

Puppet

Master server setup

Add the Puppet repository and install the 'puppet-server' package:

```
# rpm -Uvh http://yum.puppetlabs.com/puppetlabs-release-el-7.noarch.rpm
[...]  
# yum install puppet-server  
[...]
```

Create the SSL certifications on the master:

```
# puppet master --verbose --no-daemonize  
[...]
```

Set the name of the master server:

/etc/puppet/puppet.conf

```
[master]  
  dns_alt_names = master, master.gacivs.info  
[agent]  
  server = master.gacivs.info
```

Install the necessary modules:

```
# puppet module install camptocamp-postfix  
# puppet module install petems-swap_file  
# puppet module install ssm-munin  
[...]  
# mkdir /etc/puppet/files/
```

Add to the bottom of the 'files.conf':

```
[files]  
  path /etc/puppet/files  
  allow *
```

Set the hostname, enable, start the 'puppet' and/or the 'puppetmaster':

```
# hostnamectl set-hostname node.gacivs.info  
[...]  
# puppet resource service puppetmaster ensure=running enable=true  
[...]  
# puppet resource service puppet ensure=running enable=true  
[...]
```

Add 'site.pp':

/etc/puppet/manifests/site.pp

```
import 'commons/*.pp'  
import 'nodes/*.pp'
```

Add 'commons/firewalld.pp':

commons/firewalld.pp

```
exec { "000 firewall open ssh port":
  command => "firewall-cmd --permanent --zone=public --add-service=ssh",
  path    => "/usr/bin/",
}

exec { "001 firewall open http port":
  command => "firewall-cmd --permanent --zone=public --add-service=http",
  path    => "/usr/bin/",
}

exec { "002 firewall open https port":
  command => "firewall-cmd --permanent --zone=public --add-service=https",
  path    => "/usr/bin/",
}

exec { "010 firewall open munin-node port":
  command => "firewall-cmd --permanent --zone=public --add-port=4949/tcp",
  path    => "/usr/bin/",
}

exec { "011 firewall open puppet port":
  command => "firewall-cmd --permanent --zone=public --add-port=8140/tcp",
  path    => "/usr/bin/",
}

exec { "999 firewall reload":
  command => "firewall-cmd --reload",
  path    => "/usr/bin/",
}
```

Add 'commons/munin-node.pp':

commons/munin-node.pp

```
class { 'munin::node':
  allow => [ '127.0.0.1', '::1', '108.61.164.173', '2001:19f0:5000:8904:5400:ff:fe08:d42a' ],
}

munin::plugin { 'apache_accesses':
  ensure => link,
}

munin::plugin { 'apache_processes':
  ensure => link,
}

munin::plugin { 'apache_volume':
  ensure => link,
}

munin::plugin { 'cpu':
  ensure => link,
}

munin::plugin { 'df':
  ensure => link,
}

munin::plugin { 'df_inode':
  ensure => link,
}

munin::plugin { 'diskstats':
  ensure => link,
}

munin::plugin { 'entropy':
  ensure => link,
}

munin::plugin { 'forks':
  ensure => link,
}

munin::plugin { 'fw_contrack':
```

```
    ensure => link,
  }
  munin::plugin { 'fw_forwarded_local':
    ensure => link,
  }
  munin::plugin { 'fw_packets':
    ensure => link,
  }
  munin::plugin { 'http_loadtime':
    ensure => link,
  }
  munin::plugin { 'if_err_eth0':
    ensure => link,
    target => 'if_err_',
  }
  munin::plugin { 'if_err_eth1':
    ensure => link,
    target => 'if_err_',
  }
  munin::plugin { 'if_eth0':
    ensure => link,
    target => 'if_',
  }
  munin::plugin { 'if_eth1':
    ensure => link,
    target => 'if_',
  }
  munin::plugin { 'interrupts':
    ensure => link,
  }
  munin::plugin { 'iostat':
    ensure => link,
  }
  munin::plugin { 'iostat_ios':
    ensure => link,
  }
  munin::plugin { 'irqstats':
    ensure => link,
  }
  munin::plugin { 'load':
    ensure => link,
  }
  munin::plugin { 'memory':
    ensure => link,
  }
  munin::plugin { 'munin_stats':
    ensure => link,
  }
  munin::plugin { 'munin_update':
    ensure => link,
  }
  munin::plugin { 'netstat':
    ensure => link,
  }
  munin::plugin { 'open_files':
    ensure => link,
  }
  munin::plugin { 'open_inodes':
    ensure => link,
  }
  munin::plugin { 'postfix_mailqueue':
    ensure => link,
  }
  munin::plugin { 'postfix_mailstats':
    ensure => link,
  }
  munin::plugin { 'postfix_mailvolume':
    ensure => link,
  }
  munin::plugin { 'processes':
    ensure => link,
```

```
}
munin::plugin { 'proc_pri':
  ensure => link,
}
munin::plugin { 'selinux_avcstat':
  ensure => link,
}
munin::plugin { 'swap':
  ensure => link,
}
munin::plugin { 'threads':
  ensure => link,
}
munin::plugin { 'uptime':
  ensure => link,
}
munin::plugin { 'users':
  ensure => link,
}
munin::plugin { 'vmstat':
  ensure => link,
}
```

Add 'commons/packages.pp':

commons/packages.pp

```
package { 'bzip2':
  ensure => installed
}
package { 'etckeeper':
  ensure => installed
}
package { 'java-1.8.0-openjdk':
  ensure => installed
}
package { 'java-1.8.0-openjdk-devel':
  ensure => installed
}
package { 'mc':
  ensure => installed
}
package { 'net-tools':
  ensure => installed
}
package { 'rsync':
  ensure => installed
}
package { 'screen':
  ensure => installed
}
package { 'unzip':
  ensure => installed
}
package { 'wget':
  ensure => installed
}
```

Add 'commons/ssh-keys.pp':

commons/ssh-keys.pp

```
file { ['/root/.ssh':
  ensure => directory,
  path   => '/root/.ssh',
  owner  => 'root',
  group  => 'root',
  mode   => '0700',
}]
file { ['/root/.ssh/authorized_keys':
  ensure => file,
  owner  => 'root',
  group  => 'root',
  mode   => '0600',
  source => 'puppet:///files/authorized_keys',
}]
```

Add 'nodes/info.gacivs.master.pp':

nodes/info.gacivs.master.pp

```
node 'master.gacivs.info' {
  munin::master::node_definition { 'gacivs.info;master.gacivs.info':
    address => 'master.gacivs.info'
  }
  munin::master::node_definition { 'dc01.gacivs.info;dc01-rack01-cass01.gacivs.info':
    address => '185.92.223.74'
  }
  class { 'munin::master':
    html_strategy => 'cron',
    graph_strategy => 'cron'
  }
  file { ['/etc/munin/munin-htpasswd':
    ensure => file,
    owner  => 'root',
    group  => 'root',
    mode   => '0644',
    source => 'puppet:///files/munin-htpasswd',
  ]
  include munin::master

  package { 'httpd':
    ensure => installed
  }
  package { 'mod_ssl':
    ensure => installed
  }
  service { "httpd":
    enable => true,
    ensure => running
  }
}
```

Test the configuration:

```
# puppet agent --test
Info: Retrieving pluginfacts
Info: Retrieving plugin
Info: Loading facts
Info: Caching catalog for master.gacivs.info
Info: Applying configuration version '1430989052'
[...]
Notice: Finished catalog run in 42.09 seconds
```

OK! 😊

Agent setup

Set the hostname:

```
# hostnamectl set-hostname node.gacivs.info
```

Install the 'puppet' to the node:

```
# rpm -Uvh http://yum.puppetlabs.com/puppetlabs-release-el-7.noarch.rpm
[...]  
# yum install puppet  
[...]
```

Set the name of the master server:

/etc/puppet/puppet.conf

```
[agent]  
  server = master.gacivs.info
```

Check the agent's certification:

```
# puppet agent --test --waitforcert 60  
Info: csr_attributes file loading from /etc/puppet/csr_attributes.yaml  
Info: Creating a new SSL certificate request for node.gacivs.info  
Info: Certificate Request fingerprint (SHA256): 94:1A:AF:41:DF:EB:BE:DC:40:58:76:24:4C:04:C8:DF:EC:5B:44:07:C5:8E:5E:A0:69:FE:ED:4A:6B:87:BD:40  
Info: Caching certificate for node.gacivs.info  
Info: Caching certificate_revocation_list for ca  
Info: Retrieving pluginfacts  
Info: Retrieving plugin  
[...]  
Info: Loading facts  
Info: Caching catalog for node.gacivs.info  
Info: Applying configuration version '1430933156'  
Notice: Finished catalog run in 0.01 seconds  
# puppet resource service puppet ensure=running enable=true  
[...]
```

Accept the certification on the master:

```
# puppet cert --list  
"node.gacivs.info" (SHA256) 94:1A:AF:41:DF:EB:BE:DC:40:58:76:24:4C:04:C8:DF:EC:5B:44:07:C5:8E:5E:A0:69:FE:ED:4A:6B:87:BD:40  
# puppet cert sign node.gacivs.info  
Notice: Signed certificate request for node.gacivs.info  
Notice: Removing file Puppet::SSL::CertificateRequest node.gacivs.info at '/var/lib/puppet/ssl/ca/requests/node.gacivs.info.pem'
```

OK! 😊
