HIPAA Compliance in the Cloud

The Health Insurance Portability and Accountability Act (HIPAA), which mandates privacy standards to protect patients' medical records and other health information, resulted in massive changes to healthcare operations. Now healthcare IT is in the midst of another rapid change due to the transformative nature of adopting cloud. Organizations are realizing significant benefits across functional, technical, and business areas by enabling:

- On-demand healthcare, telehealth, and user experience
- Big Data analytics, predictive healthcare, and operations
- Virtual reality applications
- Wearable medical devices and Internet of Things (IoT)

Cloud migration in these technologies can: improve end-user satisfaction; greatly reduce costs; enable the scaling of services as needed; allow providers to deliver high-quality, personalized care; remove location barriers that have traditionally restricted access to specialized healthcare; ease interoperability; provide access to high powered analytics; and increase patients' data ownership and participation. In short, healthcare organizations can reap significant benefits from cloud transformation. However, there are several obstacles that have impacted their smooth adoption.

SMX is one of only a few companies worldwide to achieve Premier status in all three hyperscaler cloudplatforms.

Overview of Challenges
Common Obstacles to Cloud Adoption for HIPAA Customers

1. Risk of Data Loss
As systems that fall within the scope of HIPAA generate data at an exponential rate, the challenge to meet these requirements has intensified. The expanding market for health applications and the shift toward electronic health information has helped make access easier for consumers, but also has changed and increased the threat vectors. Organizations need to analyze computer and physical security measures continuously and adjust privacy practices to comply with current HIPAA privacy and security rules.

Organizations that fail to comply with HIPAA's policies must deal with legal consequences and negative public relations. Violating HIPAA standards can result in significant fines based on the level of negligence. Non-compliant entities can receive a $50,000 fine per violation (maximum $1.5 million/year). Trust and security are increasingly important factors in the digital world, even more so when it comes to personal healthcare data. Data must be protected on systems that are secure and scalable.

2. Cost of Compliance
Healthcare organization IT departments are tasked with moving to the cloud and following HIPAA policies, but it can be costly and complex as organizations must meet stringent security standards. Yearly compliance audits can cost an estimated $250,000 and if an audit fails, the costs escalate.

3. Skills of Existing Resources
Organizations that need cloud cyber security assistance but do not have the necessary resources to keep everything in-house have two options. They could either (1) employ an IT contractor or (2) utilize the professional services of a Managed Service Provider (MSP) specializing in compliance, such as SMX.

4. Complexity of Multi-Cloud and Hybrid Environments
Increasingly, healthcare companies are moving their data into the cloud. Cloud storage does not change organizational responsibility, but it does require a particular skillset and solutions to secure data under HIPAA compliance. To further complicate matters, each cloud provider has their own set of tools/solutions to help maintain compliance.

SMX Expertise

- More than 25 years of experience with Health IT systems and transforming legacy applications
- Deep security expertise and knowledge of HIPAA and HITECH requirements
- Capabilities in healthcare and other regulated industries help minimize risk of migrating to the cloud
- Secure, interoperable, scalable, and extensible Virtual Health Network (VHN®) platform enables connectedness
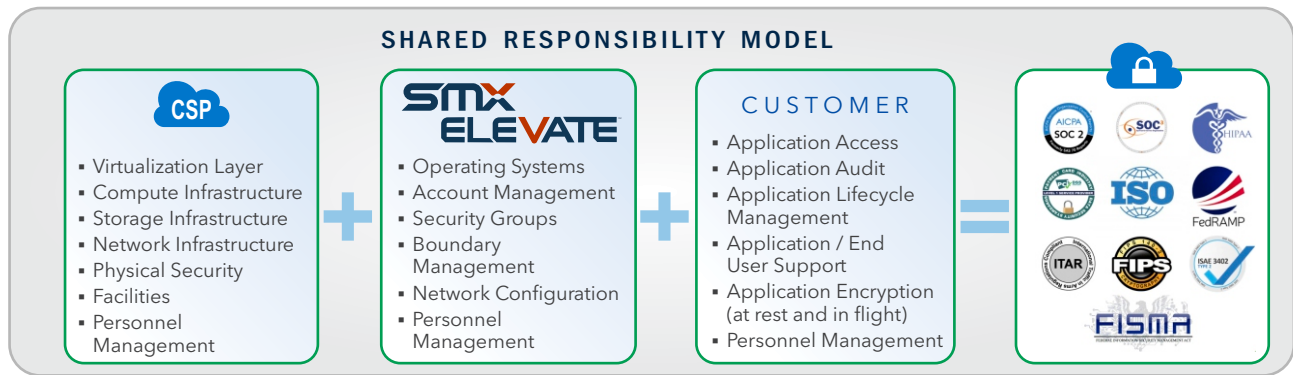
Solution Overview

SMX delivers productivity gains and cost-savings and ensures our customers are always in compliance with HIPAA by staying current on national and international developments. We have been doing this in the cloud for more than a decade. We understand that it can be overwhelming and costly for organizations to keep current with changing technologies, markets, software, licensing, and regulation. SMX keeps the customer's data secured on their cloud networks, eliminating the possibility of crippling cyber attacks that could have damaging consequences for an organization.

Solution Benefits

SMX uses rigorous methods for data security, including systems and personnel for cloud migrations, workload management, risk management, and HIPAA compliance. This starts with building a secure and scalable cloud architecture, designed with HIPAA in mind. Our services integrate with the customer's current cloud adoption stage. Whether just getting started or utilizing a cloud platform for years, SMX HIPAA compliance solutions provide the customer with the information they need to secure their most critical information in the cloud. Our HIPAA compliant cloud capabilities can help accelerate the customer's HIPAA journey while removing risk and decreasing costs through our audited controls within our Elevate - Intelligence Automation Platform.

Here are some highlights for the solutions we provide:

- Define proper security guard rails, incorporating best practices for security teams to create repeatable and auditable security as code
- Development of DevSecOps processes to safeguard continuous integration/continuous deployment pipelines
- Assess existing cloud/hybrid architecture, technology, security services, and compliance policies
- Decrease time and cost to compliance dramatically by leveraging our CAMS shared responsibility model framework for HIPAA

SHARED RESPONSIBILITY MODEL

CSP
- Virtualization Layer
- Compute Infrastructure
- Storage Infrastructure
- Network Infrastructure
- Physical Security
- Facilities
- Personnel Management

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SMX ELEVATE
- Operating Systems
- Account Management
- Security Groups
- Boundary Management
- Network Configuration
- Personnel Management

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CUSTOMER
- Application Access
- Application Audit
- Application Lifecycle Management
- Application / End User Support
- Application Encryption (at rest and in flight)
- Personnel Management

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Solution Deliverables

SMX works with organizations to identify appropriate security controls and supplemental tools that could be deployed to prepare the environment for HIPAA compliance or authorization. This includes recommendations, design, planning, and implementation of:

- CSP Account Structure and Provisioning
- Foundation Virtual Network
- Boundary and CSP Connection Controls (Firewalls and Application Access)
- Identity and Access Management

- Shared Services Design and Implementation
- Infrastructure Automation
- Backup, Recovery HA or DR
- Monitoring and Logging
- Managed Operations and Continuous Compliance

SMX Elevate cloud solutions allow our customers to leverage the power and scalability of cloud platforms, while reducing the cost and complexity of managing and monitoring cloud infrastructures and applications in-house. Our certified experts provide customer assistance and complete management of services from provisioning through the entire solution life-cycle.

For more information, please contact our Digital Solutions Group: DigitalSolutions@smxtech.com

SMX harnesses the transformative power of technology to achieve mission success as a leader in digital and mission solutions, specializing in secure and advanced cloud, ISR, cyber, data analytics, engineering, space, and IT solutions. Operating in close proximity to our clients across the globe, the SMX team has a shared vision to deliver scalable and secure solutions to assure outcomes for the critical missions of our Government and commercial clients.

A few of our contracting vehicles: GSA ASTRO, GSA Alliant 2, GSA OASIS, GSA MAS IT, NITAAC CIO-SP3, SeaPort-NxG, and DIA SITE III.

SMX | Shared Vision. Outcome Assured.®

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