

NTA deploys 4G LTE and WiFi services in the **Marshall Islands using Blue Arcus and Alepo's solution**

Blue Arcus's network expertise helped NTA evolve its legacy mobile infrastructure from 2G to 4G LTE with no downtime and increased revenue by a staggering 50% within just two months using Alepo's 4G LTE solution.

Operator Requirements

Prior to the network upgrade, voice, SMS, and data were siloed services, unable to share balances, and mobile usage was restricted to a pay-as-you-go model. As a customer-focused operator, NTA wanted to outpace these limitations and deliver a supreme data experience to customers and enterprises across different segments.

To accomplish this, the operator wanted Alepo to:

- Evolve NTA's mobile GSM network from 2G to 4G LTE for faster, reliable connectivity; make NTA WiFi-ready
- Deliver a greater digital experience for customers and casual visitors, improving brand loyalty
- Reduce time to market (TTM) and improve its ability to launch personalized, policy-driven offers for all types of customers
- Expand its market into enterprise accounts
- Improve customer interactions using the dynamic web and mobile service channels
- Integrate HSS over the third-party's proprietary socket programming layer – a unique, non-standard, integration challenge
- Brainstorm with Blue Arcus; help NTA understand the advanced new business use cases

Project Background

National Telecommunications Authority (NTA), a private corporation with significant ownership by the government of Marshall Islands, is a client of Alepo's solution integration partner, Blue Arcus. NTA is the main authorized telecommunications service provider in the country and is responsible for providing domestic and international voice, fax, data and internet services. Its mobile offerings were previously limited to basic voice and SMS. NTA was eager to expand its portfolio to offer mobile data, for which it needed to upgrade its legacy 2G GSM network to 4G LTE with WiFi.

NTA also sought to revamp its customer experience (Cx) by offering varied bundled offerings for prepaid, postpaid, and enterprise customers, becoming one of the first operators in the region to offer mobile self-care.

NTA approached Blue Arcus, a specialist in mobile network solutions, tactical and emergency solutions. Blue Arcus then turned to Alepo, an LTE and, more broadly, data monetization expert. for ACS to quickly adapt to changing market trends.

Alepo's Solution

Blue Arcus helped NTA deploy LTE and become WiFi-ready. Alepo provided Blue Arcus turnkey solutions to transform NTA services and reduce TTM. Alepo also supports an upcoming USSD implementation. The following key solution components were deployed:

- Alepo Digital BSS platform including –
 - Alepo Online Charging System (OCS) to enable monetization and revenue-enhancing features
 - Alepo CRM
 - Alepo Admin Portals
 - Alepo Web Self-Care Portal (WSC)
 - Alepo Mobile Self-Care App for Android and iOS
 - Alepo Configuration Manager
 - Alepo Voucher Management System
 - Alepo Trouble Ticketing System
 - Alepo Monitoring System
 - Alepo Issue Management
 - Alepo SIM Inventory Management
 - Alepo Notification Portal, and more
- Alepo AAA
- Alepo PCRF with Alepo PCRF EMS Portal
- Alepo Product Catalog Manager

The following integrations were also undertaken as part of the network upgrade:

- Alepo CRM with External Payment Systems
- Alepo OCS with SCP Adaptor over Diameter Ro Interface
- Alepo PCRF with PGW over Diameter Gx Interface
- Alepo CRM with third-party HSS
- Alepo CRM and the legacy HLR for Circuit Switch Fall Back (CSFB)

Solution Highlights

'Data on the go' plans

Alepo's solution helped Blue Arcus meet NTA's goal of introducing a faster, always-connected network and data

experience in its country. Previously offering only voice and SMS as part of its mobile services, NTA's mobile data plans were a huge leap forward, catering to the needs of subscribers eager to remain connected on the go.

Enhanced digital experience

Alepo's solution enhanced NTA's ability to introduce innovative service bundles (voice, SMS, and data) and personalized data plans that improved the Cx for subscribers. Before the upgrade, NTA was unable to share customers' balances between mobile and hotspot plans, discouraging existing customers from adding one-off or recurring services.

Secured e-recharge

Integration of Alepo WSC and mobile app with online payment gateway PayPal helps deliver a secure and easy recharge experience to subscribers.

Customer self-sufficiency

Alepo WSC and Alepo mobile app for Android and iOS-enabled NTA's customers to independently complete basic tasks such as recharge, plan changes, and so on. With the introduction of mobile self-care, NTA was one of the first providers in the region to make customers self-reliant, considerably reducing strain on customer service representatives.

Client Testimonial

"Blue Arcus and Alepo have helped us achieve our dream of introducing 4G LTE in the Republic of Marshall Islands. Thanks to them, our subscribers now enjoy a faster and more consistent network and data experience."

-Thomas Kijiner Jr., President, and CEO, NTA

Voice and Data Use Cases

- Plans: prepaid, postpaid, single, CUG, family
- Fixed validity for recharge
- Time-based calls

- Volume-based plans: voice, data and SMS and pure data plans
- Credit transfer
- Data bundles: single, combo, enterprise, with FUP
- Pay as you go
- Online payment gateway (PayPal)
- Happy hours (discount-based)
- Alerts and notifications

within just two months of deployment.

Reduced Operational Expenditure (OPEX)

Marshall Islands became the first of few Pacific Island nations where subscribers have access to a mobile app to manage their accounts; reducing calls and visits to the NTA office. Also, the e-recharge facility significantly reduced the need for paper vouchers. This reduced OPEX by 20% within two months of deployment.

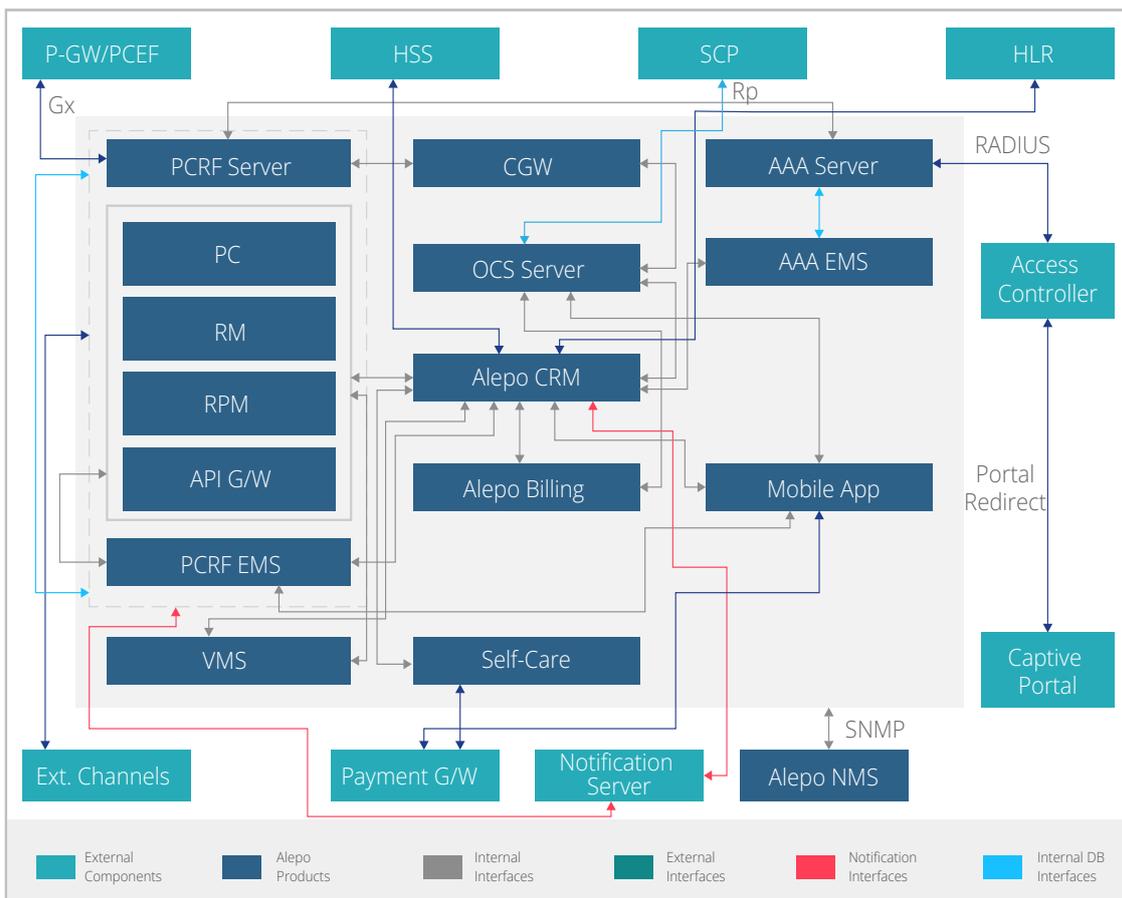
Increased Network Coverage

4G LTE eliminated the challenges of legacy ADSL connectivity, providing a high-speed data experience to subscribers. NTA's network coverage increased by 20% within two months of deployment.

Project Outcomes

Increased Revenue and ARPU

NTA launched several services, data bundles and highly personalized offers to its subscribers, leading to an increase in ARPU by 70% and total revenue by 50%



Network Architecture