Cyber-Harden Critical Infrastructure

Owners and operators of US-based oil and gas pipelines face increasing pressure to improve their security posture to combat cyberattacks. Recent Transportation Security Administration (TSA) pipeline security mandates – Pipeline Security Directive 2021-02 series with the latest updates SD-02D effective as of July 2023 - add stricter requirements for annual testing and reporting of Cybersecurity Incident Response Plan (CIRP) objectives.

TSA guidelines mandate pipeline systems operators establish and implement an approved Cybersecurity Implementation Plan with access controls and multi-factor authentication, and maintain an annual program to assess ongoing effectiveness. Successfully complying with these directives depends on having the right, experienced practitioners at your side.

SD02D identifies five Cybersecurity Incident Response Plan (CIRP) objectives and requires that operators must test at least two objectives each year and report results to TSA.
Industry-leading expertise at every stage
Xage Cybersecurity Services help pipeline operators accelerate the cyber-hardening of critical infrastructure and expedite compliance ahead of federal deadlines.

Our TSA Directive Compliance Services deliver a full lifecycle of consulting capabilities to accelerate TSA Directive compliance and implement proactive cybersecurity measures based on defense-in-depth principles. Xage Services combine our expertise in long-standing industrial cybersecurity practices, such as network segmentation and threat monitoring, with innovative protective cyber defense approaches and zero trust access control.

Xage Cybersecurity Services have helped some of the largest oil and gas pipeline operators win TSA approval for implementation plans covering thousands of sites.

Our services are built on industry-accepted risk management frameworks and together with HCL Technologies, our global service delivery partner, address all vital aspects of the TSA Pipeline Security Directive.

Assess & Design
• Xage Services rapidly analyze and evaluate your current systems and critical infrastructure to uncover deficiencies and identify any TSA guidelines readiness gaps.
• Based on our expert assessment, Xage Services delivers cyber-hardening strategies designed for your unique real-world needs with a ready-to-submit implementation plan to comply with TSA requirements.

Implementation
• Xage Services guides your organization through each cybersecurity measures adoption phase, including developing and maintaining the TSA-mandated incident response programs.

Support
• Once operational, Xage Service provides you with SLA-based support and continuous review services to ensure the effectiveness of cyber-hardening measures against current and future cyber-threats, as well as new and evolving regulatory requirements.
How Xage Services Help You Meet TSA Security Directives

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<th>TSA Pipeline Security Directive Requirement</th>
<th>Joint Xage Services and HCL Offering</th>
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| Establish and implement a **TSA-approved Cybersecurity Implementation Plan** that outlines specific cybersecurity measures | • Assessment of existing cybersecurity controls readiness to meet SD-02D requirements  
• Creation of an Implementation Plan ready for TSA approval |
| Develop and maintain a **Cybersecurity Incident Response Plan** to reduce the risk of operational disruption | • Development of Cybersecurity Incident Plan based on operational risk profile  
• Measurement of incident response plan effectiveness across people, processes, and technology |
| Establish a **Cybersecurity Assessment Plan** with an annual plan with details on the assessed effectiveness of the cybersecurity measures defined in the Implementation Plan | • Development and management of operator-specific assessment program  
• Reviews of cybersecurity measures implemented to cyber-harden Critical Cyber Systems |

Experience the Xage Difference

Xage Cybersecurity Services are powered by Xage Security, the first and only zero trust real-world security company. Xage Services offerings are purpose-built to accelerate your shift to a security posture that actively protects operational infrastructure.

As a leader in zero trust defense-in-depth security for OT and OT-IT converged environments, Xage Services – together with our partner ecosystem – enables critical infrastructure and industrial organizations to adopt modern cybersecurity practices in less time and without disruption.