Managing Your Network for the Future

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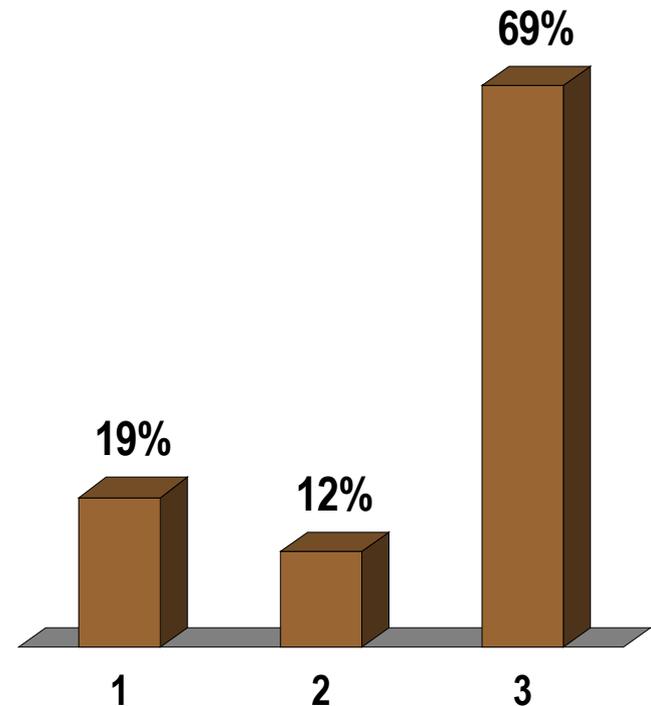**rlptak@ptaknoelassociates.com**

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Agenda

- **Why is this important?**

- **The IT operations model.**

- **Using the model.**

- **Applying the model.**
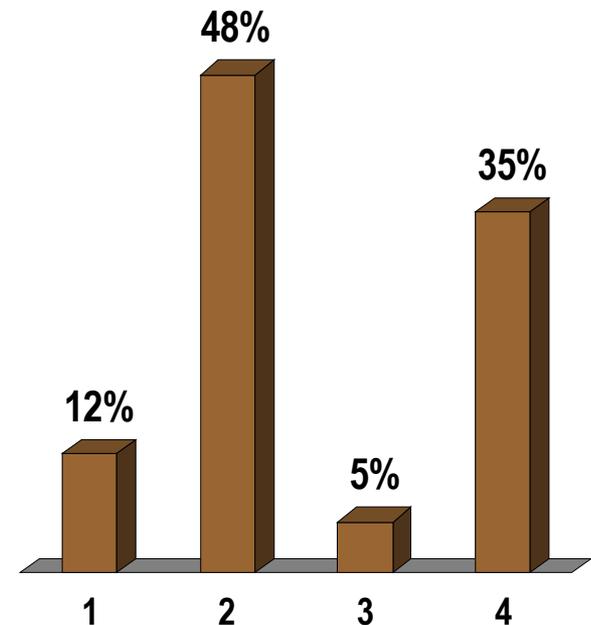
- **Network management future.**

- **Questions.**

How much will your network operations budget increase next year?

1. 10%

2. 20%

3. Are you kidding?
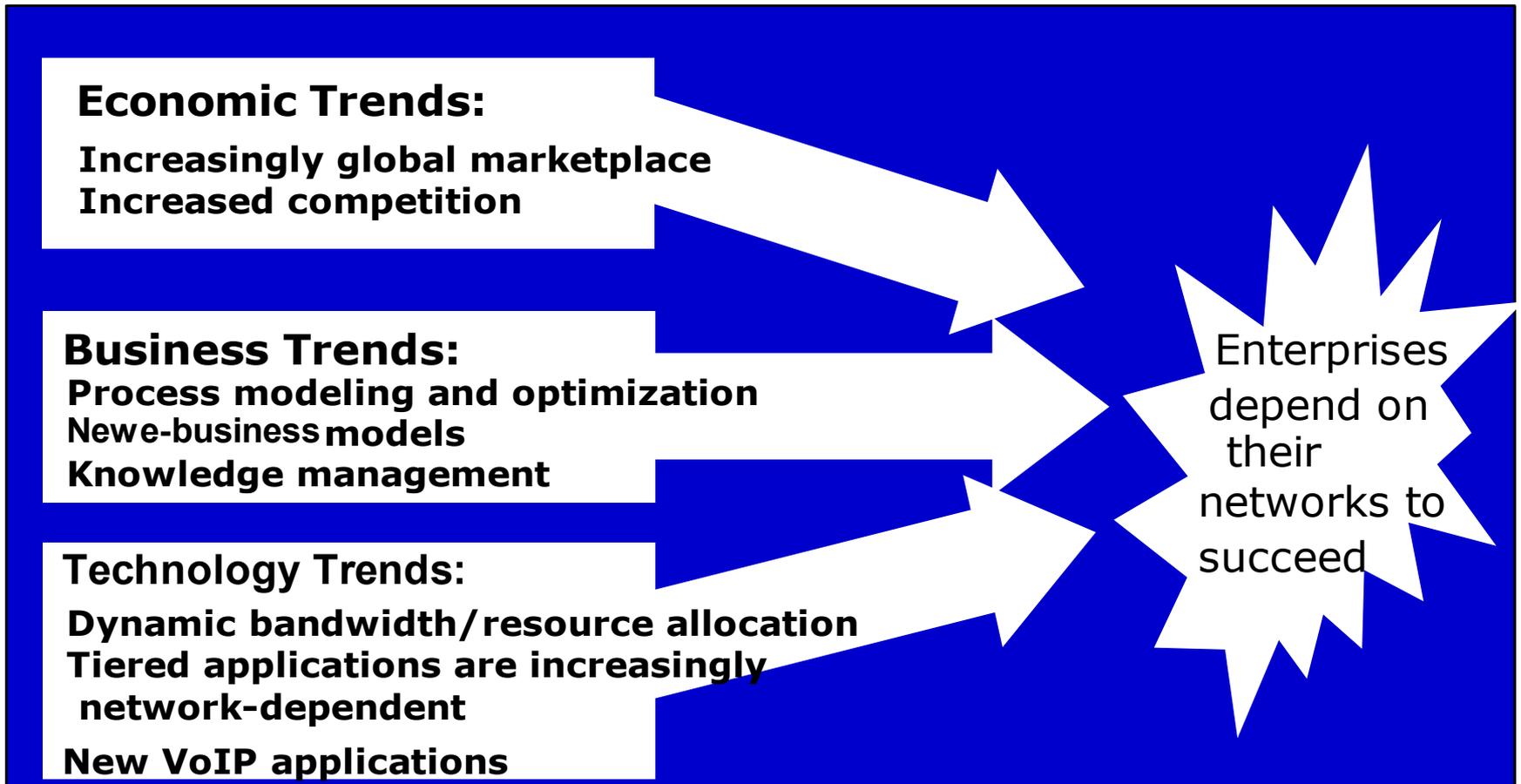

69%

19%

12%

1   2   3

Given the following choices, which would you want to have first?

1. A virtualized network

2. Self-healing network devices

3. Automated service relationship mapping

4. Automated analysis of business service bandwidth utilization

48%

35%

12%

5%

1   2   3   4

Why Is This Important?

Economic Trends:

Increasingly global marketplace
Increased competition

Business Trends:
Process modeling and optimization
New e-business models
Knowledge management

Technology Trends:

Dynamic bandwidth/resource allocation
Tiered applications are increasingly network-dependent

New VoIP applications

Enterprises depend on their networks to succeed

Why are things so complicated?

The Impact on IT

Economic Impact:

Systems are more critical, therefore, have higher availability and performance requirements

Business Impact

Systems are more complex and interdependent, therefor management is more difficult

Technology Impact

Systems change at faster rates, therefore, IT efficiency at controlling dynamic systems must increase
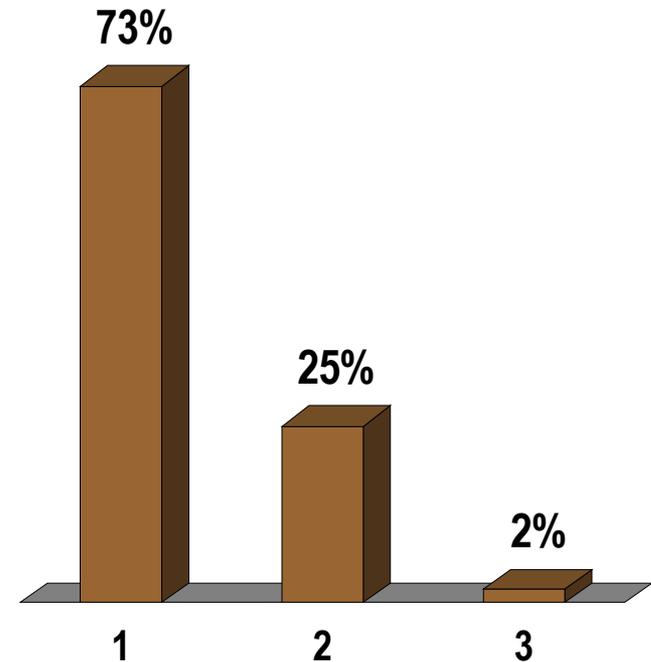
IT operational excellence is required for enterprises to succeed

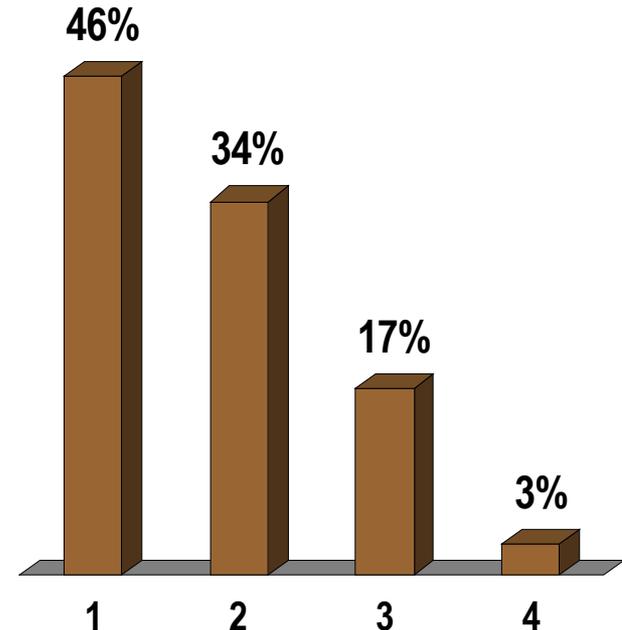*You're not just a Cost Center Anymore*

Have you been asked to prove or link network operations to business goals?

1. Yes

2. No

3. What are business goals?

73%

25%

2%

1   2   3

From which vendor do you expect to purchase a network device modeling and management product?

1. Cisco

2. NSM vendor (IBM, HP, BMC, etc.)

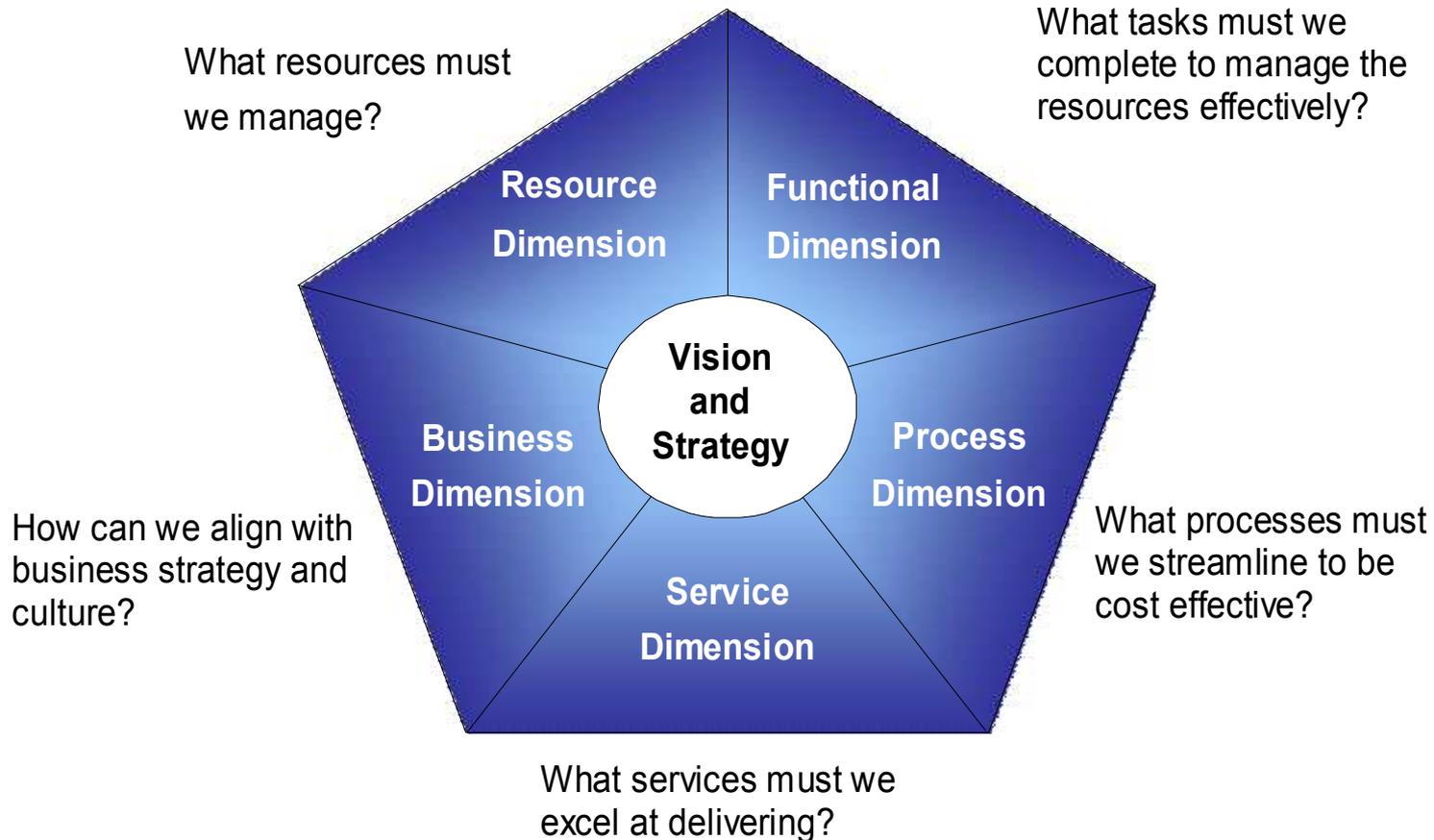3. A specialty vendor (Intelliden, AlterPoint, etc.)

4. eBay

How We Coped

Functions → **Infrastructure** ↓	Performance Mgmt	Configuration and Change Mgmt	Inventory and Asset Mgmt	Capacity Planning	Security	Recovery and Continuity
Applications						
Middleware						
Databases						
Storage						
Networks						
Desktops						
Servers						

Two dimensions are no longer enough

The IT Operations Model

What resources must we manage?

What tasks must we complete to manage the resources effectively?

Resource Dimension

Functional Dimension

Vision and Strategy

Business Dimension

Process Dimension

How can we align with business strategy and culture?

What processes must we streamline to be cost effective?

Service Dimension

What services must we excel at delivering?

Making Sense of it All

Applying the Model

- ## Strategic assessment
  - ### How does IT line up with the business?

- ## Functional gap analysis
  - ### Where are we versus where we want to be?

- ## Implementation gap analysis
  - ### What do we need and when do we need it?

- ## Vendor solution analysis
  - ### Who's got what we need?

Example Scenario

- **A typical provider of managed networked services working to assure business needs are met**

- **Network environment consists of a range of devices primarily identified as 'Cisco' but in reality a heterogeneous mixture of vendors**

- **A new CIO is hired – he is provided a personnel roster, a list of critical services, and a 'somewhat' dated asset inventory**

- **Initial staff interviews reveal tight budgetary oversight, emphasis on reducing MTTR instead of problem prevention, and service level agreements without operational costs accounting**

How might he use the ITOM to prioritize his tasks?

Business Dimension

- **Questions**

  - **What are our business responsibilities? How do we shape/ contribute to corporate goals?**

  - **How and where do we fit into the corporate culture? Strategically? Operationally? Managerial? Budget? Contribution?**

  - **How does network strategy intersect with corporate strategy? Can we identify real/potential points of conflict between the strategies?**

  - **Is our contribution to corporate success visible? Tracked? Acknowledged?**

- **CIO Priorities**

  - **Create IT liaison office to proactively interact with business units about services**

Service Dimension

- **Questions**
  - **Are network services defined and inventoried? By customer type? By corporate products/goals?**
  - **Are service lists reviewed for business relevance? Efficiency? Utilization? Effectiveness?**
  - **Are service levels defined? Catalogued? Monitored? Managed?**
  - **Are network services known to and understood by internal/external customers?**
  - **Can we track and report the total cost of providing individual services? Of different levels of service performance?**

- **CIO Priorities**
  - **Free existing staff resources to focus on these questions**

Process Dimension

- **Questions**
  - **Are IT processes defined, published and accessible to appropriate users?**
  - **How are processes audited to assure and document compliance?**
  - **Are processes periodically reviewed for performance? Efficiency? Utilization? Automation? Effectiveness?**
  - **Do we know the cost/contribution of our processes?**
  - **Have IT processes been mapped to business functions and goals?**

- **CIO priorities**
  - **Process documentation and review.**

Functional Dimension

- **Questions**
  - **How can we improve performance of existing staff to handle more devices? Services? Complexity? Agility?**
  - **Can we identify which IT tasks can/should be automated?**
  - **How do we identify which IT management technologies are needed to simplify functions? Across multiple technologies? For specific technologies?**
  - **Are our return-on-investment measurement and analysis capabilities for IT management tools sophisticated enough to support our strategic/business goals?**
- **CIO Priorities**
  - **Create an inventory of management tasks and tools.**
  - **Map staff time to problems and issues.**
  - **How do these problems and issues relate to the business goals?**
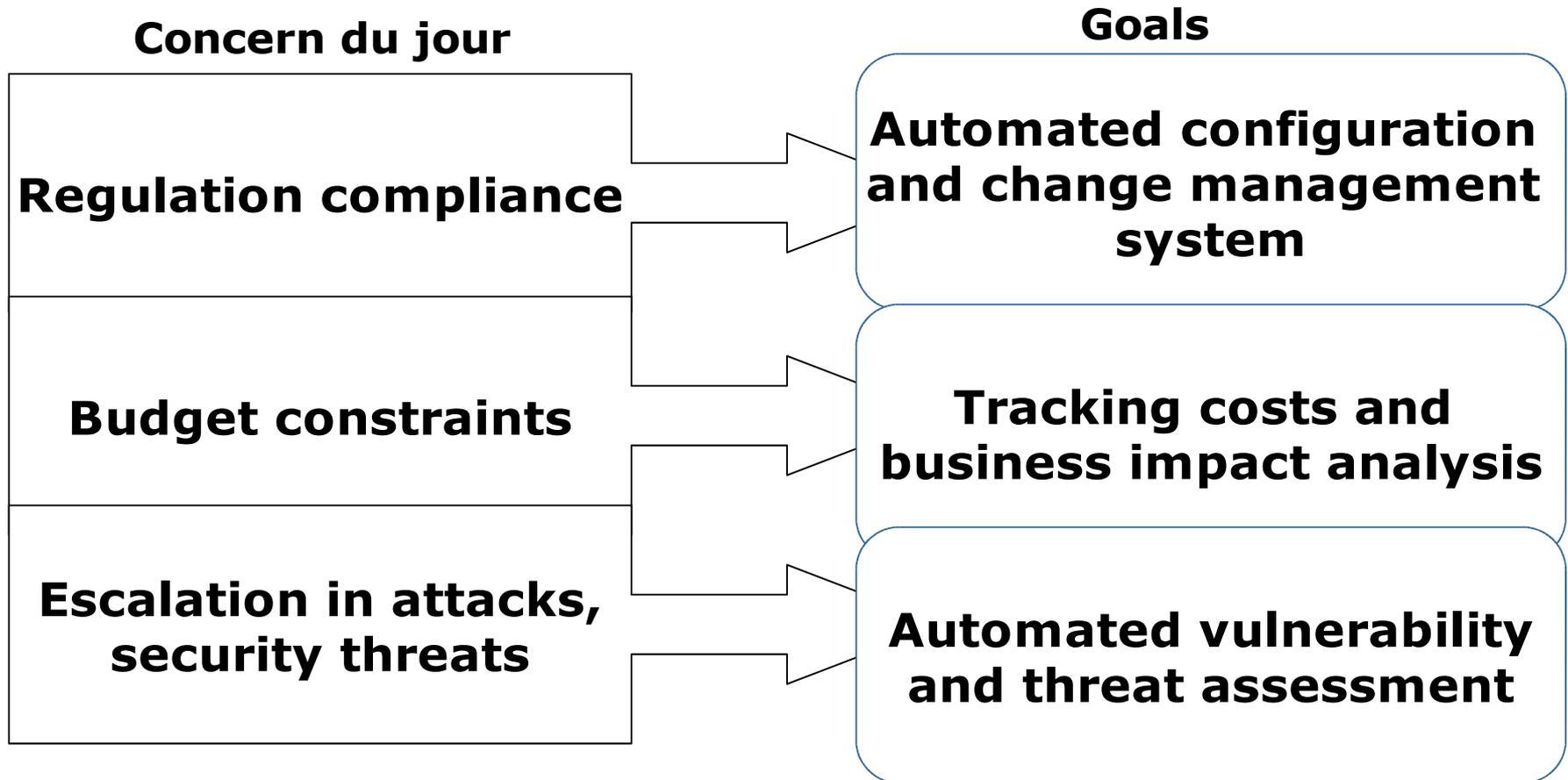
Resource Dimension

- **Questions**
  - **Do we have an automated way to keep our asset and skills inventory lists current?**
  - **How mature are our investment portfolio analysis capabilities? Are we acquiring new resources only to keep up or to deliver new advantage?**
  - **Are our return-on-investment measurement and analysis capabilities for asset inventory sophisticated enough to support our strategic/business goals?**
  - **Is there an active plan to upgrade resources/skills? Maintain skills? Acquire needed skills?**
  - **Is there a way to ensure our assets are compliant with relevant regulations and corporate policies?**
- **CIO Priorities**
  - **Automated inventory tracking system**
  - **Compliance management system**

Use Tactical Deployments to Move Toward Your Strategic Goals

Concern du jour

Goals

Regulation compliance	**Automated configuration and change management system**
Budget constraints	**Tracking costs and business impact analysis**
Escalation in attacks, security threats	**Automated vulnerability and threat assessment**