

Halo Cloud overview

Halo Cloud is a collection of API products and meta-level APIs that enable easier integration with practice management systems (PMSs) via the cloud.

All Halo Cloud APIs are RESTful APIs accessible through HTTPs that return JSON-encoded responses and use standard HTTP response codes.

Our long-term goal is to offer a range of API products for various use cases, bridging the gap between various practice management systems. Our current product range is:

SQL Passthrough API

The SQL Passthrough allows integrators to run standard SQL queries on practice databases via our cloud API, rather than needing to develop, install, and maintain a local agent for connecting to PMS databases.

Being an unopinionated passthrough API, the SQL Passthrough API also allows maximum flexibility regarding which PMS data and functionality you can access. Designed to allow integrators to switch their current products to Halo Connect with minimal work, the SQL Passthrough API is also perfect for reducing the development costs of new integrations.

[Read more about the SQL Passthrough API](#)

Bp Premier API

The Bp Premier API is an upcoming API product which enables integrators to interact with Bp Premier practice databases without needing to write any SQL. This API includes collections of endpoints based on specific use cases, and is designed to simplify integration development for integrators.

The initial release of this API will include the following collections:

Collection	Description
Appointments	For booking and managing appointments
Patients	For adding and managing patients

Collection	Description
Users	For managing practice users (e.g. nurses and doctors)
Clinic Admin	For managing practice-level data like opening hours and days closed

[Read more about the Bp Premier API](#)

Definitions

Many of the following terms are explained in more detail elsewhere in these docs. The following is just a quick reference guide.

Term	Definition	More info
Practice server	A server which supports one or more practices, on which a PMS such as Bp Premier is usually installed.	
Site	A practice server and the practice(s) which rely on it.	
Halo GUID	Halo Connect's unique identifier for each practice server with Halo Link installed.	Link
Halo Link	Halo Connect's local agent which enables communication with on-premise PMS databases.	Link
Halo Cloud	Halo Connect's collection of API products and meta-level API endpoints.	
Authoritative server	The main server for a practice which integrators can connect to.	Link
Non-authoritative server	Secondary server(s) for a practice which integrators can not connect to.	Link

Using Halo Cloud

Integrator requirements

To use Halo Cloud, you will need:

- A subscription key for staging or production (per your agreement with us)
- The Halo Link installer, for installation on development or testing machines during development
- A test Bp Premier instance, for Halo Link to connect to for development and testing purposes

Warning

Please ensure your Halo Connect subscription key is kept secret. It should be stored in a secure manner, and only shared within your organisation as needed. Halo Connect staff will never ask for your subscription key.

If you think your subscription key has been compromised, please contact us immediately so we can enact security precautions and mitigate any potential risks.

Environments

Halo Connect has two public environments:

- **Staging:** for development and testing
- **Production:** for live use with practices

Integrators who are testing or developing for Halo Connect products will be given a subscription key for staging. This restricts access to "practice servers" or Halo Link installations which are also configured for staging. This is a security precaution to prevent accidental interactions with live practice servers.

When you are ready to move to a production subscription, please reach out to the Halo Connect team. There are a few steps to the process, including:

- Finalising the commercial agreement for a production subscription
- Analysis of your planned API usage, to ensure provisioning
- If possible, a beta test of your integration running as it would in production for at least one day on one practice server, to ensure all factors have been accounted for
- Coordination of a rollout strategy, to ensure both parties can manage and monitor the rollout over time

Halo Cloud authentication

Authenticating with Halo Cloud requires integrators supply their subscription key with each POST, either as:

- A **header** with the name `Ocp-Apim-Subscription-Key`
- A **query parameter** with the name `subscription-key`

PMS database authorisation

Halo Connect does not handle PMS database access authorisation. What data integrators can access is managed by the respective PMS (such as Bp for Bp Premier). For this reason, using Halo APIs requires integrators to have onboarded with the relevant PMS and for database credentials to have been created for the integrator's access requirements.

Originally, our APIs required integrators pass their PMS credentials to Halo Connect as part of any API requests.

As of September 2023, this is no longer required. Instead, Halo coordinates with PMS providers to securely store an integrator's credentials, and enriches queries with the appropriate credentials. This reduces the risks of a malicious actor sniffing an integrator's database credentials from queries sent via Halo.

We are working with integrators who onboarded prior to September 2023 to gradually migrate everyone to the new system. Please [contact support](#) if you have any questions or concerns.

If you find that your database access is not sufficient for your product, please reach out to the relevant PMS to discuss expanding your access.

Halo Link installation

[Halo Link](#) is an server-based local agent that takes queries from Halo Cloud and executes them on the nearby PMS database. To develop with or test Halo Cloud, integrators will need to install Halo Link in their own development or test environment using the Halo Link installer supplied with your subscription.

For more information, see the [Halo Link docs](#).

API concepts

Identifying practices by Halo GUID

To send a query to a practice or development or test environment, you will also need its Halo GUID.

- **For development and test environments:** The Halo GUID for each environment can be retrieved from the [Halo Link log files](#).
- **To retrieve the Halo GUID for a practice running Bp Premier:**
 - a. Ask the practice for their **Bp Site ID**
 - b. Use the Bp Site ID to retrieve their matching **Halo GUID** using the [Get sites API endpoint](#) Note that this API only returns the Halo GUID for the practice's **authoritative** server.

Authoritative vs non-authoritative practice servers

Some practices run multiple servers, often temporarily during a server migration or permanently as part of a backup system. Sometimes this results in Halo Link being installed on multiple servers for one practice.

However, only one server per practice should be contactable by integrators. We call that server the **authoritative** server, and any secondary servers **non-authoritative**.

Hint

If a query returns a **403 Forbidden error** it is likely due to server changes at the practice which have resulted in the authoritative server changing. Please [re-retrieve the practice's Halo GUID, as above](#).

Read more...

[SQL Passthrough API](#)[Bp Premier API](#)