



Nashco Consulting Ltd.

Practical Application of ITIL Best Practices

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Nashco Consulting Ltd.

- ✓ In the helpdesk business since 1993
- ✓ Fully certified in ITIL Service Management
- ✓ Over 300 customers (35 in Western Canada)
- ✓ Sponsor of the largest Magic User Group web site
 - <http://magicservicedesk.info>
- ✓ In-depth experience in service desk and asset management projects including assessment, implementation, migration and integration services



What is ITIL ?

ITIL is the application of the science of management to information technology. This knowledge is captured in a library of over forty books that outline a process-based set of best practices for IT Service Management.

**Information Technology
Infrastructure Library**



ITIL Principles

ITIL is all about which
processes
need to exist within an
organization
for the management of the
IT infrastructure
to the
optimal level of IT service quality
at a
justifiable cost



What does ITIL Provide?

- ✓ Common terminology and definition
- ✓ Better articulation about process
- ✓ No need to re-invent the wheel - process model
- ✓ Clear inter-relationship among processes
- ✓ Identification of gaps and weaknesses
- ✓ Standard metrics for measurement for management
- ✓ Portability of IT resources



Why ITIL ?

- To provide the highest possible quality support to the Client community for problems, inquiries and service requests.
- To reduce the workload associated with solving recurring problems and answering the same questions.
- To provide a Service Catalogue of documented IT services supported by efficient processes.
- To enhance IT's credibility by delivering a best practices service.



Are we doing the right things?

- Are we clear what benefits we are seeking?
- Are the end benefits in line with your goals and priorities?
- Will they remain so over the life of the program?



Are we doing them the right way?

- Are we utilizing best practices?
- Will the processes support all necessary business and quality requirements ?
- Do all elements of the investment (people, processes, technology, & organization) blend well together?



Are we getting them done well?

- Have we identified all the work? And have all players accepted the responsibility for their part in this work?
- Are there sound delivery plans and well-designed projects?
- Is the project work achievable with the planned resources?
- Will there be adequate quality assurance?



Are we getting the benefits?

- Do the prospective benefits justify the costs?
- How certain are we about the estimates of benefits?
- Is there broad acceptance for the program?
- Is there a solid business sponsor able to deliver the benefits?
- How much could the estimates be affected by factors outside the organization's control?



What is the goal?

- To achieve a service-centric, ITIL-compliant Service Desk function to interface between the Client Community and the IT Support function

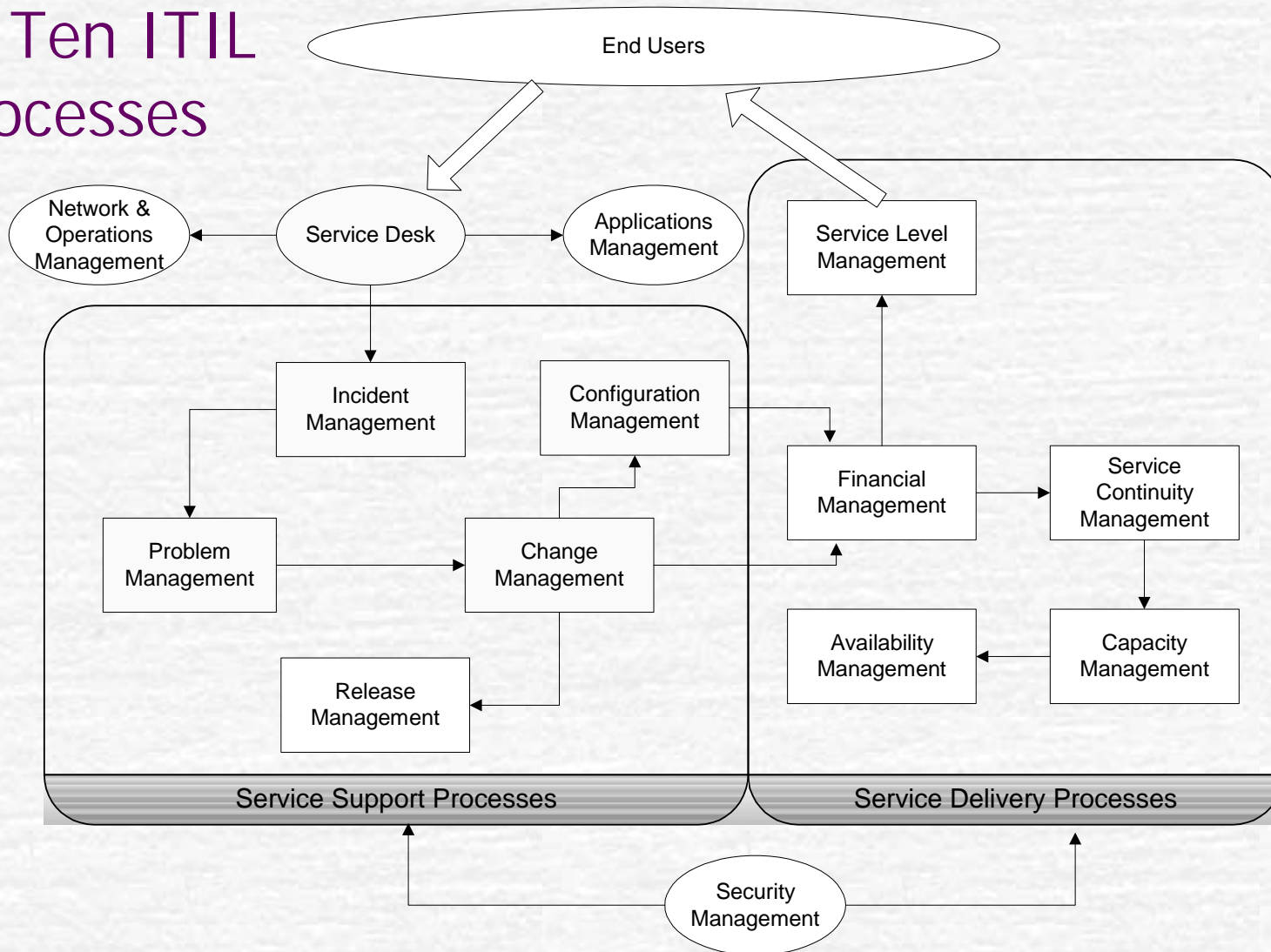


ROI of Achieving this Goal

- ☛ To provide the highest possible quality support to the Client community for problems, inquiries and service requests.
- ☛ To reduce the workload associated with solving recurring problems and answering the same questions.
- ☛ To provide a Service Catalogue of documented IT services supported by efficient processes.
- ☛ To enhance IT's credibility by delivering a best practices service.

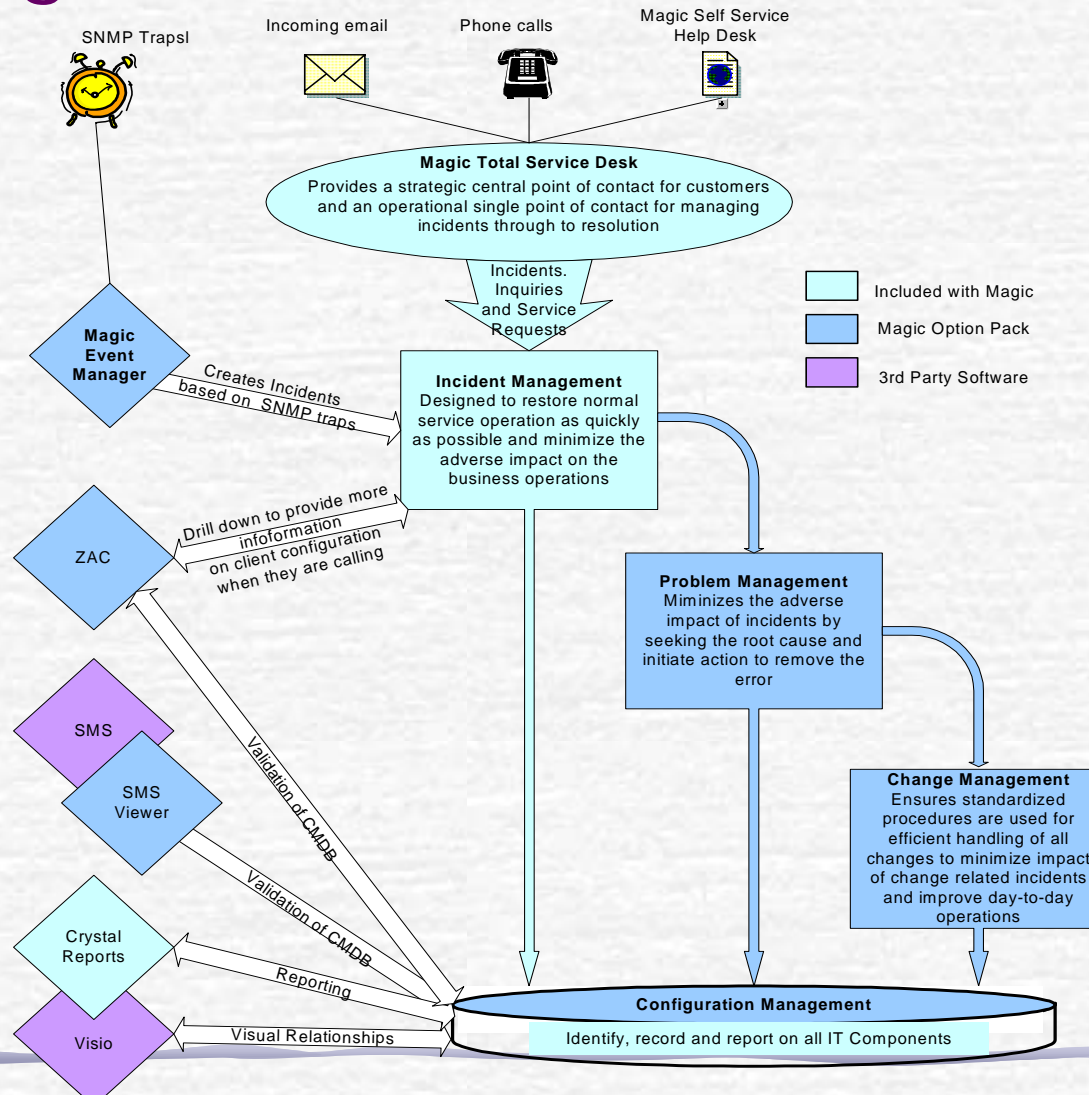


The Ten ITIL Processes



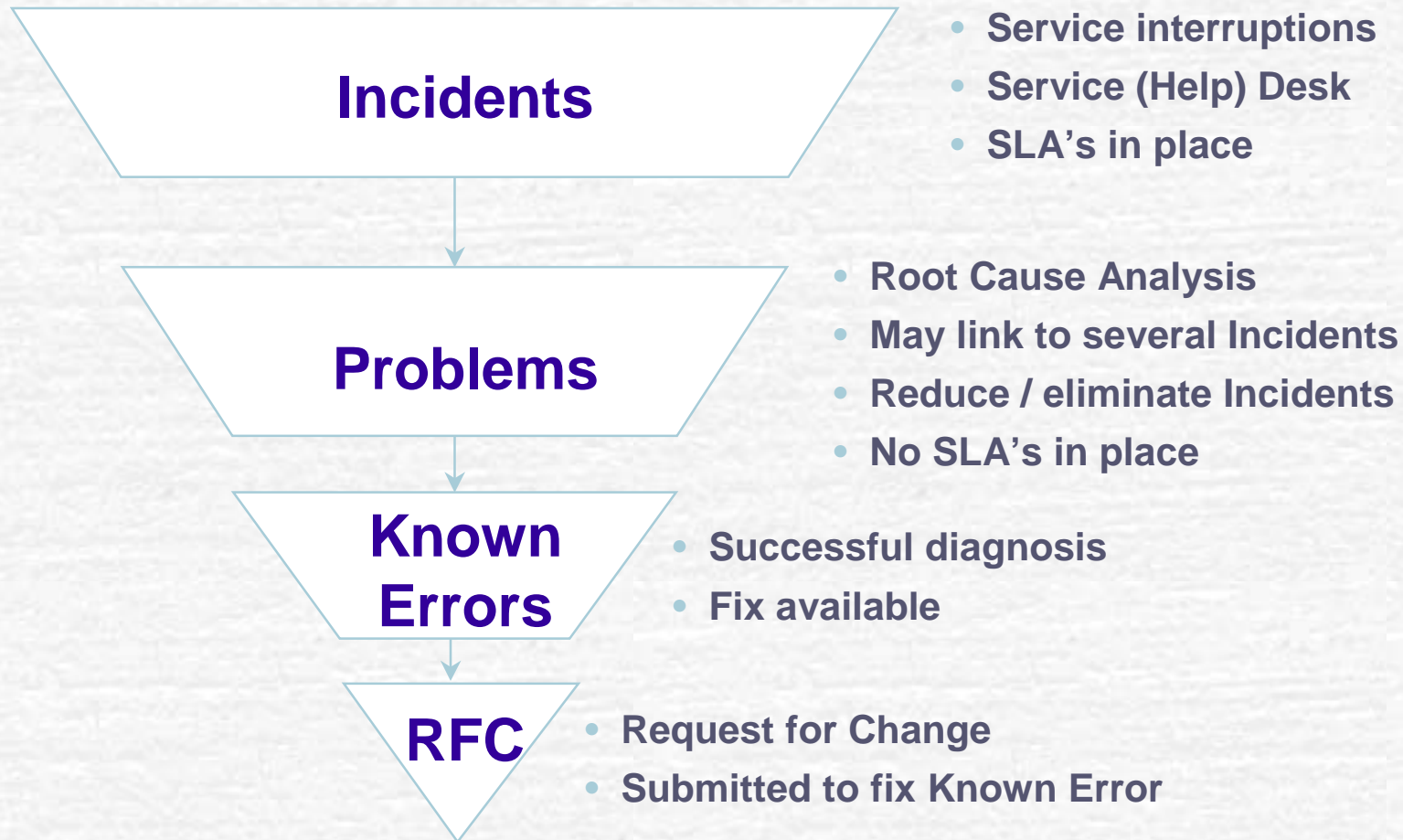


Integration of ITIL Processes in Magic





The Tool Must Link Processes





Service Desk

Goal

- To act as the central point of contact between the users and IT Service Management. To handle incidents and requests, and provide an interface for other activities such as Change, Problem, Configuration, Release, SLA and IT Service Continuity Management

Responsibilities

- Receive and record all calls from users
- Provide initial assessment of all incidents and make first attempt at resolution and/or refer to 2nd level support based on agreed SLA / OLA
- Monitor and escalate all incidents
- Keep users informed on status and progress

Benefits

- Improved user service, perception and satisfaction
- Consistency of service through SPOC
- Improved quality and faster response to user requests



Service Desk Manager

Roles

- Non-transparent
- Strong ownership
- Communicator & coordinator
- Promoter: Service Desk is the IT dept for most clients

Measurement

- Daily reviews of incidents status against SLA's
- Weekly service availability, SLA breaches, staff workload, known errors and upcoming changes
- Monthly overall performance, achievements and trend analysis



Magic Modules

- ☞ Magic Service Desk uses three core modules, or units of work to process workflow. In most cases they are linked together however they can also be used as standalone components
 - Incident
 - Work Order
 - Purchase Request (with Asset Management)
- ☞ With the addition of the Magic Change & Configuration Management Option Pack, three additional modules are provided to support ITIL best practices.
 - Problem
 - Change
 - CMDB (with Configuration Management)



PinkVerify

- Incident Management
- Problem Management
- Change Management
- Configuration Management
- Service Level Management



Incident Management

Goal

- To restore normal service operation as quickly as possible with minimum disruption to the business, thus ensuring that the best achievable levels of availability and service are maintained

Responsibilities

- Incident detection & recording, classification of all incidents and initial support, investigation and diagnosis, resolution and recovery, incident closure and incident ownership, monitoring, tracking and communications

Benefits

- Reduced business impact of incidents by timely resolution
- Proactive identification of beneficial enhancements
- Improved monitoring of performance against SLA's
- Elimination of lost incidents or service requests
- Improved user satisfaction
- Less disruption to both IT support staff and users



Incident Manager

Roles

- Single Point of Contact
 - Clients, Network Mgmt, Operations, App Dev etc.
 - Logging, resolving, routing, monitoring, & closing
- Service oriented and empathetic

Measurement

- Quantity
 - # of Incidents, by staff, by dept, by application
 - Cost per incident, elapsed time
- Quality (what are your Key Performance Indicators?)
 - First Point of Contact Resolution
 - % within SLA by impact code



Incident Module

- Incident is the main module that Magic Service Desk uses. Most workflows are initiated from a client by a phone call or email to the service desk, or through the browser-based Magic Self Service Desk. Incidents are generally categorized three ways:
 - **Trouble Ticket** (Something is not working like it should)
 - **Service Request** (I need something I don't currently have, sometimes known as MAC - move/add/change)
 - **Inquiry** (I need information)



DEMO-Incident : 1549 JSMITH Open - Modify - Microsoft Internet Explorer

Open Calls Assign To Actions Search By

Client Information		Incident Information	
Client ID	JSMITH	Incident #	1549 # 1
Phone #	(201)587-1515	Type	Inquiry
Name	Joan Smith	Status	OPEN-WIP
Dept	Human Resources	Opened	3/9/2002 3:16:42 PM
Assign To Information		Due Date	3/6/2002 3:16:42 PM
Group Name	HELP DESK	Clock Stop	
Assigned To	MAGIC	Closed	
Subject	SW-MSO-EXCEL Excel 5.0	Urgency	40_BRONZE
White Board		Impact ID:	LOW Priority 8
Config ID	AAI-MAIN-01	Resolution	
Problem		First Call Resolution: <input type="checkbox"/>	
Asset Tag #	C12345678	Description	
Description		Resolution	
How to print using a macro			
Method of Contact	Phone	Resolved Date	Resolved By

Actions : User System All Total Duration: 01:46:11 Page 1 of 1 (1 record)

Date	Support Staff	Action ID	Description	Duration	Note
9/16/2002 11:4	MAGIC	_DOC	Read Documentation to them	01:45:00	N

Incident Details | Work Orders | Attachments | Purchase Requests

MAGIC; HELP DESK Local intranet



Prioritization = Urgency & Impact

How quickly does this need to be resolved ?

What is the impact to the business ?

Magic 7.5

Urgency
Objective
Automatically populated based on:
Subject, Client, Dept, Company, SLA
Autofills the Due Date
ie. 10_High (2hr resolution)
50_Low (60 hr resolution)

Impact
Subjective
ie. 10_UserWO, 20_User_Down,
30_Dept, 40_Building_ 50_Campus

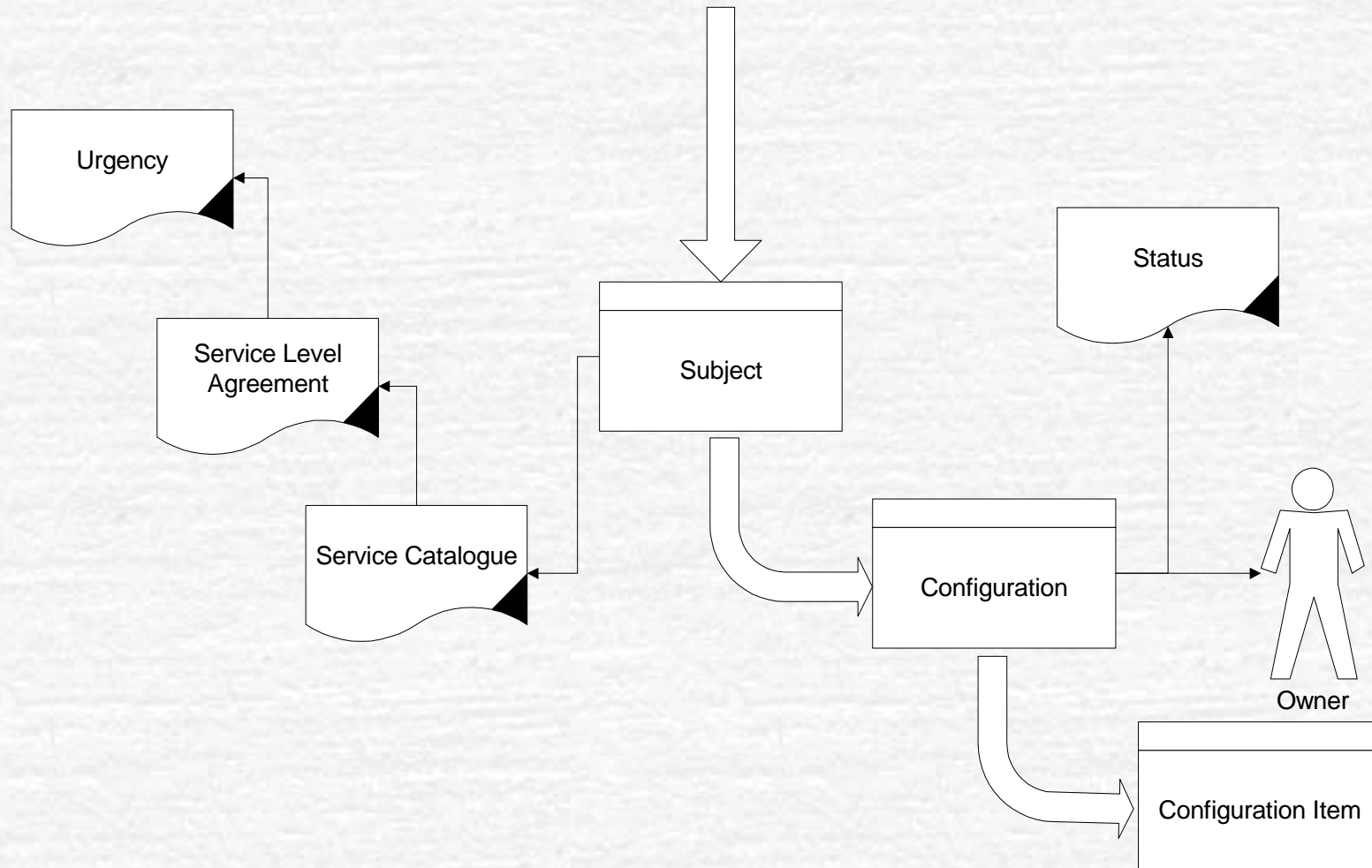
Magic 7.5 with
Magic Change & Configuration
Mgmt Option Pack

10_High	3	2	1
	4	3	2
50_Low	5	4	3
	Impact		
	Minor		Major

Priority
Based on the combined
selection of Urgency &
Impact

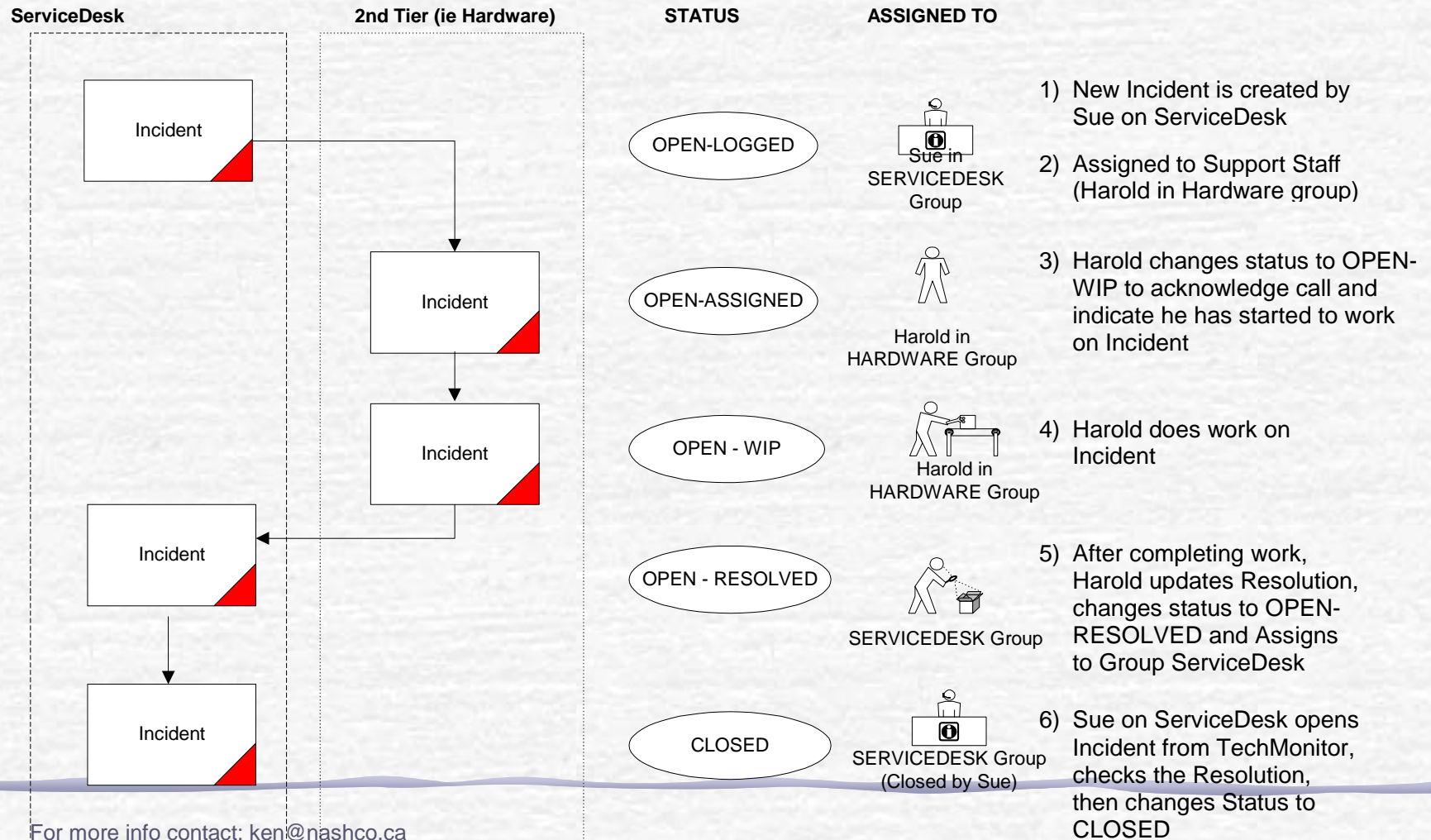


Categorization





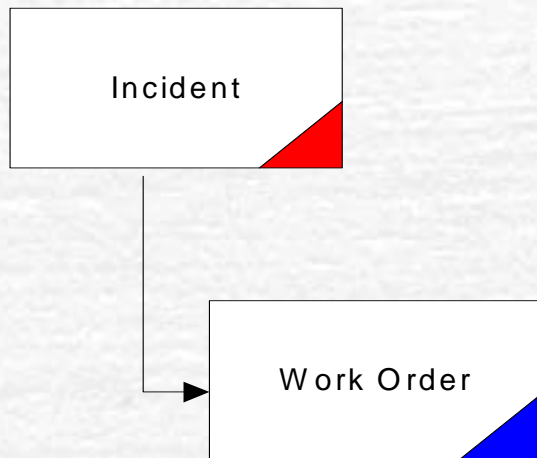
Incident Management Process





Incident Management Module

Incident initiates a work order



- 1) Client calls the Service Desk
- 2) Incident type is defined (Trouble Ticket or Service Request)
- 3) Issue cannot be resolved on the phone
- 4) Work order is created and linked to the Incident and assigned to second level support staff or group



Work Order Module

- Not ITIL
- These are more task oriented and are most commonly linked to a specific Incident (or Problem or Change)
- In many cases they will be used to track work performed on a specific asset (or configuration item).
- There are several classifications of work order including:
 - On-site (performed at the client desk i.e. install software)
 - Depot (performed in setup lab i.e.: configuration of new PC)
 - Training (for one-on-one mentoring or training)
 - Special (other type of work)



DEMO-Work Order : 47 COLSQUI Open - Modify - Microsoft Internet Explorer

Assign To Actions

Client Information				Work Order Information					
Client ID	COLSQUI	Phone	(212)343-6676	Ext.	123	WO #	47	Incid #	1470
Name	Sally Quin					Opened	1/24/2002 10:19:51 AM		
Company	NAI-TX	Contract #				Assigned To	DAVID		

Inventory Information				Warranty Exp. Date			
Configuration ID	BSU-CLNT-100	Part #	DELL-OPT-GX1	Serial #	PQ34TG	1/24/2004	

Subject: Hw-PC PROB Type: OnSite Due Date: 6/11/2002 10:00 Impact: 30_SILVER

Description		Resolution	
Need to have battery replaced in PC.			

Actions : User System All Total Duration: 01:30:00 Page 1 of 1 (2 records)

Date	Support Staff	Inventory Action	Description	Duration	Note Exists
6/9/2002 10:2	MAGIC	PREVENTIVE	Annual PM with compressed air	00:30:00	N
1/9/2002 10:2	MAGIC	MOVE EQUIPMENT	Move Equipment to new office	01:00:00	N

Work Order Details | Inventory Service History

MAGIC; HELP DESK Local intranet



Problem Management

Goal

- To minimize the adverse effect on the business of incidents and problems caused by errors in the infrastructure, to proactively prevent the recurrence of incidents, problems and errors.

Responsibilities

- Problem control, error control, assistance with handling major incidents, proactive prevention of problems, providing management information

Benefits

- Improved IT services
- Reduction in volume of incidents
- Permanent solutions
- Improved Service Desk First Contact Resolution rate



Problem Module

- Problem Module used to declare a problem when one or more incidents share a common symptom. It can be selected from the Incident module or created separately as a problem is determined
 - Define the Problem
 - Prioritize – Impact / Urgency / Affected Users
 - If CI is identified then the Problem becomes a Known Error
 - Identify a Workaround if possible
 - Either leave a Known Error or create Request For Change



Problem Manager

Roles

- Reactive
 - Solving Problems in response to one or more incidents
- Proactive
 - Identify Trends
 - Target Preventative Action
 - Complete major problem reviews

Measurement

- # of RFC's raised by error control (& impact)
- # of problems by status, service, impact, subject
- Elapsed time on outstanding problems
- Actual and expected resolution time for problems



DEMO- Problem Management - Modify - Microsoft Internet Explorer

Assign To Actions

Problem Information
Problem # 1 Priority Opened 4/19/2002 7:23:00 AM Incident Count 3 Users Affected 12

Client Information
Client ID AAIFWIL Department ID SALES Company ID NAHL

Assign To Information
Assigned To MAGIC Name Magic Man Group Name HELP DESK

Subject HW/PRINTER Due Date 11/20/2002 7:23:18 Urgency 30_SILVER Impact LOW

Whiteboard ID PRINTSVR-07/27 Note Primary print server running low on disk space

Problem Description Can't print

Problem Resolution

Configuration ID LEX-MARK710C **Known Error Information** Known Error

Work Around Redirect to HP-2334-1 printer

Note Out of dispace on print server NAIOPS1
MAGIC 4/19/2002 7:23:41 AM

Status: Open Closed Both Page 1 of 1 (3 records)

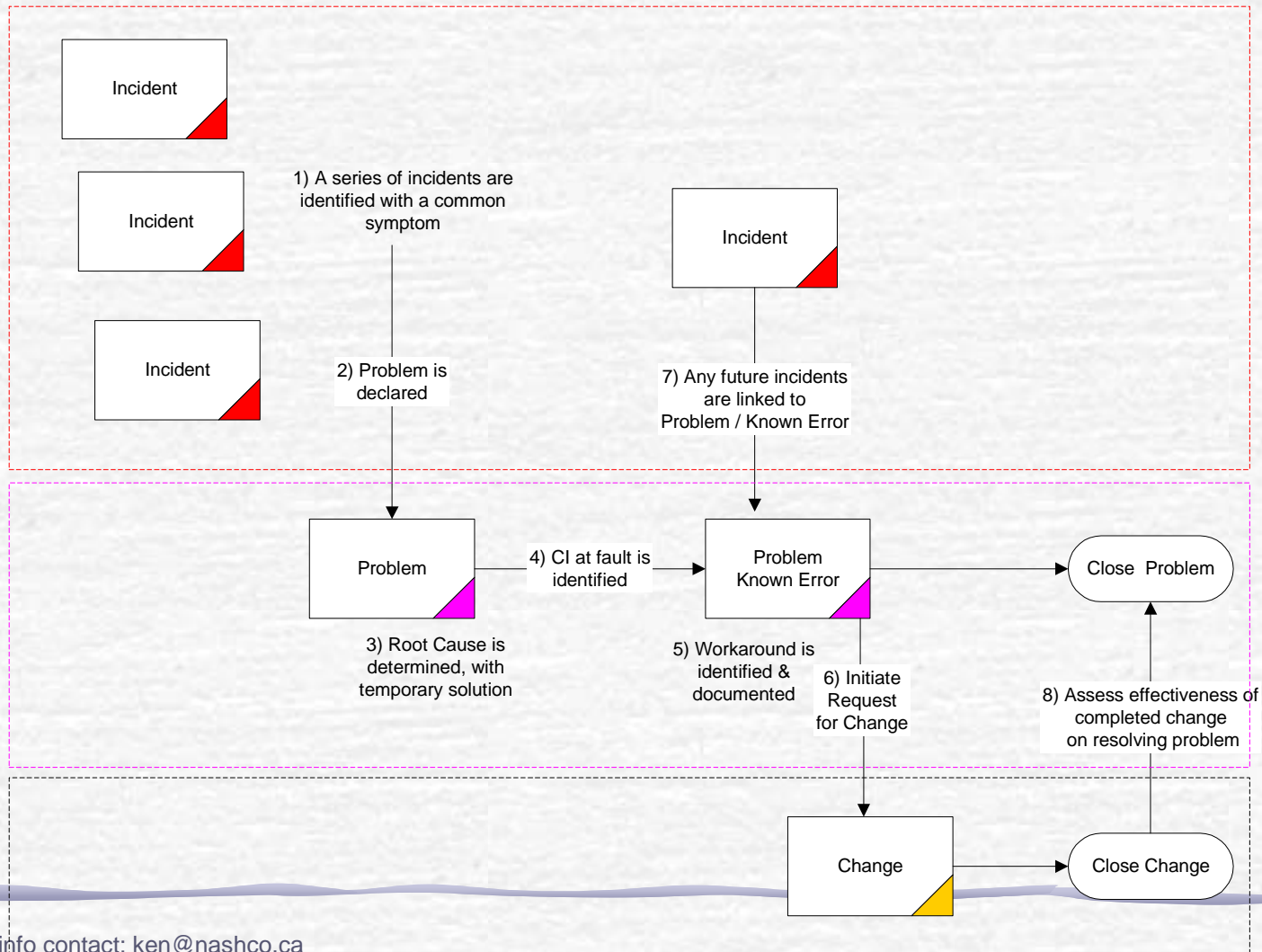
Incident #	Status	Opened	Client ID	Assigned To	Incident Description
1478	OPEN-WIP	01/24/2002	JPEACD		User cant print to hp-2332-2- Print Que
1549	OPEN-LOGGED	03/09/2002	JSMITH		User cant print to hp-2332-2- Print Que
1579	OPEN-LOGGED	07/30/2002	JSMITH		User cant print to hp-2332-2- Print Que

Incidents Changes Configuration Items Details Attachments Work Orders

MAGIC; HELP DESK Local intranet

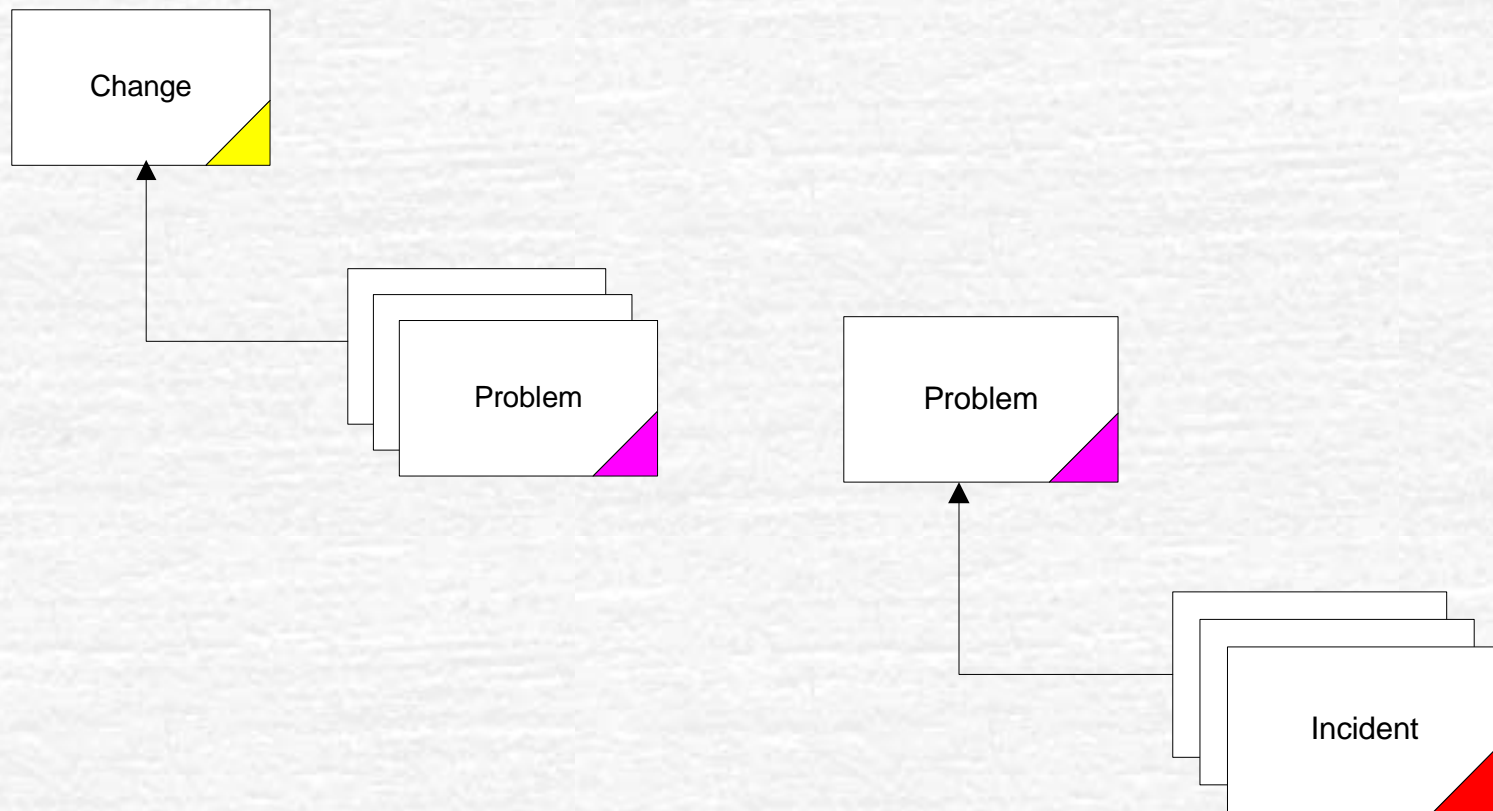


Problem Management Process





Incident-Problem-Change Module Relationship





Change Management

Goal

- To ensure that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of any related incidents upon service

Responsibilities

- For controlling changes to all CI's within the live environment

Benefits

- Increased visibility and communications of changes to both business & service support staff
- Reduced negative impact of change on IT services provided
- Better alignment of IT services to actual business need
- Increased productivity of users through less disruption and increased productivity of IT personnel by avoiding repairing faulty changes



Change Manager

Roles

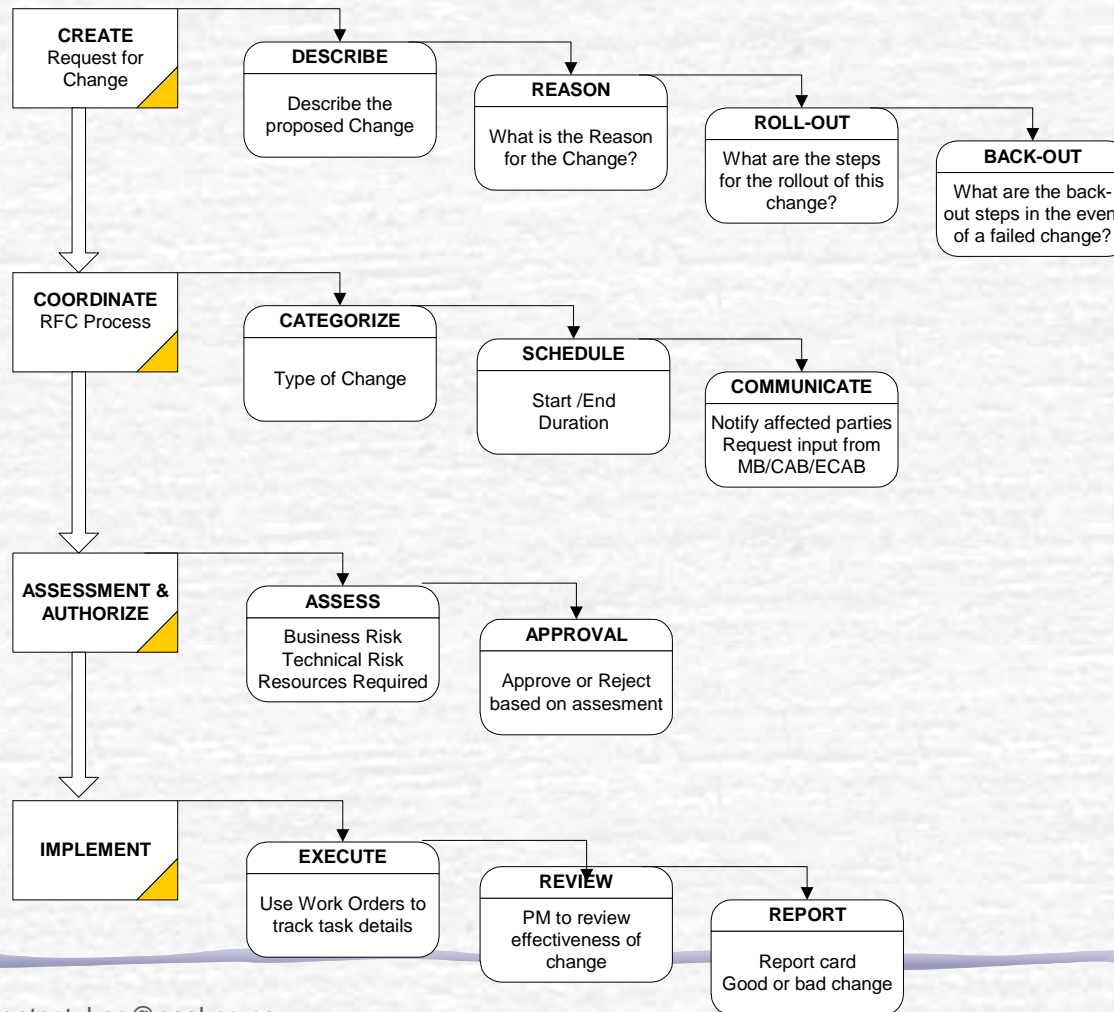
- Blend of Business & Technical skills
- Facilitator
- Communicator

Measurement

- # of changes by period, reason, type
- Ratio of success
- Changes by CI



Change Management Process





Configuration Management

Goal

- To provide a logical model of the IT infrastructure identifying, controlling and verifying version of Configuration Items in place

Responsibilities

- Planning, Identification, Control, Status Accounting and Verification & Audit

Benefits

- Acts as a base of information in Incident and Problem Management
- Facilitates the impact assessment in Incident Management and Change Management
- Permits a physical audit of the infrastructure to support Financial Management and Continuity Management
- Adherence to legal obligations (CAAST)



Configuration Manager

Roles

- Asset Manager PLUS
- Control freak

Measurement

- Gap analysis between CMDB and realtime inventory / count
- Tracking Unauthorized applications & h/w



Configuration Management

Other Considerations

- The CMDB should be able to supply answers to these questions:
 - "What do we have?"
 - "Where is it?"
 - "What state is it in?"
 - "Who is responsible for maintaining it?"
 - "Who uses it?"
 - "What depends on it?"
 - "What does it depend on?"
 - "What is it part of?"



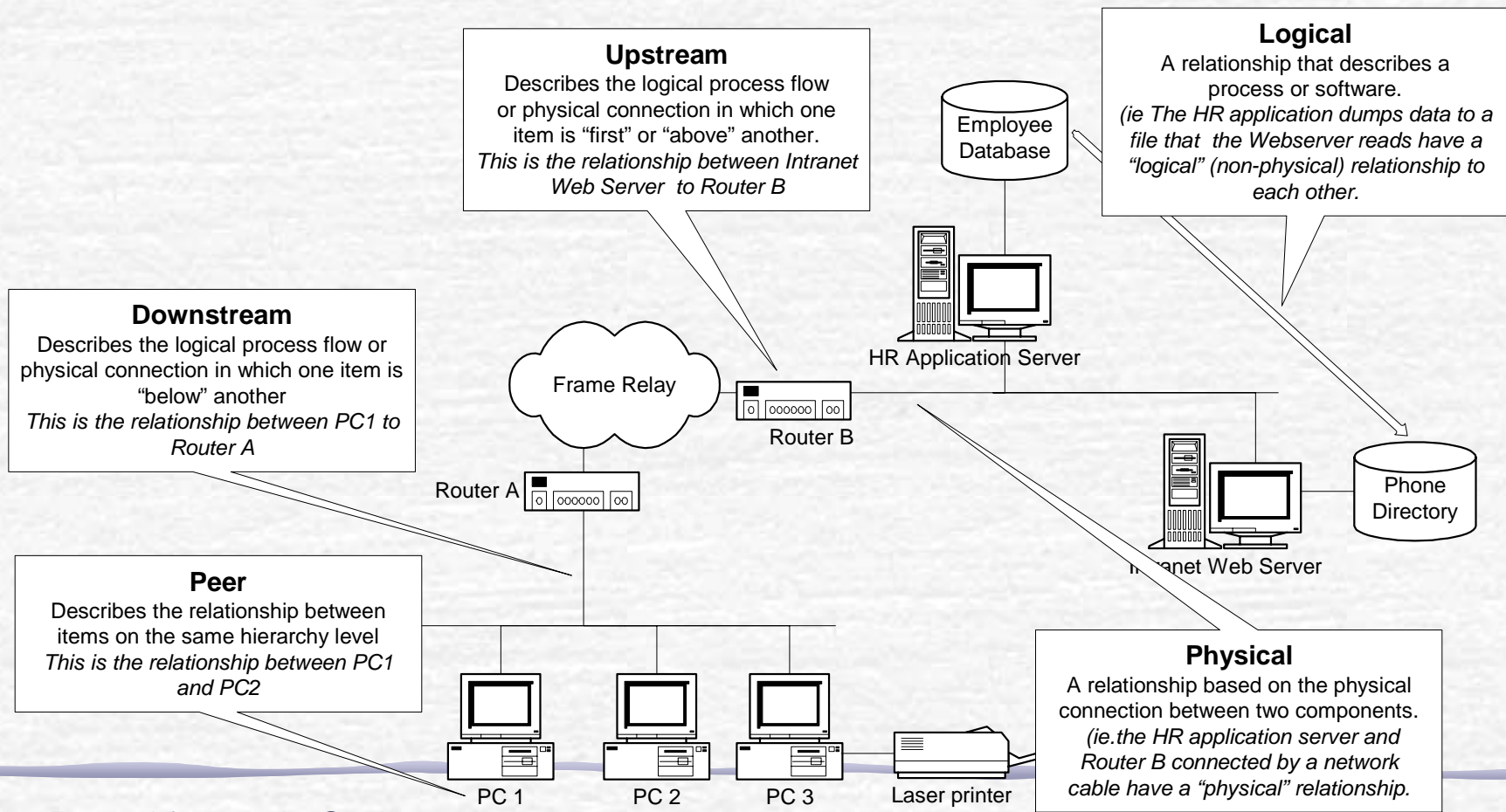
Asset Table Relationship

Client (user)	Configuration (Grouping of items)	Configuration Item (Specific piece of equipment)	Catalog (Part#)	Category & subcategory	
	DAN-PC	Monitor	NEC-17FS	PC PC-PERIPH	
		Keyboard	DELL-KB	PC PC-PERIPH	
		CD/RW	HP-RW8201		
		P C → Subassembly of PC	DELL-OPTGX	PC PC-DESKTOP	
		Personal laser printer	HP-LJ5P	PR PR-LASER	
		Operating System	MS-W98	SW SW-OS	
		Office 2000	MS-OFF2K	SW SW-APP	
		Telephone	NT-H123	TEL TEL-DESK	
		DAN-NB	Notebo k	DELL-LATXP	PC PC-LAPTOP
			Cell Phone	NOK-6500	TEL TEL-CELL

Name	Building	Serial #	Warranty period	Sales Vendor
Phone number	Room	Asset Tag	Manufacturer	Service Vendor
Department	Chargeback ID	Purchase date	Sales Vendor	
Site	Primary Use	Actual cost	Service Vendor	
Email Address	Installation Date	Warranty expiration date	Service Contract #	
		Depreciation # of periods	List Price	
		PO# and Invoice #	Track asset number: Y/N	



Plus Configuration Item Relationships

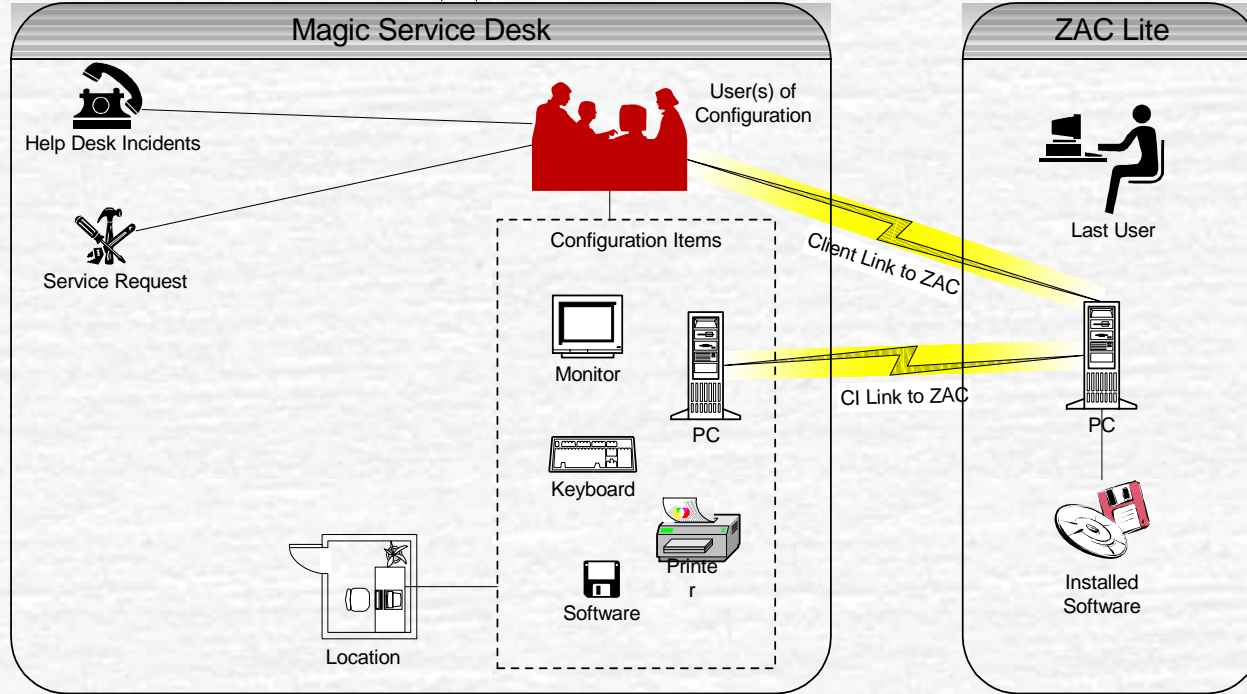




Magic Reports (default):
Inventory Catalog by Part#
Inventory Catalog by Description
Inventory Catalog by Category

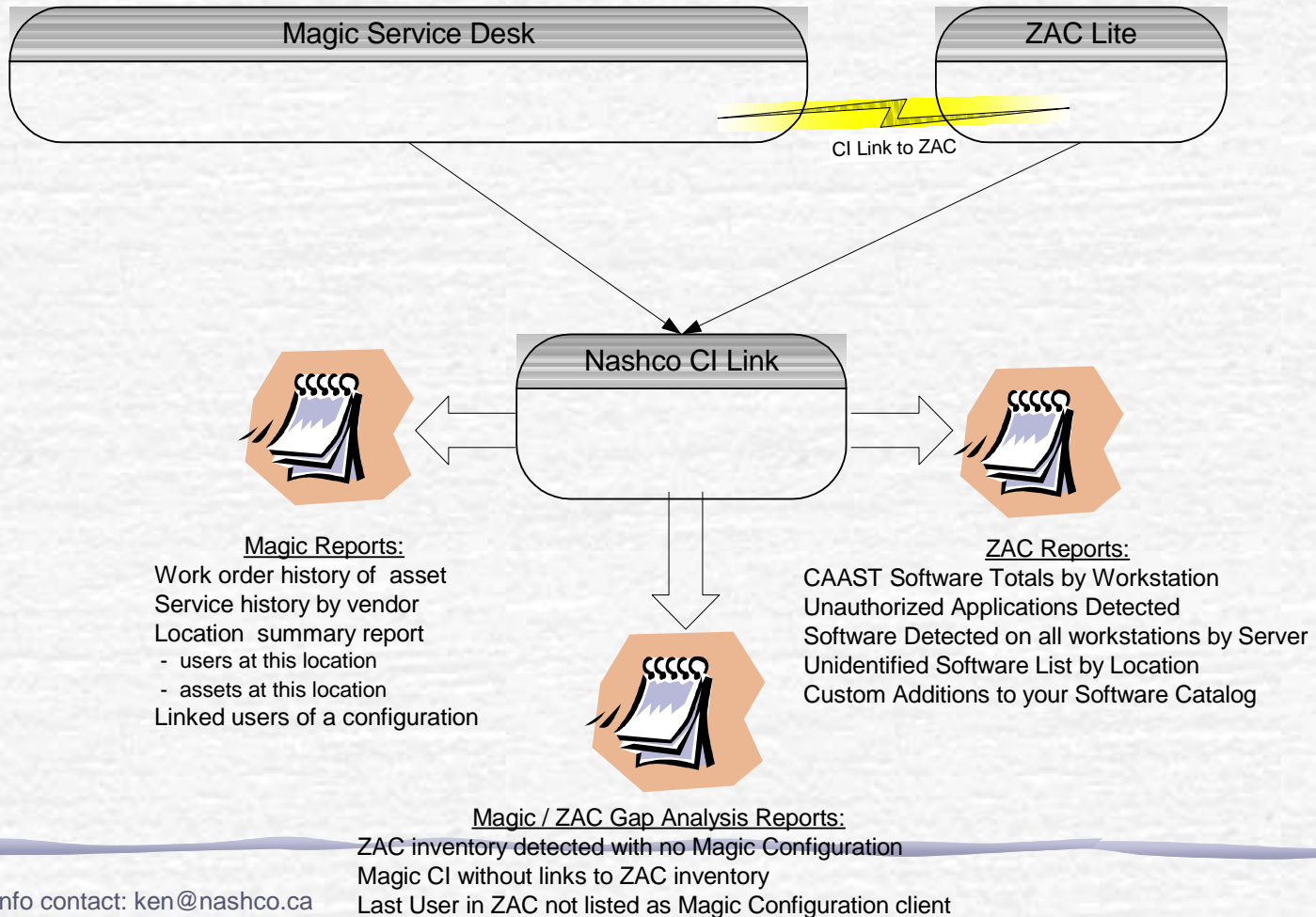


ZAC Reports (default)
SPA Summary
Workstation Detail
File Server Summary





Audit and Verification of CMDB





Detail & Summary Reporting

The screenshot displays the ZAC Console application interface. The main window, titled "ZAC Console - [ZAC 2001\Inventory\NASHCO (local data)\Computers]", shows a tree view on the left with "Computers" selected. The main pane displays a table of computer inventory:

Computer Name	User Name	CPU Type	CPU S...	LAN Card Type
NASHCONT4	Ken	Celeron, model 6	450	Xircom CardBus Ether
NASHCO_NT2	NASHCO...	Pentium MMX	200	Internal NIC
NASHCO_NT3	Nashco	Pentium III or P...	450	3Com Etherlink III (3c
THERESA	theresa	Celeron, model 6	500	D-Link DFE-538TX 10
GEOWKSTN	nashco	Pentium	200	3Com Fast EtherLink
CANSCOT_NT1	Nashco	Pentium II	500	Intel 82557-based 10...

Below this, a "Microsoft Access - [Software Unidentified List by Computer Name]" window is open, displaying a report titled "Unauthorized Applications Detected - Details". The report includes the following data:

Inventory File Server Name PRG05

User Name	Computer Name	File Name	File Size	Directory Name
slund	PRG-266-166	WEBSHOTS-SUNSKY2.EXE	1338880	C:\
jparker	PRG-235-105	WEBSHOTS-BABIES1.EXE	545280	C:\MY DOCUMENTS\
mormandea	PRG-250-484	WEBSHOTS-DCOMBO2.EXE	1273856	C:\MY DOCUMENTS\
mormandea	PRG-250-484	WEBSHOTS-GOLDRIR.EXE	821248	C:\MY DOCUMENTS\
jparker	PRG-235-105	WEBSHOTS-HALWE2.EXE	1763328	C:\MY DOCUMENTS\
mormandea	PRG-250-484	WEBSHOTS-HOTDOGS1.EX	1730048	C:\MY DOCUMENTS\
mormandea	PRG-250-484	WEBSHOTS-LABDS1R.EXE	1305600	C:\MY DOCUMENTS\
mormandea	PRG-250-484	WEBSHOTS-PUPPY1R.EXE	1748992	C:\MY DOCUMENTS\
jparker	PRG-235-105	WEBSHOTS-WINTART1.EXE	795136	C:\MY DOCUMENTS\
rsweeney	PRG-115-115	MLINE S24.EXE	292352	C:\MY DOCUMENTS\MAGICLINES\
jdreher	PRG-240-597	TETRIS4000.EXE	206384	C:\PROGRAM FILES\AL\AVAR\TETRIS4000A
jdreher	PRG-240-597	BUDDYMINI.EXE	188499	C:\PROGRAM FILES\BONZIBUDDY\

The ZAC Console window also shows a summary report for "ADAPTEC CD COPIER" with the following details:

Report Date: 1/17/2001
Vendor: ADAPTEC, INC.
Application: ADAPTEC CD COPIER

Date Collected **Directory**

2000.08/14	C:\PROGRAM FILES\CD-WRI
20+818.00	FLU5EAFYUDCREA1CR\
2000.08/14	C:\PROGRAM FILES\CD-WRI
13 2732.00	FLU5EAFYUDCREA1CR\

Total Count of this Application:

Application: CD-REWASER APPLICATION

Date Collected **Directory**

2000.08/14	C:\PROGRAM FILES\CD-WRI\FLU5EAFYUDCREA1CR\
20+818.00	

Total Count of this Application:

Application: SCARLE C APPLICATION



So what is the next step?

- Start at the top
- Define business drivers
- What are the benefits to the business?
- Select the ITIL Process(s) to start with
 - Where is the pain?
 - Where is the gain?



Building the ITIL RoadMap

- ☞ Determine the ITIL process your business needs most
- ☞ Determine the impact for each process on three key areas
 - People, Process, & Technology
- ☞ Align business drivers with each of these components to develop an investment plan & business benefit
- ☞ Identify KPI that will be improved by implementing ITIL to help define ROI

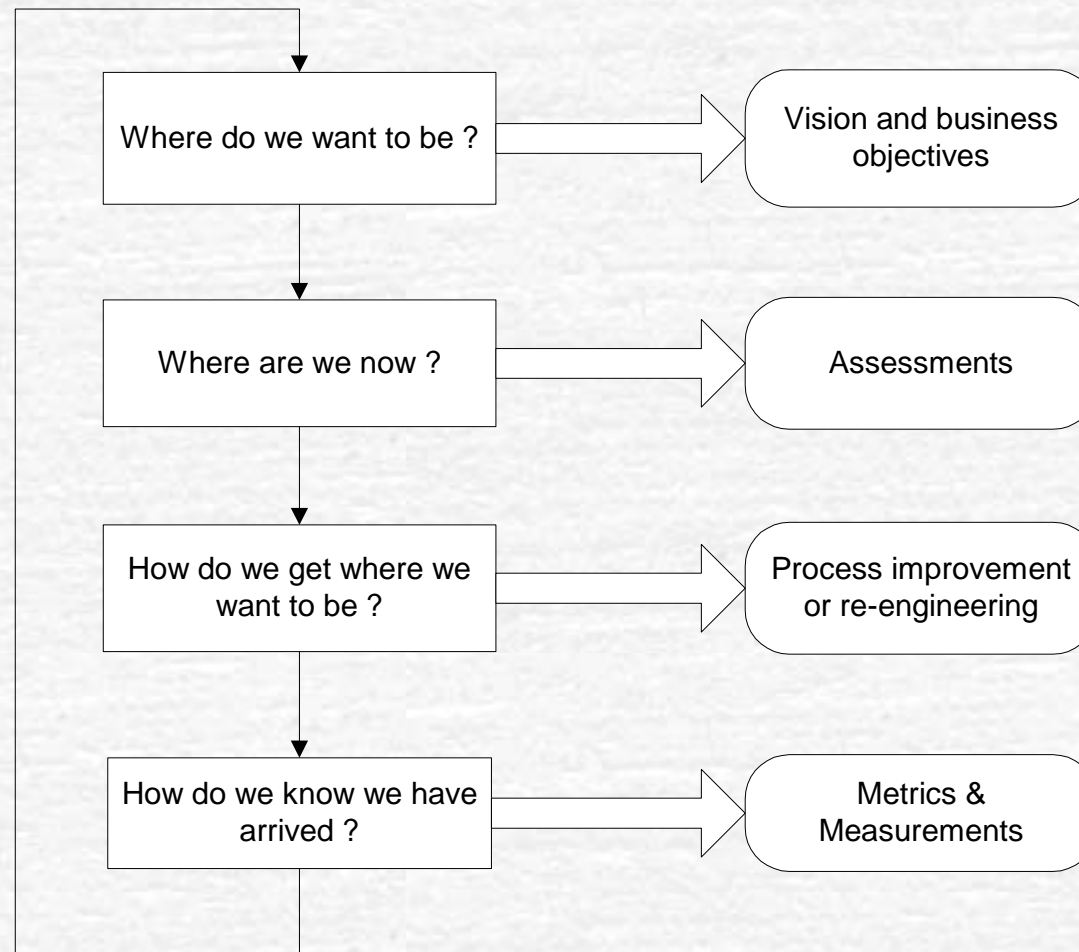


How to effect process change

- Evolution not Revolution
- Rationalize, reorganize, restructure the IT Service Desk
- Evolve a common IT Support Function with standard Policies, Processes, Procedures & Tools
- Amend and/or create Policies, Processes and Procedures to support a common IT Support Function



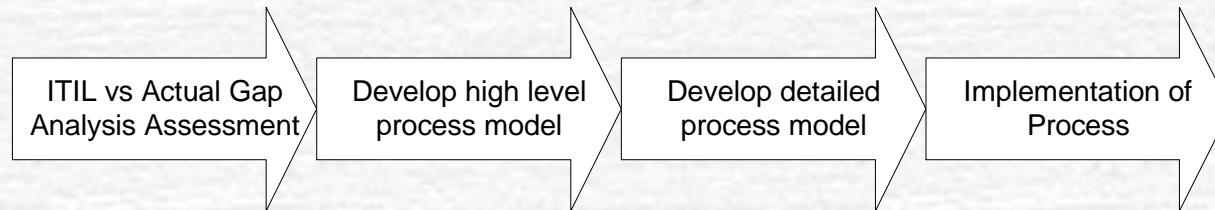
ITIL Process Improvement Model



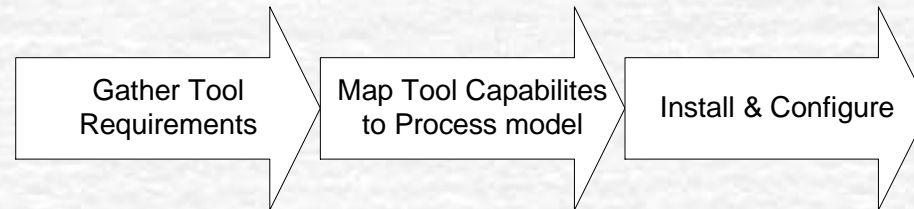


It all starts with Process

Process



Tool



People





How to make it all work together

