



Case Study

MESA Gains IT Capacity and a Stronger Security Culture

MESA

Industry

Critical Infrastructure

Location

Oklahoma, USA

Challenge

Increase security posture and increase productivity of IT team

MESA is a trusted, turnkey solutions provider for protecting assets from corrosion. The organization designs, builds, installs and maintains cathodic protection systems and pipeline integrity applications across the country through its industry-leading subsidiaries—MESA Products – Manufacturing, MESA Services – Inspections, Engineering, Design, and Bass Engineering – Technical, Construction Services. Considered part of the nation’s critical infrastructure, overall Informational Technology (IT) security is critical to its success.

MESA’s Pre-Existing Security Protocols

With hundreds of employees using its networks and technology systems, the organization’s leadership has always prioritized good IT hygiene by offering some level of employee security awareness training.

MESA is a three-time Malcolm Baldrige National Quality Award (MBNQA) winning organization (2006, 2012, 2020). The award recognizes performance excellence, focus on continuous improvement and innovation, leadership, governance, and success in financial and market outcomes.

At a Glance

- ▶ Powerful customization and reporting features provide in-depth data in visualized schema and arm leadership with credible business intelligence
- ▶ Reduced Phish-prone™ Percentage from 52% to 8.6%
- ▶ PhishER saves nearly 7 weeks' time annually for the IT team by automatically investigating, quarantining and removing malicious emails
- ▶ Platform integration makes it simple to provide security awareness training and automated investigation of user-reported email vulnerabilities across all subsidiaries

“Through our Baldrige engagement, we knew there were opportunities for improvement in upping our IT security stance. Awareness training for our employees was an area we could advance. I reached out to my peers in the industry, and KnowBe4 came highly recommended,” MESA CIO/CISO Sarfraz Shaikh says. “You can throw a lot of expensive technology to fortify your ecosystem, but common mistakes made when using email, web and within the physical world, can leave the organization vulnerable.”

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Elevating Training Through the KnowBe4 Platform

MESA's journey with KnowBe4 began in late 2018 with [KnowBe4 Security Awareness Training](#).

“We needed a platform that provided short, relevant and interestingly-produced content that could be uploaded in our existing Learning Management System (LMS). Additionally, it had to sync with our Active Directory to eliminate the need to manage multiple portals. KnowBe4 was the right fit,” Shaikh says. “Post-sale, KnowBe4's customer service and onboarding were tailored to suit our needs, where my team was able to customize workflows, notifications and reporting. They were concise and provided us with the knowledge and support we needed.”

“Every new hire that comes into our organization, goes through the initial security assessment to gauge their awareness levels. The monthly phishing campaigns provide ongoing training and intelligence around evolving threats. This interactive approach has significantly strengthened our cybersecurity posture.”

Improving Testing Cadence and Caliber

MESA conducted initial baseline testing when it began working with KnowBe4. Shaikh was alarmed to see that the Phish-prone™ Percentage (PPP), or the likelihood that employees would click on a phishing email, was extremely high.



“Our baseline testing was an eye-opener, with nearly 52% of our employees clicking links, entering personally identifiable information (PII) and more. That’s the kind of stuff that should keep you up at night. And it did,” Shaikh says.

Immediately, one of the key goals of the program was to dramatically lower the PPP. With KnowBe4’s training and simulated phishing platform, MESA initiated monthly phishing campaigns, tying in topical subjects and internal events to test employees’ awareness.

For example, when the HR and Communities departments were planning to host a blood drive, Shaikh and his team would spin up a phishing email



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requesting employees to enter their date of birth and other PII. This level of targeted campaigning tested team members’ critical thinking skills and awareness of phishing tactics. If employees failed the test, they were auto-enrolled in short training modules which highlighted blind spots to mitigate such future occurrences. Employees were also given numerous opportunities to participate in supplemental courses at their convenience, including KnowBe4’s award-winning “The Inside Man” video training series.

Faster Incident Response with PhishER

In addition to the KnowBe4 training and testing platform, MESA had a deep security stack that included firewalls, endpoint detection and response, antivirus software, email spam filtering and dark web monitoring tools.

“We had a few defense solutions in place, but each was a different platform and required frequent back and forth intervention by our team,” Shaikh says.

MESA employees had already been trained to use KnowBe4’s Phish Alert Button (PAB), to forward suspicious emails to Shaikh’s team to investigate.

“We were filtering out roughly 10% of emails, but the IT team had to review each one individually forwarded to the ticketing system. We knew we needed automation to expedite this process,” Shaikh says.

Shaikh learned about KnowBe4’s lightweight SOAR platform and full incident response platform, PhishER™, and felt it was the right choice, in part, because it provided a single pane of glass view.

“Full integration with PAB, PhishML™, the machine learning module, PhishRIP™ to quarantine messages sent to multiple employees—it was all within the KnowBe4 ecosystem. I was sold,” Shaikh says.

PhishER was deployed in mid-2021, and MESA saw an immediate return on its investment.

As soon as a team member clicked the PAB, sending the email in question to PhishER, the platform would

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automatically scrub and review the message for potential threats. This saved the IT team significant time so they could focus on other issues rather than investigating every suspicious email. Shaikh’s team saved additional time by implementing PhishRIP, which is a PhishER feature that removes confirmed malicious messages from every person’s inbox.

Previously, multiple people within the organization could have received the same suspicious email with only one reporting it to the IT team. This meant others who had received the email could end up clicking it. PhishRIP, however, identified every user that had received the email and withdrew it from all user inboxes all at once.

“PhishRIP is an enormous time saver, and efficient in shutting down threats quickly,” Shaikh says.

What MESA Achieved with KnowBe4

MESA’s PPP has decreased significantly since implementing KnowBe4’s security awareness training and simulated phishing platform. Beginning in 2018, its PPP was around 52%. Five years later, it was down to 8.6%, showing a stronger overall cybersecurity position.

MESA’s IT team saw significant time savings once they implemented PhishER. Over one month, users reported 507 messages as potentially suspicious. Of these, PhishER automatically resolved 92 of them with no input from the IT department.

Given that investigating and resolving one of these emails takes a minimum of 15 minutes of an IT professional’s time, MESA’s IT department was saving at least 23 hours per month. Extrapolated out through an entire year, the organization was saving a minimum of almost seven weeks of time annually.

“KnowBe4 has increased its footprint in our organization through impactful results. Our PPP is headed in the right direction. There is increased efficacy using PhishER, and PhishRIP. We are educating end-users by using cleverly produced content available in the ModStore,” Shaikh says. “The reporting feature gives us visibility about our risk score, repeat offenders, targeted training, training completion and more. The Executive Reports give the leadership team good business intelligence in easy-to-understand visualized schema. It has helped us create a strong security culture.”

Looking Forward

As MESA continues improving security measures and aligning to certain cybersecurity frameworks, Shaikh and his team use each employee’s training and testing history as an opportunity for professional development. Employees who continue to struggle with identifying phishing emails are given additional training, while those that continue to perform are acknowledged during the annual merit review process.

“We want to recognize the proficient and motivate the novices. Thanks to our strong partnership with KnowBe4, we are excited to learn of new innovative strategies to integrate,” Shaikh says.

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