Release Automation & Puppet

Why Automate Release Activities?

- ...to enable Continuous Delivery of software

  - Short delivery cycles
    - quickly deliver value & obtain feedback

  - Streamlined and automated software delivery
    - Rapid, reliable, repeatable, efficient
    - High quality

How to Achieve Continuous Delivery

- Environment and deployment automation
- Automated builds and continuous integration
- Managed releases (standard processes, collaboration)
- Automated testing
- Data management

Create a Strategy

- Create a short, medium, and long term plan:
  - Determine the optimal level of automation
    - server configuration?
    - environment provisioning?
    - code build, deployment, and/or test?
    - database changes?
  - Determine the optimal rate of release
    - Consider user & technical needs
    - Daily? Weekly? Monthly? Quarterly?

Know Your Current & Future Level of Maturity

- Regressive - process unrepeatable, poorly controlled, and reactive
- Repeatable - process documented and partly automated
- Consistent - automated, standard processes applied across entire software development lifecycle
- Quantitatively managed - process measured and controlled
- Optimizing - focus on process improvement

ORIS Strategic Plan

- Cross-Platform, multi-Product, scalable, flexible
- First…
  - Environment/deployment automation & process improvement
- Next…
  - Test automation, application monitoring, environment provisioning, & data management
- Iteratively enhance tools and process

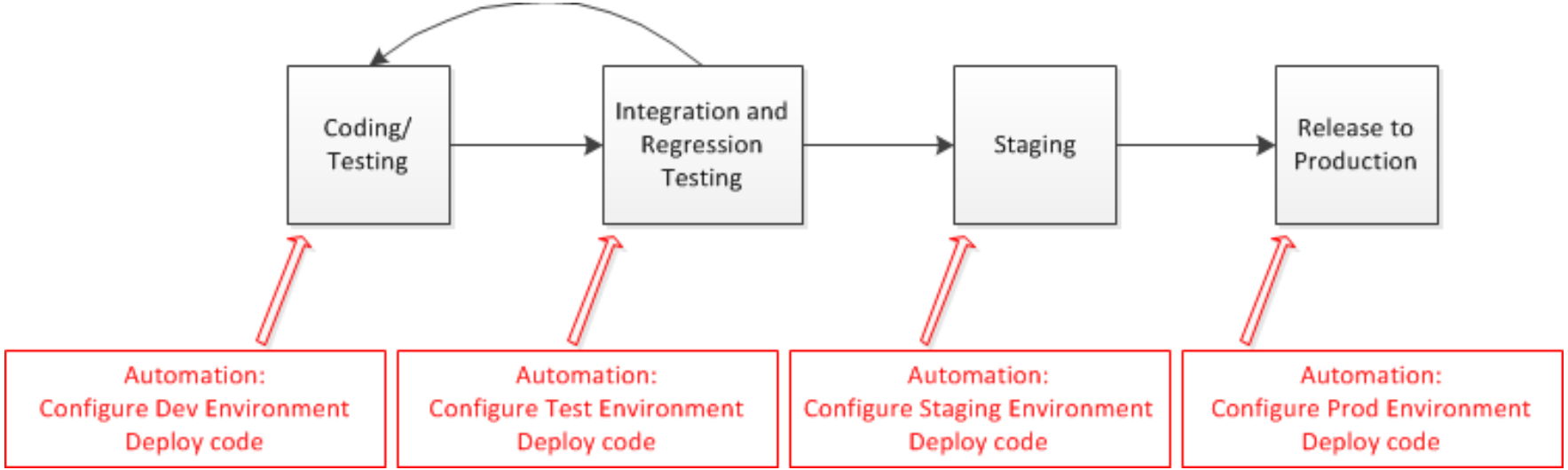
ORIS - Where we are now

- Automation with Puppet
  - Automated server configuration
    - install & configure packages, setup security, etc.
  - Automated software build & deployment

- Release management process improvement

Environment and Deployment Automation

> High-level Software Development/Release Process



A Puppet Tour

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Agenda

- What is Puppet?
- Puppet Tour
  - WordPress Blog
- Closing

What is Puppet?

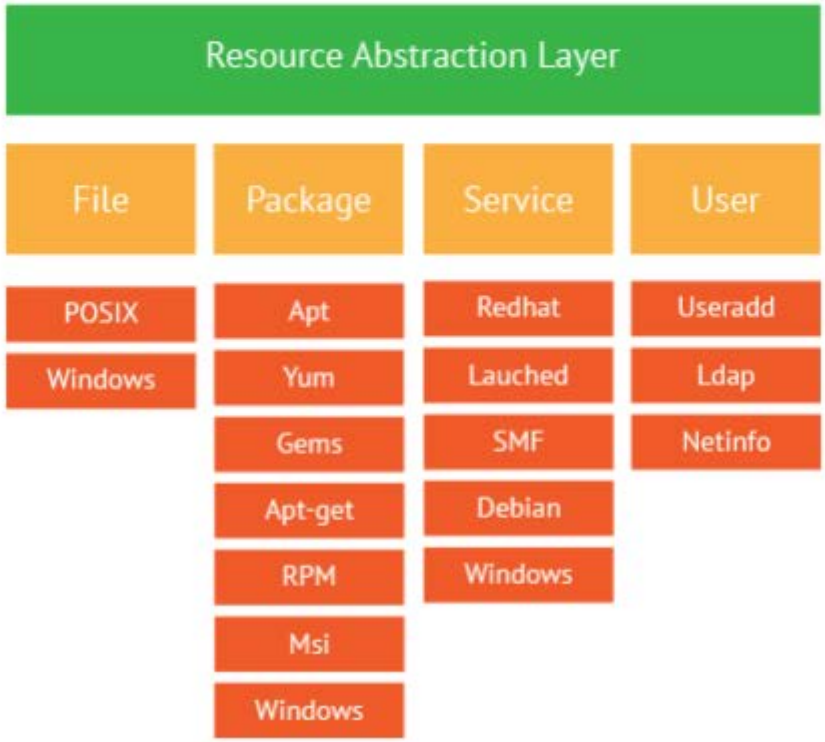
- Open Source
- Server Configuration Management and Automation
- Linux, Windows, other platforms
- Similar Software
  - chef
  - ansible
  - salt

What makes Puppet special?

- Declarative Domain Specific Language (DSL)
  - Model-based state declaration
  - Not orchestrating deployment scripts
  - What not How
- Can function “headless” or centrally with a puppet master

Resource Abstraction Layer

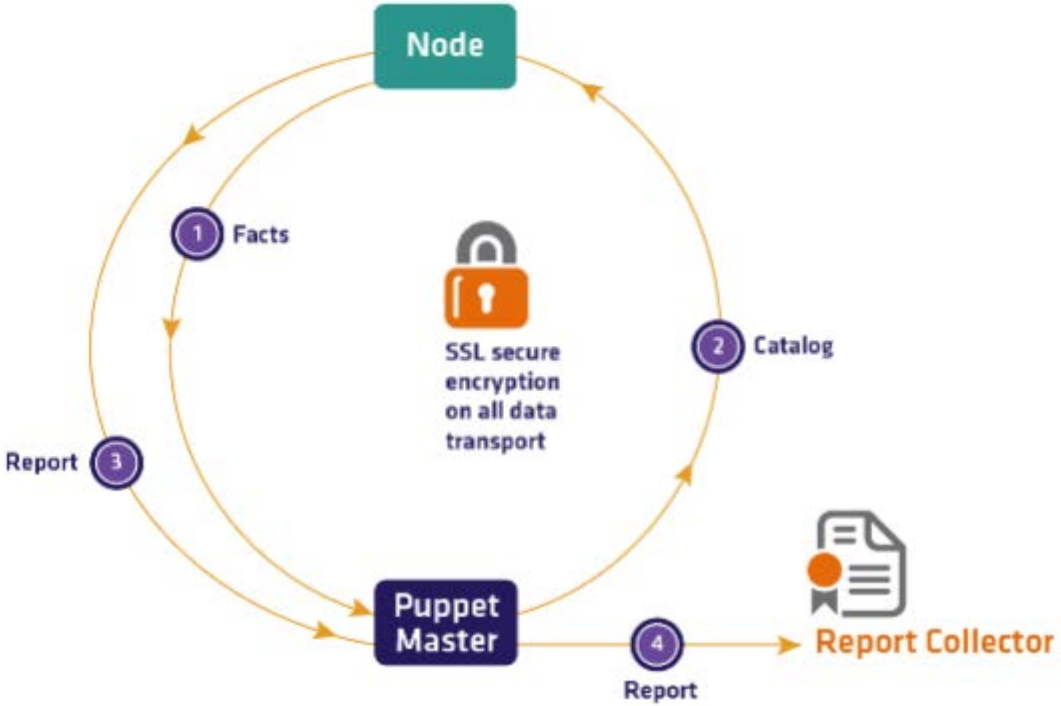
Provides a consistent model across supported platforms.



Other Puppet Attributes

- Facter: System Information
- Puppet Forge
- Common Puppet Code Pattern:
  - Package → Config → Service
- Roles & Profiles puppet class abstraction

Data Flow Between Puppet Components



Puppet Demo

> Apache, Mysql, WordPress
> Yay, a terminal!

Closing

- Release Automation can increase agility
- Puppet is Configuration Management and Automation Software
- Puppet can be used to manage tens of thousands of servers