AUDAX LABS

Over The Air Update

FOTA

Leaders in Firmware Over-the-Air (FOTA) Development.
Delivering cutting-edge solutions for seamless and secure firmware updates.

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Problem Statement

Existing FOTA solutions face several significant challenges. These issues can compromise the reliability, security, and efficiency of IoT device management.

Security Vulnerabilities

Unauthorized access and firmware tampering.

Network and Bandwidth Constraints

Large firmware files and unstable network connections cause interrupted or failed updates

Failures and Rollbacks

No automatic rollback features in case of failures. Resume downloads in case of interruptions.

User Experience

Complex user portal led to confusions and poor user experience.

What we offer

Our FOTA (Firmware Over-the-Air) solution package using Azure IoT Hub is designed to provide a comprehensive, secure, and scalable framework for managing firmware updates across a large fleet of IoT devices. Here's what our solution package offers:

- ✓ End-to-end encryption to ensure all communication between devices and servers are secure
- ✓ Delta updates to reduce bandwidth consumption
- ✓ Simplified centralized screen to manage and monitor the status
- ✓ Comprehensive Setup and Configuration
- ✓ Both Push and Pull Mechanism
  - PULL Mechanism (Devices periodically check for firmware updates)
  - PUSH Mechanism (Direct methods to trigger immediate firmware download)

- ✓ Bulk Update Management using IOT HUB Jobs
- ✓ Continuous Monitoring and Failure Management
- ✓ Comprehensive APIs for data analysis
- ✓ Intuitive web and mobile application

Features

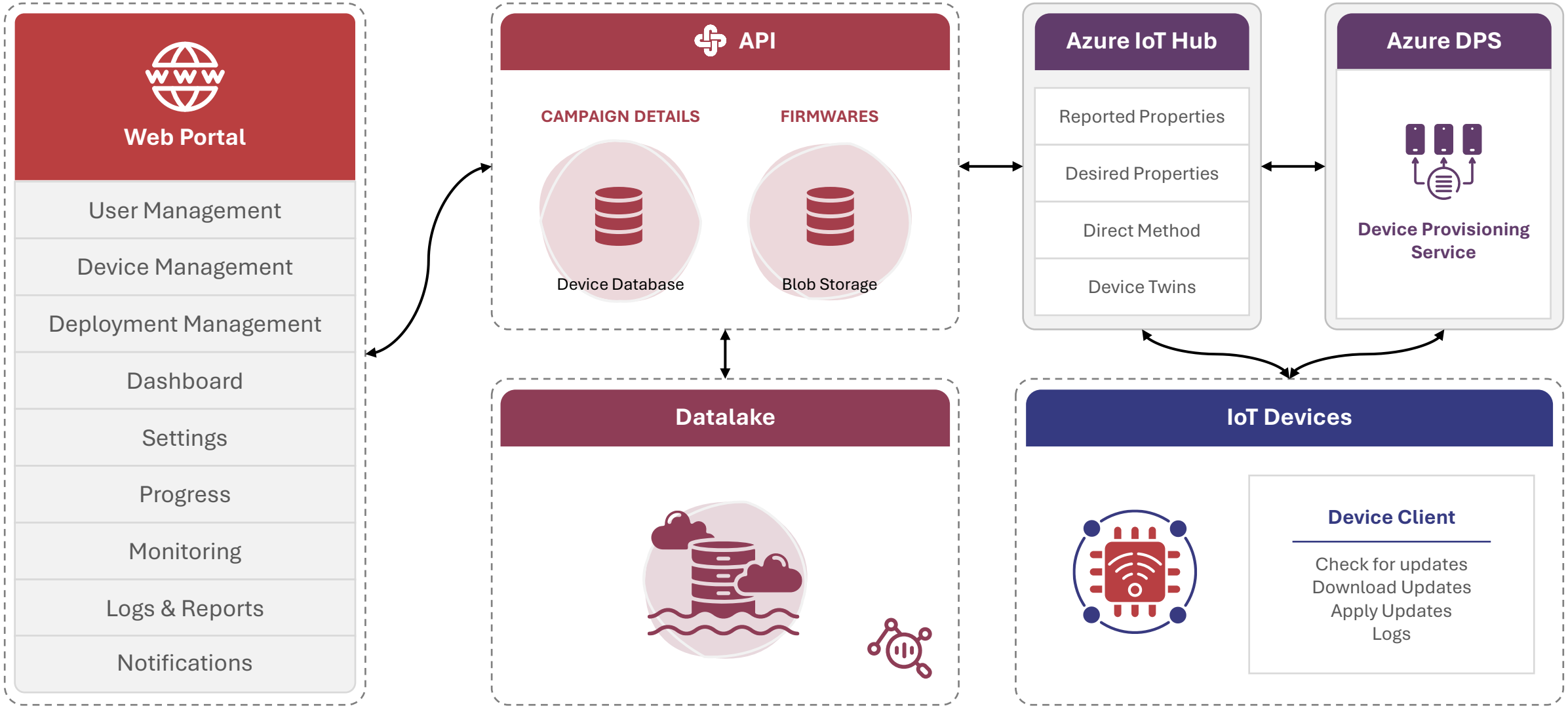
- User-Friendly Interface
- Centralized dashboard
  with real-time statistics and visual indicators
- Continuous Monitoring and Detailed Logging
- User and Role management
- Scalable Device Management
- Secure Firmware Storage and delivery
- Real-time notifications via email, SMS, or integrated messaging platforms.
- Intuitive job scheduling interface to plan and deploy firmware updates
- Easy-to-navigate interface to manage devices

How it works

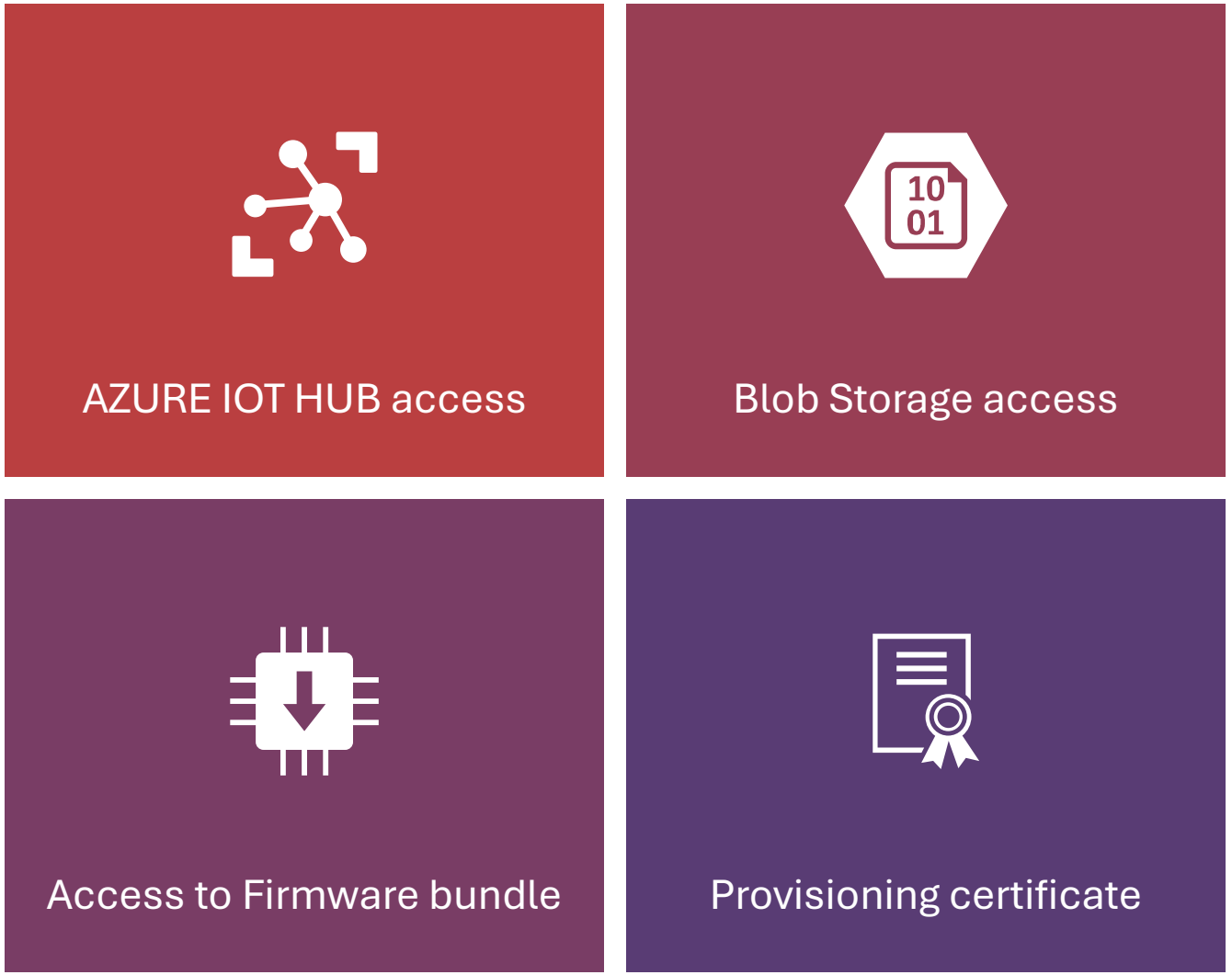
PULL MECHANISM

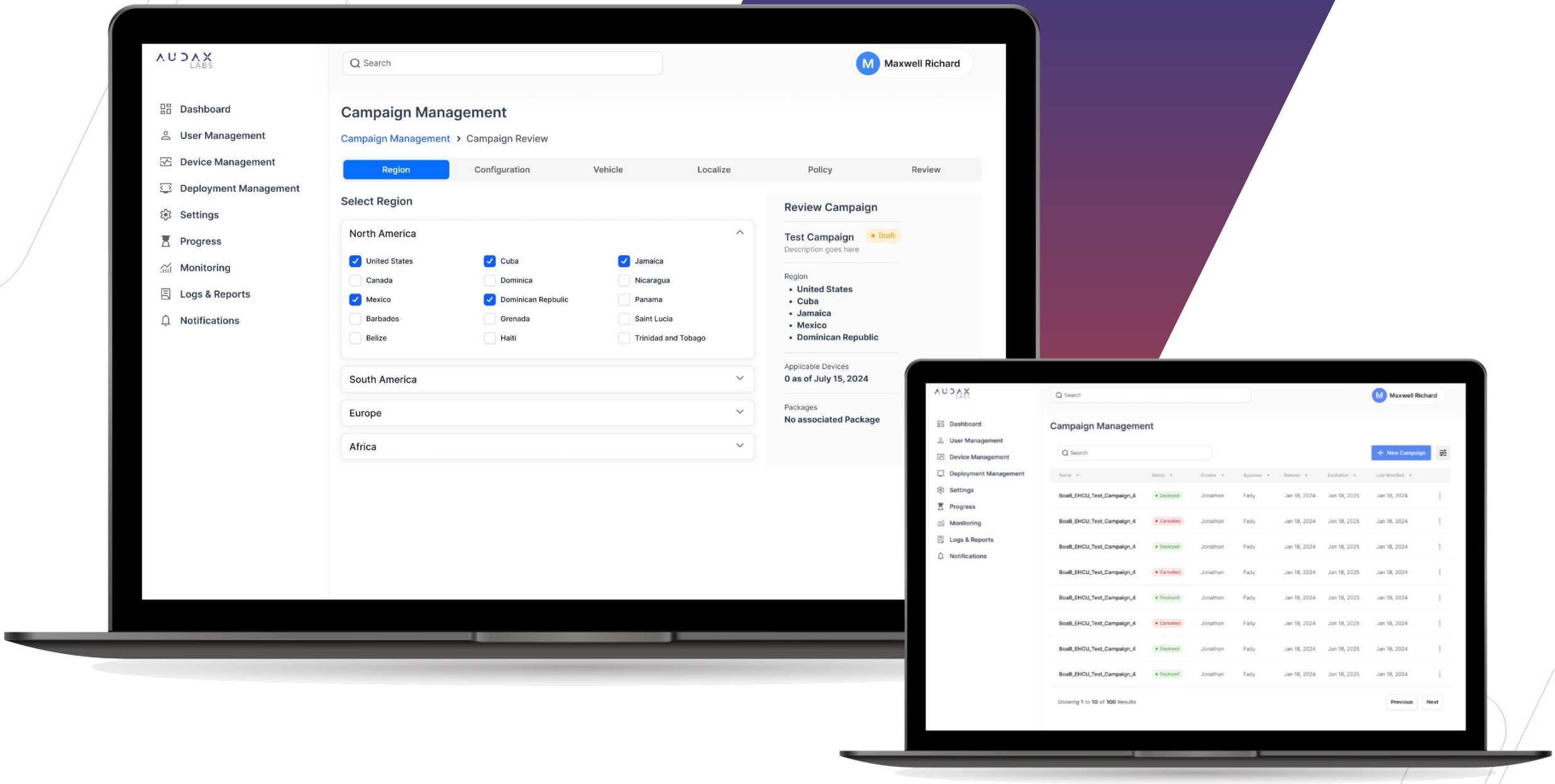
Step 01	Step 02	Step 03	Step 04	Step 05	Step 06
UPLOAD	CREATE	RUN	CHECK	DOWNLOAD	MONITOR
Uploaded Software Packages to Web Portal.	• Create campaign with the uploaded software Package • Select geographic region for the software campaign	Submit the configuration and campaign for review and approval	Client Device to check for updates periodically.	The campaign will be downloaded to the device	Monitor the status of the campaign and device health report.

High Level Architecture



Pre-requisites to use FOTA Software

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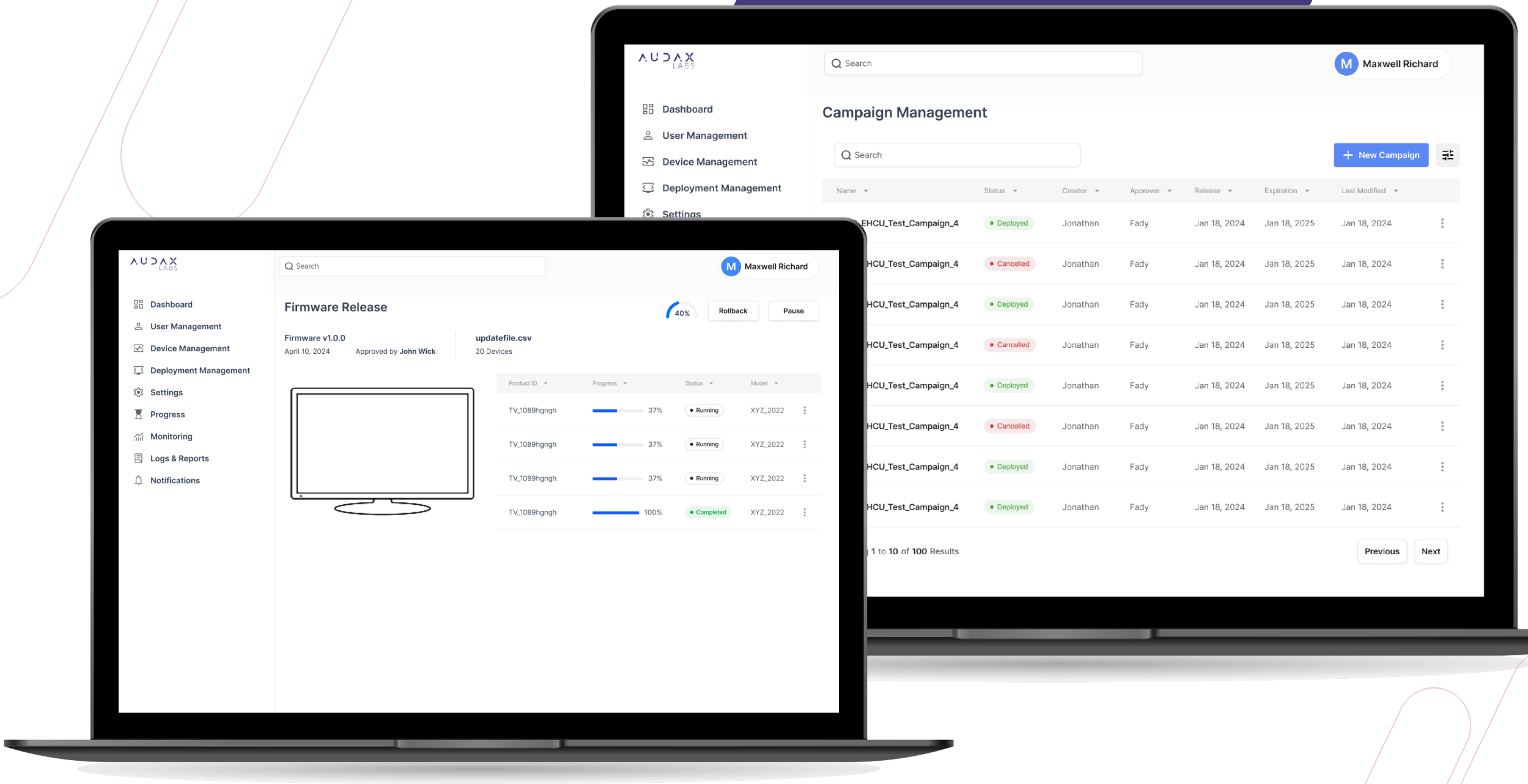
Search
Maxwell Richard
Dashboard
User Management
Device Management
Deployment Management
Settings
Progress
Monitoring
Logs & Reports
Notifications
Campaign Management
Campaign Management › Campaign Review
Region
Configuration
Vehicle
Localize
Policy
Review
Select Region
North America
United States
Cuba
Jamaica
Canada
Dominica
Nicaragua
Mexico
Dominican Repbulic
Panama
Barbados
Grenada
Saint Lucia
Belize
Haiti
Trinidad and Tobago
South America
Europe
Africa
Review Campaign
Test Campaign
Draft
Description goes here
Region
United States
Cuba
Jamaica
Mexico
Dominican Republic
Applicable Devices
0 as of July 15, 2024
Packages
No associated Package
Campaign Management
New Campaign
Previous
Next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Search
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Device Management
Deployment Management
Settings
Campaign Management
Search
New Campaign
Name
Status
Creator
Approver
Release
Expiration
Last Modified
EHCU_Test_Campaign_4
Deployed
Cancelled
Jonathan
Fady
Jan 18, 2024
Jan 18, 2025
1 to 10 of 100 Results
Previous
Next
Progress
Monitoring
Logs & Reports
Notifications
Firmware Release
40%
Rollback
Pause
Firmware v1.0.0
April 10, 2024
Approved by John Wick
updatefile.csv
20 Devices
Product ID
Progress
Status
Model
TV_1089hgngh
37%
Running
XYZ_2022
100%
Completed

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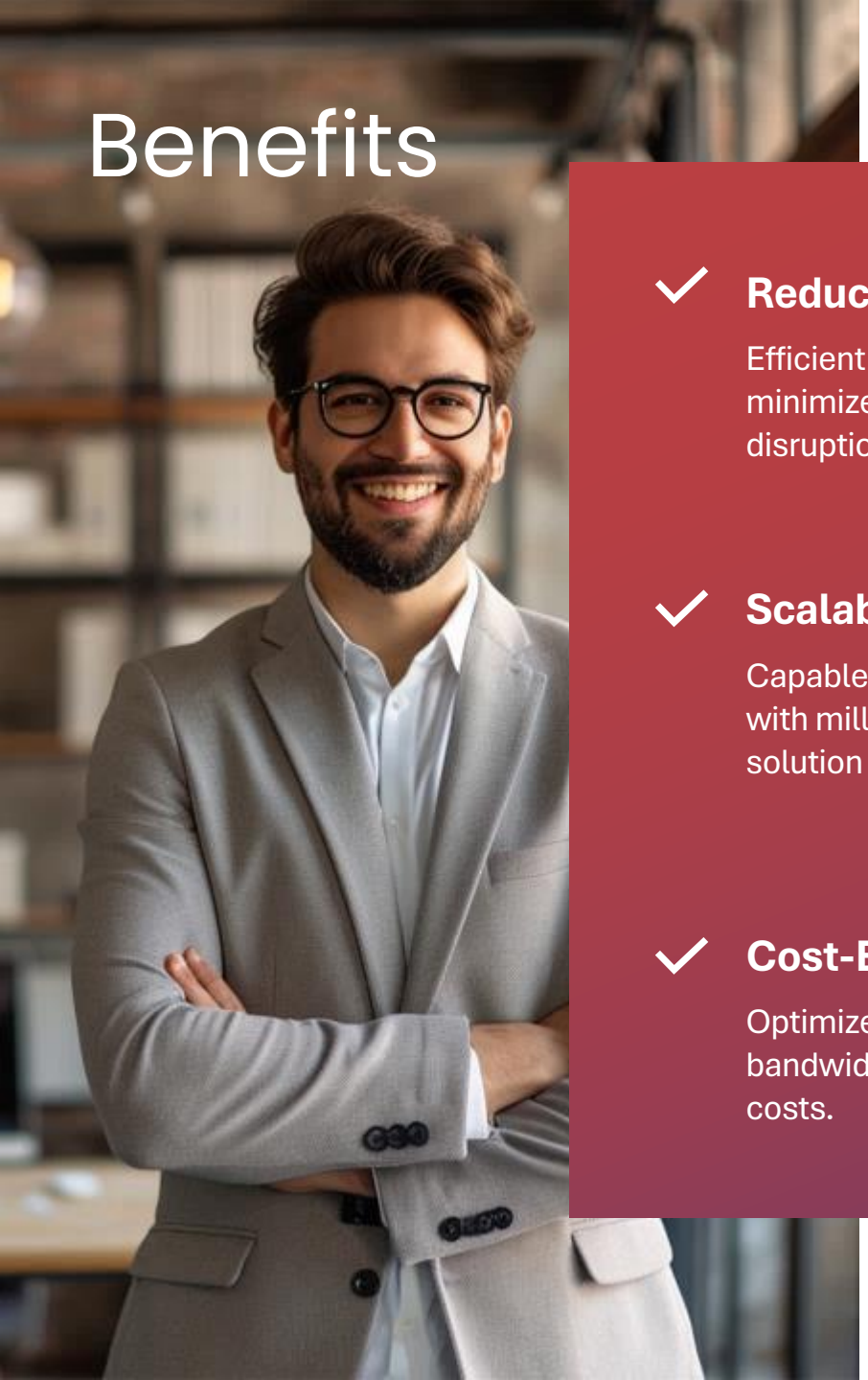
Benefits



Reduced Downtime

Efficient and seamless firmware updates minimize device downtime and operational disruptions.

Enhanced Security

Robust security measures ensure the integrity and confidentiality of firmware updates, protecting devices from malicious attacks.

Scalability

Capable of managing large-scale deployments with millions of devices, providing a scalable solution for growing IoT ecosystems.

Flexibility

Supports both PUSH and PULL mechanisms, offering flexible update management options to suit different operational needs.

Cost-Effective

Optimized update processes and efficient use of bandwidth and cloud resources reduce operational costs.

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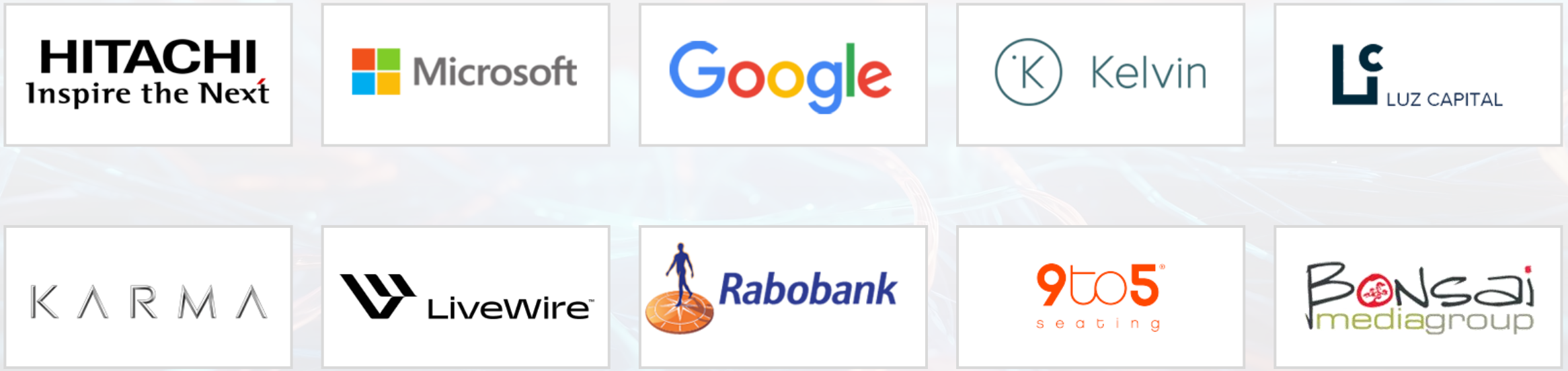
References

Customers who we worked for in the past



Our Differentiator

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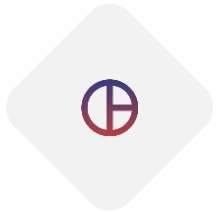
Completely dynamic and customizable as per requirements and industry.



Realtime data for data analytics

Notifications to the Engineers on failure

End-to-End Security

Role-Based Access Control

Supports multiple industries

Why work with us

Wide industrial experience and a dedicated team.

Partnership with industry leaders

Real time analytics

Comprehensive support and maintenance with a dedicated team

Training sessions for your team to ensure smooth operations and management

Packaged Solution

Contact Us

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