

Grandstream Networks, Inc.

SoftwareUCM – Specifications and Server Requirements



SoftwareUCM can be deployed using hardware servers or virtual machines, offering users the ability to meet various infrastructure needs.

This guide provides information about the technical specifications, system requirements, and server configurations necessary to run SoftwareUCM efficiently.

SoftwareUCM Specifications

The table below describes the specifications of SoftwareUCM:

Maximum number of extensions	Up to 10000 (based on the SoftwareUCM license)
Maximum number of concurrent calls	Up to 2500 (based on the SoftwareUCM license)
License Activation Methods	• Online Activation: Virtual machines, physical machines • Offline Activation: Physical machines only Note: Trial packages can only be activated online.
Recommended Server Environment	• x86 base hardware server or PC • Supports Hypervisor software Installation

Deployment Mode

SoftwareUCM supports two deployment modes:

Single Tenant Mode

After installing the SoftwareUCM ISO software, only a single UCM software instance can be created. In this mode, the resource requirements of the entire machine are treated as a single specification (CPU, memory, and disk space).

Multi-Tenant Mode

After installing the SoftwareUCM ISO software, users have the option to create multiple instances. In this mode, each SoftwareUCM instance must be allocated its own resources (CPU, memory, and disk space). As a result, the server resource requirements will combine all of the resources needed for each instance.

System Requirements

This section describes the host machine system requirements to run SoftwareUCM effectively.

Processor

- x86-based CPU installations require compatibility with 64-bit architecture and can be deployed as “Bare Metal” or as a “Virtual Machine”.
- Depending on the number of endpoints involved, call queues and group calls require a higher CPU load than 1-on-1 calls.

- The CPU resources used by each SoftwareUCM Instance are exclusive. For the multi-tenant deployment mode, the resources required by the entire machine should be considered when calculating CPU needs.

Memory

SoftwareUCM requires a minimum of 2GB of memory. In addition to the specifications listed below, allocating users to more extension groups or call queues will increase the need for additional RAM. Please ensure that the memory is adjusted according to the usage requirements.

Storage

- At least 30GB for the SoftwareUCM base system installation.
- Added extra space for backup, voicemail, recordings, or logging based on the information in the table below.
- Regularly offload (archive) unneeded recordings, voicemails, and backups to cold storage to maintain free space on your PBX.

Audio Recording & Voicemail	1 minute of recorded audio → 1MB (with compression enabled)
Video Recording	1 hour of recorded video → up to 500MB
Logging	Multiple logs on a busy system → up to 300MB

Network

- At least a 1Gb LAN network connectivity, depending on the number of simultaneous calls and usage of other network applications.
- 10Gb is required for more than 3000 extensions.

Virtual Machine Software Requirements

SoftwareUCM is validated for use with the following Hypervisors:

- VMware Workstation 16.1.0 or later.
- Hyper-V 10.0.19041.1 or later.
- KVM 4.5.0 or later.
- VirtualBox 7.0 or later.
- VMware ESXi 8.0 or later.

Server Resource Requirements

A device requires at least 1 core, 2GB of memory, and 20GB of storage to install SoftwareUCM.iso. The resources for each SoftwareUCM instance can be configured individually.

Please refer to the table below to check specific configuration requirements for each instance based on the number of extensions and concurrent calls that need to be supported:

Max Extensions	51-100	101~200	201~400	401~1000	1001~2000	2001~3000	3001~5000	5001-10000
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Max Calls		1-20	21-40	41-80	81-160	161-320	321-450	451-1000	1001-2500
CPU Recommended		Intel i5 (Gen.8) or equivalent	Intel i7 (Gen.8) or equivalent		Intel Xeon E5 v4 or equivalent				
CPU Threads/vCPUs (Frequency large than 2.4GHz)		2	3	4	8	12	16	32	64
Memory(GB)		2	3	4	8	12	16	32	64 GB
Storage	No Records	30GB	40GB	60GB	200GB	400GB	500GB	500GB	1TB
	Has Records	Recommended: 1 TB							
		1GB storage space can record 1000 minutes of voice. 1GB storage space can record 2 hours of video. Storage space can be configured according to recording requirements.							