

Professional Development Week (PDW) *Semaine du perfectionnement professionnel (SPP)*

Innovation

at the speed of light
à la vitesse de la lumière

English Français

May 31st to June 2nd 2005
Ottawa Congress Centre

Du 31 mai au 2 juin 2005
Centre de Congrès d'Ottawa

Case Study: How we achieved a successful ITSM implementation in 12 months

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DPI Ottawa May 31, 2005

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Agenda

8:30 Quick overview of ITIL and ITSM (5 min)

- Introduction
- Partners
- Processes

10:00 Break

- Products
- People
- Summary

11:30 Questions and Answers at 11:30

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About the audience

- ✦ How many are ITIL trained or aware?
- ✦ How many have implemented or are implementing ITSM?
- ✦ How many are thinking about implementing ITSM?
- ✦ What is biggest barrier to a successful ITSM implementation?
 - a. Process (support, delivery, design, deployment, ...)
 - b. Product (software and hardware technology, tools, ...)
 - c. People (culture, behaviour, attitude, willingness to change, ...)

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Overview

The Service Provider
The Customer and Users
The Services
Our role

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The Service Support and Delivery Books

circa 2000

Service Support 	Service Desk*
	Incident Management
	Problem Management
	Configuration Management
	Change Management
Release Management	
Service Delivery 	Capacity Management
	Financial Management
	Availability Management (Security)
	Service Level Management
	IT Service Continuity Management

The Approach was Aligned with ITIL for Enabling a CSIP

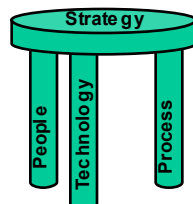
1. Where are you today?
2. Where do you want to be?
3. How are we going to get there?
4. How will you know when you get there?

Where we want to go

Where we are

What is ITSM and an ITSM Program?

IT Service Management (ITSM) is about running IT like a business. ITSM is a discipline that integrates strategies, people, processes and technologies using best practices to provide quality IT services for customers and users within agreed upon service levels.



An ITSM Program is an IT Transformation project. For some it will be an easy change but for most it will be a paradigm shift.

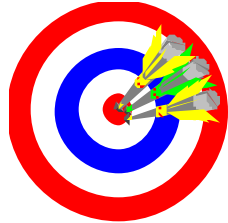
An ITIL-based Four Track Approach

- Proven in practice
- Turn-key
- Repeatable
- Reusable
- Directed
- Facilitated
- Coaches
- Mentors
- Documented
- Workbooks
- CSIP
- Institutionalized



Success is all about execution

“A sound strategy
outstandingly executed is far
superior to an outstanding
strategy poorly executed”



Defined the ITSM Strategy



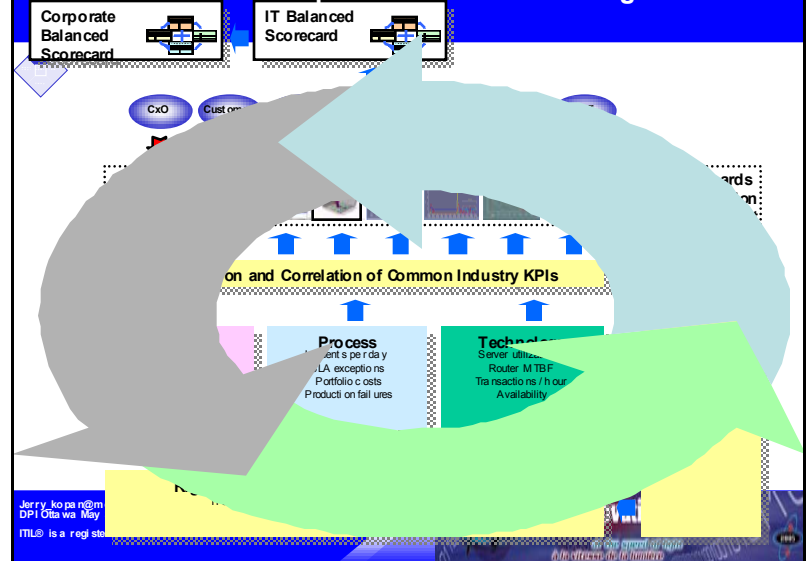
1	STRATEGIC ITSM ANALYSIS WORKBOOK
1.1	Context: Assessment of the Business and Competitive Environment
1.1.1	Political, Economic, Social, Technological Analysis
1.1.2	Focus of Industry Analysis
1.1.3	Porter Analysis: Force Driving Industry Competition
1.1.4	Emerging Competitive Strategies
1.1.5	Competitor Profile
1.2	CONTEXT: ORGANIZATIONAL SIZE-UP
1.2.1	ITSM Rationale
1.2.2	ITSM Positioning
1.2.3	ITSM Philosophy
1.2.4	Company Culture
1.2.5	Financial Practices
1.2.6	Profit Analysis
1.2.7	Current and Future Profitability Analysis
1.2.8	Review of Value-Driven Strategy
1.2.9	Marketing Impacts on Business Performance
1.2.10	Customers - Key Questions
1.2.11	Price-Quality Positioning Analysis
1.2.12	Product Development Portfolio Analysis
1.2.13	Information Technology and the Value Chain
1.3	SYNTHESIS: PUTTING THE PIECES TOGETHER
1.3.1	Establishing Direction
1.3.2	Product-Market Growth Options
1.3.3	Critical Success Factors
1.3.4	Creating a Value Proposition (Positioning)
1.3.5	Core Competence
1.4	DEFINE DIRECTION
1.4.1	Vision Statement
1.4.2	Mission Statement
1.4.3	Strategic Objectives
1.4.4	IT and Corporate Balanced Scorecard
1.5	TAKING ACTION
1.5.1	Action Plans
1.5.2	Communicating the Strategy
1.5.3	Barriers to Implementation
1.6	FOLLOW-UP ACTIVITIES
	TEN POINT STRATEGY ASSESSMENT - 3 Month Review
	TEN POINT STRATEGIC PLANNING PROCESS ASSESSMENT
	TEN POINT STRATEGY IMPLEMENTATION ASSESSMENT

Reviewed the Strategy Every 3 Months

10 Point Strategy Assessment

- How do we feel about the strategy?
- What are our achievements?
- What has been accomplished?
- What are the substantive issues?
- What are the process issues?
- How are we doing against our time line?
- What are our next three months' priorities?
- What are our next three months' goals?
- What are our next three months' action plans?
- What could get in our way?

Developed the IT Service Management Vision



Leadership

The success of any project is directly related to Leadership

Are You a Leader or a Manager

I like to ...

- a. Achieve breakthroughs in performance
- b. Achieve incremental improvements in performance
- c. Acquire much different types of customers
- d. Challenge and obstacles to improve daily performance
- e. Commit to an entirely new mission
- f. Control things
- g. Create a clear and compelling vision of the future, which may look altogether different from today
- h. Develop strategy
- i. Enter new markets
- j. Face current reality
- k. Implement strategy
- l. Innovate
- m. Keep things in a state of equilibrium (but not status quo)
- n. Make major change happen
- o. Manage or mitigate risk
- p. Manage tactics
- q. Stay loyal to the mission
- r. Take actions to deal with immediate issues
- s. Take big risks

1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree

Its All About Leadership

- Model the way
- Inspire a Shared Vision
- Challenge the Process
- Enable others to Act
- Encourage the Heart

"The Leadership Challenge", Kouzes and Posner, 2002

Assigned Process Managers

- Incident Manager
- Problem Manager
- Change Manager
- Configuration Manager
- Release Manager
- Service Level Manager
- IT Service Continuity Manager
- Availability Manager
- Capacity Manager
- Financial Manager

What we overheard from the Staff

- ✦ “We tried this two years ago and it failed”
- ✦ “We are trying to change far too many things at once”
- ✦ “We lack a clear sense of shared priorities”
- ✦ “There’s just no time to work on strategic issues”
- ✦ “We’re always re-inventing the strategy!!”
- ✦ “We are strategic ... until budget time when the strategy goes out the window”
- ✦ “We start off with good intentions - but, far too often, we fail to deliver”

Identified 5 Critical Issues

1. Failure to focus/make the choices
2. Failure to persist
3. Management churn
4. Failure to resource adequately
5. Inappropriate culture

What were the Symptoms?

1. High level of passive resistance – they would wink as they left the room
2. Overwhelming operational focus
3. Inappropriate recognition/rewards
4. Lack of accountability

The Solution:

1. Appropriate recognition system
2. Champions for initiatives
3. Accountability

Successful Leadership Checklist

1. Unflappable
2. High task focus
3. Disciplined, logical
4. Effective communicator
5. Work long hours
6. Energize teams
7. Get out on the “site” – hands-on
8. Demand results

Defined a Communications Plan



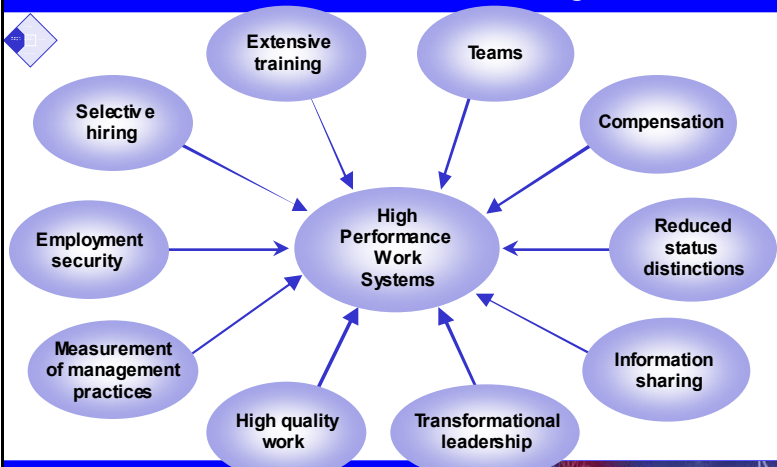
1. Identified Key Stakeholders
2. Culture Assessment
3. HR Best Practices
4. Kickoff Meetings
5. Arbitration Process
6. Executive Presentations
7. Awareness Sessions
8. Training
9. Posters
10. Lunch and Learn
11. Surveys
12. Questionnaires
13. Assessments
14. Whitepapers
15. Plan

Who was involved?

Everyone!

Because it's all about people.
Even the best processes and technologies
will fail without commitment

Educated Management on HPWS



Interviewed All of the Staff

Identified top 3 strengths in the organization

- ✦ Very knowledgeable people
- ✦ Great communication within groups, teamwork
- ✦ Escalation procedures

Identified top 3 weaknesses in the organization

- ✦ Limited training/education
- ✦ Poor communication between groups
- ✦ No Centralized repository of information

Identified top 3 improvements that can enhance QoS

- ✦ Understand customer expectation/SLAs
- ✦ Standard procedures across all customers and groups
- ✦ Better communication

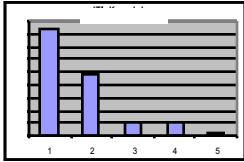
Identified top 3 threats from poor quality of service

- ✦ Customer dissatisfaction
- ✦ Loss of jobs
- ✦ Remain in fire fighting, break fix mode

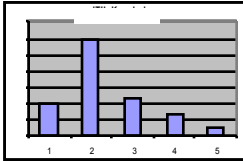
Developed Customized ITIL/ITSM Awareness Sessions

Monitored ITS M/ITIL Awareness and Knowledge

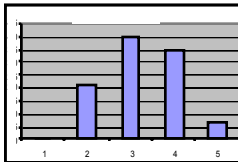
After Session 1



After Session 2

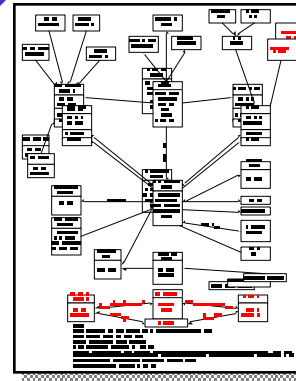


After Session 3

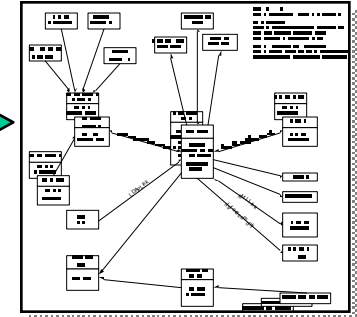


Developed a Nine Phase ITSM Tool Migration Plan

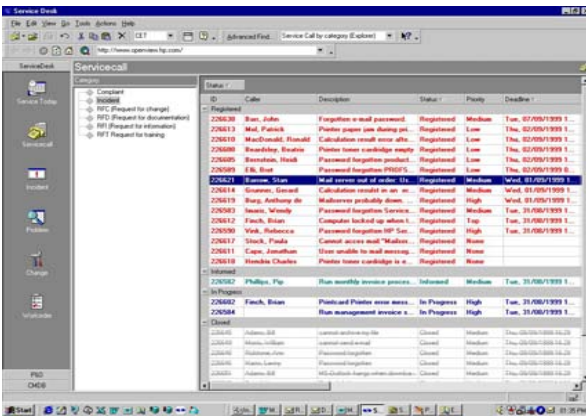
Phase 1



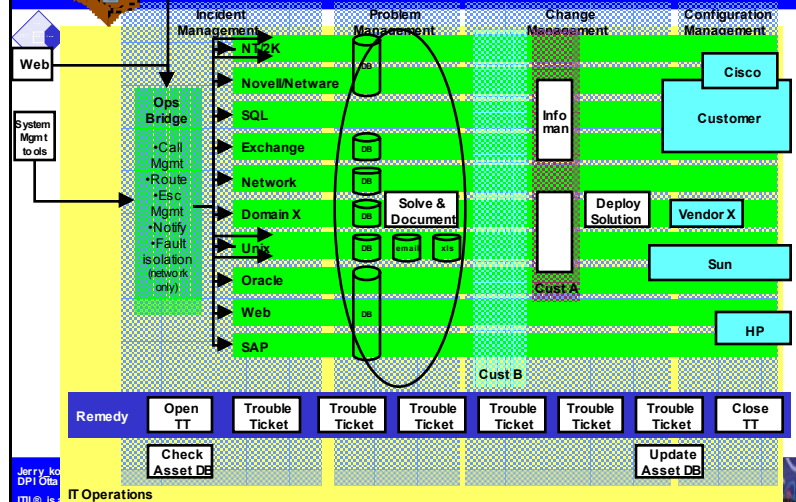
Phase 9

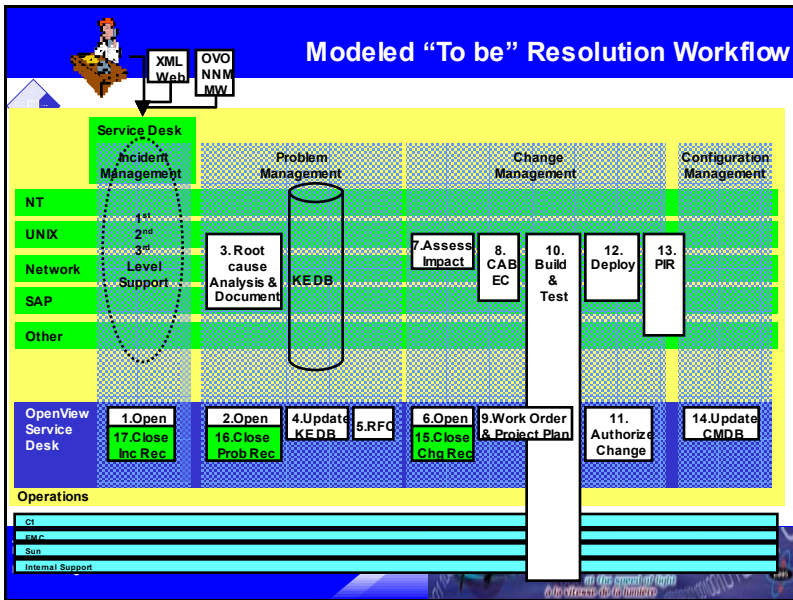


Selected The Service Management Tool



Modeled "As is" Resolution Workflow





Performed Quarterly Baselines by Group

You must know where you are before you can determine how to get to where you want to be

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Innovation

Tell me how you are measured...

...and I can predict how you will behave.

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Innovation

Defined the Process Scope

Process Workbooks

The Business

Service Support

- Incident
- Change
- Configuration
- Release

ITIL Publications Framework

Service Delivery

- Service Level
- Availability
- Capacity
- Finance
- ICT Infrastructure Management
- Backup and Recovery
- Application Systems/Network Management
- Output Management
- etc.

Application Management

- Security Management
- Build (Design, Implementation, Test)
- Deployment (Enrollment)

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Innovation

Used the ITSM Process Workbooks



Pre-filled

- Templates
- Samples
- Surveys
- Spreadsheets
- Customizable

1. Revision History
2. Process Overview
3. Questionnaires
4. S.W.O.T Analysis
5. Baseline
6. ITIL Best Practices
7. Vision, Mission, Objectives, Scope
8. Logical Process Workflows
9. Physical Process Workflows
10. Process interdependencies
11. Work instructions (Procedures)
12. Roles and Responsibilities
13. Metrics and Key Performance Indicators
14. Impact statement

Processes

- Aren't the processes already defined in ITIL?
- Does everyone ready understand the ITIL?
- Are we developing processes or just making pretty pictures?
- How do you validate the processes?
- Will anyone read the documentation?
- Can anyone read the documentation?
- How do you ensure quality? ISO documentation standard

Defined Service Level Requirements

Hostname	Description	Model	Maximum Available Hours (mah)	Unplanned Downtime Hours (udh)	Uptime Hour (uh)	Actual Available % (ap)	Required Available % (rp)
deltp01	Dev - SAP FIC - Train Day Hardware	K3805 4GB	744	0.91	743.09	99.88	99.00
deltp02	QA Server - SAP Training - QM1, T1H	V22B16 8GB	744	0.25	743.75	99.97	99.00
deltp03	Sandbox - SN1	K3805 4GB	744	0	744	100.00	99.00
deltp04	BW Dev - DN2	K3802 4GB	744	0	744	100.00	99.00
deltp05	EDI Web Interface Lev	1H 1U2 512MB	744	0	744	100.00	99.00
deltp06	APCA U - SAP - Team Server	1H 1U2 512MB	744	1	743	99.87	99.00
deltp07	Training	1H 1U2 512MB	744	0	744	100.00	99.00
deltp08	Interface/Conversion - Monitor	1H 1U2 1GB	744	0	744	100.00	99.00
deltp09	SAP - DB Server - FN1	V22B16 8GB	744	0	744	100.00	99.00
deltp10	SAP - App Server - D13FO - EDI Train PC	V22B16 8GB	744	0	744	100.00	99.00
deltp11	SAP - App Server	V22B16 8GB	744	0	744	100.00	99.00
deltp12	EDI Interface Translator	K3804 1GB	744	0	744	100.00	99.00
deltp13	EDI Web Interface - Hardware - FX	1H 1U2 1GB	744	0	744	100.00	99.00
deltp14	EDI Web Interface - FO	1H 1U2 1GB	744	0	744	100.00	99.00
deltp15	Interface/Conversion	1H 1U2 1GB	744	0	744	100.00	99.00
deltp16	Interface/Conversion - FO	1H 1U2 1GB	NA	NA	NA	NA	NA
deltp18	Print/Job Archive	K3804 1.5GB	744	0	744	100.00	99.00
deltp19	Backup Server	K3804 1.5GB	744	1	743	99.87	99.00
deltp20	BW - DB Server - PN2	V22B16 8GB	744	3.4	740.6	99.54	99.00
deltp21	BW - App Server - DB - FO	V22B16 8GB	NA	NA	NA	NA	NA
deltp22	BW - App Server - F	V22B16 8GB	744	0	744	100.00	99.00
deltp23	NI - Primary Domain Controller - PUC	1H 1U2 1GB	NA	NA	NA	NA	NA
deltp24	ManageX	1H 1U2 1GB	NA	NA	NA	NA	NA

uh = mah - udh
ap = (uh/mah) * 100

Defined Service Design Criteria For Each Service Level

In order to design an effective infrastructure, design objectives and architecture requirements need to be understood. To facilitate this, OSD will construct specific design objectives from service level objectives that were defined as part of the SLA. OSD will consolidate Best Practice design objectives and refine them based upon the understanding of our clients.

Design Objectives

- IT Management operations monitoring and administration should be maintained on an isolated network.
- Multiprocessing environments need to be maintained to support test, development, configuration, coordination training, production and disaster recovery.
- The Infrastructure design must provide a framework for integrated solution models.
- Automation techniques will be applied wherever possible.
- The highest degree of data integrity should be ensured throughout the enterprise.
- The Infrastructure design must allow for an upgrade path to future technologies.
- The Infrastructure design must be designed for a SAP implementation yet provide the ability, wherever possible, to scale to other applications in the enterprise.
- Performance and efficiency must be considered in all solution models.
- Common components will be used which allow interchange and quick replacement of equipment for service recoverability and high availability needs.
- Design environment supporting domain (facilities, local applications, data base server, data center, network, LAN, WAN, applications, data base) to have appropriate availability characteristics.
- Protection against single points of failure (SPOFs) through redundancy in each domain where it is cost justified.
- Functions must be in place to ensure ongoing monitoring and administering the environment.
- Utilization of operating principles that ensure protection of the environment (eg. configuration, change release management framework).
- Physical system security to be implemented to ensure service continuation and protection.
- Use common principles for ease of management and operation standardization and configuration.
- Provide design templates for all selected Transaction Level Recovery scenarios that combine and reconcile availability characteristics, namely Overall Availability, Unplanned Downtime, and Disaster Restoration.
- IT management and utility services (such as network backups) should not impact performance or availability of the environment.

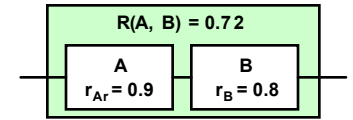
SLAs Were Mapped To Customers and Support Groups

	Business Units						Primary Services														
	XAD	XTC	XES	XMB	XPM	Shipping	Transport	HR	XAD	US	US	SAP	SAP	BW	Siebel	I2	Manu	FRED	Log		
Primary Services	XAD SAP R/3	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	US SAP R/3	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	US BW	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	US Siebel	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	I2	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	Manu	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
	FRED	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
	Log	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
	Intranet	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
	Internet	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
E-mail	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
Service Desk	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
Supporting Services	UNIX Systems	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	Windows NT Systems	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	Host Services	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	SAP BASIS	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	Service Desk	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
	Network	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
	XAD Infrastructure	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Desktop Services	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	
Security	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	

Reliability

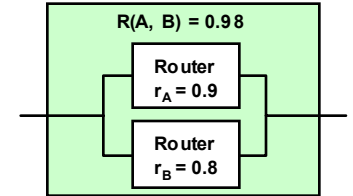
- Reliability of 1 means no failure
- Failure = 1 - R

- Reliability of a serial system is:
 $R(A, B) = r_A * r_B$
 $= 0.9 * 0.8$
 $= 0.72$



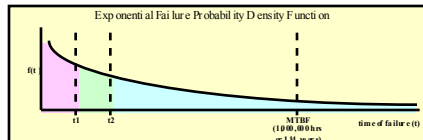
$$R \ll r_{\min}$$

- Reliability of parallel system is:
 $R(A, B) = 1 - (1 - r_A) * (1 - r_B)$
 $= 1 - (1 - 0.9) * (1 - 0.8)$
 $= 1 - 0.1 * 0.2 = 0.98$



$$R \gg r_{\max}$$

Defined Proactive Problem/Availability Management



$$f(t < t_1) = 1 - e^{-t_1 / \text{mtbf}}$$

$$f(t > t_2) = e^{-t_2 / \text{mtbf}}$$

$$f(t_1 < t < t_2) = e^{-t_1 / \text{mtbf}} - e^{-t_2 / \text{mtbf}}$$

The likelihood of a device prematurely failing within 1 year of being put into service, if the MTBF is 43,800 hrs (about 5 years)

$$f(t < 8760) = 1 - e^{-8760 / 1000000} = 0.00872$$

$$r(t < 8760) = e^{-8760 / 1000000} = 0.99128$$

Years	T	MTBF	failure 1-EXP(-T, MTBF)	reliability EXP(-T, MTBF)
1	8760	1000000	0.00872	0.99128
3	26280	1000000	0.02594	0.97406
5	43800	1000000	0.04285	0.95715

What is the Availability of the Service?

Years	T	MTBF	failure (-T, MTBF)	reliability (-T, MTBF)
day 1	24	61320	0.00039	0.99961
month 1	720	61320	0.01167	0.98833
year 1	8760	61320	0.13312	0.86688
year 3	26280	61320	0.34856	0.65144
year 5	43800	61320	0.51046	0.48954
year 7	61320	61320	0.63212	0.36788

Assume a 7 year MTBF

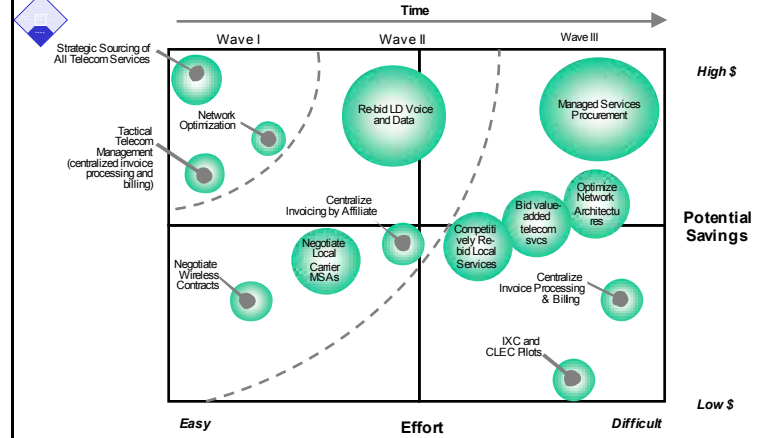
The Probability that the Service will be available with n:

	Day 1	Month 1	Year 1	Year 3	Year 5	Year 7
SPOF1	0.99961	0.98833	0.86688	0.65144	0.48954	0.36788
SPOF2	0.99961	0.98833	0.86688	0.65144	0.48954	0.36788
SPOF3	0.99961	0.98833	0.86688	0.65144	0.48954	0.36788
Product	0.99827	0.965388	0.651439	0.276453	0.117319	0.049787
Availability	99.823%	96.539%	65.144%	27.645%	11.732%	4.979%

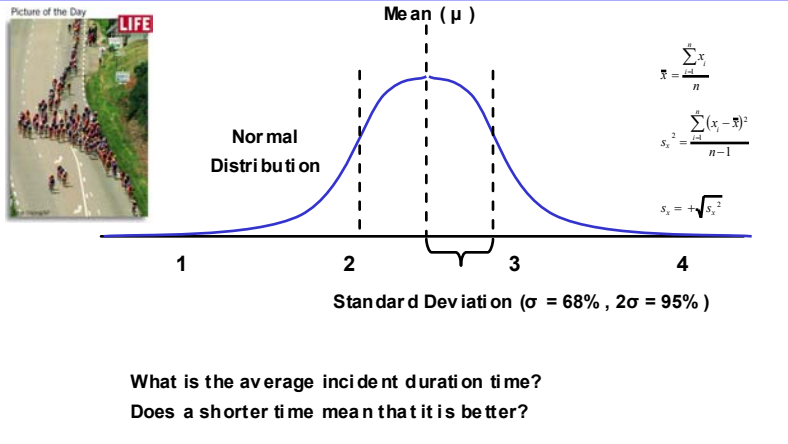
Mapped ITSM Roles and Responsibilities to the Organization

		Director	Senior Manager	Manager	Senior Analyst	Analyst
NT Support	Senior Director	X	X	X		
	Application Integration	X				
	Director Project Manager	X				
	Administrative Assistant	X				
	Tech. Architecture Manager	X				
	Deployment & Migration Manager	X		X		
	Dutty Project Manager	X				
	Implementation Leader	X				
	Implementation Coordinator	X	X			
	Coordinator	X	X			
	Coordinator	X	X			
	NT Coordinator	X	X			
	Training Coordinator	X				
Production Engineering	Technical Analyst	X		X		X
	Programmer/Analyst	X				X
	Programmer/Analyst	X			X	X
	Project Manager	X				X
	Project Leader	X				X
Security	Security Connectivity Chief			X		X
	Senior Systems Security Analyst	X			X	
	Systems Security Analyst	X			X	
	IT Security Policy and Framework Chief	X				

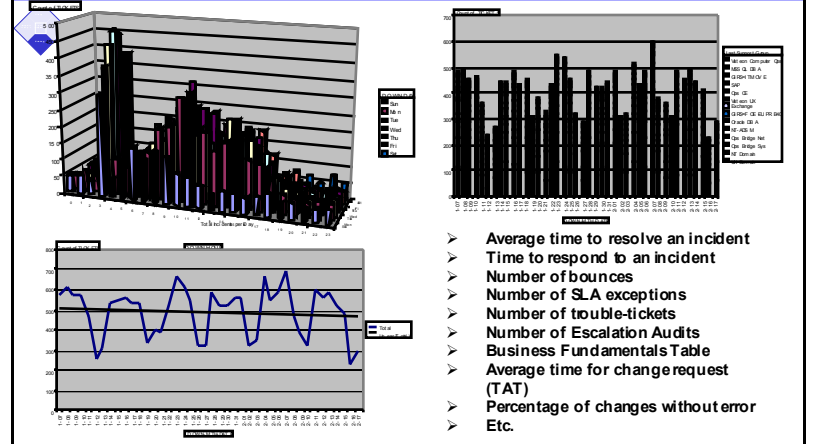
Developed Capital Investment Model



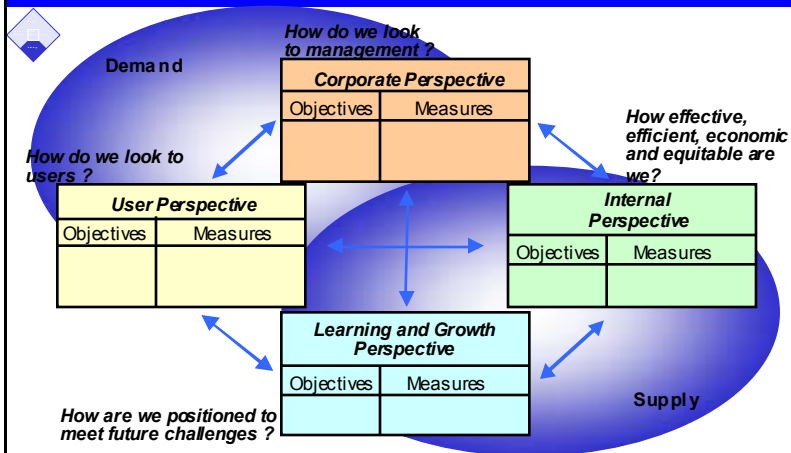
When is a Process under Control?



Reported KPIs to Management and Customers



Instituted a CIO/IT Balanced Scorecard

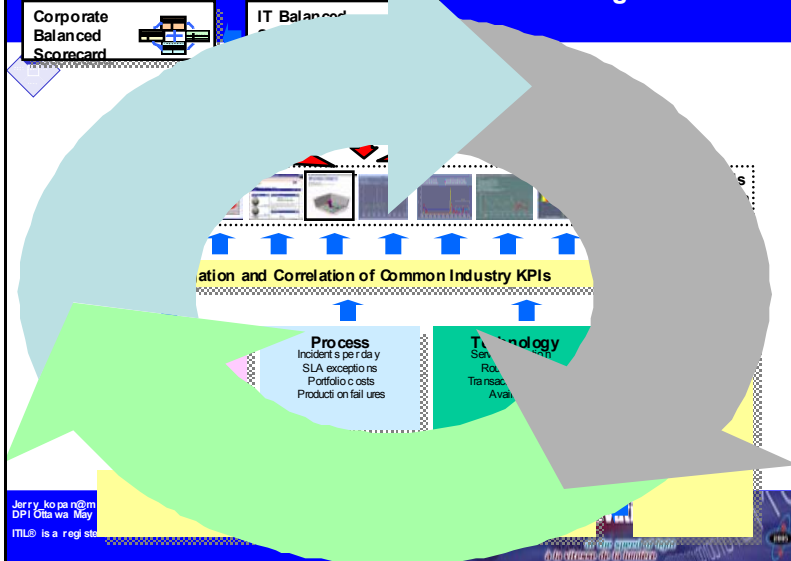


Service Portfolio Scorecard (RAG)

Key Performance Indicator	Service		
	A	B	C
Flexibility— can easily be modified to meet changing business needs			
Supports customer relationship management (CRM)	🔴	🟢	🟢
Able to support the fast introduction of new technologies	🔴	🟢	🟡
Able to support new ways for customers to interact with org	🔴	🟢	🟡
Able to support customer self-service	🔴	🟢	🟡
Scalability— can handle anticipated short-term and long-term growth			
Can support doubling of transaction volumes w/o redesign	🔴	🟢	🟡
Can support 5x increase in transaction volumes w/o redesign	🔴	🟡	🔴
Can support 10x increase in transaction volumes w/o redesign	🔴	🔴	🔴
Other Characteristics			
Reliability			
Operationally cost-efficient	🟢	🟡	🟡

🟢 = Service is capable 🟡 = Can be made capable in the short term 🔴 = Is impractical to make capable

Achieved the IT Service Management Vision



Lessons Learned

- Get Management Commitment, Congruence and Continuity
- LEADERSHIP: Lead the ITSM Initiative
- Build a Very Strong Team that is results driven
- Build a Strong Vision, Mission, Objectives, Action Plans and plan for quick wins
- Don't let anyone fool you into thinking that this is a multi year, multi-million dollar project

Motivational Quotes

**“You must be the change you wish to see in the world”,
Mahatma Gandhi**

**“We’ll stop changing when our customers do”, Cal Hart -
VP Business Transformation, Canada Post Corporation**

**“Progress is a nice word. But change is its motivator. And
change has its enemies.”, Robert F. Kennedy**

**“Ah, but a man's reach should exceed his grasp, or what's
a heaven for”, Robert Browning**

“If you don't change you'll smell”, my Mother

Thank you

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