Creating trust in the digital world
EY’s Global Information Security Survey 2015
Oil and gas sector results

EY’s Global Information Security Survey investigates the most important cybersecurity issues facing businesses today. It captures the responses of 1,755 participants around the globe and across sectors. We base our findings and conclusions on those insights and our extensive global experience working with clients on improving their cybersecurity programs.

The following findings from the participants from the oil and gas sector show that organizations are making progress in improving the way they respond to today’s cyber threats and attacks. But the results also indicate the need for considerable improvement as the world becomes more digital and attackers increase in sophistication and persistence.

Key findings

- **83%** believe their information security fully meets the organization’s needs
- **46%** of respondents do not currently have a role or department in their information security function that focuses on emerging technology and its impact

- **40%** of respondents do not see managing the growth in access points to their organization as an information security challenge in the Internet of Things
- **40%** say knowing all their assets is a key information security challenge
- **41%** say it is unlikely they would be able to detect a sophisticated attack
- **38%** do not see managing access points to their organization as an information security challenge
- **35%** say they are not currently seeing the growth in access points as a key challenge
- **34%** believe they are not currently seeing the scale of access points as a key challenge
- **32%** believe they are not currently seeing the speed of access points as a key challenge
- **31%** believe they are not currently seeing the volume of access points as a key challenge
- **30%** believe they are not currently seeing the breadth of access points as a key challenge
- **29%** believe they are not currently seeing the complexity of access points as a key challenge
- **28%** believe they are not currently seeing the diversity of access points as a key challenge
- **27%** believe they are not currently seeing the uniqueness of access points as a key challenge
- **26%** believe they are not currently seeing the overlap of access points as a key challenge
- **25%** believe they are not currently seeing the integration of access points as a key challenge
- **24%** believe they are not currently seeing the interconnectivity of access points as a key challenge
- **23%** believe they are not currently seeing the interdependence of access points as a key challenge
- **22%** believe they are not currently seeing the interrelations of access points as a key challenge
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- **12%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **11%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **10%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **9%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **8%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **7%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **6%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **5%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **4%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **3%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **2%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **1%** believe they are not currently seeing the interdependencies of access points as a key challenge
- **0%** believe they are not currently seeing the interdependencies of access points as a key challenge

Operating in a digital world invites new challenges and threats

Reputation protection involves a cyber strategy to support business transformation and financial controls compliance. As infrastructure becomes unmanned and remote, so increases the potential for destructive attacks, with cyber-physical impacts.

Operational excellence (OE) requires high safety and reliability standards so companies can minimize incidents impacting people, assets and technology. OE is a key focus area for companies with remote digital exploration and production or in politically fragile regions, as cyber threats increase with every additional technology connection.

Cyber enables digital transformation and allows for strategies to anticipate and address the specific threats and vulnerabilities in your digital world, applicable to your organization. More oil and gas companies have started or are refreshing their cybersecurity measures. Have you?

Is your cybersecurity ready to support your digital business?

Do you understand the specific threats and vulnerabilities in your digital world?

Have you done the work and thinking required to determine how that threat landscape applies to your organization and strategy?

Do you know how to set your risk appetite — the acceptable and unacceptable loss and harm from potential incidents — and how to prioritize cybersecurity measures around this?

Download our GISS 2015 report: Creating trust in the digital world ey.com/qiss2015
Can you stop the attacks?
Organizations are familiar with good risk management principles, and the same can apply to cybersecurity:

<table>
<thead>
<tr>
<th>Key risk management principles ...</th>
<th>... applied to cyber risk</th>
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<tbody>
<tr>
<td>1 Focus on what matters most</td>
<td>Know your critical information assets</td>
</tr>
<tr>
<td>2 Measure and report</td>
<td>Identify critical business assets most vulnerable to cyber attack</td>
</tr>
<tr>
<td>3 Comprehensive in nature</td>
<td>Make cyber risk more tangible</td>
</tr>
<tr>
<td>4 Allocation of risk appetite</td>
<td>Define cyber risk and underlying metrics clearly</td>
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<tr>
<td>5 Integrate with business planning</td>
<td>Align with existing risk frameworks</td>
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<td></td>
<td>Bring financial, operational, regulatory, customer, reputation and other frameworks together</td>
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<td></td>
<td>Make cyber risk relevant to the business</td>
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<td>Link organization-level risks to individual business units and their information assets</td>
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<tr>
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<td>Embed risk appetite in investment decisions</td>
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<td></td>
<td>Prioritize investment where critical, empower business to make informed local decisions</td>
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The shift to Active Defense
Understanding your critical cyber business risks and knowing what attackers may want from your organization enables you to establish “targeted defense,” and assessing the threat landscape allows you to understand the most likely threat actors and methods they may use. All this information is crucial for your SOC and should be the basis on which it will support your organization.

Put in place a more advanced SOC and using Cyber Threat Intelligence to align operations that help enable Active Defense. This involves sending out intelligent feelers to look for potential attackers, analyzing and assessing the threat, and neutralizing the threat before it can damage your organization’s critical assets.

The road to improvement
Any organization will benefit from an objective assessment of its information security programs and structures:
• Understand your organization’s risk exposure
• Assess the maturity of your current cybersecurity program and identify areas for improvement
• Build a prioritized road map for project investments and organizational change initiatives
• Collect information to create benchmarks against other organizations
• Determine whether your security investments have improved your security posture

This assessment needs to be broad and high-level as well as totally immersive in specific areas and components. Dashboard metrics will enable an organization to see what is needed to support the ongoing assessment, transformation and sustainability of the information security strategy.

Cybersecurity is a digital enabler
Cybersecurity is not an inhibitor in the digital world; rather, it is the way to make the digital world fully operational and sustainable. Cybersecurity is key in helping unlock innovation and expansion. A tailored organization and risk-centric approach to cybersecurity will adjust the balance of the digital world back toward sustainability and safety to better protect your organization and build trust in your brand.

Is Active Defense appropriate for your organization?
If any of the following statements apply, you should consider an Active Defense approach:
• We have an SOC but are still not finding evidence of advanced attackers.
• We have an SOC, but we still had a major breach.
• We have an outsourced SOC, but our intellectual property and business systems are not truly secure.

An example of current state maturity benchmarking

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