

Mitel® MiCloud Telepo for service providers 4.2

Software for business communication as a service.

Key Features

- For the enterprise market
- Enable service providers to offer advanced business communication
- Full service provider branding
- Delight your end users
- Increase ARPU and loyalty
- Applications for PC, Mac, tablet and smartphone
- User-centric experience
- A complete, open and pure software solution



The award winning MiCloud Telepo for service providers enables you to get ahead in the enterprise market by offering advanced business communication as a Service. The solution delivers a user-centric experience that seamlessly integrates mobile and fixed communication, Voice over IP and existing enterprise voice infrastructure. It enables knowledge workers to cooperate efficiently in a global, multi-media and real-time environment.

Rethink business communication

With MiCloud Telepo you get a complete, open and all software based solution with a modern user centric architecture. With one installation and one centralized management you can serve multiple countries, brands and enterprises with sophisticated, cloud-based business communication services. Compared to other solutions in the market, the unique advantages of the MiCloud Telepo solution are:

- Superior user experience that is consistent across device and technology types.
- Time to market, we have a 100% success rate with launch times from contract signature ranging from four weeks to five months depending on size and complexity.
- Efficient IT automation through a single, centralized, provisioning application programming interface (API) that radically reduces effort, time, cost and risk.
- Service life cycle management where the centralized control of the end-to-end solution ensures that updates, upgrades and changes in packaging can be efficiently managed over time.

Our service provider testimonials are unanimous - since deploying MiCloud Telepo they have improved key performance indicators with increased average revenue per user, shortened sales cycles and increased service uptake. Through these they have experienced extensive top line growth and increased customer loyalty.

Delighting end users

Making your end users satisfied and successful is a key for market uptake and commercial success. MiCloud Telepo delivers this for end users, enterprise administrators as well as decision makers. A MiCloud Telepo powered enterprise is flexible, efficient and cost effective. It has a productive workforce that can communicate and collaborate internally and externally through any device and from wherever they are. The solution is all-software and accessed through the internet from your cloud, which translates to no capital expenditure and no hardware or locally deployed software that needs to be operated and managed by the enterprise. This approach enables an enterprise to quickly respond to changing economic conditions as it allows new people, offices or even countries to be added or removed without worrying about the communication solution.

MiCloud Telepo provides all the real time communication tools, functionality and quality that enterprises and their employees demand. It is as easy to use as consumer applications but with a MiCloud Telepo enabled service, enterprises get a business class solution that is secure and manageable.

Connect all value to your brand

MiCloud Telepo's extensive branding capability means that all end user values are connected to your brand improving loyalty to you in the enterprise market segment

Key Features

- Business communication
- Applications & IP telephones
- Rich presence
- End-to-end security & firewall traversal
- Built in provisioning and self administration
- One click installations
- Highly scalable & available

Service provider deployment

MiCloud Telepo is a complete geographical redundant multi-tenant communication solution, supporting hundreds of thousands of users spread across thousands of enterprises from a single installation. It is deployed on top of service provider's networks and consists of the following main components:

- *Management Node - the administrative hub in MiCloud Telepo. All servers can be managed through this single node. The management node also provides one central set of modern APIs for integration with OSS/BSS systems*
- *Service Node - provides all services for users in the system Dual embedded Gigabit Ethernet ports (LAN and PC)*
- *Edge Node - is a session border controller that provides SIP related security and Network Address Translators (NAT) traversal functionality. It is designed to co-exist with existing service provider intrusion protection systems*
- *Interconnect Node - The Interconnect Node facilitates the protection of the Service Nodes and direct incoming SIP traffic to the right Service Node. It also offers dual-tone multi-frequency (DTMF) tone detection from media streams*
- *Telepo for Mobile - offers a rich, native and user-friendly mobile application to users of Android, Android tablets, iPhone, iPad and Windows Phone*
- *Telepo for Desktop - a Windows and Mac OS/X application that provides rich unified communication services including advanced attendant and call centre functionality*
- *Telepo for Web - is a web browser application that provides directory search, presence, messaging and call back calls*

The single installation minimizes time-to-market and system integration effort both during the initial launch and throughout the service life cycle through upgrades. The solution integrates with voice and video SIP phones, PSTN, PLMN networks and PBXs via SIP trunks. It also enables efficient IT integrations with OSS & BSS systems and business applications via web APIs, widgets and plugins.

Applications and capabilities designed and developed together

MiCloud Telepo's end-to-end approach when designing and developing functionality all the way from the server backend to the user experiences is key for enabling sophisticated capabilities in a consistent manner across devices and platforms. This approach enables your packaging to be driven from a single configuration to respond quickly to market requirements. It also enables common security models and management capabilities and all together it sets the foundation for a short time to market both for initial service launch and upgrades over time.

Single number reach

Most Business users have a range of devices and phone numbers including one or more mobile phone and fixed line numbers. MiCloud Telepo's user centric approach and single number reach allow business users to be reached on any devices through a single phone number. By using a single number as point of contact and combining it with intelligent call routing capabilities, the user can more efficiently enjoy the benefits of multiple devices and different media for communication. Calling the single number rings one, some or all devices simultaneously depending on user preference and rules defined. For outbound calls, single number reach ensures that the user's single number is displayed as the calling party number independent of device being used.

Intelligent call routing

The Intelligent call routing engine and its flexible rules provide administrators and business users with tools to automatically control how inbound and outbound voice calls are handled. Through an intuitive web interface, users can set up rules defining how their calls are processed and routed depending on time, date, day of week, user's activity, user's role, device statuses and more. The rules define to which devices calls are routed and in which order, in sequence or all at the same time and also how numbers are presented.

An enterprise administrator can set call routing rules that apply for the whole organization, groups of users as well as individuals and also control if they can be overridden by users or not.

Personal call routing can also be defined including separation between private and business user roles.

MiCloud Telepo for Service Providers

With one installation and one centralized management you can serve multiple countries, brands and enterprises with a sophisticated, cloud-based business communication services.

Rich enterprise presence services

The presence service has been designed specifically for enterprise use and shows a rich, current status of everyone in the system. Enterprise presence differs from consumer presence applications by having presence states that naturally map into the daily tasks of the enterprise users. Each enterprise powered by the solution defines their own presence and administrators may control, on a user group level, which presence information should be visible to other users. The solution provides multi-level presence information including:

- *User role, to differentiate between private or business use*
- *Activity, for example lunch or meeting, with associated end date/time, to indicate when coming back from a meeting*
- *Interconnect Node - The Interconnect Node facilitates the protection of the Service Nodes and direct incoming SIP traffic to the right Service Node. It also offers dual-tone multi-frequency (DTMF) tone detection from media streams.*
- *A personal note to allow messages to be left for colleagues.*
- *Device related information, such as phone state*
- *Availability for chat and intercom capabilities*

The user controls and sets their presence information using one of the MiCloud Telepo applications or the user's web portal interface. These applications also allow users to see the presence state and in-call status of other people before calling them. Presence can also be set through modern public web APIs.

Exchange calendar connect

Correct user presence information is the foundation of productive communication within the enterprise. MiCloud Telepo offers presence synchronization from the exchange calendar to the Telepo system to enable rich enterprise presence services.

Lync telephony connect

MiCloud Telepo enables service providers to transform a Lync enabled voice system to a mature business communication solution. The solution offers Voice integration, and advanced business communication services to enterprises.

Call center, attendant and hunt groups

For incoming calls MiCloud Telepo provides call center, attendant and hunt group functionality, allowing a group of users to be addressed by a single number, where both fixed, mobile and VoIP phones can be included.

For hunt groups, both sequential and parallel ringing is supported. For call center groups, skill based routing, automatic agent logout, manager assistance, presence based call distribution and agent resting time is supported with queues that have group specific greetings and progress messages.

Each user may be logged in, via web pages, PC, Mac or mobile applications, to multiple groups simultaneously and the system may be configured with policies of how to distribute calls to desktop, mobile or desk phones on a per group and user basis.

MiCloud Telepo includes management tools for call center groups to allow a supervisor to efficiently monitor and manage group queues and agents statistics.

Automatic call distribution group HTML widgets are provided for incorporation of statistics dashboards into portals and business applications.

Voicemail and unified inbox

MiCloud Telepo provides built-in visual voicemail, fax and call recording services where the end user can retrieve messages from the inbox in the personal web portal, Telepo for Desktop, web browser or browser in the mobile phone. Voicemail may also be managed from the voicemail retrieval number.

The user may select how to be notified about new messages using softphone, IP phone, e-mail or SMS text message. The basic voicemail service offers personalized greetings and spoken presence messages to callers

Directory search

The applications offer a user-friendly directory search feature with results shown in real time as you type. The system searches automatically among multiple fields so there is no need for the user to create explicit search queries. To find John in the sales department, just type "joh sal" and all users matching this string will be shown with their current presence state displayed. The presence information of the search results is updated in real time as they change without any need for a new search.

Integrating with Microsoft Outlook provides additional search results from the user's Microsoft Exchange account. Corporate directory search is also supported through 3rd party IP desk phones.

The search engine searches simultaneously in private and company directories and displays both search results in individual result fields in PC, Mac and mobile devices. Mobile applications for Android and iOS provide a synchronization option where users sync directories making them available for offline use. This enables low cost and faster searches when traveling or out of data access.

Chat and messaging

By connecting to a SMS service Service Node enables text messages to be sent from a user's computer using the web interface or from softphone or mobile applications. Messages can be sent from personal single numbers as well as group numbers.

The applications also offer secure chat services for convenient instant messaging within the enterprise.

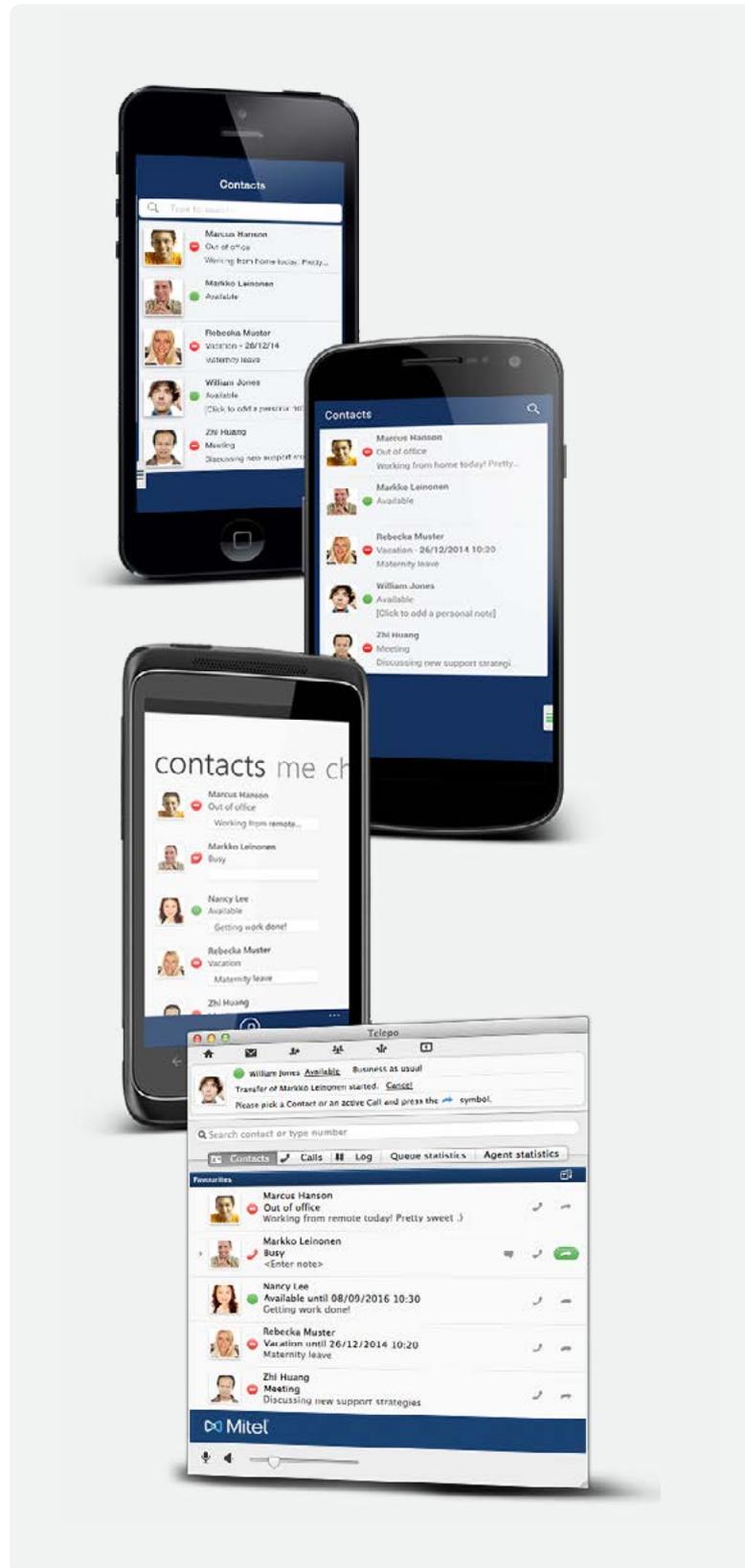
Conference service

The built in conference service allows users to book dial-in conference calls and start ad hoc meetings. Multiple access numbers are supported to offer local dial in numbers to the service from different countries. Full time zone support allows immediate feedback on when the meeting occurs in the participants' time zones. Once a conference has been booked, invitations can be sent by iCal or e-mail notifications with dial-in details and meeting time in the user's own time zone. Text message reminders with dial in details can also be sent out to participant phones just before the meetings. Internal users receive a click-to-join link in the e-mail notification, which can be used to connect to the conference. The meeting portal gives each user a full overview on their upcoming meetings with click to join buttons.

Least cost routing

MiCloud Telepo provides a complete least cost routing service that selects the optimal call routing options across countries, networks and devices using tariff plans to select the best routes.

The mobile applications provide least cost routing for mobile users regardless of where they are located. The service is transparent to the end-user, who can place calls as usual by dialing from the dialpad or selecting a number from the mobile phone contact list or call log.



IP Centrex functionality

MiCloud Telepo provides an extensive list of built in multitenant IP PBX and Centrex features, such as music on hold, call park, intercom calls, call recording, diversion bypass, call intrusion, call pickup, charging accounts, night mode schedules, call queues and interactive voice response. The solution provides a location concept where emergency service configuration supports multiple device locations and emergency centers.

Telepo for Mobile provides transfer features from the mobile phone during an on-going call, through an intuitive graphical user interface. While Attended transfer is supported on iOS and Android, Windows Phone users can still make blind transfers. Other mid-call services are accessed through a voice menu interface. Mid-call services available to the user include features such as Call Recording, Call Hold, Call Transfer, Consultation Call and Conference Call.

Telepo for Desktop provides an intuitive call control service where on-going calls can be easily and seamlessly moved between PC and Macs, mobile phones and fixed IP phones, enabling users to continue communicating using the best or most cost efficient option.

Device administration

MiCloud Telepo supports the connection of SIP desktop phones with plug'n'play automatic extension provisioning and bulk provisioning of phones. MiCloud Telepo applications are distributed and configured over the air from a central location by administrators or installed by end users via the self-provisioning interface minimizing overhead administration. Voice gateways and SIP trunks are also configured by the administrator from the web interface.

Security

Extended SIP security is supported in terms of SIP digest authentication, call authentication and authorization, identity spoofing protection and call policies to restrict calling locations. Additionally, encryption using transport layer security (TLS) is supported to prevent third parties listening in to calls.

The solution offers separation of user and administration interfaces to different IP networks and allows HTTP authentication using an external web proxy, Edge Node.

The Edge node functionality is an integrated part of MiCloud Telepo and no enterprise specific configuration is required when a new enterprise is added to the system, as is the case with traditional third party products. The Edge node supports multiple enterprises using the same IP network range by using standard IP NATs. This allows VoIP services to be hosted without having to invest in expensive third party equipment or custom firewalls.

A multi-tiered, role based, security implementation allows different administrator roles to access different parts of the system allowing full flexibility for administrators from the Service Provider, the organization deploying the service and the end users.

PSTN connectivity

Multiple trunks and trunk-groups are configured from the web interface. Both traditional ISDN trunks and SIP trunks can be defined in the system. Load sharing and hunting is supported as well as number conversions, number type and number plan handling.

The SIP trunk configuration allows for many different SIP transport, header configuration and DTMF interworking options to support today's diversity of SIP trunks provided by different Service Providers.

Over-the-air deployment, configuration and remote diagnostics of devices and services

MiCloud Telepo has created an easy to use process for adding and provisioning services, users and end-user devices. MiCloud Telepo includes an integrated over-the-air deployment and configuration service for the Telepo applications and selected SIP desktop phones.

Administrators can distribute optional as well as mandatory MiCloud Telepo application version updates.

Large scale provisioning and system administration

MiCloud Telepo offers a user provisioning system that is designed for administrating a large number of users, while keeping the cost of operations low. A fundamental principle is that all service and user settings are performed on a user group level. Users may be provisioned from the user centric and administrator friendly web interface or BSS/OSS solutions connected to the web APIs.

Access to administration functions is controlled by role-based authorization. Different roles grant access to different administrative functions and system data. This allows the web-based administration interface to be used both by service providers hosting the service, enterprise administrators and enterprise users. A service provider is able to leave the day-to-day administrative task to an administrator within each customer organization in the system through the three-tier administration model. Each enterprise administrator can manage users and configure services for their own organization without being able to access data from other organizations.

High availability

MiCloud Telepo includes geographically redundant high availability support including redundant servers and automatic fail-over mechanisms to achieve carrier grade characteristics. Configuration of an external simple network management protocol (SNMP) monitoring platform allows for efficient monitoring of the system through SNMP traps.

Virtualisation

MiCloud Telepo supports deployments on cloud environments such as Xen. MiCloud Telepo, with its all software approach, is the first solution that offers a true cloud deployment without any need for additional hardware.

Integration with third party business applications and other services

MiCloud Telepo is built on open IETF standards including SIP, HTTP and LDAP, with web API access to the Telepo to offer interoperability with a wide range of endpoint devices, BSS/OSS systems and other business applications – now and in the future.



Key features

BUSINESS COMMUNICATION

- Full Service Provider branding
- Number portability service with ENUM
- IP Centrex and Mobile Centrex functionality
- Attendant and Call Center services
- User Centricity and Single Number Reach
- Chat and Messaging services
- Conference services
- Corporate directory search
- Group number services
- Intelligent call routing
- Move calls between fixed and mobile phone
- Voicemail and Unified inbox

APPLICATIONS & IP TELEPHONES

- Native applications for PC and Mac.
- Native mobile applications for Android, iPhone/iPad and Windows Phone.
- Web browser applications for use on other platforms
- Web widgets/gadgets for calling and presence
- Web widgets for contact center performance monitoring.
- Mitel IP phones
- Other standard SIP phones (voice and video)
- Conference phones
- Fax ATA devices (T.38)

PRESENCE

- Rich Enterprise Presence Services
- Presence based call routing
- API to 3rd party software

LEAST COST ROUTING

- Cost control and Least Cost Routing (LCR)

SECURITY AND AVAILABILITY

- NAT and firewall traversal
- SRTP
- Call encryption SIP/TLS
- Local PBX interworking
- Policy enforcement and security
- Geographically redundant High Availability
- Integrated Over-The-Air application deployment and upgrades
- Device administration
- Multi-tenancy
- CDR generation and multiple export formats
- Centralized provisioning APIs for OSS / BSS integration
- Cloud deployment