CASE STUDY: PUBLIC SAFETY TECHNOLOGY COMPANY

GovRAMP-Compliant Device Registration Coordination for a Public Safety Technology Company's VR Product

AT A GLANCE

Challenges

- GovRAMP blocks ERP access
- Global registration across clouds
- Data-residency constraints
- Prevent duplicate registrations

Methods

- Corporate Azure ERP extension
- Terraform infrastructure-as-code
- mTLS APIs and SAS-token broker
- Blue/green deployments

OBJECTIVES

A public safety technology company needed to achieve GovRAMP compliance for its VR product regions without disrupting the ability to register devices globally the moment they ship. The existing architecture relied on direct access to ERP systems and Snowflake, which GovRAMP prohibits for product-region subscriptions.

The solution had to keep ERP data within the corporate boundary, provide regions with only the minimal device information needed for registration, operate across multiple Azure regions and both government and non-government clouds, and prevent duplicate device registration without imposing a single authoritative system.



SOLUTIONS

A device registration coordination system hosted in the company's corporate Azure subscription acts as an ERP extension so that ERP data never crosses the corporate boundary. Regional backends pull minimal data (serial number, availability, routing info) over mTLS-secured connections. A custom SAS-token broker gates Service Bus access. Regions cache their own copies and report claimed devices back. Built on .NET 10, Azure Container Apps, Application Gateway, and Terraform with zero-credential managed identity authentication and blue/green deployments.



BENEFITS

GovRAMP Compliance

The coordination system enables compliance by eliminating direct product-region access to ERP systems and Snowflake.

Global Registration

Regional backends can access the device information needed to support registration across multiple regions and clouds.

Controlled Data Access

ERP data stays within the corporate boundary while regions receive only the information needed for registration.