

## **Anaconda Repository Requirements**

### **Hardware requirements**

- CPU: 2 x 64-bit 2.8GHz 8.00GT/s CPUs
- RAM: 32GB (or 16GB of 1600 MHz DDR3 RAM)
- Storage: 300GB. (1TB for air gapped deployments). Additional space recommended if the repository will be used to store packages built by the customer. With an empty repository, a base install requires 2 GB.
- Internet access to download the files from Anaconda Cloud or a USB drive containing all of the files you need with alternate instructions for air gapped installations.

### **Software & system requirements**

- RHEL/CentOS 6.5 or later, Ubuntu 12.04+
  - Ubuntu users may need to install cURL.
- Client environments may be Windows, Mac OS X or Linux
- MongoDB 2.6 (provided)
- Anaconda Repository license file
- Cron entry to start the repo on reboot
- Linux system accounts
  - mongod (RHEL) or mongod (Ubuntu)
  - anaconda-server

### **Security requirements**

- Privileged access OR sudo capabilities
- Open HTTP(S) port
- SELinux policy edit privileges (SELinux does not have to be disabled for Anaconda Repository operation)
- Optional: Ability to make iptables modifications
- Optional: SSL certificate

### **Network requirements (TCP ports)**

- Inbound HTTP: TCP 8080, 8443 (Anaconda repository)
- Optional Inbound SSH: TCP 22 (SSH)
- Optional Outbound HTTPS: TCP 443
  - repo.continuum.io
  - anaconda.org
  - conda.anaconda.org
  - binstar-cio-packages-prod.s3-website-us-east-1.amazonaws.com
  - binstar-cio-packages-prod.s3.amazonaws.com
  - 820451f3d8380952ce65-4cc6343b423784e82fd202bb87cf87cf.ssl.cf1.rackcdn.com
- Optional Outbound SMTP: TCP 25 (if not using AD/LDAP) email notifications
- Optional Outbound LDAP(s): TCP 389/636 for authentication integration

## *Anaconda Enterprise System Requirements*

### Other Requirements

- License file provided to you by Anaconda at the time of purchase
- Installation tokens for binstar and anaconda-server channels provided by Anaconda at the time of purchase. Not applicable for air gapped installs.
- Optional: Your Anaconda Cloud (anaconda.org) account credentials. Not applicable for air gapped installs.

### Anaconda Scale

#### Hardware Recommendations

- Head and Compute nodes
  - RAM: 8+ GB,
  - CPU: 8+ cores
  - Storage: 4GB

NOTE: Analyses running on Compute Nodes will be primary driver of resource requirements.

#### Software Requirements

- Head and Compute nodes:
  - RHEL/CentOS 6, Ubuntu 14

#### Security Requirements

- One of the following configurations can be used during installation:
  - Access to the root user with the root password
  - Access to the root user with an SSH keypair
  - Passwordless SSH/sudo enabled for a user account
  - Password-based SSH and passwordless sudo enabled for a user account
- SELinux in Permissive mode (or, SELinux contexts can be configured via Anaconda Adam)

#### Network Requirements

- TCP Ports
  - TCP 22 (SSH) from head node to compute nodes
  - TCP 14505, 14506 (Salt) between head node and compute nodes
  - TCP 18000 (Salt REST API) from compute nodes to head node
  - Outbound TCP 443 from all machines to local Anaconda Repo

## Anaconda Enterprise Notebooks Requirements

### Hardware Recommendations

The server and gateway can be on the same machine as Anaconda Repository

- AEN Server
    - RAM: 2+ GB
    - CPU: 2+ cores
    - Storage: 20GB
  - AEN Gateway
    - RAM: 2 GB
    - CPU: 2 cores
    - Storage: 3MB (minimal storage required)
  - AEN Project Nodes (N-machines)
    - RAM: 2GB
    - CPU: 2 cores
    - Storage: 3GB/project
- NOTE: Analyses running on Project Nodes will be primary driver of resource requirements.

### OS Requirements

- RHEL/CentOS 6
- Bash installed on Project Nodes
- /opt/wakari: Ability to install here and at least 5GB of storage
- /projects: (only needed on Project nodes)
  - **Important:** This directory needs the filesystem mounted with Posix ACL support (Posix.1e)
  - Check with ``mount`` and ``tune2fs -l /path/to/filesystem | grep options``
- Linux system accounts:
  - mongod (RHEL) or mongodb (Ubuntu/Debian): Created by the RPM or deb package (AEN Server)
  - elasticsearch: created by RPM or deb package (AEN Server)
  - nginx: created by RPM or deb package (AEN Server)
  - wakari: Created during installation of Anaconda Enterprise Notebooks

### Software Prerequisites

- MongoDB 2.6 [AEN Server]
- Nginx version: >=1.4.0 [AEN Server]
- git [AEN Project]
- bash or zsh [AEN Project]
- bzip2 [AEN Project, AEN Server]
- ElasticSearch [AEN Server]
  - Oracle JRE 1.7 or 8 [AEN Server]
- X Windows (for R-based visualizations, not provided)

## Security Requirements

- root or sudo access at installation and runtime
- SELinux in Permissive mode - check with `getenforce`

## Network Requirements

- TCP Ports
  - Server: 80, Outbound 389/636 (LDAP)
  - Gateway: (inbound) 8089
  - Project (inbound) : 5002
  - All: Outbound 443 (to local Anaconda Repo)
  - Outbound TCP 443:  
820451f3d8380952ce65-4cc6343b423784e82fd202bb87cf87cf.ssl.cf1.rackcdn.com
- End users' browsers communicate with AEN using WebSockets.

Important note: these system requirements are suitable for the majority of implementations. Our implementation team can explain the scenarios and usage patterns that would require more resources.