

Gaining a Competitive Advantage with Your IT Roadmap



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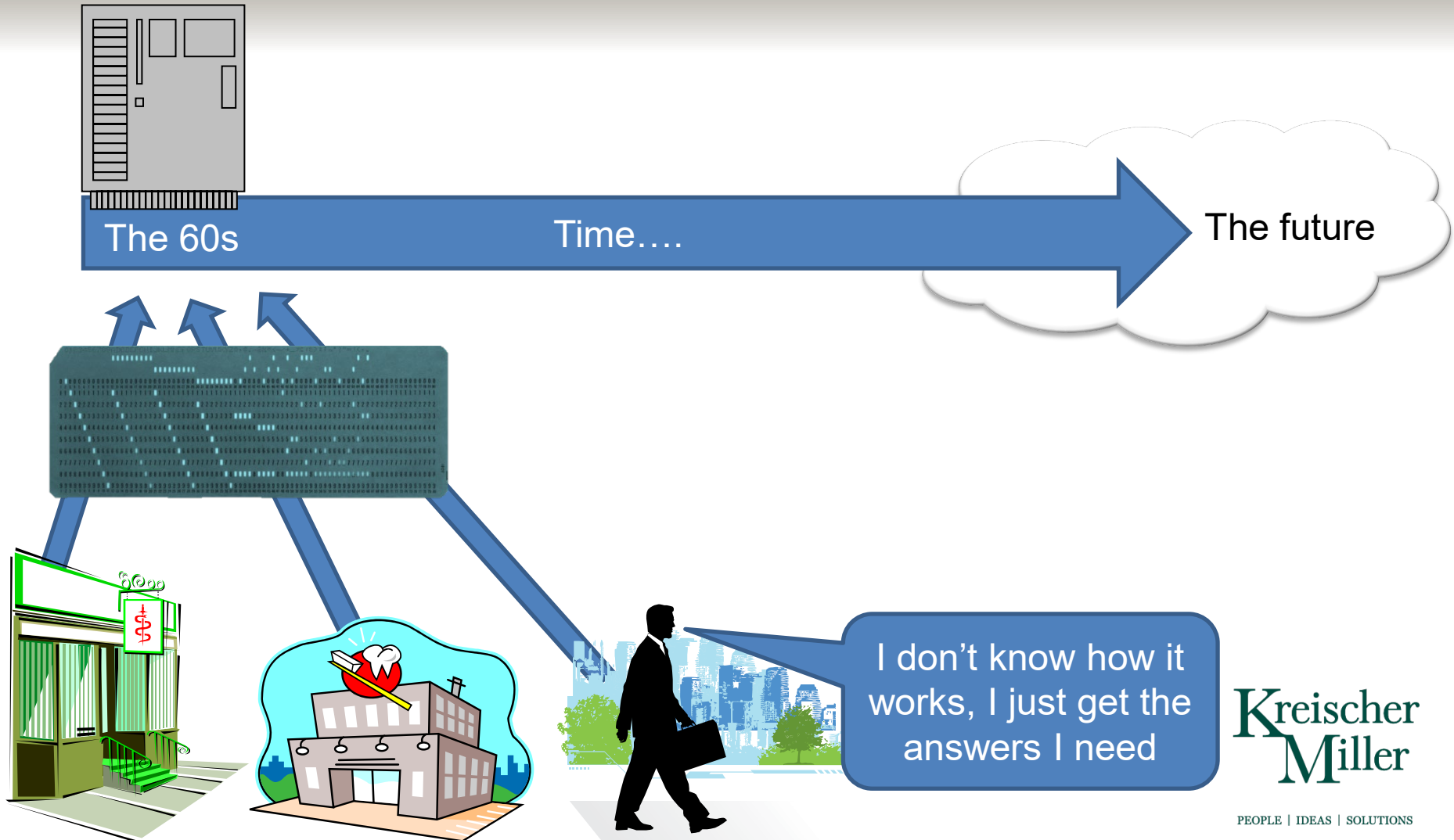
Background

- IT systems enable the digital transformation process for companies in an effort by management to create new products and services and improve and integrate supporting business processes for competitive advantage.
- This journey is an evolutionary process, and the pace is dictated by management and driven by several factors such as capabilities, resources, competitive forces and market demands.
- Every company embarks on this journey from the “old” to the “new” world of IT, but to what extent and at what pace?

Shifting Sands of IT ...

- Old World of Business IT:
 - Centralized Computing
 - Difficult to Scale/Connect Remotely
 - Poor Web/Mobile Support
 - Larger Internal IT Departments
 - Customized Business Applications
 - Challenges with Upgrades
 - Difficulties with Data Management/Analytics
 - Lots of Homegrown Integrations
 - Application Security Vulnerabilities
 - Business Continuity Concerns
 - Hard to Manage Environment

So What's Changed?



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Shifting Sands of IT ...

- New World of Business Computing:
 - Decentralized Computing Environment
 - Ease of Work from Any Where/Time/Device
 - Cloud Based Applications
 - Ease of Scale (up or down)
 - Software as a Service Features
 - Updated API/Integration Capabilities
 - Smaller but more sophisticated Internal IT Department
 - Increased focus on Value Generation and Decision Support
 - Tighter Security Posture
 - More Robust Business Continuity Capabilities
 - Reduced Total Cost of Ownership
 - IT as a Utility Characteristic

Emerging Managerial Priorities

- Pandemic has accelerated IT enabled digital transformation efforts:
 - Need for agility; work from anywhere at anytime as applicable
 - Need for flexibility; adjust to a multi channel, multi modal method of product and service delivery
 - Flushing out inefficiencies; eliminating silos through increased process integration efforts
 - Improved decision making by better leveraging data assets
 - Increased customer and supplier intimacy, portal and self serve features
 - Realization that many changes will have a longer-term effect, new normal, shifts in work/cultural habits
 - Need for improved risk management in an increasingly distributed and collaborative environment

IT Enablers for Competitive Advantage

- More Scalability, Lower Cost
 - Cloud Computing/SaaS
- Process Efficiencies, Capabilities
 - Updated Financial/ERP Applications
- Increased Quality and Efficiency
 - Robotic Process Automation
- Improved Employee and Client Engagements
 - Innovative Collaborative Technologies
- Better Decision Making
 - Analytics/Management Dashboards
- Improved Risk Management
 - Cyber/Information Security Program
- Ability to Execute. Maintain
 - IT Resources/Capabilities Considerations

New World of IT Agility

- On-Premise Computing Approach:
 - Requires hardware, space, energy
 - Requires managing applications/updates
 - Software licensing costs
 - Difficult to scale
 - High upfront capital costs
 - You have control and responsibility
 - Could still be a good fit in select environments
- How quickly can you:
 - Scale up/down the infrastructure and applications?
 - Upgrade to the latest applications?
 - Respond to a merger and acquisitions with new requirements for business process and IT capacity?
 - Respond to changes in your business model?

New World of Cloud Computing?



Making computing resources available as a utility service
just like the National Electricity Grid

Many Players in the Game

- To name a few:
 - SaaS: Microsoft, Salesforce, Oracle, Cisco, Google Apps
 - PaaS: Microsoft, Force.com, Google App Engine
 - IaaS: Amazon, IBM, VMware
- Expect change, the Cloud is just beginning...



Updated Financial/ERP Systems

- ERP and financial systems form the backbone of an organization's digital nervous system.
- All processes within an organization need to be reflected in some shape or form within the ERP/financial system to enable capture of all activities and their impact on the organization's performance.
- ERP systems and capabilities have evolved:
 - Core Operations to Accounting & Finance
 - Customer and Supply Management
 - Analytics and BI evolution
 - HRIS and Social XRP enablement
- Outdated and poorly integrated/enabled systems pose a significant obstacle towards digital transformation efforts!

ERP Solution Approaches

All-in-One

- Using one software solution to handle various facets of the company.
- Add-ons and Customizations.

Best of Breed

- Using several software applications and providers to satisfy the needs.
- Lots of Integrations.

Hybrid

- Using a core system with few other applications in support of business needs.
- More of a Balanced Approach.

Old World

New World

New World of Financial/ERP Systems

- Process capability/efficiency
- Break down the silos, provide visibility
- Real-time information updates and alerts
- Access any where/time/device
- Less paper, more workflow
- Increased self service capabilities
- Software as a service, ease of IT management



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Innovative Collaborative Technologies

- Leverages latest cloud computing capabilities
- Quick deployment, lower costs to maintain
- Enables building a distributed collaboration environment
- Keep an eye on virtual world features and capabilities



Robotic Process Automation

- Many organizations have developed a patchwork of applications, with data being entered in multiple places and requests travelling via various tools ranging from manual reports and forms to emails and spreadsheets from one system to another in different ways.
- Robotic Process Automation (RPA) democratizes automation through integration of all applications using a unified set of tools to eliminate non-value added activities while at the same time increasing overall process efficiency, quality and scalability levels.



RPA Examples

- Accounting & Finance – Payables and receivables processes. Automated reconciliation and financial close activities.
- Operations – Customer and vendor management, inventory automation, cycle counts, order fulfillment, quality tracking, job/project setups, project budget monitoring.
- Sales & Marketing – Campaign and outreach email management, brochure and content sharing processes, CRM automation.
- H/R – Employee forms, onboarding and termination processes, benefits management support processes.
- Executive Management – Business analysis, monitoring and reporting. Risk management and regulatory compliance support.

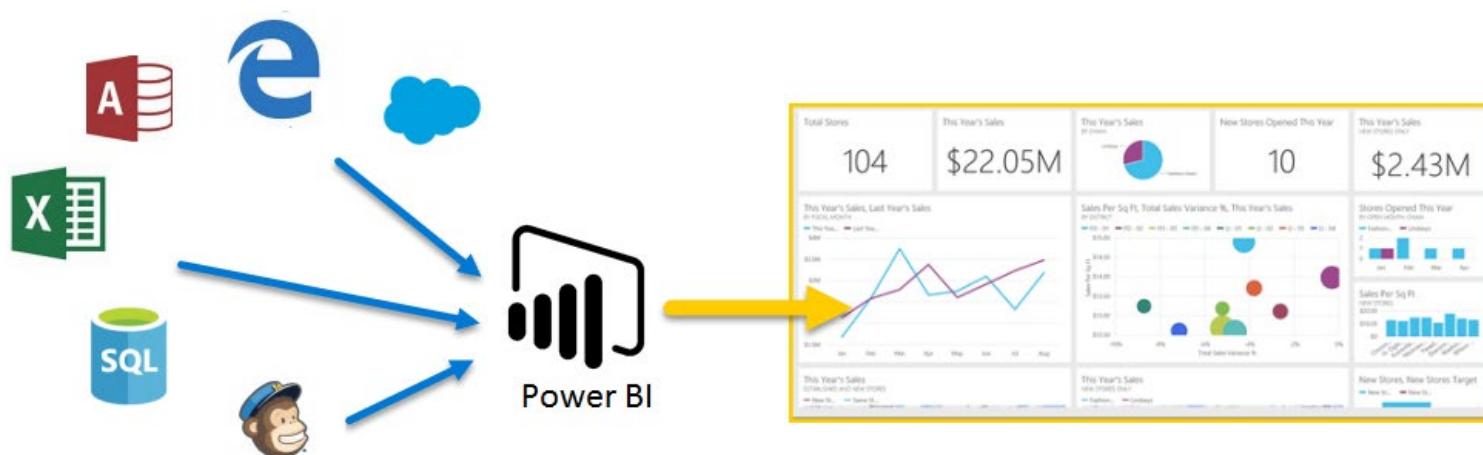
Analytics/Management Dashboards

- Dashboards are enablement tools of business performance management in today's modern organizations.
- Dashboards have become popular due to recent advances in cloud and open interface technologies.
- Dashboards are used to report on KPIs in an effective manner in order to enable management to keep everyone focused on achieving tangible results.
- Dashboards, when implemented properly, improve communication and accountability throughout the organization.

Management Dashboards



New World Use Case: Microsoft Power BI



- Power BI is a collection of tools that work together to create customized reports, charts, and insights
- A wide variety of data sources can be used, not just those from Microsoft

Dashboard Examples

- Opportunity tracking & management
- Sales performance & leaderboard
- Order fulfillment management
- Inventory & supply chain management
- Operational/outcome monitoring
- Project tracking & costing
- Workforce planning & utilization
- Product & customer segmentation analysis
- Financial metrics & forecasting
- Security/risk monitoring

Cyber Security Considerations

The protection of information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide **confidentiality, integrity, and availability.**



Middle Market & Information Security

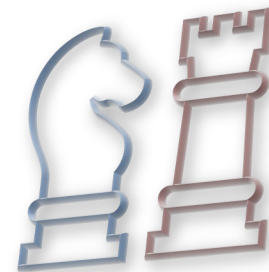
- Increased frequency of attacks
- Limited internal resources
- Increased regulatory pressures
- Confusion among management regarding priorities, assuming IT is addressing it all!
- Lots of noise/offering in the IT vendor community
- Too many solutions resulting in less than desired results!
- Need for a unified methodology and approach



Elements of a Cyber Program

No matter the industry, size or complexity of an organization, any comprehensive cyber program should cover these elements:

- Physical Safeguards
- Technical Safeguards
- Administrative Safeguards
- Organizational Requirements
- Policies and Procedures
- Executive Engagement



Framework Models

- Defensible as a standard
- Enabling comparison to peers, industry, own history
- Accepted as consensus for due diligence
- Available blueprints at various levels
- Attestable and/or certifiable by disinterested 3rd parties



NIST
CYBERSECURITY
FRAMEWORK



NIST
800-171



NIST
800-53
LOW BASELINE

HITRUST
CSF Certified



NIST
800-53
HIGH BASELINE



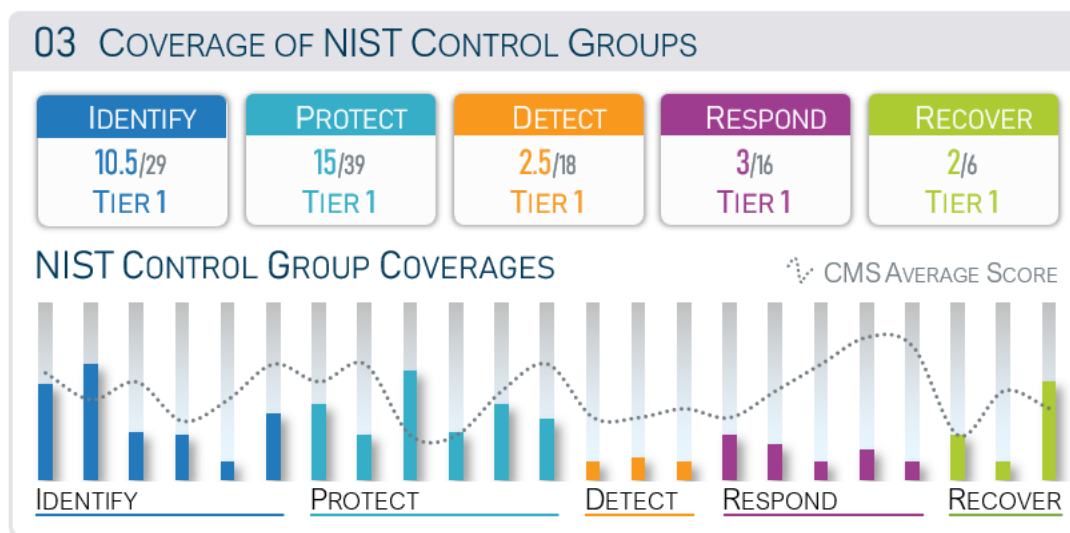
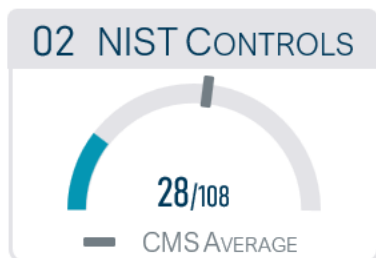
NIST
800-53
MODERATE BASELINE



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Attestation and Certification

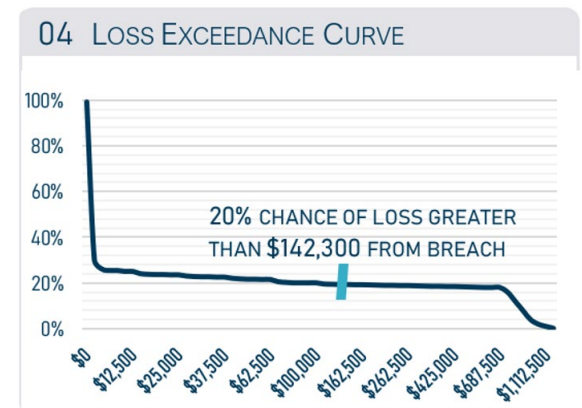
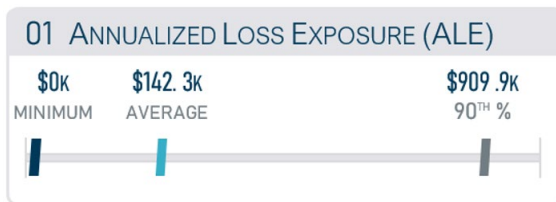
- Adopting maturity levels goals and defining a posture
- Identifying safeguards and implementing controls
- Managing risk continuously and programmatically
- Maintain awareness of residual risk and maintain insurability



Calculating Risk

Cyber Risk Quantification (CRQ)

- Uses statistics and mathematical models to assign \$ value to risk
- Calculates impact in terms of likelihood and size of expected loss
- Derives from real-world insurance claims, factors in organization-specific risk
- Creates justification & ROI for organization's due diligence and cyber risk spend



New World of IT Resources

- Middle market organizations could leverage a “smart combination” of internal and external resources in support of their emerging IT needs:
 - IT Coordinator Role
 - IT Management Role
 - Smaller IT Department
 - Managed Service Provider(s) Role
 - vCIO services
 - Specialized Resources Roles
 - General Management Roles
 - IT Governance/Oversight Mechanisms

Your Story – Your IT Roadmap!

- Using a candid and integrated storytelling approach can help you in developing an effective IT Roadmap:
 - Do you have a story of who and where the business is today and where you want it to go tomorrow?
 - Are your IT stories based on old world principles or new world priorities?
 - Are your IT systems and support mechanisms well aligned with your future state business story?
 - Are you building effective protection mechanisms in your Roadmap?

Thank You for Attending!



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