Managing Data Costs While Customers Are Roaming Off-Net

MOBOLIZE for Roaming

MOBOLIZE

SEE → CONTROL → MONETIZE

How much control over your data roaming costs do you really have?

You've already negotiated data roaming rates with other operators; factored average costs into your business model. **Is that it?**

At this point, the only ways to reduce roaming-related data costs are to restrict usage or optimize how data is consumed by customers. In today's competitive market, taking away loved services such as Facebook and YouTube while traveling impacts customer experience and, in turn, loyalty and retention.

There is a better way. Optimize data usage directly on peoples' mobile devices – without impacting their user experience. Instead of apps automatically requesting hi-res videos that make no difference in viewing, automatically set bitrates that optimize user experience and bandwidth. Additionally, smart caching ensures that subscribers only consume the data that's required. Operators save on wholesale data costs.

Enter MOBOLIZE for Roaming – an on-device optimization solution that enables operators to reduce their overall data costs; while delivering new value-added services to subscribers that increase Customer Lifetime Value (CLV) and Net Promoter Score (NPS).

AT-A-GLANCE

Mobolize's mobile data orchestration enables all kinds of opportunities

- Optimize wholesale data usage.

- Differentiate data plans to attract new users.

- Secure Wi-Fi.

- Deliver 'sticky' value to minimize churn through increased customer engagement.

Move data flow control to the edge.

Installed as an app on subscribers' mobile devices, MOBOLIZE for Roaming gives MNOs/MVNOs the ability to shape, route and block content to optimize usage.

Our patented data optimization technologies make sure only necessary data is delivered – eliminating waste, decreasing cost and enhancing the customer experience.

MOBOLIZE for Roaming uses two patented data orchestration techniques to deliver mobile data and video optimization:

Video Pacing

- Controls the bitrate at which streaming video is delivered to the phone – cutting data consumption by as much as 80% with minimal picture degradation.

- Configures how aggressively video should be paced – choosing between higher bitrates that deliver some savings and lower bitrates that deliver maximum savings, with less buffering and stuttering.

- Works on encrypted video, like YouTube because it runs on the phone, with true app-level awareness.

Smart Caching

- Intelligently identifies individual users' favorite apps and websites and caches the most used content, to deliver maximum optimization.
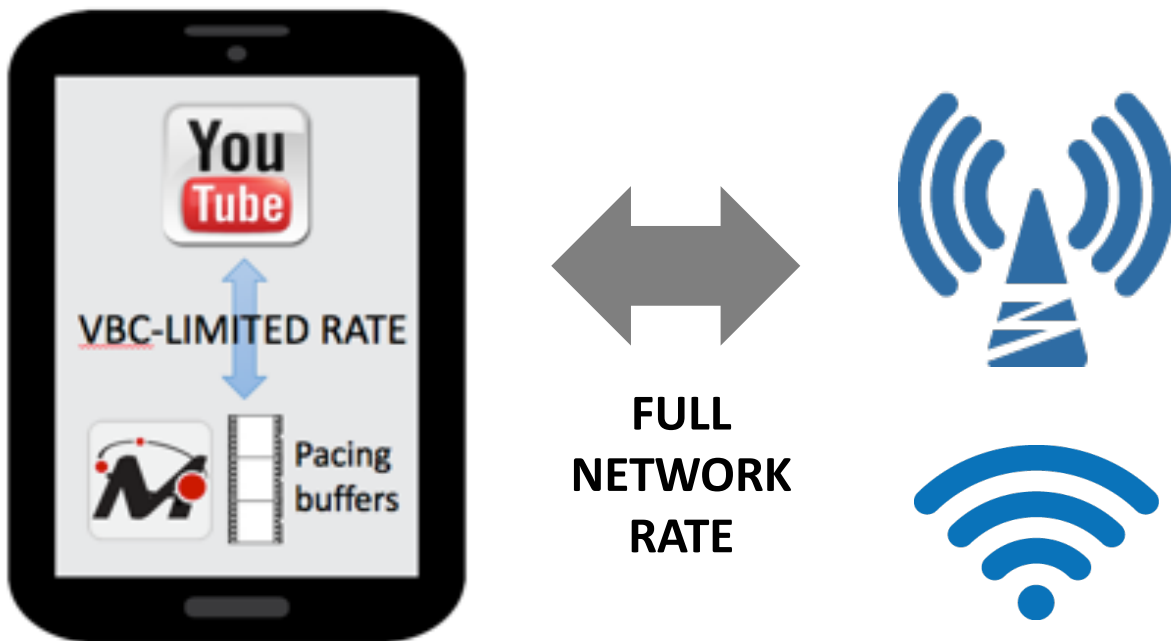
The proof is in the numbers.

	Resolution	Bandwidth	2GB Data Plan
Without Mobolize	1080p	4.5 mbps	62 minutes of YouTube
With Mobolize	720p	2.1 mbps	136 minutes of YouTube
	480p	0.9 mbps	317 minutes of YouTube

Mobolize's video bitrate control technology (VBC) optimizes mobile video by dynamically pacing adaptive bitrate videos on the device – optimizing data usage but not impacting users' experience. Video players on the phone respond by requesting lower bitrate videos from the streaming server.

It works with virtually any variable bitrate video, including encrypted video. Mobolize's true app awareness lets it see streaming video without requiring deep packet inspection (DPI). Works on standalone video apps and websites, as well as embedded videos on website.

How it works.

FULL NETWORK RATE

Being on subscribers' mobile devices enables operators to provide new forms of subscriber engagement & value-added services.

❖ **Secure Wi-Fi while roaming – providing peace of mind when on public hotspots.**

❖ **Push rewards, offers and notices directly to users' mobile devices – wherever they are.**

Security should be central to your service.

Threats to users

With as many as 70% of users connecting to an unsecured Wi-Fi hotspot every week, the majority of mobile users are vulnerable to a wide range of threats:

- Packet sniffers (e.g. AirPcap).
- Hotspot impersonation.
- Hacked AirBnB hotspots.
- Login session hijacking (e.g. Firesheep).
- Pervasive monitoring (e.g. NSA and GCHQ).

Give users the Wi-Fi security they need and expect on unsecured public hotspots.
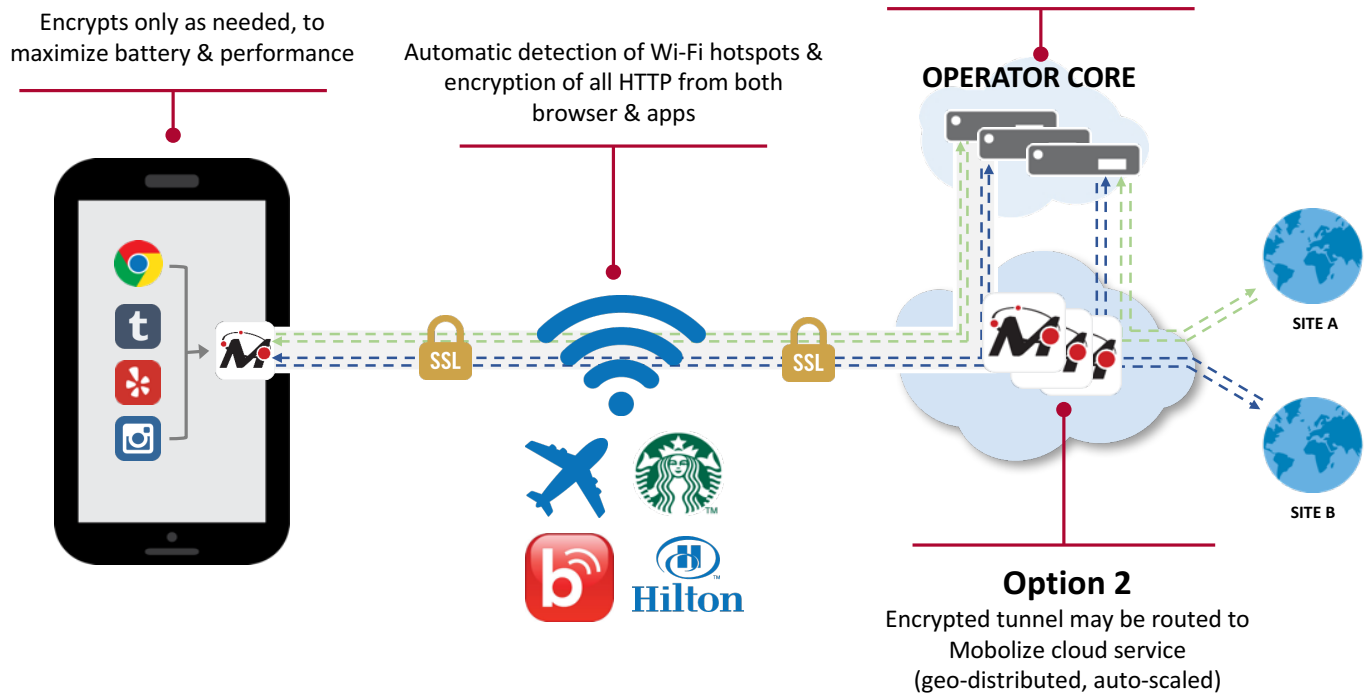
- Automatic privacy protection that is easy to use.
- Encrypts unsecured traffic to ensure data is never vulnerable.
- The only SmartVPN™ solution that automatically turns itself on and off, making it faster and more efficient.

AT-A-GLANCE

Give users the Wi-Fi security they need and expect while roaming and on unsecured public hotspots.

- Ensure security for offload to public Wi-Fi.
- Bolster your brand as a leader in security while tapping into subscriber trust, increasing NPS.
- Gain visibility and control into the mobile traffic that goes over Wi-Fi.
- Increase ARPU – Wi-Fi security can be a subscription service that is in great demand today.

How it works.

Encrypts only as needed, to maximize battery & performance

Automatic detection of Wi-Fi hotspots & encryption of all HTTP from both browser & apps

Option 1
Encrypted tunnel may be routed to operator core

OPERATOR CORE

SITE A

SITE B

Option 2
Encrypted tunnel may be routed to Mobolize cloud service (geo-distributed, auto-scaled)

1. Whenever a user connects to a public hotspot, MOBOLIZE for Roaming automatically offers Secure Wi-Fi to the user (if not bundled or already purchased).

2. When MOBOLIZE for Roaming detects that the hotspot is open or unsecure, it automatically enables encryption for both web and application HTTP traffic before it leaves the device.

3. The encrypted HTTP traffic can be forwarded for termination at either the operator's infrastructure or at one of Mobolize's geographically distributed cloud servers.

4. When the original HTTP traffic is decrypted, it is then forwarded to the app/web server.

5. On the return path, the response traffic is encrypted by Mobolize cloud servers (or the operator's infrastructure), and remains fully protected until it arrives on the device.

6. Whenever a user disconnects from the public hotspot, encryption is automatically disabled, maximizing performance and battery life.

Sprint

USE CASE
Sprint uses Secure Wi-Fi to increase ARPU

- Promotes Sprint's concern for subscriber safety.

- Keeps subscribers safe all time – wherever they are.

- Majority of mobile traffic goes over Wi-Fi.

- Increases ARPU by providing Wi-Fi security as a paid service.

- Contextual alerts promotes high attach rates.

- High CLV; low churn.

Push gifts, offers & notices directly to users' mobile devices at the right time – wherever they are

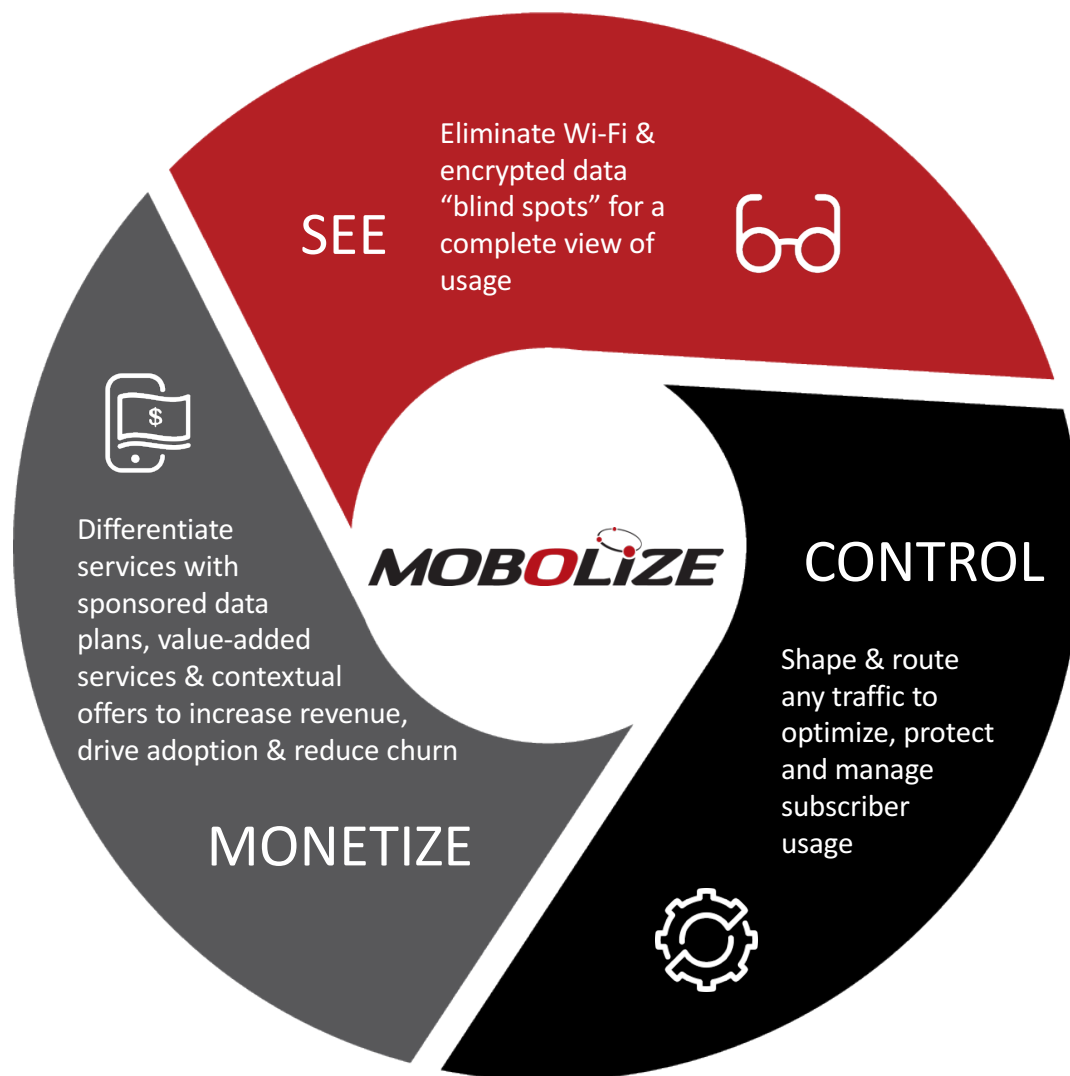**Take the lead in contextual marketing and notification.**

MOBOLIZE for Roaming helps mobile operators engage with subscribers at the 'moment of intent' – powering many data monetization and customer engagement opportunities for operators. MOBOLIZE for Roaming lets the operator sell contextually by making relevant notices and/or offers to users at the best possible time. Operators can differentiate their offerings, increase sales of value-added services and improve customer experience.

A win-win for everyone.

- Real-time traffic alerts help upsell services.

- Deliver relevant offers and opportunities, at the right time, at the right place.

- Sell data plans and services based on what subscribers are doing at the moment.

- Configure event watching (e.g. accessing a certain app or website).

- Send real-time notifications (e.g. customer care app).

- Understand the user's context to make the best offer, increasing conversion rates.

About Mobolize

SEE — Eliminate Wi-Fi & encrypted data "blind spots" for a complete view of usage

CONTROL — Shape & route any traffic to optimize, protect and manage subscriber usage

MONETIZE — Differentiate services with sponsored data plans, value-added services & contextual offers to increase revenue, drive adoption & reduce churn

Mobolize's on-device software enables mobile providers to See, Control and Monetize data on any cellular or Wi-Fi network. Mobile Network Operators (MNOs), Mobile Virtual Network Operators (MVNOs) and app providers use Mobolize's mobile data orchestration solutions to enhance customer engagement and increase revenue – driving Customer Lifetime Value (CLV) and Net Promoter Score (NPS).

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