Stay Ahead
Abacus

Cybersecurity in the Era of IoT: Safeguarding Italy's Digital Future

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The IoT Cybersecurity Landscape

IoT adoption in Italy is accelerating, driven by smart manufacturing, healthcare, and smart city initiatives.

However, this growth is accompanied by escalating cybersecurity threats.

Key Insights

- **Device Explosion[1]:**
  At the end of 2023, there were 140 million active connected devices in Italy, equal to just over 2.4 per inhabitant.
- **Cybersecurity investment trends[2]:**
  For 2024, the market is estimated at €2.48 billion, up 15%.
- **Vulnerabilities[3]:**
  More than 50% of IoT devices have critical vulnerabilities that hackers can exploit right now.

140 MILLION

€2.4+ BILLION

50+%

[1] *Source: 2023 – Artificial Intelligence Observatory of the School of Management at Politecnico di Milano.*

[2] *Source: Cybersecurity & Data Protection Observatory of the School of Management at Politecnico di Milano*

[3] *Source: IBM X-Force Threat Intelligence*

IoT Cybersecurity Investment Allocation in Italy

35%	30%	20%	15%
Network Security Solutions.	**AI-Driven Threat Detection**	**Endpoint Protection.**	**Compliance and Risk Management.**

Market Trends: Executives' Perspectives on IoT Security

According to the "Global Cybersecurity Outlook 2024" survey by the World Economic Forum, 81% of global executives consider cybersecurity a strategic investment priority, though not specifically focused on IoT.

Challenges in Securing IoT Systems

The rise of **massive attack surfaces** has made IoT networks increasingly vulnerable, as their exponential growth provides countless entry points for cybercriminals.

Additionally, the **integration of legacy systems with modern IoT technologies** often introduces significant security gaps.

The **complexity of IoT ecosystems**, involving a wide range of devices, platforms, and vendors, further complicates the task of ensuring consistent and effective protection.

Moreover, **maintaining data protection** compliance with frameworks such as GDPR demands rigorous data governance and continuous oversight.

Strategic Opportunities

Key Investments Driving Security:

- **ENDPOINT PROTECTION**
  Securing individual devices to prevent network breaches.
- **NETWORK SEGMENTATION**
  Limiting lateral movement within IoT networks.
- **AI-DRIVEN THREAT DETECTION**
  Using machine learning to identify and mitigate threats in real-time.
- **ZERO TRUST ARCHITECTURE**
  A proactive approach ensuring only verified devices and users access resources.

What this means for your business

CEO

Protect business continuity by reducing operational and reputational risk.

Strengthen stakeholder trust through transparent, auditable security policies.

Embed cybersecurity into your innovation and growth strategy.

CIO

Implement a Zero-Trust Architecture from device to cloud.

Automate monitoring and response through AI-driven detection.

Enforce consistent segmentation and identity policies across the IoT scale.

CFO

Quantify cyber risk exposure with risk-adjusted loss indicators.

Evaluate ROI of security and compliance investments.

Position protection as a sustainability and value driver for stakeholders.

Why Partner with Abacus?

At Abacus, we deliver **robust IoT security solutions** to protect connected ecosystems from emerging threats. Our comprehensive approach ensures operational continuity and compliance in an **increasingly complex digital environment**:

- **RISK ASSESSMENT**
  Identifying vulnerabilities in your IoT ecosystem.
- **CUSTOM SECURITY ARCHITECTURE**
  Designing robust solutions tailored to your needs.
- **CONTINUOUS MONITORING**
  Leveraging AI and analytics to proactively address threats.
- **REGULATORY COMPLIANCE SUPPORT**
  Ensuring adherence to GDPR and other standards.

Key Capabilities

- IoT Security Solutions
  Safeguard IoT networks and devices with advanced encryption and monitoring systems..
- AI-Driven Threat Detection
  Utilize machine learning to identify and mitigate vulnerabilities in real-time, reducing the risk of breaches.
- Regulatory Compliance Support
  Navigate GDPR and other regulations with frameworks designed to ensure data security and governance.
- Incident Response Services
  Rapidly address vulnerabilities to prevent downtime and secure critical assets.

Results You Can Expect

Reduced risk of cyberattacks on IoT ecosystems.

Improved operational resilience and data protection.

Greater trust from stakeholders through compliance adherence.

Abacus Point of View

Every connected device is a potential entry point.

Securing the IoT era means enforcing Zero-Trust by design, combining network segmentation, strong identity, and AI-driven detection from device to cloud.

Abacus helps enterprises build continuous protection frameworks where security is not a barrier, but an enabler of trust and innovation.

Selected Use Cases

- **Zero-Trust Framework for Industrial IoT**
  Micro-segmentation and identity federation across connected devices.
  Result: –45 % incident surface | audit-ready compliance.
- **AI-Enhanced Threat Detection**
  Machine-learning models identifying anomalies in OT and IT networks.
  Result: –30 % false positives | +40 % detection accuracy.
- **Secure Cloud Access for Remote Workforce**
  Policy-based access and continuous authentication for hybrid environments.
  Result: +60 % MFA adoption | zero critical breaches.

Anonymized examples for illustration. For verified references, see our Case Studies on the website.

Conclusion

Abacus believes digital transformation in Italy will be led by those who make technology autonomous, ethical, and measurable. Let's build that together.

We bridge innovation and integration—connecting what technology can do with what people truly need. We build resilient digital ecosystems that enable businesses to thrive in complexity. One Abacus. Many Minds. One Vision.

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Do you want to use AI to accelerate your company's transformation?
Contact us!

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