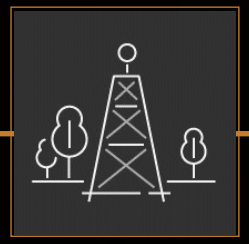
Choosing the right streaming method

	Streams	WebRTC
Cloud media storage Analysis with AI/ML services	Yes	No
Bidirectional streaming	No	Yes
Typical latency for live playback	3-5 seconds	Less than 1 second
Number of simultaneous playback sessions	Up to about 100 sessions	Up to 10 sessions
SDK for camera devices	Producer SDK	WebRTC SDK

WebRTC technology overview

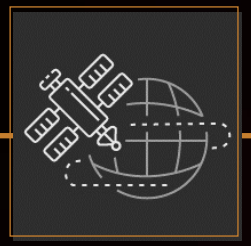
WebRTC is not “just” a media streaming protocol. It is an open standard for real-time communication with technology specifications for:

Signaling



Exchange connection metadata

Connectivity



Establish peer-to-peer connectivity

Media delivery

Low-latency exchange media and arbitrary data

Encryption

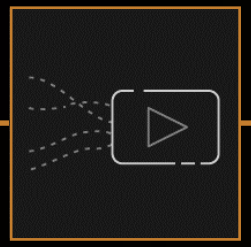
End-to-end encryption

Kinesis Video Streams with WebRTC

WebRTC

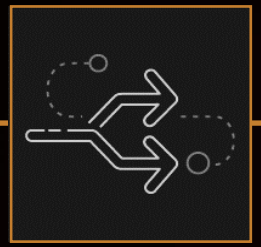
Stream live media with ultra-low latency and enable two-way interactivity for millions of camera devices

Low-latency live media streaming



Peer-to-peer audio and video live streaming with sub-1 second latency for playback

Real-time, two-way interactivity

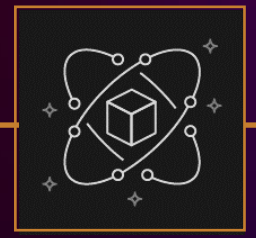


Exchange audio, video, and data between devices, mobile, and web apps for real-time, two-way interactivity

Standards compliant

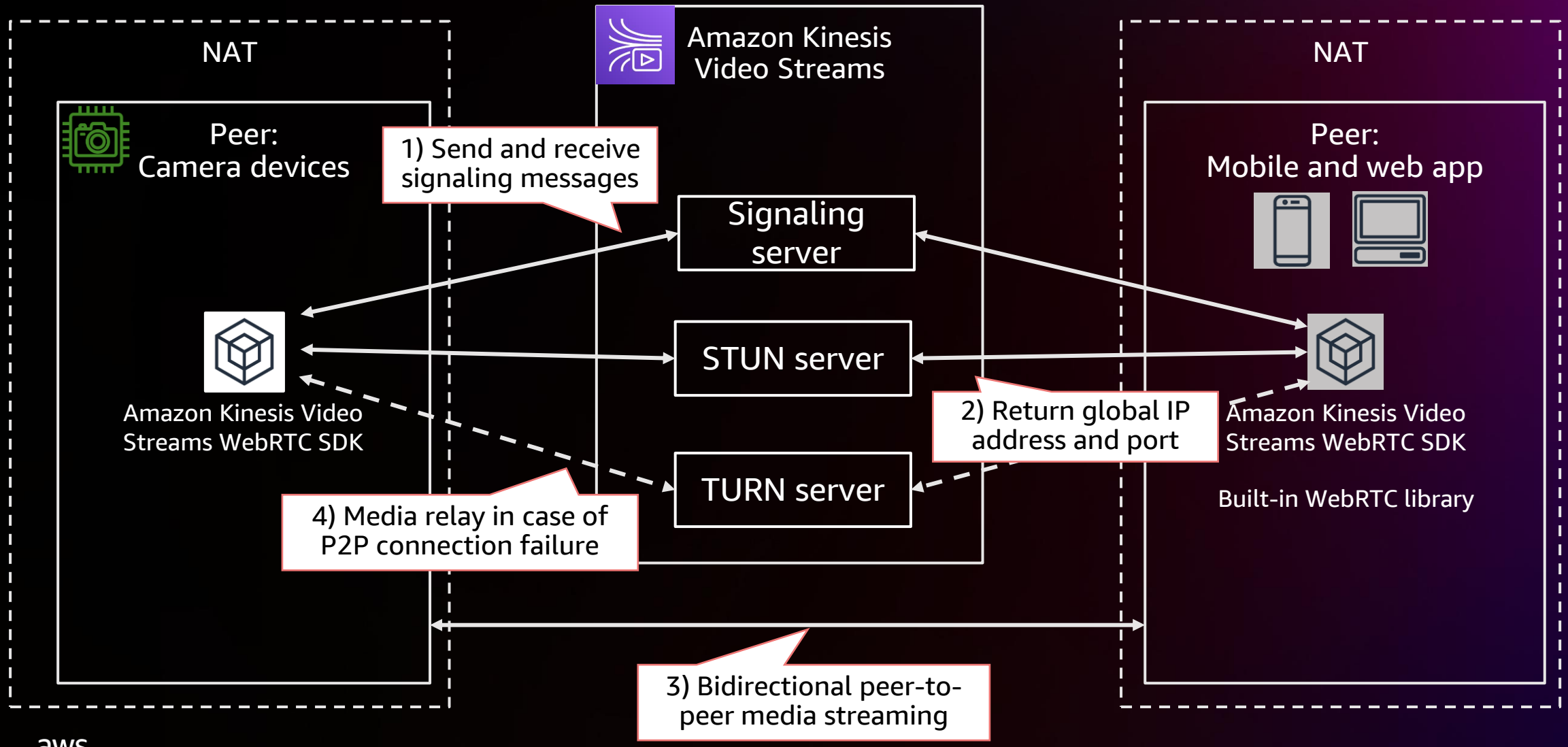
Compliant with web and mobile platforms for easy plugin free playback

Fully managed



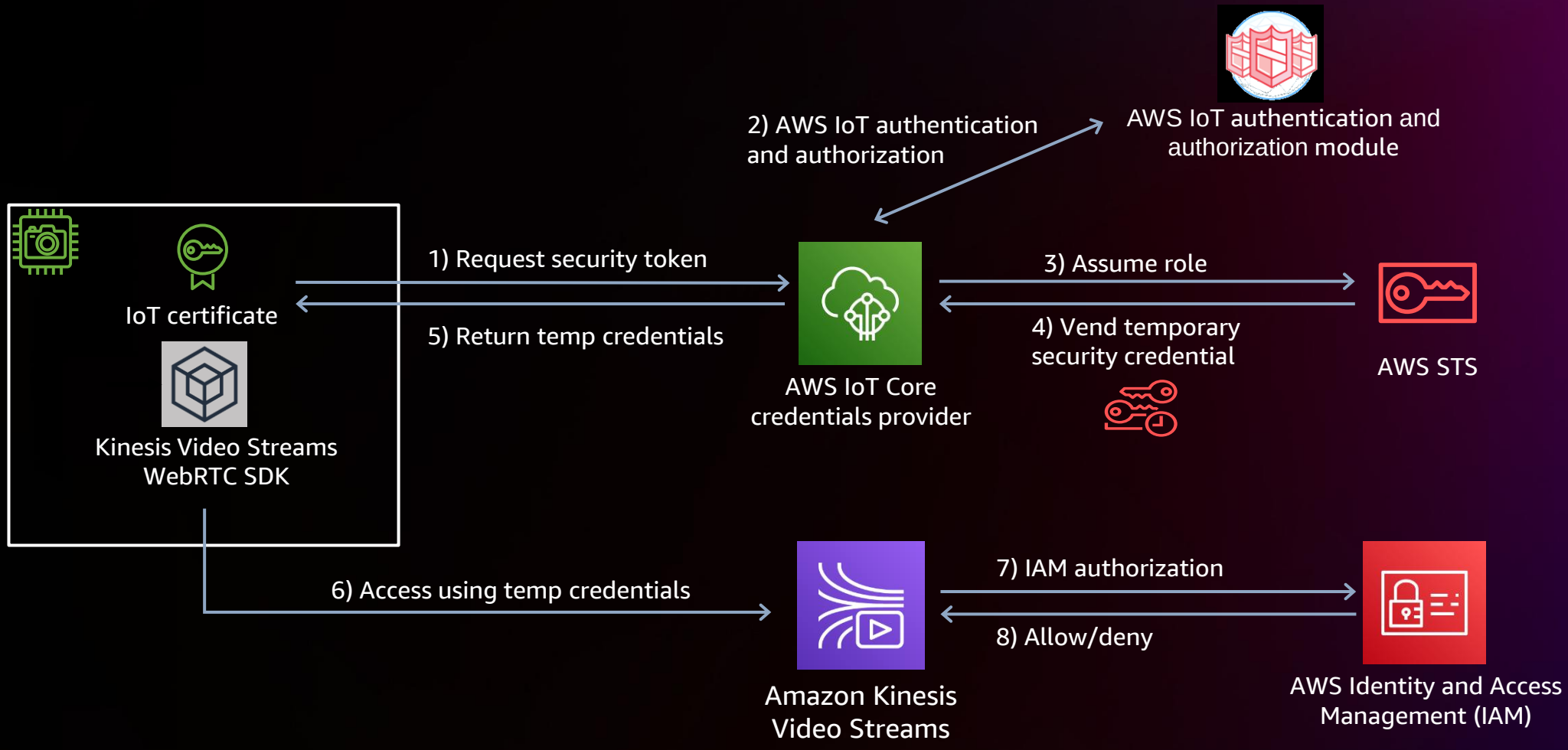
Fully managed WebRTC signaling, TURN, and STUN services with easy to use SDKs

WebRTC connection flow



How to authenticate camera devices

WebRTC

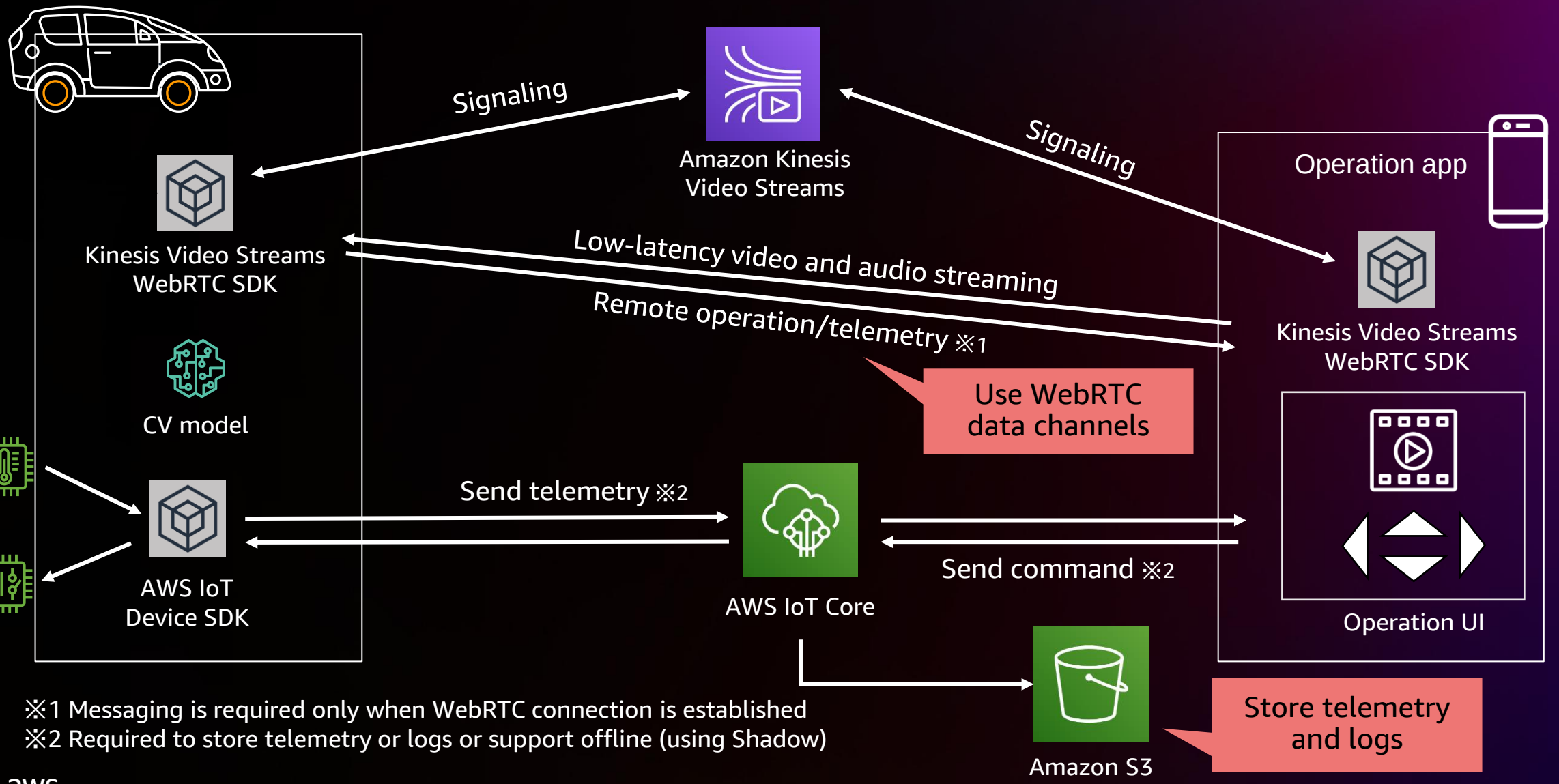


https://docs.aws.amazon.com/iot/latest/developerguide/authorizing-direct-aws.html

Key use cases and architectures

Automotive and robotics

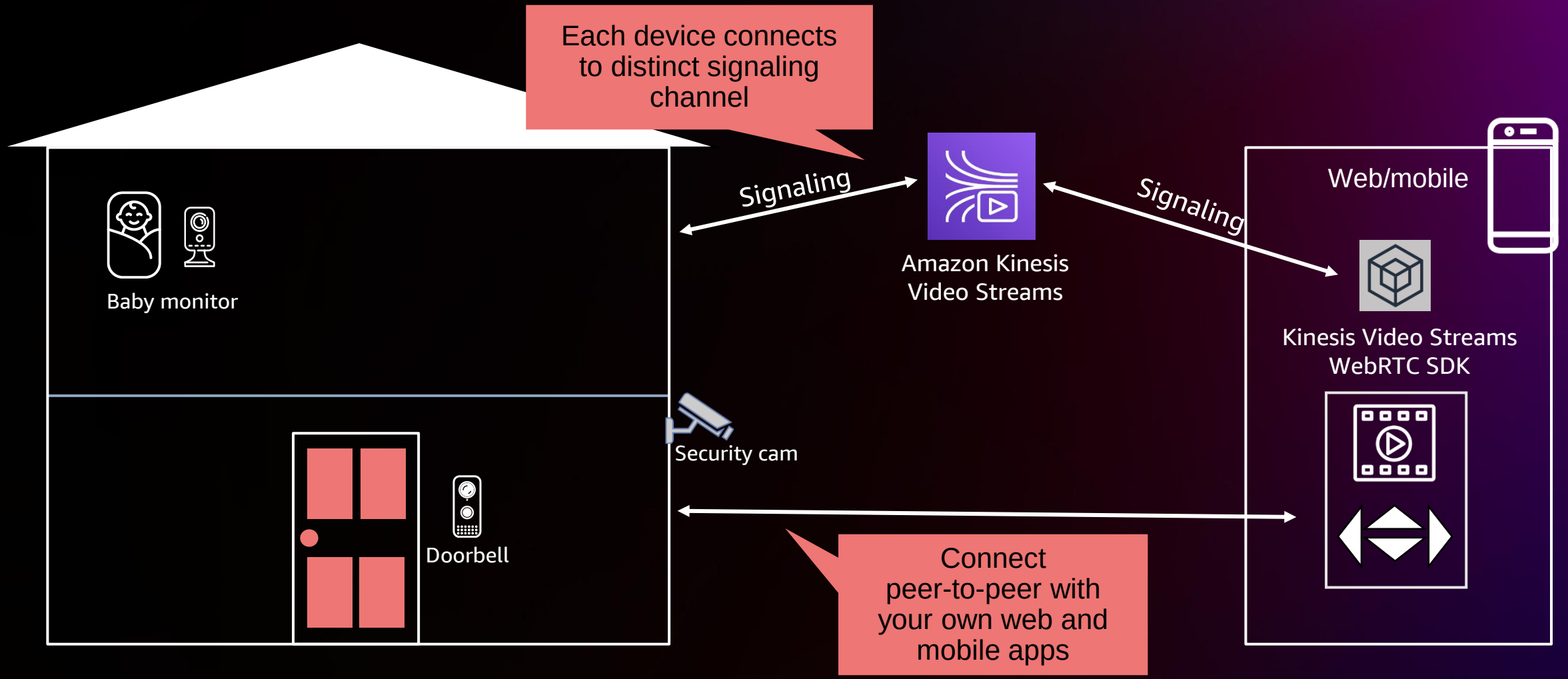
WebRTC



※1 Messaging is required only when WebRTC connection is established
※2 Required to store telemetry or logs or support offline (using Shadow)

Smart home

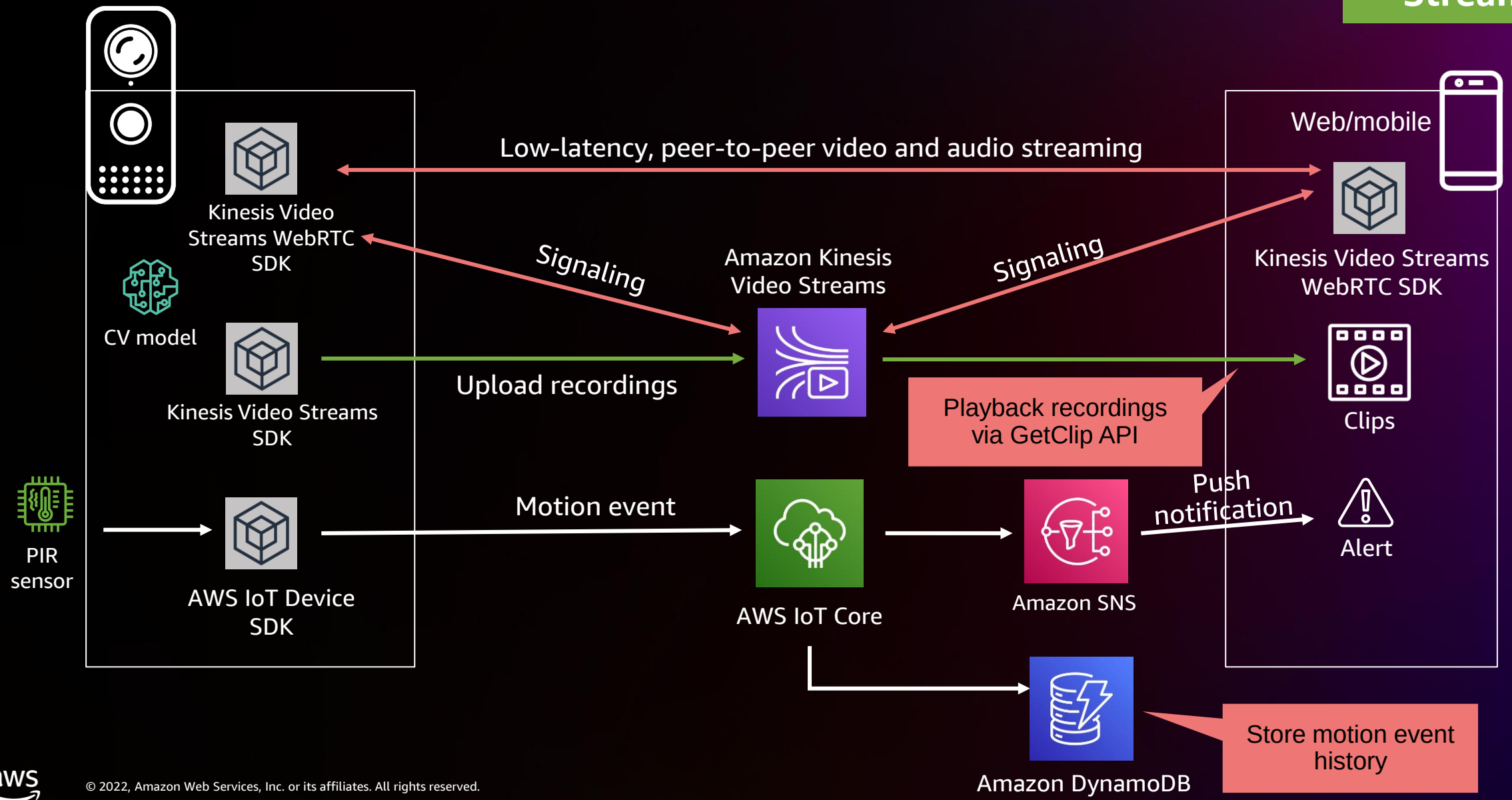
WebRTC



Smart home

WebRTC

Streams



Connect to Echo Show

WebRTC