



## Reducing operation costs and extending the lifetime of assets in large scale distributed telephony networks

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VOSS Phone Server operates as a registration and telephony server, connecting devices into existing telephony estates. In doing so, it provides a simple mechanism to bring a wide choice of multi-vendor devices into current platforms such as Cisco HCS/CUCM, Avaya Aura, and Microsoft 365/Teams.



## V O S S P H O N E S E R V E R

Organizations and the modern workforce are increasingly mobile and dispersed. Collaboration and voice communications are at the heart of this, between employees but also with customers, partners, and suppliers. Effortless communication is a critical utility.

The technology that supports and delivers this capability continues to deliver new features and capabilities. Upgrade paths are provided. The challenge is that these often consume significant capital expense and render existing older equipment, phones, and devices as unsupported. Organizations face the challenge of investing in new technology to deliver new benefits whilst trying to extract full benefit from existing investments and assets. In today's economic environment with its high levels of uncertainty, that is a difficult balance to strike.

# VOSS PHONE SERVER

## Evolution not revolution

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Unlock the benefits of VOSS Phone server:



Extend the lifetime of devices that become unsupported as the main telephony platform is upgraded



Provides scalable, standard telephony at lower purchase and ongoing license costs for locations such as lobbies, reception areas, etc.



Assists the migration to new telephony solutions, quickly connecting existing devices into the new estate with minimum disruption.



Connects more traditional third party (SIP) phones and analog devices (ATA adapter) into solutions such as Microsoft Teams.



Concentrates dispersed devices – home workers with remote devices – simply and cost-effectively back into the main Cisco or Avaya solution.

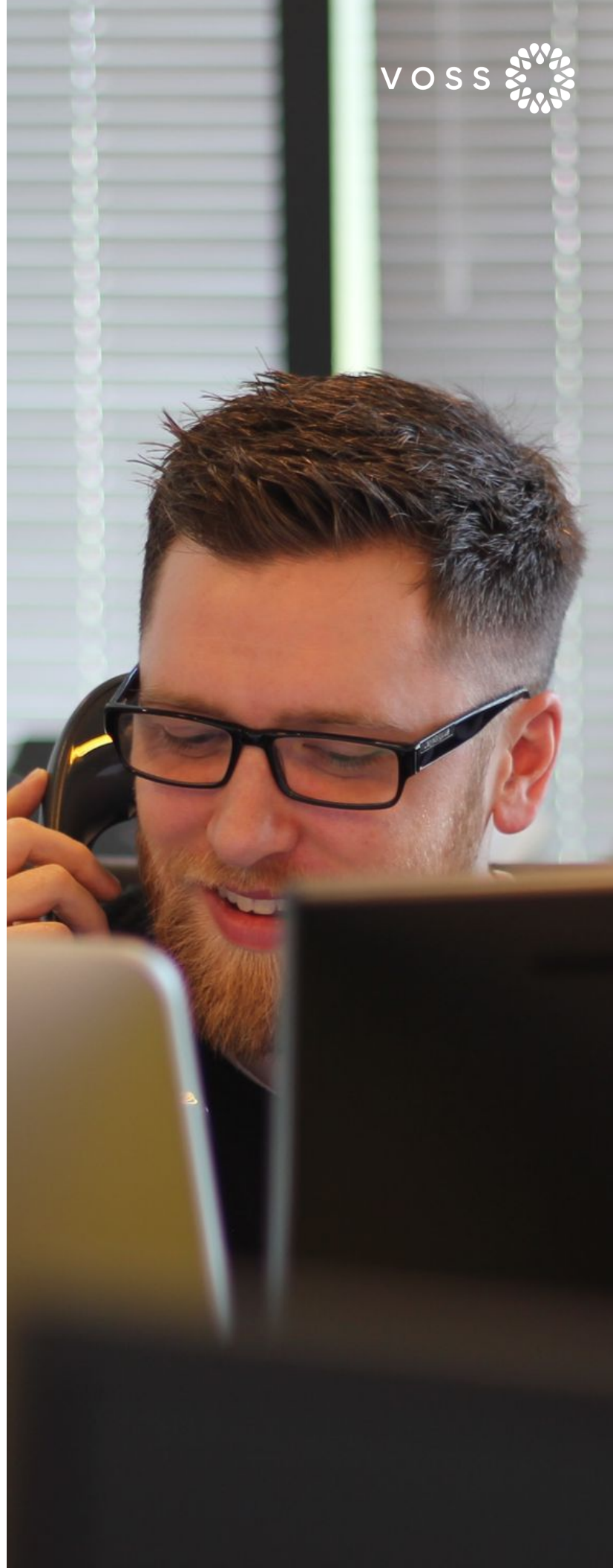


# VOSS Phone Server

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VOSS Phone Server is a telephony application server that provides registration and call handling features for devices (SIP Phones, Clients and Endpoints). It is installed into the same network as the client endpoints and then connected (SIP trunking) into the existing UC or telephony system. In this way, it works alongside a Cisco HCS/CUCM or Avaya installation to offload devices from the main telephony estate.

Alternatively, the Phone Server can be added to a Microsoft Teams solution to provide connectivity to analog adapters and third-party SIP devices without the need to register these onto the Microsoft Teams cloud. Management and administration of the Phone Server is through VOSS Automate.



## VOSS PHONE SERVER

**Technical details****Redundancy**

For smaller scale and less business-critical applications, VOSS Phone Server is deployed into a data center as a single virtual machine (VM). Additional redundancy is provided, where required, by installing Phone Server as a pair across data centers (DR pair – hot/hot or hot/cold). Full redundancy is provided by installing multiple machines as a cluster. Machine specifications are listed in the later section.

**Deployment with an existing Cisco HCS/CUCM or Avaya Aura system**

VOSS Phone Server is installed as a complementary registration server alongside an existing Cisco HCS / CUCM or Avaya Aura system – allowing phones and devices to register and become part of the overall telephony estate. In this deployment, VOSS Automate can be used to manage the numbering and dial plan across the combined estate. Menu workflows are provided to make the deployment of phones fast, simple and intuitive. Phones deployed onto the Phone Server do not consume a Cisco or Avaya product license.

The connection between the Cisco or Avaya cluster and the Phone Server is made using SIP Trunking.

In a Cisco deployment, the required Cisco dial plan elements are also configured, allowing phones registered with the Phone Server to make full use of enterprise voice features (line controls such as Class of Service and CLI handling). Selected phones within a site may be registered onto the Phone Server (for example reception, lobby or meeting rooms) whilst others within the site may be left on the Cisco or Avaya system (for example user and executive phones).

- ✓ Extends life of existing phones (older devices that are not compatible with the latest release of the software running on the Cisco or Avaya system)
- ✓ Reduces on-going license costs (does not consume a Cisco/Avaya license)
- ✓ Extends choice for new device purchases
- ✓ Access to mature call control facilities (Cisco dial plan elements)

## Technical Details

### Deployment as an adjunct server with a Microsoft Teams solution

VOSS Phone Server is installed as an adjunct server and connected onto the existing SBC infrastructure. Microsoft Teams in turn is also connected into this same SBC infrastructure and the latter then provides break-out services to the PSTN. Menu workflows are provided to deploy non-Microsoft Teams clients (such as analog devices) onto the Phone Server such that these may freely communicate between the combined systems and out to the PSTN. The connection between the SBC and the Phone Server is made using SIP Trunking.

Note: Microsoft Teams Direct Routing allows the Microsoft 365/Teams Cloud to be connected back into the SBC to provide a central PSTN break-out point. This provides full flexibility on calling plans and tariffs, ensuring that the needs of individual enterprises can be catered for, call costs can be reduced, and existing commercial contracts with an enterprise customer can be honored.

- ✓ Integrates analog devices and third-party SIP phones
- ✓ Extension dialing between devices and Microsoft Teams clients
- ✓ Forced on-net calling reduces call costs

### Phone support and choice of client

VOSS Phone Server provides registration services and call routing for SIP devices / phone clients. The Phone Server recognizes and holds configuration information for a range of Cisco and non-Cisco devices – contact VOSS for the full list.

New phone brands and phone types can be easily added to the Phone Server by creating and importing new phone configuration files. These are XML files and aside from the phone type can also provide access to select phone features such as display name.

- ✓ Access to a wider range of affordable / multi-vendor devices
- ✓ Choose devices that are best suited to needs
- ✓ Take advantage of new options (e.g., low power 'green' devices)
- ✓ Quickly and easily add new phone brands and types

### Telephony features

VOSS Phone Server provides the following telephony features:

- Integration with other systems using SIP Trunking
- Registration for SIP Clients (Phone, SIP Client, SIP/Analog)
- Making and receiving calls to PSTN (E164 numbering)
- Extension dialing (internal calling)
- Emergency calling
- Call Detail Record publication for reporting/billing

Negotiation of call parameters (such as Codecs) is made between the two devices in communication irrespective of the Phone Server.

✓ PSTN connection services and associated tariffs are provided through the connected systems – either the Cisco HCS/CUCM, Avaya Aura or the SBC dependent on the deployment model used.



## Technical Details

VOSS Automate provides management and administration for the VOSS Phone Server.

### Administration

- Access through VOSS Portal or Bulk Loading
- Segregation / delegation of authority with full RBAC controls
- Fast set-up of the Phone Server (connectivity and dial plan)
- Management of number inventory (E164 and extension dialling)
- Addition and deletion of phones attached to the Phone Server
- Moving of existing phones to the Phone Server
- Association of one or more lines to the Phone (Extension dialling)
- Configuration of selected phone parameters (phone type dependent)
- Full audit trail and transaction log
- Bulk load through Excel-based loading sheets (working at scale)

### Migrating phones to the phone server

Workflows are provided to make the relocation of phones (by device or by site) between the VOSS Phone Server and the main telephony system quick and easy. Sites may contain a mixture of devices – VOSS Phone Server and those on the main telephony system.

### Integration and automation with ServiceNow

VOSS Automate provides a REST API that maybe used to integrate into other service management systems such as ServiceNow. This can provide automation and integration into existing business and operational processes – so that phones can be added/deleted from the Phone Server using well known and deployed workflows or tools within organizations.

### Assurance and Analytics

Connection to the call record output (CDRs) from the VOSS Phone Server and integration with VOSS Insights provides insight into how the service is operating and the quality of calls, including advanced analytics and drill down reports.

This capability requires VOSS Insights Suite.

SNMP alerting and Syslog are provided for day-to-day monitoring of the service.

### Technical server specifications and licensing

VOSS Phone Server operates on one or more virtual machines (dependent on the level of resilience and capacity required). The specifications for each machine are:

- 4 x vCPU
- 4GB RAM
- 250 GB DISK

Deliverables:

- VOSS Phone Server application software + install guide
- VOSS Automate (included as standard from r21.x)

Primary ports:

- Management – NTP, SSH, HTTPS, SNMP/Syslog
- Reporting – CDRs
- Telephony – SIP, RTP, TFTP

Devices on the VOSS Phone Server are licensed on a “per device per month” basis.

### Service and support

Service and support, including software download and documentation, is provided through the VOSS Customer Portal (contact VOSS for a registered account).