# [**Server management with Puppet**](https://underarmour.atlassian.net/wiki/display/ENDOINFRA/Server+management+with+Puppet)by prakash varadarajulu

* Puppet is used to centrally control configuration of all servers
* Puppet is using server - client architecture where server contains set of configuration “recipes” for individual or groups of servers

Puppet configuration

* Configuration and all recipes are in Github under Puppet project
* Puppet server running on zabbix.ec2.resound.com server
* Puppet configuration is saved under /etc/puppet
* Main configuration file assigning recipes common provisioning and to individual servers is in /etc/puppet/manifests/nodes.pp and /etc/puppet/manifests/class/sg\_<AWS\_Security\_Group>.pp
* All recipes are saved under /etc/puppet/modules/

Bootstrapping new instances with Puppet

* (\*\*FIX\*\*) ami-a3d9dcd7 - ubuntu-64ebs-1.9 - contains preconfigured puppet client
* Upon startup Puppet client is executed but is configured to run only once and not as a daemon constantly pulling updates from server
* Based on context of security group or assigned hostname selected set of scripts is executed to configure the newly created instance
* Hostname can be set by passing “hostname” string as user data (hostname=test1)
* Among other specific modification these are common to all servers:
* System update with the latest packages
* Hostname is configured based on security group or user data. If user data is missing and server is running in security group with Auto Scaling then hostname is automatically created in following format:

${SECURITY\_GROUP}-${LOWEST\_AVAILABLE\_NUMBER}.domainname

* DNS (Route53) is updated with the new hostname
* Zabbix agent is installed and automatically registered to Zabbix server
* Mcollective daemon is installed and configured (**not all servers yet**)

Modifying configuration and rolling out changes to servers

* Configuration changes have to be made on Puppet server (zabbix:/etc/puppet)
* New configuration can be tested by running: “puppet agent --test” on selected server
* Updated configuration has to be pushed to Github (Puppet project)

root@zabbix:/etc/puppet# git add --all

root@zabbix:/etc/puppet# git commit -m "New IP for main-core-db"

root@zabbix:/etc/puppet# git push -u origin master

This last one is to see uncommitted/unversioned files: root@zabbix:/etc/puppet# git clean -dn | cut -c 14-