

# Cybersecurity assessment



\$300M

Loss for Maersk after WannaCry attack, due to significant business interruption (no data loss or physical destruction).<sup>1</sup>



1 in every 4

days the US power grid is struck by a cyber or physical attack.<sup>2</sup>



\$1M

The average cost of each NERC CIP Violation.<sup>3</sup>

## Overview

Ensuring you have a full understanding of how your critical assets may be vulnerable to cybersecurity threats is a best practice that must be adhered to, especially for those operating in industries mandated by security compliance standards such as NERC/FERC/CIP or WIB. Baker Hughes is your partner in helping you secure your operational technology network and assets.

Our cybersecurity assessment is specifically designed to help you better understand and address your weaknesses as well as meet your compliance objectives.

According to the Department of Energy, implementing just the Top 5 CIS Security Controls can reduce the risk of a **cyber attack by 85%!**

## Benefits

- Cost-effective and scalable to meet your unique cybersecurity needs
- Control system agnostic approach allows us to assess third party systems
- Leverage our OT-specific cybersecurity expertise while you focus on your core business
- Based on industry best practices of the Center for Internet Security (CIS) Top 20 Controls
- Can support compliance with several industry standards such as ISA99/IEC 62443 and NERC-CIP
- Elevate your cybersecurity awareness and identify potential vulnerabilities
- Actionable roadmap of prioritized mitigations to improve your security posture

## Our approach

We start by collecting data on your control system to identify, inventory, and categorize every asset that will be included in the scope of the assessment. Next, we review system configurations, log files, malware defenses, network configurations, data recovery capabilities, access control, and supporting security processes. Finally, we provide a detailed report that quantifies your current cybersecurity maturity rating and provides a prioritized roadmap of recommended mitigations.

## Why Baker Hughes cybersecurity assessment?

For over 10 years we've been providing OT cybersecurity solutions for Industrial Control Systems and have full understanding of your availability and security needs related to critical infrastructure. Our cybersecurity experts are knowledgeable on CIS Top 20 Controls and industry standards such as ISA99/IEC 62443, NERC-CIP, NIST, and WIB. We can provide your team with the needed support for standards compliance and assist you in better understanding and addressing your vulnerabilities. Our scalable assessment allows you to establish a successful cybersecurity strategy while effectively managing your limited resources.

## Features

Below is a list of some of the important items that are reviewed during the assessment:

- Control system application: Control system configuration review, network security configuration, control system integration methodologies, and technical support agreement status
- HMI server hardware configuration: Hardware warranty status, health, environmental conditions and physical security
- HMI operating system configuration: Access control, account and password review, anti-virus configuration, patch management, logging, backup and recovery, server performance and resource snapshot, installed applications, TCP/IP network integration and architecture, performance, availability and health monitoring
- Mark/EX/LSI protection system: Password strength, control system integration methodology, TCP/IP network integration architecture, environmental conditions and physical security
- TCP/IP network infrastructure review: Review firewall, router, and switch configuration, firmware updates and management process, access control and authorization, system performance and availability management, physical security and environmental conditions
- Process review: Change management, IT incident management, patch management, system access authorization and implementation, lost/forgotten password, key management, and governance documentation



77%

Of 150 IT professionals in the energy, utilities and oil and gas, segments interviewed, 77% reported at least one security breach in the last 12 months.<sup>4</sup>



290

In 2016, US Homeland Security responded to 290 incidents of cyber invasions or breaches with 63 in Critical Manufacturing and 59 in Energy.<sup>5</sup>



\$14.8M

Average cost of cyber crime in 2016 for the utilities and energy sector.<sup>6</sup>

1 <http://www.globaltrademag.com/global-trade-daily/commentary/cyber-kinks-global-supply-chain>  
2 <http://www.usatoday.com/story/news/2015/03/24/power-grid-physical-and-cyber-attacks-concern-security-experts/2489247/>  
3 [https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/2013\\_SOR\\_May%2015.pdf](https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/2013_SOR_May%2015.pdf)  
4 <http://www.tripwire.com/company/research/tripwire-2016-energy-survey-attacks-on-the-rise/>  
5 [https://ics-cert.us-cert.gov/sites/default/files/Annual\\_Reports/Year\\_in\\_Review\\_FY2016\\_Final.pdf](https://ics-cert.us-cert.gov/sites/default/files/Annual_Reports/Year_in_Review_FY2016_Final.pdf)  
6 Ponemon Inst. 2016 Report on the Cost of Cyber Crime & the Risk of business innovation

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