

CCP PBX Integration Technical Requirements



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v1.0

Customer Facing



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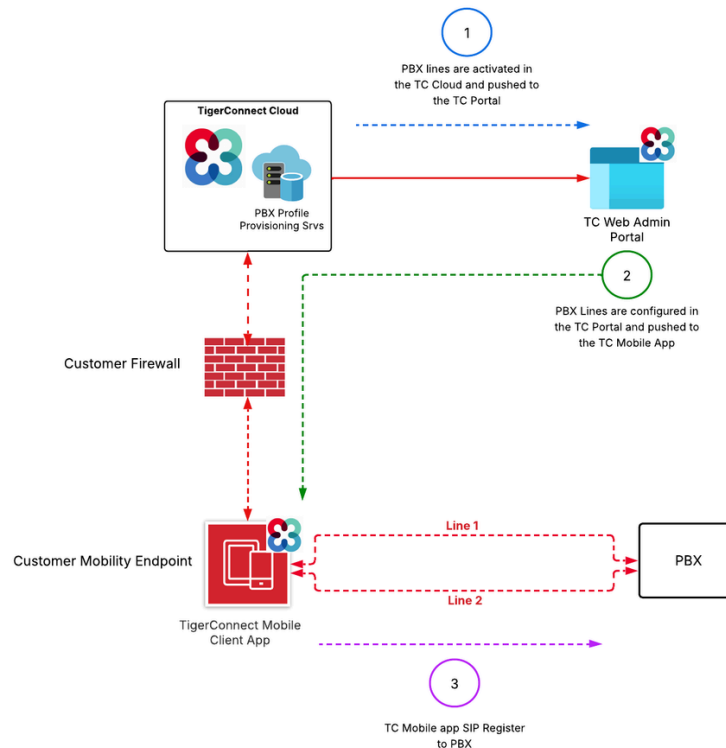
Introduction [↗](#)

The **TigerConnect CCP PBX Integration** feature enables seamless communication for healthcare professionals by integrating the TigerConnect App with customer-provided on-premises or cloud-based telephony systems. This integration allows users to make and receive enterprise voice calls directly within the TigerConnect App, eliminating the need for separate desk phones or third-party dialer apps.

Designed to streamline communication workflows, this solution empowers teams to stay connected through a unified platform that supports secure, high-quality voice calling. By leveraging SIP (Session Initiation Protocol) registration, the TigerConnect App communicates directly with the customer's telephony system, ensuring reliable call routing and a consistent enterprise calling experience across all devices.

To ensure successful deployment and optimal performance, the following technical requirements must be met by the customer's IT and telephony infrastructure.

Overview



Network and Connectivity Requirements [🔗](#)

Reliable and high-quality network connectivity is essential for optimal voice call quality and SIP registration stability.

Wi-Fi Network Requirements [🔗](#)

- Wi-Fi must be enterprise-grade and properly configured for voice traffic.
- Minimum signal strength: **-65 dBm** or better.
- Packet loss: **< 1%**
- Jitter: **< 30 ms**
- Latency (one-way): **< 150 ms**

Network Quality of Service (QoS) [🔗](#)

- QoS settings should prioritize SIP and RTP traffic.
- VLAN segmentation is recommended for voice traffic isolation.
- SIP and RTP traffic must not be blocked or modified by firewalls, NAT, or ALG (Application Layer Gateway) unless explicitly configured.

Firewall Considerations [🔗](#)

- **TigerConnect Provisioning**
 - Port: **TCP 443** between TC Apps and TC Cloud Systems.
- **SIP (Signaling):**
 - Port: **UDP 5060** between TC Apps and Telephony System (PBX)
 - Port: **TCP 5060** between TC Apps and Telephony System (PBX)
 - Port: **TCP 5061** between TC Apps and Telephony System (PBX)
- **RTP (Media):**
 - Dynamic UDP port range, often something like:

- UDP 10000-20000 (check your PBX configuration)
- Some systems use narrower ranges (e.g., 16384-32767)

Summary Table

| Traffic Type | Protocol | Ports | Direction | Action |
|-----------------|----------|-------------------------------|----------------------------|----------------|
| TC Provisioning | TCP | 443 | Outbound | Allow |
| SIP Signaling | UDP/TCP | 5060, 5061 | Internal only | Allow |
| RTP Media | UDP | 10000–20000 (customizable) | Internal only | Allow |
| SIP ALG | N/A | N/A | Router/firewall setting | Disable |

SIP Configuration Requirements [🔗](#)

To establish and maintain a secure and reliable SIP registration between the TigerConnect App and the customer's PBX, the following configuration parameters must be provided:

SIP Domain

- IP address that the TigerConnect App will register to.
- Must be accessible from the mobile devices using the TigerConnect App

SIP Credentials

- Username: SIP user or extension number.
- Password: Corresponding SIP authentication password.
- Outbound Proxy (if applicable): Required if the PBX requires traffic to pass through a specific proxy server.

SIP Port

- Default SIP port is 5060 (UDP/TCP) or 5061 (TLS).
- If a custom port is used, it must be communicated and opened for bi-directional communication.

PBX Compatibility [🔗](#)

The TigerConnect App uses standard **SIP** protocol to register as a third-party softphone. As such, it is compatible with **any telephony system that supports SIP third-party device registration**. This includes both on-premise and cloud-based PBX platforms.

The following PBX systems are commonly supported (but not limited to):

- Cisco Unified Communications Manager (CUCM)
- Avaya
- Mitel
- Any other SIP-compliant PBX with support for third-party SIP endpoints

Considerations

- The PBX must allow SIP registration from third-party devices (softphones, mobile apps, etc.).
- Appropriate licensing must be available

This broad compatibility ensures that organizations can leverage existing telephony infrastructure while enabling mobile-first communications through TigerConnect.

PBX Licensing Requirements [🔗](#)

In order to successfully integrate the TigerConnect App with the customer's PBX, the PBX must support the creation and registration of third-party SIP devices (also referred to as SIP softphones or SIP extensions). This capability may require specific licensing depending on the PBX platform.

Considerations

- The PBX must include or be licensed for the creation and use of third-party SIP endpoints.
- Each user intending to use the TigerConnect App for enterprise calling must have an associated SIP extension or device license on the PBX.
- For systems that require it (e.g., Cisco, Avaya, Mitel), customers must provision:
 - SIP device/user licenses
 - Softphone licenses (where applicable)
 - Third-party endpoint licenses if distinct from native client licenses

Push Notification Service for IOS [🔗](#)

For iOS devices to properly receive incoming calls through the **TigerConnect CCP PBX Integration** feature, an additional Push Notification Service is required. This service ensures that the app can receive notifications about incoming calls even when it is not actively running in the foreground.

We offer two deployment options for the Push Notification Service:

1. **Cloud-based Push Notification Service** – Ensures seamless integration and minimal configuration.

Communication with all.sipjs.acrobits.cz and reg.acrobits.cz must be allowed on the following ports.

| Traffic Type | Protocol | Ports | Direction | Action |
|--------------------|----------|-------|-------------------------|--------------|
| App registration | TCP | 443 | Outbound | Allow |
| Push/SIP Heartbeat | UDP/TCP | 4998 | Outbound | Allow |
| Push | UDP | 24998 | Outbound | Allow |
| SIP Signaling | UDP/TCP | 5060 | Inbound/Outbound to PBX | Allow |

2. **On-premises Push Notification Service** – Deployed within the customer's infrastructure, with the customer responsible for providing both hardware and software.

Summary Table [🔗](#)

| Requirement | Specification |
|------------------------|--|
| SIP Domain | IP of PBX |
| SIP Credentials | Username/password for SIP registration |
| Network | Strong Wi-Fi with <1% packet loss, <150 ms latency |
| SIP Transport | UDP/TCP (5060), TLS (5061) |

| | |
|----------------------------|---|
| PBX Compatibility | Any SIP-compliant PBX supporting third-party SIP devices |
| PBX Licensing | SIP device/user licenses, Softphone licenses |
| Device Requirements | iOS 2 most recent major versions or Android 5 most recent versions with the latest TigerConnect App installed |