State of Puppet

Puppet Labs: by the numbers

	Jan 2012	Jan 2013
Employees	55	110
Customer Countries	29	42
Office Space	836 m^2 9,000 ft^2	2,232 m^2 25,000 ft^2

Puppet Labs: A Great Place to Work!

Weekly Company Lunch

Awesome Espresso & Tea

Photos by Gary Larizza

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We're Hiring!

Future Opportunities - Internships

Future Opportunities - Other Departments

VMware Alliance Manager (San Francisco)

Professional Services Engineer (USA)

Professional Services Manager (London)

Professional Services Manager (Portland, OR/West Coast)

Sales Engineer (New York Based)

Sales Engineer (UK, London Based)

Support Engineer

Support Team Lead

Engineering Intern (Analytics)

Engineering Intern (PuppetDB)

Future Opportunities - Software Development

Lead Developer

QA Toolsmith

Release Engineer

Technical Integration Engineer

GL Accountant

HR Coordinator

Events Marketing Manager

Front-End Engineer

Future Opportunities - Product Management

Managing Editor

Technical Marketing Manager

Future Opportunities - Sales

Training Sales Specialist

Technical Operations Engineer

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Who uses Puppet?

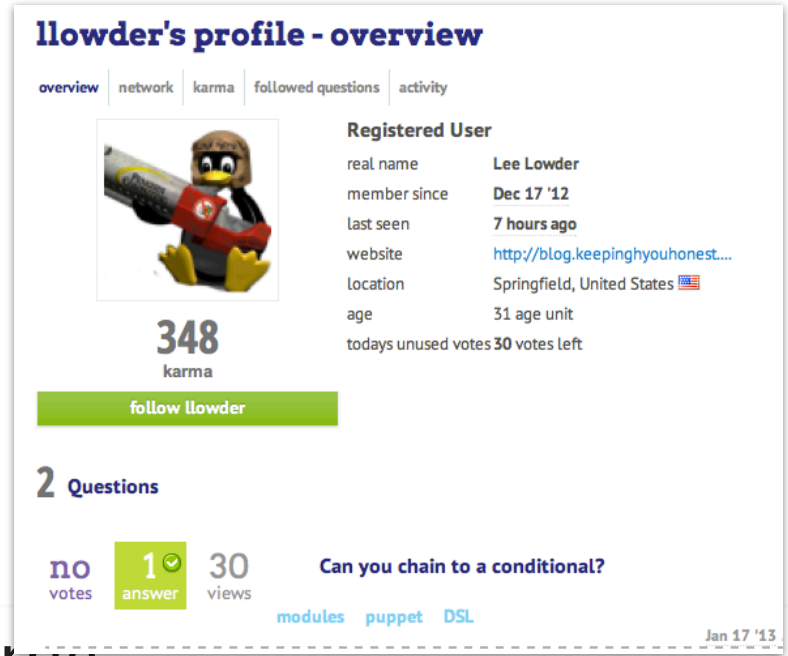
Strong Community (Jan 2013)

Forum	Members	Messages
puppet-users list	5255	1029
puppet-dev list	952	127
ask.puppetlabs.com	205	383
#puppet	938	
Redmine	3839	

Repository	Forks	Watchers
Puppet	466	1145
MCollective	149	103

How can you take part in the Puppet Community?

- Help with Documentation
- Ask/Answer questions
  - http://ask.puppetlabs.com
  - mailing lists
  - IRC
- Help with bug triage
- Contribute code
- Contribute modules on the Forge
- Visit https://puppetlabs.com/community to learn more



Puppet?

Puppet is not …
DIY System Management

```
#! /bin/sh

USER=$1; GROUP=$2; HOME=$3

if [ 0 -ne $(getent passwd $USER > /dev/null)$? ]
then useradd $USER --home $HOME --gid $GROUP -n; fi

OLDGID=`getent passwd $USER | awk -F: '{print $4}'`
OLDGROUP=`getent group $OLDGID | awk -F: '{print $1}'`
OLDHOME=`getent passwd $USER | awk -F: '{print $6}'`

if [ "$GROUP" != "$OLDGID" ] && [ "$GROUP" != "$OLDGROUP" ]
then usermod --gid $GROUP $USER; fi

if [ "$HOME" != "$OLDHOME" ]
then usermod --home $HOME $USER; fi
```

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System Management: The Puppet Way

```
user { 'elmo':
  ensure     => present,
  gid        => 'sysadmin',
  home       => '/mnt/home/elmo',
  managehome => true,
}
```

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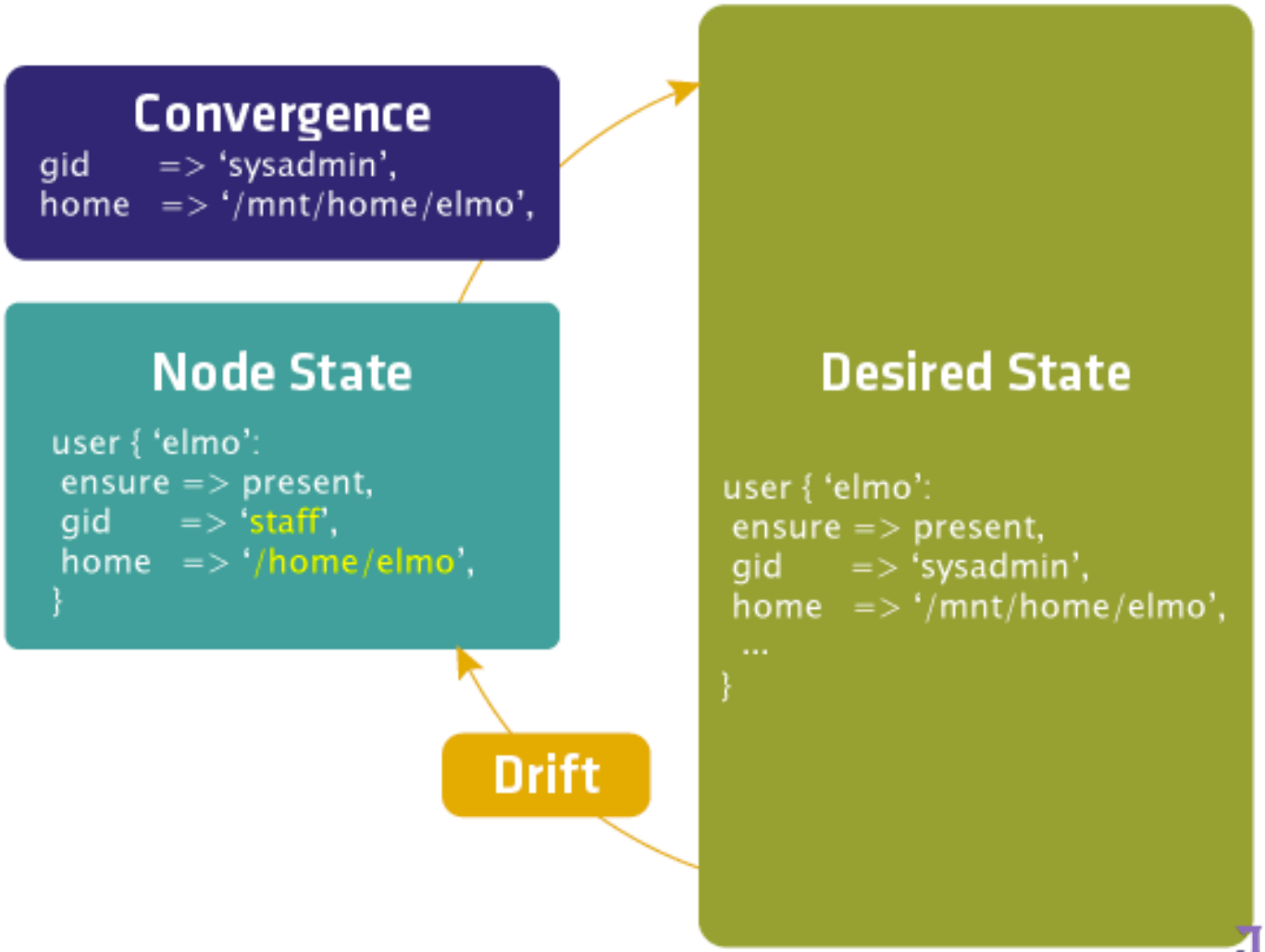
Defining a Desired State



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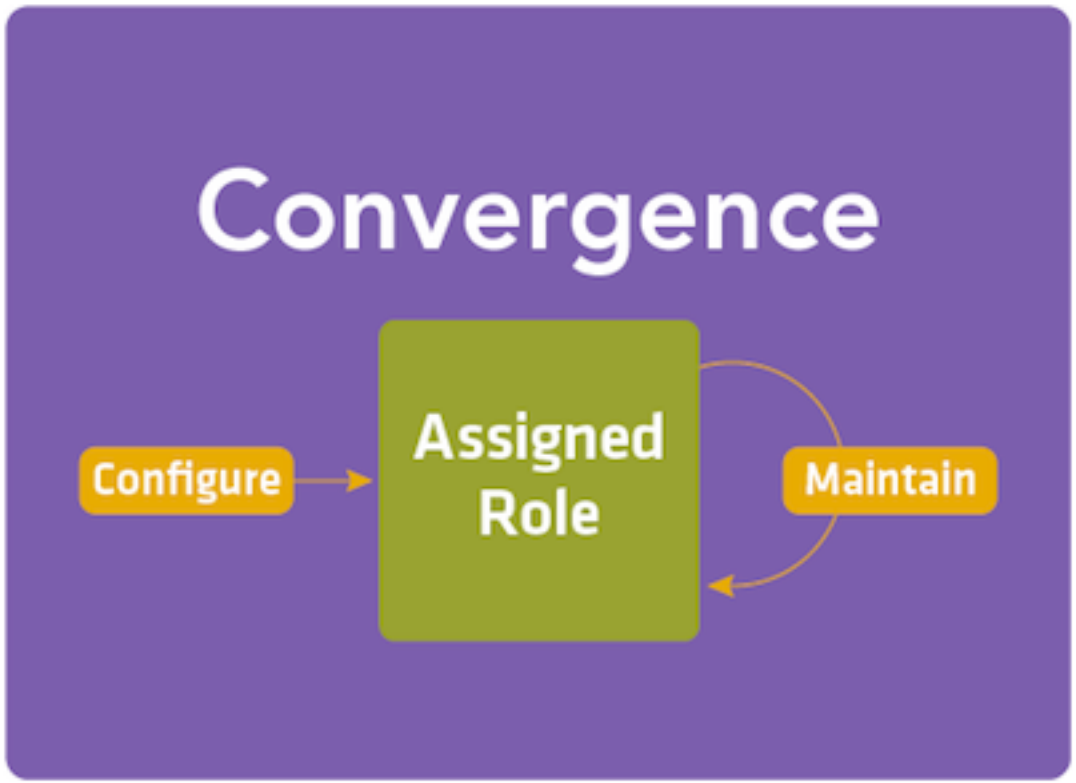
Maintaining Desired State

- Provision a Node
- Describe how it should look
- Let Puppet manage it



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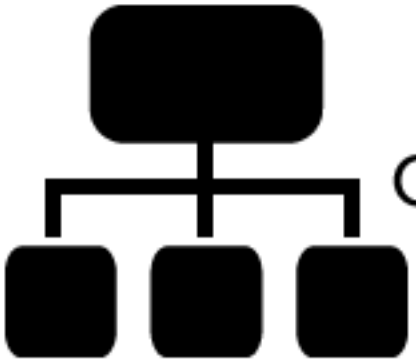
Puppet Enterprise?

Puppet Enterprise

GUI

Cloud
Provisioning



Orchestration

Compliance

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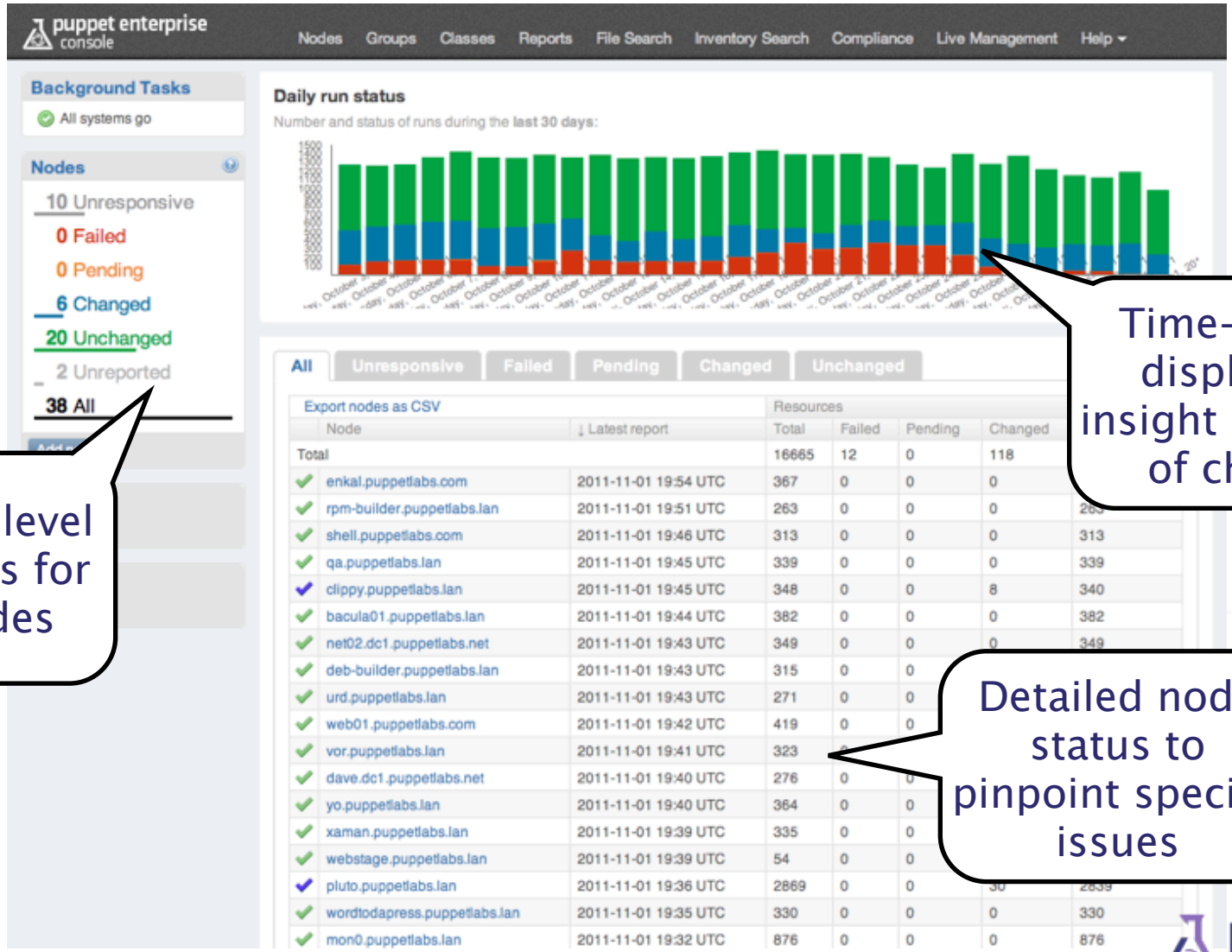
GUI for Puppet



High level status for nodes

Time-based display for insight into rate of change

Detailed node status to pinpoint specific issues

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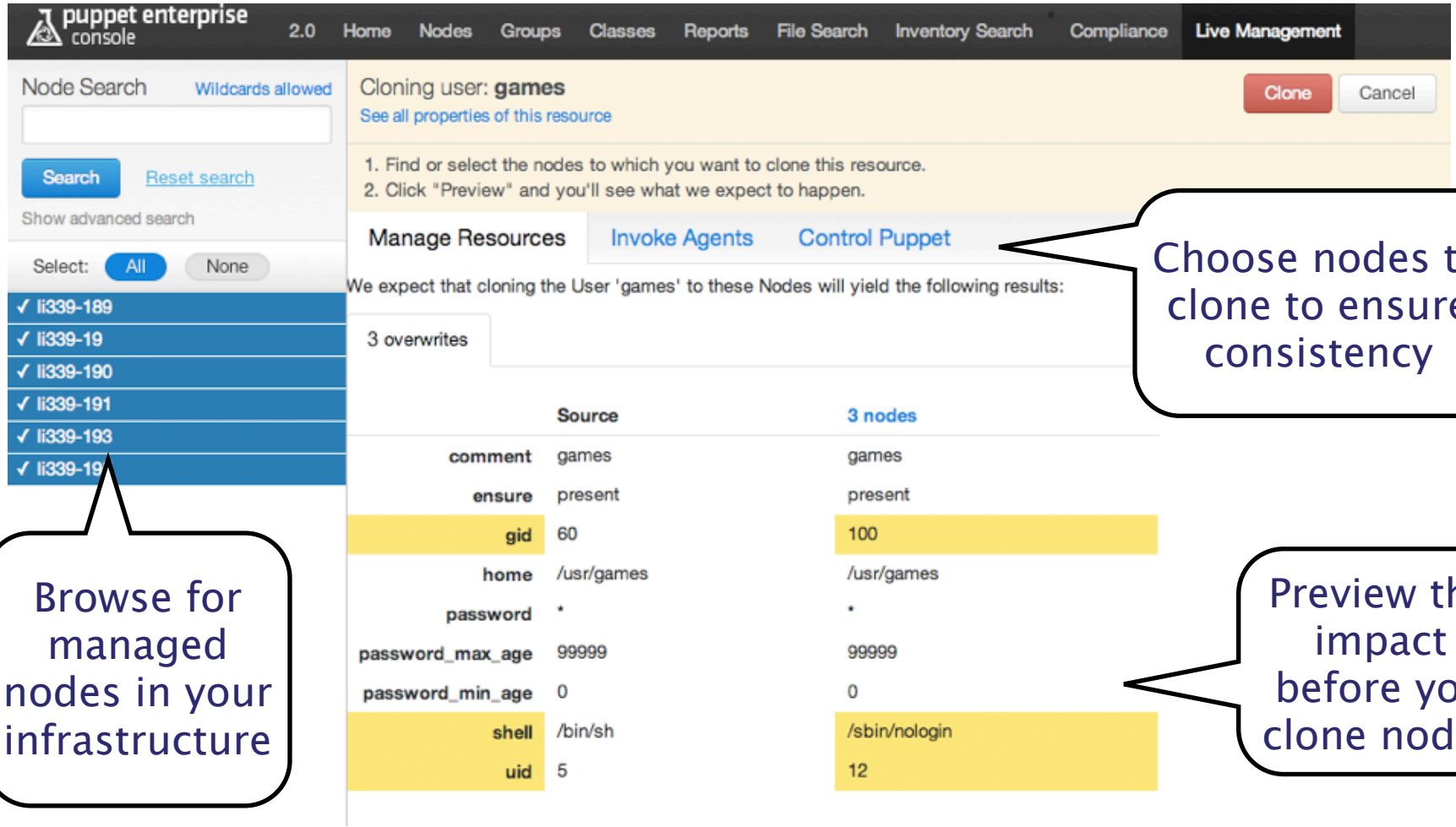
PE Live Management



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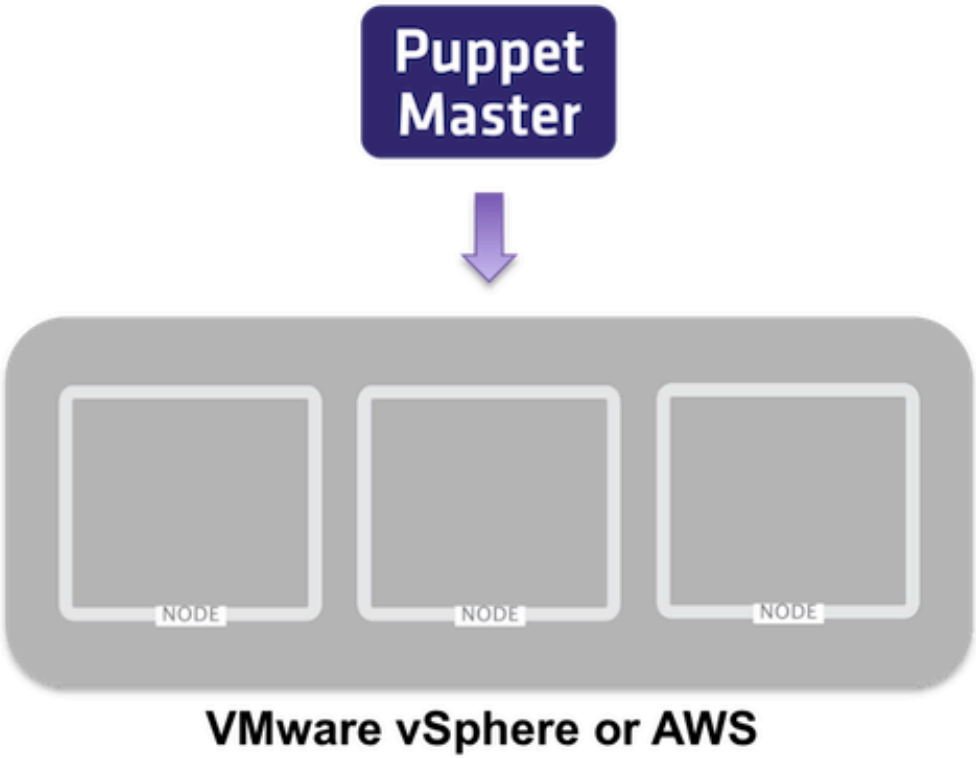
VM/Cloud Provisioning

1. **Create VM node capacity**
   using VMware vSphere or AWS

2. **Automatically install**
   the Puppet Agent on new nodes

3. **Configure nodes**
   using existing definitions



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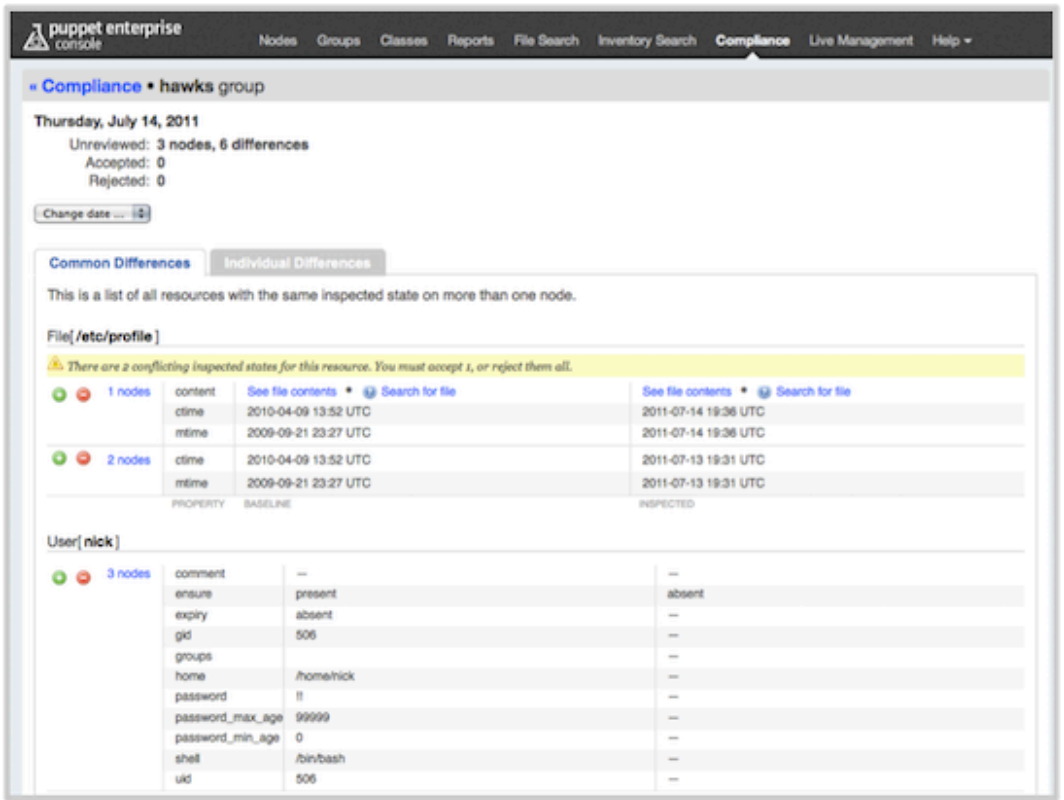
PE Compliance

- Establish baseline of desired state
- Visualize changes to desired baseline
- Accept or reject changes to baseline



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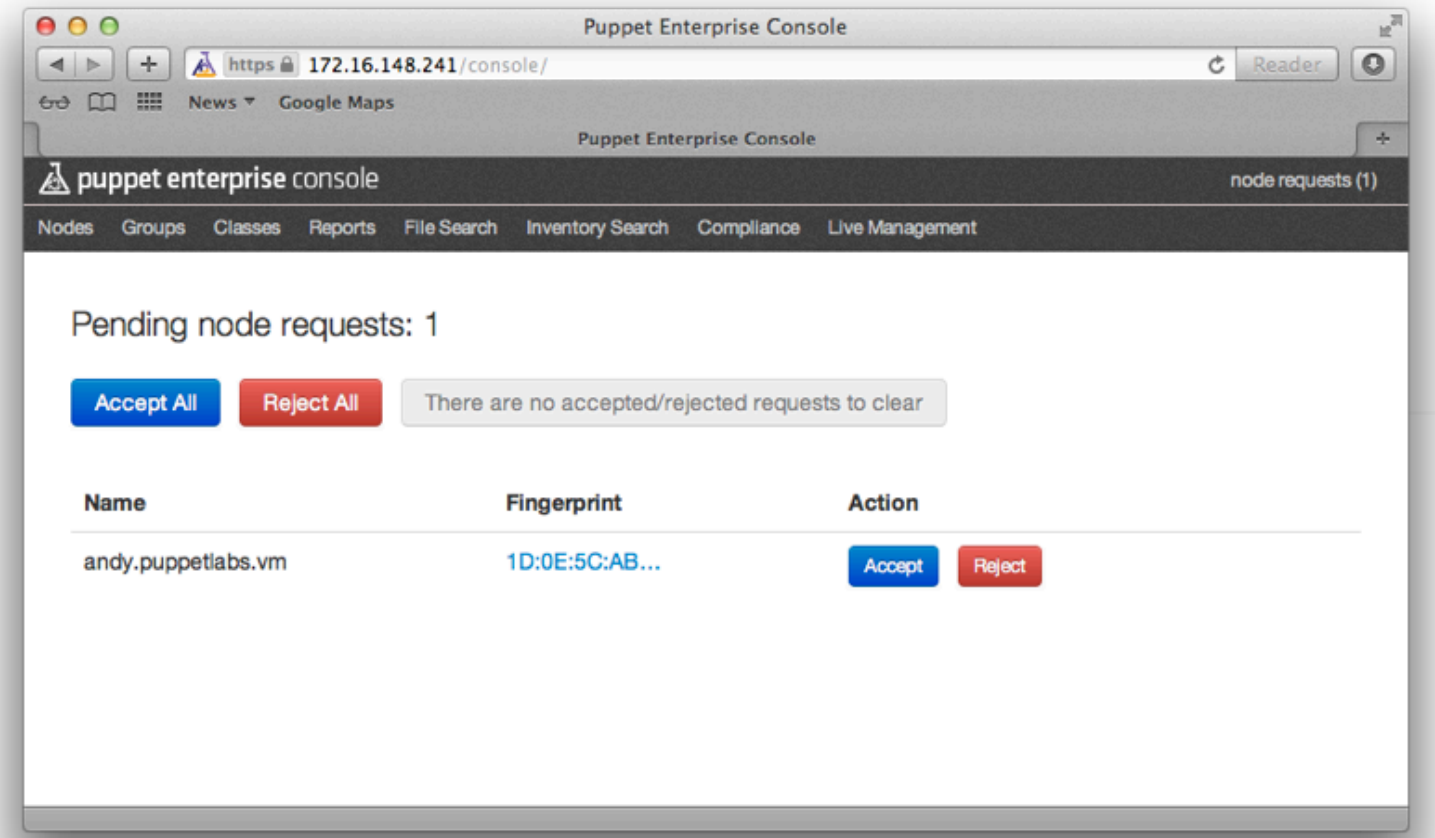
Recent Features

- Certificate Signing from the GUI
- Authentication with LDAP and oAuth



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Resources for Success

Services
&
Support

The
Forge

Training

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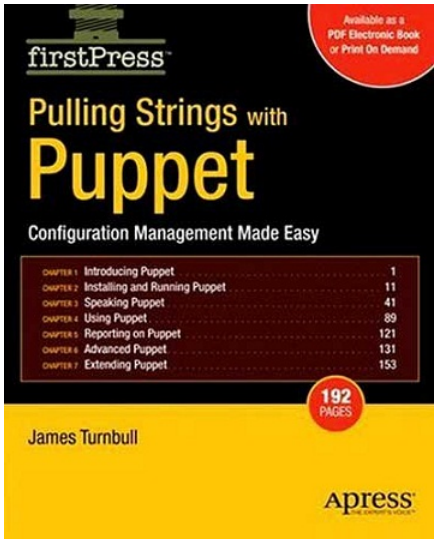
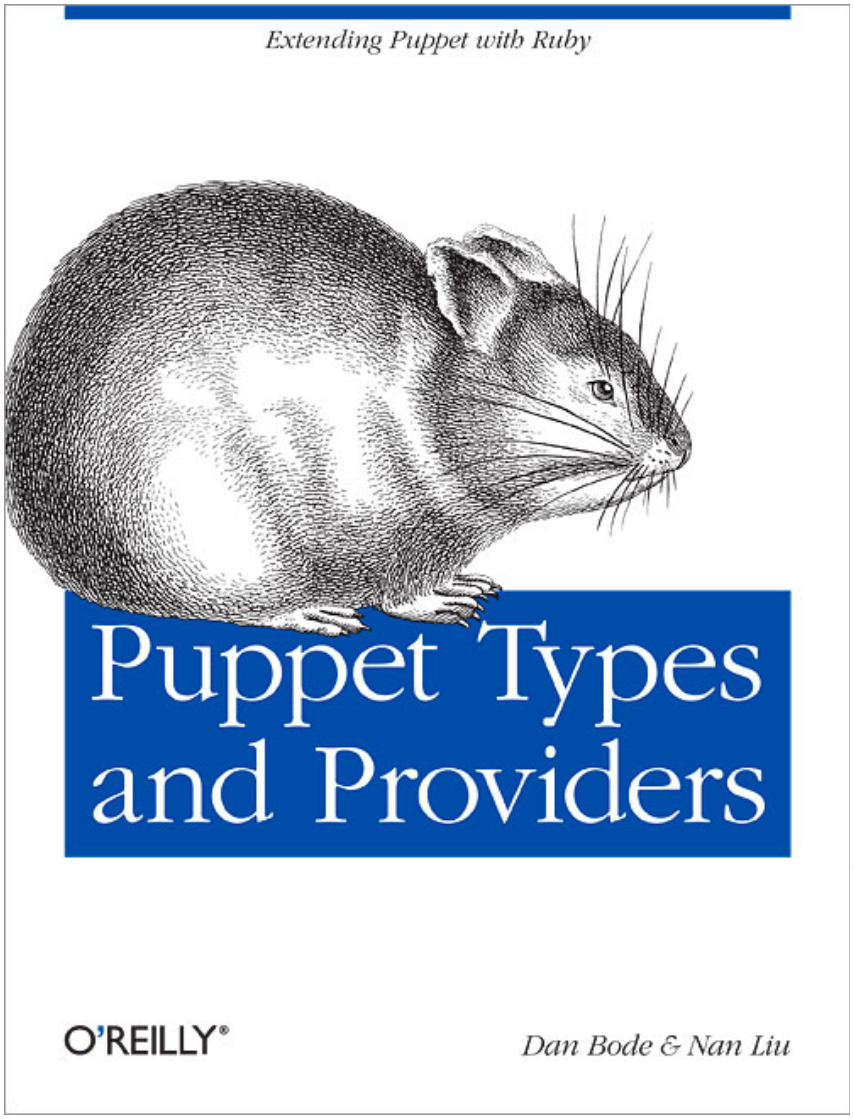
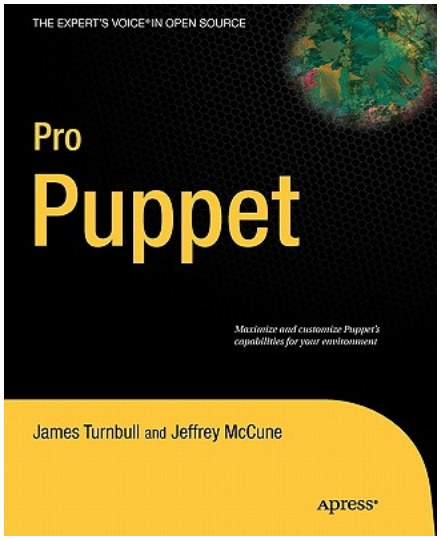
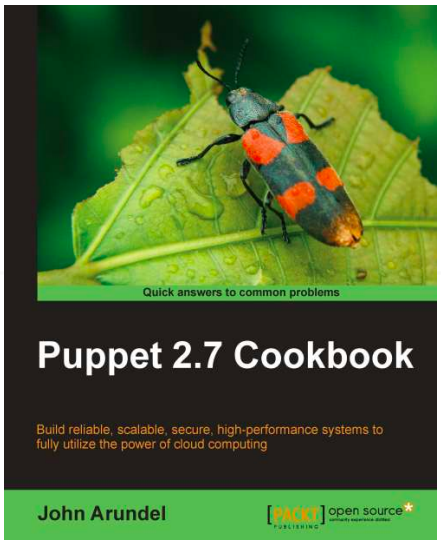
Puppet Happenings


firstPress
Available as a PDF Electronic Book or Print On Demand
Pulling Strings with
Puppet
Configuration Management Made Easy
CHAPTER 1 Introducing Puppet 1
CHAPTER 2 Installing and Running Puppet 11
CHAPTER 3 Speaking Puppet 41
CHAPTER 4 Using Puppet 89
CHAPTER 5 Reporting on Puppet 121
CHAPTER 6 Advanced Puppet 131
CHAPTER 7 Extending Puppet 153
192 PAGES
James Turnbull
Apress


Extending Puppet with Ruby
Puppet Types and Providers
O'REILLY
Dan Bode & Nan Liu


THE EXPERT'S VOICE® IN OPEN SOURCE
Pro
Puppet
Maximize and customize Puppet's capabilities for your environment
James Turnbull and Jeffrey McCune
Apress

Configuration Management at Scale
Managing Infrastructure with Puppet
O'REILLY
James Loope


Quick answers to common problems
Puppet 2.7 Cookbook
Build reliable, scalable, secure, high-performance systems to fully utilize the power of cloud computing
John Arundel
[PACKT] open source

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Puppet 3 Developments

- Removal of dynamic scoping
- Extensions loaded from gems
- Full Ruby 1.9.3 support
- Pluginsync by default
- Data Separation with data binding
- Performance improvements
- Better version numbers
- More platform support
- Code loading improvements
- Even more documentation

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Scope

```
# dynamic scoping is gone

class parent {
  $var = "from parent"
  include included
}

class included {
  notify { $var: }   ## NOT GONNA WORK
  notify { $parent::var: } ## YUP
}
```

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Data Binding

```
class ntp($server = hiera(ntp_server,
        'time.apple.com')) {
    ...
}

# can be changed to
class ntp($ntpserver = 'time.apple.com') {
    ...
}
```

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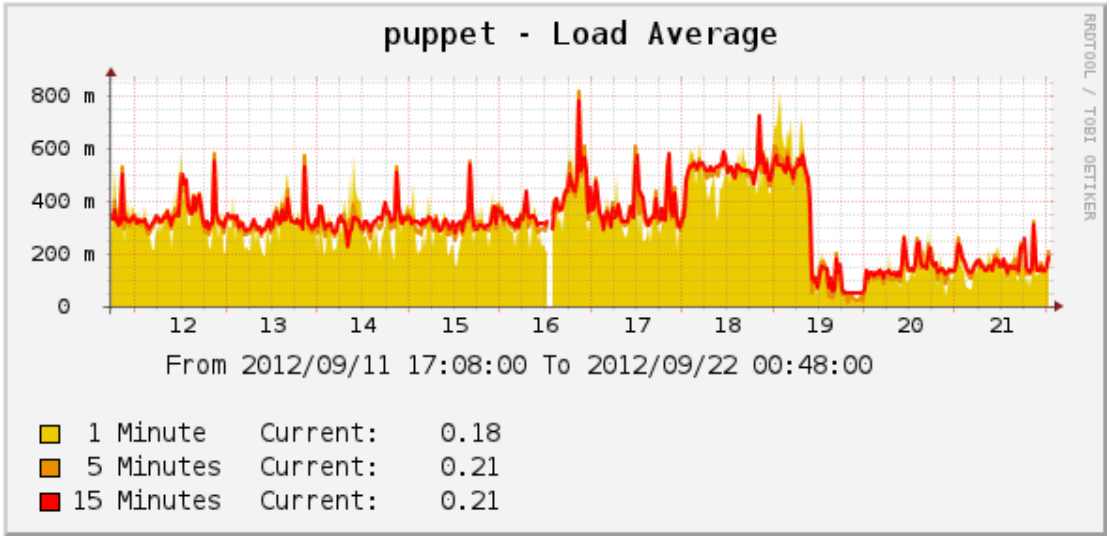
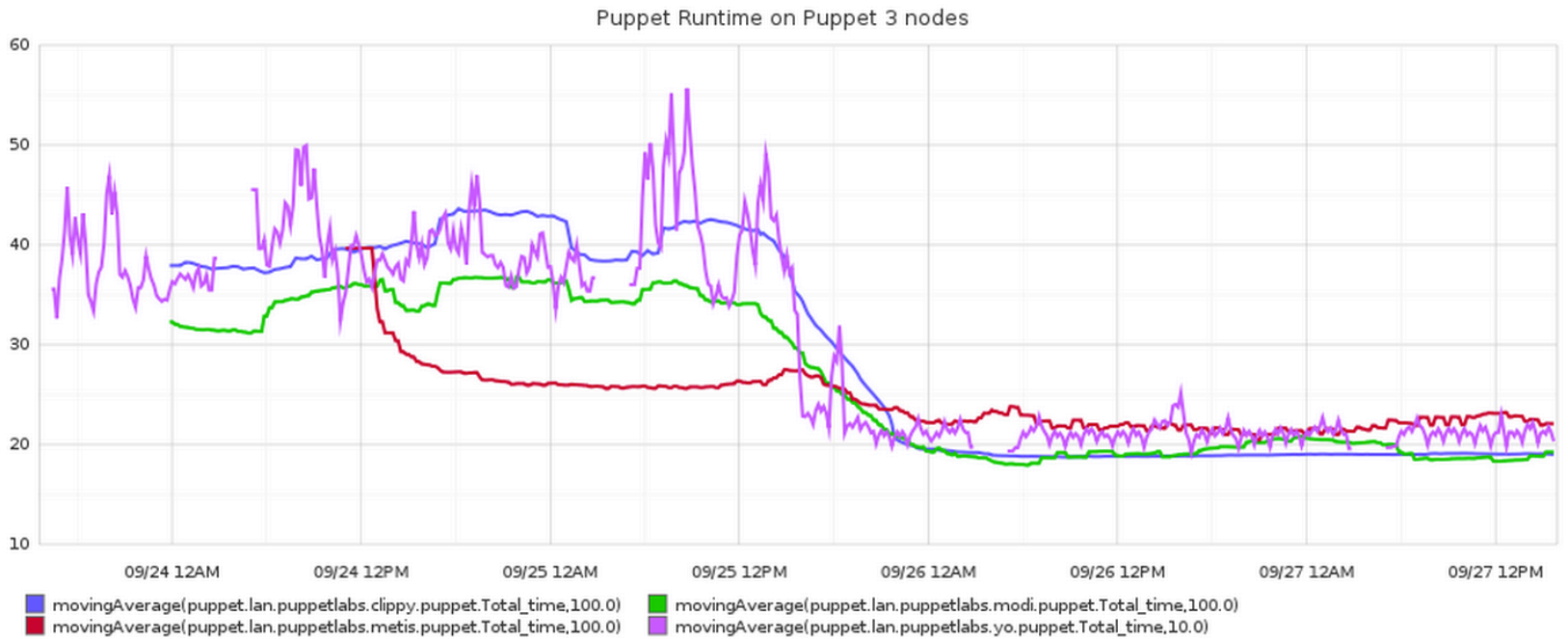
Performance Gains





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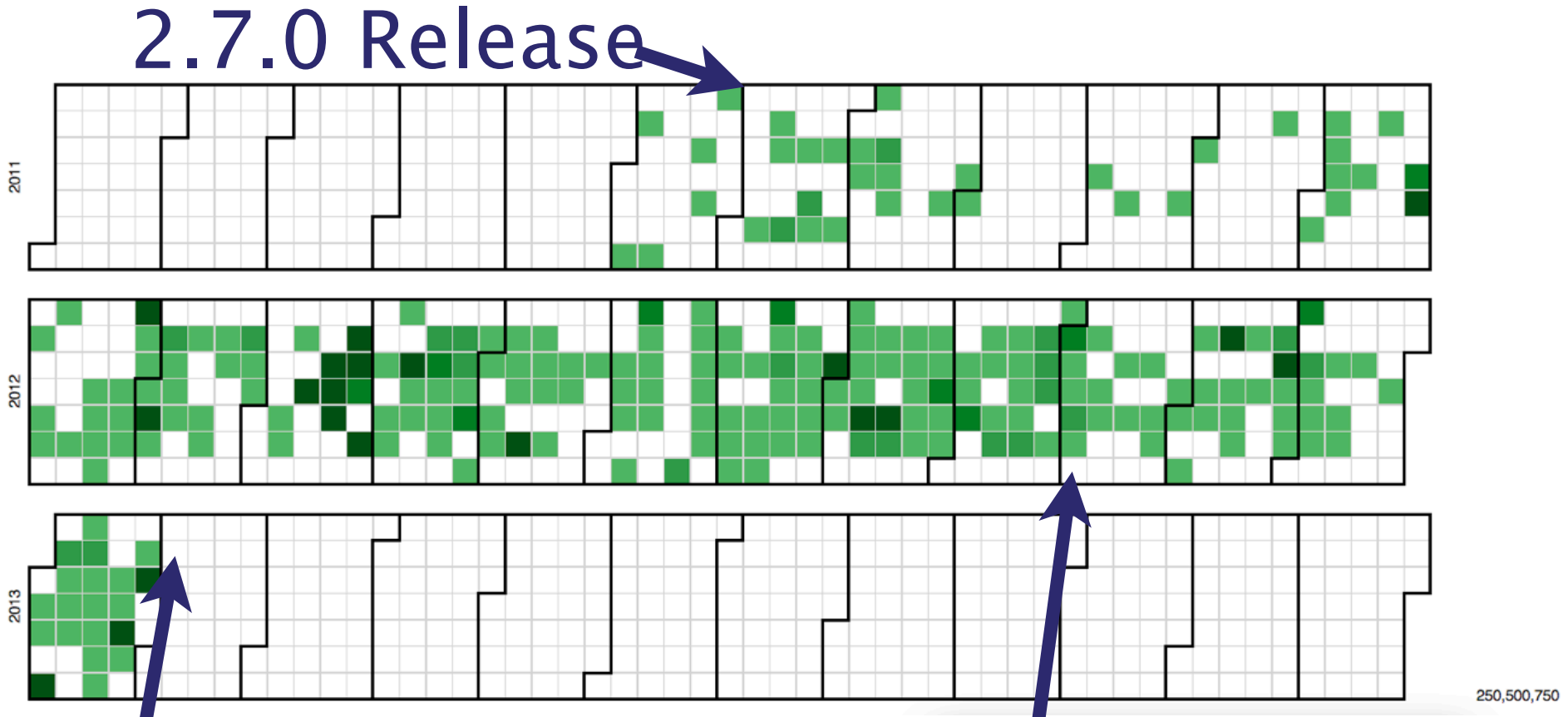
Puppet 3 moving on from 2.7



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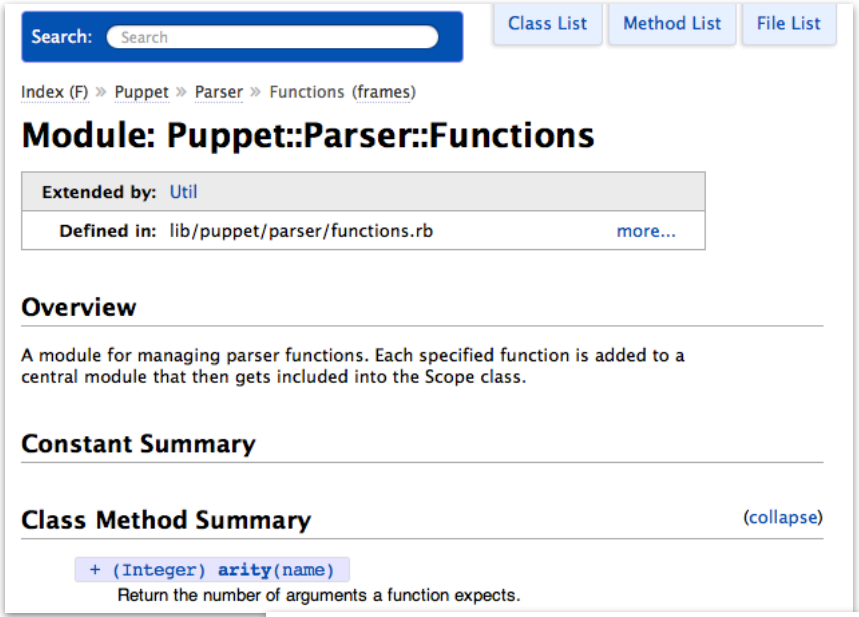
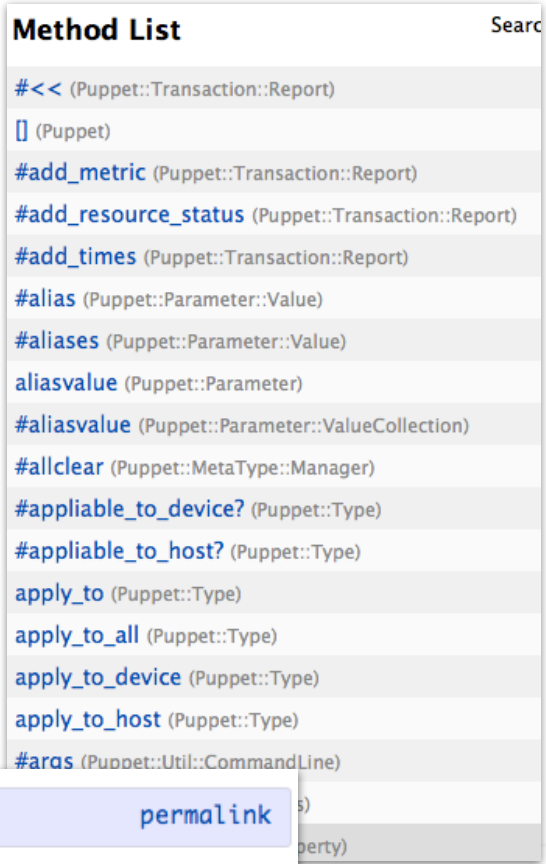
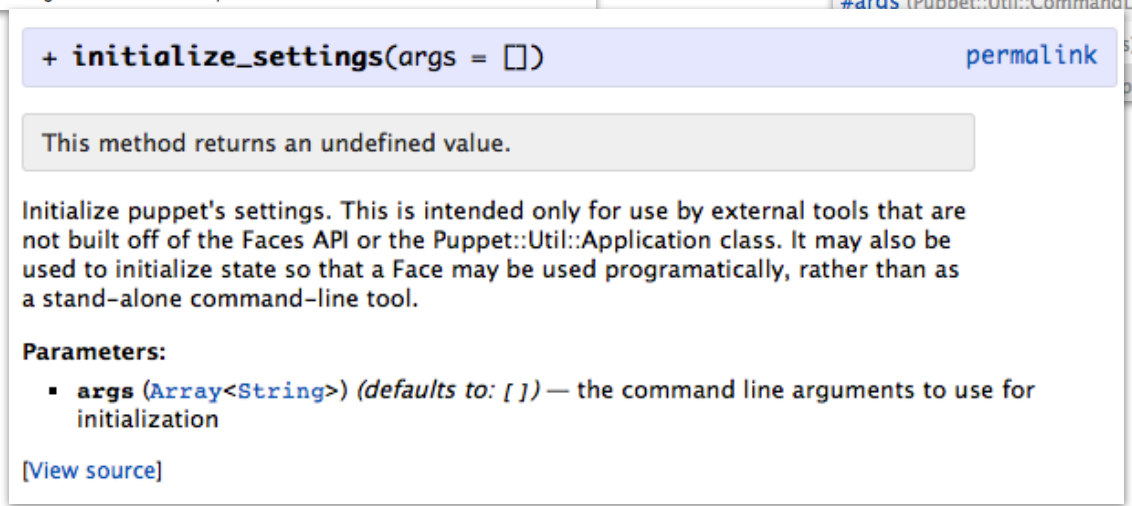
API Documentation!







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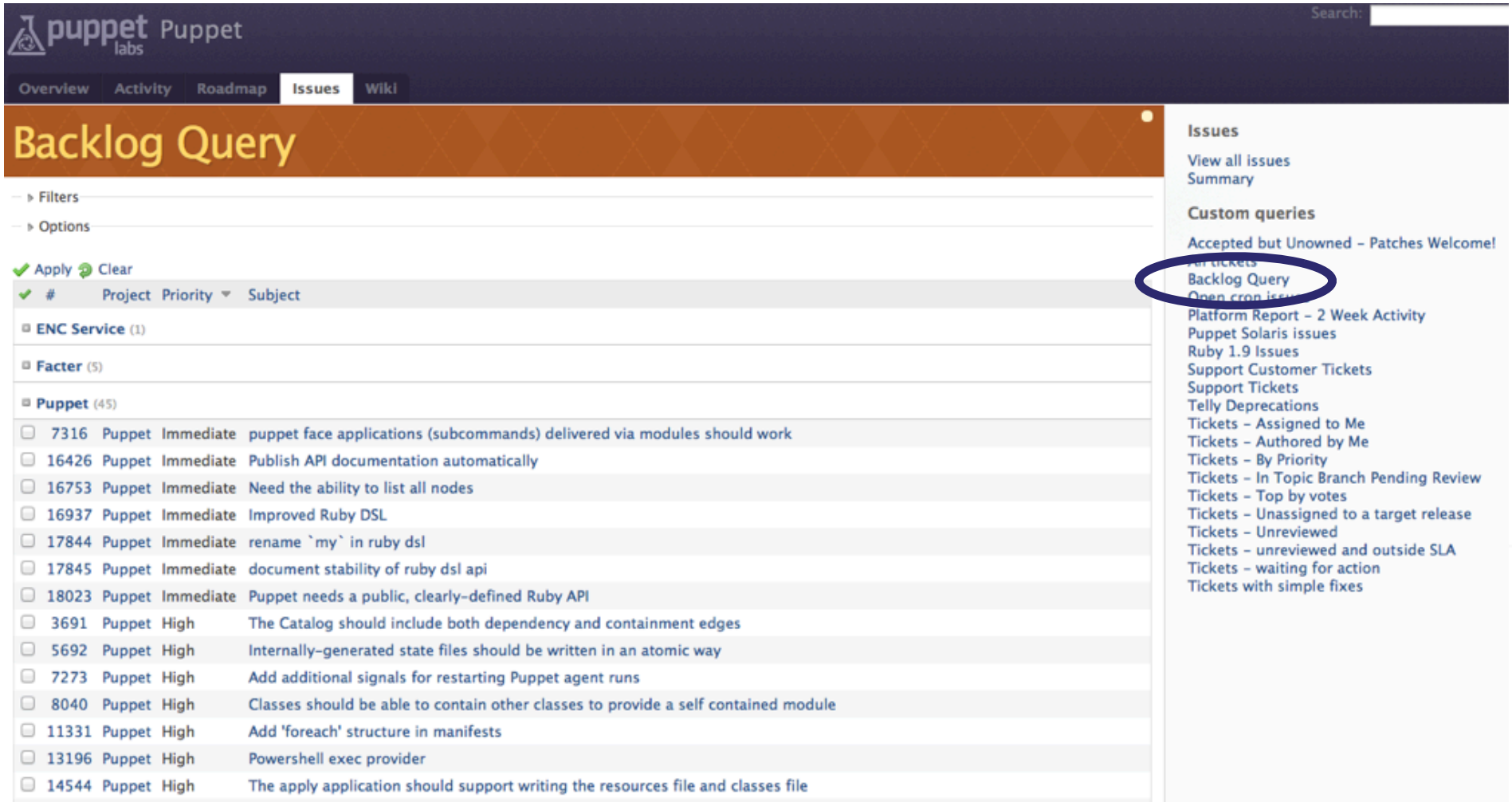
Transparency in plans



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Forge Happenings

The Puppet Module Forge

- Repository of modules
- Written by the community
- Written for the community
- Identify the best ones out there
- Great place to contribute your own modules

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By the Numbers

	Jan 2012	Jan 2013
Modules	260	750+
Users	930	2000+
Daily Downloads	500	2200

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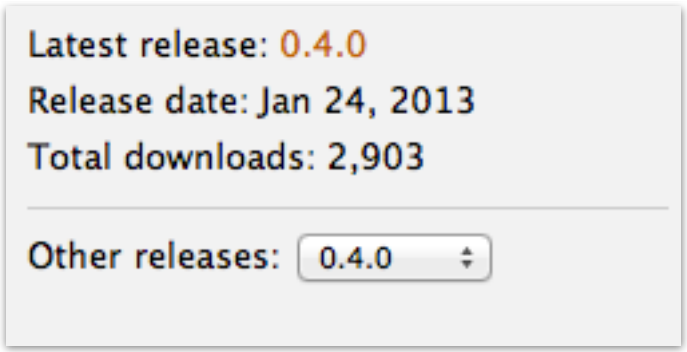
What changed?

- Dedicated team
- Show download counts
- More visible documentation



Module description

Puppet Razor module will perform the installation of Razor on Ubuntu Precise and RHEL/CentOS system. See blog post.

It is considered part of the overall Project Razor infrastructure, so you can get help using the module or enhancing it over at the main Project Razor site on GitHub.

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MCollective Happenings

The Marionette Collective

- Framework to build server orchestration
- Parallel job execution
- Real-time discovery of resources
- Target only the systems you want

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Continuous Release

- Agents in packages, real packages
- MCO does it, so you can make them too
- Continuously built, continuously released

S	W	Name ↓	Last Success	Last Failure	Last Duration
		MCO FileMgr Plugin Spec	1 mo 0 days (#3)	N/A	1 min 44 sec
		MCO Iptables Plugin Spec	18 days (#3)	1 mo 0 days (#1)	1 min 51 sec
		MCO NRPE Plugin Spec	18 days (#32)	1 mo 7 days (#21)	1 min 14 sec
		MCO Puppet Plugin Spec	1 day 16 hr (#13)	19 days (#6)	1 min 47 sec
		MCO Service Plugin Spec	11 days (#7)	12 days (#4)	1 min 57 sec
		MCO Trigger Build	1 day 16 hr (#21)	1 mo 0 days (#1)	1.2 sec

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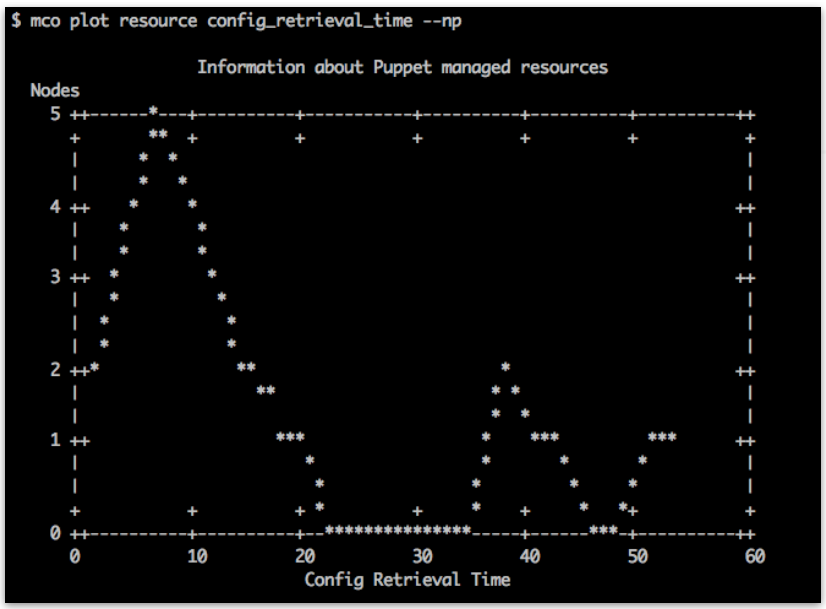
Usability

- Better docs
- More Complete applications
- Out of the box usability
- But still the framework it always was
- Full integration into puppet training



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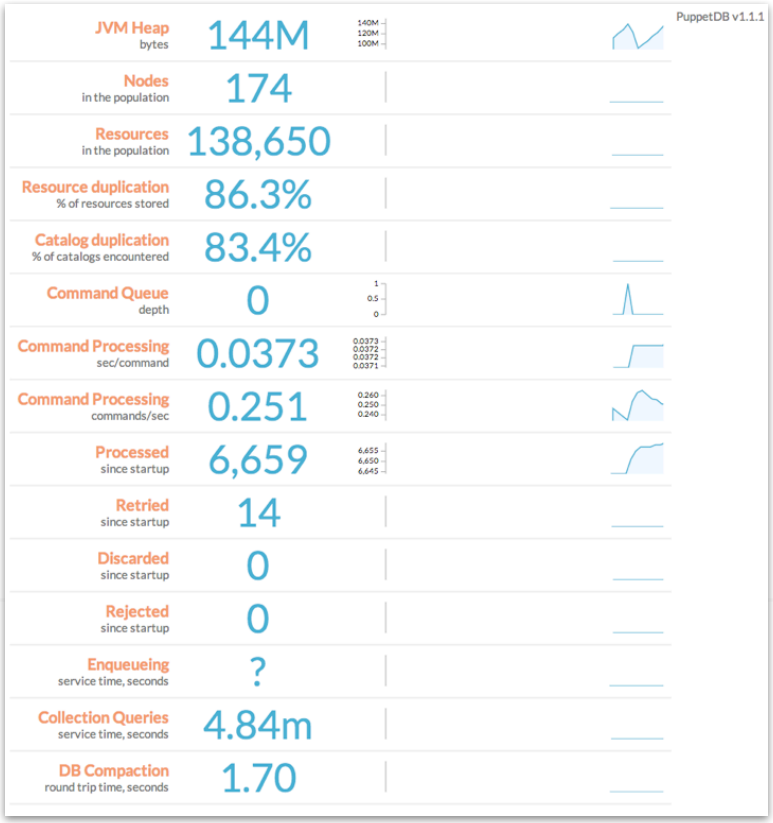
PuppetDB Happenings

PuppetDB

- Central storage for catalogs and facts that are part of your puppet infrastructure
- Incredibly fast replacement for existing ActiveRecord storeconfigs
- Easily deployed via a puppet module from the Forge

Better Query, More Storage

- PuppetDB 1.1 released
- Enhanced Query API for facts, subqueries, regular expressions
- Report Storage
- Report Query in an experimental API



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Razor Happenings

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Razor Provisioning

- Rules-based provisioning for bare metal hardware and virtual servers
- Developed in cooperation with EMC
- Easily deployed via a puppet module from the Forge
- Automatically brings the new server into your puppet infrastructure
- Open, pluggable, and programmable

Razor Present and Future

- Security audits, fixes in the 0.8.0 release
- Working on making releases for yum and apt
- Not yet ready for prime time
- Help us get it there
- File bugs, contribute to the community

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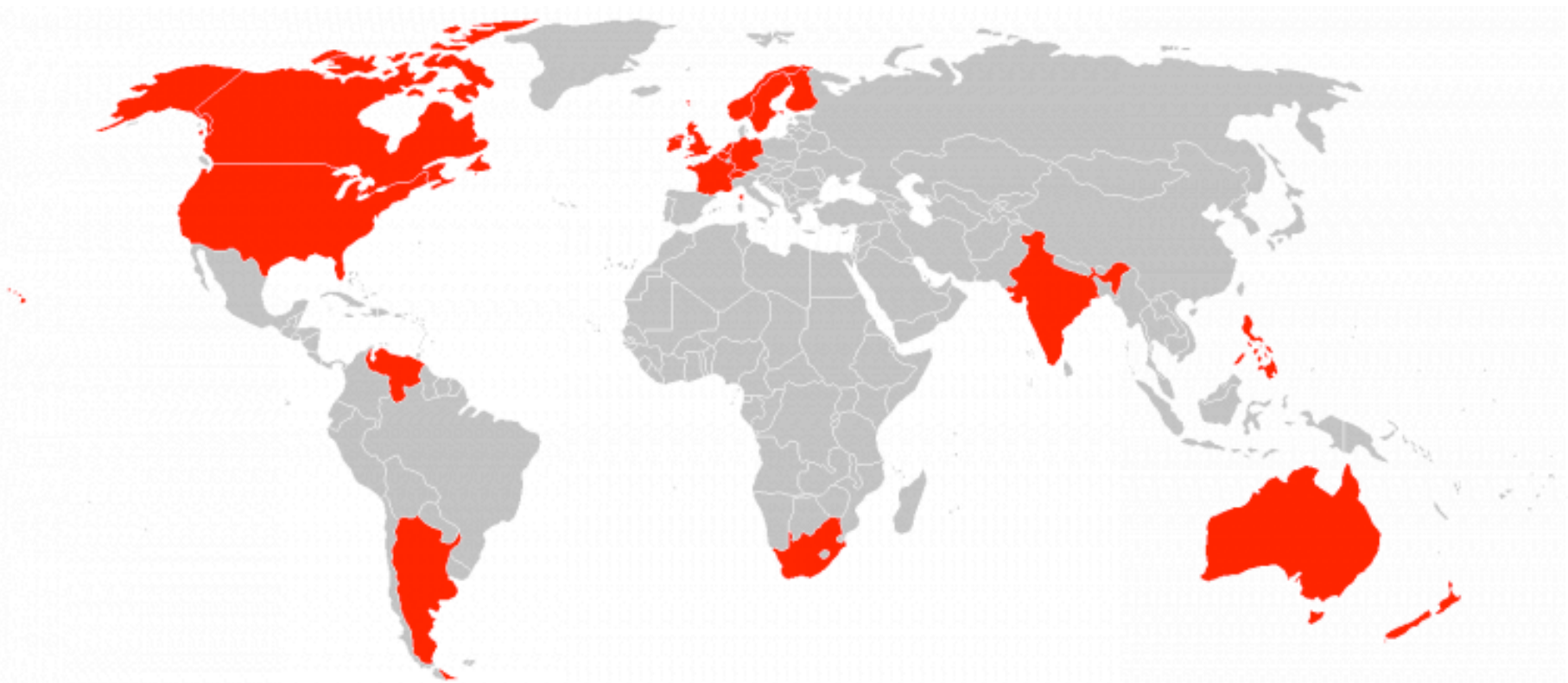
Training
&
Certification

Training by Country



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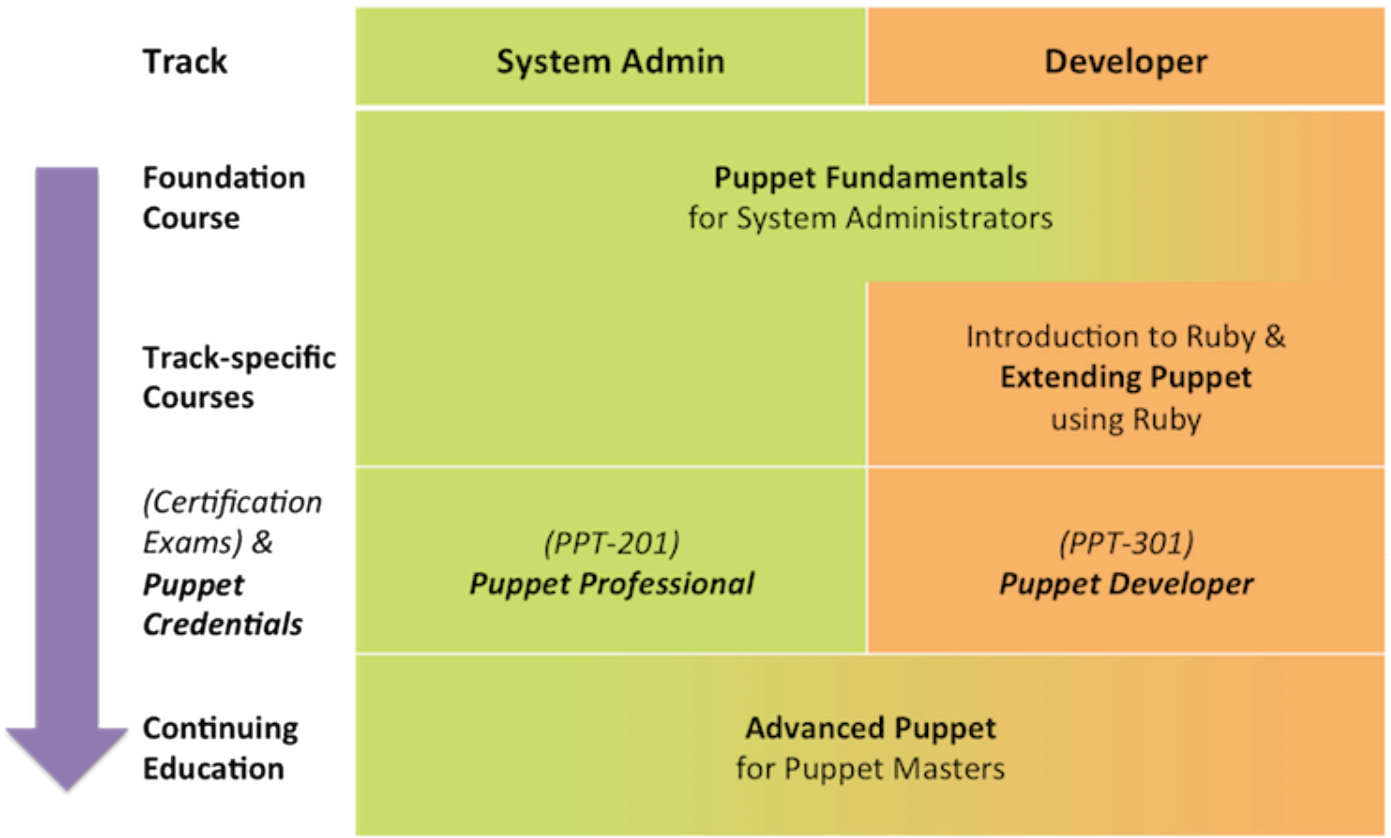
Puppet Education: Training and Certification Track



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Questions?

Thank You!

Learn More:

http://puppetlabs.com
http://puppetlabs.com/community
http://puppetlabs.com/puppet/puppet-enterprise/