



Circuit + OpenScape Cloud

Product & Service Description

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1. What is Circuit? OpenScape Cloud? Unify Cloud Services?

Circuit improves teamwork by bringing video, high-quality voice, screen sharing, rich formatted textual messaging, and file sharing together into a single platform with one unified view. Users can collaborate in whatever modality feels most natural to them in one intuitive, collaborative application. Circuit removes the burden of app switching so users can focus on connecting, innovating and collaborating. Circuit provides instantaneous access to files and information shared within conversations over time. Everything stays within the context of the conversation, keeping everything that is relevant together in one place. It is a platform that stores and manages information through associations and conversations. Circuit users participate in private one-to-one, group, or company-wide conversations, where all content and communication is shared in an ongoing, free flowing and continuous conversation stream, that moves with the users wherever they go and whatever device they use.

Circuit uses WebRTC to consolidate voice, HD video, screen-share, messaging, and file sharing into a single platform-agnostic solution that meets security standards, and supports flexible licensing, without risking performance of your existing communications infrastructure. Since it is SaaS, it is easy to deploy and manage, and very cost effective.

In addition, Circuit offers great integration capabilities into the existing eco system. PBX platforms can be integrated to make and receive phone calls from a Circuit client. Circuit also interacts with different peripherals like Circuit-enabled audio devices and conference room video devices. Open Application Programming Interfaces (APIs) offer the possibility to integrate Circuit in other cloud services as well as on premise based software solutions.

With **OpenScape Cloud** we complement our best in class, enterprise grade voice technology OpenScape Voice with our industry leading collaboration platform Circuit, driving greater value via our cPaaS eco system by bringing people, data and things together empowering our sales channels to enhance the solution with value added integrations and services as well as business critical applications.

We deliver our OpenScape Cloud solution through various highly flexible deployment models, including public, private and hybrid cloud, offering highly competitive packages, selling them via Distributors, Global Service Providers and Atos to SMB and LE customers.

We clearly differentiate ourselves by our unique offering reaching far beyond voice and UC from the cloud, by maximizing the value for our customers and partners' investments and by leveraging the powerful Atos services around the Digital Workplace.

This comprehensive communication offering's functionality is described in chapter 3 while chapter 2 is focused on Circuit.

The remainder of the document describes common services of these solutions, collectively referred to as **Unify Cloud Services**. In other words: the Unify Cloud Services comprise both Circuit and OpenScape Cloud (the latter contains Circuit, too).

2. Circuit Functionality Description

2.1 Overview

Circuit is provided as Software as a Service (SaaS) application. This means it is made available to you via the Internet on a subscription basis. Only in very few cases, software needs to be downloaded and installed on your device, e.g. an app for a Smartphone or tablet device.

Circuit is offered via different subscriptions plans. Please refer to the [Annex Pricing and Payment Terms](#) for details on the available subscription packages and applicable Fees and Limits.

Circuit can be used under a free subscription that allows you to use Circuit with a defined set of functionalities without cost. Please refer to the section 2.3 'Circuit Free Subscription', the section 2.2 'Circuit Subscription Packages' below and to the corresponding section in the [Terms of Service \(TOS\)](#) for details.

Companies usually either prefer the 'Professional' or the 'Enterprise' plan which are providing an immersive collaboration experience for the whole company or teams. Both subscription types include telephony integration support without extra per user charges (potential local infrastructure or related services are not included). Additionally they provide support for a higher of conference participants or features like moderation capabilities, voice/video recording, more storage and better SLA or help desk support.

2.2 Circuit Subscription Packages

Circuit Subscription Packages are a combination of Circuit functionality and surrounding services provided in multiple flavors. Subscriptions are provided with a minimum contract duration of one year, usually with a monthly payment. The following table gives a detailed view on available packages.

| Circuit Subscription Package | FREE | TEAM | PROFESSIONAL | ENTERPRISE |
|--|---|---|---|---|
| Basic Delivery | CIRCUIT Social Conversations with Threads Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management | CIRCUIT Social Conversations with Threads Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management | CIRCUIT Social Conversations with Threads Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management | CIRCUIT Social Conversations with Threads Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management |
| Storage (in GB per user) | 1 | 5 | 10 | 20 |
| Max number of Users per Tenant | 100 | unlimited | unlimited | unlimited |
| Concurrent parties within one Conference | 3 | 6 | unlimited by package, system limit setting applies ¹ | unlimited by package limit setting applies ² |
| Integrations | 3 foundational | all foundational | foundational + commercial | foundational + commercial |
| Multi Language Support | ✓ | ✓ | ✓ | ✓ |
| Meeting Guest Access | ✓ | ✓ | ✓ | ✓ |
| Dial-in support for Meetings | x | Up to 6 | Up to 15 | Up to 50 |

^{1, 2} In Unify's Circuit Cloud the effective limit is 300 conference participants – please check for the Add-on offer 'Events' if there is a need for more participants.

| | | | | | |
|--|-----------------------|--|---|---|---|
| Meeting Scheduling via Circuit | x | | ✓ | ✓ | ✓ |
| Upfront view (Calendar view) for meetings | x | | ✓ | ✓ | ✓ |
| Meeting Recording | x | | x | ✓ | ✓ |
| Moderation | x | | x | ✓ | ✓ |
| Authenticated/Secure Meeting | x | | x | ✓ | ✓ |
| Microsoft Outlook Calendar Plug-In (Circuit for Outlook C4O) | x | | ✓ | ✓ | ✓ |
| Microsoft vCard Plug-In (C4O) | x | | ✓ | ✓ | ✓ |
| White board initiation | x | | ✓ | ✓ | ✓ |
| White board contribution | ✓ | | ✓ | ✓ | ✓ |
| Take Remote control | x | | x | ✓ | ✓ |
| Grant remote control | ✓ | | ✓ | ✓ | ✓ |
| Internet Explorer WebRTC Support | available for 30 days | | ✓ | ✓ | ✓ |
| Cloud Identity Management via OpenID v2 & OAuth | x | | ✓ additional charges apply for a project's setup | ✓ additional charges apply for a project's setup | ✓ additional charges apply for a project's setup |
| Identity Management via SAML v2 | x | | x | ✓ | ✓ |
| VDI Support VMware | x | | x | x | ✓ additional charges apply for a project's setup |
| VDI Support XenDesktop | x | | x | x | ✓ additional charges apply for a project's setup |
| Universal Telephony Integration (for non Unify PBXes) | x | | ✓ additional charges apply for on premise setup | ✓ additional charges apply for on premise setup | ✓ additional charges apply for on premise setup |

| | | | | | |
|--|---|--|--|--|--|
| Advanced Telephony Integration (Unify OpenScape Voice or 4000) | x | | ✓ additional charges apply for on premise setup | ✓ additional charges apply for on premise setup | ✓ additional charges apply for on premise setup |
| OpenScape Business Telephony Connector (for SME customers) | x | | ✓ | ✓ | ✓ |
| Mobile Breakout | x | | x | x | ✓ |
| Circuit Meeting Room (Video Room System) | x | | ✓ additional charges apply | ✓ additional charges apply | ✓ additional charges apply |
| Provisioning Agent for automated User Provisioning (LDAP, csv) | x | | x | ✓ | ✓ |
| Forum | ✓ | | ✓ | ✓ | ✓ |
| FAQ's | ✓ | | ✓ | ✓ | ✓ |
| Partner Administration on behalf | ✓ | | ✓ | ✓ | ✓ |
| Report an issue | ✓ | | ✓ | ✓ | ✓ |
| Redirection of 'Report Issue' if offered by partner | ✓ | | ✓ | ✓ | ✓ |
| User Helpdesk online support | ✓ | | ✓ | ✓ | ✓ |
| User Helpdesk by Telephone | x | | ✓ | ✓ | ✓ |
| SLA | x | | 99,9% | 99,9% | 99,9% |
| SLA Credits (Reimbursement) | x | | ✓ with <99,0% SLA | ✓ with <99,5% SLA | ✓ with <99,9% SLA |

Notes:

- a) A seat is the entitlement for one named user to access Circuit and to use the services to the extent described in the table for respective service packages.
- b) A subscription provides the customer with a specified number of seats with associated service packages to which customer can assign users.
- c) Team, Professional and Enterprise seats can be mixed in one subscription and one tenant, respectively. They can be mixed with OpenScape Cloud subscriptions, too. Free seats cannot be mixed with any other subscription type.

- d) Unify offers a Free service package for up to one hundred (100) Circuit Users. Features and the support provided by Unify are as per the “Free” package. Once either Circuit limits are reached (e.g. number of users) or additional functionality is required, Customer must decide to subscribe to a paid-for service package of Circuit. If not all of the free seats should be converted to paid ones, the customer must delete the surplus.
- e) Advanced telephony integration requires additional solution components from Unify’s OpenScape portfolio. Cost and service for such components are not included in the monthly subscription fee.
- f) Universal telephony integration includes connectivity of telephony systems to Unify’s hosted Universal Telephony Connector for up to 100 users. Other deployment models for such integration such as on-premise installed telephony connectors providing higher capacity and more are not part of the Circuit offering. Cost and service are not included.

2.3 Circuit Free Subscription

Under the Free subscription for Circuit, a potential customer may use Circuit with a defined set of functionalities free of charge. The following conditions apply for the Free subscription:

- For overview on technical features and support please refer to chapter 2.2 column ‘Free’.
- The Free period is not timely limited.
- Under the Free service package, the customer may provision up to one hundred (100) Circuit users (including the Circuit tenancy administrator) for that Circuit tenancy.
- Storage is limited to 1 GByte per Circuit user accumulated to the Tenancy storage
- For the term of the Free service package, Unify will provide no warranties, no liabilities and no service levels commitments will apply.

The Free service package is subject to special terms described in the **Terms of Service**.

2.4 Circuit Features and Functions

The Circuit solution and the appropriate subscription plans provide the set of functions described in the subchapters hereafter.

2.4.1 Conversations

A Conversation bundles multiple communication channels (such as voice, video, messaging, and screen sharing) into a single interaction stream between users, which is persistent over individual interaction sessions.

Conversations can be between two Circuit Users (1 on 1) or within a group of Circuit Users, and they can be “open” or “private”, as described below. Once the Conversation has been started, it is designed to provide continuity and context as the interaction progresses from session to session.

- Communities
 - Communities are designed to share information between all Circuit users in the respective Circuit tenancy. Communities can be started by and are visible to the other Circuit users in the relevant Circuit tenancy, who may join and leave at any time.
- Private Conversations: 1-on-1 (direct) or Group Conversations
 - Private Conversations are designed to be only accessible by the designated participants who are invited to the Conversation. Participants can be added or removed when the Conversation progresses.
 - Private 1-on-1 or group conversations can be started from within Circuit. Or, a hyperlink can be shared to other users (i.e. embedded in a signature or a webpage) so that an audio or video call or screen sharing can be started easily by them
 - Conversations can be created within in the Circuit clients. A large number of team members can be created by using a CSV or Outlook address collection. Additionally, conversations can be created or their member list extended with the individuals from Outlook email’s address fields using the Circuit for Outlook plugin.
 - Conversations come with properties like a subject and avatar so that users can easily identify them
- Threads
 - Threads allow organizing the communication within a Conversation or Community, with a title giving users a more specific context for their posts. Therefore threads might be described as a sequence of posts to a specific topic.
- Screen and Application sharing
 - Screen and Application sharing is designed to share your desktop screen or a specific window of an application running in your PC with all of the participants of a specific call or conference. When a low resolution screen share is viewed on a high resolution monitor the image is upscaled to best fill the available viewing area.
 - While performing calls with the Android app users can share their screen as well.
 - A speaker’s video – if shared- is visible in a small window displayed on top or at the side of the screen share window, depending on its width.
 - When the presenter is using the Desktop Application, all other participants can click on the presentation on their end, making their mouse pointer visible to all participants, e.g. helpful when talking about a particular object.
 - Active screen share indication gives users sharing their screen on the Desktop App a permanent indication that they are actively sharing, for better visibility and control.
 - Collapsing/expanding global function areas like the conversation selector is provided for privacy reasons – very handy for full screen sharing.
- Remote Screen take over
 - In a direct call between two users or a conference, one user can request to take over the control of a Desktop app user. The remote PC can be manipulated with the local mouse and keyboard if that remote user granted access.
- Rich text support
 - Rich text support is designed to apply text formatting while writing a message in a Conversation, including but not limited to bold, italics, highlighting, bulleted or numbered lists.

- File attachments and file preview
 - File attachments and file preview is designed to add a file attachment to a Conversation by browsing for and selecting the file or by dragging and dropping the file icon into the Conversation.
 - Some file types (e.g. images, videos) generate a preview inside the Conversation for a quick view, including but not limited to .jpg, .bmp, .PNG, .MP4 etc.
 - Files can be downloaded for local processing or saving or sharing elsewhere.
 - If an upload of a larger attachment takes some time now the user doesn't have to wait, they can navigate away – the file upload is performed in the background.
- Sites hyperlinks
 - A hyperlink to a website can be included in a Conversation so that it can be easily opened.
 - A default preview of links gives other users inline first impression of the linked site.
- Circuit links
 - Hyperlinks can be shared for a conversation, a meeting, a thread or a post (=message).
 - Web client and Desktop app recognize circuit:// links in posts and open them when clicked
 - Short links (as used e.g. in twitter) can be used within the application for navigation or references
 - Deep linking allows with the desktop app or iOS app to open these from links received elsewhere, e.g. with an invite
- Embedded media player
 - Files uploaded to conversations that are supported by the HTML5 audio/video player can be viewed/listened by streaming directly from within the client without downloading the file. We currently support file formats like MP4, OGG, WebM, MP3, Wav.
- Archive Conversation
 - An Archived Conversation is “muted” and doesn't appear in the normal Conversation selector. While a Conversation is muted, notifications of new messages can be received and the Conversation can be accessed on the “Archived Conversations” view selector. A mentioning or direct message brings a conversation back to the normal conversations automatically. An Archived Conversation can be unmuted i.e. turned into a normal Conversation at any time.
- HD audio support
 - HD audio support is provided for audio calls between Circuit devices: the OPUS codec delivers impressive sound quality and dynamic adaption to available network resources.
 - For telephone calls G.722 is supported.
- HD and FHD video support
 - HD video support is designed to use a HD 720p supporting video codec (VP8) for a video call between Circuit devices, if the devices and network resource conditions support HD video (720p).
 - With the optional Circuit Meeting Room video system full HD (HD1080p) is supported in addition
 - Note that support of video calls is dependent on the hardware capabilities of the Circuit User's device and the availability of sufficient network bandwidth. Circuit will automatically and dynamically adjust the applied video quality depending on the device and network resource conditions.
 - Among other views at any time the user can easily switch to a full screen video view
 - Similarly the aspect ratio depends on the webcam used. If the cam supports 16:9 this is used to support a wide angle view – this is especially an advantage when multiple people share one device in a meeting.
- Audio and Video messages / Visual voicemail
 - Circuit's voicemail can be activated by a user, the user can record a personal greeting or upload a recorded one (e.g. from a professional studio) and determine ring time for accepting a call. Audio or Video messages are stored in the one-to-one conversation with the sender. The receiving user is notified and can listen to the voicemail with the embedded player any time, can fully or partially repeat, delete the message or call back. Additionally, users can interact with voicemails in the one-to-one conversation feeds by replying / commenting, liking or flagging.³
- Spell check
 - Circuit can provide a spell checking in the user's texts. In the Web client, the spell checking of the browser is used, in Desktop App the spell checking of Windows 8 or higher or of the macOS operating system applies. The Desktop App on Win7 supports only English.

³ For voicemail features related to Telephony Connectors and OpenScape Cloud, respectively, please refer to their sections

2.4.2 Meetings (Conferences)

You can engage in meetings with your colleagues. HD video, crystal clear audio and powerful screen share helps you to engage fast.

- Dial-in support for private group Conversations
 - Dial-in support for private group Conversations is designed to allow participants, which are not part of a paid Circuit subscription, to join a private group Conversation via audio using the provided dial-in phone number and conference PIN. The dial-in phone number(s) and respective conference PIN are provided in the Conversation details view
 - The admin can decide which dial in numbers are exposed in their tenant's invites. Most important ones can be shown at the top of the list. Additionally the admin can determine if users joining a conference as muted or audible. Starting muted might be preferable if users often forget to mute themselves in case they join from a noisy environment.
- Generate invitation
 - Generate invitation text allows paying users to generate the invitation details with the required phone number(s) and conference PIN for a private group Conversation. This information will be copied to the clipboard of a user's device so that it can be pasted into another application.
 - The participants of conversations can be copied easily, too, for invites from a groupware calendar.
- Circuit for Outlook plug-in (described below at integrations)
- Meetings View
 - If the user's Outlook Calendar is connected to Circuit then ongoing and upcoming scheduled meetings are displayed. The user is notified when a meeting starts and he can join easily.
- Meeting dial out
 - Circuit users can be added to the meeting during its course: users added this way receive a call from the Circuit conference bridge - they are not added to the conversation so that the conversation's content isn't shared and the participant list is not blown up due adding one time contributors.
 - The optional extension by a Telephony connector allows adding persons on the phone to an ongoing meeting.
- Moderation (described below separately)
- Authenticated Meeting
 - Authenticated Meeting – sometimes mentioned as Secure Meetings – ensure that only logged-in Circuit users can join from within their Circuit clients. The telephony dial-ins are disabled in Authenticated Meetings so that high security is ensured.
- Audio and video devices can be changed upfront and during an active call
- Call Stage
 - Call stage:
The call stage is designed as special tile shown when a call or conference is executed. For instance, participant's avatars or video of active speakers, a screen share or a white board are shown in this area in different views which can be selected by the users.
In addition, the call stage allows a user to control the meeting and participants, e.g. the users can mute themselves, or, even mute an individual with background noise sitting in a car. If performed, such actions are indicated to the affected user.
 - Mini Call stage:
If users want to chat in circuit while in a one-to-one call or conference they can navigate to the Circuit conversation anytime. An alternative is provided by Circuit PC clients which allows users to better follow the call while chatting: the mini call stage provides a condensed view of the active Call stage in the upper area of the Circuit screen or window so that the related conversation is accessible.
 - Pop out call stage:
Even more flexibility is provided to the users with the Pop out Call stage button provided during conferences. When pressed a new window is opened with just the active call stage. The main window is freed up this way for all other purposes.

- Meeting summary
A conference summary is saved in the conversation after the end of every online meeting
 - A call summary with time and duration
 - List of participants
 - Recording (if applicable)

Users can interact with a meeting summary in the conversation feed by replying / commenting, liking or flagging.

2.4.3 Generic support for Direct Calls and Meetings

- White boarding:
During a conference or a one-to-one call a white board can be started and the participants can collaborate to visualize their ideas by drawing on it with all the participants. Initiating a White boarding requires a Desktop app or web client. All desktop parties including guests can contribute.

Users can perform several actions:

- Create a free drawing, arrows, straight lines, rectangles, circles
- Select an image as background and draw on it. Or, upload images as foreground objects – this can be done via drag & drop, too
- Select colors or line weight
- Select objects for modification like scaling, repositioning, editing or deletion
- Undo the last action
- Clear whiteboard

Persistency: A white board –if not removed actively- is saved to the conversation as inline picture at the end of the call and can be exported anytime.

On mobile clients and Circuit Meeting Room, a whiteboard can be viewed but not added, edited or removed.

Similar to video or screen share the user can select the call stage views - among them a full screen white board view.

- Users are notified if their own or the remote users bandwidth and network quality affects the call. The system asks for dropping video to save bandwidth for better audio quality.
- Audio tones are played if a call connection drops. Mobile clients try to reconnect automatically. This works as far as feasible over Wifi, LTE, 3G changes.
- Call rating allows to collect data to understand the user experience and acceptance. A request to rate the call is presented to the users for a percentage of calls (One to one calls, meetings, phone calls if enabled).

2.4.4 Search and Find

The search functionality within Circuit allows the Circuit user to search all of the user content within such Circuit user's Conversations for a specified search term, including but not limited to users, contacts, message senders, files, or specific words that are referenced in Conversations.

- Text searching in Conversations and Communities
 - Text searching in Conversations is designed to highlight search results in a Conversation or Communities and to allow navigation through these.
 - 'Sent by' searching allows to find easily messages of a given sender
- User and people searching
 - User searching is designed to search for Circuit Users e.g. in order to start a Conversation with that Circuit User, or to add a Circuit User to an existing Conversation, or to search for Conversations where a specific Circuit User is part of. In addition to Circuit users' names their email address or a company ID can be used – the latter only if supplied with automatic provisioning. Additionally such ID is exposed in the user's profile.
 - Search results can show people's job title and department to help them quickly finding the person they are looking for.

- People (contacts) can be found in the Circuit User Directory (within the tenant plus guests from common conversation) and in included directories, the latter requires the optional Telephony Integration.
- Flagging
 - With a single click, users can flag a message for follow up. A selector in the conversation area – e.g. a toggle button in web client and Desktop App – allows filtering for labelled posts.
- Label searching
 - Users can assign their own labels to any conversation. Users can then search for these labels to help them organize and manage multiple conversations on similar topics or projects. As well as searching from the main search field a search can be started easily from the list of labels maintained in a user’s settings area.
- Iterative Search / Scoping and Filters, Sections and Order of Results
 - Search results are displayed while typing. It is possible to select a scope like conversations (group conversation or one-to-ones), members, people, sent by, files, dates or labels. Dates can be either dedicated days, week, month or simply last or ongoing periods
 - Multiple filters can be applied one by one
 - If no scope is selected then the results are sorted by the system so that users can find easily what they are looking for.
 - Search results are structured in sections, first people, then conversation names and finally conversation content (full text search).
- Topic listing and focus view
 - A dedicated view is provided to see all topics with their titles in one list, with individual access to each topic in focus mode
- Pin topics
 - A user can pin an important topic in a conversation. The pinned topics are displayed in the conversation information pane and can be found and viewed easily by all the participants.
 - In a moderated conversation this right is restricted to moderators.

2.4.5 Presence and Notifications

The users’ presence indicated allows other users to understand the ability and willingness to communicate.

- Automated presence status
 - Automated presence status is designed to indicate the user’s presence status automatically according to the user’s device usage. The presence status is
 - “online”: user is logged in and active
 - “offline”: user is logged out,
 - “away”: user is logged in and inactive for at least 5 minutes on a device running Desktop App or has the screen saver active. User is at least 40 minutes inactive in webclient’s Circuit browser tab. Is displayed to other users only if not other clients such as the mobile client set an online status.
 - “busy”: user is sharing his screen or the user has selected to snooze notifications (do not disturb).
 - “On call” is indicated automatically if a user is performing a Circuit Call or, given an optional Telephony connector, a telephony call.
 - “Mobile – Online” is an indication that the user is online but only on a mobile device. Therefore he/she may not be active in the client (e.g. the phone may be in his/her pocket). If only the mobile client is used and push notifications cannot be delivered, then the presence state of the user is set to ‘away’.
 - An aggregated presence status is shown as a colored circle around a user’s avatar picture – this is omnipresent in Circuit. Or, elsewhere a red dot shows the busy status.
- Location based status
 - Location based status is designed to provide information about the user’s location that can be shared with other Circuit users, if this information is available and if the user opts to allow sharing this information. The user can view what is the location being shared with other Circuit users in Settings > General > Privacy. The user can also allow or disallow the location sharing.

- Snooze notification
 - Snooze notification is designed to provide an option for the user to snooze all the notifications for 1, 2 and 4 hours or for the remainder of the day. The user can change the snooze time or cancel it.
 - Snooze notification will be automatically activated when the user shares his screen and resumes after un-sharing.
- User defined status text
 - The user can define a free form status text on his own e.g. to explain unavailability or refer to a stand-in.
- Out of Office
 - In a one-to-one conversation a user can see if the other user has set himself/herself to be Out-of-Office in Outlook. The Exchange Out-of-Office message text is displayed in the user profile. The Exchange connector must be setup and the user must have access to the message in Outlook.
- Privacy settings
 - Users can share their presence for other users on the system, only other users in their tenant or not all.
 - If the sharing to externals is deactivated than users of other tenants neither get access to the user's profile data, nor their location, nor their presence.
- Notification control:
 - Users can control notifications for messages received at Desktop App and Web client versus the Mobile Apps
 - A selection/deselection is feasible for all messages, direct messages, mentions and favorites
 - If an audio notification shall be played can be controlled for messages, for calls, for calls offered to pick up and Circuit system sounds.
 - On Windows 10 native notifications and the control options of the OS are being used.
- Tell me when (Availability notification)
 - If a given Circuit user is unavailable but another user wishes to communicate with him then the latter can request an automatic notification from the system, e.g. when the wanted user switches from Snooze to available or logs in.

2.4.6 Guest Access

- Session guest
 - Session guest allows you to have real time meetings with non-circuit users. By simply sharing an URL link for a Circuit meeting others can join via a browser or Circuit mobile apps.
 - Anyone can be added to meetings at no extra cost and no configuration.
 - Session guests have access to the only the real-time capabilities of the meeting – voice, video and screen share. The content of the conversation is never accessible by session guests. They have to wait until a Circuit user starts the meeting.
 - If a Circuit user is required only once in a meeting and does not need access to the conversation or it contains confidential data than the guest access can also be selected.
- Tenant guest users
 - Users from other tenants on the Circuit system can be invited via their email address to the conversation and meetings, too, which provides them access to the conversations' content. This allows close cooperation with externals, e.g. in projects. A session guest which was added earlier can be found via search.
 - Tenant guests have restricted permissions compared to internal users (for conversations in their own client), e.g. they cannot change the title of a conversation, make it moderated or start a recording.
- External guest users are indicated as such in meetings and conversations so that users are aware and can adopt the way how confidential information is being treated amongst the participants.
- In-app guests
 - Sometimes users shall not be added to a given conversation (e.g. due to one-time contribution or confidential information in the thread) but still invited to a conference that uses this conversation. In such case the user receives the meeting invite in his client and can join the call as guest with a click of a button.

2.4.7 Moderation

Moderation introduces a special moderator role in the conversation and the online meetings started therein. This role can be taken initially by any professional or enterprise user of the tenant, but not by guests. A moderator can assign this role to other users to share or handover. Or, he can remove it again from other moderators and make the conversation a normal conversation again.

In moderated conversations only moderators can:

- Change subject of conversation or and its avatar picture
- Add or remove users to the conversation which gives them control over people accessing the conversations' content.

In and for moderated conversation's online meetings some special rules apply, too:

- A moderated conference can only be started and only continues if at least one user of the tenant is participant.
- Only moderators entering a conference have some special rights:
 - They might end the complete conference
 - They can mute all parties
 - They or start/stop/resume recordings. After the meeting's end only moderators can delete a recording made
 - They can allow or not allow guest access for secure meeting
 - When a moderator is shares their screen, non-moderators cannot take over. Non-moderators can still share when no-one else is sharing.

Moderated conferences are designed to support meetings with externals or many participants. Externals have to wait until tenant users or moderators are entering and thereby starting the conference. Guests dialing in on the phone will listen to music while waiting. A moderated conference can be explicitly ended only by a moderator. But, if the moderator leaves the conference without ending it then it is ending automatically when the last user of the tenant is leaving – this restricts the communication of externals in the bridge.

2.4.8 Social Collaboration, Favorites and Notifications

Circuit supports sophisticated interactions between users and notifies them of messages or calls.

- Conversation model
 - Users can discuss multiple topics within 1 conversation with multiple people or in a one-to-one. For that purpose threads are offered and users add to the thread simply by answering to it.
 - Unread notifications show users new messages. Within a conversation Read/unread indication allows users to identify the relevant new post within the threads.
- Emoticons
 - Colour and emotions are brought to Conversations and Communities by adding vibrant and expressive emoticons to your messages. A set of unique emoticons emulating a facial expression as well as the typical standard palette is provided to allow a Circuit user to express himself.
- Mentioning
 - Users can mention others within their posts and make them aware of interesting content or appreciated contribution or tasks.
 - Notifications for a user's mentions are listed in a separate area to allow them to quickly see direct mentions of them and follow up. The notification area supports a read/unread indication for these mentions.
- Liking
 - Users can like a post which is displayed to all users in the conversation so that there is an easy way to support or agree with somebody.
- Favorites (including Buddy list)
 - Favorites allow users to tag and organize important conversations for later processing or frequent quick and easy access.
 - If one-to-ones are marked than these indicate the presence so that favorites can be used as team bar or buddy list. New messages of these favorites are indicated, too.
 - Items in the favorites area can be freely arranged

- Labels (Tags)
 - Users can assign their own labels to conversation headers. The used labels can be checked in the user's settings area where labels can be added, renamed or deleted, too.
 - With the option to search for these labels the users can organize themselves.
- Audio notifications and Toasts
 - Incoming calls or messages alert the users audible or visually, depending on user's settings.
 - A call's alerting device can be selected in web client and Desktop App independent from the device selected for calls and audio/video playback. Thus, ringtones can be output on the PC or laptop loudspeaker in a very audible manner, while the calls themselves are performed on the headset.
 - When using Chrome or Desktop app (Windows only) users have the option to answer or decline incoming calls directly from the notification (toaster).
- User settings to control notifications
 - Each user can select different notifications for either desktop or mobile clients. Settings are provided for all messages, direct messages, mentions, favorites (Audio and video calls or screen share always come with notifications).
 - Audio notification can be enabled or disabled for messages, all kinds of incoming calls, Circuit system sounds or pickup group notifications
 - Visual indications can be selected for taskbar and system tray

2.4.9 Audio, Video and Screen Share Recording

Record the audio elements and the application sharing or speakers' video during meetings and have them stored within the conversation feed. Any professional or enterprise user can start a recording in a meeting. Any other user gets a recording notification and can opt out of the recording by stopping it. Recordings can be paused and restarted anytime. In moderated conversations, however, only moderators have the right to control recordings.

The recorded audio or video file is stored into the conversation after the meeting's end in a standard file format which can be edited or played back with external tools if needed.

2.4.10 Integrations, Extensions and APIs

A key feature of Circuit is providing a growing list out of the box integrations with 3rd party systems as well as SDKs/APIs for a partner ecosystem or customers' own integrations, supporting our mission as 'single pane of glass'.

- Box Integration
 - Link your box.com account with your Circuit account and access your files stored on box.com. Share Box files with others via Circuit conversations.
- Browser extensions for Circuit
 - Unify and 3rd parties offer extensions – please check the stores.
- Embrava Integration
 - Users can make their availability visible to others around them, they simply have to activate the Circuit integration with their Embrava Blynclight series of status light devices.
- Exchange Integration
 - Access contacts from your Microsoft Exchange account to initiate a phone call. Or, identify callers of incoming calls based on phone numbers transmitted. Requires telephony integration.
 - Provides an overview of Circuit meetings within the application and notifies of starting meetings so that joining is easy and a start is not missed.
 - On premise versions as well as Exchange Online (Exchange 365 / Office 365) are supported. Windows Integrated Authentication (WIA) can be used.
- Outlook / Microsoft Office
 - Our 'Circuit for Outlook' plug-in (C4O) allows integrating your Microsoft Outlook on Windows PC with Circuit: Link your Outlook meetings to a Circuit conversation and add the conference details and members directly into the meeting. Even if a meeting is changed in Outlook the Circuit representation is updated. Convert email threads easily into Circuit conversations. Start conversations and make phone calls and video calls using the Contact Card after having checked therein the Circuit presence of your contacts.

- Both the on premise versions of Exchange and the Exchange 365/Office 365 version are supported
- OneDrive
 - Link your OneDrive with your Circuit account and access your files stored in OneDrive. Sharing files with others via Circuit conversations can be either with a personal scope or within an organizational scope.
- Google
 - Share your Google Drive files with other Circuit users. The files will be accessed publicly, but further restrictions may apply according to the specific file settings in your Google Drive.
- Jabra Headsets / Devices
 - Control Circuit calls on PCs and mobile devices (iOS, Android) directly from a wide range of Jabra headsets and external audio devices. For more information about supported headsets and audio devices, see our FAQ at <https://www.circuit.com/support>.
- Plantronics Headsets / Devices
 - Control Circuit calls on PCs and mobile iOS devices directly from a wide range of Plantronics headsets and external audio devices. For more information about supported headsets and audio devices, see our FAQ at <https://www.circuit.com/support>.
- Public APIs and SDKs
 - Circuit provides via our developer Community on <https://www.circuit.com/web/developers> API descriptions, examples and a development sandbox system – for both rich textual and real time communication. Available are a RESTful API, JavaScript and node.js. Additionally Polymer is supported for even more simple integration for web designers without JavaScript programming needs.
 - The RESTful API includes an Admin API with a group of REST API endpoints with specific scopes to manage tenant settings or provision users
 - Bots can be created for various purposes – for example, they can be added to conversations - or even notified via mentioning - to access external information easily, support the users or post frequent information like reports.
- Sennheiser Headsets / Devices
 - Control Circuit calls in your chrome browser or Desktop app directly from a wide range of Sennheiser headsets and external audio devices. From Webclient or Desktop apps users can answer a ringing call, decline it, end a call, mute and unmute. For more information about supported headsets and audio devices, see our FAQ at <https://www.circuit.com/support>.
- Skype for Business (please find a section under Add-ons)
- Syncplicity
 - Share your Syncplicity files with other Circuit users. The files would be accessible only to the current members of a conversation via the shared link that expires after certain period of time. Further restrictions may apply according to the specific file settings in your Syncplicity account.
- Mobile Breakout - Telephony integration with your Smartphone
 - For users which are not assigned to an optional telephony connector (described in chapter 2.5) we have a simple and lightweight integration with their mobile phone. This addresses the need of users which are mobile, working a lot on a PC or laptop whether that is in any office building, at home or elsewhere. Often, when working like this, the user might want to make a call over the telephony network and we make use of the GSM connection of his mobile to perform the call:
Users simply click on a phone number in Circuit and the mobile will dial. All users can do so from our mobile apps but with the Mobile Breakout feature this is possible similarly from the Circuit Web client and Desktop App and connected directories. Circuit transmits the number to the user's mobile app and this dials it via GSM. Depending on the mobile's state (e.g. locked) the user might need to confirm with a tap but it is not required to search for a person again on the mobile or enter the phone number manually - which is effective and convenient – typing mistakes won't happen.
 - Similar helpful is the conference dial-in support: hitting the number within our conference properties will start the dial in via GSM over the telephony network and enter the conference PIN automatically. No need to look up the number elsewhere or trying to remember and type it in.
- Bot frameworks
 - Automation via Hubot is supported via our SDK which allows developers creating own scripts for flexible interactions
 - With further frameworks to be released hundreds of integration options are provided.

- Zapier
 - Circuit can be integrated via Zapier – leading integration service where users can select integrations and link with simple conditions hundreds of applications and services (>1000 at the time of writing). While IFTTT is best known for personal usage Zapier is the number one for business needs.
 - Several predefined events can be used to trigger actions, among others new incoming messages or calls.
 - Among the applications which can be integrated via Zapier are most well known vendors and services, e.g. **Asana, Bitbucket, Facebook, Evernote, Google, Github, Harvest, Jira, Microsoft, Salesforce, Sharepoint, Trello, Typeform, Twitter, Zendesk**. Additionally, generic interfaces like **IMAP, SMTP, WebHooks** and services like **SMS** or **fax** are accessible.

Enterprise administrators can determine if user can self manage extensions, or, e.g. disable some because they prefer software distribution or because they aren't fitting to their policies and intended rollout scope.

Telephony Connectors are described in chapter 2.5 .

2.4.11 Clients

Circuit is supported on Windows PCs, Apple macOS, various mobile devices and even desk phones – giving users the freedom of choice and best mobility. E.g. established calls can be moved to another device when changing location.

- Web app / Web client
 - Circuit can be accessed on a PC or Mac using Google Chrome or Chrome portable, Mozilla Firefox browser or Microsoft Internet Explorer 11 by visiting the following site: (<https://www.circuit.com/>). Microsoft Edge is only supported to a limited extent, without calls or conferences yet.
- Desktop app
 - Our desktop application (PC, Apple) enriches our Web clients' experience with features overcoming the few limits still existing for browser-only applications. The main ones to mention are autostart, pointer for screen sharing or remote control. A special hyperlink in Circuit invites allows starting the Desktop app instead of a browser.
 - The Desktop App can be installed without admin rights, or, it can be rollout via software distribution – whatever fits better to a company's IT policies – and provides automatic updates where users are notified to start the process.
- iPhone, iPod, iPad app and iWatch
 - Circuit can be accessed with an iOS device via the Circuit app that is available for download in the Apple App Store. The app can be downloaded for free and is a so-called “universal app” that works with both an iPhone and an iPad. Portrait and landscape view are supported.
 - Among other features Apple Call kit is supported by the Circuit app for a seamless user experience (with an exception for China due to legal reasons).
 - Support for multi-tasking features including drag and drop between other applications and Circuit for iPads with iOS 11 or higher.
 - A dedicated client is available for users of the Apple iWatch
- Android app
 - Circuit can be accessed with an Android device via the Circuit app that is available for download in the Google Play Store. The app can be downloaded for free. It works with both a phone and a tablet, including portrait and landscape arrangements.
- Phones
 - Unify CP600, CP600E and CP400 provide connectivity to Circuit for device spanning experience and best productivity, making use of Circuit as directory, providing notifications or joining a conference with a button pressed
 - Some 3rd Party Android phones might be used with our Android app, too.

Users can manage their devices in their settings, e.g. if a mobile device is lost or handed over to others than the user can revoke formerly trusted devices.

2.4.12 Supported Languages

Today Chinese (simplified mandarin), English, German, French, Italian, Portuguese (Brazilian Portuguese), Russian, Spanish are languages which are supported by Circuit clients and Telephony user interfaces (e.g. Voicemail, Conferencing). More might be added with demand – please check www.circuit.com for the latest status.

2.4.13 Accessibility

Color contrast, focus, description elements, keyboard navigation are improved for accessibility in our Desktop App and browser clients. Assessments are done with WCAG checklists.

Provided WCAG 2.0 Level A compliance:

- Labels for all elements
- Page structure, headers and titles for screen reader navigation
- Optimized Tabbing order
- Skip navigation is available for accessibility
- Keyboard traps have been resolved

Circuit can be used with screen readers. All main application functions can be controlled using keyboard shortcuts which can be a benefit for power users, too.

The mobile clients' accessibility have been improved, too, e.g. the iOS app supports dynamic fonts and high contrast.

2.4.14 Tenant administration and Support by Reseller

A Unify reseller might want to deliver support – as single face to their customers – or they even might want to deliver a complete Managed Service.

Partner value and role can be, for example:

- Customize the tenant to customer needs – specifically with OpenScape Cloud or Telephony integration.
- Perform onboarding and training.
- Answer (frequent) user questions and separate them from bugs, here partners might communicate with multiple users affected by the same issue, or, translate from/to a local language which is not supported by Unify.
- Check, optimize, sort out local infrastructure issues: e.g. related to head sets, microphone settings, network bandwidth + service priorities, firewall, NAT or proxy.
- Combine with equipment or services provided by Unify or 3rd parties which do not fall under Circuit and OSCloud support. Specifically local equipment – even if sold by Unify - e.g. phones, SBC/TCs, PBX might fall under local service contracts and software assurance and need to be covered by their support processes, tools and SLAs.

Several features support a reseller in taking over services:

Administration on Behalf

A reseller can act as tenant administrator on behalf of their end customers' tenant administrators for those customers that agree to do so in their admin area.

For this purpose a new role 'Partner Administrator' has to be assigned to the supporting users in the partner tenant (paid, no freemium), forming a service team.

Afterwards this service team will find a new option in their menu for Partner Administration. Selecting this, the list of the reseller's end customers having opted in for this service is opened for selection or search. The customer admin can be contacted with a click of a button, too.

After a customer has been selected the view changes and shows nearly all options a customer admin has in their tenant. This way all administrative actions can be performed on behalf of the customer.

Hints:

- A reseller needs to be activated prior to a first use of the 'on behalf administration' through a request to [Unify SSC](#).

- It is a legal requirement (GDPR) for EU customers and their partners that they set up upfront a bidirectional data processing agreement. Similar legal requirements might exist or emerge in other countries. Such contracts do not fall under Unify's responsibility, irrespective of their legal need.
- The partner admin cannot alter the 'on behalf' feature of a given customer, he/she cannot access customer tenant reports or change the customer's subscriptions in the eShop.

Report Issue to Partner

By default the users can report any issue to the Unify User Helpdesk which attaches logs and opens the so-called Support conversation. But instead, the Partner can offer supporting their customers via email. For such purposes the Partner's administrator he has to configure their helpdesk email address in Circuit.

Afterwards, in the customer tenant this support can be enabled, resulting in sending tickets to the reseller's support email address: When users from customer tenant select 'Report Issue' an email is opened with the support email-address of the reseller prefilled in the To: field and the tenant ID in the body as reference. And, the users are asked to attach logs which have been downloaded automatically to their device.

- *Hint:* Again, it is a legal requirement (GDPR) for EU customers and their partners that they arrange upfront for a bidirectional data processing agreement. Similar legal requirements might exist or emerge in other countries. Such contracts do not fall under Unify's responsibility, irrespective of their legal need.

Partners raising Tickets for Customers

For Circuit and OpenScope Cloud partners can raise tickets on behalf of their customers via 'Report Issue' to Unify, here they must refer to the end customer with its tenant ID. Unify's User help desk responds with a ticket number for tracking purposes and answers.

2.4.15 Self services and Support

Circuit Self-Services are available to Circuit Users. These are intended as initial resource for all questions and issues a user of Circuit may have.

- A help button is available in the upper right menu line of the browser and Desktop App.
- FAQs can be found under <https://www.circuit.com/support>.
- A User Help Desk is available to provide additional support for Circuit users: User can report an issue in Circuit that collects logs automatically and starts a conversation with the user helpdesk. Alternatively, issues can be reported by phone or form on the support pages.
- A test call can be performed from user settings. This includes the selection of audio input and output devices (ringing and on call potentially separate) and video / webcam, but switching between them is possible while on a call, too.

Details can found in section 7, Help and Support.

2.4.16 Circuit Labs

Circuit Labs provides experimental features that are considered for implementation releasing in a future release. Please feel free to try these experimental features and give us your feedback via 'Report issue'.

2.5 Add-Ons or Upgrade Options only for Circuit

The Circuit subscription packages can be upgraded and extended by the following list of add-ons and integrations. Some are standard positions and can be used in self service or offered by partners. Others are only available via project specific offers. Add-ons or upgrades usually come with extra costs. Collaboration model and responsibilities of customer, partner and/or Unify have to be defined depending on demands.

This section lists only these Add-ons and Upgrades which are specific for Circuit. In other words: these cannot or at least not yet combined within tenants with Standard OpenScape Cloud subscriptions. If a Managed Service is booked these restrictions might not apply.

For a list of Add-ons and Upgrades which can be applied both to Circuit and OpenScape Cloud customers please check chapter 4.

2.5.1 Advanced Telephony Integration for Unify Large Enterprise PBX

Telephony integration enriches your call experience in Circuit. Through connectivity to your current PBX infrastructure and the PSTN the Circuit Telephony Connectors ensure that Circuit does not become a communication silo.

Users can, in combination with Unify's voice platforms OpenScape Voice V8R1, OpenScape 4000 V7R2 or higher versions and the Advanced Telephony Connector (ATC):

- Use their existing office number as calling party information and receive calls wherever they are (One Number Service)
- Use circuit apps as Softphone or control the desk phone from the circuit client (=CTI)
 - Dial (recently we added hotkey dialing with Desktop App), accept, reject and drop calls
 - Consult, hold (Music on Hold from PBX) and retrieve, alternate between two active calls or transfer a call (blind or warm transfer)
 - Merge two calls to a conference
 - Determine if a second call shall be received and where
 - Set a forwarding on the voice platform to other users e.g. in case of absence
- Use the best support for Mobility and have the freedom to select their device
 - Parallel ringing and autopilot (a follow-me function to let the endpoint ring in in this order: Circuit clients, potential desk phone, potential user defined Alternative phone) ensure that no incoming call gets lost. When connected to OpenScape Voice V9R2.24.5 or newer users can determine autopilot ring duration, e.g. control the time before the call is transferred to voicemail.
 - Additionally, phone calls can be received when users are not available in Circuit at the self-defined Alternative phone, still under user's control from within Circuit. Alternative phones used earlier are suggested from a list.
 - Users can start a phone call from a device of choice. E.g. with a weak data connection Circuit can call the user on his/her GSM line and then establish the call to the target.
 - Users can pull active calls from the desk phone to their Circuit client, e.g. when moving away from the desk
 - Or, push an active call from Circuit to their desk phone or a preconfigured number (e.g. their mobile)
- Access their journal to see their phone call history
 - The journal is more than a list of calls with time stamp and duration – the entries provide an understanding of what happened. For example, users see if a call was transferred and to which party. Or, they can see if a call was picked up and by whom. Or, if it was a hunt group call.
 - Lost calls come with special notifications. A callback can be initiated directly from the journal.
 - A client does not have to be active for the user to see later if they missed a call. Missed calls are collected by the voice platform and shown in the user's journal when the client is started.
 - Similarly, a user's client does not need to be active for other Circuit users to be able to see their device presence when performing a call over the ONS, e.g. their the desk phone.
- Work in teams:
 - Hunt Group support: the user can be member of a hunt group which is set up on OpenScape Voice on version V9R3 or later. In such case the user can control his hunt busy/available status in his menu of the Desktop App or web client or from the settings area of the mobile apps. Hunted calls are shown as such when alerting so that the user understands the call flow. Similarly, hunted calls can be distinguished from personal calls in the user's journal.
 - Pickup Group support: the user can be member of a pickup group which is set up on one OpenScape Voice on version V9R3 or later. If a call is alerting at a team member and he/she does not accept the call for a defined time than the call is offered for pickup.
If a call was picked up by another member then this is shown in the journal of the originally dialed user, the user who picked up the call and the caller if he/she was a user of the same OSV and ATC, too.
- Use the Outlook/Exchange global and local address book or the mobile's for contacts
- If the remote user is offline, dialing users via telephony is offered automatically in lieu of a Circuit to Circuit call

- Add people on the phone to an ongoing meetings (Meeting outcall) – something that the administrator might allow or disallow for ATC users or all users in the tenant
- Local conference dial-ins can be defined providing short dial-in numbers and avoiding call charges beside potential costs for Internet traffic to the circuit cloud where the conference call's mixing is executed
- Use Circuit Visual Voicemail to record telephony calls received at their office number in Circuit. Circuit Voicemail can be enabled or disabled by each user anytime for both Circuit and phone calls.

Remarks:

- Even if a user is not supplied with a desk phone (aka is a Softphone only user) than the ATC is still the recommended telephony solution with Unify PBX(s) for mid to large size enterprises.
- The Advanced Telephony Integration needs to be setup between your Unify PBX and Circuit – this requires a virtual or hardware appliance called 'Advanced Telephony Connector' on premises. Neither this nor local service, licenses or setup of your PBX or the ATC solution is included in the Circuit user fees – please contact your Unify sales or service partner for an offer.
For a better understanding please check the Q&A section of <http://www.circuit.com/>.

2.5.2 Universal Telephony Integration for 3rd Party PBXs

Telephony integration enriches your call experience in Circuit. Through connectivity to your PBX and the global telephony network the Circuit Telephony Connectors ensure that Circuit does not become a communication silo.

The Universal telephony connector is providing connectivity to PBXs of other vendors (not Unify's).

Users can..

- Use the Telephony Connector to make phone calls from Circuit clients to users in the PSTN, e.g. users which might be actually not online in Circuit – this is offered automatically instead of a Circuit to Circuit call if the remote user is offline. Or, make phone calls to contacts stored in Outlook/Exchange or their mobile phone. Or, via hot key dialing using the Desktop App.
- Receive phone calls with the circuit clients
- Control their phone call:
 - Accept or reject, mute/unmute, use DTMF for interaction with external IVR systems or drop
- Access a list of all of their Circuit phone calls from a journal – a special conversation
- Callback with a click if a call was missed
- Add people on the phone to their ongoing meetings (Meeting outcall)
- Local conference dial-ins can be defined by admins which can provide a short dial-in number and avoid call charges (beside potential costs of Internet traffic to the circuit cloud where the conference call's mixing is executed)
- Use Circuit Voicemail to record telephony calls received in Circuit

Remarks:

- This Basic Telephony Integration needs to be setup between your Enterprise PBX and Circuit. Its design requires only a generic static SIP trunk between their PBX and the Universal Telephony Connector.
Unify provides for small enterprises with up to 100 users and trials free of charge the so-called 'hosted Universal Telephony Connector' (hUTC). It runs in the Circuit cloud and is connected to the local PBX by a SIP trunk that is set up over the internet (as opposed to a SIP trunk service provider)
For midsize to large enterprises an on premise Universal Telephony Connector (pUTC) should be used.
Neither local or remote services or upgrades, updates, extensions of a customer's PBX solution nor potentially local Universal Telephony Connector instances are included in the circuit user subscription fees – please contact your Unify sales or service partner for an offer. Additionally, a 3rd Party PBX's setup should be offered and performed by their service partner or its vendor.
- A SIP trunk should be available at most modern PBXs but – despite standardization and having tested with many major vendors - Unify cannot guarantee compatibility with all 3rd Party PBXs in the market. For a better understanding please check the Q&A section of <http://www.circuit.com/> or ask your Unify representative if there is already experience with your PBX available. Alternatively, the hosted Universal Telephony Connector can be setup for a trial with no or low invest.

2.5.3 Generic Telephony Connector Technology and Pools

All Circuit Telephony connectors transmit calls between the SIP VoIP world and the TDM world on one side and the new WebRTC based technologies used in Circuit. So that a Telephony Connector can be compared to a gateway doing transcoding and re-encryption, specific for Circuit.

Circuit telephony connectors are designed for that purpose and optimized to support Unify products and solutions.

Some of the most important features include:

- Direct Media: supported scenarios allow having a direct connection (e.g. in the LAN/WAN) without transcoding need
- Firewall and/or proxy traversal: When deployed on premises the TCs generally behave like web applications. Several optimizations have been implemented recently. For shorter call setup times Trickle Ice support was added on the SBC V9R3.22 or newer.

Telephony Connector Pools:

Multiple Circuit Telephony Connectors of a given type can be combined to a pool which provides n+1 redundancy. This allows a cost optimized redundancy for large scale deployments, as an alternative to active/passive (a/p) SBC clustering.

Telephony Connector pools can be used with Telephony Routing Rules (like a single Telephony connector) which allow assignment due to special originator or receiver patterns for both the users calls or meeting's outbound calls.

If ATCs are used in a pool, users are assigned to one of the pool members. If that member becomes unavailable then the user is assigned to another ATC in the pool automatically. This way the system ensures that the load is distributed over the available ATCs. Adding and removing pool members for adoption to load or rollout needs is possible at any time.

For service purposes Telephony connectors can be soft suspended – existing calls will be executed but no new ones can be established.

2.5.4 OpenScape Business Telephony Integration

Circuit Telephony Connectors are expanding Circuit into existing Telephony Environments. Teamwork is enhanced by allowing Circuit members to easily connect with traditional phone users or Circuit conferences.

A special integration of Circuit with Unify' OpenScape Business is available to meet the needs of the partner business and the small to medium enterprises: The connectivity between OpenScape Business and Circuit can be established within few minutes by the partner or even in self-service. An API key can be generated and copied by the tenant administrator from Circuit to the OpenScape Business system. This allows it reading further connection parameters from the Circuit cloud, and the partner or Administrator can assign OpenScape Business extensions to Circuit Users.

The OpenScape Business Telephony Connector itself is provided free of charge - the OpenScape Business requires at least version V2 R2 as well as the known licenses for users. On the part of Circuit user licenses providing telephony support are required (Team, Professional, Enterprise).

Features at a Glance:

- Softphone functionality with call control such as call setup (recently added: hot key dialing with Desktop app), call acceptance or reject, mute, DTMF, hang up
- Mobility without limits: usable via the Circuit WebClient, desktop app and mobile apps (iOS, Android) - on the intranet or via the Internet, even with call transfers between the circuit clients during an established phone call
- Call Journal for inbound and outbound telephony calls
- Search and dial Exchange contacts or identify incoming calls
- Meeting dial-out: Adding users on the phone to an active Circuit conference
- Visual Voicemail
- Easy configuration in OpenScape Business and easy local firewall traversal with semi-automated dynamic connection setup
- Administration of the users from OpenScape Business Web based Administration

With OpenScape Business Version V2R6 and Circuit updates additional telephony features are planned for early 2019, making the OpenScape Business Telephony Connector very comparable to the ATC with OpenScape Voice or OpenScape 4000 support:

- Users can pull active calls from the desk phone to their Circuit client, e.g. when moving away from the office desk
- Or, they can push an active call from Circuit to their desk phone.
- User can now not only use Circuit as a softphone – now they can also control the desk phone from the circuit client (=CTI)
- In addition to dial, accepting, hold/retrieve, rejecting and dropping a call now consult, alternate between two active calls or transfer a call (blind or warm transfer) and merging two calls to a conference are supported.

3. OpenScape Cloud Functionality Description

3.1 Overview

Our OpenScape Cloud provides a comprehensive Unified Communication and Collaboration Service as public Cloud offering – a hassle-free service based on long proven scaling, reliable and flexible Large Enterprise Solution and Unify Circuit cloud components. In addition to the Circuit offering this service contains a voice platform as part of the cloud offering so that there is no longer a need to setup and maintain a PBX on premises.

Circuit, our OpenScape Voice platform, and the so called Advanced Telephony Connector within this combined offering provide Softphone capabilities to the users and more. Needless to say that Circuit is the leading enterprise social collaboration platform making the combination the perfect hit. And, not to mention that we are adding periodically lots of features to the services which are operated by Unify.

For standard users which cannot or do not like to rely on softphone capabilities desk phones can be registered and used with the OpenScape Cloud – Unify recommends our CP phone series. For the supported Unify phones a deployment server as part of OpenScape Cloud provides device updates, profiles and settings.

Customers migrating to OpenScape Cloud can usually transfer their phone numbers and even their contracted SIP trunks.

Special Managed Services offerings are available on demand, too, in case there are special needs e.g. for a single point of contact, hybrid deployments and customer premise equipment, non-standard dial plans or solution elements not covered by the standard OpenScape Cloud Public offering.

3.2 OpenScape Cloud Public Packages

Packages are a combination of Voice services combined with Circuit functionality and surrounding services provided in multiple flavors. The following table gives a detailed view on available subscription packages.

| OpenScape Cloud Subscription Package | Essential | Team | Professional | Enterprise |
|--------------------------------------|---|---|---|---|
| Basic Delivery | | | | |
| Basic Delivery | CIRCUIT Social Conversations with Favorites Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management | CIRCUIT Social Conversations with Favorites Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management | CIRCUIT Social Conversations with Favorites Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management | CIRCUIT Social Conversations with Favorites Mentioning Liking Archiving Favorites Labels Flagging CIRCUIT-2-CIRCUIT Call HD Audio & Video Calls Screen sharing Voicemail, Videomail Test calls CIRCUIT Search CIRCUIT Presence with Tell me when Calendar view CIRCUIT Web, Desktop and Mobile Clients Headset support Device Management |

| Enterprise Voice Features | | | | |
|--|---|---|---|---|
| Telephony Softphone Capabilities | ✓ | ✓ | ✓ | ✓ |
| One Number Service and Mobility Support | ✓ | ✓ | ✓ | ✓ |
| Remote Call Control of optional Desk phone (CTI) | ✓ | ✓ | ✓ | ✓ |
| Visual Voicemail | ✓ | ✓ | ✓ | ✓ |
| Hunt Group member or master with busy/availability control | ✓ | ✓ | ✓ | ✓ |
| Hunt Groups with queueing | x | ✓ | ✓ | ✓ |
| Pickup Group member | ✓ | ✓ | ✓ | ✓ |
| Automated Attendant | ✓ | ✓ | ✓ | ✓ |
| Voice System Administration, e.g. users, phone numbers, dial plans, sites, automated attendant, hunt groups, pickup groups, supported SIP trunks and more. | ✓ | ✓ | ✓ | ✓ |
| Emergency Call support via ELINs (needs support from ITSP) | ✓ additional charges might apply for setup | ✓ additional charges might apply for setup | ✓ additional charges might apply for setup | ✓ additional charges might apply for setup |
| Standard Reports including Telephony usage | ✓ | ✓ | ✓ | ✓ |
| General Features | | | | |
| Storage (in GB per user) | 1 | 5 | 10 | 20 |
| Max number of Users per Tenant | unlimited | unlimited | unlimited | unlimited |

| | | | | |
|--|-----------------------|------------------|---|---|
| Concurrent parties within one Conference | 3 | 6 | unlimited by package, system limit setting applies ⁴ | unlimited by package, system limit setting applies ⁵ |
| Integrations | 3 foundational | all foundational | foundational + commercial | foundational + commercial |
| Multi Language Support | ✓ | ✓ | ✓ | ✓ |
| Meetings / Conference Features | | | | |
| Meeting Guest Access | ✓ | ✓ | ✓ | ✓ |
| Dial-in support for Meetings | Up to 3 | Up to 6 | Up to 15 | Up to 50 |
| Meeting Scheduling via Circuit | x | ✓ | ✓ | ✓ |
| Upfront view (Calendar view) for meetings | x | ✓ | ✓ | ✓ |
| White board initiation | x | ✓ | ✓ | ✓ |
| White board contribution | ✓ | ✓ | ✓ | ✓ |
| Take Remote control | x | x | ✓ | ✓ |
| Grant remote control | ✓ | ✓ | ✓ | ✓ |
| Meeting Recording | x | x | ✓ | ✓ |
| Moderation | x | x | ✓ | ✓ |
| Authenticated/Secure Meeting | x | x | ✓ | ✓ |
| Integrations | | | | |
| Microsoft Outlook Calendar Plug-In (Circuit for Outlook C4O) | x | ✓ | ✓ | ✓ |
| Microsoft vCard Plug-In (C4O) | x | ✓ | ✓ | ✓ |
| Internet Explorer WebRTC Support | available for 30 days | ✓ | ✓ | ✓ |

^{4, 4} In Circuit public Cloud the effective limit is 300 conference participants – please check for the Add-on offer ‘Events’ if there is a need for more participants.

| | | | | |
|---|-------------------------------|---|---|---|
| Cloud Identity Management via OpenID & OAuth | x | ✓ additional charges apply for a project's setup | ✓ additional charges apply for a project's setup | ✓ additional charges apply for a project's setup |
| Identity Management via SAML | x | x | ✓ | ✓ |
| VDI Support VMware | x | x | x | ✓ additional charges apply for a project's setup |
| VDI Support XenDesktop | x | x | x | ✓ additional charges apply for a project's setup |
| Co-existence with Circuit Telephony Connectors (Advanced or Universal or Openscape Business TC) | ✓ | ✓ | ✓ | ✓ |
| Add-Ons | | | | |
| Circuit Meeting Room | ✓ additional charges apply | ✓ additional charges apply | ✓ additional charges apply | ✓ additional charges apply |

| | | | | |
|--|---|---|--|--|
| Administration & Support | | | | |
| Provisioning Agent for automated User Provisioning (LDAP, csv) | x | x | ✓ (restricted support, full ca Q1/2019) | ✓ (restricted support, full ca Q1/2019) |
| Forum | ✓ | ✓ | ✓ | ✓ |
| FAQ's | ✓ | ✓ | ✓ | ✓ |
| Partner Administration on behalf | ✓ | ✓ | ✓ | ✓ |
| Report an issue | ✓ | ✓ | ✓ | ✓ |
| Redirection of 'Report Issue' if offered by partner | ✓ | ✓ | ✓ | ✓ |
| User Helpdesk online support | ✓ | ✓ | ✓ | ✓ |

| | | | | |
|-------------------------------|-------|----------------------|----------------------|----------------------|
| User Helpdesk by Telephone | x | ✓ | ✓ | ✓ |
| Service Level Agreement (SLA) | 99,9% | 99,9% | 99,9% | 99,9% |
| SLA Credits (Reimbursement) | x | ✓ with <99,0% SLA | ✓ with <99,5% SLA | ✓ with <99,9% SLA |

Notes:

- a) A seat is the entitlement for one named user to access OpenScape Cloud including Circuit and to use the services to the extent described in the table for respective service packages.
- b) A subscription provides the Customer with a specified number of seats with associated service packages to which customer can assign users.
- c) Circuit subscription plans Team, Professional, Enterprise and OpenScape Cloud subscription plans Essential, Team, Professional and Enterprise seats can be mixed in one tenant. Circuit Free-seats cannot be mixed with any of these paid subscriptions.

3.3 OpenScape Cloud Features and Functions

The OpenScape Cloud solution and the appropriate subscription plans provide the set of functions described in the following chapters.

Please understand that only voice related features as add-on to Circuit and deviations from Standard Circuit delivery are outlined here. The Collaboration capabilities of Circuit can be found in chapter 2.4 and available Add-Ons and Extensions are listed in chapter 4. Most of the Add-ons mentioned in the Circuit-only section (chapter 2.5) can be provided, too.

A core feature of OpenScape Cloud Public is that the setup and customization is provided to the customer's administrator or the reseller partner on his behalf to be performed in self-service. This allows quick and flexible on demand setup and changes or extension.

Furthermore the service is designed for both a greenfield rollout or a smooth stepwise migration from or with coexistence with on site telephony infrastructure or other Circuit sites, with Circuit providing a collaboration overlay.

Self provisioning services are available from the Circuit administration pages. Our internal deployment automation ensures that all parts of OpenScape Cloud (e.g. VoIP PBX, Trunk and User SBCs, Advanced Telephony Connector or DLS for Unify phone deployments) are set up.

Not part of the offering is a SIP trunk for connection with the PSTN – either the customer can bring this – e.g. changing an existing contract of a supported SIP Trunk Provider connection to our cloud - or the Unify partner offering our service might include a validated SIP trunk as aggregated offering.

Sometimes some features or connectivity might not be available in self services. In such a case our Service team will perform setup or changes. In such a case the so called DataCollection sheet needs to be filled and send to the team.

Hint: Self services are not available for Managed Services customers except these have been booked on top of the Public OpenScape Cloud Offering.

3.3.1 Supported Telephony Features

- Phone Number
 - In order to enable the receiving of PSTN calls a phone number has to be assigned to the user. Users can find the number assigned to them displayed in their Circuit user settings, in tabulator Telephony. Users migrated to our service usually can keep their established office phone numbers which is obviously a big advantage.
 - Both a public phone number (DIDs), which comes with a private extension, or just a private extension number can be assigned to a user. In the latter case a public DID is sent to external parties - at least if not suppressed.
- One Number Service, Caller ID and SIP Display name
 - OpenScape Cloud provides Softphone capabilities in browsers, mobile apps and Desktop App. An optional desk phone can be connected and a user might define additional phone numbers and devices, respectively, for telephony calls, too. All the calls performed and received are using one number – usually the office phone number. This way there is no need to communicate multiple phone numbers - users have much better control of their availability.
 - A user's one number service (ONS) phone number is displayed as the user's Caller ID (aka Calling Party Number CPN aka Calling Line Identifier CLI) at the remote party when an outbound calls is performed. Call charges for external calls are always billed by the customer companies' SIP provider – for the device only data traffic is required.
 - The user's name (which can be edited in Circuit) is transmitted as SIP Display name. SIP display names are exchanged only between 2 participants of the Cloud PBX during telephony calls. This is an alternative to the other name resolution options provided, which are actually resolving tenant users and a user's exchange contacts (if connector is active) or mobile address book (mobile app) based on transmitted Calling Party Number.

- Initiate Phone Calls / Outbound Telephony Calls
 - The user can initiate a call from his Softphone, an optional desk phone, or, even from his Alternative phone (e.g. his GSM phone or home office phone) if he has configured such. Unify desk phones and some other phones connected to OpenScape Cloud's voice service are able to support autoanswer so that the connection can be established immediately. In other cases the phones will ring first and the incoming call has to be accepted before the intended outbound call to the remote user is established. The device used for the outbound call can be selected in a drop down of the dial button. The button adopts automatically so that the last used device is the new default from then on.
 - Several options exist to initiate a telephone call and bring up Circuit's call control:
 - From the '+' (Plus) a new phone call can be established
 - The phone call conversation can be opened alternatively from the conversation selector
 - The user can dial clicking on the phone number in another user's profile
 - With the Circuit for Outlook (C4O) plug in a user can dial from the Contact Card
 - Dialing users via telephony is offered automatically instead of a circuit to circuit call if the remote user is offline
 - With a hyperlink embedded in a page or document
 - Hotkey dialing functionality in the Desktop App
 - Circuit SDKs
 - The user can enable the exchange integration so that he can search for contacts and access the phone numbers stored in his Outlook/Exchange's Personal or in the Global Address Book in addition to the ones stored in his Circuit tenant. Users might enter a phone number to dial manually, too – using the keyboard or dial pad with the mouse - in the number formats supported by the voice platform.
 - If a user shall be dialled than the Circuit system allows to see easily if the remote user is online so that the other user might decide to initiate a multimodal Circuit call instead
 - The user might add private phone numbers to his profile so that other users can use these to dial him. Some number might be prefilled based on deployment mechanism chosen.
- Telephony actions supported
 - Accept a call, reject or drop a call
 - DTMF - A user can enter DTMF in a dial pad available in the Circuit clients or optional phones. This feature allows interaction with far end's IVR systems.
 - Hold and retrieve – while being held the far end hears music on hold provided by our service
 - Mute and unmute
 - Blind and Warm Transfer, Consultation Call, Alternate, Conference/merge calls
 - Name Display and Name Resolution: If the phone system transmits the calling party number and/or SIP display name than this will be shown to the user in the call control stage and conversation list. Caller names can be resolved from the tenant's Circuit user directory or a user's connected Exchange address books.
- Remote Call Control / Computer Telephony Integration (CTI) for Desk Phone or Alternative Phone
 - During an established phone call mediated over our integrated voice platform's One Number Service Circuit Web client and Desktop app can be used to control an optional desk phone or a user defined Alternative phone. Additionally, alerting calls can be rejected or deflected to the device of choice or to Circuit's voicemail
- Incoming Phone Calls Routing
 - The one number service ensures that all telephony calls are performed with the office phone number – inbound and outbound calls. The user has full control of his availability.
 - By default incoming calls to the user's ONS number will alert on any logged in Circuit client immediately and can therefore be answered or rejected on any of these clients. It is even feasible for the web client or Desktop app to answer a call with each phone (Circuit app as soft phone, the desk phone or an alternative phone if defined) or reject to voicemail.
 - If a user has desk phone attached to the OpenScape Cloud service than it rings in parallel with the Circuit apps.
 - Depending on the user's settings different routings and signaling can happen – either as result of the Autopilot, of a call forwarding or of 2nd Call handling.
- Auto Pilot Routing (Follow me):
 - By default an incoming call to the user's ONS number will alert on any logged in Circuit client immediately. Additionally the desk phone will ring. The call can be accepted on the device or with Circuit as soft phone.

- If the call is not accepted in time then an overflow of the OpenScope Cloud Services' Voice platform applies and the call is redirected. If activated by providing this number the call is routed to the user's Alternative phone, e.g. his mobile number (GSM) or home office.
- A final overflow to the Circuit Voicemail will occur if this not deactivated by the user. This way no call will get lost.
- Call Forwarding
 - The user is able to forward his incoming calls to a device of his choice – in contrast to the Autopilot's Alternative device support this forwarding occurs without delays, avoiding that an impatient caller might hang up the call. And, if the user is not at his desk colleagues in the room are not disturbed by the desk phone ringing. The call is still under the users control and can be moved to other devices. The user's voicemail can be a forwarding target, too.
 - A call forwarding to other users and phone numbers, respectively, can be setup, too, in the GUI. This is for forwarding e.g. to a stand-in or an assistant while the user is unavailable due to illness or vacancy or other reasons.
 - Additionally, more forwarding options (when busy, no reply, external or internal calls) can be enabled or disabled using a desktop phone's menu. Dialing so called Prefix Access Code (PAC) is also supported.
- Mobility – pull and push calls

Users can receive calls at the device of their choice. Moreover, they can move active calls around.

 - Users can pull calls to any Circuit client. They can push telephony calls from Circuit clients to their hard phones, too.
 - Moving calls between Circuit Clients and hard phones is supporting users' mobility e.g. if they have to leave the office while on a call then they can transfer the ongoing call to their mobile app or the GSM with a button's click.
 - Once the number is answered at one Circuit client then the other active clients will stop alerting but will still show the active call as 'remote call' and allow the user to pull the call to any of these clients. The same is valid if the user accepted the call at his desk phone or custom Alternative phone.
- Alternative Phones defined by Users
 - Users may define phone numbers in their Circuit profile settings. Typically it will be the users' mobile (GSM) but could be other phone numbers, too, e.g. the home office or hotel room's number.
 - One alternative phone can be selected to be used with the ONS – either to receive calls as result of the routing strategy or to initiate calls - established on the companies PBX with the user's office phone number and paid by the company. Or, it can be used to push active calls to (and pull calls back in case of need).
 - It provides a backup strategy if the user is travelling but his Circuit apps cannot be used – e.g. due to missing data connection: By setting his GSM (or home office phone or so) as Alternative phone he can ensure receiving the call on the global telephony network
 - The ability to push or pull is not just helpful when changing devices: in case the data connection of a user's Smart phone provides low voice quality than he might prefer to transfer the call to the GSM connection.
- Second incoming Call Processing:

The user has the option to determine in his settings what happens with an incoming call in case he is already busy. The telephony settings allow him to select between the following options:

 - Default routing (= Auto Pilot): A second incoming phone call might ring and get accepted at other free devices.
 - Indicate busy to caller: This lets a caller know that the user is talking and he should retry the call. Very common in Europe.
 - Route to Alternative phone: This option is offered only in case that an Alternative phone is maintained by the user in his settings.
 - Route to voicemail: The call is immediately forwarded to voicemail if the user is busy
- Circuit Call Journal
 - A record of all telephony calls with their time stamp and duration is kept in the Circuit "Phone Call" conversation allowing the user to see the calls made and received and redial people from that list. It shows the missed calls and allows calling back with click of a button.
 - The call journal aka phone call conversation does show all telephony calls - this includes calls made manually on the desk phone or via Circuit acting as a softphone. It also includes calls made via remote control of the desk phone and alternative phone.
 - The journal entries provide an understanding of what happened to a call. For example, users see if a call was transferred and to which party. Or, they can see if a call was picked up and by whom. Or, if it was a hunt group call they processed.
 - Lost calls come with special notifications. A callback is initiated just with a click from the journal.

- Voice platform and device capabilities

A user can make telephone calls from any Circuit client and from an optional phone connected to the service. PBX features like dial plans, reports including call details records, or dialing permissions are provided from the voice platform part of the OpenScape Cloud service to all telephony calls. Some features can be used only with Unify phones and/or via dialing PAC codes.

 - Do not disturb (DND):
 - DND can be activated or deactivated from a Unify phone via button or menu entry – with other devices users can use dialing a PAC to set their unavailability in the OSCLoud VoIP switch
 - Lock/Unlock and PIN code:
 - Unify phones can be locked by pressing longer #, for unlock the user has to enter his PIN. The PIN can be changed in the device.
 - Call back on Busy, Call back on no reply:
 - Circuit’s Tell-me-when functionality is the recommended solution if a user wants to reach a person when their status goes to available. However, it requires having access to a Circuit client. Therefore, the system supports as an alternative OSCLoud call back that is based on the VoIP switch feature.
 - The user might activate Callback on busy at his phone when calling a remote user who is busy on a phone call. In such case the system will initiate a connection when the remote user gets available by going on hook.
 - A user can activate callback on no reply when his/her call is ringing and not answered. In this case the system will initiate a connection when it gets knowledge that the remote user is available again, e.g. when the remote user performed a call.
 - Redial:
 - The user can re-dial a number by clicking on the number in the journal. This also works using the menu or the right arrow key on the Unify desk phone. Although 3rd party SIP phones may not support it or have their own options
 - Distinctive Ringing
 - Our integrated VoIP switch supports incoming internal or external calls, recalls (i.e. missed transfer, park), emergency intrusion and callback with different SIP signalization.
 - Unify phones provide different ring tones, including different default ring tones. Ring tones can be changed by the user. Some 3rd P devices support distinctive ringing, too.
 - External call filtering / redirection:
 - Call filtering (e.g. forwarding external callers to an assistant) can be controlled via dialing a Prefix Access Code (PAC) or via Unify phone’s settings menu
 - Calling Line Identifier Restriction (CLIR)
 - Via PAC the transmission of Calling Line Information can be suppressed for display at remote parties, either just for the next call or until switched off. With CLIR suppression the Calling line identifier is still transmitted, not shown at endpoints but exposed with emergency calls.

For further device features and platform capabilities, or details please refer to the manuals of the devices or our public [Wiki](#). Unify Partners might check in addition the OSV manuals. But, please understand that not all features described there are available as part of the Public Cloud Offering – only our Managed Service version of OpenScape Cloud has here full flexibility to provide these.

3.3.2 Hunt Group Support for simple Automatic Call Distribution

A common customer need is ensuring that specific phone numbers are served from teams of employees to ensure that all calls are served, without the need of manual dispatching or ensuring forwarding when the called user is unavailable or absent.

Hunt groups⁶ in OSCloud Public support various automatic call distribution algorithms for telephony calls:

- Linear Call Distribution – Calls are distributed in order, starting at the beginning each time
- Circular Call Distribution – Calls are distributed in order, starting with the next in order
- Uniform Call Distribution / Longest-idle / load balanced – Calls are distributed uniformly, starting with the person who has handled the fewest calls
- Parallel ringing / Simultaneous Call Distribution – Calls are presented to all available extensions simultaneously

An administrator or on-behalf administrator needs to assign a specific dedicated phone number - the so called pilot number - and a team of users (members or agents) to each hunt group. Users can be members in multiple hunt groups, up to 30 members can be added to one.

Further parameters are available to customize a hunt group's behavior to specific customer needs:

Queuing

Callers can be put in queues to wait for an agent's availability to receive calls from the system. The caller hears music, and, if enabled, periodic interception announcements. The queue size (= maximum number of callers in the queue) and maximum time in queue can be configured.

Queuing is only provided if all members of the hunt groups are assigned to the OSCloud Team or higher level subscription packages.

Members of hunt groups that do not use queues can be on any subscription package.

Queue size is nearly unlimited (up to 250 callers/queue, up to a 11 hour duration in queue for a given caller).

Overflow and Overflow destination

If no agent is available to take a call or if limits apply like number of calls or duration in queue than the system can either signal a 'busy' back to the caller, or, if so defined, the system will let the call 'overflow' to another phone number. Voicemail, an Automated Attendant or a second level hunt group are often used for such purposes.

Features supporting the Users

The Circuit clients provide a switch so that users can control their availability status. When a user marks themselves as "busy" for hunted calls then the system won't consider them for call distribution so that they can perform other tasks. The user is considered for calls distribution again when the hunt group status is switched back manually to "available". The willingness to take hunted calls is independent from Circuit user status so that the user has full flexibility.

The browser and the Desktop app show the hunt group availability in the header and allow switching there quickly, in mobile clients this can be accessed in the settings. A mobile user is able to receive ACD calls, but more often people prefer accepting hunted calls when they are sitting at their desk. In this case they can disable hunting call to them when moving away from the desk, or, if forgotten, they can do later in the mobile client.

With all distribution options -except for parallel ringing- a feature called **auto make busy** is activated. This means that this user is set by the system to 'hunt busy' when a call is not accepted in a time which can be set by the admin. In such a case the users have to set themselves back to 'hunt available'.

A softphone only user who does not have their client open will be skipped in the ACD routing, of course.

Hunted calls will be shown as such: with an incoming call the hunt group's name is displayed giving the user the context when answering. Similarly hunted calls are marked as such in their journal - the Phone call conversation.

Desk phone support

Call processing of hunted calls can be done as softphone only user, as hard phone only user, or both.

With Unify Desk phones the user gets automatically a key deployed on their phone which allows the user to see and toggle the Hunt group availability status. With 3rd Party phones the only option for the user is to control the hunt group availability dialing special numbers (Prefix Access Codes) which is usually programmed manually. When called, the system prompts the action and status audible.

⁶ Availability of a full blown multi-channel Contact center is in preparation. Please check with your Unify partner or contact in case of demand

Master Hunt Groups and Master Role

OpenScape Cloud allows for a specific configuration of hunt groups. Here, the pilot number is assigned to a user – the master user. The master has some specific functionality: he can control the hunt group's availability – e.g. he can forward the calls during off hours, or, his voicemail and call journal can be used to process lost calls.

In case of multiple sites hunt groups can be used across sites.

Further details can be found on our public FAQ pages www.circuit.com/support.

3.3.3 Pickup Groups

While hunt groups usually come with their own pilot numbers users and teams often have the need to pick up a call from another user's office phone number if this person is not answering. – That is what a Pickup group does.

The administrator can assign a user to one pickup group and assign additional members. Each user can only be part of one pickup group. The group members are notified by the system if an incoming call for a team member is not answered and any of the members can pick the call up.

Pickup Presentation:

The user experience of a pickup group has been designed to be as unintrusive as possible to avoid unwanted distraction:

- Only one call offered to a user to pickup despite that more than one call might ring at the team members.
- The administrator uses a particular parameter to delay alerting of the other members by a few seconds. This way the person that was called originally – probably the one most suitable to answer the call - gets some time to answer before Pickup is offered to the others.
- On the client visual indication can be cancelled.

Call journal:

The call journal of those that are involved in a particular call shows their role in the call for everybody to see what happened to it:

- At the journal of the person that was called originally, a missed call is shown with the indication of the user who picked it up
- The calling party gets an indication that the call was picked up (if he is user of the OSCloud system), and..
- The journal of the person that picked the call indicates that it was a picked call and from whom.

Pickup is offered in Desktop App and Web client only, because it is unlikely that a mobile user wants to pick up calls, but the journal is updated in mobile clients, too.

Desk phone support:

Using Unify phones, Desk phones can be used with or without a client. The phone offers context and situation-sensitive features such as picking a call with a push of a button. Additionally, the phones can be customized regarding presentation of calls in the journal and indication of the pickup. Please check the phone's manuals for details.

3rd party phones should be able to pick up calls via a Private Access Code dialed, which can be usually put manually on a phone button. Please be aware that 3rd Party phones are typically not supporting Pickup with our platform so that the user don't get an indication on their phone – they would have to rely on the circuit client or hearing the called persons phone ringing.

Pickup Groups are supported with all kinds of OSCloud user subscriptions.

In case of multiple sites pickup groups can be used site-spanning.

Further details can be found on our public FAQ pages www.circuit.com/support.

3.3.4 Dial plan

OpenScape Cloud provides high flexibility: it supports single or multiple number ranges and single or multiple sites and thereby even globally operating customers' demands can be covered. A customer might re-use existing internal and public phone numbers and potentially sites' numbering plans or might use new phone numbers if necessary. For re-use of existing number ranges the dial plan must fit to our flexible OpenScape Cloud standard, of course (or a Managed Service offer with extra charges would be required):

Site properties are:

- Country and region's dial code
- Assigned public or private phone number range(s) and/or distinct number(s), e.g. Multiple subscriber Numbers (MSNs) migrated from the ISDN world
- Optional extension prefix(es) - these allow to extend number ranges, e.g. if customer has a 2 digit subscriber range obtained from the SIP Trunk Provider than adding a single extension prefix would allow to include this in a 3 digit private range
- A public home Directory Number (DN) should be defined which is sent by users which might be supplied only with private numbers as calling party number to externals. So that a callback would reach e.g. a central attendant or an auto attendant.
- A selection of a SIP service provider and SIP trunk, respectively
- An access code for external line, the external line prefix, sometimes called Public Network Access code (PNAC))
- A default dialing permission assigned to the users of the site
- Default language for phone display and prompts assigned to the users of the site
- A site prefix and preferred inter-site dialing format

Public Phone Number Ranges or distinct Numbers (Direct Inward Dialing numbers DIDs):

- Public phone number ranges or distinct numbers have to be obtained from a SIP service provider – a precondition for OpenScape Cloud today is that a customer has or will establish such contract directly with an SIP service provider. Some partners may include this in their offer alternatively.
- While a SIP service provider and SIP trunk with public number(s) is required for phone calls to and from the public telephony network (PSTN) the OpenScape Cloud service can be setup for testing purposes without an active SIP trunk.
- Public phone number ranges or distinct numbers consist of.
 - country code
 - area code
 - subscriber code and
 - the range of numbers or distinct number(s) obtained within that subscriber code.
- The range of numbers or distinct number obtained with the subscriber code is automatically assigned in OpenScape Cloud as range or as distinct number in a private phone number range so that users within the site can dial each other with short internal phone numbers, called extension numbers, too.
The format of these private number ranges or distinct numbers can be altered with a prefix number called the extension prefix. If an extension prefix is defined it must be dialed when dialing another user's extension.
- Multiple DID numbers or ranges can be setup for a site.

Hint: Public DIDs must be globally unique. A configuration of Public DIDs is only allowed in case the customer obtained these from the ITSP. Similarly it is essential that area code and subscriber code fields are filled in correctly. Unify reserves the right to ask for changes if this isn't the case or even for deletion.

Private Phone Number Ranges or Numbers:

- Entirely Private number ranges or distinct private numbers can also be set up and assigned to OpenScape Cloud users so that they can receive and perform phone calls
- Private phone number ranges or distinct numbers consist of the numbers' site prefix, extension prefix (optional) and the defined range of numbers or the defined distinct number.
- The extension prefix can be used to fill up a given private number range with additional digits to create dialable ranges which do not overlap.

Public numbers are unique by definition. Private numbers need to be unique within the tenant. You therefore have to be aware of the following rules, which will be enforced when you create private number ranges or distinct numbers:

- Extension numbers must be unique within all the sites that have the same site prefix. It is not necessary to define a site prefix as administrator, in such a case the OpenScape Cloud will use the site prefix '123' by default.
- Site prefixes must be dialed when dialing users of sites which have a different site prefix defined than your own site's site prefix.

With all these parameters provided the OpenScape Cloud system internally creates the so called dial plan – a comprehensive list of phone numbers which can be dialed by your users to make calls to other users or to the public network.

Single site Deployment:

The most simple option. With a single site parameters like site prefixes or preferred inter-site calls format don't make a difference and the defaults can be applied.

Multiple site Deployment:

If an OpenScape Cloud customer has two or more sites than some additional parameters must be defined to form a dial plan fitting to the environment:

With the site prefix it can be determined if two or more sites shall share or shall not share their extension numbering:

- a) with different site prefixes the users of such sites can be dialed from other sites only with their specific site's prefix plus the users' subscriber number, or..
- b) with the same site prefix applied the users of these sites can dial each other just as if they were on the same site.
- c) Any mixture of a) and b) can be set up

Additionally it can be determined what the preferred way of dialing is from the viewpoint of the own site: this will only impact how dialed/received calls are displayed on the devices of the users of the own site. Preference can be set to show either public or private numbers on the device's displays.

For telephony experts: this way supported by the OpenScape Cloud standard offering are the so called **Numbering Plan options**:

- Integrated Numbering
- Open Numbering
- Digit Prefixing

More complex solutions, including Virtual Numbering Plan/Room (VNR), can only be provided via a Managed Services offer.

3.3.5 Dialing Permissions

When deployed the OpenScape Cloud users are assigned to a Circuit and a voice platform tenant and a phone number. Due to tolls for external phone calls these are classified as:

- Premium rate
- International
- National
- Local
- Toll free
- Office / internal only

For a site local toll tables are created internally. Each user can be assigned to one class. Of course, emergency calls don't fall under restrictions.

3.3.6 ITSPs, SIP Trunk demarcation and supported Landscapes

A SIP service provider contract is required to link the OpenScape Cloud Service to public PSTN over so called SIP trunks – the provider delivers public phone numbers (DIDs), the connection to the public telephony network and bills for the telephony calls performed with it. These services and contract are not part of the OpenScape Cloud offering - an OpenScape Cloud customer has to have his own direct contract with a provider. Alternatively, some of our partners will bundle their SIP trunk offerings with OpenScape Cloud so that their contracts might deliver both.

Unify has certified a still growing list of ITSPs and their SIP trunk offerings so that there is wide compatibility range and selection options are given. The list of supported providers and trunks can be obtained from your OpenScape Cloud partner or Unify on request or can be found in our public FAQs. A provider not yet supported may be certified and made available from a skilled Unify partner in cooperation with Unify or a certification can be ordered from Unify's Professional Services' Customer Solution Labs (CSL).

SSP Support and SIP Trunk Demarcation:

Standard and most cost efficient is a direct SIP trunk connection to OSCloud Public. In this case the SIP Service Provider (SSP) need to support a connection over the internet to our multi-tenancy environment. Validations have been successfully executed with ca. 20 SIP Service Providers, from global to important regional ones. Few of them come with a minimum amount of users to cope the extra costs we have due to restrictions in sharing cloud resources or option to automate – your Unify partner or Unify contact may help in case of questions.

The alternative is a SIP trunk demarcation point on premises. The provider delivers the PSTN demarcation to a customer site, from there a SIP trunk is delivered to the Cloud, usually with an OpenScape SBC on premises as described in the next section.

Despite coming with extra charges for the Customer premise equipment and related services this option has some advantages, so that mid to larger customers might prefer it. First, are approximately 50 additional SSPs available this way. Second, and this might be even more important, we can support **Direct Media** within the customer LAN: with endpoints like softphone users or Unify CP phones only the signaling is transmitted over the cloud while the speech transmission (the media traffic) does a short cut and stay in the customer network with sufficient bandwidth and options to ensure QoS.

Landscapes and Migration Path

Frequently customers want to use their existing phone numbers with OpenScape Cloud so that users and external contacts can stay with what they used to.

For that purpose the following options could be checked:

- If there is already a SIP trunk in use this might be re-connected to OpenScape Cloud. The provider and the related contract may remain unchanged if the provider can offer appropriate certified SIP trunks to the OpenScape Cloud data center where the customer's tenant resides. Of course, this can be achieved by migration to a provider supported with OpenScape Cloud, too.
- If ISDN or analogue lines are used so far than their number ranges or numbers would need to be migrated to either the existing provider - if the provider can offer appropriate certified SIP trunks to the OpenScape Cloud data center - or a new one which fulfills these requirements. Sometimes a 3rd Party VoIP gateway compatible with our OS SBC (not included in our user subscriptions) can be an alternative.
- With Unify Partners' offerings or Atos/Unify Managed Services offers public DID numbers can be terminated on premise alternatively and calls are transmitted to the OpenScape Cloud from within a customer's local network. An OpenScape SBC will be used as gateway in such a case. Please understand that such on premise component is not part of the OpenScape Cloud Public subscription offering and that additional charges may apply. In fact 3 scenarios are supported:
 - The on premise OpenScape SBC is connected to the SIP Service Provider and is setup to provide the trunk to the OpenScape cloud. This scenario might be a choice with a countries legal requirement for local SIP demarcation or when the provider of choice is not able to deliver a compatible trunk towards the OpenScape Cloud data center
 - The on premise OpenScape SBC is connected to a supported local TDM or analog gateway. This approach is usually interesting if the local gateway is already there and the provider cannot offer a SIP trunk to the OpenScape Cloud. Please check general availability of your gateway or ensure Project Specific Support (PSR).
 - The on premise OpenScape SBC is connected over a SIP trunk to a local PBX. Support of Unify PBXs is widely given. With a 3rd party PBX usually a Project Specific Support needs to be ensured. This scenario supports smooth migration of users to the cloud. Users of the cloud service and on premises can call each other without charges. Additionally, some equipment or functionalities like Attendant console can support both on premise and OSCloud users

Encryption of the call transmission (signaling, speech data) can be performed based on availability with the selected SIP Service provider's offering or gateway – this needs manual setup by our ops team.

Point of Presence and MPLS

If a customer or partner might want to ensure best call quality then it is possible to setup at their cost a point of presence in the Datacenter Campus where Unify has setup their Cloud systems or potentially to other internet nodes of these campus providers. For more information or an offer please ask your Unify representative or ITSP.

3.3.7 Automated Attendant

OpenScape Cloud provides a simple Auto Attendant solution so that users which are supplied only with private numbers can be reached over a public phone number of the company and the system transfers the callers to the users automatically based on the callers' input. This can be especially advantageous to avoid a larger volume of public DIDs, which in some countries is associated with significant costs. Such a solution can be used instead of a human operator or in a combination, providing a 24 x 7 x 365 service, too.

Supported Features:

- Self service user interface for administrators
- Your own company greeting can be uploaded or recorded – if none is uploaded a generic system prompt will be used. But, providing your own greeting is very recommended so that callers know they reached the intended company.
- An (optional) human operator's phone number can be defined – this way an operator can help if the target user's phone is not known or (very rare) no DTMF entries can be made by the caller
- The extensions of users to be entered by the caller can be either of defined length or variable (which needs a hash DTMF tone to end the input)
- International language support: The Circuit Automated Attendant is delivered with default prompts for each language supported by Circuit
- The Automated Attendant is assigned to a site's numbering plan. Depending upon this site's numbering plan it can provide transfers within the site, site spanning or even company spanning.
- Multiple instances can be enabled to support multiple sites or languages.
- To avoid abuse transfers to external phone numbers are not supported (except for transfers to the operator)

A significantly improved version of the Auto Attendant is planned for Q1 and Q2/2019 with time profiles and menu support and much more. Until its availability the existing Automated Attendant can be used for simple menus, too.

3.3.8 Emergency Call Support and ELINs

The OpenScape Cloud can be used to perform emergency calls to a public emergency center (the so called Public Safety Answering Point PSAP). Emergency calls are specifically treated: Public Emergency phone numbers are maintained in OSCloud, a call to these numbers don't fall under toll restrictions.

While some ITSPs might allow only to send some central location information with emergency calls (which might be the preferred option for small to midsize companies anyhow) the OpenScape Cloud supports a very sophisticated approach with ITSPs able to transmit Emergency Location Identification Numbers (ELINs). The latter needs to be setup in cooperation with our Operations team.

How does it work?:

The emergency center shall know the 'physical' location to which an emergency response team may be dispatched to when an emergency call is performed. For that purpose ELINs must be agreed between customer and PSAP representing a location – these ELINs are provided by PSAP or providers (they are not part of the OpenScape Cloud deliverables). One or multiple ELINs can be assigned to a physical location forming a pool in our VoIP switch. In case of an emergency call (detected as such by the number dialed) the OpenScape Cloud transmits with the call to the emergency center the ELIN and this way the location information accordingly. If there is a need for a callback from the emergency to the caller than this is supported in our OpenScape Cloud with a specific processing, too: potential call forwardings setup for the extension the will be ignored - the Circuit/OSCloud devices ring simultaneously - so that it is ensured that a callback hits the person which initiated the emergency call.

In OpenScape Cloud multiple options apply, often combined:

1. OSCloud extensions can be assigned to ELINs. But, this might not be the preferred option when the user can use the softphone capabilities of Circuit and the apps because these might result in transmission of a faulty location information
2. OSCloud can be setup – a unique feature - to detect known private networks behind a NATting IP. This way we can transmit the right ELIN for a mobile user's emergency calls depending from his location and the network segment he is in, based on a network:ELIN assignment. Alternatively DHCP might provide location information.
3. Unify phones can be setup to support emergency calls with OSCloud via ELINs by getting supplied on site via DHCP location specific domains.

Due to potential complexity Unify reserves the right to offer this support only based on efforts.

Finally, nor our product nor Unify Services inform the users in case emergency call support has been set up for a tenant – this should be communicated internally by the subscribing customer and its admin(s) or a potential partner acting on behalf.

3.3.9 Visual Voicemail

The Circuit internal voicemail - if activated by a user – is accepting Telephony calls as well as Circuit audio and video calls. The ring duration can be selected by the user in his circuit settings where user can record a personal greeting, too. Alternatively, users can upload their own recording – or a recording offered from a professional studio.

Telephony voice messages are recorded by the system and stored into the phone call conversation of Circuit. Users are notified in the Circuit clients when messages have been recorded and they can listen them at any time with the embedded player which is allowing to fully or partially repeat, to delete the message or to call back.

With multimodal Circuit to Circuit calls even Video is supported - such calls are stored in the personal conversations.

3.3.10 Supported Unify Phone Deskphone Devices

OpenScape Cloud supports the use of SIP desk phone devices – phones have to be connected to OpenScape Cloud's redundant Session Border Controllers (User SBCs) which are interworking with the cloud's voice platform.

We regularly publish updates regarding supported devices on our Public FAQ pages. The following Unify desk phone devices are currently supported:

OpenScape CP Desk Phone Device (SIP) family (fully supported + recommended):

- CP200, CP205 (+ CP100 ca. early 2019)
- CP400
- CP600 (+ CP600E ca. early 2019)

Deskphone IP family (SIP) family (supported)

- IP35G
- IP55
- IP35eco

OpenStage Phone (SIP) family (tolerated / restricted support – see hints below)

- OS15, OS15G
- OS20, OS20G, OS20E
- OS40, OS40G, OS 40US
- OS60, OS60G
- OS80

With its design and user interface in Circuit style and many other features, last not least to mention the support of Direct Media transmission of the voice data streams between the CP phones and the soft phone users plus optionally an on premise OS SBC with SIP trunk demarcation, the CP phones series is our clear recommendation for the devices to deploy. Devices which allow remote labelling (CP600, 600E, 100) are most preferable.

Remarks:

- The OpenStage phone series is end of live (EoL). Despite that customers can use the OpenStage SIP phones with OSCloud but Unify will not focus on their tests or provide support. The option to connect is time-limited (probably H2/2020 for most of them) and subject to changes without notice – e.g. the devices might not be supported in new binders therefore it is recommended to replace them with CP devices.
- HFA versions of the devices can be flashed with SIP firmware.

3.3.11 Automated Deployment Process for Unify Phones

The OpenScope Cloud's deployment needs just a few entries on a phone plugged in the network, this can be performed by the administrator or the partner, or, the phone can be sent to the user.

Doing so the phone gets its initial configuration and latest software updates if there are any, and, it does get ongoing configuration, feature and firmware updates.

The deployment process for an administrator or partner admin on behalf:

1. The admin assigns a phone number to a user. For this user the Unify Deskphone support is enabled.
2. A new (or factory reset) Unify phone is plugged into the network, gets an IP via local DHCP
3. The admin finds in the user's phone properties the so called **Cloud PIN** and the **Security PIN** – secure one-time PINs
4. The phone contacts the global redirection server, the admin has to enter the Cloud PIN and the phone will be redirected to the OpenScope Cloud's device management server (our Deployment Service Tool DLS) where the security PIN is required for authentication.
5. The phone gets the configuration and potential firmware updates and certificates so that it will connect to the Cloud's VoIP switch. Firmware updates might require rebooting. If the phone was setup elsewhere it might need to be sent to the user.

The deployment process for an end user:

1. The admin or partner needs to assign the Unify phone to the user.
2. The user can see that he was configured for a phone and he can see the PINs
3. The phone needs to be sent to the user and plugged in his network. The user needs to enter the PINs as described for the admin above and the phone gets configured, updated and connected to OSCloud automatically. This is a process of few minutes.

The self configuration option for a user can be deactivated by the admin in case of concerns.

The assignment of a phone to a user can be changed or deleted any time, e.g. if a device gets lost or handed over to a colleague.

OSCloud is safe even with telephone integration: the connection from the device to the cloud and vice versa is fully encrypted, both for signaling and media (voice) traffic.

Prerequisites:

The PIN based deployment process does only work with Unify SIP phones that are in factory delivered state and have recent firmware (binders), old firmware might need an update upfront. The phones need to be able to connect to a public network time (NTP) server, our redirection server, the Cloud's DLS and finally to one of OSCloud's user SBCs.

Already configured phones with a suitable firmware require at least a factory reset needing a special factory reset password. If a local DLS was used earlier this has to be deactivated upfront of the factory reset. Please check our Public FAQs for more details.

Updates

Unify is going to push occasionally updated firmware or configurations when our services are expanded and after thorough testing. This is done during the services' maintenance windows but requires the phone to be registered in OSCloud.

3.3.12 Support of 3rd Party SIP Devices, Unify DECT Phones, Fax, Generic SIP Device Deployment

3rd Party SIP Device Support:

OpenScope Cloud supports the use of validate SIP devices or series. First, this allows reusing existing SIP phones – reducing the cost of migrations to our service. Or, a partner might bundle the service with devices of his preference. Furthermore, this way it is feasible to fill gaps in Unify device portfolio.

Typical use cases for 3rd party devices are:

- Conference phones (spiders)

- Terminal adapters, and usually over their analog ports:
 - Fax machines or faxing MFPs (T.38 recommended)
 - DECT phones
 - Door bells, explosion-proof phones, vandalism protected devices

3rd Party phones need a validation with OSCloud to ensure that they are compatible – in case of connecting incompatible device which harm the platform or other users experience Unify reserves the right to ask for their disconnection. We regularly publish updates regarding supported devices on our Public FAQ pages. Partners willing to validate devices can get a test list and process description from Unify – these validation tests are performed on a dedicated test system we provide for such purposes.

As result of our connection validation tests a configuration description (FAQ) will be published for a given device + firmware, including validated features. For large projects support from Unify Professional Services can be ordered for specific validations, too.

If not otherwise specifically agreed there is no support from Unify for 3rd party phones' configuration, updates or use nor do we guarantee that the intended features can be used. Basic call handling like accept, dial, transfers, consult, hold/resume, conference are usually part of our validations. We have to admit that some device features might not be available when connected to OSCloud e.g. MWI (planned H1/2019), Pickup, CTI auto answer and planned features like Busy Lamp field (BLF) or Executive-Assistant support. Surely some other features like remote labelling and keyset configuration or Direct Media aren't available with 3rd party devices. A Public FAQ page is available for a better overview and comparison.

For security reasons and for protection against abuse we restrict all connecting devices to use solely encrypted connections (TLS, SRTP), requiring certificate exchange. There is no integrated deployment process for 3rd Party devices; devices must be potentially updated and configured locally, including encryption. But, automation via the so called Universal DLS can be offered on request from our Professional Services team for mass deployments.

DECT / Cordless Phone Support:

OpenScape Cordless IP V2.1 is the recommended DECT over IP solution for OpenScape Cloud. The radio technology used in the OpenScape Cordless IP solution complies with the DECT (Digital Enhanced Cordless Telecommunications) standard. It provides support for various handsets. The solution makes the DECT standard already established for mobile voice communications also available with OSCloud so that existing handsets can be reused.

The solution has been updated for higher encryption security in autumn 2018, at the time of writing Solutions tests with OSCloud are nearly final, General Availability with OSCloud is expected early 2019. Please ask Product management in case of urgent need or check the device support on our public FAQ page for updates.

OpenScape Cordless IP:

- Provisions comfort features with the up-to-date Unify DECT handsets
- Supports roaming between sites with seamless handover of voice connections
- Flexibility in number of users, user density, coverage
- Scales from small to largest installations, with components coupled over Ethernet.
- Proven: With the market-leading DECT platform Unify has a strong customer base, among them the installation with the largest number of DECT devices worldwide.

The following DECT Handsets can be connected:

- OpenScape DECT Phone S5
- OpenScape DECT Phone SL5
- OpenStage SL4 professional
- Gigaset S4 professional
- OpenStage M3 family
- DECT GAP Standard devices – with restricted feature set, no product support

Deployment of validated SIP Devices

3rd Party SIP devices and Cordless IP need to be setup by the administrator or reseller partner.

Steps are simple: the admin enables a user in the Circuit administration, the system deploys on the fly automatically the required objects and properties in the background and the SIP connection parameters (User SBC of SIP server, signaling port, transport protocol, User ID, password, SIP realm) which are shown in the user interface of the admin from that point in time on. The admin has to enter these parameters in the SIP device and has to apply a certificate which can be downloaded from the same page of OSCloud, too.

Again, only fully encrypted (signaling, media) connections are supported.

Fax Support and T.38

We have validated the Analogue Terminal Adapters (ATAs) of the long term Unify partner Mediatrix, the new C7 and S7 series and the 4xxx series. These devices support the T.38 protocol for Fax over IP traffic, to be enabled at the device. Please understand that T.38 need to be supported by the selected ITSP and SIP trunk, respectively. T.38 and a good internet connection with OSCloud is essential for fax transmission, sending and receiving over internet, not over a dedicated analogue or ISDN line.

Please allow the hint that other cheap ATAs often do not have a high-quality quartz for clocking and buffering. Such devices usually lead after a few pages to transmission errors and discontinuation.

3.3.13 Circuit Conference support

- Conference Dial out / Meeting dial out:
 - Our system allows adding persons ad hoc on the phone to an ongoing Circuit conference – for example guests or travelling users might not be available via Circuit. Our bridge is performing this outcall which is shown on conference stage. The receiving user is informed of the conference call, has to accept joining it and is connected. While this happens the other participants can move on with their meeting, they don't have to wait. - The person called is not added to the conversation so that there is no risk of unintended sharing of data. The conference dial out's cost are assigned to the initiating party (deviations might apply if other Circuit telephony connectors are active in the tenant).
- Conference Dial-In
 - Circuit provides public telephony dial in numbers in many countries without extra charges, this can be used to join meetings and conferences, respectively.
 - Additionally, for a Managed Service customer special dial-in capabilities to the Circuit cloud conferences can be provided: these can be attached to given numbers from the customer's numbering plan so that short internal numbers can be dialed to join a meeting and that numbers can be communicated easily to internals and externals as 'customer's bridge'.

3.3.14 Country Coverage

OpenScape Cloud Services are only offered (available) in a subset of countries compared with Circuit, these are at the time of writing: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Sweden, UK, USA.

Some other countries are in preparation. In addition, in some countries partner provide aggregated offerings.

In case of other needs please ask your Partner or a Unify Sales Representative.

3.3.15 Security and Data Privacy

All traffic to and from OpenScape Cloud is encrypted through communication protocols used by Circuit:

- Circuit uses WebRTC audio and video media for calls which are always encrypted using DTLS SRTP.
- OpenScape Desktop phones and 3rd Party Devices use TLS and SRTP to encrypt voice and video media.
- SIP Signaling between OpenScape Cloud, its softphone, OpenScape Desktop phones or 3rd Party SIP devices is transported over TLS or MTLS and media traffic is transmitted over SRTP. All communication sessions are encrypted and secure up to the point where it breaks out to PSTN or dials in from PSTN. Encryption on the SIP trunking interface is dependent on the selected SIP Service Provider and parameters of the SIP trunk.
- Regarding file or other data transfer, all the browser-to-Circuit interface elements are running over a secure HTML5 WebSockets interface, established via HTTPS.

- Encryption keys are obtained from Public Trusted Certification Authorities and Perfect Forward Secrecy for session keys integrity is supported

User data is stored in the cloud data center components as necessary to provide the service to the customer. Circuit and OpenScape Cloud are deployed in data centers either in EU or in the US, depending on the customer. The cloud data center provider holds ISO27001 and numerous other certifications. Within the Unify Cloud Services Public data center, the tenants are strictly separated. All user data is stored against user / tenant identifiers. Strict access control is implemented in order to ensure data is only accessible by the owning user / tenant, ensuring privacy of conversations. Of course, sensitive user account data such as passwords are encrypted.

Circuit and OpenScape Cloud Application Architecture are using a topology with multiple levels of firewall and separate VLANs designed to provide enhanced network protection. In addition, OpenScape Session Border Controllers provide secure VoIP access for public meeting dial-ins, SIP trunks or registration of phone devices.

Strong password policies, no shared passwords, anti-virus and many other measures in the OpenScape Cloud solutions are taken. Additionally periodic certifications and security audits and Penetration tests are performed.

3.3.16 Statistics & Reporting

Usage data from all parts of the OpenScape Cloud are sent into our central databases. This includes Circuit calls and telephony calls which are imported from the integrated VoIP Switch.

Our Statistic solution is designed for historic reports but not for a live monitoring. The need for end of calls or the periodically import might cause short delays before telephony call data for a recently finished period is completely available.

On-Demand Statistics:

Admin users can select in the admin pages within their Circuit web client or Desktop App:

- Various preconfigured reports, with output formats depending on data (PDF including graphs and tables, CSV)
- Various preconfigured time intervals or distinct ones (planned for Q1 2019, usage with manually editing a hyperlink already possible)
- Various filters depending on the selected report (will be added over time in UI, usage with manually editing a hyperlink already possible).

The following reports are available, without extra charges:

- Account flux
- Account status
- Audio quality by device type
- Daily logins by device subtype
- Daily logins device type version
- Disconnect cause by device type
- Item activity
- Minutes by media stacked
- QoS metric histogram
- Rating interval statistics
- Ratings pie statistics
- User adoption
- Call statistics ('CDR stats')

The so called **Statistics Guide** which can be downloaded from the admin page shows example reports and explains parameters, e.g. filters. Configured reporting parameters can be saved. Each reports is opened in a new browser window allowing comparison of multiple reports easily.

Filter-Parameters are available for QoS and network or client type correlation so that the report data can help identifying network bottlenecks or other issues, too

Data can be only accessed after previous authentication to circuit as tenant admin. Other roles and reports will follow, always with data access restricted to the roles' needs.

Example Report content with focus on OSCloud Telephony

- Answered Calls Activity and Duration
- Call Attempts
- Site's Outgoing Calls by Traffic Type and Duration
- Time a call was started
- Call duration
- Calling party number
- Called party number
- Call direction
- Class (permission)
- Time until call was answered
- Device used
- Potential additional call legs and parties respectively
- Routing results.
- ...and much more

Special customized reports can be offered on request by our Professional Services teams.

Push Statistics:

Before the on demand reporting's availability the CDR report has been delivered periodically by the OpenScape Cloud system into a specific Reporting conversation of a requesting customer. Additional report recipients can be added to this conversation any time. This option is only further on supported project specific.

3.3.17 Reliability, Failure Tolerance, Fallback Strategies

All components and their deployment have been designed for failure tolerance: regarding the voice services dual node cluster of the PBX components, same for the SBCs for provider SIP trunks, for users' phones and trunk SBCs as gateway to Circuit/WebRTC. Circuit supports n+1 clustering for most nodes and other measures.

4. Add-Ons or Upgrade Options for Circuit or OpenScape Cloud

The Circuit or OpenScape Cloud subscriptions can be upgraded and extended by the following list of add-ons and integrations. Some are standard positions and can be used in self service or offered by partners. Others are only available via project specific offers. Add-ons or upgrades usually come with extra costs. Collaboration model and responsibilities of customer, partner and/or Unify have to be defined depending on demands.

4.1 Subscription Plans Changes

A customer can migrate from one paid subscription to a more comprehensive one anytime. Different types of paid subscriptions can be mixed within one tenant. This allows customers either to supply defined users or groups of users with additional features, or, to increase shared resources like storage to their tenant.

4.2 OpenScape Desk Phone CP Family

Our new series of SIP phones adds to our well-known acoustic and overall quality several new and innovative features, among them:

- Intuitive design – made with the world leading design agency frog design - for efficient work
- AudioPresenceHD® - our ‘immersive’ high quality voice experience across our phone sets and audio conferencing
- Open Standards-based phone access to corporate resources unsurpassed mobility-enabling features and functionality
- Our IP phones have the lowest power consumption when independently benchmarked against our competitors, contributing to our Blue Engel award.
- “Classical” Bluetooth 2.1 BR/EDR connectivity for external audio connectivity and hands-free communication, with wideband audio support
- Eddystone-URL Bluetooth Beacon - “Physical Web” communication for URL sharing
- Passive NFC chip, e.g. simplifying the pairing process, proximity detection for auto login and locking/unlocking device respectively

Special Circuit support is provided with the CP400, CP600, CP600E models – Unify is the first to integrate desk phones to social collaboration for a consistent and continuous user experience:

- For the users:
 - Circuit style UI - instant, always-on and visible
 - Built-in Circuit connector that fuses single and group conversations to their phone display so they are always engaged and immediately able to connect
 - If a CP user presses a button then he calls the contact displayed beside this button or joins the groups’ meeting without having to enter a PIN
 - ATC/UTC will enhance this functionality and allow pulling calls from PC/Chrome browser (available soon)
 - Support of OPUS for high end audio quality within Circuit calls (in preparation)
- For the IT:
 - Support of Direct Media for calls to/from a Circuit user via premise Universal or Advanced Telephony Connectors saving network bandwidth – an advantage specifically if the Telephony Connector is operated off-site (all CP phone models).

4.3 Circuit Meeting Room (Video Room System)

Circuit Meeting Room is the perfect affordable video conferencing solution fully integrated into Circuit. It provides audio/video conferencing (full-HD quality) and screen sharing for small (huddle) and mid-size meeting rooms. Customers can create their individual solution by selecting speakerphones and video cameras from a range of certified products, completed by one or two full-HD standard screens. Circuit Meeting Room is supporting Circuit’s “any access” / “any user” strategy and can be setup within minutes.

Users can join meetings with their preferred Circuit client, on their laptop, PC or on mobile devices, adding Circuit Meeting Room as a conference resource for audio and video. The Circuit clients provide full control so no remote control is required. Circuit Meeting Room

provides hassle free operation making video conferencing accessible for everyone at any time.

The Circuit Meeting Room appliance comes with a price for the device plus monthly fees for Circuit connectivity including software updates and upgrades.

Features at a Glance:

- Provides an excellent user experience and radically simplifies presentations, conferences and collaboration:
 - On the fly activation by any Circuit user in the meeting
 - Scheduled invites via Circuit for Outlook from the groupware calendar
 - Active speaker is shown as full screen (active speaker control)
 - Displaying screen share by any meeting participant
 - Presenting Circuit Whiteboard in conference
 - Conferences with remote participants as well as in-room presentations
 - Represented by an avatar in meetings and conversation which can be customized by an admin
 - Synchronized mute/unmute with connected HID audio devices
- Ease of use and adoption: No user training required – your Circuit clients takes control
- Cost efficient video room solution delivered as hardware appliance, fully integrated into the Circuit ecosystem, supporting standard products as peripherals (including re-use of existing equipment)
 - USB3.0 and USB2.0 for audio equipment and camera
 - RJ-45/LAN
 - Linux Operating System and Circuit Application pre-installed on the device which just need to be connected to the network and peripherals – with automatic OS and application updates
 - Up to 2 Displays via DisplayPort: With 1 display connected, screen share will supersede video display. With 2 displays connected, video display and screen share can be supported in parallel. Display can deliver audio output.
 - Energy saving option
 - SNMPv3 traps for remote monitoring
 - QoS tagging option
- No hassle with complexity and cost of B2B video solutions – Circuit Meeting Room does not need an SBC or Video Border Controller - it just traverses the firewall or proxy like a browser
- Administration via Circuit Domain admin and device configuration pages
- Circuit Meeting Room can be shared with other Circuit tenants

Please visit https://wiki.unify.com/wiki/Circuit_Meeting_Room for more information.

4.4 Video Room System Support (VRS Support)

While Circuit meeting room is a fully embedded experience some customers or their partners might have still established Video vendor's equipment which they want to use with Circuit meetings.

Dial-in capabilities for Standard SIP based Video Room systems, e.g. from Cisco or Polycom to name the most important players, are available so far solely for large, so called 'builder' projects.

With a public GA which is in preparation more information will be provided.

Basically the initial scope allows a video room system to dial into a Circuit meeting (via SIP URI and PIN to be entered at a login screen) for exchange of people video and for content receiving. This way an exchange and collaboration with Circuit and CMR users in one meeting is provided.

4.5 User Provisioning and Lifecycle

Self-serviced user lifecycle management (single users or bulk via CSV) is supported from Circuit tenant administration. Alternatively, a Provisioning Agent for LDAP synchronization or CSV imports can be downloaded from Circuit tenant admin pages free of charge. This way user deployment can be fully automated in self service.

In case of special needs other solutions can be offered for deployment or lifecycle, e.g. OpenScape Common Management Portal (CMP) or OpenScape Identity Lifecycle Assistant (OSILA) which can address Unify voice platforms and phones, too. Additionally Circuit provides an Admin REST API allowing integrations in deployment tools and processes.

4.6 Presence Federation + Instant Messaging, e.g. XMPP with Skype for Business

If 3rd party companies in business relations or own subsidiaries are using Lync or Skype for Business, respectively, the collaboration can be simplified by using our XMPP gateway services which we built for bidirectional exchange of user presence and user profile information and one-to-one text messages between Circuit and Lync users on tenant level. This project solution can be adopted for federation with other XMPP capable systems on demand.

A second integration option is available for Office 365 users and Skype online with a client side integration – in this case the user needs the Microsoft Skype licenses.

4.7 Events - Webinars for up to 1000 parties

All hands calls or Sales/Marketing calls with externals often require supporting a big audience. Additionally, the focus of the interactions between audience and presenters changes from a social collaboration to professional execution which needs to be reflected in the feature set.

Specifically for these needs Unify provides a special extension to Circuit – the so called Events. Features on a glance are:

- Support of up to 1000 participants with real time audio, video and screen share connection
- Making use of Circuit infrastructure and features, user experience, all clients and access options, including audio, video and screen share recording, global telephony dial-ins or potential telephony connector(s) provided private dial-ins and meeting outcalls
- Creators/hosts have to setup the new special moderated conversation type ‘Event’. This conversation is their area to prepare offline and potentially online for the Event with other presenters and moderators, respectively.
- Presenters/moderators have to join as user the Event’s conversation – these are the persons shown ‘on stage’ (in the conference call control) presenting or discussing.
- The audience is invited and treated like Circuit Guests – the participants do not have to register or login to Circuit. Guests have no access to the conversation so that there is no risk of unwanted sharing data.
- ‘Ask question’ aka ‘Raise hand’
 - Participants from the audience may send textual questions which can be answered by the presenters/moderators orally, or, if being invited by moderators, a participant from the audience can join the stage to talk and optionally share his screen.
 - The moderators get some special popup for the questions or raise hand requests so that they can process them easily (e.g. invite participant on stage, mark questions as covered if having them answered, mark for later processing or discard them).

Bringing people from the audience to the stage is not common for webinar solutions – it is a special value fitting to Circuit.

- With the ‘curtain’ feature the presenters/moderators can prepare themselves in the conference and they have full control for connecting the audience (guests). Presenters/moderators might put the audience on hold so that they can align online during a break. Or, they can disconnect the audience at the end of the public part of the conference call to do an internal wrap up among themselves afterwards. All this shall ensure professional experience and optimized workflows, both for the audience and for presenters/moderators.

- Test / Trainings mode: A Managed Service customer can allow execution of Events only at upfront scheduled times, e.g. to protect his network. In such a case the presenters and moderators might prepare in its conversation or train the Event's execution at any time with a restricted number of users. This restriction is displayed to them. If the Event is executed when scheduled then full capacity is given, of course.
- A conference summary is put after the online meeting in the conversation
 - A call summary with time, duration, moderators/presenters
 - Recording (if done)
 - Participant list
 - List of questions / raise hand requests and their processing status

Hint: Execution of large Events might create significant network load in customer network and internet gateways so that network capacity should be checked.

4.8 Data retention and Legal hold

Legal requirements might force customers to apply special treatment to data of their users.

On one hand it might be required to delete data after a given duration of storage. On the other hand special data might need to be excluded from such procedures – e.g. it might need to be preserved to react to claims.

For such purposes Circuit allows DevOps to set up a retention time for a tenant – all items in one-to-one or group conversations or communities (posts, file attachments, recordings, system items i.e. call journal, missed calls, etc) older than retention period will be deleted. Comments on the post will remain if newer than retention period. Conversation remains if there are items that are newer than retention otherwise conversation is deleted. After being empty a conversation will get deleted, too. Deleted conversations will be removed from Favorites and Flagged conversation view.

If any of the users in a conversation or community are under "Legal Hold" than there is no deletion performed but the data older than retention period is hidden from the users.

Performing such operations can be requested at Circuit Operations or Managed Services.

4.9 Data Export

Backup and restore are part of Circuit Operations or Managed Services. Additionally data exports can be provided. Import to other systems or tenants allow migration scenarios.

5. Connecting to Circuit and OpenScape Cloud

5.1 Supported Devices & Software

PC's

| Operating System | Browser | Standard System | High-end System |
|--|---|---------------------------------|--|
| Windows 7 and newer | Google Chrome - latest version Mozilla Firefox - latest version Microsoft Internet Explorer - version 11 Microsoft Edge (Realtime support planned when Chromium based) | Intel Core i3 CPU or equivalent | 2nd-generation Intel Core i5 CPU (2GHz+) or equivalent 3rd/4th-generation Core i5 processor or equivalent |
| Apple OS X 10.6 (Snow Leopard) and newer macOS | Google Chrome latest version Mozilla Firefox latest version | MacBook Air 2012 | MacBook Pro 2012 or newer, MacBook Air 2013 or newer |

Desktop Streaming / VDI Support:

| Vendor | Product | Local Computer (Terminal Client) | Remote Server | Protocol |
|--------|----------------|---|--|----------|
| VMware | VMware Horizon | VMware Horizon Client (v4.0 or later) | VMware Horizon View (version 6.0 or later) | PCoIP |
| Citrix | XenDesktop | Citrix Receiver (v4.5 or later for Windows) | XenDesktop (v7.6 or later) | ICA |

For more details and prerequisites please check our public [FAQs](#).

Mobile Devices

| Product | SW Version |
|---|--|
| iPhone 6 or newer, including iPhone X series | Latest major iOS version and previous version for a reasonable time, by the time of writing this results in: iOS 11 or newer |
| iPad mini 2, Air, Pro or newer | Latest major iOS version and previous version for a reasonable time, by the time of writing this results in: iOS 11 or newer |
| Android Phones | Latest major Android version and 2 previous versions, by the time of writing this results in: Android 7.0 or newer |
| Android Tablets | Latest major Android version and 2 previous versions, by the time of writing this results in: Android 7 or newer |

5.2 Networking requirements

Users must have a broadband network connection to the public Internet in order to use Circuit.

There are many different ways to achieve this connectivity and the majority of them should work with Circuit without any special configuration on your network devices.

Bandwidth requirements for audio, video and screen sharing

For peer-to-peer calls between Circuit clients, the requirements always involve a single stream for each media type:

- Voice calls require 64 kbit/s
- Video streams require up to 512 kbit/s
- Screen sharing stream is very variable. Limited to 300 kbit/s (static content uses less).

Minimum bandwidth required:

- Outbound from the participant: 512 kbit/s
- Inbound to the participant: 512 kbit/s

Recommended bandwidth:

- Outbound from the participant: 1 Mbit/s
- Inbound to the participant: 1 Mbit/s

With group calls the expected bandwidth usage is:

Upstream to the Circuit Conference bridge:

For group calls, there is always one audio stream per participant, which requires 64 kbit/s bandwidth.

The number of video streams equals the number of participants sending video, so the overall bandwidth requirement for a video call equals:

$$512 \text{ kbit/s} * N + 64 \text{ kbit/s} * M \quad (N = \text{number of video participants; } M = \text{number of all participants})$$

Downstream from the Circuit Conference bridge:

The bridge mixes audio in 1 stream sent to all users. Video is selectively sent to the users – the Circuit call stage of the webclient or Desktop app shows the active speakers, up to 3. So that a maximum of 3 video streams is received by one given user.

$$(512 \text{ kbit/s} * X + 64 \text{ kbit/s}) * Y \quad (X = \text{no. of active speakers sending video; } Y = \text{number of participants})$$

If screen share is used than only 1 video connection is sent to all users actually ($X = 1$). The same is valid for our mobile apps on phones and tablets (they show only 1 video participant which consumes lower bandwidth).

For a given user we have upstream to the bridge the same bandwidth need in a conference as in a peer-to-peer call.

On average, a group call involves 4 users and the bandwidth usage is around 2 Mbit/s.

These bandwidth values have to be considered as maximum or peak values because most codecs used have variable bitrates adopting to the content to transmit.

If you are using mobile Internet connectivity please be sure that you are in a zone with great coverage and using a 3G or 4G (recommended) connection.

In case of limited bandwidth users are alerted in the Circuit apps so that they might decide to disable video (and thereby screen share, too) in preference of having better audio quality. The mobile app offers alternatively the fallback option to join conference via dial-in (GSM) in case of bad call quality. Additionally a presenter is notified in case that the audience sees the content only with large delays due to missing bandwidth.

6. Account management

6.1 Unify Cloud Services' User Account Management

6.1.1 Circuit / OpenScape Cloud Tenancy Administrator

For each OpenScape Cloud (including Circuit) or each Circuit only Tenancy at least one user account must be designated as an administrator (the "Unify Cloud Services Tenancy Administrator" aka Circuit Tenancy Administrator or OpenScape Cloud Tenancy Administrator or just Tenancy Administrator). The Tenancy Administrator can assign the role of Tenancy Administrator to other Unify Cloud users of their tenancy, i.e. a company may have several Tenancy Administrators.

Tenancy Administrators are provided with additional functionality in their Circuit client to administer the relevant Circuit / OpenScape Cloud tenancy and to manage the users in that tenancy. In future administrators will get a separate client which decreases resource needs for standard users.

6.1.2 Add users

A Tenancy Administrator can add Circuit or OpenScape Cloud users to their Unify Cloud Services tenancy. Once added, a user will be able to logon to their Unify Cloud Services tenancy. An added user counts as a used seat against the contractually agreed number of seats of given subscription type. Single user or bulk operations are supported.

6.1.3 Suspending users

A Tenancy Administrator can suspend Unify Cloud Services' users. Once suspended, a user will no longer be able to logon but all data of that user is preserved. A suspended user account can be reinstated or deleted at a later date. Suspended accounts count as a used seat against the contractually agreed number of seats to which you subscribed.

6.1.4 Reinstating users

A Tenancy Administrator can reinstate a suspended user account. After being reinstated, a user will be able to logon and access its data.

6.1.5 Deleting users

A user account can be deleted by a Tenancy Administrator and thus be removed from your Unify Cloud Services tenancy, freeing up that seat to be allocated again.

6.1.6 Listing user accounts

From the account management screen, a Tenancy Administrator can see all the Unify Cloud Services' users that are allocated to his tenancy. Instead of walking through the list the admin might perform a search for a given user, too.

6.1.7 Assign and remove "admin" role

Any user can have the role of the Tenancy Administrator assigned to them or removed from them by another Tenancy Administrator

6.1.8 Telephony administration

For tenants which include only Circuit subscriptions and at least one telephony connector the Tenancy Administrators can assign phone numbers to users, change or delete them and assign a telephony connector.

For tenants with OpenScape Cloud Services the Tenancy Administrator can assign OpenScape Cloud phone numbers to users. Self management of sites and numbering plans, teams and much more is available in addition and even more to come.

6.2 User provisioning

As described above manual creation and administration of individual users (Circuit and OpenScape Cloud) or bulk operations (Circuit fields only so far) can be performed from the tenant administration.

Automation can be achieved with our Provisioning Agent for Circuit users:

- Circuit Users can be added to or deleted from your Circuit Tenancy via LDAP. In order to connect Circuit to your required Microsoft Active Directory service you have to download and install the Provisioning Agent that is located in the Administration section of the Circuit web client or Desktop App. This agent will run in your local network and build a secure bridge between your Active Directory and Circuit Tenancy. It is a small service which does not need a dedicated server and can be installed both on a Windows (e.g. as service) or Linux operating system. Field mapping from LDAP/AD to Circuit can be customized.
- Alternatively, the Provisioning Agent supports CSV import. It polls periodically a directory for user lists and imports or changes Circuit user accounts accordingly.

Complete support for OpenScape Cloud users is in preparation - planned for H1/2019.

A complete Lifecycle Solution is available from ATOS/Unify, too, the so called OpenScape Identity Lifecycle Assistant (OSILA) which can address Circuit plus Unify voice platforms and phones, too.

6.3 Subscription management

6.3.1 Contract information (view)

Tenancy Administrators are able to view the currently booked subscription package(s) of their tenancy and their usage.

6.3.2 Adding optional add-on packages

From the Circuit Website or a partner's website embedding our eStore you are able to upgrade your subscription plan and purchase any additional packages when upgrading, if available. In fact, moving from Free to paid subscriptions is the typical process.

Once you are running a paid-for subscription plan you need to contact a sales representative of Unify or your Unify partner if you want to change your subscription.

Some of the add-ons described above are available only through your Unify sales representative or your Unify partner.

6.3.3 Invoices / Billing (view)

By default, invoice and billing will be via email to the initial Circuit or OpenScape Tenant Administrator appointed when the Customer registered with the Service directly.

Customers having purchased Circuit or OpenScape Cloud Services at a Unify Cloud Services partner are often receiving instead invoices from the partner based on our billing and usage data sent to the partner.

6.3.4 Payment information (view, edit)

You have to contact a sales representative of Unify or your Unify partner in order to change or review your payment information.

7. Help and Support

7.1 Overview

Unify provides a set of standard help and support options that are available for both free and paid-for Circuit or OpenScape Cloud subscriptions as described above. Additional Services might be offered to Managed Services customers on demand. Unify may, in the future, introduce support options which may only be available if the Customer chooses a qualifying Support Plan.

Generally, support for Circuit or OpenScape Cloud is available both online through the Circuit Support Portal, the Circuit Support Conversation and by telephone. Unify partners might provide additional options for support or even take over the first line of support completely – please ask your partner for available options.

Usually, as a user of Circuit or OpenScape Cloud you can get help and support from the Circuit Self Services resources and from Unify's support team for technical, billing, and subscription issues, in the following ways:

- Circuit Self Services provide information and solutions including:
 - Frequently Asked Questions (FAQ)
 - Circuit Support Forum
 - Test call (Echo call)
- Circuit's advanced support provides User Help Desk (UHD) support:
 - Handling of service requests raised by customer or partners
 - Contact Unify's User Help Desk (UHD) by phone
 - Circuit Support Conversation (if tickets are not redirected to be sent to a partner)

7.2 Support through Circuit Self Services

7.2.1 Overview

The Circuit Self Services are the first destination to go for every Circuit or OpenScape Cloud user to find support information. Circuit Self Services are available to all Unify Cloud Services' users, regardless of their subscription plans.

The Circuit Self Services are provided as a web service through the Circuit Support Portal. There, Unify Clouds Services' users may find the latest information and answers to a variety of technical, billing, and service questions through support forums, FAQs, help articles, videos, and other help resources. The Circuit Support Forum, which is part of the Circuit Self Services, is staffed and moderated by Unify support agents.

7.2.2 Online Help Information / FAQ

From the Circuit Support Portal home page you can access Online Help Information / FAQ which provides articles created by Unify employees from different areas of expertise or answers to questions that are frequently raised within the Circuit User community (Frequently Asked Questions – FAQ).

This collaborative site encompasses the latest collective content about specific Circuit and OpenScape Cloud technical scenarios. Individual articles may include links to websites, trouble shooting videos, FAQ pages

7.2.3 Circuit Support Forum

The Circuit Support Forum – accessible from Circuit Support Portal home page, too - is intended to provide the community of Circuit Users with an online information exchange. They can post questions (e.g. technical issues) and discuss topics related to Circuit. Please consider using the forum first.

The forum is available via the Circuit Support Portal. All use of the Circuit Support Forum is governed by the [Support Forum Rules \(SFR\)](#) for Circuit.

7.2.4 Test call

Within Circuit we provide a test call feature (under Settings > Diagnostics) to allow users to test both their input/output device setup, change their devices and understand if they have any network issues that could affect the functioning of circuit in their environment. A voice or video recording can be done and played back from the Circuit system as an end-to-end test. The same functionality is offered to guests invited to Circuit meetings.

7.2.5 Technical support videos

Instructional troubleshooting videos have been developed based on the most commonly asked questions from customers. Currently, these are available in English only.

7.3 User Help Desk support

The Unify Cloud Services User Help Desk (UHD) offers support to users who are not successful in resolving an issue by using the resources of the Circuit Self Services that are available on the Circuit Portal. It is available under the following Subscription Plans:

- Circuit subscription plans "Team", "Professional" and "Enterprise"
- All OpenScape Cloud subscription plans
- Optional Add-ons subscriptions like Circuit Meeting Room CMR

Some Add-ons or connectivity on premises might need extra Support and Software Assurance to be covered – for instance this applies to on premise Telephony Connectors or SBCs where support is delivered via established ticketing tools, too. Please ask your Unify Sales partner or representative for details.

The UHD acts as a central point of contact on accepting, processing, prioritizing and managing user support requests within Circuit and OpenScape Cloud and provides the following services

- Helpdesk and fault support including incident handling for service requests submitted via the Circuit Portal
- Direct support via telephone and via a support Conversation
- Submission of feedback from Circuit and OpenScape Cloud users on their experience with Circuit

UHD support is available for:

- trial users: during the trial period
- paid-for subscription users and devices: for the time the Agreement exists

7.3.1 Service request handling

You can submit a service request to the UHD by

- Using the service request form provided on the Circuit Support Portal
- Contact the UHD by phone
- Select 'Report Issue' in the Circuit clients

7.3.2 Provision of Support Data

When you create a service request, provide as much information as possible to describe the issue. In order to help you provide the required Support Data. Once you submit a service request, the Circuit Portal will fetch basic user information from your Circuit client device and browser and include it into the service request form. The Support Data will be sent directly to the support representative.

Once you submitted the service request, a support representative will contact you.

7.3.3 Contact the UHD by phone

You can also talk directly via phone to a support representative to ask for assistance. Use this option if you cannot log into Circuit.

Use one of the following numbers to call the UHD:

- In the United States: +1 (929) 251 9225
- In Europe: +49 (911) 3088 8088

7.3.4 UHD working hours and languages

The UHD is available at the following Service Hours and Service Days:

- **"Service time 10/5"** – Service Days are from Monday through Friday.
 - Europe (CET – Central European Time): from 08:00 a.m. to 06:00 p.m.
 - USA (EST – Eastern Standard Time): from 08:00 a.m. to 06:00 p.m.
 - USA (PST – Pacific Standard Time): from 08:00 a.m. to 06:00 p.m.
- During summer same Service Hours apply for summer times.

If the service request is made outside of these Service Hours, you should use the service request form provided on the Circuit Support Portal. Within the next Service Time period, we will start to investigate the service request. You are free to attempt to call the UHD outside of Service Hours, however, Unify does not warrant that you will be able to reach a UHD engineer via phone and leave your request.

7.3.5 Technical support case handling process

After checking all relevant available service information of the Circuit Self Services area you can open a service request.

Unify's case handling process tracks, escalates, and resolves any technical issues you might have with Circuit.

Our UHD team has full responsibility for every aspect of your case, monitors your feedback, and works to deliver acceptable solutions. The UHD support agent will be your single point of contact.

Please note: Your Internet connectivity, your local network and your Internet browser and their performance are not covered by Unify's support services. The quality and performance of end-to-end communication made through Circuit relies not only on the Circuit cloud infrastructure, but also on your Internet connection, your network and your terminal devices, all of which are beyond Unify's service reach and support responsibility. Nevertheless, UHD support agents will endeavor to provide you with guidance to their best knowledge, in order to help you to allocate the probable cause of the problem and a possible solution or workaround

Opening a Case

To open a case, please have the following information ready:

- Your Circuit or OpenScape Cloud User Account data, and your Tenant ID (Customer ID),
- Detailed description of the problem with details of the effected service, impact or client e.g. iPhone app, Android or web client in with Chrome, Firefox or IE
- Indication of the activity when the problem occurred
- Software version

You will need to provide this information when the ticket for your service request is created, or during a support call Unify UHD team will ask those questions for a first evaluation and initial assistance to your problem.

When opening a case on the Circuit Support Portal, some information is automatically populated in the form.

Assignment

Once your support case has been submitted, Unify UHD team engineer will manage the resolution of your case and may assign the issue to one of Unify technical engineers.

Investigation

While working to resolve an issue, the UHD team engineer might need to access information on your Unify Cloud Services user account in order to analyze the problem. Or, he may contact you again to let you reproduce the problem in order to get additional information, e.g. a log file.

If the problem is related to the back-end configuration of Circuit or OpenScape Cloud, the UHD team engineer will forward the problem to our operations team.

Escalation

If the UHD team engineer cannot solve your case, he will escalate it to the operational engineering and / or to Unify's 3rd level support team for further analysis.

Resolution

The UHD team engineer will usually close a case only after all parties agree the issue has been resolved either via a workaround solution or software bug fix. Exceptions might apply e.g. if an issue can't be reproduced. Software related bug fixes or major updates to Circuit and OpenScape Cloud will be provided based on Unify's update and upgrade solutions. If your case requires the introduction of a new feature capability or enhancement, Unify Circuit product management and software engineering will handle feature change request.

7.3.6 Submit Feedback

You can contact the UHD to submit Feedback you want to share with Unify.

The best way to provide Feedback is to start a Conversation with the UHD.

To submit your Feedback:

- Simply click on the arrow next to your account name on the top right of your client screen and select "Report Issue". This will start a Conversation with a support representative of the UHD.
- Fill in a topic and describe your Feedback with as much additional information as you like. Attach any file you want to share with us, like documents, pictures or screenshots.

After you submit your request, a support representative will contact you by a reply message within the started Conversation.

7.3.7 Security and Confidentiality of Information

Please refer to the Terms of Service (TOS) for Circuit and OpenScape Cloud, and related documents.

7.4 Shared support responsibilities

Unify understands that receiving timely technical support from qualified professionals is a key aspect of cloud services. Equally important is the critical role that the customer's IT plays in the support of its users, including, but not limited to, support its clients and internet connectivity issues.

7.4.1 Customer support role

In order to help resolve a problem that a user of Circuit or OpenScape Cloud may encounter the Customer and each of its Unify Cloud Services' users will support the problem resolution process by

- Collaborating with the UHD
- Sending log files and all other necessary information needed to investigate the problem
- Ensuring proper operational status of their own IT infrastructure and connectivity to their ISP

Each Circuit and OpenScape Cloud user is expected to use first the Circuit Self Service support resources to resolve its support issues. However, if the Unify Cloud Services' user is unable to resolve issues with the help of these Circuit Self Help support resources, the UHD should be contacted.

Each customer and each Unify Cloud Services user is expected to use the Unify Cloud Services for its designed purpose. Posting spam, harassing or illegal content, spam over internet telephony or any other outright abuse of Unify Cloud Services is not permitted by Unify.

Each Customer's Tenant Administrator will support Unify in enforcing the Accepted Use Policy (AUP) by providing the following upon request of Unify:

- Identification of the Unify Cloud Services in the Customer's Circuit and OpenScape Cloud Tenancy who distributed the User Content that violates the AUP
- Deleting the violating User Content on behalf of the Circuit User

7.4.2 Unify support role

Unify support's role is to:

- Troubleshoot and provide technical guidance for customer issues and escalations.
- Gather and validate information related to specific service requests.
- Provide issue coordination and resolution management.
- Maintain communication with the administrators to help ensure that issues are addressed on an ongoing basis.

7.5 Languages

Help and Support resources are available in the following languages:

| Topic | Language |
|-------------------------------|-----------------|
| Online Help Information / FAQ | English, German |
| Forum | English, German |
| User Help Desk support | English, German |
| Sales and contracting support | English, German |
| Videos | English |

8. Service Updates

8.1 Overview

With Circuit and OpenScape Cloud you get product updates – like new Conversation features, more integrations and new collaboration or new telephony features – as they become available.

Service updates will be implemented by Scheduled Maintenance activities and are usually done at times with typically low usage of the service. These Scheduled Maintenance activities will be announced on Circuit Portal and in the Circuit app.

8.2 Notifications sent for major updates

Before Unify releases an update to Circuit and OpenScape Cloud, it is thoroughly tested and evaluated for performance and scalability.

For major updates, all Circuit and OpenScape Cloud users will be informed about the upcoming service upgrade and the main enhancements for user's experience by an announcement on the Circuit Portal and in the Circuit app.

When testing is complete, the update and the anticipated public rollout date are announced on the Circuit Portal and in the Circuit app for the Scheduled Maintenance time frame, within which the availability of Circuit may be affected by that maintenance activity.

9. Service Continuity

Unify Cloud Services are delivered by highly resilient systems that help to ensure high levels of service. Technical and organizational measures to provide for service continuity are an integral part of the system design for Circuit and OpenScape Cloud. These measures enable Unify Cloud Services to recover quickly from unexpected events such as hardware or application failure, or other incidents that affect users.

9.1 Ensuring data availability

Multiple levels of data redundancy are implemented, ranging from redundant disks to guards against local disk failure to continuous, full data replication to a geographically diverse data center.

9.2 Dedicated support

The Circuit support organization plays an important role in providing Customers with business continuity. That Circuit support organization is a multi-level structure including UHD, 1st / 2nd level support and development teams. These teams have a deep knowledge of Circuit and its underlying infrastructure as well as direct access to Unify experts in architecture, development, and testing.

The Circuit multi level support structure is designed to offer fast resolution times and to provide a channel for your voice to be heard. Feedback from you provides input to the planning, development, and operations processes.

9.3 Incidents

Incidents occur when a portion of a service infrastructure becomes unresponsive and unavailable to customers. Outages of a service may be caused by hardware or software failure in the Unify data center, a faulty network connection between the Unify Cloud Services' user and Unify, or a major challenge such as fire, flood, or regional catastrophe. Most Incidents can be addressed using Unify technology and process solutions and are resolved within a short time. However, some Incidents are more serious and can lead to long-term outages.

There are two types of Incidents:

- **Scheduled Maintenance**
Scheduled Maintenance is a planned Downtime that results from Unify-initiated service updates to the infrastructure and software applications. Unify typically plans Scheduled Maintenance windows for times with typically low usage of the service.
- **Unplanned Downtime / Emergency Maintenance**
Unplanned events may occur when the Circuit Core Service are unavailable or unresponsive and may cause unplanned Downtimes. The same applies if the affected service is unavailable due to Emergency Maintenance.

9.4 Notification Policy

Unify recognizes that timely and accurate communications are critical for customer organizations and partners if a service impacting event or an unplanned Downtime occurs.

Downtime notifications on the Circuit Portal inform Unify Cloud Services' customers and Users about service infrastructure work that might affect the Unify Cloud Services' Core Services.

Downtime notifications will be provided for both, Scheduled Maintenance and Unplanned Downtimes / Emergency Maintenance.