# Powering the Adaptive Enterprise

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Chief Information Officer and Senior Vice President

Cisco

Productivity

Pace of Change

Business
is Technology

**The IT Response**

Services Everything

Adaptive Enterprise

Learning Network

Cost

Speed

Growth

# Services Everything: Key Technology Transitions

## Communications and Collaboration as an Experience

| IP Telephony | Unified Communications | Departmental Collaboration | Enterprise Collaboration | Pervasive Collaboration |
|---|---|---|---|---|

## Mobility as an Experience

| Voice/Laptop | Smartphones | Secured Multiple Devices | Next-generation Mobile Experience | Lifestyle |
|---|---|---|---|---|

## Data as a Service

| Foundation | Data Services | Knowledge Management | Big Data | Network Data |
|---|---|---|---|---|

## Applications as a Service

| Foundation | Basic Services | Complex Services | Multi-sourced Services | Secured Collaborative Services |
|---|---|---|---|---|

## Infrastructure as a Service

| Consolidation | Virtualization | Automation | Utility | Market |
|---|---|---|---|---|

# TBM Framework

**Drive a Performance-Based Culture**

**Change Behavior with Transparency**

Run-the-Business | Change-the-Business

**Optimize Your Cost for Performance**

**Rationalize to Sustain Value Creation**

**Innovate to Grow and Compete**

**Transform by Enabling Agility**

**Plan with Greater Confidence**

**Understand and Benchmark Your True Cost and Performance**
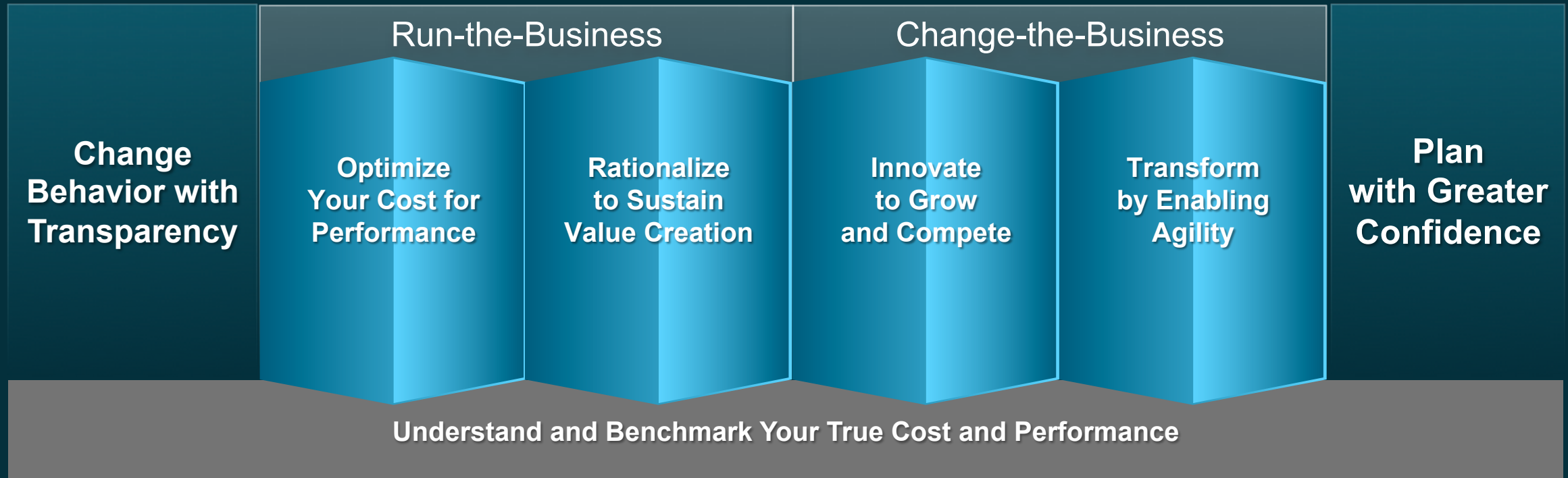
**Position to Manage Supply and Demand**

# Services Everything: Technology, Process & People



**Services Oriented Everything**

Architectural Transitions

**Communications and Collaboration as an Experience**
IP Telephony → Unified Communications → Departmental Collaboration → Enterprise Collaboration → Pervasive Collaboration

**Mobility as an Experience**
Voice / Laptop → Smartphones → Secured Multiple Devices → Next-generation Mobile Experience → Lifestyle

**Data as a Service**
Foundation → Data services → Knowledge Management → Big Data → Network Data

**Applications as a Service**
Foundation → Basic services → Complex Services → Multi-sourced Services → Secured Collaborative Services

**Infrastructure as a Service**
Consolidation → Virtualization → Automation → Utility → Market

Talent Strategy

**76**

OHI score[1] is the best available predictor of an organization's future capacity to perform

Companies with top quartile health deliver on average 3x greater TRS[2] over time

1. Average of 9 outcome scores
2. Total Shareholder Return

Source: Cisco Systems, Inc. OHI Survey, IT (n=2148)

Alignment
Execution

Direction 74%
Accountability 78%
Coordination & Control 70%
External Orientation 80%
Leadership 79%
Innovation & Learning 71%
Capabilities 80%
Motivation 76%
Culture & Climate 76%

Organizing Principles

Governed Capabilities
Large Scale Services
Functional Business Services
Application Services Development
Foundation Services
Operating Process Services
Infrastructure Services
Operating Technical Services
Network Services

Accountability Checkpoint

Organizational Health

Architectural Review

Services Review

Strategic Investment Planning

# Services Everything: Architectural Review Checkpoint



Organizational Health

Architectural Review

Services Review

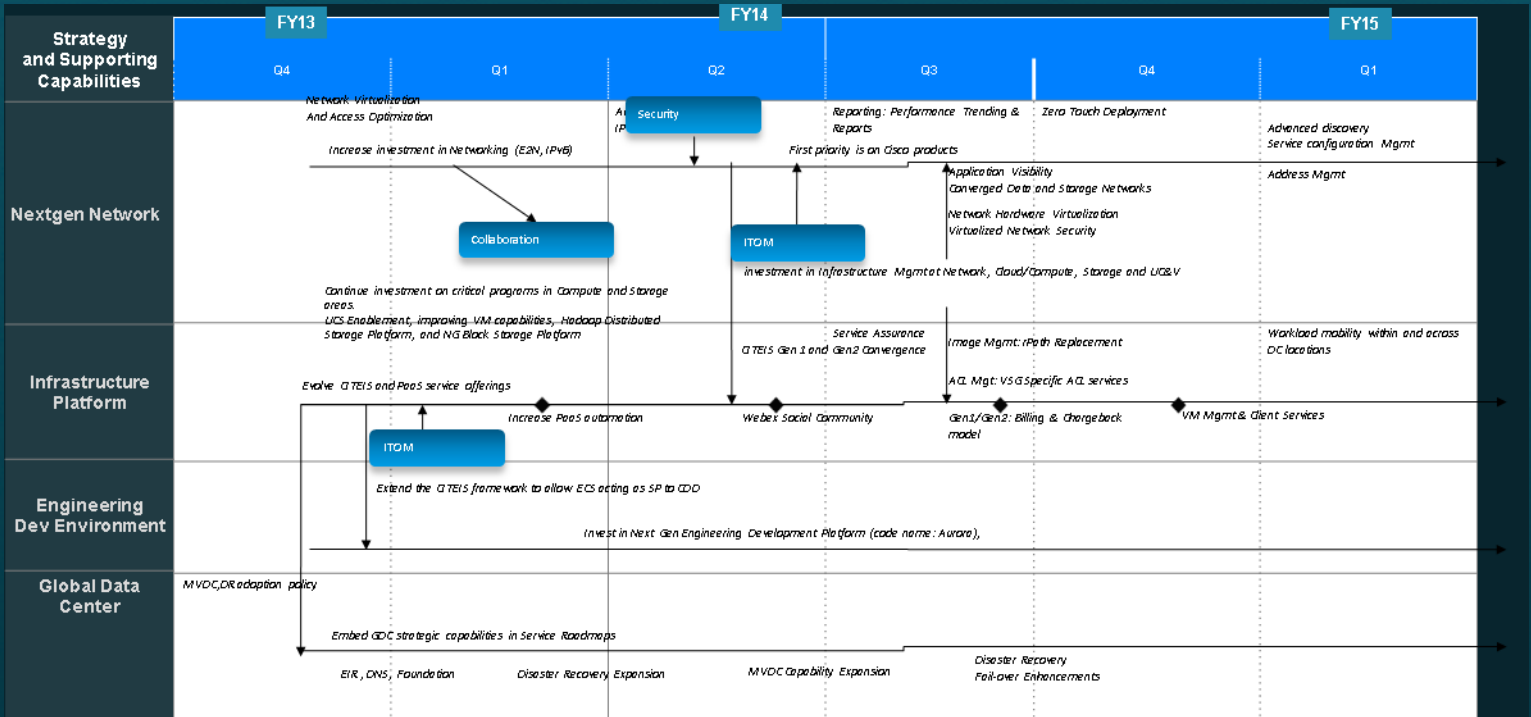Strategic Investment Planning
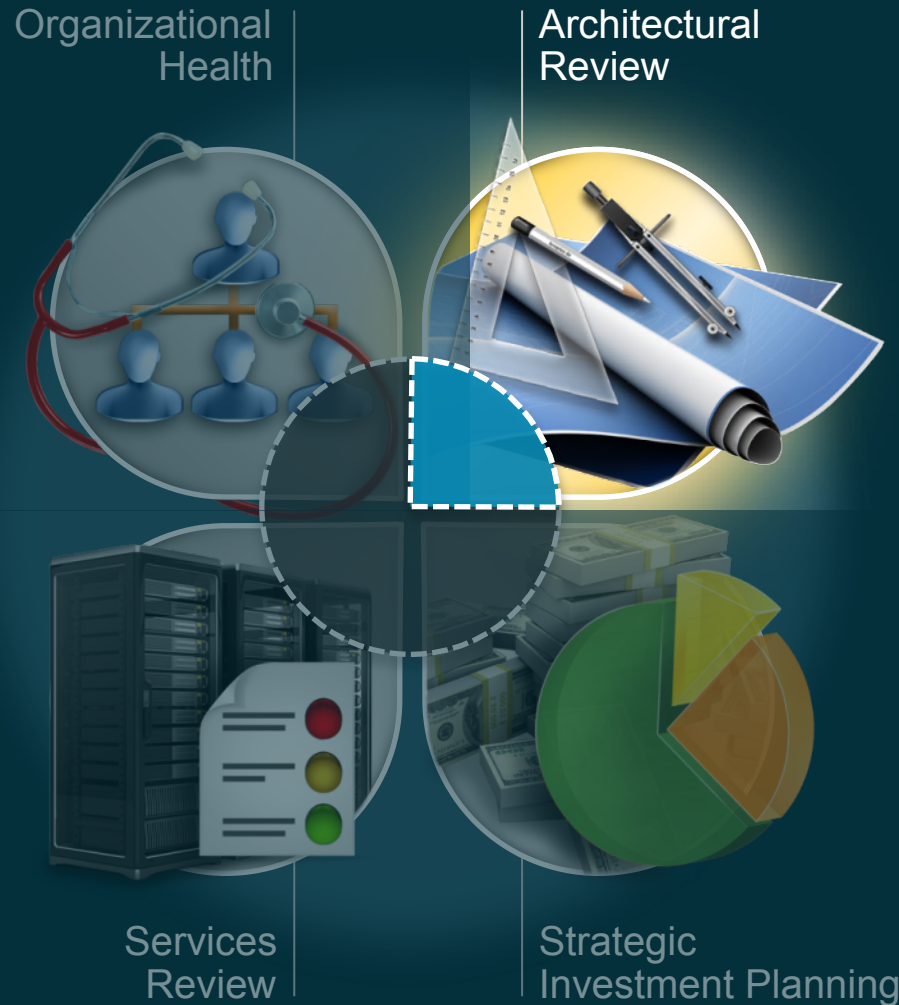
## Architectural Bundles

1. IT Operating Model
2. Employee Experience
3. Communication and Collaboration
4. Global Order Management, Supply Chain, Finance
5. Customer Care; XRM – Relationship Management
6. HR, Finance, WPR
7. Buying and Selling – Commerce
8. New Business Models – Software
9. Product Development Management
10. Business Rules Management
11. Integration Services
12. Data/Information Management
13. Security
14. Cloud/Infrastructure Services

# Services Everything: Architectural Review Checkpoint

Organizational Health

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Strategic Investment Planning

## Architectural Roadmap

| | FY13 | | FY14 | | | FY15 |
|---|---|---|---|---|---|---|
| **Strategy and Supporting Capabilities** | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 |

**Strategy and Supporting Capabilities:**
- Network Virtualization And Access Optimization
- Security
- Reporting: Performance Trending & Reports
- Zero Touch Deployment
- Advanced discovery Service configuration Mgmt
- Increase investment in Networking (E2N, IPv6)
- First priority is on Cisco products

**Nextgen Network:**
- Collaboration
- ITOM
- Application Visibility
- Converged Data and Storage Networks
- Network Hardware Virtualization
- Virtualized Network Security
- Address Mgmt
- Investment in Infrastructure Mgmt of Network, Cloud/Compute, Storage and UC&V

**Infrastructure Platform:**
- Continue investment on critical programs in Compute and Storage areas.
- UCS Enablement, improving VM capabilities, Hadoop Distributed Storage Platform, and NG Block Storage Platform
- Evolve CITEIS and PaaS service offerings
- Increase PaaS automation
- Webex Social Community
- Service Assurance CITEIS Gen 1 and Gen2 Convergence
- Image Mgmt: rPath Replacement
- ACL Mgt: VSG Specific ACL services
- Gen1/Gen2: Billing & Chargeback model
- Workload mobility within and across DC locations
- VM Mgmt & Client Services

**Engineering Dev Environment:**
- ITOM
- Extend the CITEIS framework to allow ECS acting as SP to CDD
- Invest in Next Gen Engineering Development Platform (code name: Aurora),

**Global Data Center:**
- MVDC, DR adoption policy
- Embed GDC strategic capabilities in Service Roadmaps
- EIR, DNS, Foundation
- Disaster Recovery Expansion
- MVDC Capability Expansion
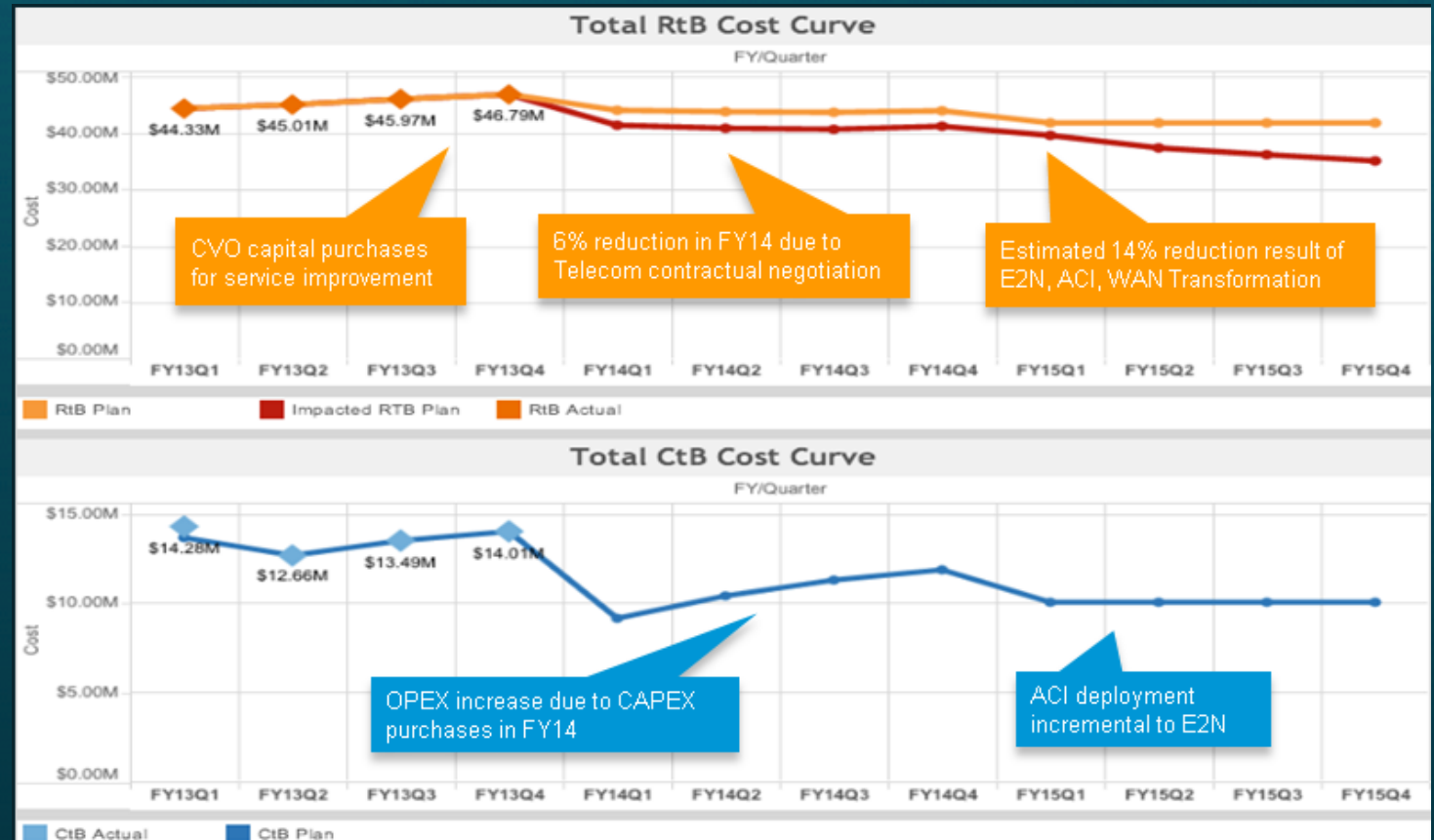- Disaster Recovery Fail-over Enhancements

# Services Everything: Architectural Review Checkpoint

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## Architectural Deliverables

| Strategy and Supporting Capabilities | FY13 | FY14 | | | | FY15 |
|---|---|---|---|---|---|---|
| | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 |
| **Nextgen Network** | **Capabilities**<br>Network Mgmt<br>CVO Resiliency<br>Video Performance<br>Branch Connectivity<br>App Security | **Capabilities**<br>Openstack / OpenShift<br><br>Collaboration IPV6<br><br>Network security mgmt<br><br>Network policy mgmt | **Capabilities**<br>Unified network access architecture<br><br>Service discovery<br><br>Enhanced Wide area app arch (APPNAV) | **Capabilities**<br>DC wide security control<br>DC Zone based sec<br>Internet Only Networking (ION)... | **Capabilities**<br>Zero Touch Deploy..... | **Capabilities**<br>Secure Branch Automation ..... |
| **Infrastructure Platform** | DC Net Performance<br>Net Security (EACLM)<br>Regional<br>DC Workload Mobility<br>L2VPN (US)<br>Redundant Internet Access<br>CITEIS Post OS<br>Larger VM<br>RAC VM, SQLSrvr VM<br>Elastic, cloud storage<br>Backup to disk<br>Mgmt—Prime DC<br>Compute Big Data<br>IPv6 compute | Next-gen object storage<br><br>Lab Connectivity<br><br>Service delivery automation<br><br>Alternate hypervisor | DC Extension into public cloud<br><br>In-mem DB (Timesten)<br>Inter DC DB(RAC)<br>Light Rel DB (MySQL) | | | |
| **Engineering Dev Environment** | Eng Resilience, Analytics,<br>Capacity, Config Mgmt | | Workload Mobility:<br>local, remote, mvdc<br>Converged Data/Storage | | | |
| **Global Data Center** | MVDC,Ok | | | | | |

Embed GDC strategic capabilities in Service Roadmaps

EIR , DNS, Foundation     Disaster Recovery Expansion     MVDC Capability Expansion     Disaster Recovery Fail-over Enhancements

# Services Everything: Strategic Investment Checkpoint

Organizational Health

Architectural Review

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## Strategic Investment Outlook

### Total RtB Cost Curve
FY/Quarter

$44.33M  $45.01M  $45.97M  $46.79M

CVO capital purchases for service improvement

6% reduction in FY14 due to Telecom contractual negotiation

Estimated 14% reduction result of E2N, ACI, WAN Transformation

FY13Q1  FY13Q2  FY13Q3  FY13Q4  FY14Q1  FY14Q2  FY14Q3  FY14Q4  FY15Q1  FY15Q2  FY15Q3  FY15Q4

RtB Plan    Impacted RTB Plan    RtB Actual

### Total CtB Cost Curve
FY/Quarter

$14.28M  $12.66M  $13.49M  $14.01M

OPEX increase due to CAPEX purchases in FY14

ACI deployment incremental to E2N

FY13Q1  FY13Q2  FY13Q3  FY13Q4  FY14Q1  FY14Q2  FY14Q3  FY14Q4  FY15Q1  FY15Q2  FY15Q3  FY15Q4

CtB Actual    CtB Plan

### Change the Business
- Depreciation transferred to RtB at the start of each new FY.

### Run the Business
- At least 5% target reduction each FY, in addition to offsetting any incremental RtB.

# Services Everything: Services Review Checkpoint

Organizational Health

Architectural Review

Services Review

Strategic Investment Planning

## Services Dashboard

### Cost

| Metric | Benchmark | Goal | Actual | Status |
|---|---|---|---|---|
| Total Cost ($) | 86.5M* | 87.6M | 86.5M | — |
| Total CtB Direct Cost ($) | 17.7M* | 17.8M | 17.7M | — |
| Total RtB Direct Cost ($) | 68.8M* | 69.9M | 68.8M | — |
| E2E Bundle: Std Sm Size [$/Qtr]* | 6,490 | 4,633 | 4,876 | — |

*Bundle covers Compute, Storage, Database and JVM.
Cisco costs are derived to show unmanaged env comparable to AWS.
Costs include one-time setup and first quarter charges.
Unit costs normalized to market prices for Cisco equipment.

### Speed

| Metric | Benchmark | Goal | Actual | Status |
|---|---|---|---|---|
| Time to Capability (Days) [Rapid Bundles] (P+E) | 5* | 5 | 7 | — |
| Time to Capability (Days) [Complex Bundles] (P) | 44* | 44 | 17 | — |
| % Standard Service Request Delivered 5 days (E) | 65%* | 65% | 53% | — |

### Risk

| Metric | Benchmark | Goal | Actual | Status |
|---|---|---|---|---|
| Resiliency | 66* | 100 | 86 | — |
| EIO: Quickly Resolve Incidents | 85* | 80 | 91 | — |

### Quality

| Metric | Benchmark | Goal | Actual | Status |
|---|---|---|---|---|
| EIO: Maintain Service Delivery | 74 | 80 | 91 | — |
| EIO: Resolve Problems Efficiently | 71* | 80 | 97 | — |
| Total Remedy Case Count | 25,736* | 24,449 | 24,727 | — |
| *Service Restoration* | 16,778* | 15,939 | 17,764 | — |
| *Service Request* | 8,407* | 7,987 | 6,963 | — |
| GTRC Cases | 5,449* | 5,177 | 5,083 | — |

### Leverage

| Metric | Benchmark | Goal | Actual | Status |
|---|---|---|---|---|
| % Rapid/Standard vs. Complex Bundles (P) | 85/15%* | 85/15% | 71/29% | — |

### User Experience

| Metric | Benchmark | Goal | Actual | Status |
|---|---|---|---|---|
| Usability [0-100] | 100 | 100 | 89 | — |
| Business Value [0-100] | 100 | 100 | 94 | — |
| Support [0-100] | 100 | 100 | 96 | — |
| Service Quality [0-100] | 100 | 100 | 91 | — |
| **Overall UE Index [0-100]** | **100** | **100** | **92** | — |

# Services Everything: Organizational Health Checkpoint

## Organizational Health Dashboard

Organizational Health

Architectural Review

Services Review

Strategic Investment Planning

### IT ENGAGEMENT SCORECARD

| Metric | FY14 Target | Q4FY13 (June) | Q1FY14 (September) | Status |
|---|---|---|---|---|
| Employee Engagement (%) | 80 | 80% | 82% | G |
| OHI | 72 | | 78 | G |
| Vol. Attrition (%) | - | 0.75 | 1.07 | Y |
| Vol. Attrition by Top Talent (%) | - | 0 | 0.18% | Y |
| Invol Attrition (%) | - | 0.75 | 0 | Y |
| SPOC | 8 | 8.4 | 8.29 | G |
| Max Levels | 7 | 7 | 7 | G |
| Grade Level Distribution (%) | - | See support slide for details | | G |
| People Managers (#/%) | 9% total; 3% each | Grade 10 - 9 / 1.6% Grade 11 – 25 / 4.4% Grade 12 – 21 / 3.7% Total – 55 / 9.7% | Grade 10 – 6 / 1% Grade 11 – 22 / 4% Grade 12 – 20 / 3.7% Total - 48 / 8.9% | Y |
| Geo Distribution (%) | - | San Jose - 64% RTP - 8% Am Others - 4% APJC - 22% EMEAR - 2% | San Jose - 63% RTP - 9% Am Others - 3% APJC – 22.5% EMEAR - 2.5% | Y |
| Contingent Worker Optimization Plan | - | See support slide for details | | Y |

# Services Everything: Build or Buy Decision

## Key Decision Criteria

- Value Add
- Cost
- Time to Deploy
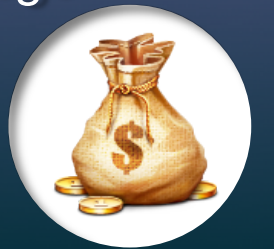- Risk Profile
- Experience

## BUILD Attributes

- Core to Differentiation
- Mission Critical/Operational Advantage in Cost/Risk/Scale or Speed
- User Experience: Customer

## BUY Attributes

- Core Value Prop of Vendor
- Mission Critical/Operational Advantage in Cost/Risk/Scale or Speed
- Small Scale
- Global Deployment
- User Experience: Employee

# Services Everything Governance: Unified Security Metrics



**IT Security Primes**

Service Security Score Cards, Pending Mitigation

**IT Service Owners**

Vulnerability-Performance Metric and Trending, Top 10 vs. Bottom 10

**Service Review**

Performance Metric ('Aging') and Trending

Ensuring Consistency Across All Reporting Areas

Services Everything

The IT Response

Adaptive Enterprise

Learning Network

Cost

Speed

Growth

# The Strategy for the Adaptive Enterprise

**V**

**Power the #1 IT Company**

**Future proof our business through adaptive services**

**S**

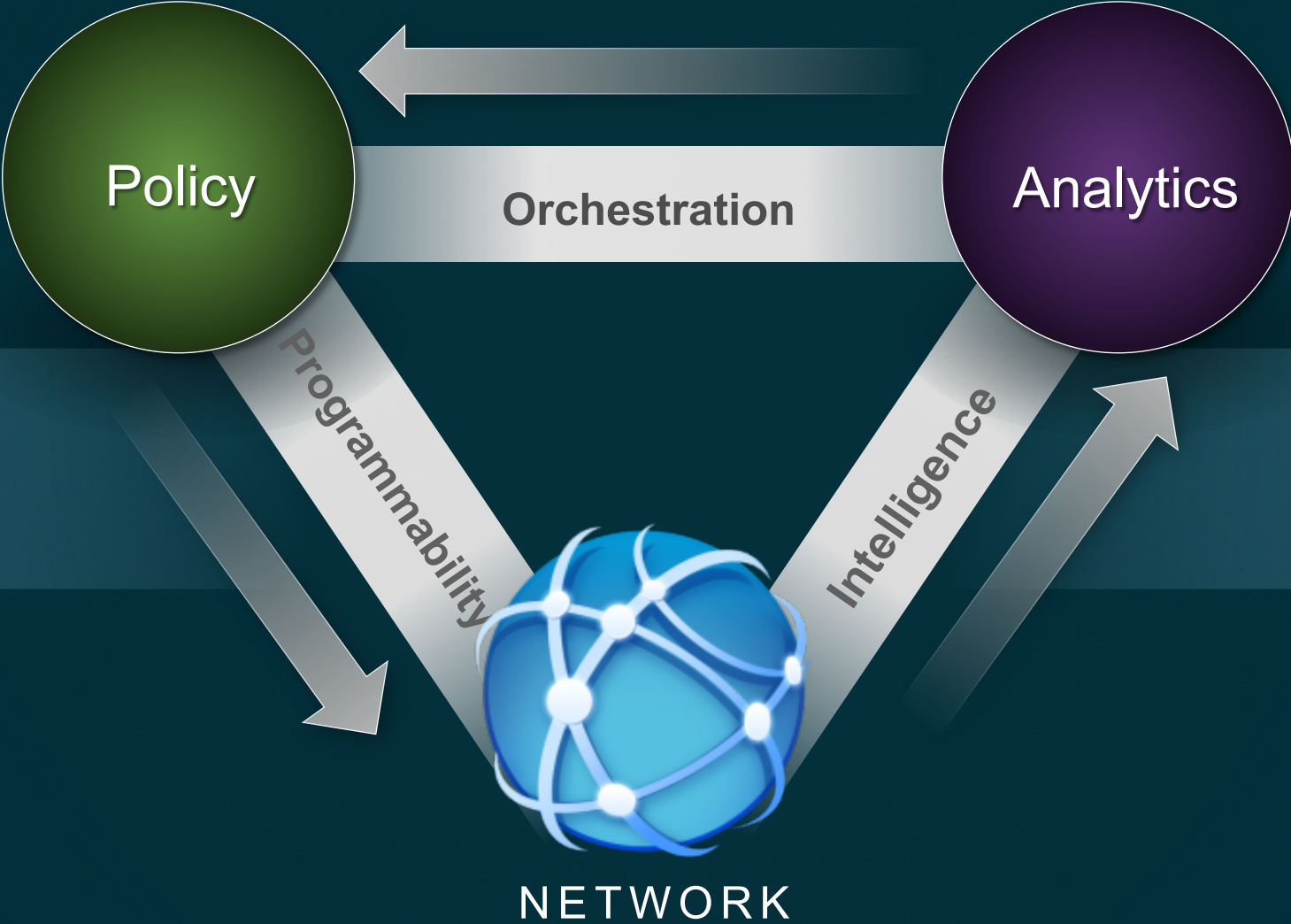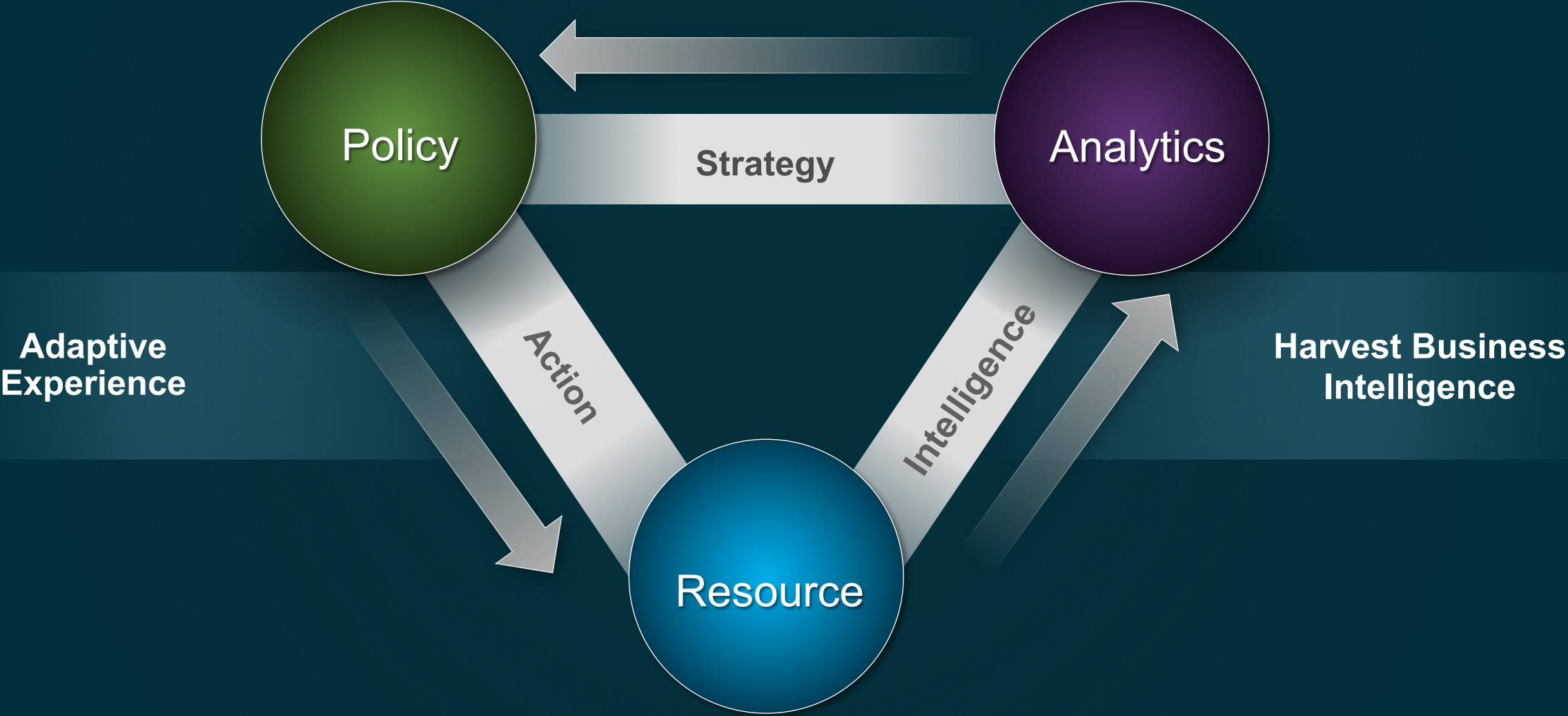| | |
|---|---|
| **Adaptive Technology: Internet of Everything** | **Adaptive Experience: Pervasive Experience Upgrade** |
| **Adaptive Process: Commercial Transformation** | **Adaptive People: Workforce Development** |

**Unified Architecture Advantage**

# Internet of Everything Transition

**Services:**
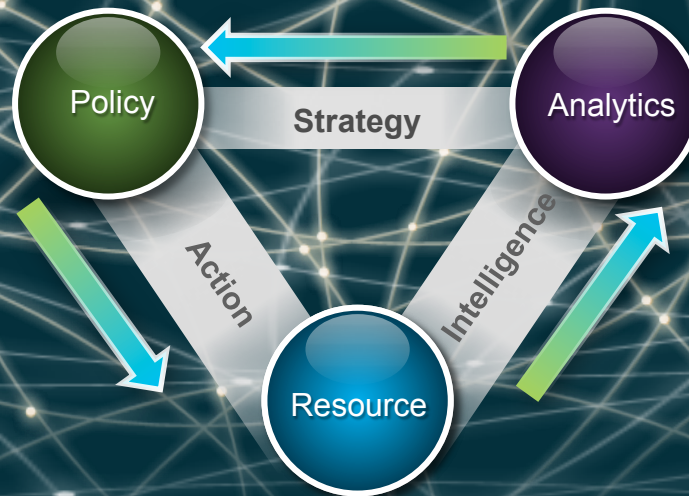
**Infrastructure
Applications
Data
Communications**

**Mobile
Experience**

**Multi-Cloud
Services**

**Analytics + Policy
Driven Workflow**

**Application Centric
Infrastructure**

**Adaptive
Experience**

**Learning
Network**

# Cisco IT Adaptive Architecture

**Policy**

**Strategy**

**Analytics**

**Adaptive Experience**

**Action**

**Intelligence**

**Harvest Business Intelligence**

**Resource**

# Transformative Use Cases



**Secure, Efficient IT**



**Adaptive Commercial Model**
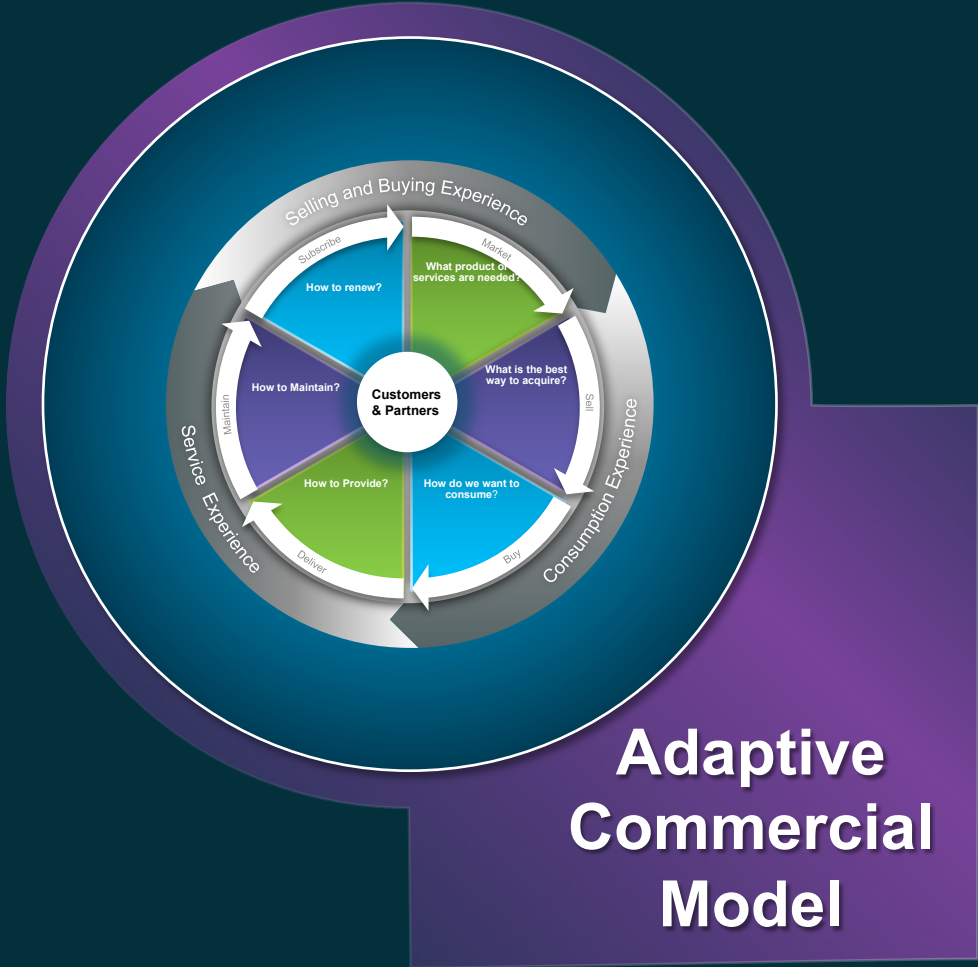
# Adaptive Technology: Internet of Everything



**Combine the power of big data, analytics, distributed processing and network innovation to simplify operations support and security systems, in service of speed and effectiveness in business.**

# Internet of Everything: The Enterprise Approach

## Applications, Solutions & Services
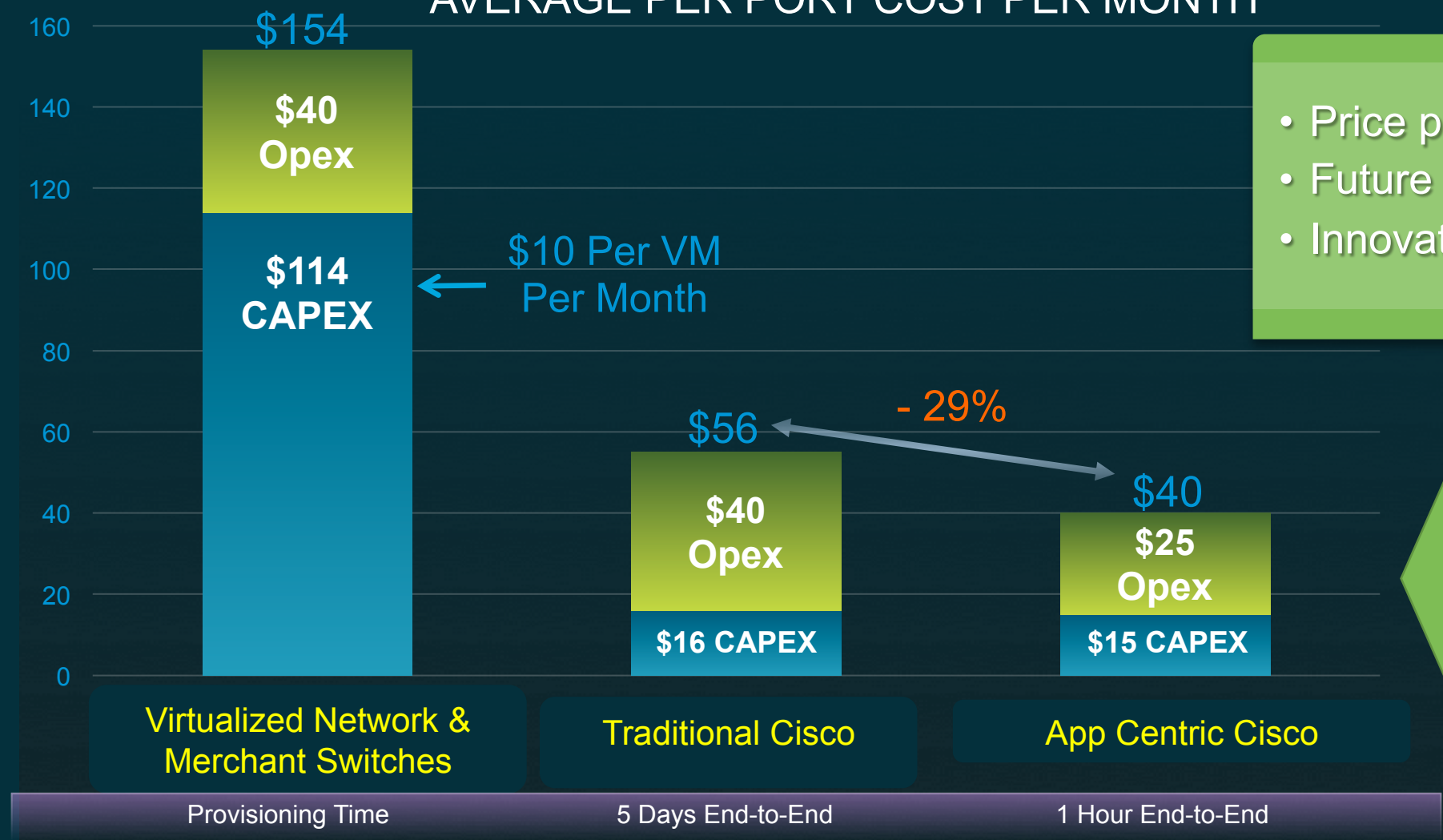
| Excellence in User Experience | Application Centric Security | IoE, Smart Energy, Big Data, SDN |
|---|---|---|

**Policy Management**

**Predictive Analytics**

Stats, Notifications Orchestration

**Action Enablement**

## Resource Orchestration & Management

**Infrastructure Service Functions**

**Orchestration Functions**

**Management Functions**

**Distributed Fast Data Processing**

APPLICATION SERVICES

BUSINESS PROCESSES

**Resource**

STORAGE

SENSORS

COMPUTE

SECURITY

NETWORK

**Things, Data, People, Process**

# Cisco ACI Total Cost of Ownership

## AVERAGE PER PORT COST PER MONTH

$154

$40 Opex

$114 CAPEX

$10 Per VM Per Month

- Price performance
- Future proofing
- Innovation/State of the Art

- 29%

$56

$40 Opex

$16 CAPEX

$40

$25 Opex

$15 CAPEX

29% TOTAL COST OF OWNERSHIP SAVINGS

Virtualized Network & Merchant Switches

Traditional Cisco

App Centric Cisco

| Provisioning Time | 5 Days End-to-End | 1 Hour End-to-End |

Assumes: 2000 Node Network , 10G, 10VM/Port, Comparable discount, 36-month Depreciation/Amortization, Cisco IT Data, Gartner: http://www.gartner.com/id=2580215
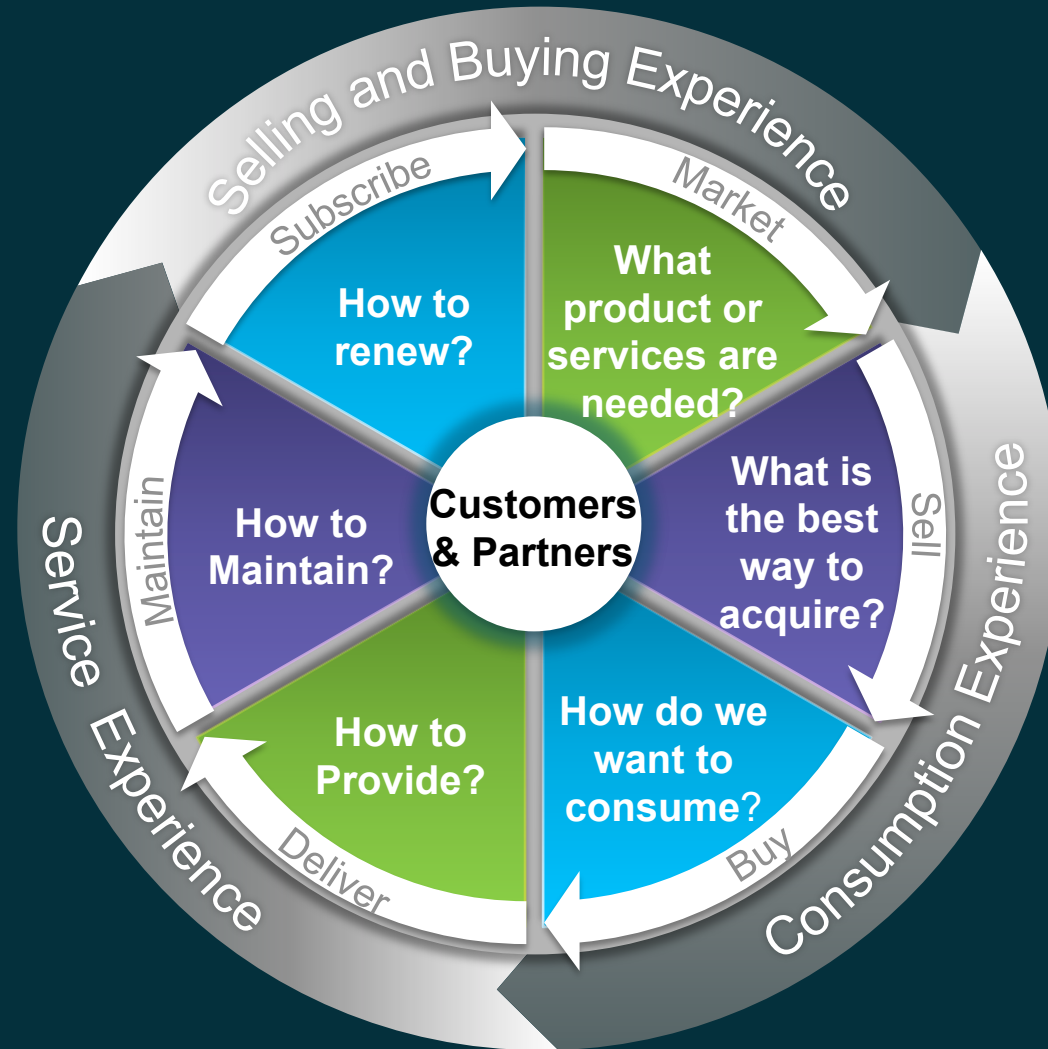
# Adaptive Process: Commercial Transformation

**Global platform for transacting flexible consumption models, to include the full suite of business support systems.**
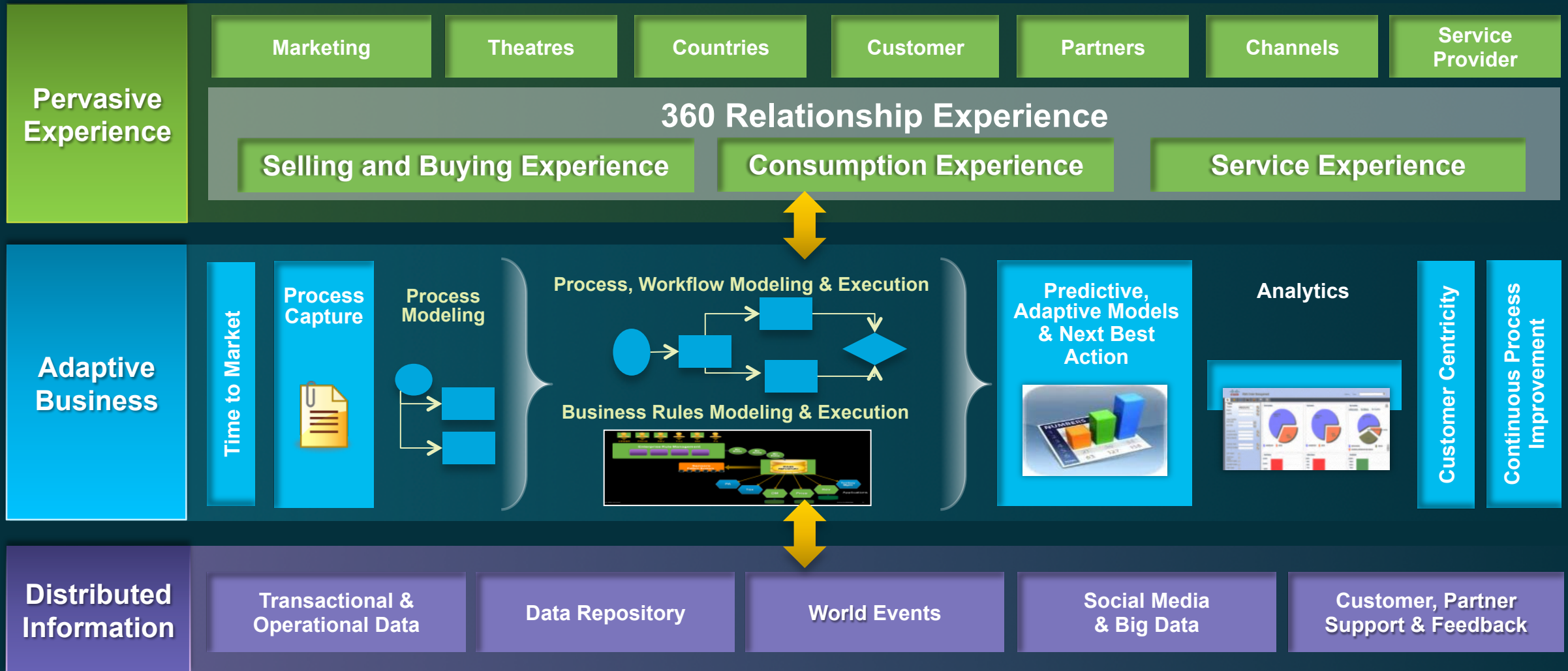
# Adaptive Process: Commercial Transformation Customer's End-to-End Journey

# Adaptive Process: Commercial Transformation Architecture

**New Business Models, Strategy, Policy & Vision**
**Unified Approach to Business Process & Rules Management**

## Pervasive Experience

| Marketing | Theatres | Countries | Customer | Partners | Channels | Service Provider |
|---|---|---|---|---|---|---|

### 360 Relationship Experience

| Selling and Buying Experience | Consumption Experience | Service Experience |
|---|---|---|

## Adaptive Business

Time to Market

**Process Capture**

**Process Modeling**

**Process, Workflow Modeling & Execution**

**Business Rules Modeling & Execution**

**Predictive, Adaptive Models & Next Best Action**

Analytics

Customer Centricity

Continuous Process Improvement

## Distributed Information

| Transactional & Operational Data | Data Repository | World Events | Social Media & Big Data | Customer, Partner Support & Feedback |
|---|---|---|---|---|

# Cisco Information Technology

**V**

**Power the #1 IT Company**

**Future proof our business through adaptive services**

**S**

**Adaptive Technology: Internet of Everything**

**Adaptive Experience: Pervasive Experience Upgrade**

**Adaptive Process: Commercial Transformation**

**Adaptive People: Workforce Development**

**Unified Architecture Advantage**

**E**

**Aligned Architectural Roadmaps**

**Common Service Accountability Framework**

**IT IOE Security and Operations Use Case**

**Stakeholder Advocacy**

**Accelerated Execution: Fast IT**

- Operating Model Efficiency
- IT Delivery Transformation
- Pervasive Security

**M**
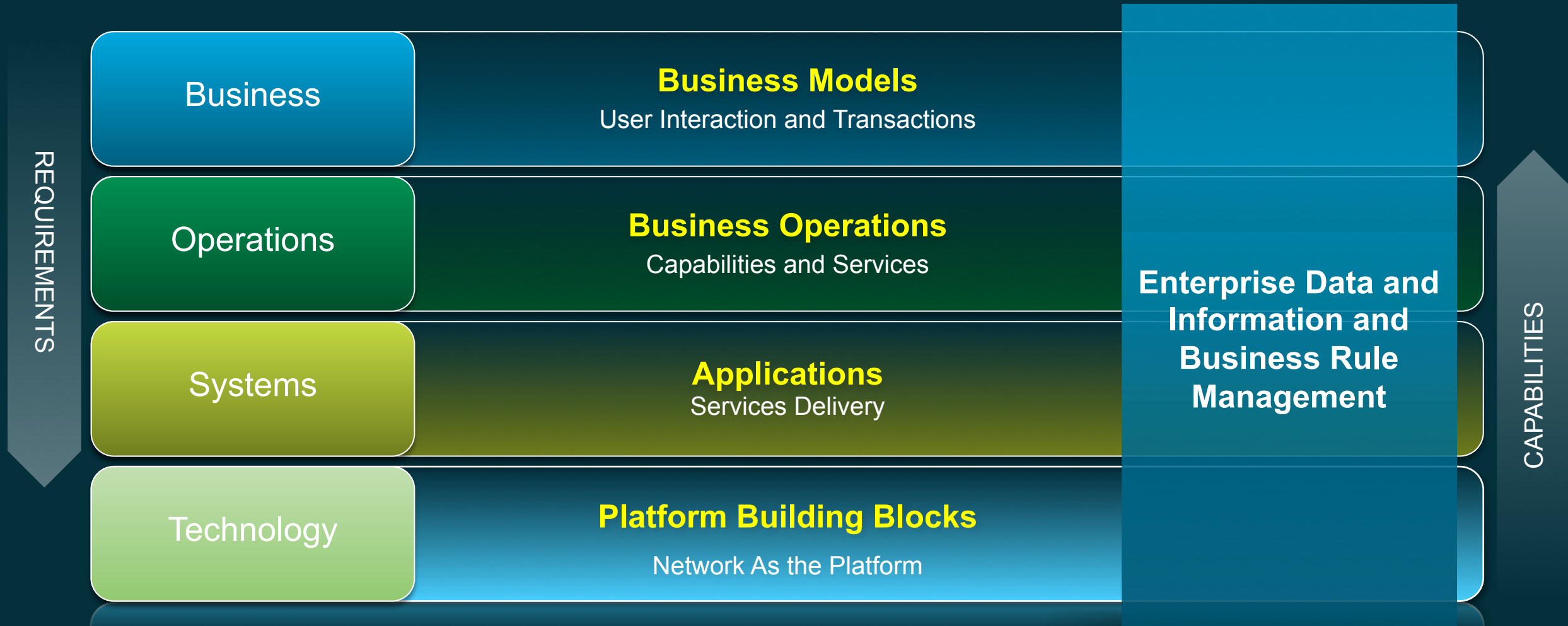
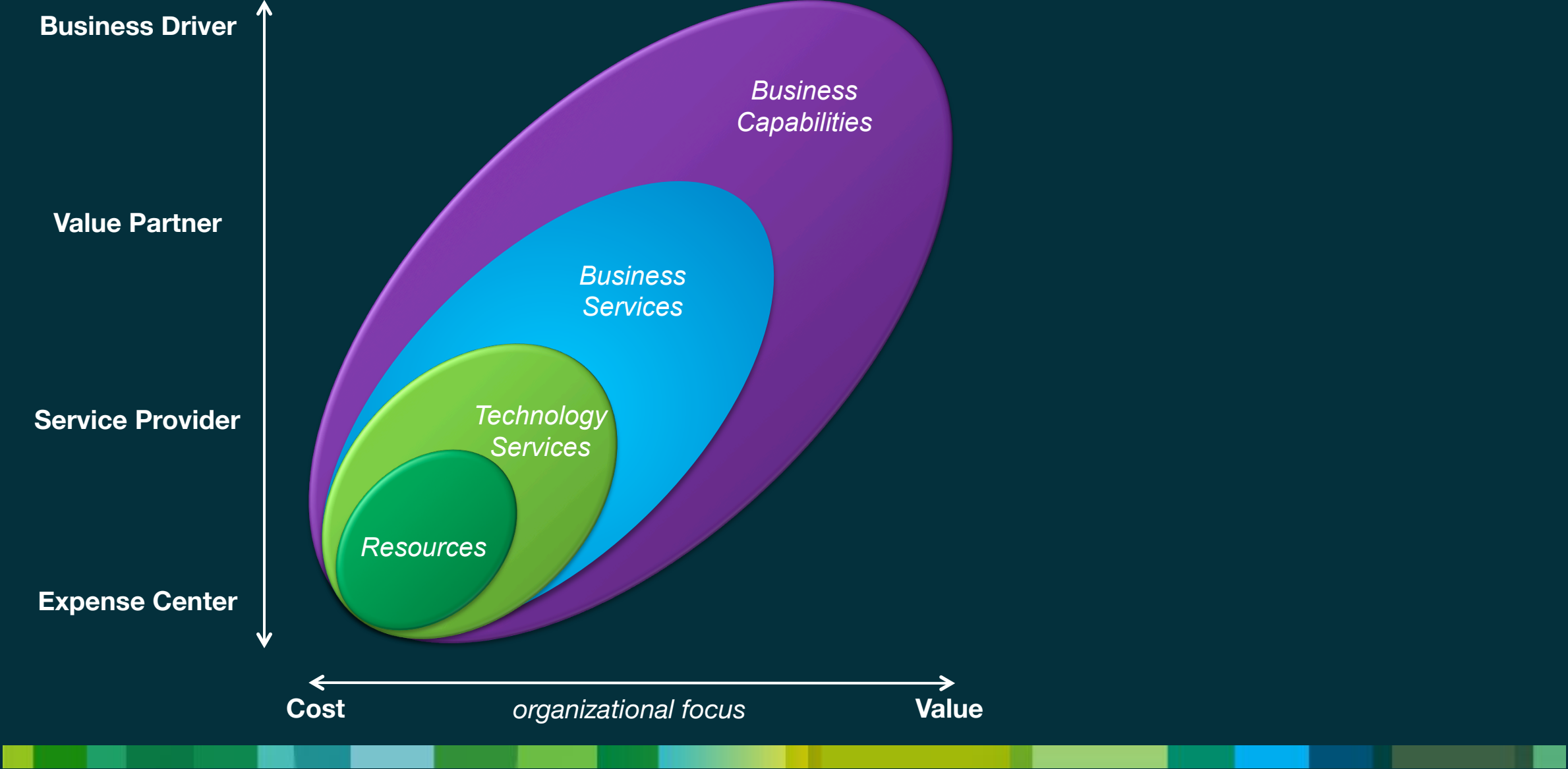**Cisco Performance Measurements**

| Growth | Speed | Productivity | Experience |

# Business Acceleration Through Technology

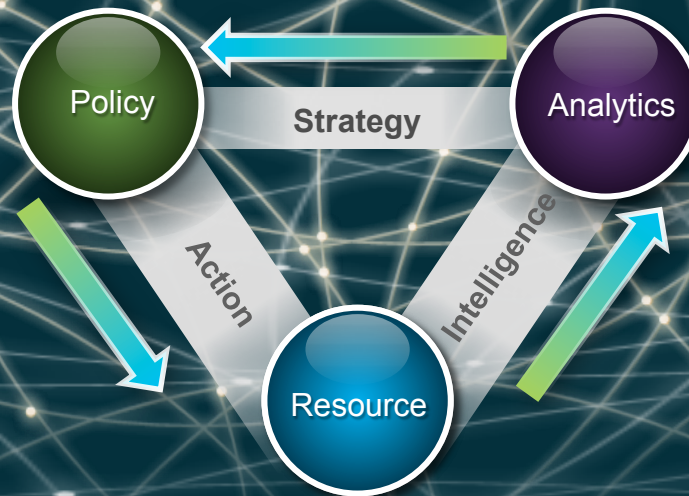Business and Technology Architecture – Deliver the services that enable business capabilities.

REQUIREMENTS

| Business | **Business Models**<br>User Interaction and Transactions |
| Operations | **Business Operations**<br>Capabilities and Services |
| Systems | **Applications**<br>Services Delivery |
| Technology | **Platform Building Blocks**<br>Network As the Platform |

**Enterprise Data and Information and Business Rule Management**

CAPABILITIES

Source: Proact Business Transformation, Inc.

# Value Chain Model

Thank you.