**Docker Installation and Configuration Requirements**

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| **Component** | **Guidelines** |
| **Docker Version** | Docker Engine - Community version 18 or later is required. |
| **Available RAM** | Minimum: 8 GB; Recommended: 16 GB. |
| **Available Disk Space** | It requires 10 GB for internal requirements. The amount of additional disk space required for load file staging, persistence, or backups depends on the size of the data to be loaded. For persistence, Cambridge Semantics recommends that you have twice as much disk space available as RAM on the server. |
| **CPU Count** | Minimum: 2; Recommended 4+. |

And one more think, we need to know here is , Docker RAM & Disk size is based on the application architecture and container usage and its logs size. So, it was really very difficult to assign prior values.

Development Environment[Each 2 servers]

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| **Component** | **Guidelines** |
| **Docker Version** | Docker Engine - Community version 18 or later is required. |
| **Available RAM** | 16 +32 GB. |
| **Available Disk Space** | .50GB |
| **CPU Count** | 4+8 |

Production Environment [Each 20 servers]

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| --- | --- |
| **Component** | **Guidelines** |
| **Docker Version** | Docker Engine - Community version 18 or later is required. |
| **Available RAM** | 60 GB. |
| **Available Disk Space** | .50GB |
| **CPU Count** | 16core |

## **Step 1: Install dependencies**

yum install -y yum-utils device-mapper-persistent-data lvm2

## **Step 2: Installing Docker CE**

Docker provides a repository where you can fetch the stable Docker CE version. Install it with this command:

yum-config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo

To install Docker, simply run:

yum install -y docker-ce

Optional: In case you want to use the latest version of Docker CE, you must enable those repositories which are disabled by default:

yum-config-manager --enable docker-ce-edge

yum-config-manager --enable docker-ce-test

## **Step 3: Allow Docker commands without sudo**

Launching a container requires administrator privileges. If you don't want to run Docker as the root user, you can run it from your account using sudo. Adding "sudo" in front of each Docker command is tedious - to avoid this, add your user to the "docker" group:

usermod -aG docker your username

Now, start the Docker service:

systemctl start docker

enable Docker to run when your system boots.

systemctl enable docker

## **Step 3: Changed Parameters**

We must add the private docker repository address to ensure its secure image push & pull operations.

vi /etc/docker/daemon.json <<EOL

{

"insecure-registries" : ["REGISTRY-SERVER\_ADDRESS:5000"]

"metrics-addr" : "IP\_ADDRESS: 9323",

"experimental" : true,

"log-driver": "json-file",

"log-opts": {

"max-size": "10m",

"max-file": "3"

}

}