Gartner

IT Roadmap for Cybersecurity

Excerpt



How do successful organizations develop risk-based security programs to support business agility and resilience?

Digital business transformation and emerging cyber-physical systems create unprecedented security risk. In response, many organizations adopt new cybersecurity approaches. By 2023, 75% of organizations will restructure risk and security governance to address new cyber-physical systems (CPS) and converged IT, OT, Internet of Things (IoT) and physical security needs, an increase from fewer than 15% today.*

But organizations struggle to balance cybersecurity with the need to run the business. Chief information security officers (CISOs) can help by developing processes that enable risk-based decisions while protecting against security threats, and preventing data breaches and other cybersecurity events.

From our expert research and interactions with thousands of companies across industries, we have compiled cybersecurity best practices into a customizable roadmap. Use this roadmap to understand the key stages, resources and people required to plan and execute an effective cybersecurity initiative.

*Source: Gartner

Some of the top questions of the cybersecurity initiative are:

- How will this support business resilience and growth goals while reducing risk?
- How can we use an outcome-driven approach to establish cybersecurity priorities and investments?
- Which leaders and teams need to be involved?

What are the key stages?

This best-practice insight is distilled from interactions with clients who have successfully implemented cybersecurity initiatives. This map shows the sequence of objectives and desired outcomes and is useful for aligning all stakeholders.

A few key milestones and a sample of associated Gartner resources are highlighted below, but the full roadmap will include complete details of all milestones and resources for each stage.

Align strategy Develop action plan Initiate execution Build and mature program Reassess and optimize

Develop action plan

Initiate execution

Build and mature program

Reassess and optimize



Align strategy

Set objectives and build business case

Selected tasks include:

Understand key business priorities; define program mission and vision; and identify business, technology and threat drivers

Identify goals, program value, and key stakeholders' roles and responsibilities

Define security controls in line with organizational strategies and map them to a standardized security framework

Get stakeholder feedback, define key objectives and finalize initial summary of security strategy document

+ more

Sample associated Gartner resources include:

- Consultation by phone: Discuss the key business solutions that can be leveraged to deliver security and risk management in the organization
- Research: Develop your cybersecurity charter in alignment with business goals and communicate it to a wider audience

+ more



Develop action plan

Create risk prioritization framework

Selected tasks include:

Conduct vulnerability assessment and penetration testing

Establish current maturity baseline, define target state and conduct gap analysis

Get executive or board buy-in and resource backing

Develop security architecture, policy framework and solution layer

+ more

Sample associated Gartner resources include:

- Zero-Regret Purchases: Leading the Business to Make Smarter Buying Decisions
- CIOs Must Manage Four Views of Spend to Manage IT Finances
- Tracking and Reporting on Cybersecurity Costs
- + more



Initiate execution

Design and adjust team structure

Selected tasks include:

Integrate capabilities, tools and technologies

Establish security team roles and responsibilities and identify stakeholders to be accountable, consulted and informed

Develop critical competencies and train for desired of missing skills

Use metrics and incentives to drive accountability among owners

+ more

Sample associated Gartner resources include:

- Consultation by phone: Engage with an expert to discuss "The CARE Standard for Cybersecurity"
- Research: Read about cybersecurity threat and its impact on the business
- On-site workshop: Discuss key steps to be taken to reduce the risk of cyberattacks while working from home
- + more



Build and mature program

Maintain accountability and assurance through governance

Selected tasks include:

Develop critical incident response capability and an action plan in case of breaches

Develop a program structure to monitor and combat advanced threats

Instill a culture of secure employee behavior and initiate tailor training and awareness campaigns

Develop advanced reporting and response and craft a communications plan for cyber breaches

+ more

Sample associated Gartner resources include:

- Analyst inquiry: Engage with an analyst to finalize the right metrics that can measure the impact of cybersecurity
- Analyst inquiry: Engage with an analyst to discuss the right approach to communicate the business impact of cybersecurity to the stakeholders
- + more

Establish baseline Identify opportunities Implementation Institutionalize Reassess and optimize



Reassess and optimize

Communicate program value

Selected tasks include:

Create a plan to communicate value to the organization and the board

Track metrics and seek feedback to assess and improve program effectiveness

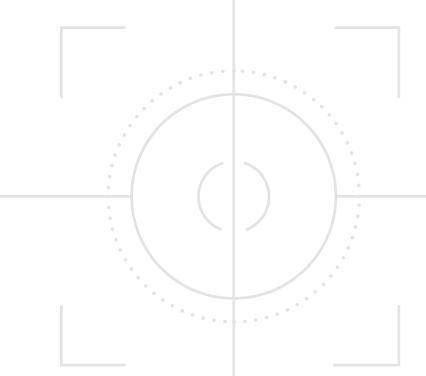
Revisit maturity assessment to further optimization

+ more

Sample associated Gartner resources include:

- Consultation by phone: Discuss the key points that can help in further optimization of cybersecurity preparation in the organization
- Analyst inquiry: Redo the Gartner IT Score assessment to measure progress and reprioritize

+ more



Who needs to be involved?

The most successful companies establish cross-functional teams for their cybersecurity initiatives. We have outlined the recommended functions to involve and their roles to ensure the best success in hitting the milestones.

CISO

Leads development of cybersecurity strategy and program; ensures cybersecurity strategy is aligned with business strategy and objectives; directs assessment, action plan and execution; helps communicate cybersecurity strategy and progress across the organizations; collaborates on program implementation with key leaders and stakeholders

CIO

Collaborates with organizational leaders and guides the building of the cybersecurity program; communicates strategy and objectives across the organization

Technical professionals team

Design, implement, or improve and maintain security architectures, policies and procedures; monitor and evaluate cybersecurity performance, and improve it on the basis of new threats; improve skills as needed

Applications leader and team

Key partner for the CISO; assist with implementation and operation of key elements of security programs and operations

Enterprise architecture leader and team

Collaborate with the CISO and other IT leaders to make sure that security strategy and architecture are aligned and incorporated into overall enterprise architecture

Infrastructure and operations team and leader

Key partner for the CISO; assist with implementation and operation of key elements of security program and operations

Security and risk management leader and team

Partner with the CISO to incorporate cybersecurity into overall governance, risk and compliance program and processes

Customer success story: Enabling IT Compliance With Cybersecurity Roadmap

Mission-critical priority

With the aim to streamline business processes and develop a digital-business-ready environment, Pacific Textiles wanted to develop a framework that adheres to IT compliance, minimizing cybersecurity risk.



How Gartner helped

With access to Gartner experts, research and tools, Pacific Textiles was able to digitalize information through an ERP system, automate manufacturing processes with new technology and craft a ready-to-execute cybersecurity roadmap.



Mission accomplished

With the help of Gartner, Pacific Textiles was able to:

- Take a holistic approach to governance and risk management procedures
- Build a strong digital business foundation
- Optimize business processes, saving time and energy for the top management



Contact us to explore the complete IT Roadmap for Cybersecurity

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Becoming a Gartner client means joining the world's largest community of CIOs and IT leaders. Get access to this level of insight all year long — plus contextualized support for your strategic priorities.

Become a Client

Gartner roadmaps are designed to help CIOs and IT leaders successfully execute new initiatives and reduce time and costs. Our suite of roadmaps provides extensive coverage of IT leaders' top priorities, such as:

- Data and Analytics
- Data Strategy

• IT Organizational Design

- Digital Transformation
- Cloud Strategy

Customer Experience

Security

- Maturing Information Security
- ERP Transformation

Cloud Migration

Explore additional resources to learn more about cybersecurity

- → Rethink the Security & Risk Strategy
- → CISO for Digital Business
- → Cybersecurity Conferences
- → Customer success story: Become a World-Class Cybersecurity Leader

