

IT Transformation

Conceptual Overview

June 2009



Drivers for Change

Reasons to **change the way information technology is delivered at UBC** are both preventative and enabling in nature.

- Financial pressures demand greater transparency and **control of IT costs** across UBC
 - opportunity for bulk purchases (e.g. PCs, licenses), and resource sharing (people and systems)
- Constant **technology innovation** creates opportunities for differentiation that require coordination across the institution to take advantage of
- Increasing sophistication, size and complexity of **international research** collaborations require innovative information sharing capabilities
 - data management challenges, multi-site conferencing
- Risk to **information integrity** through lack of control (see also External Review)
 - security breaches, internal connectivity breakdown, aging equipment failure
- Current generation of **students and faculty** expect a rich, robust IT environment
 - ubiquitous access, mobility, social networking tools
- Growth in on-line and **lifelong learning** models is driving innovative delivery of learning materials outside the traditional classroom setting
- Increased challenges of managing a growing university with **multiple campuses**

Overall Vision of How We Deliver IT

The fundamental vision is to **integrate IT delivery where this leads to benefits**, without reducing the flexibility required by academic work.

- Define a single **IT service model**
 - Consistency in fundamental IT practices, such as life-cycle management, demand control, project management disciplines
 - Opportunity to size the total IT staff to match demand
 - Effective communication with academic and administrative customers
 - Easier introduction and spread of information management innovation to the university
- Establish integrated **IT governance**
 - Set priorities and align strategic investments with business needs
 - Give visibility and guidance to total IT costs at UBC
 - Enable effective big-picture thinking and consistent direction to IT decision makers
- Established integrated **IT operations** where this delivers the benefits
 - Exploit opportunity for scale benefit, e.g. pooled licensing, reduced duplication
 - Reduce system stability risk, e.g. security management
 - Offer a broader range of career opportunities to IT professionals on UBC staff
- Establish a workable **IT funding model** to help ensure essential equipment maintenance and cost effective service expansion

What is an IT Service Model?

An IT Service Model describes the **elements that make up an organization's IT service** in several different dimensions.

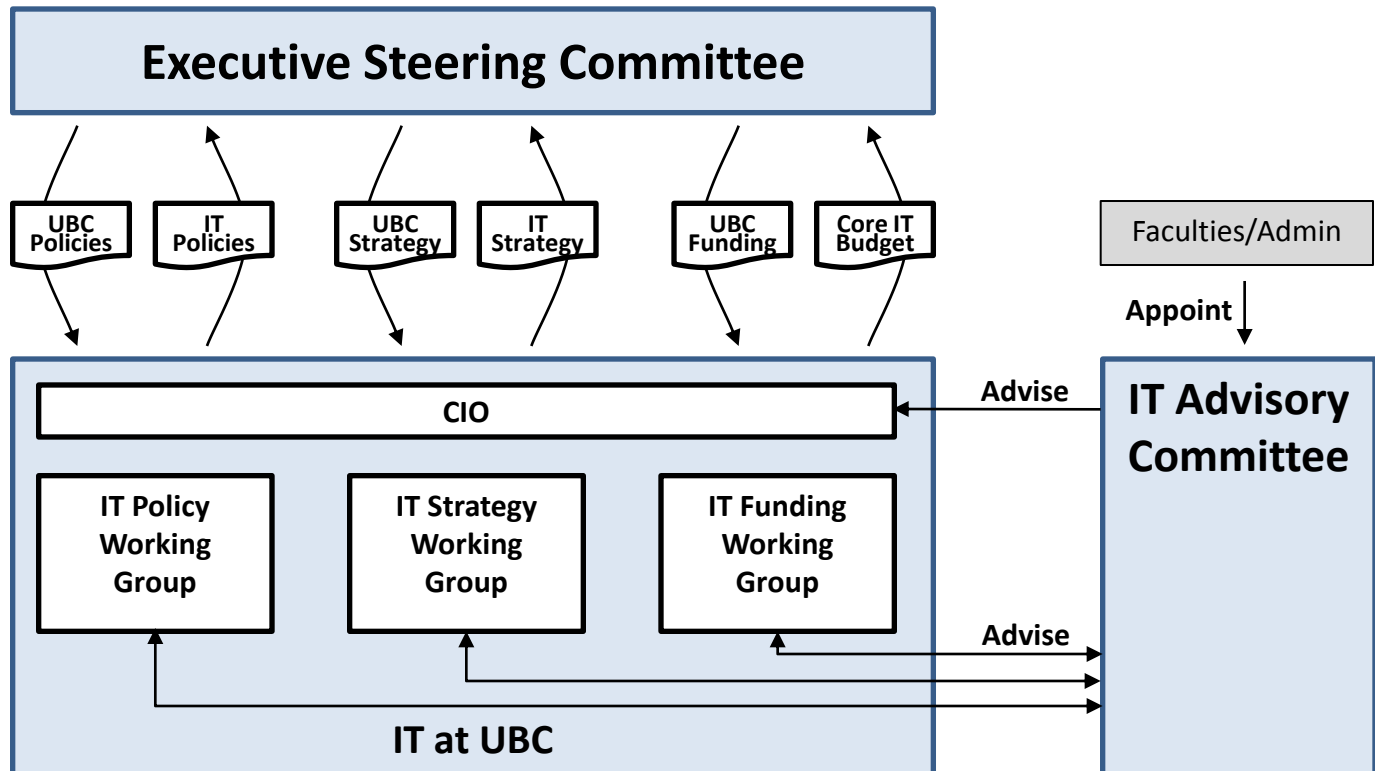
- 1. Functions**– this dimension defines the scope of IT services, for example:
 - network services (voice & data equipment, installations)
 - data storage services (e.g., dedicated storage, virtual/cloud storage, data replication)
 - application support services (e.g., PeopleSoft maintenance)
- 2. Services** – defines discrete IT solutions which customers can obtain:
 - **Base Services** embedded in standard and custom services, (e.g. Service Desk, Campus Network)
 - **Standard Services**, offered the same way to all customers (e.g. PC Life Cycle Mgmt, System Hosting)
 - **Custom Services**, defined uniquely for each department (e.g. PeopleSoft application support)
 - **Project Services**, each defined with specific scope and requirements, (e.g. Office relocation Project)
- 3. Capabilities** – the processes, people and tools that the IT services use to deliver their services and support their services, e.g.
 - Incident Management
 - Capacity Management
 - Release Management
- 4. Organizational units** - by which the accountability for IT delivery is structured, e.g.:
 - Finance applications support
 - Housing, Conference & Food systems support

IT Governance Structure

The IT governance **model must be simple** and focused on directing IT policy, IT strategy and GPO funding for IT.

There are only two bodies that participate in developing IT policy, strategy and GPO funding:

- The **Executive Steering Committee**, which directs IT at UBC from the institution's leadership positions
- The **IT Advisory Committee**, which provides customer input to IT thinking at UBC



IT Governance Structure

Technology decisions specific to a department or faculty will always be the **authority of the Dean or AVP** responsible for the area.

Illustrative

Service Type	Sample Technology Decisions	Deans/ AVPs	Faculty IT Leads	ITAC	UBC IT Staff	CIO
Project Services Each defined with specific scope and requirements (e.g. Office relocation, PeopleSoft upgrade, video conferencing)	Hardware upgrade in computer lab	A	R	I	C	I
	Addition of PeopleSoft Budgeting module	A	R	I	C	C
Custom Services Defined uniquely for each department (e.g. PeopleSoft application support, Student Information System support)	Maintenance upgrade of Vista Blackboard	A	R	C	I	I
	Hardware increases for ERP performance	A	R	C	R	A
Standard Services Offered in the same way to all customers (e.g. PC Life Cycle, System Hosting, Virtual Network)	Change in standard desktop vendor	I	C	C	R	A
	Upgrade in virtualization tool standards	n/a	C	I	R	A
Base Service Not offered stand-alone, but embedded in standard and custom services (e.g. Service Desk, Campus Network)	Increase in network switch capacity	n/a	I	C	R	A
	Upgrade of Service Desk ticketing tool	n/a	I	C	R	A

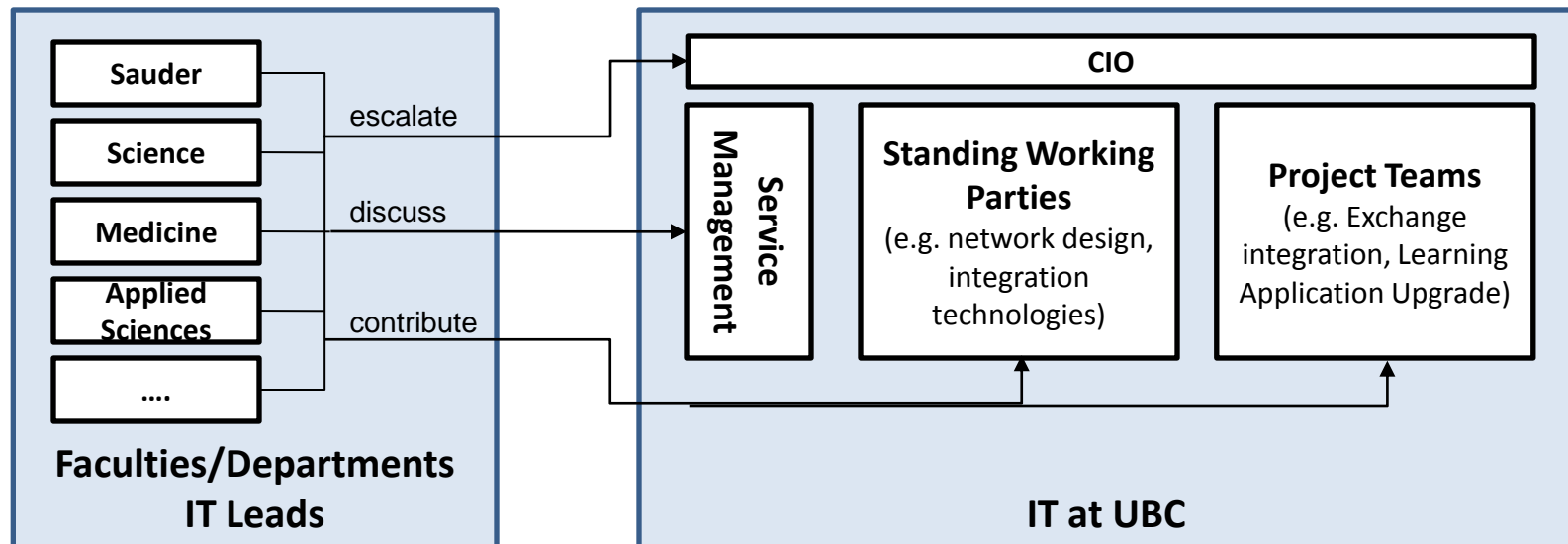
R = Recommends, A = Approves, C = Consulted, I = Informed

IT Governance Structure

How will departments and faculties communicate their needs and concerns to the IT department?

IT leads will have two principal channels to influence the IT department through **standard processes**:

- The **Service Management** function, which provides a process and individuals for ongoing dialogue about IT needs and concerns.
- Standing **working parties** and ad-hoc **project teams**, which provide either general or outcome-specific forums on specific topics, such as infrastructure capacity or Exchange integration.

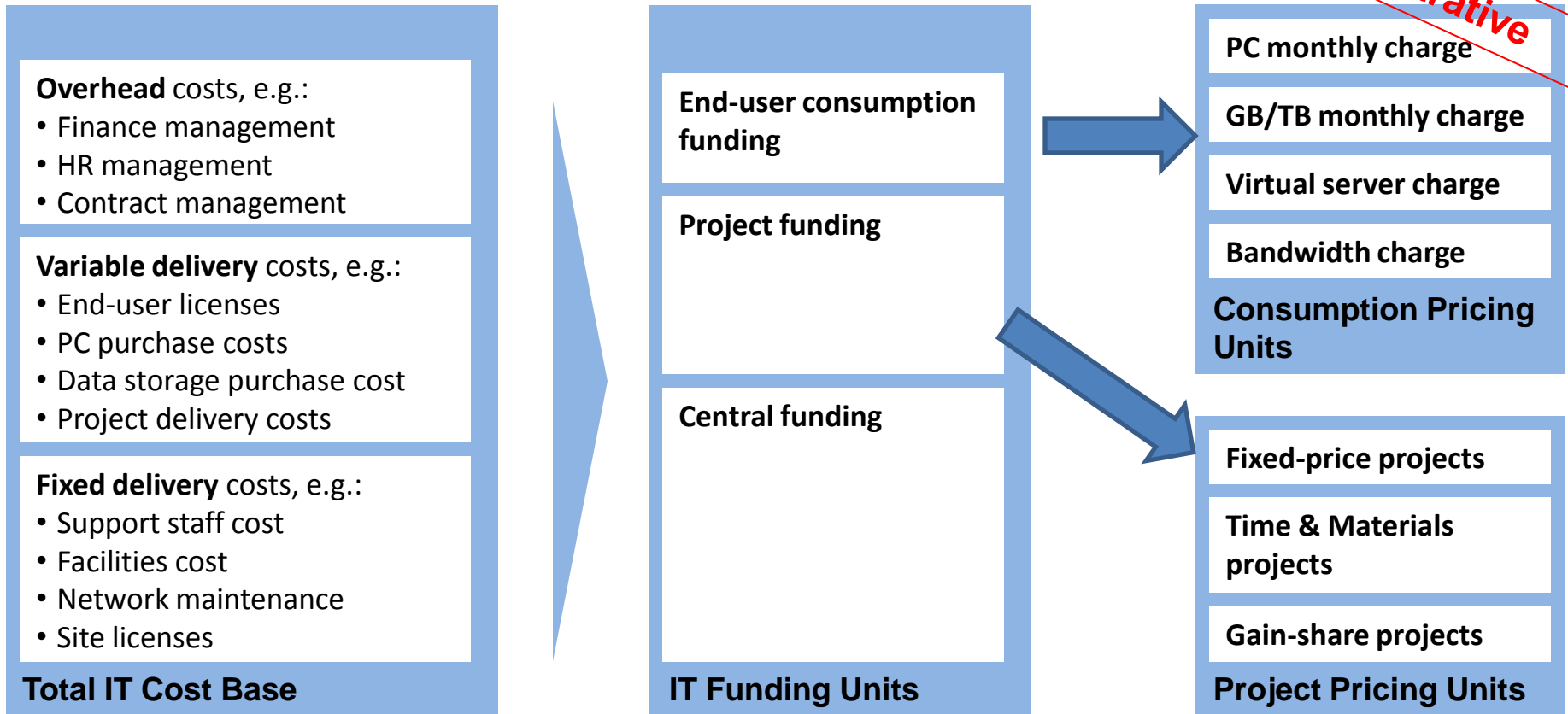


In addition, IT leads will be able to **escalate urgent issues** along a defined escalation path to the CIO.

Funding Model

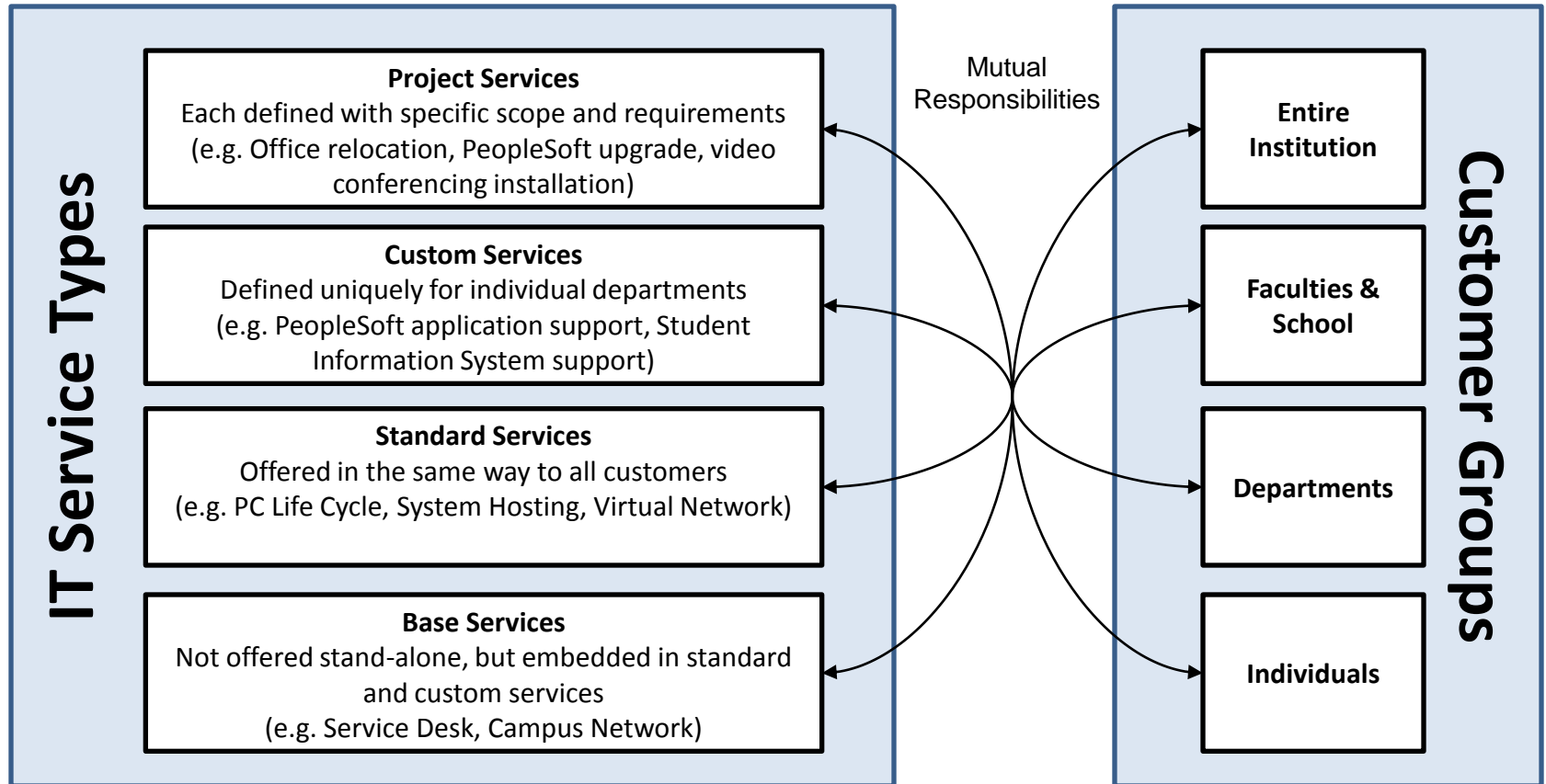
Cost and funding models are two **separate elements** of IT Management

- IT should be a cost centre that recovers costs, not makes revenue
- The principal purpose of end-user consumption pricing is to **incent the right behaviour** NOT to recover costs
- Most costs should be centrally funded to minimize administrative overhead



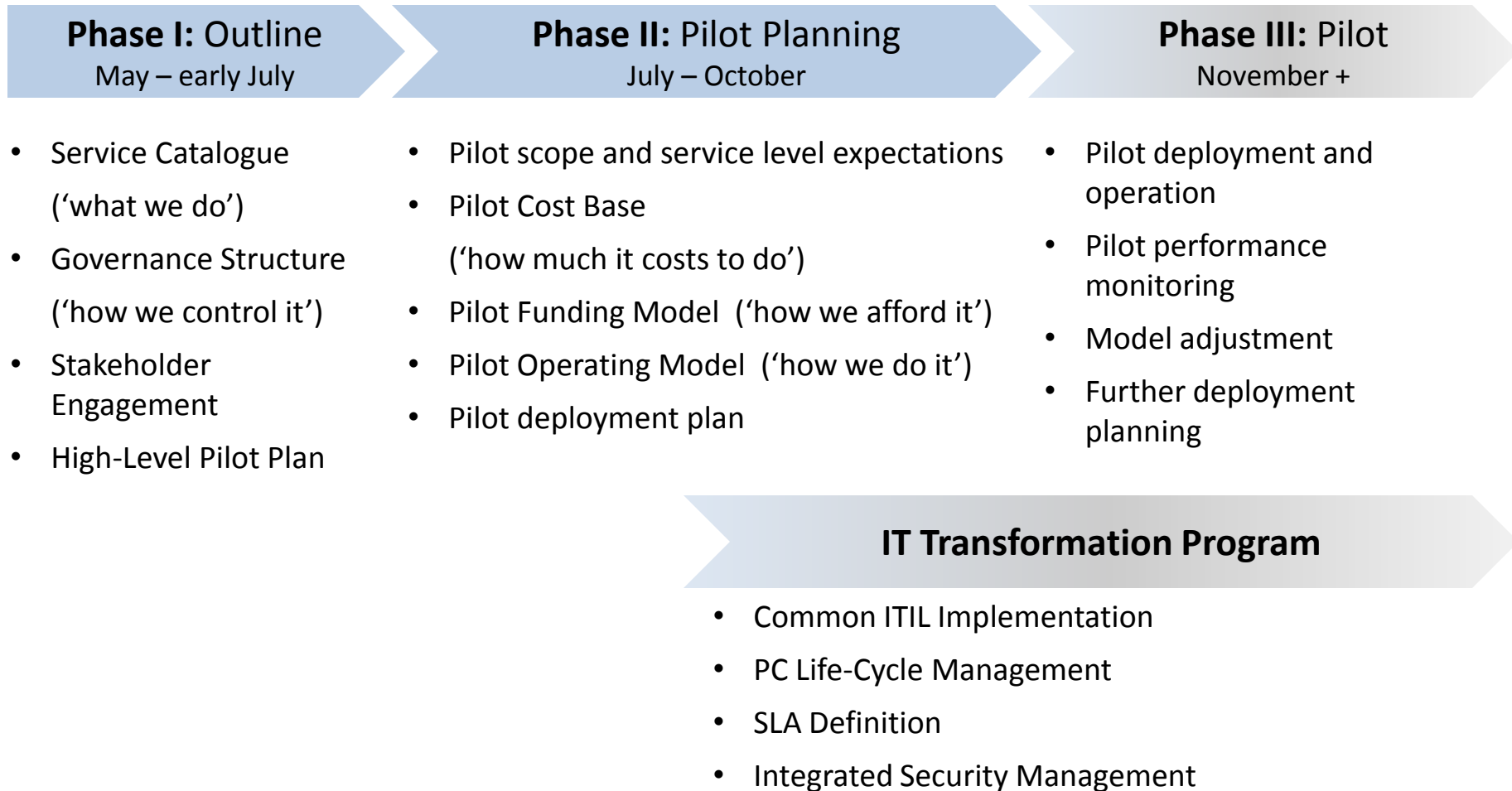
Service Level & Reporting Framework

IT Service Delivery quality is based on **mutual commitments** made between IT and its customers, and regular **performance reporting** against Key Performance Indicators.



Implementation Approach

Key to the proposed implementation approach is to **establish a pilot** with a sub-set of UBC's faculties and administrative departments.



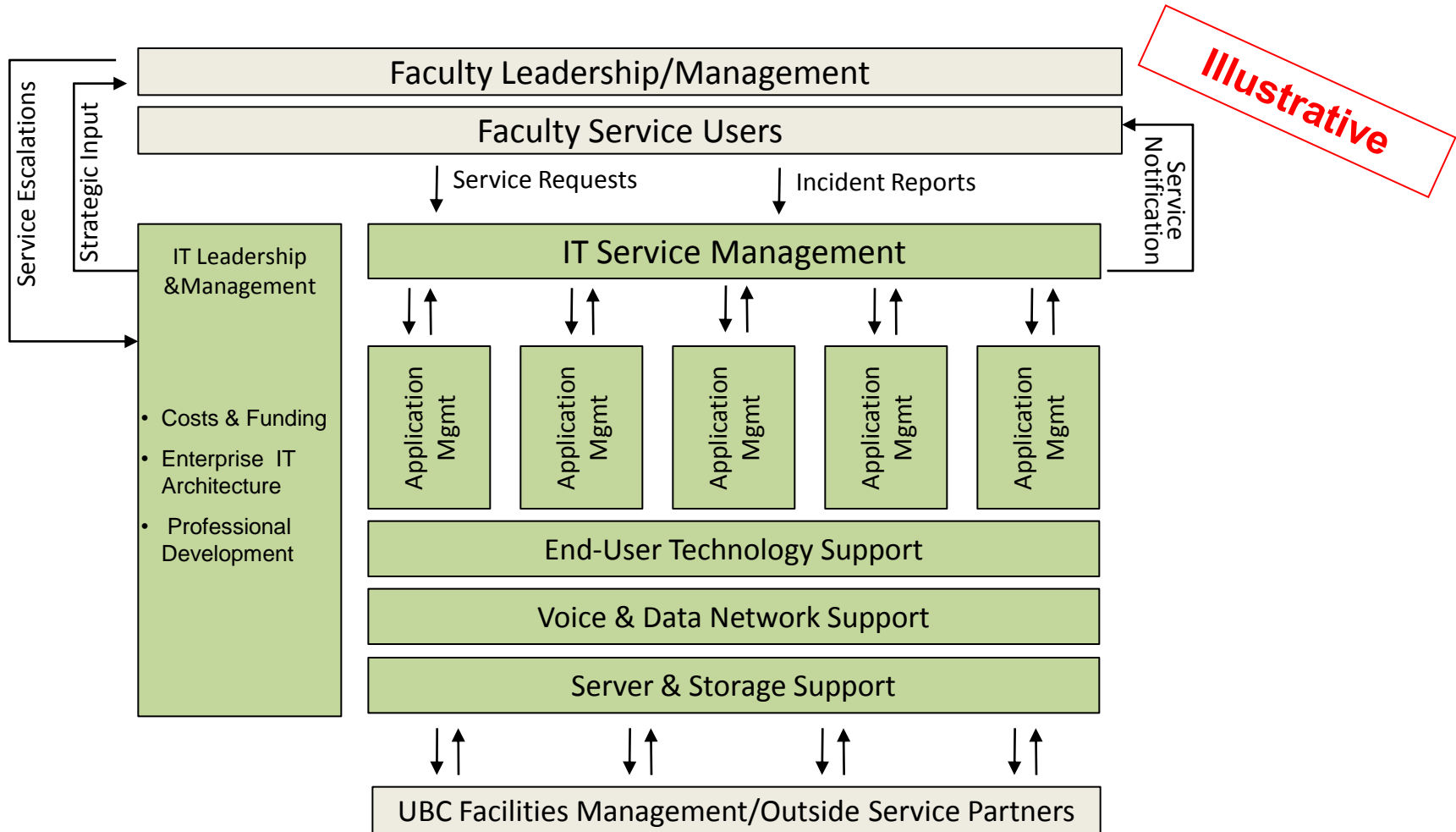
Next Steps

- **Agree in principle** to participate in the pilot
- Develop a **scope definition** with faculty/department IT Lead
- Define and commence the **governance process** with the Executive Steering Committee
- Start the development of the pilot **implementation plan**

1. What is an IT Service Model?
2. IT Governance Structure
3. Service Level Agreements and Reporting Framework

What is an IT Service Model?

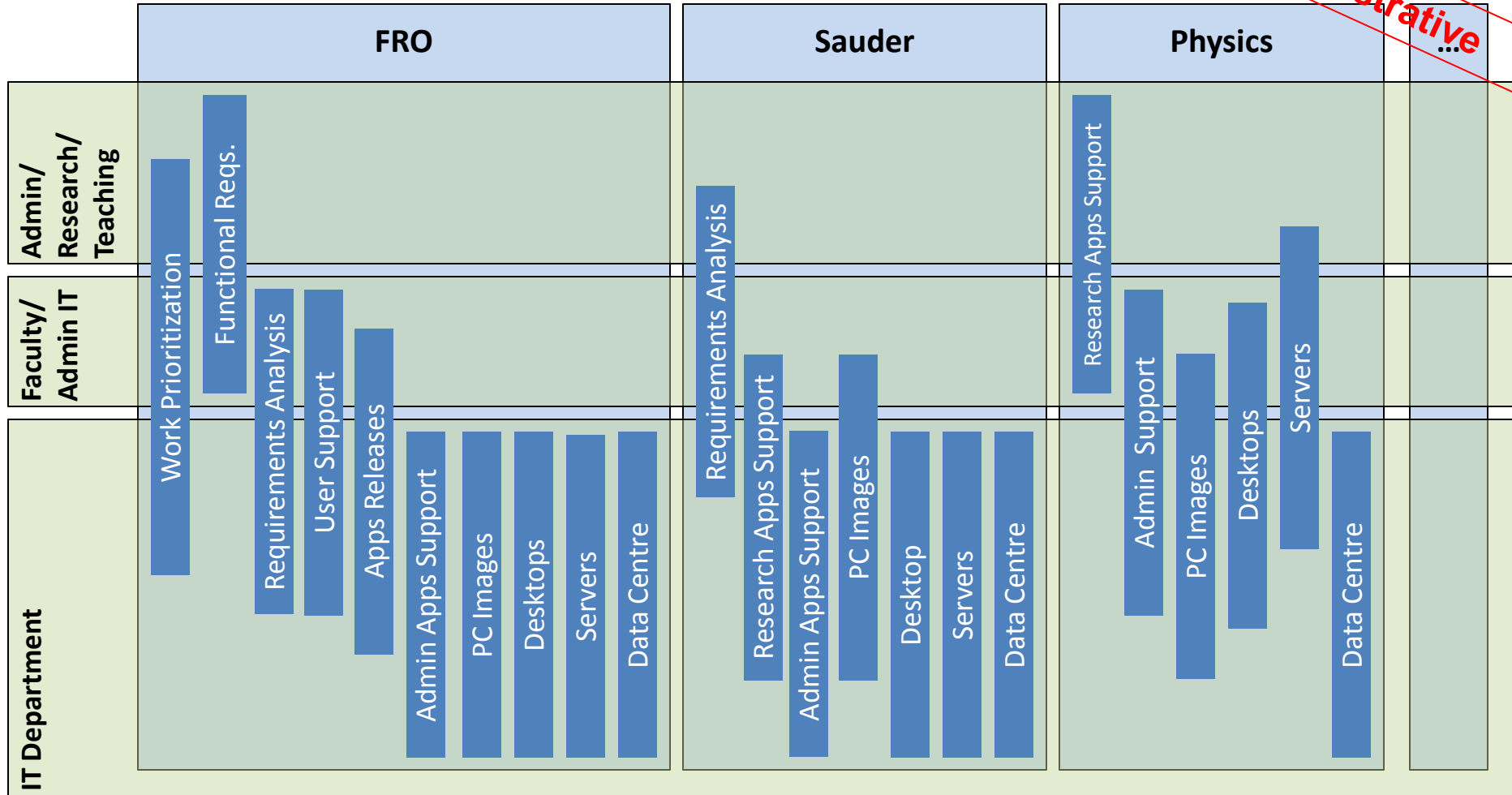
Functions define the scope of work that the IT department is responsible for in any given organization.



What is an IT Service Model?

The IT department's **scope is defined jointly** with each department and faculty and may vary from case to case.

Illustrative ...



What is an IT Service Model?

Services (a.k.a. “Solutions” or “Offerings”) define the discrete consumables that end-users can obtain from the IT department, typically for a usage fee.

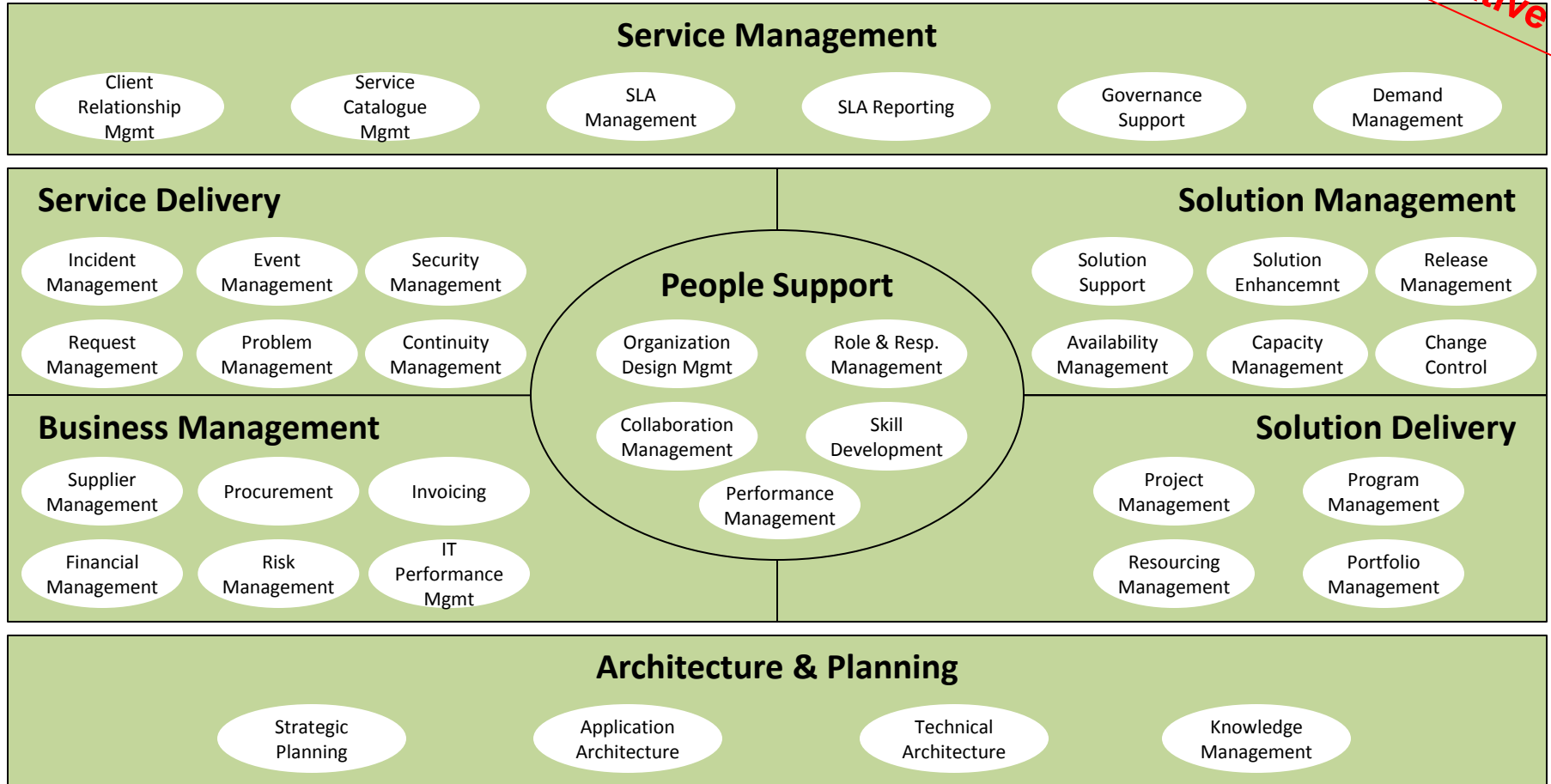
Illustrative

	Individual Consumer Services	Departmental Services	Collaboration Services
End-User Enablement	<ul style="list-style-type: none"> Desk Phone Network Access PC Kit Office Software 	<ul style="list-style-type: none"> Email Identify Virtual Network PBX Service Virtual Desktop 	<ul style="list-style-type: none"> Tele-conferencing Virtual Network File Sharing
Computing Capacity	<ul style="list-style-type: none"> Data Backup Web Site Hosting 	<ul style="list-style-type: none"> CPU Capacity System Hosting Data Storage Application Support 	<ul style="list-style-type: none"> CPU Capacity System Hosting Data Storage Backup/recovery
Project Delivery		<ul style="list-style-type: none"> Software Upgrades Relocations Hardware Upgrades Application Development 	<ul style="list-style-type: none"> Set-up Expansion Wrap-up
...	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">

What is an IT Service Model?

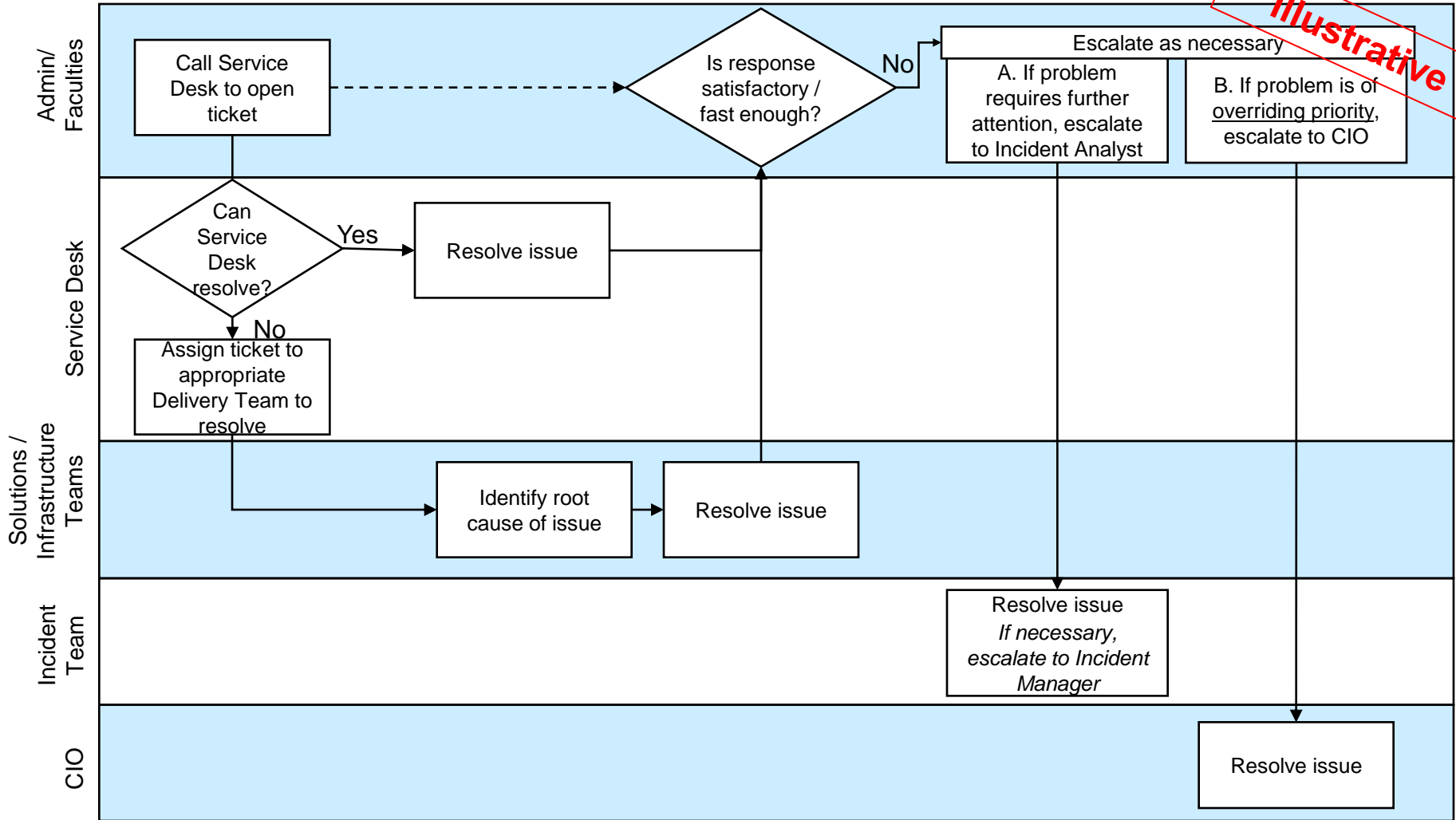
Capabilities are the combination of process, people and technical tools by which the IT department knows how to deliver its Services.

Illustrative



What is an IT Service Model?

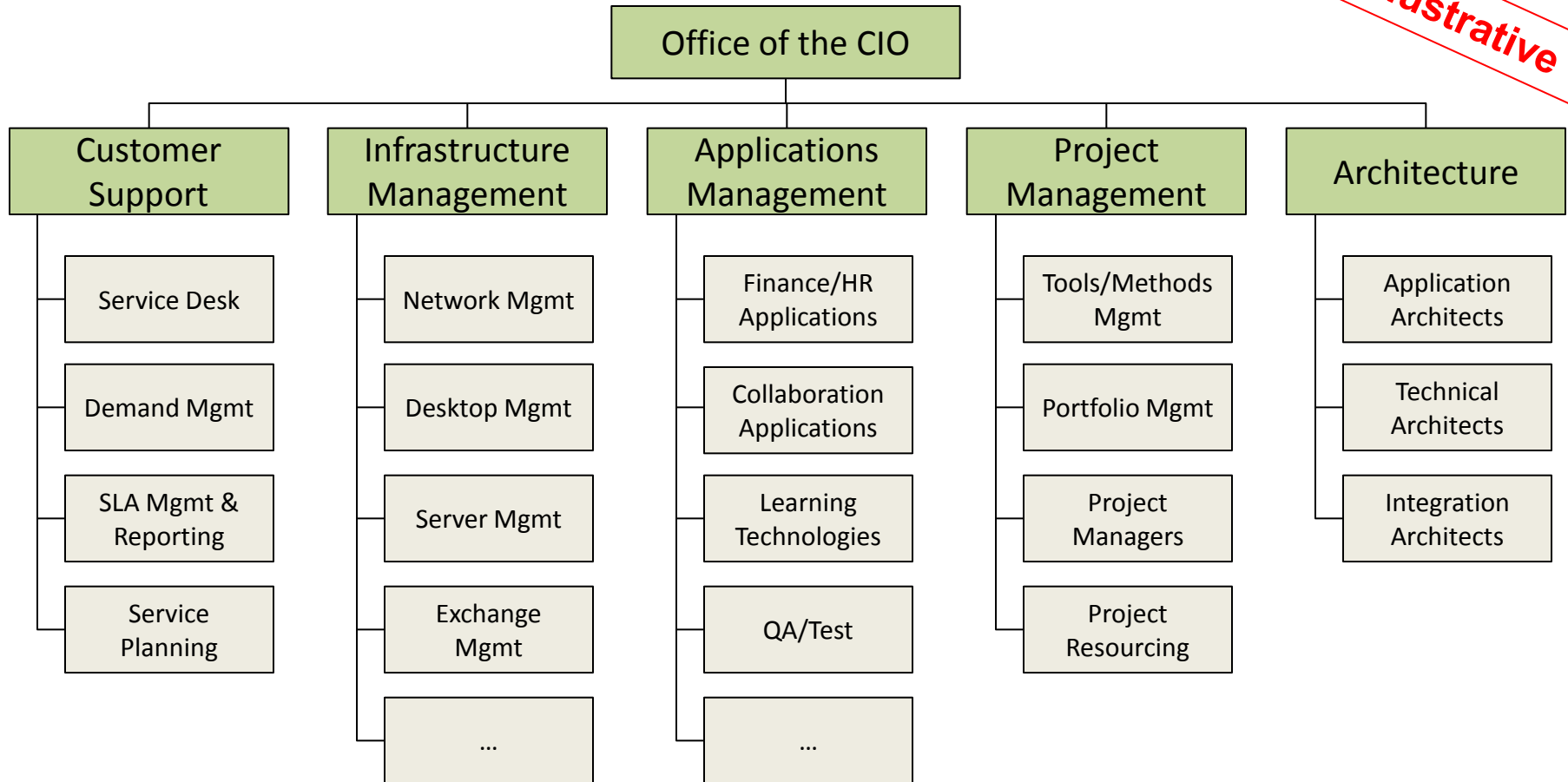
Every capability is defined using a swim-line **workflow** that identifies tasks and which team has responsibility.



What is an IT Service Model?

Organization Units reflect the flow of management accountability within the IT department ...

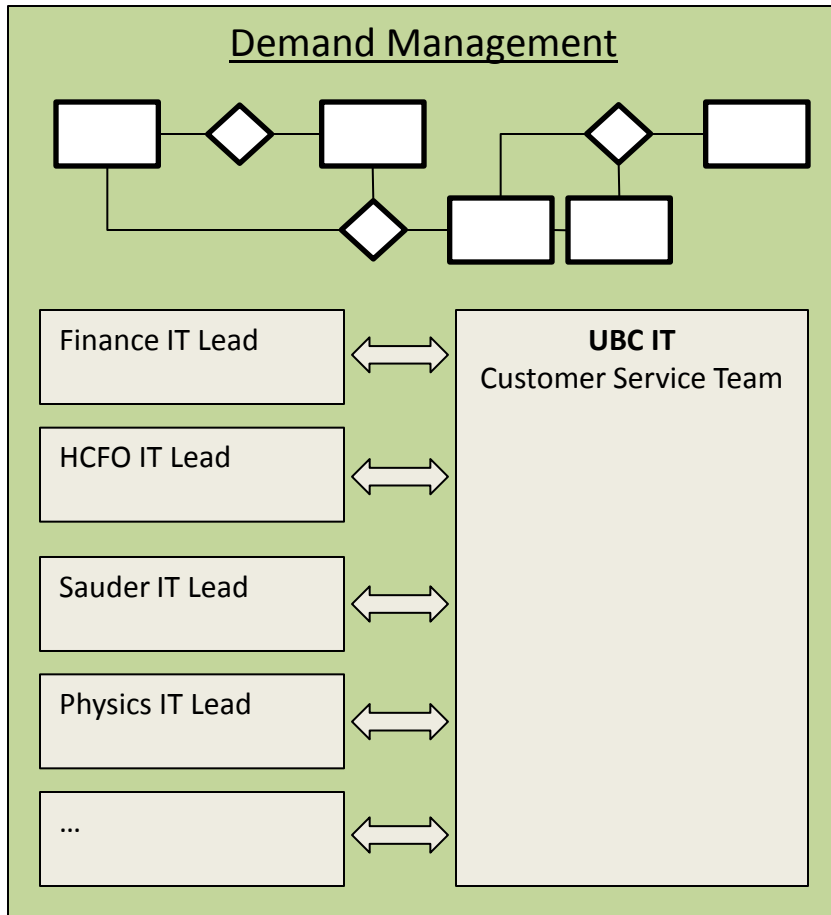
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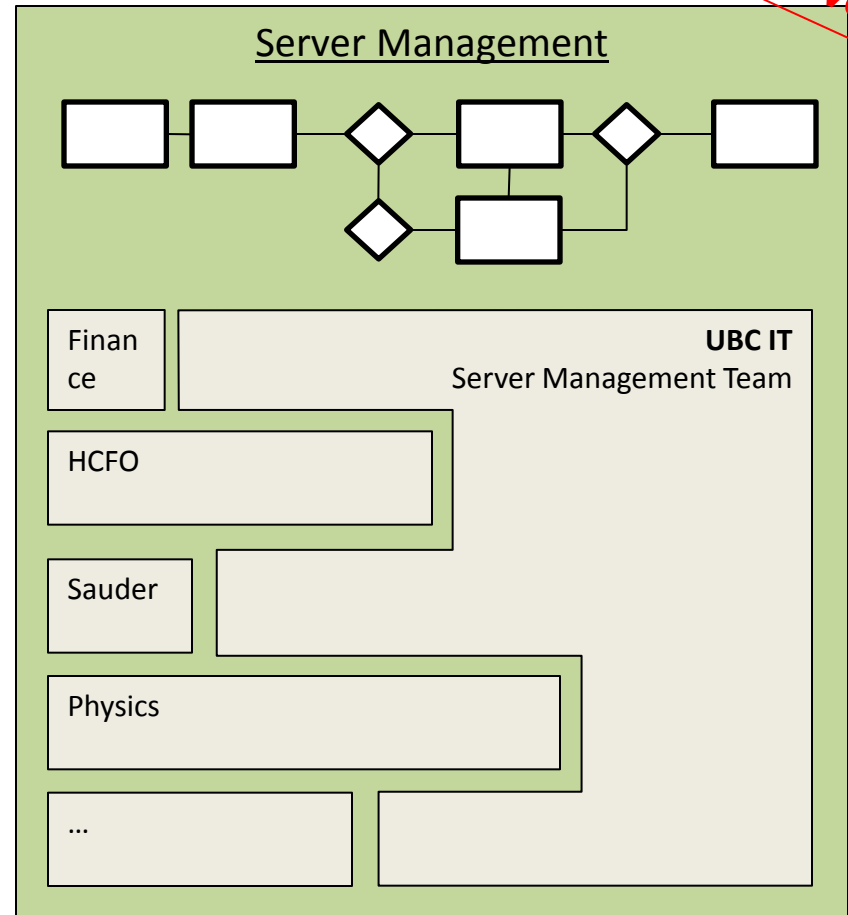
What is an IT Service Model?

... as well as to and from customer groups. For some processes accountabilities follow a standard allocation, while others may be mixed.

Standard Allocation Process



Mixed Allocation Process



IT Governance Structure

The **Executive Steering Committee (ESC)** relates to UBC IT the way a corporate Board relates to a business executive management team.

Purpose:

- Articulates the strategies and policies of the institution to UBC IT
- Sets long-term objectives for UBC IT and approves IT's policies and the strategic plan to achieve objectives
- Sets funding constraints and approves GPO funding for UBC IT annually

Constitution:

- Permanent members:
 - Provost & VP Academic
 - VP Finance, Resources & Operations
 - UBC Chief Information Officer
- Additionally, up to four Deans or Principals will be ask to join the ESC on a three-year rotational basis.

Frequency:

- Meets quarterly

Inputs to IT:

- UBC strategies, policies, funding limitations, strategic & tactical priorities

Outputs from IT:

- UBC IT Strategy, IT policies, IT technology roadmap, core IT budget

IT Governance Structure

The **IT Advisory Committee (ITAC)** represents UBC IT's customers through their leadership.

Purpose:

- Provides a forum to discuss IT needs of the faculties and schools
- Engages with UBC IT at the senior management level to provide customer input
- Validates appropriateness of strategic directions

Constitution:

- Representatives from all faculties and administrative units at the Assistant Dean level or equivalent
- One representative per faculty or school
- Assigned by the faculty or school
- Maximum suggested tenure is 3 years, but faculties and schools decide

Frequency:

- Meets bi-monthly

Inputs to IT:

- Faculty business directions, desired technology enablements, common issues and concerns

Outputs from IT:

- UBC IT Strategy, IT policies, IT technology roadmap, core IT budget

IT Governance Structure

How will departments and faculties be able to prioritize their work?

- **Production incidents** (e.g., network issues, email issues, application flaws) will be resolved through incident management processes based on severity and SLA commitments to resolve issues.
- Change **requests** serviced from a **shared resource** pool out of GPO funding (e.g., exchange account creation, application access authorizations, network port activations, phone replacements) are completed according to fulfillment guidelines on a first-come-first-serve basis.
 - Fulfillment guidelines are developed with input from IT Advisory Committee and IT Liaison Leads
- Change **requests/projects** serviced with **dedicated resources** out of GPO funding (e.g., finance system upgrade, HR system module extension) are completed according to an annual schedule
 - Schedule is defined based on IT Advisory Group priorities within the GPO budget constraints and approved by the Executive Steering Committee.
- Change **requests/projects** serviced with **faculty/department-owned** funding (e.g., new building cabling, research server farm installations, contact database upgrade) are scheduled as requests are received and resources identified, according to fulfillment guidelines
 - Fulfillment guidelines are developed with input from IT Advisory Committee and IT Liaison Leads

Service Level & Reporting Framework

Service Levels are standardized where possible but customized where needed.

Service Type	Examples	Scope	SLA Type	KPIs (example)
Base Services Embedded in other services	<ul style="list-style-type: none"> • Service Desk • Campus Network • CWL 	Fixed definition for everyone	Single service level for the institution	<ul style="list-style-type: none"> • Average call wait time • Network availability • System availability
Standard Services Singular definition but applied separately to each customer	<ul style="list-style-type: none"> • PC Lifecycle management • Application hosting 	Quantified for each customer based on needs, e.g., number of PCs, size of application	Standard service levels measured and reported for each customer	<ul style="list-style-type: none"> • New PC deployment lead time • Hosting environment availability
Custom Services Unique definitions and contents for each customer	<ul style="list-style-type: none"> • Specific application management 	Custom -defined for the business needs of specific systems, e.g. SIS, PeopleSoft, CRM	Custom-made service level based on business needs	<ul style="list-style-type: none"> • System availability • Available support hours • Call-back times
Project Services Non-operational, custom definition	<ul style="list-style-type: none"> • Office relocation • Application upgrade 	Defined uniquely for each project in a standard format, based on project size	Standard measures with custom-defined values for each project	<ul style="list-style-type: none"> • Estimating timeframe • Launch lead-times • On-time • On-budget • Defect rate

Service Level & Reporting Framework

Importantly, Service Level include mutual commitments between IT and it's customers.

Service	Service Level	IT Commitment	Customer Commitment
PC Life-Cycle Management - New PC Request	Fulfill a new PC request within 5 business days of receiving it.	<ul style="list-style-type: none"> • Provide up-to-date model options on service web site • Acknowledge request receipt within 24 hours • Immediately notify customer of any delays 	<ul style="list-style-type: none"> • Provide all information requested by IT accurately and immediately upon making the request • Notify IT immediately if any details of the request change
PeopleSoft Application Management - Severity 1 Incident response	Respond within 15 minutes Start resolution process within 30 minutes Update hourly	<ul style="list-style-type: none"> • Prioritize resourcing to address this incident • Follow incident escalation procedures to engage IT management and customer management as required • Follow standard communication procedure to notify affected system users 	<ul style="list-style-type: none"> • Follow standard incident reporting process to declare the severity • Provide all available details of the incident at the time of reporting • Be available for resolution activities requiring business information or business decisions
...

Service Level & Reporting Framework

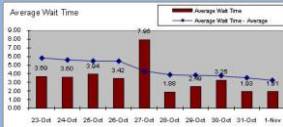
Regular Service Level Reporting will provide KPI information to all customers.

IT Service Level Report – October 2010

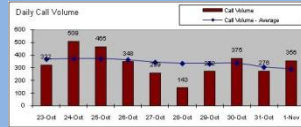
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Base Services

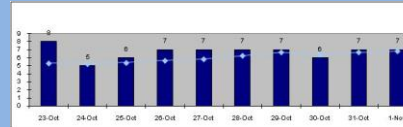
Help Desk Call Wait Time



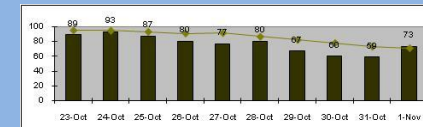
Help Desk Call Volumes



Network Availability



Network Performance



Standard Services

	This mos.	Last mos.	Trend		This mos.	Last mos.	Trend		This mos.	Last mos.	Trend
PC Deployment	●	▲	●	Virtual Servers	●	▲	●	Web Hosting	●	▲	●
Exchange	●	●	●	Virtual Desktop	●	●	●	Voice over IP	●	●	●
Virtual Network	▲	●	▲	Video Conference	●	▲	●	Archiving	●	●	●

Custom Services

	This mos.	Last mos.	Trend		This mos.	Last mos.	Trend		This mos.	Last mos.	Trend
CRM Database	●	▲	●	Lab Results DB	●	▲	●	Case Mgmt App	●	▲	●
Contract Database	●	●	●	Student Sandbox	●	●	●	Publications DB	●	●	●

Project Services

Project Name	Project Manager	Work Type	Work Request Number	Project Current	Project Previous Week	Time	Cost	Resources	Scope	Benefits	Deployment Date	Deployed?	Work Request Closed?
Student Lab Enhancements	Stephen Hawking	A1	35318	▲	▲	●	●	▲	●	●	TBD	No	No
Grant Forecasting Module	Martin Reese	A1	35676	●	●	●	●	●	●	●	Estimate 19-Feb-10	No	No
Building Expansion Phase 2	John Bacall	B1	38105	●	●	●	●	●	●	●	Planning 23-Mar-07	No	No
Application re-hosting	Stephen Chu	B2	39105	●	●	●	●	●	●	●	Analyze 21-Feb-10	No	No

