

CIO Challenge: **Lack of Visibility** around Compliance and Security Risks



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Anticipate and Prevent Potential Cybersecurity Threats

Introduction

What are the main concerns facing Chief Information Officers today? At Orbus Software, we have identified eight major issues that every enterprise is likely to struggle with when it comes to meeting the demands of the digital age.

It practically goes without saying, but doing business is fraught with risks. Firms have always had to contend with physical security, but the interconnected world now means cybersecurity has become the biggest threat. Internally, businesses have to deal with principal-agent problems, unscrupulous employees, and simple mistakes, but now there are many more regulations, more areas to monitor, and the connections between business elements mean even small mistakes can have huge impacts. Together, the management of these are grouped under Governance, Risk and Compliance, or GRC.

In this eBook, we will focus specifically on “Risk”, and examine how organizations struggle to anticipate and prevent cybersecurity threats.

The global average cost of data breach in 2025, including those caused by malware, was

\$4.44 million

SOURCE: [IBM](#)



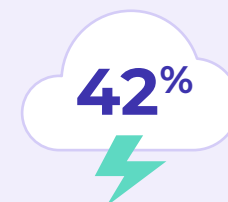
The Growing Threat to Modern Business

The Solarwinds attack. The Equifax data breach. WannaCry Ransomware. The Sony Pictures hack. The NotPetya malware. Just a small sample of the many hacks and data breaches that have taken place over the past few years, costing billions, possibly even trillions, in damage, fines, and thefts. A list of every major data breach would take up more space than this entire eBook. Between the number of attack vectors and the growing sophistication of the attackers (some of which are now government supported), it is no wonder that hacks have become so common and dangerous.

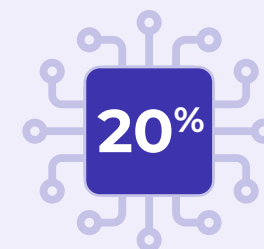
Sprawling systems expose vulnerabilities

In our eBook on spiralling technology costs, we mentioned a statistic that the average enterprise pays for more than 1500 applications. This obviously impacts costs, but it also highlights the challenge that security teams face. 1500 applications means 1500 additional potential weak points, in addition to vulnerabilities in internal systems. The uncontrolled sprawl of enterprise technology greatly complicates efforts to secure valuable information and protect operations.

The growth in applications also contributes to another problem; a business cannot address third-party security issues. Even if a firm has very robust risk management, they can still be vulnerable simply because of a weakness in an email provider, or an operating system, or similar.



In 2025, **42% of breaches were cloud-based**. Almost one third (30%) involved data distributed across multiple environments, costing an average of \$5.05 million.



In 2025, **20% of organizations suffered a breach due to shadow AI**, adding an extra \$670,000 to the average breach price tag.



In 2025, it took organizations an average of **241 days to identify and contain a data breach**.

SOURCE: [IBM](#)

Lack of visibility across the organization

Huge application portfolios are just one part of a broader issue, which is that IT or risk professionals struggle to have clear visibility over the enterprise. Aside from knowing the scale of the application and technology portfolios, there are still going to be problems with organizational and data silos, complex systems, or with duplicated or wasted information. If a firm cannot understand its structure, it is doomed to fail when it comes to security.

Waste and duplication afflict existing risk management

No firm is going to approach risk management from scratch; there will always be some existing systems in place. Unfortunately, many of these systems are poorly done, wasting resources and often duplicating effort across different parts of the enterprise.

Cybercrime damages are projected to reach **\$10.5 trillion** annually in 2025



Failure to maintain oversight

Let's put aside these issues and assume that a firm has managed to solve all its vulnerabilities. Even in this unlikely scenario, risks will still be a problem for the firm as standing still is not an option in the modern world. Software updates, new technologies, changes in business strategy or personnel, or even new regulations will open up the firm to cybersecurity risk. Without permanent and effective oversight of risk management or compliance problems, organizations cannot hope to remain protected.



Human error and misconfiguration caused
40% of total breaches in 2025

SOURCE: [Data Stack Hub](#)

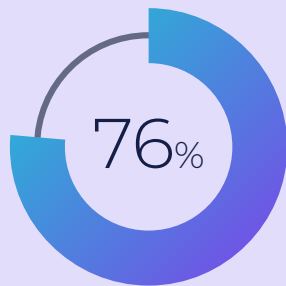
Minimize Risk and Ensure Compliance

GRC is a wide and varied area that should span across the business. Any changes made to help deal with risk will cross over with governance and compliance and vice versa, which means changes made by a CIO will only be part of the overall approach to GRC for the organization.

Even within the security arena, there is a difference between systems to anticipate threats, and systems to protect against threats. Fortunately, it is possible to lay strong foundations that support the whole, particularly through effective architecture.

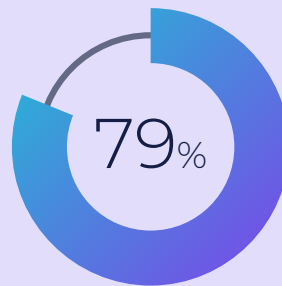
Organizations that failed to adopt zero-trust architecture in 2025 will be increasingly vulnerable to breaches and ransomware attacks.

SOURCE: [Zscaler](#)



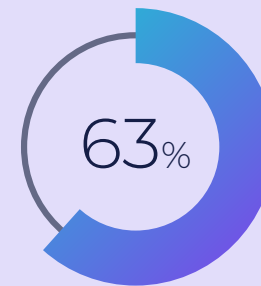
of CISOs say fragmented global regulations make compliance significantly harder for their organizations

SOURCE: [World Economic Forum](#)



of investors now expect boards of directors to demonstrate cybersecurity expertise and show how they mitigate cyber risks

SOURCE: [Encryption Consulting](#)



of breached organizations don't have an AI governance policy or are still developing one

SOURCE: [IBM](#)

Security architecture is the key to robust defences

Security architecture creates and maintains a unified security design that addresses risks to an organization, while being robust and repeatable. However, while it is easy to see the need for a robust security architecture, implementing and maintaining it is not simple. Architecture models require a central repository, and architects need to have visibility over the firm's entire architecture and its interdependencies. Firms can't invent effective security architectures from scratch, and so need to be able to implement common frameworks and standards.

The best way to meet these challenges is to have a well maintained enterprise architecture (EA) which security architects can use to guide them. With EA, organizations will have existing maps and models of every aspect of the organization and relationships between them, all stored in a central repository.

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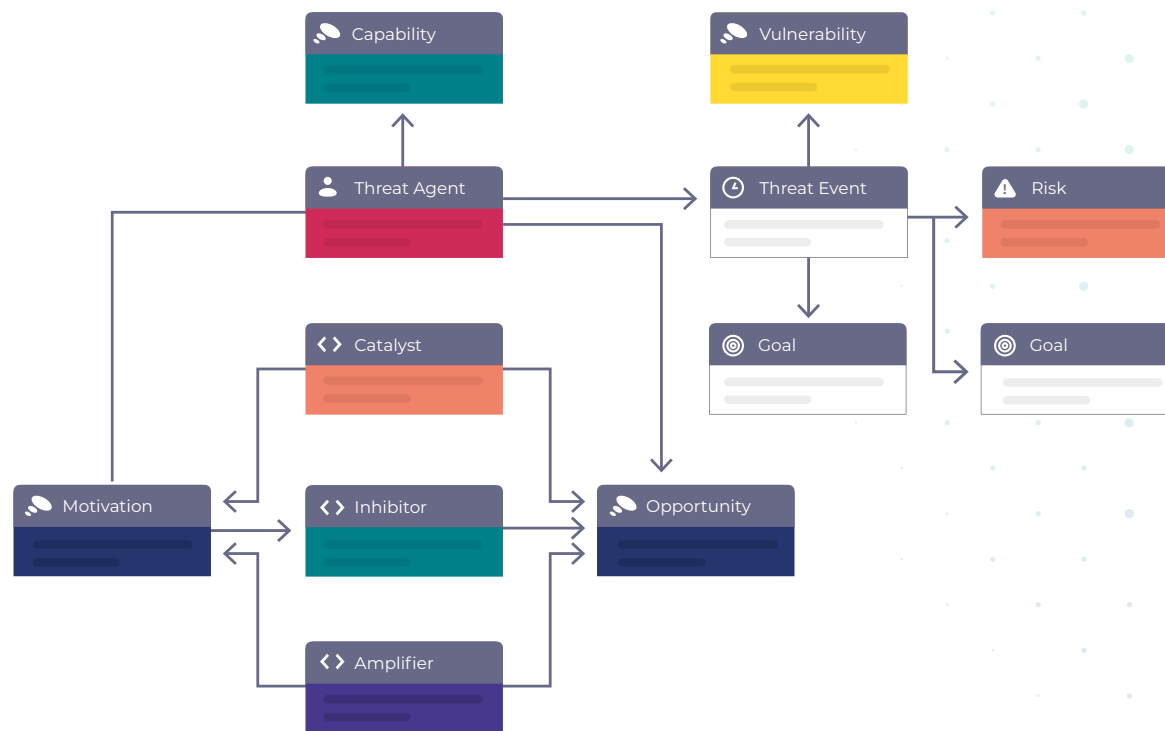
Support and maintain the right framework

As mentioned above, a security architecture will typically require a security framework or standard. SABSA and the NIST CSF are two of the most widely used security frameworks and both fit well into an overall EA. With the proper implementation of one of these frameworks into a security architecture, an organization can then apply the proper security processes to solutions that are deployed around the firm, maintaining compliance across the organization.

A clear view of relevant information

Achieving the high-level goals of a security architecture built on a robust framework is a great first step, but past that companies will still need to take care of the finer implementation details. One problem that plagues security architects is finding the information they need to determine how their risks or controls are associated with other elements. Most tools will be able to offer BI dashboards that can handle some of these needs, but firms will all have unique requirements. Being able to create and present custom dashboards that can deliver relevant information, with filter and search capabilities, should be a priority.

SABSA threat model



OrbusInfinity for Enterprise Architecture: Anticipate and Prevent Potential Cybersecurity Threats

Implementing EA and security architecture cannot be done without an effective EA tool. A good tool will provide the central repository, the modelling templates, the support for frameworks like SABSA and NIST CSF, as well as general collaboration and reporting features that enable smooth operation and communication with key stakeholders.



OrbusInfinity has been recognized as a Leader in the EA tool space by both Gartner and Forrester for 8 years running, and been named a Gartner Peer Insights Customers' Choice for EA Tools. Here's how OrbusInfinity can provide the foresight to anticipate security threats:

A single source of truth for your enterprise

A web-based, central repository manages all enterprise content, creating a single source of truth from which security architectures can be built and maintained. Remove silos and other blockages that prevent visibility of the organization and proceed with confidence.

Address data redundancy and technology waste

Manage the removal of redundant technologies and data by identifying rarely used data and applications from the central repository. Empower cost-effective security solutions without duplication.

Free architects to deliver outcomes

Enable architects to deliver value through existing Microsoft365 investments. OrbusInfinity integrates seamlessly with the Microsoft Suite, enabling architects to model in Visio and access the repository through SharePoint. Built-in support for SABSA and NIST allows the frameworks to be implemented without hassle.

Custom views and dashboards

OrbusInfinity offers a wide range of out-of-the-box views and dashboards to highlight key information and enhance security, delivered through familiar programs like PowerBI. Further, Orbus Support and Consulting services can quickly deliver custom dashboards to suit every need.

See for yourself how to anticipate security threats

Book a tailored demo today to find out how the OrbusInfinity helps tackle lack of visibility around compliance and security and help deal with threats.



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Orbus Software is a leading global provider of enterprise transformation solutions. We aim to empower customers with a strategic decision-making platform to successfully manage complex change. Our OrbusInfinity platform enables leaders to deliver business objectives, innovate faster, and ensure enterprise resiliency, while supporting them to make more informed, responsible, and sustainable business decisions.

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