Buckeye Broadband launches **FreeNet, ad-sponsored internet and public WiFi,** using Alepo's Carrier WiFi solution

In just a few months, the innovative use cases have helped the operator attract 13K unique sign-ins, converting 90 percent of these users into paid subscribers.

Operator Requirements

Buckeye Broadband wanted to monetize FreeNet by redirecting non-paying customers to a captive portal, prompting them to watch a sponsored video or complete a sponsored survey. The process would repeat every 30 minutes (this interval would be configurable and could be changed by the operator at any time), after which the customers would once again be redirected to the captive portal. The other requirements included:

- Deploy flexible captive portal designing and ad hosting options to make sponsored partners self-sufficient

- Enable comprehensive reports of ad viewers and survey responses

- Introduce speed- and time-based free and paid public WiFi in multiple Buckeye Broadband stores

- Have future-ready infrastructure to introduce WiFi at public places like metro parks, stadiums, and more

Project Background

Among the largest cable providers in the Midwest, Buckeye Broadband provides high-speed internet services across its fiber-optic network, with bandwidth plans up to 10 Gigs including SmartNet. The operator offers multiple home solutions including HD Cable TV with TV Everywhere and On Demand, StreamTV IPTV solution, SmartNet, with 24/7 Brainiacs support and Home Phone.

With the expansion of high-speed broadband access to its NW Ohio/SE Michigan and Erie County residents a priority, Buckeye Broadband wanted a solution to provide ad-supported internet for free. Called FreeNet, the service would not only help certain segments of the customer base who need to learn or work from home during the pandemic, but also price-sensitive customers who often are unable to pay their bills on time. The operator could generate revenue from the advertisements and provide much-needed broadband service as well as generate a positive side effect to convert these into paying customers for ad-free browsing or higher speeds.

To cater to both these needs, Buckeye Broadband partnered with Alepo to introduce an innovative captive portal use case that granted free broadband access on watching a video or completing a survey, enabling uninterrupted access to new customers when they signed up for a paid account and reenabling it for defaulting customers as soon as their bills were paid. Successfully completing phase one of the project bolstered the operator's confidence in Alepo's rich expertise in deploying carrier WiFi solutions. BuckeyeBroadband then recruited Alepo to implement its next ambitious phase of introducing public WiFi across multiple locations in its footprint.

Alepo's Solution

The carrier-grade WiFi solution enabled Buckeye Broadband to introduce the FreeNet service. Alepo's WiFi Service Management Platform (SMP) helps monetize the video and survey journeys through captive portals. The DPI at the operator's network helps redirect flagged users (majorly defaulters) to the WiFi captive portal. Buckeye Broadband has also introduced plans for customers to purchase a WiFi router from them and use this service for free internet access at home. As part of the second phase, the operator introduced speed- and time-based free and paid public WiFi plans for customers visiting their stores. Alepo also helped Buckeye Broadband introduce public WiFi services through multiple innovative pre-defined WiFi journeys, including an OTP authentication using email, payment gateway, and with existing customer credentials.

The solution components include:

- Alepo AAA + EMS
- Alepo WiFi SMP + software load balancers
- Ad servers
- Reporting and monitoring servers
- Integration of AAA with a third-party access controller over RADIUS
- Integration of AAA + EMS over HTTPS for user provisioning
- Integration of CAE over HTTPS to manage system users and devices MAC addresses as per APIs triggered from SMP user provisioning
- Integration of WiFi SMP over HTTPS to login request/response and display sponsored ads and surveys
- Integration of DPI to redirect blocked users on Alepo's SMP landing page

Solution Highlights

Supports unique use cases

Alepo WiFi SMP enables broadband users to enjoy speed- and time-based internet services using Buckeye Broadband's predefined free and paid journeys, which the operator can monetize through sponsorships and partnerships with third-parties.

Enables agents to be self-sufficient

Sponsored partners and agents can perform key actions such as creating a WiFi gateway with access controller details, creating a location group without any affiliate, designing new webpages, creating free offers, viewing and exporting reports from the captive portal, and more, with no dependency on the operator.

Unlocks new revenue stream

The ad-sponsored internet serves as a free demo for the customers to gauge the speed and overall experience of the services. The free (3 Mbps) and paid (4 Mbps) public WiFi services provide access to high-speed internet in Buckeye Broadband stores, unlocking new revenue streams for the operator.

Client Testimonial

"Of the many vendors we assessed, Alepo's was the only platform that supported our unique business use cases. Their unmatched experience and expertise in offering carrier-grade WiFi solutions helped us deploy an advanced WiFi monetization platform that not only caters to our current requirements but empowers us to be future-ready to unlock new revenue streams as the market evolves."

- Geoff Shook, President & GM, Buckeye Broadband

Business Use Cases

The operator has five main business use cases:

- Free internet after viewing a video advertisement
- Free internet after completing a survey

When FreeNet users attempt to connect to the internet, they are redirected to the Alepo captive portal that is customized for and managed by Buckeye Broadband. Customers watch video ads or fill out survey forms. Once

either of the actions is performed, they gain 30 minutes (configurable time limit) of free internet. After this time quota is exhausted, customers are disconnected and again redirected to the captive portal to repeat the same steps.

- Free two-hour sessions of public WiFi for non-Buckeye Broadband users through OTP authentication over email
- Paid twenty-four hours of public WiFi facilitated through the payment gateway
- Free WiFi for up to six hours for existing customers using their current credentials

Project Outcomes

Increased recovery of outstanding dues

Within three months of deployment, the innovative free internet use cases helped Buckeye Broadband recover 10 percent more collection than usual and attract new customers, indicating higher revenue and improved customer experience.

Improved brand loyalty

Free internet access enticed customers to continue using the operator's services. Within six months of deployment, Buckeye Broadband was able to reduce the churn rate by 2 percent.
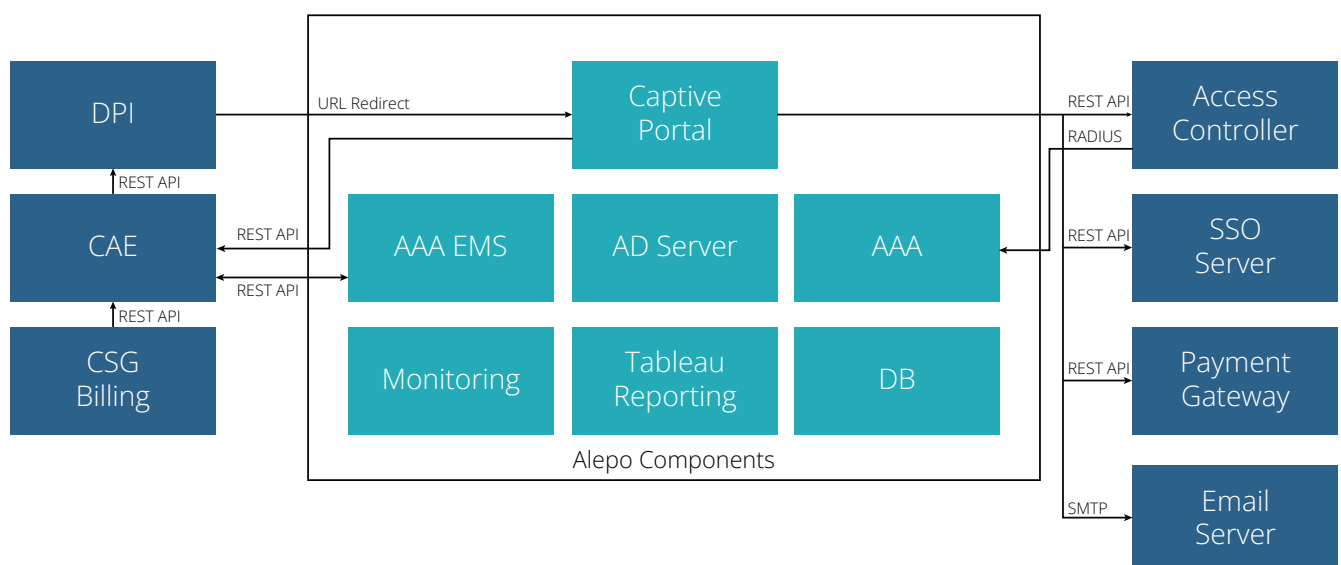
Growth in subscriber base

The new platform serves as a demo to attract potential subscribers. Buckeye Broadband has had more 13K unique customers in just a few months of launch and converted 90 percent of FreeNet users to paid customers in just three months.

Future-readiness

Having already completed the in-store public WiFi launch, Buckeye Broadband is now equipped to use the WiFi platform to introduce and monetize future services in public places like metro parks, stadiums, and more.

Acronym	Full Form
AAA	Authentication, Authorization, Accounting
AC	Access Controller
EMS	Element Management System
CAE	Consolidated Application Environment
CSG	Charging System Gateway
DPI	Deep Packet Inspection
OTP	One Time Password
SMP	Service Management Platform
SSO	Single Sign-On

Network Architecture