Introduction to chef by Nathan harvey

Documentation on Chef

<https://docs.chef.io/>

<https://www.slideshare.net/adamhjk/infrastructure-automation-with-chef>

Installation, configuration and automation:

<https://www.slideshare.net/chef-software>

**complete documentation on chef**

<http://www.slashroot.in/chef-tutorial-beginners-getting-started-introduction>

Hardware & software dependencies:

<https://docs.chef.io/install_server_pre.html>

## Software Requirements[¶](https://docs.chef.io/install_server_pre.html#software-requirements)

Before installing the Chef server, ensure that each machine has the following installed and configured properly:

* **Hostnames** — Ensure that all systems have properly configured hostnames. The hostname for the Chef server must be a FQDN, including the domain suffix, and must be resolvable. See [Hostnames, FQDNs](https://docs.chef.io/install_server_pre.html#hostnames) for more information
* **FQDNs** — Ensure that all systems have a resolvable FQDN
* **NTP** — Ensure that every server is connected to NTP; the Chef server is sensitive to clock drift
* **Mail Relay** — The Chef server uses email to send notifications for various events; a local mail transfer agent should be installed and available to the Chef server
* **cron** — Periodic maintenance tasks are performed using cron
* **git** — git must be installed so that various internal services can confirm revisions
* **libfreetype and libpng** — These libraries are required
* **Apache Qpid** — This daemon must be disabled on CentOS and Red Hat systems
* **Required users** — If the environment in which the Chef server will run has restrictions on the creation of local user and group accounts, ensure that the correct users and groups exist before reconfiguring
* **Firewalls and ports** — If host-based firewalls (iptables, ufw, etc.) are being used, ensure that ports 80 and 443 are open. These ports are used by the **nginx** service
* **Hostname** — The hostname for the Chef server must be a FQDN, including the domain suffix, and must be resolvable. See [Hostnames, FQDNs](https://docs.chef.io/install_server_pre.html#hostnames) for more information

In addition:

* **Browser** — Firefox, Google Chrome, Safari, or Internet Explorer (versions 9 or better)
* **chef-client communication with the Chef server** Every node that will be configured by the chef-client and every workstation that will upload data to the Chef server must be able to communicate with the Chef server

## Hardware Requirements[¶](https://docs.chef.io/install_server_pre.html#hardware-requirements)

All machines in a Chef server deployment have the following hardware requirements. Disk space for standalone and backend servers should scale up with the number of nodes that the servers are managing. A good rule to follow is to allocate 2 MB per node. The disk values listed below should be a good default value that you will want to modify later if/when your node count grows. Fast, redundant storage (SSD/RAID-based solution either on-prem or in a cloud environment) is preferred.

For all deployments:

* 64-bit architecture

For a standalone deployment:

* 4 total cores (physical or virtual)
* 8 GB of RAM or more
* 5 GB of free disk space in /opt
* 5 GB of free disk space in /var

**Note**

The RAM requirement can be lowered down to a minimum of 4 GB of RAM if the number of Chef client runs (CCRs) per minute are low (i.e. less than 33 CCRs/min). See [Capacity Planning](https://docs.chef.io/server_components.html#capacity-planning) for more information on how this metric affects scalability.

For a high availability deployment:

General requirements

* Three backend servers; as many frontend servers as required
* 1 x GigE NIC interface (if on premises)

Frontend requirements

* 4 cores (physical or virtual)
* 4GB RAM
* 20 GB of free disk space (SSD if on premises, Premium Storage in Microsoft Azure, EBS-Optimized GP2 in AWS)

Backend requirements

* 2 cores (physical or virtual)
* 8GB RAM
* 50 GB/backend server (SSD if on premises, Premium Storage in Microsoft Azure, EBS-Optimized GP2 in AWS)