



# ICE Deployment Compute Resources

Product guide for prerelease

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## 1 Document History

Publication Date	Product Release	Notes
May 29, 2024	3.5.1	No updates.
April 15, 2024	3.5.0	No updates.
September 20, 2023	3.4.0	No updates.
July 24, 2023	3.3.0	Added 'Lite' deployment option.
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May 9, 2022	3.1.1	Updated single node system requirements.
April 25, 2022	3.1.1	Updated to reflect ICE OS for ICE Server.
March 15, 2022	3.1.0	Document created.

## 2 Introduction

Instant Connect Enterprise deployment models need to meet customer expectations on cost of the resources and number of users supported.

ICE customer deployments will fall into Small, Medium, or Large deployments and need to have an option for redundancy.

**ICE OS** is a proprietary Linux-based operating system which allows for a streamlined installation of **ICE Server** as single node Kubernetes cluster, including support for air gapping and geo-redundancy.

## 3 ICE Server Deployment Options

### 3.1 Lite - Single Node

#### Users

- Up to 25

**ICE Server** - Single server or VM with these specifications:

- 4 CPU Cores

- 16Gb RAM
- 250Gb Disk Space

### 3.2 Small - Single Node

**Users** - Up to 1000

**ICE Server** - Single server or VM with these specifications:

- 8 CPU Cores
- 32Gb RAM
- 500Gb Disk Space

### 3.3 Medium - Single Node

**Users** - Up to 2000

**ICE Server** - Single server or VM with these specifications:

- 12 CPU Cores
- 48Gb RAM
- 750Gb Disk Space

### 3.4 Large - Single Node

**Users** - Up to 3,000+

**ICE Server** - Single server or VM with these specifications:

- 16 CPU Cores
- 64Gb RAM
- 1Tb Disk Space

### 3.5 Medium - Multi Node

Multi Node deployment provides protection from a single server failure.

**Users** - Up to 5,000

**ICE Server** - Three servers or VMs, each with these specifications:

- 6 CPU Cores

- 16Gb RAM
- 300Gb Disk Space

**Redundancy** - Geo Redundancy is available.

### 3.6 Large - Multi Node

Multi Node deployment provides protection from a single server failure.

**Users** - Above 5,000 users.

**ICE Server** - Three servers with 7 VMs across the servers:

- Two master nodes
    - 4 CPU cores
    - 16Gb RAM
    - 40Gb disk space
  - Three etcd nodes
    - 2 CPU cores (Intel Core i5 or i7, recommended)
    - 8Gb RAM
    - 30Gb disk space
  - Two worker nodes
    - 8 CPU cores (Intel Core i5 or i7, recommended)
    - 24Gb RAM
    - 300Gb disk space
  - External shared storage
    - 1Tb
    - Available over the network using a common protocol, e.g., Server Messaging (SMB).
- Note:** We do not recommend using the Network File System (NFS) protocol for ICE database shared storage due to system performance considerations.

**Redundancy** - Geo Redundancy is available.

## 4 ICE Desktop Client

ICE Desktop Client PC needs to meet the following minimum specifications:

- 4 CPU Cores
- 8Gb RAM
- 1Gb of free disk space

### Operating Systems

- Microsoft: We always support the latest major release, but also will continue to support the prior release, for a time, until we consider the new version to be generally adopted.
  - x64 Windows 10 and above
- Linux
  - RHEL7
  - CentOS 7
  - Ubuntu 20.04 LTS
- macOS: We always support the latest major release
  - Monterey

## 5 ICE Mobile Client

ICE Mobile Client devices need to meet the following minimum specifications:

### Operating Systems

- Android 9.0 and above
- iOS 14 and above

## 6 ICE Telephony Server

ICE Telephony Server / VM needs to meet the following minimum specifications:

- 4 CPU Cores
- 8Gb RAM
- 64Gb Disk Space

### Operating Systems

- Ubuntu Linux 18.04 LTS/20.04 LTS



## 6.1 Hardware requirements

ICE Radio Server / VM needs to meet the following minimum specifications:

- 4 CPU cores (or equivalent)
- 4 Gb RAM
- 80 Gb storage
- P25 License Dongle plugged into an available USB port on the physical server

Operating Systems

- Ubuntu Linux 18.04 LTS/20.04 LTS

## 7 Rallypoint

Rallypoint Server / VM needs to meet the following minimum specifications:

- 4 CPU Cores
- 8Gb RAM
- 64Gb Disk Space

Operating Systems

- Ubuntu Linux 18.04 LTS/20.04 LTS
- RHEL 7