

# Server Requirements

## Introduction

After project kick-off, the first thing we will aim to do together is deploy your Exchange Staging Server. The staging server is where we will "stage" the Exchange server and all configurations, customizations, and integrations before launch. Then, when we're ready to launch, we will work with you to mirror or migrate the staging server to a production environment.

## Prerequisites

Before we can set up your Exchange Staging Server, we will need the following from you:

- **Access** to your server which will be used for staging
  - We will need RDP access to the server and the administrative credentials to it.
  - Alternatively, you may provide us with your AWS login and we can deploy the required EC2 instance on your behalf
- **SMTP information** using which the Exchange may send out e-mails
  - Host, port, username, password, and from address (if different than username)
  - Must be an SSL encrypted connection to the SMTP server
  - Often, customers use AWS SES
- **Domain names** you wish to use for the frontend (e.g. trade.company.com) and the backend (e.g. tradeapi.company.com)
  - You will need to map both of these domain names to the IP address of the server (DNS A records)
- **SSL certificate(s)** for the domain names, either two single-domain certificates or a wildcard certificate
- **Cloudflare** should be set up for both domains if you plan to use it (see **[Cloudflare Setup Recommendations](https://modulushelp.freshdesk.com/support/solutions/articles/43000457915-cloudflare-setup-recommendations)** (<https://modulushelp.freshdesk.com/support/solutions/articles/43000457915-cloudflare-setup-recommendations>))
- **Exchange Information**
  - Title of the Exchange
  - URL to your logo

## Staging Server Sizing Recommendations

### 1. Ubuntu1 (All Services except Admin & BFF):

8vCore CPU, 16 GB RAM, 100 GB SSD, 20.04 Ubuntu as the OS

### 2. Ubuntu2 (for BFF):

2vCore CPU, 4 GB RAM, 50 GB SSD, 20.04 Ubuntu as the OS

### 3. MSSQL DB:

- If you will not be using MSSQL cluster/multi-az deployment such as AWS RDS or Azure DB, then you need to have
- a separate VM for DB with the following specification
  - OS: Windows Server Standard 2019 or Ubuntu 22.04
  - MSSQL: Microsoft SQL Server 2019 Standard.
  - CPU: 4vCore or more

- RAM: 8 GB or more
- HDD: 100 GB SSD or more.

## Production Server Sizing Recommendations

### 1. Kubernetes Cluster

AWS EKS @ v1.26 with at least 8 nodes in the cluster, each with 2vCPU, 4GB RAM & at least 20GB SSD

or

Google GKE Cluster @ v1.26 with at least 8 nodes in the cluster, each with 2vCPU, 4GB RAM & at least 20 GB SSD

### 2. RedisDB (Managed Cluster)

Redis Elastic Cache @ Multi-AZ with Auto-Failover. (Cluster Mode: Disabled)

or

Redis Memorystore @ 6.x Standard with No read replicas, 2GB Capacity & Auth Enabled.

### 3. Microsoft SQL Database 2019 (Managed Cluster)

AWS RDS for MSSQL @ v2019 (Web or Standard Edition)

or

SQL Server on Google Cloud @ v2019 (Web or Standard Edition)