AnyConnect

The *Smarter* Camera Platform

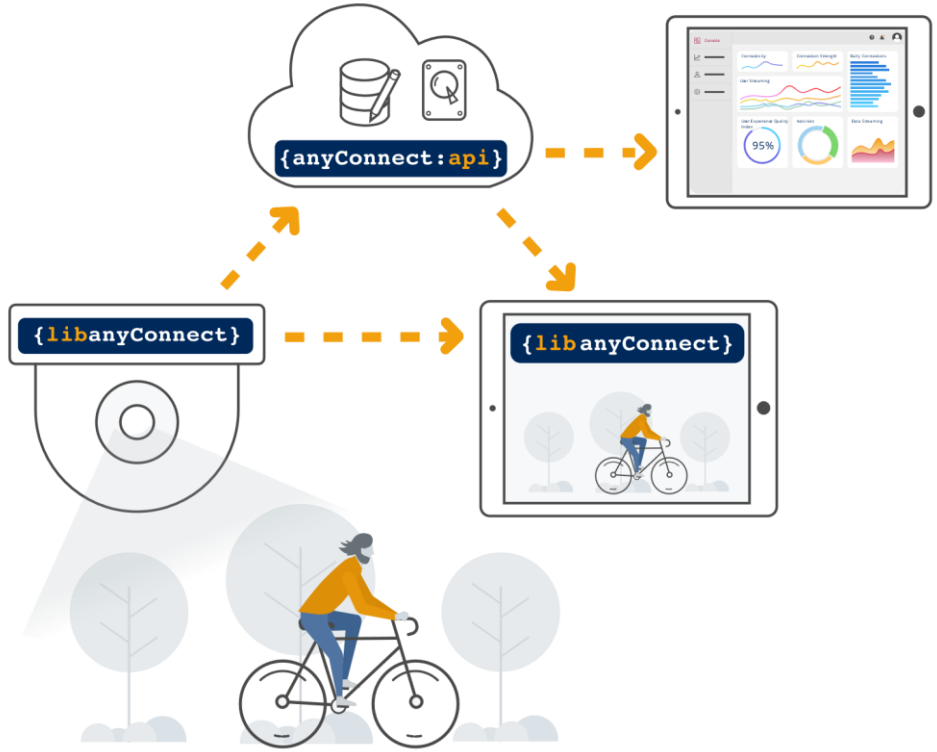
Smarter Camera Platform Architecture

Version 1.0 | As seen on Smarter Camera Platform Architecture

A deep dive in AnyConnect Smarter Camera Platform Architecture

AnyConnect Smarter Camera Platform, with its field proven, industry leading functionalities, like Device Onboarding, Access Control, Instant Connections, Adaptive Bitrate Streaming, Recording & Playback, Console & Video Analytics, is a great choice for camera & sensor systems working on difficult networking conditions (Wi-Fi & Cellular networks) as well as with Edge AI inference.

On top of its cloud part, the platform interacts with cameras, sensors and computers (iOS & Android devices as well as Web Client & Windows, Linux & MacOS).



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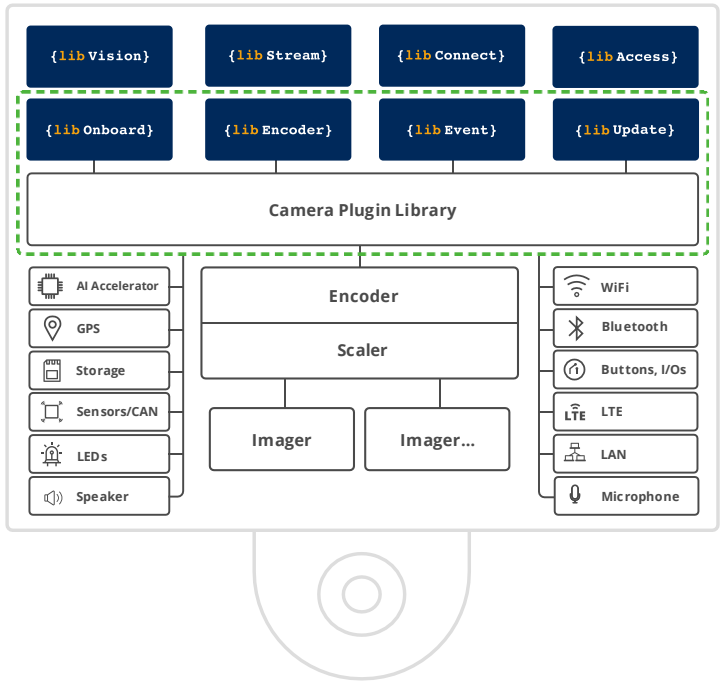
Smarter Cameras & Sensors



Cameras and sensors fitted with AnyConnect libraries connect securely and automatically to the smarter camera platform. It enables all the great features offered by the platform to work on the cameras and sensors.

Requirements

- AnyConnect libraries support Linux, meaning that devices should run Linux. There are a few other requirements:
- C++ 11 and above
- GCC/G++ 4.9 and above
- Exception Support: std::exception, std::future and std::async
- OpenSSL v1.x and above

There are two types of libraries for these devices: **plugin libraries** and **platform libraries**:

Plugin Libraries

Plugin libraries (lib) exist to facilitate the integration of a device in AnyConnect Smarter Camera Platform. The Plugin Libraries integrate the specificities of the camera/device, not unlike a “driver”, and it links with the Platform Libraries.

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Here is the list of Plugin Libraries:

- libOnboard
- libEncoder
- libEvent
- libUpdate

Platform Libraries

Platform Libraries enable cameras and devices to be part of AnyConnect Smarter Camera Platform, with all its advanced features, like, like Device Onboarding, Access Control, Instant Connections, Adaptive Bitrate Streaming, Recording & Playback, Console & Video Analytics.

Here is the list of Platform Libraries:

- libAccess
- libConnect
- libStream
- libVision

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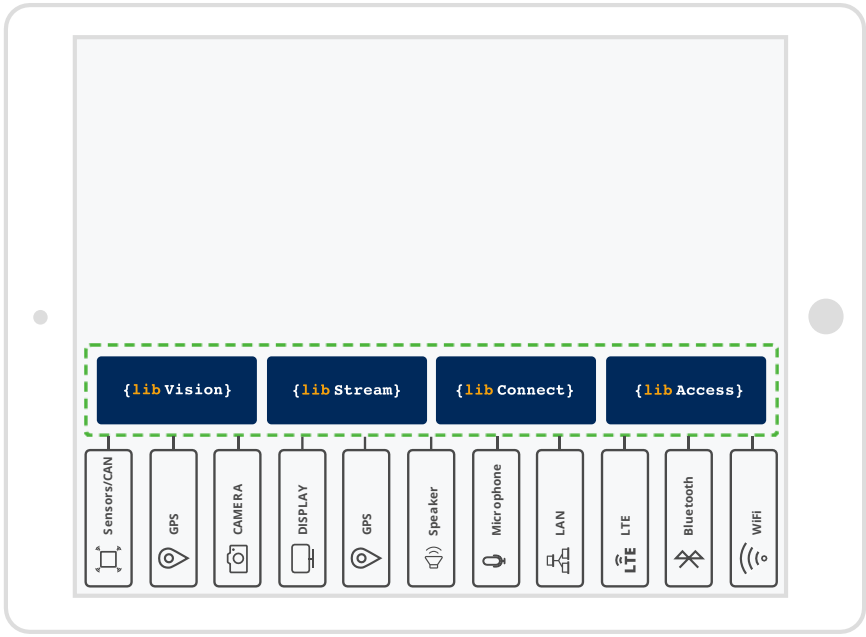
Viewer Apps

Access to Audio, Video and Metadata in AnyConnect Smarter Camera Platform is provided by AnyConnect Platform Libraries. In this context, they can run on iOS & Android devices as well as Web* clients & on Windows*, Linux*, MacOS*).

AnyConnect Platform Libraries provide access to Audio, Video, Metadata and much more to your own application.

Another option for fast deployment is to use AnyConnect vertical applications. These applications can be skinned according to your brand guidelines.

* Available upon request



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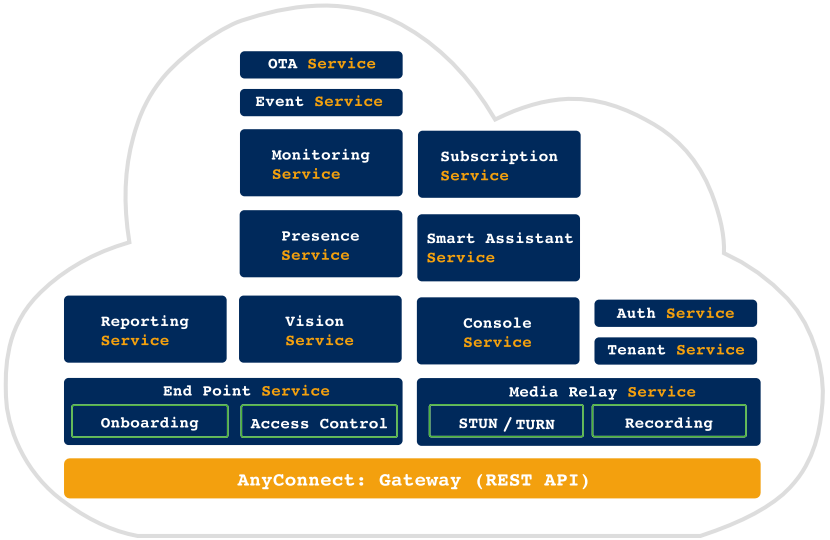
Web Services



AnyConnect Web Services provide services such as, Video & Audio Recording, Access Control, Cloud Inference, over-the-air updates, STUN TURN ICE, etc.

AnyConnect Cloud is comprised of the following microservices:

- Auth Service
- Console Service
- Endpoint Service
- Event Service
- Media Relay Service
- Monitoring Service
- OTA Service
- Presence Service
- Reporting Service
- Smart Assistant Service
- Subscription Service
- Tenant Service
- Vision Service

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AnyConnect Gateway is a REST API based service providing an interface for integration with 3rd party systems.

AnyConnect Cloud provides a Console as well, enabling a complete view of the system with a granularity down to each connection.

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Frequently Asked Questions

Some industries require complex architectures at the edge, like integrating a camera with other edge devices. Where could I find more information about this?

You can find more information about integrating Dashcams with vehicles here.

Is it possible to integrate 3rd party cameras without AnyConnect libraries, like ONVIF & RTSP cameras?

Yes, it's possible upon request. AnyConnect libraries could be used on a Linux computer as a gateway. This Gateway interfaces ONVIF (Profile S & T) & RTSP cameras and AnyConnect Smarter Camera Platform. Please note that all Platform features and capabilities will be available.

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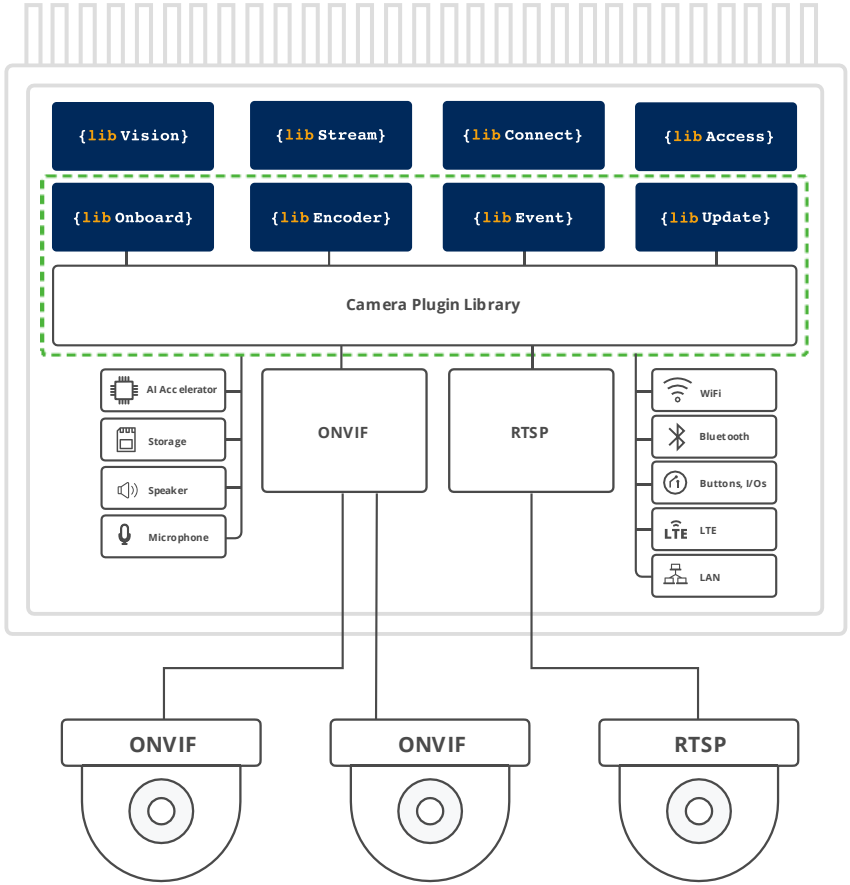

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What if I have my stream manager/use it for something else than video/audio?

libAccess and libConnect are responsible for the connectivity (low latency, best route, access control etc.). These libraries will enable your product to transport whatever needs to be transported.

I'm looking for a very simple and lightweight system to playback video in any kind of clients. Is it possible?

Yes, AnyConnect offers video playback & live (upon request) through HTML5. There are some limitations, mostly related to instant connections.

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