ĒSKER®

Ebook

Navigating the Digital Horizon

How CIOs can drive success
by harmonising technology,
strategy & resilience

What's inside:

The intersection of strategy & tech

The CIO and the Information Systems (IS) team have become an integral part of business strategy, rather than operations, over the last few decades. No longer do they simply install software on the computers and fix printers, they are now an active part of anticipating and planning to safeguard business continuity. The changes taking place in companies include matters such as:

- Embarking on the digital transformation journey
- The expansion of regulations to encompass data collection specifications
- AI increasingly becoming the norm in business applications
- Cybersecurity threats

What's in this ebook?

These factors change the job of CIO to a strategic pursuit of safeguarding cybersecurity and data security while also ensuring uniformity and consistency internally. This kind of strategic planning requires taking a step back to see the whole picture so that decisions can be made with reflection and foresight. Because cybersecurity and data security should take a prime position among the core values of a company, CIOs need to opt for solutions that are reliable, stable and resilient. This ebook outlines a few tips and tricks that should lead you in the right direction when considering onboarding new software and IT equipment.

> **The decisions made by the IS team have very real ramifications throughout all business units.**
>
> **Nicolas Bragard**
> Esker CIO

Data security
Define, control, restrict

A worldwide network of strategically placed production facilities and data centres brings together both physical and virtual infrastructure. An aggregate structure like this offers high levels of security, flexibility and performance to help you protect confidential information. Security measures for automation solutions can be roughly categorised into three different dimensions: platform-inherent, external communications security and internal access controls.

1   **Platform-inherent security measures include:**

- Redundant firewalls, SIEM and EDR tools
- Automatic encryption of all data at rest
- Full GDPR compliance
- Regular vulnerability/penetration testing
  - Vulnerability assessments are automated tests designed to detect vulnerabilities using an automated tool that scans all external access points.
  - Penetration tests are authorised, simulated attacks on an automation solution led by a team of third-party security experts that assess for potential security vulnerabilities which could be exploited to gain access to features and data.
- All software and hardware vendors should be thoroughly vetted and continuously screened to ensure that they comply with security efforts.
- Activity logs ensure accountability, aid in auditing procedures and provide valuable information in case something goes wrong.

2 **Communications and data exchanges** between internal and external collaborators are encrypted to secure the transfer of business documents, and all incoming documents are systematically checked for viruses.

3 **Set up internal access controls and self-manage them through:**

- Several layers of authentication security which guarantee that only authorised personnel can access the environment.
  - Single sign-on (SSO) procedures that facilitate and centralise security at the user level.
  - Multi-factor authentication (MFA) adds a layer of security to the platform connection with a token sent by email or mobile application.

- Data segregation through unique document identifiers enable access control based on pre-set permissions.

- A wide range of downstream settings such as defining users, profiles and permissions, controlling access, passwords and session policies and restricting data access, IP address access and visibility of documents allow for detailed security and visibility over operational activities.

... and certify

These kinds of security measures are augmented by third-party certifications as well as extensive training for everyone in the organisation that has access to or handles data. While a certification is not a security component in itself, it can confirm that these measures are effective and ensures that everyone is on the same page and always up to date.

Some valuable certifications include:

ISO 27001

This certification entails an annual in-depth audit performed by an independent third-party auditor that validates the effectiveness of the security management — such as policies and procedures — and ensures the continuous improvement of the platform.

SOC 1® Type 2 and SOC 2 Type 2 (SSAE 18 & ISAE 3402)

These audits certify the quality and integrity of internal control procedures.

HIPAA & HITECH

These compliance protocols mean that sensitive health and patient data information is protected.

Infrastructure:
Cloud computing opens up the skies

Reliability, monitoring, scalability & redundancy

Cloud computing offers faster innovation, flexible resources and economies of scale. Not only does it reduce costs, but it keeps applications up to date and offers the ability to layer security protocols, so that you can concentrate on more business-centric tasks. Most importantly, however, it makes it much easier to scale quickly and easily: whether it's 10 or 10,000 users, you can accommodate them effortlessly.

To ensure optimal functionality, a cloud computing structure should provide:

Reliability

Dividing data into data sets, as well as redundancy and load balancing configurations among multiple servers, reinforces security, maximises processing speed and ensures service continuity.

Monitoring

24/7 monitoring delivers operational continuity with multiple redundancy layers countering any possible hardware failures. This provides high service availability and problems can be easily fixed before they impact the end-user. Coupled with procedures that encompass Risk Management, Incident Response, RTO/RPO, these systems allow for calculating potential risks and minimising any negative impacts.

Scalability

Applications and infrastructure need to be designed and built in a way that allows for easy scaling, both up and out. The utilisation of hyperscale architecture spread across different geographies that can scale up or down according to activity guarantees uptime and high performance. Processing capacity can be increased without impacting current production and contractual commitments on delivery requirements are efficiently met.

Redundancy

Making the data redundant ensures that if one storage location is compromised, recovery is still possible from the other locations. And it's not just the data that is made redundant, but also servers, server configurations, databases, data locations, services, etc. And although "the cloud" itself is virtual, it also has a very physical dimension: The servers' integrity and security must be ensured at all times. By using platforms such as Microsoft Azure servers, the data is encrypted with Azure Disk Encryption at rest and based on BitLocker and DM-Crypt. This safeguards the data, from both environmental as well as access threats. A widespread physical distribution and replication, often even within the same city, ensures business continuity even if there is a destructive event.

Triple replication of data ensures reliability

Locally redundant storage (LRS)

Synchronously copies data in three instances in the primary region

Geo-replication

Asynchronously copies data offline in three instances in a secondary location geographically far away from the primary region

Agile methodology

Another indicator of how well the solution functions is how it is built. Although there are different versions of Agile methodology, the general approach has manifested itself as an efficient and highly productive way to build software.
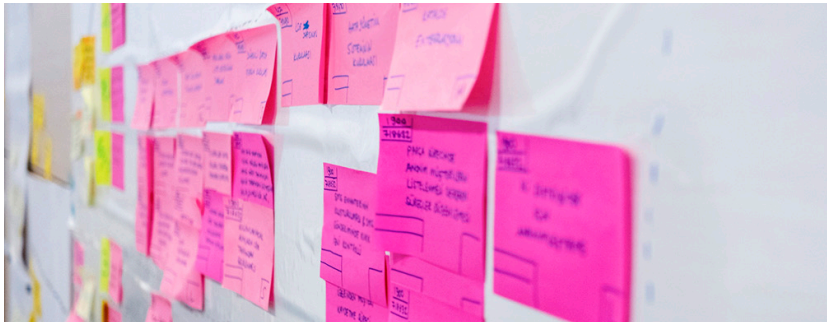
To achieve what is called "conceptual integrity," the users must feel that the solution is easy to use, has all needed functionalities and that it can be easily maintained, adapted and scaled. Seeing the whole picture during incremental and iterative development allows for faster development speed, flexibility and productivity.

The most compelling argument for Agile methodology is, perhaps, the reactivity it offers. Being able to quickly adapt to changing needs and requirements rather than using a waterfall development method allows for swift adjustments to changing customer needs, market conditions and competitor threats.

The creators of the Agile approach summed up the concept as:

- **Individuals and interactions over processes and tools**
- **Working software over comprehensive documentation**
- **Customer collaboration over contract negotiation**
- **Responding to change over following a plan**

agilemanifesto.org

Seamless connectivity

Integration, integration, integration

Nowadays, a seamlessly connected IT landscape is an absolute must to ensure the efficiency of any automation solution. This is best achieved through two-way programmatic interfaces that help you achieve a unified view of operations, streamline processes and ensure consistent data flow.

Here are a few functionalities that will support uninterrupted and smooth operations of a diverse business system landscape:

Middleware & internal applications

Middleware, business and IT applications do their work by constituting a bridge that enables data exchanges between different applications. This connectivity allows an automation solution to interact with various systems (ERPs, CRM, etc.) facilitating easy deployment and rollout. It also guarantees upward compatibility and minimises implementation costs.

Robust integration capabilities

A wide range of integration capabilities, including APIs and web services allow real-time data management, asynchronous error handling and third-party monitoring support. Businesses can consolidate data from multiple systems while ensuring that information is up-to-date and accurate. The support of bulk integration with business intelligence and process mining software further enables informed decision-making based on key metrics.

EDI & managed file transfer

Not too long ago, EDI was starting to be considered an outdated method of document exchange. Enter the proliferation of legislation for e-invoicing requirements in a swath of different countries around the world, and EDI suddenly found its raison d'être again.

EDI now provides direct connections to B2G and B2B e-invoicing platforms such as PEPPOL, Chorus Pro (France), FACe (Spain), and SDI & NSO (Italy). A wide variety of business documents, such as orders, order confirmations, invoices and inventory reports can be managed easily and quickly. With secured and reliable communication methods such as AS2, SFTP and other web services, multiple EDI standards and formats (e.g., EDIFACT, X12, UBL and IDOC) are supported and easily connect a company's systems to other services, creating efficient and reliable source-to-pay (S2P) and order-to-cash (O2C) processes.

URSA

"Esker offers a unique solution that manages both invoices and orders, resulting in efficiency in the source-to-pay and order-to-cash cycles. Esker's platform grows with us, adapting to our needs and providing us with a very competitive total cost of ownership."

Gregor Miklavčič
European IT Manager, URSA

Beyond point solutions

A global platform that safeguards data & scales operations

When choosing an automation solution, the IT team needs to consider the following key factors for the business to reap streamlined operations: Rather than a mix of disparate point solutions, a consolidated, global platform for S2P and O2C processes offers several advantages:

Holistic automation that ensures reliability

Adopting a global automation platform eliminates the complexities of managing multiple systems and ensures consistent processes. Reliability is built into such a structure, providing stability and resilience. Businesses can confidently scale their operations without worrying about compatibility issues or system failures.

Data security & compliance

A robust platform should prioritise data and cybersecurity, as a business must safeguard sensitive information while adhering to industry standards. Platform-inherent security measures, including encryption of inbound and outbound data communications, internal access controls and certifications, are essential. Regular security training ensures that employees understand their roles in maintaining a secure environment.

Monitoring, transparency & scalability

Real-time monitoring capabilities provide visibility into their processes to identify bottlenecks and optimise workflows. Scalability ensures that the solution can grow alongside the business. Additionally, transparency allows stakeholders to track performance metrics and make informed decisions.

Seamless integration with middleware, business apps & ERPs

Connectivity is key, and an automation platform should provide both out-of-the-box connectors to various applications through secure APIs and web services. The more an automation solution provides flexibility and adaptability, the smoother the operations go and the less you will have to deal with interoperability headaches.

By prioritising a comprehensive platform that combines automation, security, scalability, connectivity and visibility, the CIO and their team can provide the business with streamlined processes, data integrity, and efficient collaboration across the S2P and O2C functions.

Hi, we're Esker

Founded in 1985, Esker is a global cloud platform built to unlock strategic value for Finance, Procurement and Customer Service leaders and strengthen collaboration between companies by automating source-to-pay (S2P) and order-to-cash (O2C) processes.

39
years of experience with 20+ years focused on cloud solutions

1,000+
employees serving 850k+ users & 2,500+ customers worldwide

15
global locations with headquarters in Lyon, France, & Madison, WI

€178.6
million in revenue in 2023, with 90+% of sales via SaaS activities

Your Employees

Your Suppliers

YOUR COMPANY

Your Customers

The Planet

POSITIVE-SUM GROWTH

EVERYONE WINS

Business success is best when shared

At Esker, we believe the only way to create real, meaningful change is through positive-sum growth. This means achieving business success that doesn't come at the expense of any individual, department or company — everyone wins! That's why our AI-driven technology is designed to empower every stakeholder while promoting long-term value creation.

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