

Transforming Inmate Communications with a Cloud-Based System



Project —
Case-Study

Introduction

As their legacy PBX systems began to show limitations in scalability, control, and maintenance, the client started exploring a more future-ready alternative. They needed a cloud-based telephony system built specifically for the correctional environment; something flexible enough to support unique workflows, secure enough to meet compliance standards, and scalable enough to handle daily call volumes across facilities.

That search led to a long-term collaboration with Ecosmob, beginning with a small project in 2016 and evolving into a dedicated development partnership that continues to grow today.

The Client

Our client has been delivering specialized telecommunication solutions for correctional facilities in the U.S. since 2012. Their focus is on bridging the communication gap between inmates and their loved ones, while also giving correctional administrators full control over usage, monitoring, and security. The company has earned a reputation for reliable, inmate-focused services, but as their operations grew, so did their need for a more adaptable, scalable technology infrastructure.



Why The Client Chose Ecosmob

Ecosmob first worked with the business in 2016 on a smaller project. After the successful delivery, the client flew to our development center for a one-week workshop to map out their future vision. That collaboration led to the decision to establish a dedicated team for full-time development and long-term product expansion.

Ecosmob's ability to understand niche requirements, recommend scalable architecture, and move quickly with custom development proved to be a key differentiator in earning the client's long-term trust.

The Project **Requirements**

The client's legacy setup relied on hardware-based, on-site PBX systems deployed across facilities.

These systems were:

- Difficult to maintain
- Inflexible to customize
- Lacking in advanced features tailored to the correctional environment

They recognized the need to move to a centralized, cloud-based, multi-tenant platform that could scale, evolve, and deliver more intelligent communication control.

A completely custom approach was required, one that integrated with analog prison hardware, supported modern features like video visitation and chat, and allowed deposits, monitoring, and administration through multiple touchpoints.



The **Challenge**

Several complex requirements and technical hurdles had to be addressed:

Kiosk System Development

A first-time venture into kiosk integration and hardware-software communication.

Inmate App as Launcher

The Android app needed to function as a launcher, locking down the device and allowing only authorized functions.

Analog to SIP Integration

The system had to interface with analog prison phones, requiring the setup of ATA devices to convert analog signals into SIP for VoIP-based routing.

Multiple Deposit Channels

From IVR and mobile to physical kiosks, all payment systems needed to be secure, synced, and real-time

Investigator Portal

Authorities needed a separate interface to analyze call records, monitor activity, and extract actionable intelligence.

The Solution

Ecosmob built a robust, multi-tenant communication ecosystem with full inmate lifecycle management and administrative control. Key components included:

01.

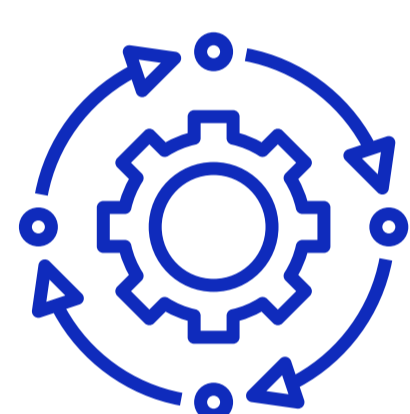


Inmate Communication Application

- Audio and video calling
- Real-time chat and voicemail
- Allowed-number dialing only
- Launcher-mode restriction on devices



02.



Deposit and Top-Up Systems

- Mobile apps (Android & iOS) for families to recharge inmate accounts
- IVR-based voice system for self-service top-ups
- Kiosk integration for in-prison deposits

03.



Admin and Investigator Portals

- Admin dashboard for call monitoring, account control, and facility-wise management
- Investigator portal for accessing flagged calls and conducting deeper audits

04.



Backend VoIP Switch

- ATA devices linked analog prison phones to the SIP infrastructure
- Scalable cloud switch for handling high-volume concurrent calling
- Security, routing, and billing built into the backend

05.

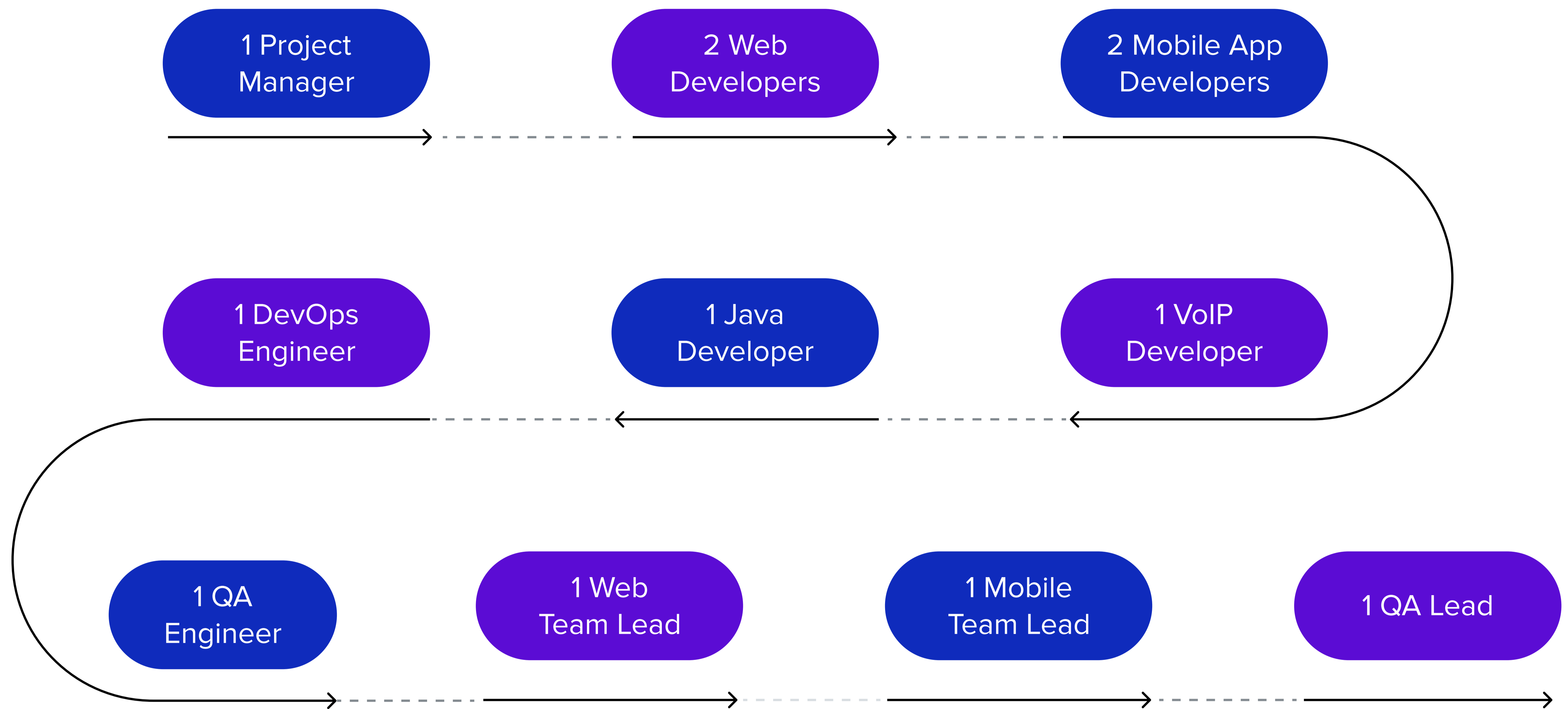


Video Visitation Platform

- Scheduled virtual visitation with secure access controls
- Facility-defined time slots and approval workflows

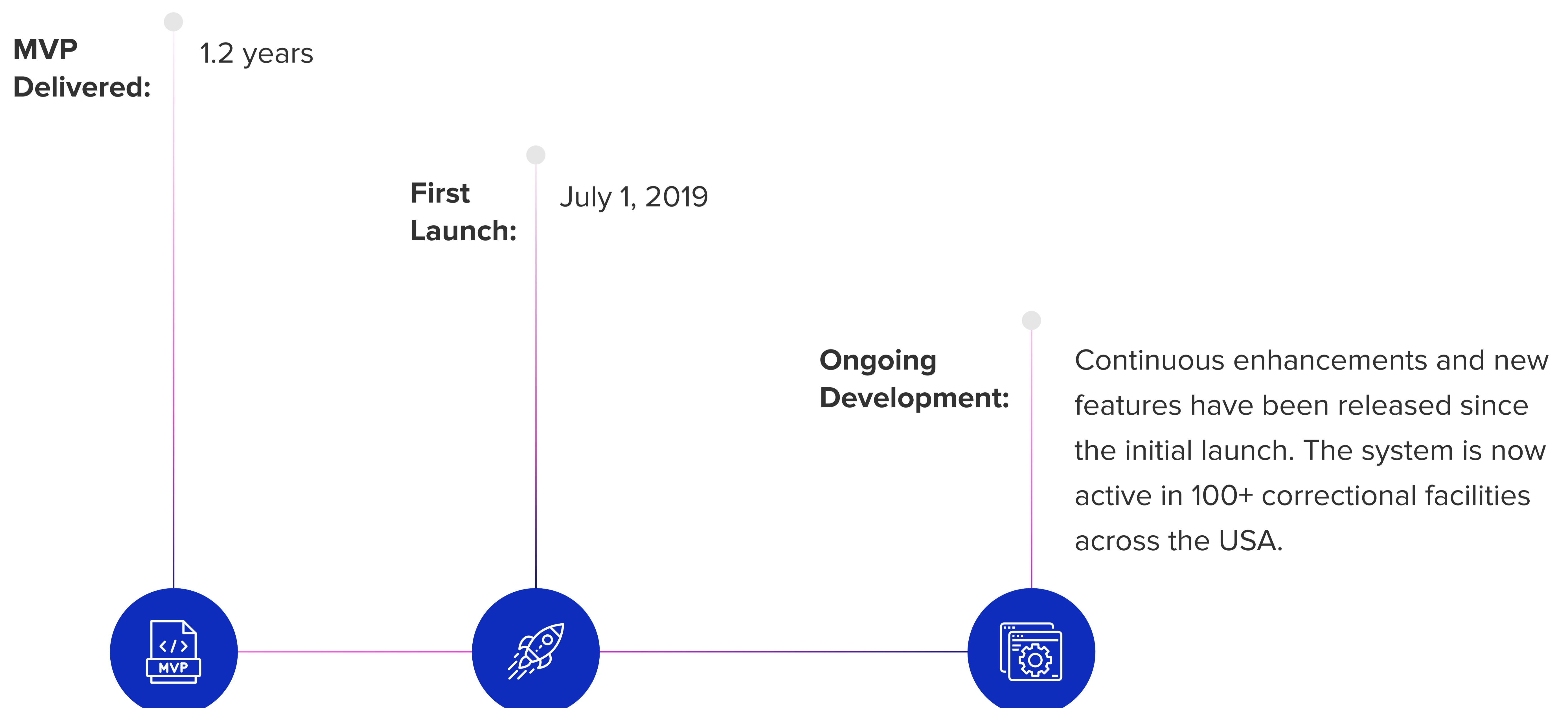
Team Structure

To handle the project's depth and scale, Ecosmob allocated a cross-functional team:



Project Timeline & Evolution

The implementation of Ecosmob's solution led to significant improvements:



The Impact

The move to a cloud-native, multi-tenant system significantly reduced maintenance overhead, boosted scalability, and introduced the flexibility to adapt to new facility needs quickly.

- 200,000+ calls handled daily across facilities
- Seamless communication between inmates and loved ones through regulated, monitored channels
- Streamlined deposits and access through multiple self-service points
- Full administrative control for correctional staff
- Enhanced investigator access for proactive monitoring and case building

✉ sales@ecosmob.com

🌐 www.ecosmob.com

🇮🇳 +91 99988 51106

🇨🇦 +1-604-900-8870

🇺🇸 +1-303-997-3139

Follow us on: [f](#) [@](#) [in](#) [X](#)