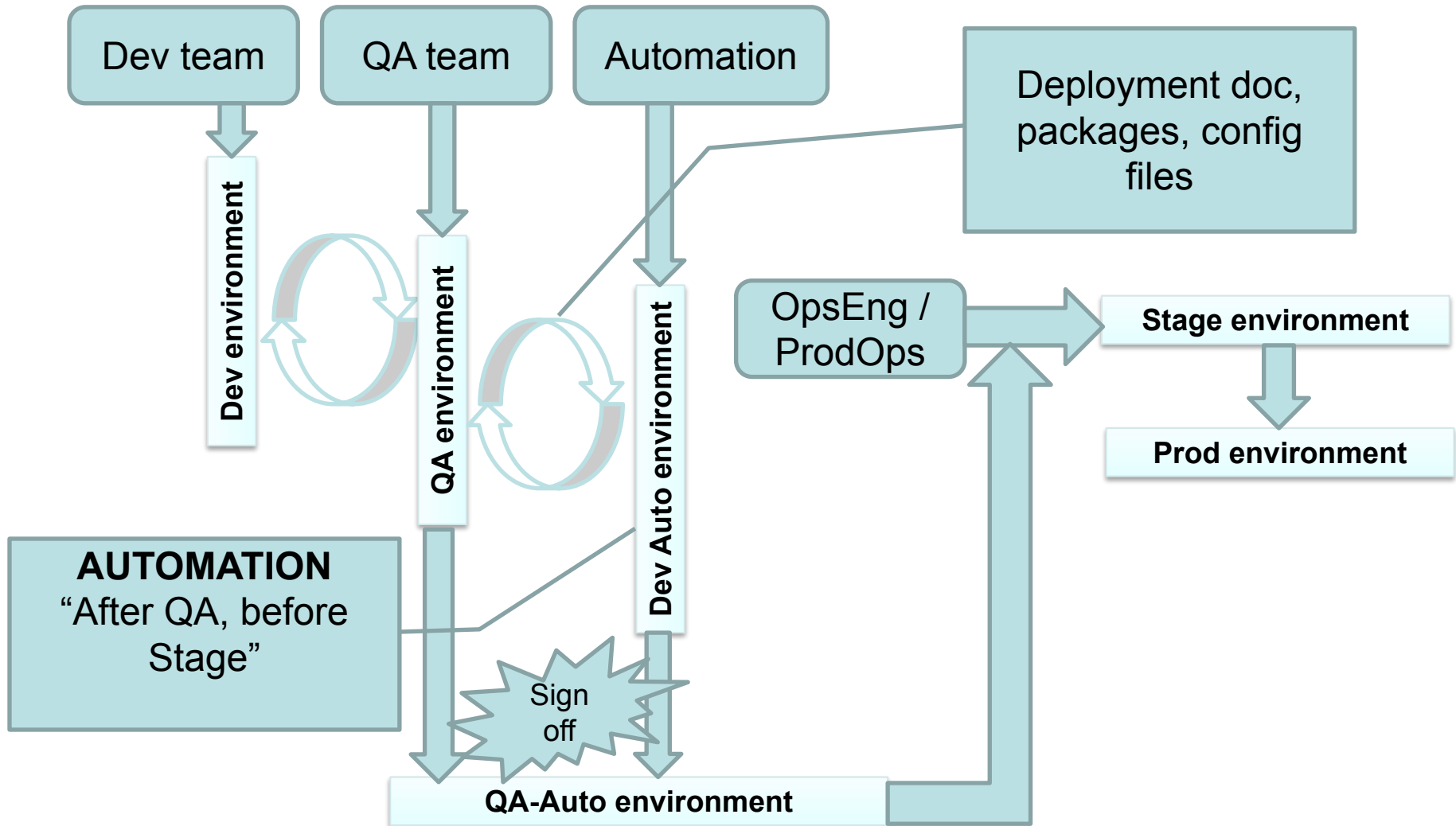Open a new JIRA ticket in the AUTO group and add the following information:
- Type: Service Request
- Product: <your product>
- Environment: <the environment in which the automation will start>
- Due Date: default: 2 weeks.
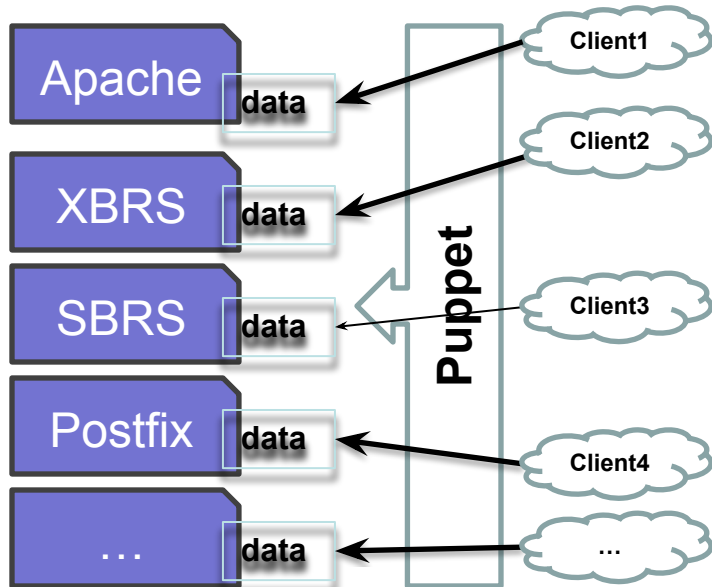- Details: as follow:

And WE write manifests!!!
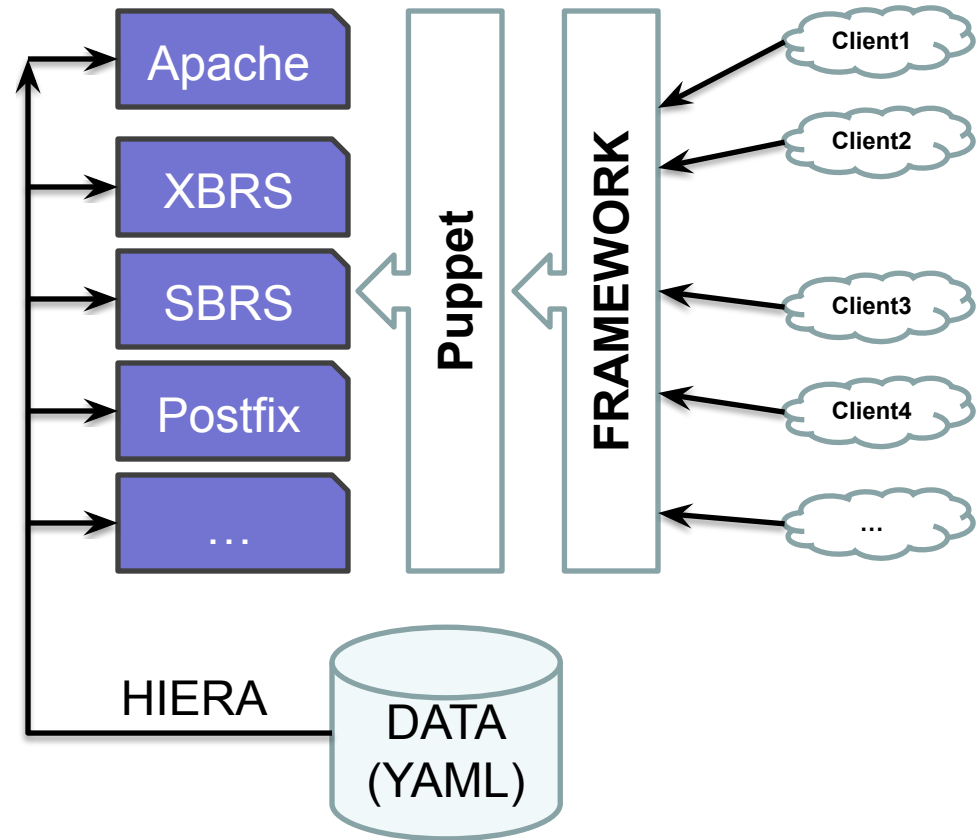
The current right moment for Automation

- **Saving time**

- **Repeatability of test results**

- **Ease of Use**

- **Avoid human errors(stage and prod)**

- **Different environments**

- Confluence links:
  - Home:
    https://confluence.ironport.com/display/AUT/Automation+Operations
  - Automation Deployment Guidelines:
    https://confluence.ironport.com/display/AUT/Deployment+Automation+Guidelines
  - Generic product installation:
    https://confluence.ironport.com/display/AUT/Generic+Product+Installation+Procedure
  - Implementation Process and Handoff:
    https://confluence.ironport.com/pages/viewpage.action?pageId=2918810
  - Puppet OpsDoc:
    https://opswiki.ironport.com/bin/view/Main/PuppetOpsDoc

Questions…