

# InspeXtor Server VM Requirements

## Purpose

The purpose of this document is to outline the requirements for a virtual machine (VM) to replicate a specific server environment for **Production purposes** and to provide guidance on hardware specifications based on node counts.

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## Functional Requirements

- **Operating System:** Ubuntu 20.04.6/22.04.05 LTS
  - **Network Configuration:** Enable network connectivity to internal resources and the internet
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## Performance Requirements (Baseline)

- **CPU:** Minimum of 2 CPU cores with 2.5 GHz clock speed or better
  - **Memory:** Minimum of 8 GB RAM
  - **Disk Space:** Minimum of 350 GB
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## Networking and Connectivity

- **Networking:** Ensure the VM can communicate with the internal network and the internet
- **Ports to Allow:**
  - SSH → Port 22
  - HTTP → Port 80
  - HTTPS → Port 443
  - TFTP → Port 69
  - COAP → Port 5683
  - MQTT → 1883
  - MQTTS → 8883

## VM Requirements Based on Node Count

Node Count Range	Operating System	RAM	Hard Drive
Less than 250 Nodes	Ubuntu 20.04.6/22.04.05 LTS	8 GB	200 GB
250–500 Nodes	Ubuntu 20.04.6/22.04.05 LTS	8 GB	300 GB
500–1000 Nodes	Ubuntu 20.04.6/22.04.05 LTS	16 GB	400 GB
1000–2000 Nodes	Ubuntu 20.04.6/22.04.05 LTS	16 GB	500 GB
2000-3000 Nodes	Ubuntu 20.04.6/22.04.05 LTS	32 GB	1 TB

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### Notes

1. Specifications are based on standard requirements and may need adjustments depending on specific workloads and use cases.
2. Regular monitoring and scaling may be required as node counts and workloads increase.