Cisco IT Technology Tutorial

Overview of ITIL at Cisco

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History of ITIL at Cisco

- **2003** – ITIL first became a requested topic in Executive Customer Briefings
- **2004** – Adopted ITIL as process framework for Process Improvement Programs
- **2004** – Formal Release Management entity established for critical portions of the IT environment
- **2004** – Established an Excellence in Operations initiative, sponsored by IT Global Operations
- **2005** – Gained momentum – Formal ITIL training plan and certifications
- **2006** – IT Operating Model established
- **2007** – ITIL process-based organizational plans and roadmaps established for critical Ops areas
- **2008** – IT-wide Service Management Strategy
Size and Scope of ITIL at Cisco

- 1400 people have taken ITIL training, awareness or higher
- 1000 are ITIL certified, foundational level or higher
- 10 ITIL processes adopted or in progress
  
  Incident, Problem, Change, Configuration, Service Catalog, Service Portfolio, Financial, Release, Service Continuity, Service Desk

- Service Manager Job Profile
  
  Focus on end-to-end service client experience and relationships, internal and external
ITIL Based Functions at Cisco

- ITIL best practices are already followed. Examples:
  - IT Global Operations
  - IT Help desk (Cisco internal helpdesk)
  - Cisco Remote Operation Services (ROS)
  - IT Service Continuity Management
  - Advanced Services
  - Enterprise Release Management (ERMO)

- ITIL is building momentum at Cisco

  Groups and individuals in both Business and IT are learning about ITIL and are sharing information
IT Operating Model – ITIL V3 Alignment

Workforce Agility

Architecture
Business Architecture
Technical Architecture

Planning
Portfolio Program/Project Definition
Demand Clearing

Release Management
Build
Deliver

IT Services
Business Capabilities
IT Infrastructure

Vision
Strategy

Business Model Assessment
Integrated Roadmaps
Committed Plans
Execute

Operational Requirements
IT Operations / IT Support

Workforce Agility
What Does ITIL Do for Cisco?

- Robust processes
- Integrated approach
- Framework allows efficient delivery of IT services
- Sustainable service management
- Improved user experience
- Service-based costing
What Does ITIL Do for Employees?

- Develop knowledge and skills
  - ITIL Foundations
  - ITIL Practitioner
  - IT Service Management Expert

- Consistent taxonomy and language
  - Reduce communication frustrations

- Certifications and career growth

- Service management and process approach is proactive and prevents reactive “firefighting”
Cisco ITIL Success Story

Global IT Operations

THEN
• Reactive improvements in operational capabilities

NOW
• Planned, process-based, strategic roadmap
• Measurable plans and results

FUTURE
• Proactive improvements
• Mature capabilities and processes
Excellence in Operations (EIO) Initiative History

- Initiated in November 2004
  
  Action from year-end close process issues

- Six functional areas identified for analysis and ITIL alignment:
  
  Problem management
  Incident management
  Change management
  Configuration management
  Business mapping
  Production scheduling and control
Methodology for Problem Management Improvements

- Six Sigma Approach (DMAIC)
- Key discovery: Root cause analysis for P1/P2 incidents was either not being done or was poor quality
- Improvement suggestions
  - Monitor and report on the quality of the RCA (Root Cause Defective Rate)
  - Generate accountability via metrics
  - Gain support of executives
  - Monitor long-term fix implementation
  - Reward and recognition
Specific Steps for Problem Management Improvement

- Problem management for high priority incidents
  Management expectations for completion of root cause analysis / research and implementation of items to ensure incident does not repeat (implementation of long term fix)
  Accountability metrics for completion of root cause and long term fix
  Consistent documentation
  Looked for correlation with change activities
- Generation of key management metrics review quarterly
Specific Steps for Incident Management Improvement

- Incident Management for high priority incidents:
  - Differentiated Potential Impact (Priority) vs. Actual Impact (Severity) to Cisco
  - Response to incident based upon Actual Impact
  - Focused on immediate recovery of service (2-hour SLA)
  - Targeted communication based on severity of impact

- Generation of key management metrics
EIO Results and Achievements

- Reduction in P1/P2 frequency and duration
- Reduced RCA (root cause, failure rate, recurring outages)
- Reduced batch job failure rate
- Established a database of mapping applications to business processes
- Quantified and advocated the need for change management database
- Created accountability metrics for each IT director
**EIO Business Impacting Timeline**

1. **2005**: Business Impacting Hours 100% (Baseline)
   - 1) Implemented a Defined standard process to identify and validate RCA and LTF

2. **2006**: Business Impacting Hours 104%
   - 2) Developed a training module for RCA/LTF process and made it mandatory for all production support employees.
   - 3) Developed a clear metrics guidance for managers and case owners – holding people accountable.

3. **2007**: Business Impacting Hours 63%
   - 4) Monitored completion of severe business impacting LTF Incident Management Life Cycle V2
   - 5) Integrated Metrics Reporting for Incident Management, Problem Management, and Change Management

4. **2008**: Business Impacting Hours 38%
   - 6) Monitored completion of LTF for all business impacting incidents.

5. **2009**: Expected Remedy Upgrade (late 2009)
   - Business Impacting Hours 30%

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Key EIO Operational Metrics
Lessons Learned

- Tie desired behavior changes to business impacting results
- Develop management support for accountable metrics
- Discover cultural blocks and remove them
  - “My management doesn’t care”
  - “I have more important things to do”
  - “What’s in it for me?”
- Identify and highlight successful groups
  Use them as your advocate to reluctant groups
IT Projects and Programs in Progress

**Configuration Management**
- Integrated Configuration Management (ICM) Program
- Operational Configuration

**Service Catalog and Portfolio**
- Service Catalog Framework
- Definitions and Governance
- Interface Technology

**Service-Level Management**
- Process Development
- Client Experience

**Financial Management of Services**
Service Management Strategy

People

- Culture, Attitude
- Beliefs and Skills

Processes

- Strategy, Steering
- Direction, Integration

Technology

- Service Support and Service Delivery
- Infrastructure (including tools)
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