



CINOS

| Service Definition

Service Title

SIP as a Service

Service Description

Cinos' SIP services enable your office phone system or cloud unified communications and telephony service, such as Microsoft Teams or Webex, to be connected to the PSTN (Public Switched Telephone Network) allowing a user to make and receive telephone calls via the internet. It serves as a modern alternative to legacy ISDN and PSTN lines (phased out in the UK, with full switch-off by 2027), supporting on-premises PBX systems, private cloud telephony, and cloud platforms like Microsoft Teams or Cisco Webex Calling.

Cinos operates as a Tier 1 SIP provider, owning its platform end-to-end with no third-party reliance, ensuring high-quality voice, lower costs, and single-point accountability.

Service Highlights

- **Scalability** - Supports from a single channel to unlimited concurrent calls, with options to scale based on demand. Includes number porting (transferring existing numbers) or provisioning new ones.
- **Connectivity Options** - Delivered over various networks, including internet, private circuits, MPLS, or specialised networks like the Health and Social Care Network (HSCN) for healthcare.
- **Number Management** - Provisioning of new geographic (01/02) and non-geographic (03/05/08) numbers, or porting existing ones; supports multi-site delivery for business continuity.
- **Pricing Models** - Inclusive calls to 01/02/03/07 and PAYG for International calls.
- **Resilience** - Designed for high availability, with bespoke configurations for critical sectors like healthcare, emergency services ("blue light"), and public sector organisations.
- **Integration** - Seamlessly works with Cisco-powered solutions, Microsoft Teams Direct Routing, and other UC platforms. Includes Cinos Billing and Management platform• **Managed Options** — Fully managed (Cinos handles Session Border Controllers/SBCs) or unmanaged (customer-provided SBC).
- **Flexibility** - Hybrid setups (e.g., splitting calls between legacy systems and cloud); automatic failover and rerouting for resilience.
- **Blue Light SIP** - Cinos offers SIP trunking services tailored for blue light organisations (UK emergency services: police, fire, and ambulance) which includes enhanced resilience.

Service Features

Cinos SIP Trunking service is a fully managed, Tier 1 solution that provides scalable and resilient PSTN connectivity over IP, serving as a modern replacement for legacy ISDN and PSTN lines ahead of the UK's 2027 switch-off. It supports on-premises PBX systems, private cloud telephony, and cloud unified communications platforms like Cisco Webex Calling and Microsoft Teams Direct Routing via certified Session Border Controllers (SBCs).

Key features include; unlimited concurrent call channels with dynamic scaling from a single channel, managed or unmanaged options (with Cinos handling SBCs in fully managed setups), number provisioning or porting for geographic (01/02) and non-geographic (03/05/08) ranges across multiple sites, pay-as-you-use or bundled unlimited UK calls (to 01/02/03 and 07 numbers, subject to fair use) for significant cost savings, billing and monitoring via the Cinos Platform for call volumes, billing, and custom insights, built-in security with fraud detection, automatic IP-based failover rerouting for business continuity and disaster recovery, hybrid setups for seamless legacy-to-cloud transitions, and single-provider accountability ensuring high-quality voice and reliable service integration.

FEATURE	BENEFIT
Scalability	Supports from a single SIP channel to unlimited concurrent calls; easily add or remove channels dynamically without physical constraints.
Management Options	Available as Managed (Cinos provides and manages Session Border Controllers/SBCs, including full integration) or Unmanaged (customer-supplied SBC)
Pricing and Cost Efficiency	Bundled inclusive minutes (unlimited calls to UK 01/02/03 and 07 numbers, subject to fair use); free cost analysis for spend review and savings forecasting; significantly lower costs vs. traditional ISDN/PSTN
Billing And Monitoring	Cinos integrated management platform for billing and monitoring
Resilience and Business Continuity	IP-based automatic rerouting during outages; diverse paths, disaster recovery options, and multi-site number delivery for high availability.

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Number Management	Provisioning of new geographic (01/02) and non-geographic (03/05/08) numbers; full porting of existing numbers; support for delivering the same ranges across multiple sites or services.
Integration Capabilities	Seamless connectivity to on-premises PBX, cloud UC like Microsoft Teams (Direct Routing with certified Cisco SBCs), and Cisco Webex Calling (via supported SBCs for reliable PSTN access); hybrid setups allowing call splitting between legacy and cloud systems.
Future-proof	Future-proof against UK PSTN/ISDN switch-off (2027); supports hybrid/remote working; high-quality voice over internet or private connections; single-provider accountability; proven in critical sectors like NHS and public services.
Geographic diversity	The platform spans two UK data centres separated by over two hundred miles.
Connectivity	You decide how you connect to the service, simply via the public Internet, or via a private network connection such as HSCN or dedicated Ethernet.

Service Components

SIP Channels

The fundamental unit for call capacity. Each channel supports one concurrent inbound or outbound external call. Channels are centrally licensed (no distinction between primary/backup), scalable from one to unlimited, and dynamically adjustable without physical installation.

Session Border Controllers (SBCs)

Critical security and interconnection devices. In managed service, Cinos fully provides, configures, and manages SBCs (often Cisco-approved for integrations). In unmanaged service, the customer supplies and configures their own SBC.

Network Delivery Paths

Calls delivered over the public internet or private data access circuits for enhanced resilience and quality.

Number and Routing

- Provisioning of new geographic numbers (01/02 area codes).

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- Provisioning of new non-geographic numbers (03/05/08 ranges).
- Full porting of existing numbers from legacy providers.
- Ability to route the same number ranges to multiple sites, platforms, or services (e.g., split calls between legacy PBX and cloud UC like Webex for hybrid setups and business continuity).

Management and Billing

- Centralised/consolidated billing across all services.
- Call volume dashboards.
- Cost summary reports.

Resilience and Continuity

- Automatic Rerouting and Failover.
- IP-based redirection of calls to alternative sites or numbers during outages.
- Diverse Paths and Disaster Recovery Options.

Integration and Support

- Direct connectivity to Cisco Webex Calling (via supported SBCs).
- Microsoft Teams Direct Routing (using Microsoft-approved Cisco SBCs).
- On-premises PBX and hybrid legacy-to-cloud transitions.
- Service Management (in Fully Managed Option).
- Single-point-of-contact-for-moves/adds/changes/deletions, incident/problem/event management, and enhanced support.
- Built-in redundancy using multiple technologies and routes for high availability.

Protocol Support

The only supported signalling protocol within the Cinos Voice network is Session Initiation Protocol (SIP).

Trunk Authentication

Establishing connectivity to the SBCs is done using peering. This method uses the SBC IP Addresses to identify the SIP trunk on the Cinos Voice infrastructure. It is important that all IPs in use for SIP traffic from the SBCs are communicated to Cinos so they can be provisioned within the Cinos Voice Network.

RFC Compliance

The Cinos Voice network supports the following standard RFCs:

- RFC 3261 (SIP)
- RFC 3262 (PRACK)

- RFC 3264 (SDP offer/answer)
- RFC 3311 (UPDATE)
- RFC 3515 (REFER)
- RFC 2833 (DTMF)

SIP Requests

This Cinos Voice network supports the following SIP Requests.

SIP MESSAGE	SUPPORTED
INVITE	Yes
ACK	Yes
OPTIONS	Yes
BYE	Yes
CANCEL	Yes
NOTIFY	Yes
REFER	Yes
PRACK	Yes
UPDATE	Yes

SIP Headers

All numbers will be formatted to the globalised dial plan e.164 format.

The telephone numbers **must** be presented in the globalised e.164 format like the example below:

+<country_code><city_code><subscriber_number> e.g. +442039655999

The calling number must be one of the numbers provisioned on the Cinos Voice Network and be presented in one of the following headers:

- FROM
- P-Asserted-Id
- Remote-Party-Id

Failover and Redundancy Mechanism

Cinos will provide the IP Address for two geographically separated Cinos SBCs, calls will be routed to these SBCs via SIP Trunks.

Cinos will maintain an application layer keep-alive mechanism called (OPTIONS ping) to verify trunk availability, this allows for rapid failover.

Its recommend that the SBCs use the same failover method as this improves failover time by avoiding the use of SIP timer-based failover which can lead to increased dial delay and ultimately lead to poor end user experience.

Supported Media

The following table shows the supported media on the Cinos Voice network.

TYPE	ENCODING NAME	PAYLOAD TYPE	PACKETISATION
G.711uLaw	PCMU	0	20ms
G.711aLaw	PCMA	8	20ms
RFC2833 DTMF	Telephony Event	Dynamically assigned from 96 through 127	N/A

Media ports – These will come from the port range 40000 – 49999.

Professional Services and Training

The Professional Services required for the installation of this solution will be dependent on the Buyer's specific site requirements and existing infrastructure.

Professional Service & Training pricing is provided in the Price Document and required Professional Services to be confirmed at Call Off or during the contract by variation.

Support Options

Buyers are able to scale up and down the support of this solution, through the purchase of Cinos Support Tokens. This allows Buyers to enable an existing support provider to support the solution or have Cinos fully support the solution or something in-between or enhance regular incident support with event support.

Support tokens allow flexibility so that the Buyer can procure the appropriate volume of support for their specific needs. Required quantity of Support Tokens to be confirmed at Call Off or during the contract by variation.

Why Cinos?

Cinos is an industry-leading, agile, and innovative systems integrator. Our mission is to deliver integrated technology solutions to a global marketplace, driving digital transformation for organisations of all sizes.

Our expertise lies in providing comprehensive technology solutions that cover Collaboration, Connectivity, Networks, Security, Infrastructure, and Audio Visual. This unique combination enables us to offer true end-to-end solutions, setting us apart from other providers and giving our customers the confidence that their entire technology estate can work together seamlessly, managed by one trusted partner.

Whether that is an SME traversing the world of cloud communications for the first time or facilitating real-time collaborative decision making in highly complex command and control environments, Cinos is recognised as the go to partner for the delivery of seamless and reliable technology solutions.

We pride ourselves on the art of simplification, removing the burden of managing multiple technologies so our customers can focus on their strategic objectives. By employing a cross-architecture approach to technology integration, we empower organisations to embrace digital transformation, thereby streamlining efficiencies, fostering innovation, and enhancing their competitive edge.

We work with the leading manufacturers and technology providers to ensure the correct solution is identified, delivered, and maintained; enabling you and your customer base to work in a collaborative and more effective manner. Furthermore, our leading aftercare and managed services allow you to gain optimal performance and longevity from your technology investments.

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