Elevate Your IT & Cybersecurity for the New Year

November 19, 2024

forvis
mazars
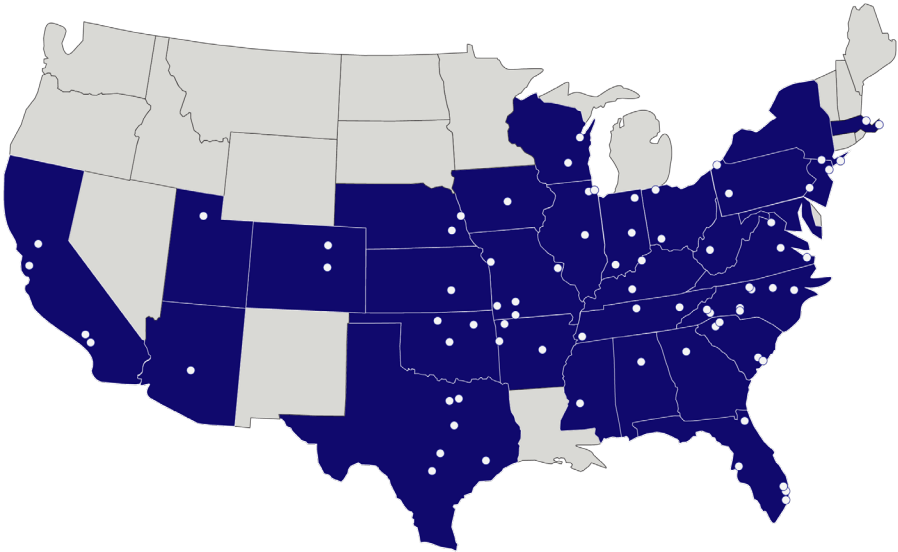
U.S. Presence

Top 10
U.S. Public
Accounting Firm*

$2bn+
Revenue (2023)

76
Markets

29
States

600+
Partners & Principals

7,000+
Employees

As of August 2024

○ Forvis Mazars markets

Alabama
Birmingham

Arizona
Phoenix

Arkansas
Fort Smith
Little Rock
Rogers

California
Irvine
Los Angeles
Sacramento
San Jose

Colorado
Colorado Springs
Denver

Florida
Boca Raton
Jacksonville
Miami
Tampa Bay
West Palm Beach

Georgia
Atlanta

Illinois
Chicago Downtown
Chicago Oakbrook Terrace
Decatur

Indiana
Evansville
Fort Wayne
Indianapolis

Iowa
Des Moines

Kansas
Wichita

Kentucky
Bowling Green
Louisville

Massachusetts
Boston Brewster
Boston State Street

Mississippi
Jackson

Missouri
Branson
Joplin
Kansas City
Springfield
St. Louis

Nebraska
Lincoln
Omaha

New Jersey
Iselin

New York
Long Island
New York City

North Carolina
Asheville
Charlotte SouthPark
Charlotte Uptown
Greensboro

North Carolina (cont)
Greenville
Hendersonville
Raleigh
Winston-Salem

Ohio
Cincinnati
Toledo

Oklahoma
Enid
Oklahoma City
Tulsa

Pennsylvania
Erie
Fort Washington
Pittsburgh

South Carolina
Charleston
Greenville
Spartanburg
Summerville

Tennessee
Knoxville
Memphis
Nashville

Texas
Austin
Dallas
Fort Worth
Houston
San Antonio
Waco

Utah
Salt Lake City

Virginia
Norfolk
Richmond
Tysons, VA

West Virginia
Charleston

Wisconsin
Appleton, WI
Madison, WI

forvis mazars

Business Technology Services

Forvis Mazars provides enterprise resource planning (ERP) & customer relationship management (CRM) platform analysis, design, implementation, upgrade, training, & support services.

Our end-to-end solutions help clients achieve their digital transformation goals by:

- Creating effective processes & strategies for future operations

- Designing & implementing modern operational systems

- Reviewing new business-facing technologies

- Leveraging existing investments in legacy technologies

- Integrating data solutions

forvis mazars
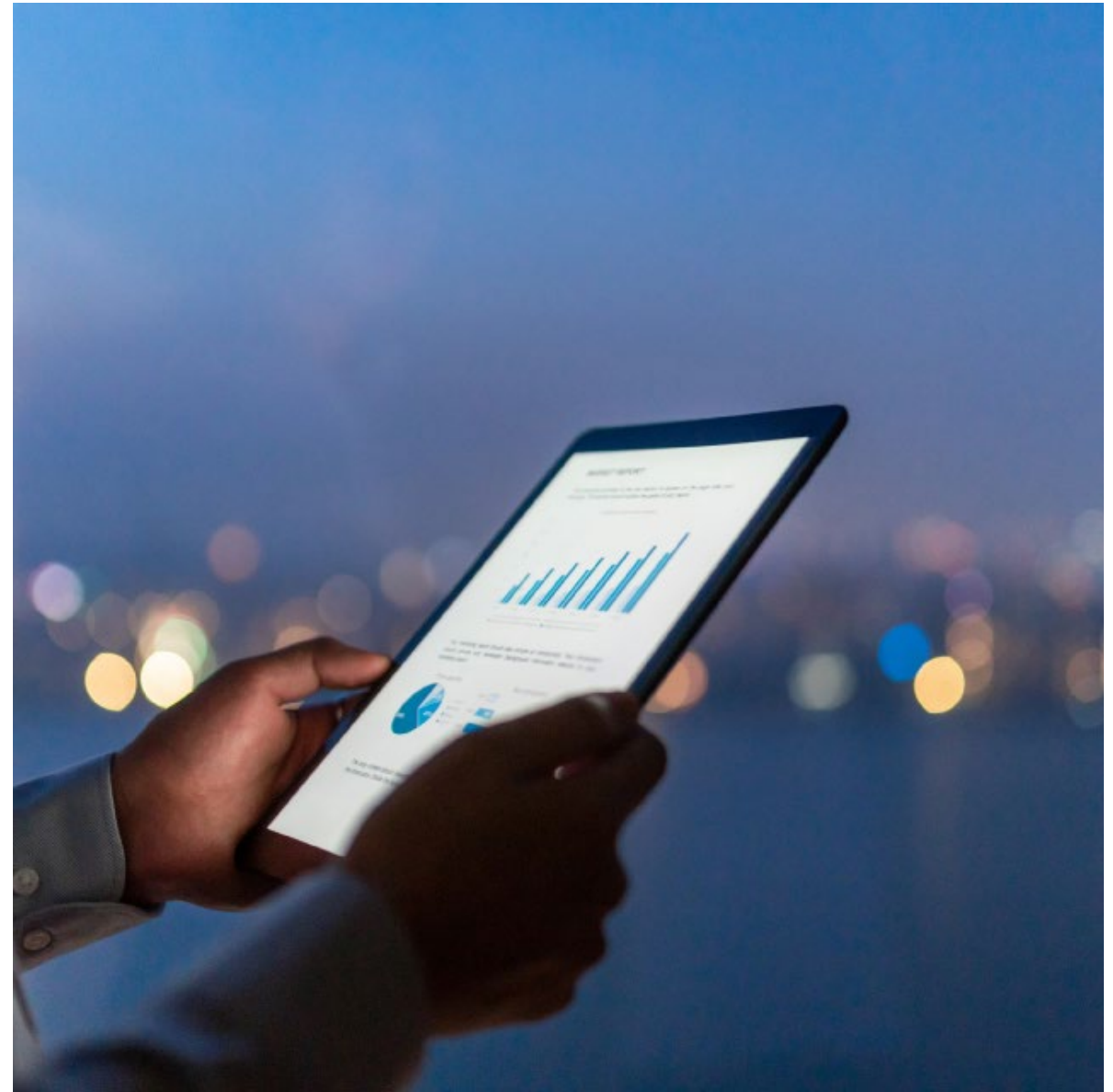
Business Technology Services

ERP

Microsoft Dynamics 365

Finance	Supply Chain
Commerce	Project Operations
Business Central	Dynamics GP

NetSuite

Sage & Sage Intacct

Trimble Viewpoint Spectrum & Vista

CRM

Microsoft Dynamics 365

Sales	Customer Service
Customer Insights	Field Service

Salesforce

Marketing Automation

Advanced Technology

Insights

Microsoft Power BI

Solver Planning & Analysis

Automation

Microsoft Power Platform

Robotic Process Automation (RPA)

App Development

Managed Services for business applications, IT, & cybersecurity support.

Microsoft Partner

ORACLE NETSUITE Solution Provider

Sage Partner

salesforce PARTNER

solver

forvis mazars

Today's Presenters
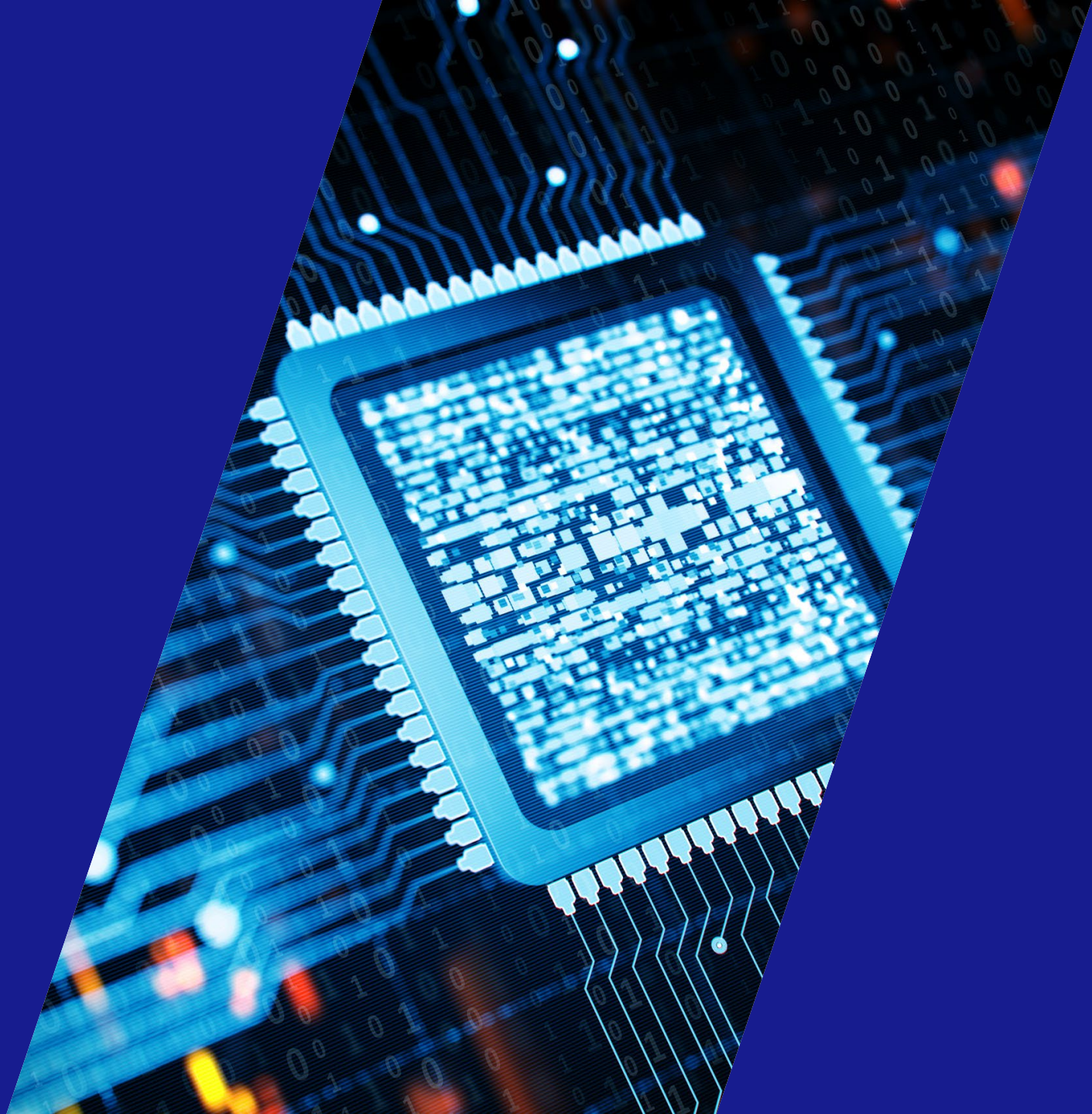
Rick Burtt

24x7 IT

Ben Doane

24x7 Security

forvis
mazars

Agenda

1. Introduction

2. AI

3. IoT

4. Everything as a Service

5. Conclusion

6. Q&A

forvis mazars

01

Introduction

UNMATCHED CLIENT
EXPERIENCE

Unmatched Client Experience® is how we work with team members and clients to deliver a unique experience. We strive to serve each other and unlock our individual and collective full potential. With all the elements of the Forvis Mazars Way as our foundation, delivering an Unmatched Client Experience becomes real when we do these three things.

1 Listen to understand

2 Be responsive

3 Consult with purpose to deliver value
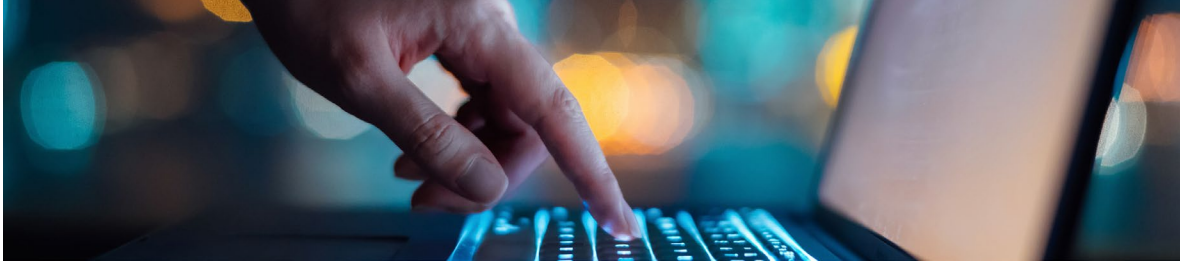
forvis mazars

Forvis Mazars
Why We Exist

Purpose

Our purpose is to help those we serve unlock their full potential.

forvis mazars

Technology Trends

IT Trends

- Artificial Intelligence (AI)
  - AI Adoption
  - Generative AI
  - Democratization of AI
  - AI Governance
- Internet of Things (IoT)
  - Continued Expansion of IoT
- Everything as a Service
  - Software
  - Infrastructure
  - Platform

Security Trends

- Threat Evolution
  - Rise of AI-Driven Attacks
  - Increased Sophistication of Phishing Schemes
  - Growth of Ransomware-as-a-Service
- 2025 Forecast/Predictions
  - Malicious AI
  - IoT Vulnerabilities
  - Supply Chain Attacks
  - Quantum Computing Threats

forvis mazars

02

AI

AI Trends
Accelerating AI Adoption: From Rapid User Growth to Business Integration

Fast Growth & New Innovations

AI Adoption Rate Acceleration

- ChatGPT Nov 2022 – Within two months reached 100M users

- As of this year 65% of all businesses regularly use AI & 72% have adopted it in at least one business function

- Highest adoption is in Marketing & Sales followed by Product Development & then IT

Democratization of AI

- Access

- Development

- Governance

Generative AI

- Rapidly evolving technology & applications

- Large language models (LLMs) leveraging multi-modal AI models that integrate text, audio, image, video, source code, etc. for new content & outcomes

- Generally, AI is in Generative AI to create content or develop product with coding

AI adoption worldwide has increased dramatically in the past year, after years of little meaningful change.

Organizations that have adopted AI in at least 1 business function,[1] % of respondents
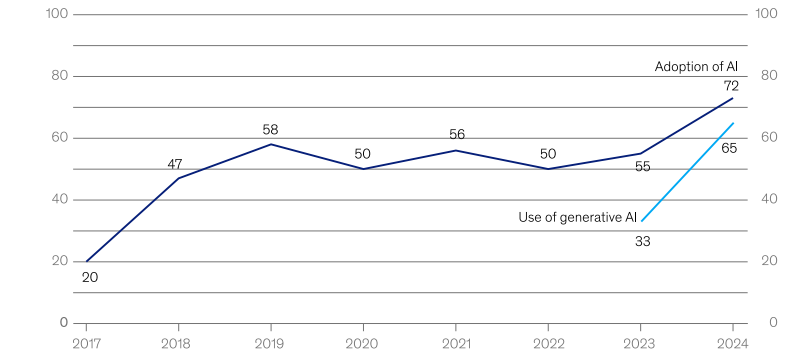
[1] In 2017, the definition for AI adoption was using AI in a core part of the organization's business or at scale. In 2018 and 2019, the definition was embedding at least 1 AI capability in business processes or products. Since 2020, the definition has been that the organization has adopted AI in at least 1 function.
Source: McKinsey Global Survey on AI, 1,363 participants at all levels of the organization, Feb 22–Mar 5, 2024

McKinsey & Company

Microsoft Co-Founder Bill Gates Says Everyone In Future Will Have A 'Utilitarian AI Agent' That Will Help You At Work

Story by Pooja Rajkumari • 5h

forvis mazars

AI Challenges
Concerns & Risk

Lack of Defined AI Strategy That Aligns With the Organization

- Rapid adoption producing large quantities of new data without strategy introduces risk

Data Quality

- Information inaccuracies
- Plagiarism or Intellectual Property (IP) infringement
- Complacency from over-reliance

Cybersecurity

- Sophistication of attacks
- Attack creation & execution

Data Privacy

forvis mazars

AI Opportunities

Companies are recognizing across all functions & industries[*]

- Cost Savings – Largest functional areas are HR, SCM, & Service Operations
- Speed to Market – Evolution of business
- Revenue Increases – As expected in Sales & Marketing
- Process Improvements – Identifying business activities that are repeatable & support machine automation, driving accuracy, consistency in process, & cost reductions
- Cybersecurity – Bolstering cyber defenses leveraging AI-enabled tooling

Improve data collection, collection technology, & methodology to unlock the full benefit of AI

Invest more in AI to improve efficiency & provide growth

- Generative AI
- Analytical AI
- Machine Learning

forvis mazars

AI Strategies – Governance & Success

AI governance is a set of processes, standards, & frameworks that help AI be developed & used ethically, safely, & responsibly through oversight mechanisms to address risks such as bias, privacy infringement, & misuse while fostering innovation & building trust.

- Key Aspects of AI Governance

  - Risk Assessment: Assess each model for the associated risks

  - Transparency: Clarifying how AI systems make decisions

  - Accountability: Assigning responsibility for AI outcomes

  - Bias Control: Preventing & mitigating biases in AI algorithms

  - Compliance & Documentation: Adhering to legal & ethical standards

  - Train: Employees on compliance & policy

- Existing Governance Models & Tools to Consider

  - NIST (National Institute of Standards & Technology) AI Risk Management Framework

  - EU Ethics Guidelines for Trustworthy AI (the basis of the upcoming EU AI Act)

  - AI governance tools each have their own strengths

    - Holistic AI – Covers from the project stage to assessing bias & regulation

    - Credo AI – Focused mainly on risk, governance & compliance

forvis mazars

AI – Cyber Considerations

1. **Generative AI in Cybersecurity**
   - Generative AI is becoming a double-edged sword. While it offers tools for enhancing security operations, it also presents new challenges, such as AI-generated phishing attacks & deepfakes. Organizations are encouraged to harness its capabilities while being vigilant about its misuse

2. **Outcome-Driven Metrics**
   - To bridge the communication gap between cybersecurity & leadership teams, organizations are adopting outcome-driven metrics. These metrics help demonstrate the effectiveness of cybersecurity investments in a language that's easy to understand

3. **Human-Centric Security Programs**
   - There's a growing recognition that fostering a security-aware culture among employees is crucial. By shifting focus from mere awareness to behavioral change, organizations can significantly reduce human-related security risks

4. **Third-Party Risk Management**
   - As supply chain attacks become more common, organizations are prioritizing resilience in their third-party relationships. This includes developing incident response plans & conducting regular risk assessments of vendors

5. **Continuous Threat Exposure Management**
   - Organizations are increasingly adopting continuous threat exposure management (CTEM) programs. These allow for ongoing evaluation of vulnerabilities & threats, helping to maintain a robust security posture

6. **Identity-First Security Approaches**
   - With the shift towards remote work & cloud services, identity & access management (IAM) is becoming central to cybersecurity strategies. Organizations are focusing on strengthening their identity frameworks to enhance overall security

7. **Regulatory Compliance & Cyber Literacy**
   - New regulations are pushing for greater cybersecurity oversight at the C-suite level. This trend emphasizes the need for executives & board members to understand cyber risks as part of the overall business strategy
   - These trends highlight the dynamic nature of cybersecurity & the importance of proactive measures in an increasingly complex threat landscape

forvis mazars

03
IoT

IoT – Trends
Trends in the Internet of Things (IoT)

There's an increasing level of interconnectivity.

1. **5G Integration**: The rollout of 5G networks is significantly enhancing IoT capabilities

2. **AI & Machine Learning**: IoT devices are increasingly incorporating AI & machine learning to analyze data in real-time

3. **Edge Computing**: Processing data closer to where it's generated (at the edge) reduces latency

4. **Digital Twins**: Creating digital replicas of physical objects allows for better monitoring, simulation, & system optimization

5. **IoT Security**: As IoT devices proliferate, protecting these devices against cyber threats is a critical focus

6. **Smart Cities**: IoT is playing a key role in developing smart cities, with applications in traffic management, energy efficiency, & public safety

7. **Healthcare IoT**: The use of IoT in healthcare is expanding, with applications ranging from remote patient monitoring to smart medical devices

8. **Blockchain**: Integrating blockchain with IoT can enhance security & transparency in data transactions

forvis mazars

IoT – Challenges

- **Security & Privacy Concerns**: The proliferation of IoT devices increases the attack surface for cybercriminals. Some IoT devices have weak security protections, increasing the risk of unauthorized access & data breaches

- **Scalability & Complexity**: The massive amounts of data generated by IoT devices can strain IT infrastructure. To reduce complexity, systems should be standardized & made scalable to handle the increased load without compromising performance

- **Integration & Compatibility**: Integrating diverse IoT devices with existing IT infrastructure can be complex due to different communication protocols & data formats. Seamless integration requires careful planning & the use of standardized protocols.

forvis mazars

IoT – Opportunities

- **Enhanced Data Collection**: IoT devices generate vast amounts of data, providing valuable insights into operations, customer behavior, & market trends. This data can help organizations improve processes & make informed decisions

- **Improved Operational Efficiency**: IoT enables real-time monitoring & process controls, from manufacturing to energy consumption. This real-time visibility allows organizations to proactively address issues, prioritize resource allocation, & improve overall efficiency

- **Innovation & New Business Models**: IoT fosters innovation by enabling the development of smart products & services. This can lead to new revenue streams & enhanced user experiences

forvis mazars

IoT – Strategies
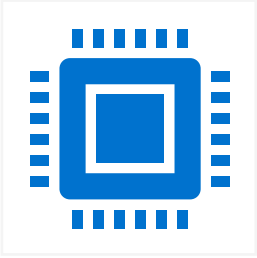
Scalable IT Services

Investing in scalable, flexible IT infrastructure can support the dynamic nature of IoT deployments
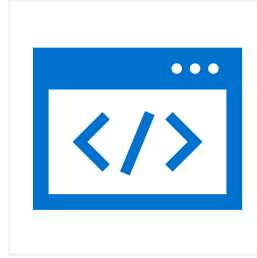
Standardized Devices & Processes

Using standardized devices, related integration APIs, & communication protocols enables scalability through easy replication, simplifies support, & enhances stability

Robust Security Measures

Implementing encryption, strong authentication mechanisms, & regular security checks can help protect IT infrastructure from security risks

forvis mazars

04

Everything as a Service

Everything as a Service
XaaS Trends

1. **AI & IoT as a Service**: The integration of AI & IoT into XaaS offerings is becoming more prevalent. AI as a Service (AIaaS) & IoT as a Service (IoTaaS) are gaining traction, enabling organizations to leverage advanced technologies without significant upfront investments. AIaaS as a service you see every day with Microsoft Copilot or xAI Grok. While IoTaaS as a Service is less visible, it includes platforms like IoT Central to quickly build & deploy IoT

2. **Increased Adoption of Subscription Models**: The subscription-based model continues to grow, allowing businesses to pay for services on a usage basis. A great example are Managed Services at Forvis Mazars. This model provides flexibility & cost savings, making it attractive for organizations of all sizes

3. **Enhanced Security Measures**: With the rise in cyber threats, XaaS providers are focusing on integrating robust security features into their offerings. This includes advanced encryption, multi-factor authentication, & continuous monitoring to protect data & follow compliance guidelines

4. **Edge Computing Integration**: Edge computing is being integrated into XaaS solutions to reduce latency & improve performance. This trend is particularly important for applications requiring real-time data processing

5. **Sustainability & ESG Initiatives**: There is a growing emphasis on sustainability & environmental, social, & governance (ESG) initiatives within the XaaS market. Providers are aligning their services with ESG goals to meet client & regulatory requirements

6. **White Label Services**: The development of white label XaaS solutions is on the rise, allowing companies to rebrand & customize services to better meet specific business needs

Elevate Your IT & Cybersecurity for the New Year

forvis mazars

XaaS – Challenges

- Data collection, organization, & analysis is a top challenge across differing XaaS platforms. Making the methods for data access, integration, & storage for AI essential

- There often is a wide array of options for XaaS software & services for the same purpose, making a best-fit selection difficult

- Risk is an inherent challenge in white labeling. Whether it is a primary driver for the business or a consequence of selecting a poor partner, the impact of these arrangements can be detrimental

- Governance for AI, Sustainability, & White Labeling of services should be clearly defined in any technology engagement

forvis mazars

XaaS – Opportunities

- For data collection & integration, standardize as much a possible

- For XaaS platform selection, consider working with an advisory team to assist in the selection process

- To reduce risk with white label services:

  - Limit the use of a main business drive

  - Check that your service-level agreement (SLA) is clearly defined & measurable with remedies for ongoing issues

  - Check that commercial coverage & sufficient options exist, including data in cases of unforeseen issue, such as consistently poor service delivery, sudden or large price increases, etc.

forvis mazars

XaaS – Strategies

1. Know your organization's strengths & core competencies

2. Define your XaaS strategy

3. Obtain executive sponsorship

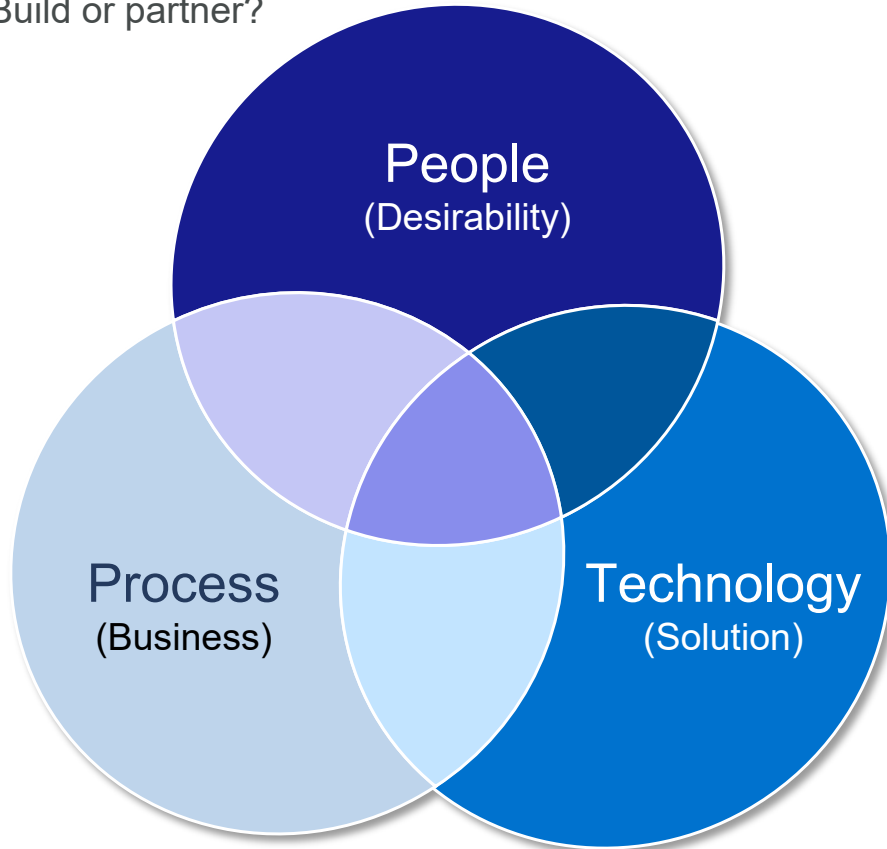4. Vet strategic partnerships with vendors & suppliers

5. Measure the returns

forvis
mazars

05

Conclusion

Conclusion

Discussion Summary

- Trends, best practices, strategy, governance
- How do you execute?
- Who is on the team?
- Build or partner?

People (Desirability)

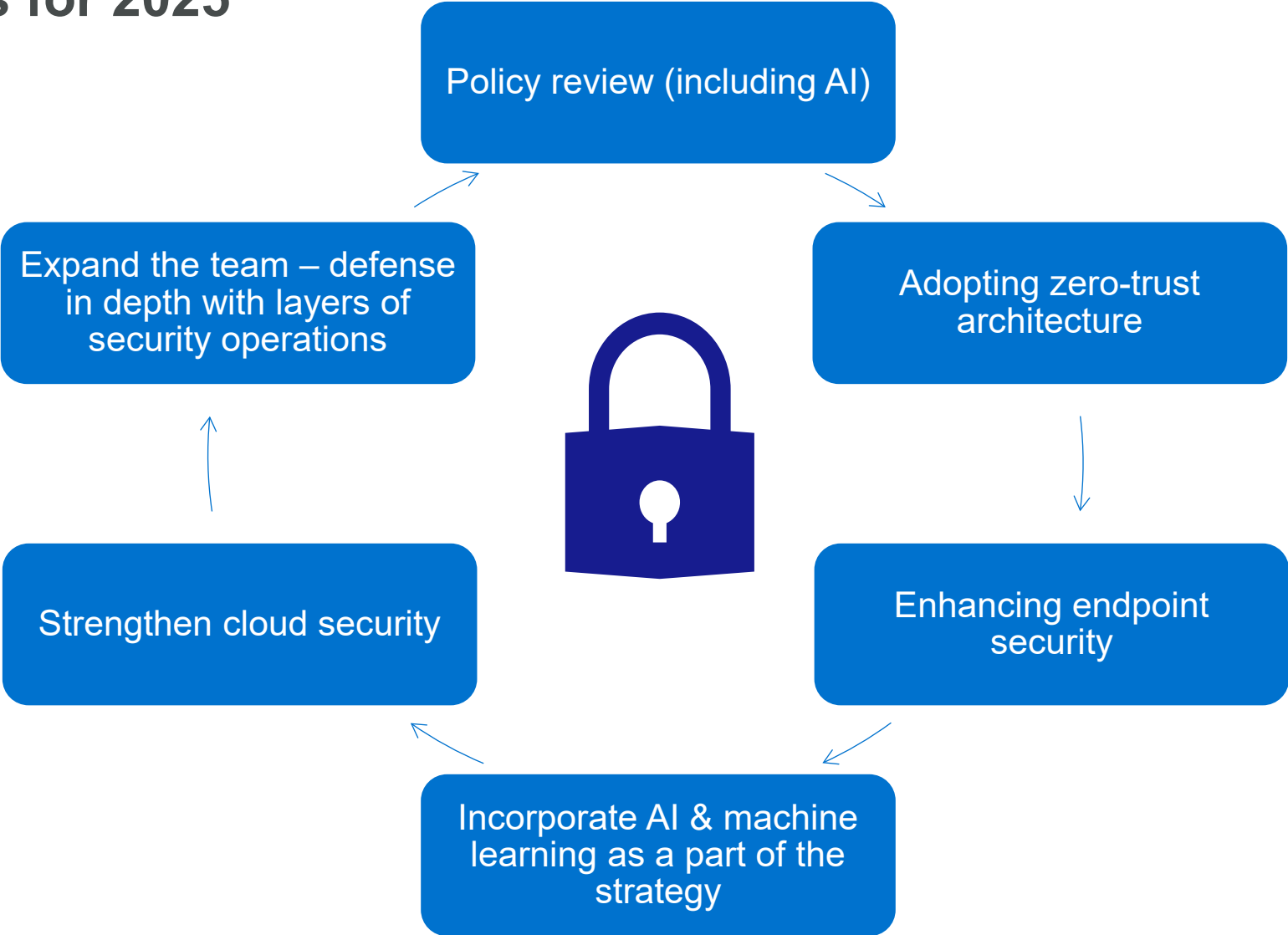Process (Business)

Technology (Solution)

How To Execute Next Steps

- **People**
  - Reduce IT & cyber skills gap
  - Identify & build up the team
    - 100% internal – embrace training, certifications
    - Outsource/co-source – extend/augment the team with service providers
- **Technology**
  - Embracing technology is a must
  - Leverage XaaS to help reduce costs & stay at pace or ahead of others
  - Standardize to the greatest extent possible
    - For easier scaling or right-sizing IT infrastructure:
    - Reduce complexity
    - Reduce costs through efficiency
    - Increased support of standardized systems
- **Process**
  - Adopt solid governance models – not just for AI
    - Use project & monitoring tools
    - Consider data classification

forvis mazars

Cybersecurity
Best Practices for 2025

Policy review (including AI)

Adopting zero-trust architecture

Expand the team – defense in depth with layers of security operations

Enhancing endpoint security

Strengthen cloud security

Incorporate AI & machine learning as a part of the strategy

forvis mazars

Building a Cohesive & Resilient Organization

1. Embrace a cybersecure culture

   - Awareness programs that encourage proactive security mindset

   - Regular training + phishing simulation exercises

   - Executive participation in IR tabletop exercises

2. Develop & execute strategy

   - BC, DR, IR

3. Governance of the strategy

4. Collaboration & information sharing

forvis mazars

Q&A

Business Technology Services | **Questions?**

forvis mazars

Contact

Forvis Mazars

Rick Burtt

Managing Director, Managed Services

rick.burtt@us.forvismazars.com

Ben Doane

Principal, Cybersecurity Managed Services

ben.doane@us.forvismazars.com

forvis mazars