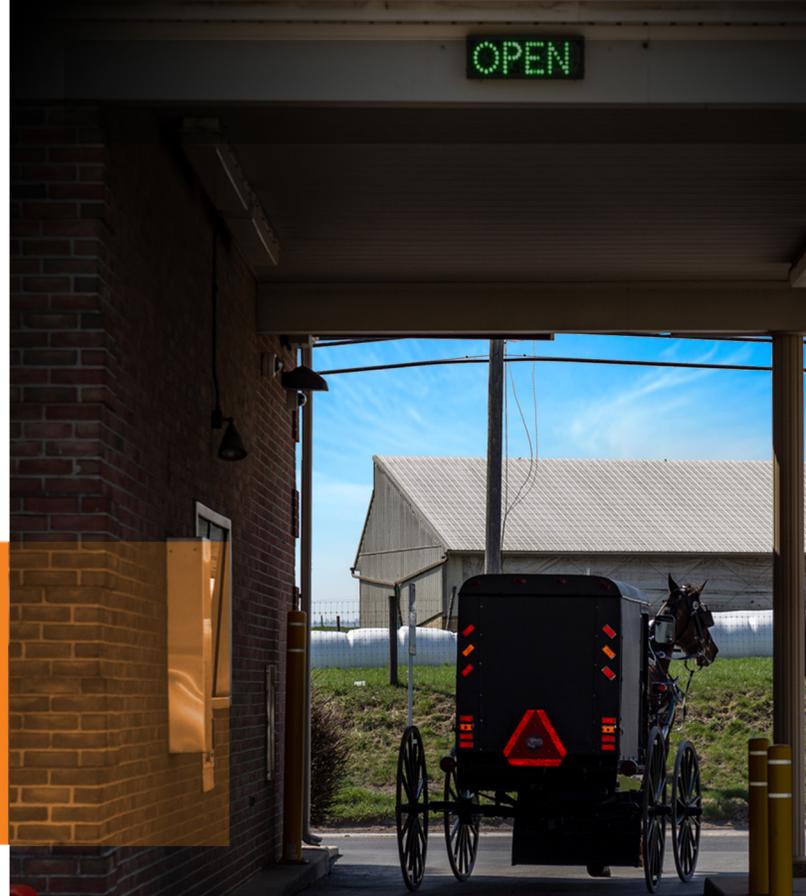




# Case Study

## BANK OF BIRD-IN-HAND

Omega Systems' managed cybersecurity service, **Smart Secure**, proves to be the smartest solution to safeguard Bank of Bird-in-Hand and their "on the road" mobile banking units.



**Many banks work hard to stay current and remain future focused, but BBIH used innovative thinking to support an entire community that is underserved by the banking industry.**

Bank of Bird-in-Hand (BBIH) is a community-based, full-service bank serving its local rural population of small and medium-sized businesses, farmers, professionals, individuals and families throughout Lancaster and Chester counties. This geographical location is home to a sizable Amish community who, because of their culture, generally struggle to access today's banking services.

### About Bank of Bird-in-Hand

Bank of Bird-in-Hand has substantially exceeded its profit projections and balance sheet growth when compared to its original business plan as a result of tremendous support from the local community. As of September 30, 2020, total deposits reached \$463 million and total gross loans of \$459 million.

In April of 2020, Bank of Bird-in-Hand was one of only two Pennsylvania banks to rank among the Top 200 Healthiest Banks in America Listing by DepositAccounts.com, and achieved the spot of 41 nationwide.

In September 2020, BBIH was ranked #18 out of the 50 Fastest Growing Companies by the Central Pennsylvania Business Journal and has also earned the coveted 5-Star rating from Bauer Financial, the Nation's Premier Bank Rating Firm.

### AMISH CULTURE IN PENNSYLVANIA

Faith, humility, family, community and separation from the world's ways are the mainstays of the Amish culture. Generally speaking, Amish families abide by strict practices dictated by their customs and beliefs. Many do not have electricity in their homes and limit their access to phones and automobiles. They often do not have traditional credit history or insurance, may not prefer credit or debit cards, and most likely do not subscribe to the otherwise widely popular app-based banking practices. Their traditional nature, although different from the outside world, does not in any way hinder their potential, success, savvy or profitability. In fact, Amish goods and services are in high demand by the surrounding world.



Bank of Bird-in-Hand re-wrote traditional banking norms to service a community that is largely underbanked.

Lenders often visit farms or stores of customers and will accept non-traditional forms of identification, like church memberships.

## THE BIG PICTURE CHALLENGE

Yes, BBIH has a very unique client base, but that is not to say uncommon or unrelatable for others in the banking industry. The underlying challenge is very relevant; as banking technology continues to progress into the future, and electronic banking becomes the most convenient and sought-after way for people to access banking services, there are large pockets of the local population that are completely left behind. The FDIC estimates nearly 14 million people are unbanked and many millions more are underbanked. Bank of Bird-in-Hand made it their mission to provide their entire community with convenient access to a full range of products while providing personalized service.

### How does a bank securely service its client base and one that continues to crave traditional banking services?

The answer is, they think outside the box. In this case “the box” pertains to both traditional practices as well as customary brick and mortar facilities. Bank of Bird-in-Hand lenders work extra hard to forge personal connections with their customers. They get to know the families and communities of their customers and provide the best banking solution to accommodate their customers’ needs.

Finding a universally convenient location of a brick and mortar facility is challenging for any bank servicing an expansive rural community. For Bank of Bird-in-Hand’s Amish customers, the trek is considerably more cumbersome, and time consuming, as traditional Amish transportation is horse and buggy or scooter. BBIH keenly decided to ease this burden and thus the birth of a mobile banking unit (AKA “Gelt Bus”, PA Dutch for “money”).

## MOBILE BANKING - REDEFINED

BBIH's mobile banking units are 34' long recreation vehicles tricked out to be full-service bank branches to serve various locations within Lancaster and Chester counties. These mobile units have the look, feel, characteristics, capabilities and security of a traditional brick and mortar; including a walk up teller window, office area, ATM, full bathroom and a highly secure Wi-Fi connection with advanced threat protection. The "bank on wheels" concept is not new. Other banks and credit unions, both US-based and abroad, have rolled out their own versions to serve rural communities or those in the aftermath of natural disasters. That said, this innovative concept to serve a community that prefers to hold on to the tried and true methodologies of the past, is simply genius.

## CONNECTIVITY ON THE ROAD

BBIH sought the help of a third-party managed service provider (MSP) to assist with constant connectivity and access while on the road. The MSP configured a wireless router for vehicular Wi-Fi connectivity. The purpose was to enable non-stop reliability across two cellular networks. Each cellular network was contracted for an unlimited data plan to ensure high-speed data was continuously available. Ideally, when one network subscription reached max high-speed data limits, the other would kick in to maintain optimum performance availability. BBIH was assured all traffic, both internal and Internet-based, was traveling via the bank's VPN (virtual private network) to the main branch network. This measure was in place to filter traffic through the main branch's firewall before going live, thus securing the data and fulfilling a regulatory requirement.

## LOCATION, LOCATION, LOCATION [bihbank.com/index.php/mobile-banking](http://bihbank.com/index.php/mobile-banking)



BANK OF  
Bird-in-Hand

Mobile  
Bank

HERE  
TODAY



"Before the mobile branch started rolling through the roadways surrounding the farms and fields of Lancaster County, calls were coming in with invitations to put the mobile branch in the parking lot of their business."

"Most of the locations the mobile branch visits are in the parking lots of Amish-owned businesses. Locations were chosen with consideration for convenience for their customers. On Tuesdays, for instance, there is a well-attended hay sale in Kirkwood, PA. BBIH's mobile branch can be found in the milking equipment supplier's parking lot across the street during the hours of the hay sale."

- hometownbanker.org



# Cyber criminals do not discriminate.

- ▶ You are more likely to have your **identity stolen**, than your vehicle taken or home burglarized.



- ▶ Banks spend **\$1 BILLION PER YEAR** on identity theft-related expenses.



- ▶ **\$851 - \$1,378** spent by victims on identity theft-related expenses.
- ▶ **18%** of victims take **4 years or more** to discover they are victims of **identity theft**
- ▶ The average number of **hours spent repairing damage** from identity theft is **330 HOURS.**



Sources: LifeLock, Spam Laws, NBC News, Identity Theft: A References Handbook A Reference Handbook

## ADDRESSING THREATS

Although the Amish community is not customarily tapping into the resources of a “connected” world, this does not mean they are immune to data breaches and identity theft. Customer protection is something Bank of Bird-in-Hand takes extremely seriously. The majority of American consumers are attracted to convenience and availability when it comes to interacting with their money. The enormous stores of cash and consumer data within a banking network makes the industry a prime target for cyberattacks; including information hijacking, and related extortion. The threat landscape is constantly evolving; therefore, a fixed cybersecurity strategy is simply not effective. A solid cyber defense strategy is multifaceted. Not only do banks need industry leading next-gen hardware and multi-layered defenses, cybersecurity expertise regarding configurations and procedures are equally as important.

Bank of Bird-in-Hand’s regular proactive security practices revealed existing, yet hidden, vulnerabilities at the corporate level. They began the quest for an alternate MSP with a proven track record in cybersecurity management. Thorough vetting and

vendor due diligence led BBIH to Omega Systems' cybersecurity professionals to assist in providing strategies for maximum availability and enterprise-level data security enhancements.

## LEVERAGING THE RIGHT MSP

Omega Systems is an MSP that works tirelessly to manage and maintain their customers' valuable data assets and IT investments. All "managed" services are provided through the Omega-owned and privately maintained SOC 2 Compliant Data Center.

Ownership of the private cloud space gives Omega Systems the unique advantage of control, understanding and single-source accountability. Additionally, it reinforces the value this MSP places on overall quality of service.

Omega Systems' customers gain the benefits of privately hosted offerings and dedicated support, but more importantly, they are assured only the professionals they know and trust handle their data. BBIH opted for Smart Secure, Omega Systems' managed cybersecurity service with:

- *Professionally configured Next-Gen firewall security*
- *Enterprise-level threat protection*
- *Real-time incident detection*
- *Dedicated professional threat response*
- *Compliance assurance*
- *SIEM Reporting and Alerting through Omega Systems' custom-built SIEM tool*
- *Regular vulnerability scans and professional consultations*
- *Dedicated cybersecurity team*
- *Change management system*
- *Intrusion Prevention System*
- *Network health monitoring*
- *Proactive firmware upgrades*

*"We try very hard to pay close attention to re-curring customer requests and needs, as well as industry trends to lay a solid groundwork for each buildable solution."*

- Ben Tercha, Omega Systems' Vice President of Operations

## Expertise on hand.

**An MSP with an NSE 8 Certified Engineer on staff is a rare find, as there are less than 300 in the US.**

*Omega Systems' Managed Security Architect is NSE 8 Certified. The NSE 8 certification is the highest ranking technical certification available in it's class. It is recognized in the worldwide technology industry as the most prestigious and unique networking and security designation.*

*Omega Systems is proud to employ a professional that demonstrates commitment and passion for the quality of work he is doing to protect our customers.*

## MANAGED CYBERSECURITY

Smart Secure is an evolutionary solution which affords BBIH a robust, multi-layered and fully managed cybersecurity solution that gets better and stronger every day; applying the threat analytics of both machine learning and human activity. As part of the professional management platform, Omega Systems runs advanced-level analytics for BBIH with real-time visibility, actionable insight and priority alerts. Omega's Cybersecurity Team filters through the "white noise threats", alerts BBIH of viable threats and takes appropriate action immediately.

When Omega Systems partnered with Bank of Bird-in-Hand to secure the corporate network, the mobile unit was also addressed. Omega's Cybersecurity Team took every effort to utilize the hardware investments already in play, however discovered the mobile unit's network traffic was not properly routed. They quickly corrected the routing issue while enhancing the hardware capabilities of the mobile unit.

Omega Systems also addressed unexpected downtime within the mobile unit. When employees intermittently experienced difficulties accessing banking applications and Microsoft Outlook was failing to connect the respective mailboxes, Matt Wise, Omega Systems' Managed Security Architect, took full responsibility for finding a solution. Wise directly interfaced with the mobile data carriers to get answers. He determined that although BBIH was contracted for unlimited mobile data, they exceeded the carrier's maximum high-speed wireless data usage rate. Wise further discovered the model of the wireless router, implemented through BBIH's previous MSP, was ill equipped to keep both mobile data carriers active at the same time.

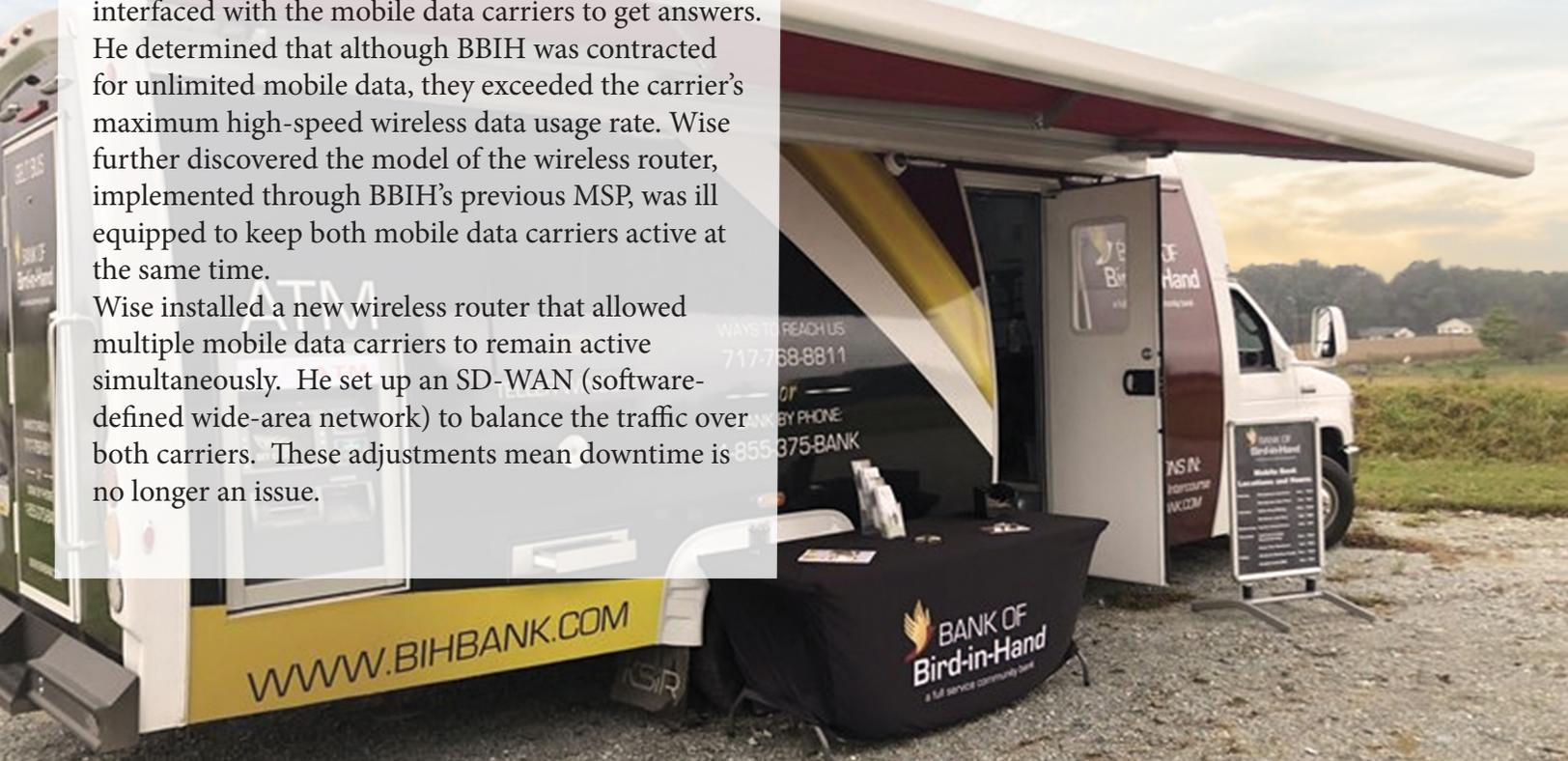
Wise installed a new wireless router that allowed multiple mobile data carriers to remain active simultaneously. He set up an SD-WAN (software-defined wide-area network) to balance the traffic over both carriers. These adjustments mean downtime is no longer an issue.

Wise continued to refine and amplify the mobile unit's cybersecurity strategy. He implemented the strategy of streamlining advanced-level analytics and simplified threat logging and reporting capabilities. With Smart Secure's SIEM reporting and alerting dashboards, both Omega Systems and Bank of Bird-in-Hand have real-time access to threat intelligence specific to the mobile unit.

"During the Bank's transition from the previous MSP, which included enhancing the technology on the mobile branches, Matt Wise and the Omega team provided the right skill set to assist the Bank's IT team."

"This partnership was instrumental in contributing to the consistent delivery of 'on the road' effective banking services, while providing improved protection of our customers' information."

- Ms. Kirkhoff, Bank of Bird-in-Hand  
Chief Risk Officer





## CONTINUING ON THE PATH OF SUCCESS

Omega Systems professionals are passionate about the work they do and about the relationships they nurture. Matt Wise, Omega Systems' Managed Security Architect, is a solid example of this level of dedicated accountability. Even though things are consistently running smoothly, Wise continues to reflect on the BBIH mobile unit solution. "We learn more and more every day and as technology improves, our skills and knowledge continue to strengthen," Wise mentions. "We are all aggressively dedicated to doing things the best way possible." It is for that reason Wise continually looks for ways to make the mobile unit solution better and better.

"We learn more and more every day and as technology improves, our skills and knowledge continue to strengthen."

"We are all aggressively dedicated to doing things the best way possible."

- Matt Wise, Omega Systems  
Managed Security Architect, NSE 8 SN: 3302

Bank of Bird-in-Hand has been successfully and securely running and operating their mobile banking unit; so much so that they have deployed two additional units.

In the Fall of 2019, during a routine maintenance call, a discussion ensued about the two new mobile units. Matt was excited to share his new network design ideas for the newest units. Wise, along with fellow Systems Engineer Erick Strause, worked directly with the wireless router Pre-sales Engineers to fortify their design. In late August 2020, Omega Systems' technical team was excited to configure, install and test the latest solution on mobile unit number two.

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## About Omega Systems

Publication Date: October 13, 2020

Omega Systems is a trusted, award winning IT solutions firm and regional leader in technology infrastructure solutions. Pioneers in cybersecurity, managed services, private cloud services and disaster recovery; Omega Systems is home to a 5,000 sq.ft. SSAE 18 AT 101 SOC 2 Certified Data Center, facilitating private cloud and security services.

The *Data Center meets or exceeds requirements for: PCI, DSS, FDIC, GLBA, FISMA, DoD, DISA, HiTrust, EU-US Privacy Shield* and more.

### Experience Supporting Banks and Finance

Omega Systems has been supporting financial services firms with effective, scaled IT solutions and personal support for over a decade.

*Hosted applications currently include:*

- **iCore**
- **Fiserv**
- **DCI**
- **Jack Henry**

Unlike competitors, Omega Systems promotes ultimate customization to support your business' key differentiating factors.

*Regardless of your current cybersecurity positioning and complex IT challenges, Omega Systems is ready to help you stay competitive, secure and positioned for excellence.*

### Bank-Focused Solutions and Services

The client-driven solutions empower banks and financial institutions with the ability to offer superior customer experiences and competitive business models, while achieving operational efficiency, security and performance.

Omega Systems' security-focused services are crafted and supported by dedicated technical experts, intimately familiar with the financial service industry. Their suite of tools for Vulnerability Assessments, SIEM Reporting and Alerting and their proprietary, custom-built Live Time Dashboards provide progressive and actionable, real-time analytics, perfect for C-Level executives. In addition to the IT services, their clients leverage in-house Security and Compliance Officer or End User Security Awareness Trainings as a crucial part of a forward-moving security strategy.

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