

Week 2  
Service Description & IT Value

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# Week 2 Outline

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- Reading: Chapter 7, ICT Value, p 215 – p 248
- Service Description
  - What is it?
  - What is its purpose?
- IT Value
  - Definition
  - Delivering Value

# Learning Objectives

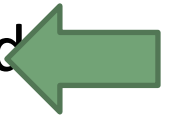
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- Understand what a Service Description is
- What is IT Value?
- How does the Service Description relate to delivering value?

# Service Description

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- A living document that defines a primary or secondary service
- What it does
- Who Uses it
- Support Model
- Prerequisites and dependent services
- Service Levels



# A Living Document

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- Is created in the initiation phase of a project and developed as the project moves through its delivery and release
- At the point of Release (go-live) of a service the first fully approved version of the SD (Service Description) is reviewed and approved
- As the service (or other services related to it) change then the SD must be updated to reflect current state
- At the end of the life of the service it will be decommissioned along with the paperwork, the SD will be removed as it is no longer a service that is provided
- Often related to Service Catalogue

# What it does...

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- Once operational the Service Description is the reference document that informs both service owners and the (new) customer of the functionality the service provides
- Support operational support for the service
- Creates measurable key performance indicators
- Adds to library of services supported by the organisation

# Who uses it...

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- Service Owners
  - Manager
  - Senior Management
  - Service Operations (configuration of operational support)
- Customers
  - Understanding what they are receiving for their investment
  - Understand the other services they require in order to consume the service
  - Service level agreement
- Governance bodies
- Executive Management

# Support Model (General)

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- L1 - First Level of Support
  - Support Desk
- L2 - Second Level Support
  - Application Support
- L3 – Third Level Support
  - Low level technical support



# Level 1

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- Support Desk
  - Record Service Request
  - Provide very high level support for common problems
  - Redirect Request to L2 for advanced support
- On-line help System
  - Knowledge Base for self help
- Incident Management Tracking

# Level 2

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- Service Owner
  - Receives incidents from L1
  - Provides advanced support for the service
  - Account requests, password changes
  - Understand “the business”
  - Owns the vendor relationship
  - Creates the operational support model that meets the defines service levels
    - Support Team
    - Documentation
    - Business Processes
    - Responsible for the delivery and maintenance of the service

# Level 3

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- Generally technical staff that work at the software code and database levels
- Includes representatives from other services that are consumed by the main service, e.g. network, account management, DBA
- Involved in providing technical support that is not provided by the service owner
- External vendors, will be required to correct defects in their product and provide detailed knowledge about the product
- Support enhancements and changes to the service (directed by the service owner)

# Pre-Requisite Services

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- A single service (application) will generally require to consume services provided by ICT
- Network
- Infrastructure and hardware
- Service Desk for L1 support (and access to the tools used to track incidents)
- Telephony
- email
- Collaboration tools

# Service Levels

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- Typical service levels define how support is managed
  - Business hours (8am – 4.30pm)
  - Days for Support
    - 7 days per week (365)
    - Monday to Friday
  - Out of hours support
    - None
    - “7 \* 24”
    - Best effort – only in a critical emergency
  - Response Times
    - Customer Contact with 1 hour
    - 4 Hours to service restoration (minimum)
    - 24 Hours for Maximum downtime

# The Value of ICT

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- What is the value of ICT in (or to) an organisation?
- Results from the alignment of Investments in Services with “organizational strategies, improvements of core processes, or the enhancement of decision making”
- Requires that ICT services align with the strategy

p 216 – Ch 7, Health Care information Systems

# The Value of ICT

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- Lets look deeper into these areas:-
  - Definition
  - IT Proposal
  - Ensuring Delivery of Value
  - Analysis of the ICT Value

# Definition of ICT Value

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- Tangible vs Intangible
- Can be significant
- Can vary across organisations
- Can vary across proposals
- Single investments may have diverse value propositions
- Different investments have different objectives therefore different values and assessment



# Tangible vs Intangible

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- Essentially value can be categorised as either:-
- Measurable or relative
- Quantifiable or Qualitative

# Tangible

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- Calculate actual cost vs implied value of saving a patient or increasing the chance of improved patient care
- Increases Revenue (implies services are billable)
- Reduce labour costs
- Supply Chain improvements
- Reduced service delivery costs
- Less errors
- Reduce testing times
- Reduce risk to patient
- Process improvements
- Improvements to the access to data
- Improved Patient experience

# Intangible

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- Improved decision making
- Improved communication
- Improved compliance
- Improved collaboration
- Increased agility
- More “state of the art”
- Improved competencies, better at managing a disease or condition

# Significant

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- Analysis driven value from understanding and comparing services, processes, care plans or methods used to manage patient care
- Uses knowledge generated by research groups and organisations
- The results of the analysis and understanding leads to the generation of Significant ICT value

# Variable

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- The same service implemented in multiple sites may have a different value depending on the site (hospitals, clinics)
  - It is possible to make things worse than better for some
  - May create great value for some sites but less for others, service may not exist and other sites have their old version
  - Sites can vary in terms of their internal processes and a new service may face challenges if not managed well
    - Rejection, staff skill level, resistance to change

# Diverse across Proposals

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- A service can generally be implemented many ways, each solution can have its own distinct value proposition
- Multiple propositions have to be analysed in order to determine the best value that is meaningful to the organisation
  - Is reduced cost based on less staff and a low level of support better than higher cost with the “Platinum” service level
  - Service risk, solution can be analysed in terms of risk, risk can then equate to Value,
    - less risk = increased value, or high risk = low value

# Diverse in a Single Investment

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- A service can have more than one “Value”
- On analysis multiple values can be identified and collated as the overall value (proposition) of the Service
- Examples a RIS/PACS systems (p220)
  - Reduced costs for radiology film
  - Improved service to physicians and radiologists
  - Improved productivity (searching for latest image)
  - Generate revenue, service can be consumed by external customers (sports team checking new players)

# Different Analysis – Different Objectives

- Depending on the objectives it will be necessary to use a different method to analyse the Value
- One size (technique) DOES NOT fit all
- Need to understand the objective and then define the method to use to analyse



# Different Analysis – Different Objectives

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## 1. Infrastructure Investment

- Difficult to assess value and allocate it to the services that will consume the infrastructure investment
- How much of the infrastructure does a service consume?
- Under-investment will be seen quickly in poor service performance
- Investment based on the ability of the service to deliver agreed-on goals, there will require multiple propositions and selection of the best investment to meet the objectives

# Different Analysis – Different Objectives

## 2. Mandated

- Healthcare systems are used to deliver legislatively mandated objective (and timelines)
  - Often limited choice in what solution is used to deliver the service, it is predefined by the legislation
  - ICT must deliver based on the mandate, no choice to not invest because of assessment of value
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- MB Provincial Newborn Hearing Screening Programme
  - Covid-19 Screener (must have it!)

# Different Analysis – Different Objectives

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## 3. Cost Reduction

- Investments into cost reduction are highly sought after in the delivery of ICT Service
- Use the savings to deliver more services
- Relatively easy to assess the value in ICT Technology cost savings
- The difficult part may be to actually realise the savings as fully identified
  - Costs change over time
  - Technology changes
  - Vendor costs increase (difficult to control)

# Different Analysis – Different Objectives

## 4. Specific New Products and Services

- ICT investments are critical to the creation of new products and services
- The ROI of the service can be measured and related to ICT Value
- However there are speculative (gut feeling) assessments that relate to the consumption utilization of the service and its impact on the business (more qualitative)

# Different Analysis – Different Objectives

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## 5. Quality Improvement

- ICT investments are often related to the improvement of a service, e.g. improved quality
- For example remove delays, improved network topology, higher bandwidth capacity, better communication processes
- May be relate to the service levels described in the service description or response times to incidents (better software tools and applications)
- Actual \$\$\$ savings related to quality improvement may be difficult to predict

# Different Analysis – Different Objectives

## 6. Major Strategic Initiatives

- Significantly change the business landscape and may redefine the business (or healthcare system)
- Moving from a 11 provincial regions to “1 Provincial Solution”
- Often mean complex changes (transformation) of the services provided by the business
- Assessment of value is complex and can be unrealized for many years as the transformation progresses

# IT Project Proposal

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- The proposal is central to the ability to examine Value
- The proposal must align to strategic direction
- Project Budget will help to identify value in terms of cost
- Proposal will identify one or more services that need to be delivered in order to make the solution effective
- Describes the value that will result from investment

# Sources of Value Information

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- It takes time during the development of the proposal too identify the full service Value
- Iterations are needed to hone in on the understanding of value
- Difficult to determine benefits,
- Need to learn the service (little internal knowledge)
- High level values can be used to narrow down choice
- Use external sources and understand where value was achieved (and not!)
- Vendors, conference notes, outcome reports



# Formal Financial Analysis

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- PM/Business works with Financial team develop understanding of the fundamental financial situation
- Two main measures:-
  - Net Present Value
  - Internal Rate of Return

# Formal Financial Analysis

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- Net Present Value
  - Calculated by subtracting initial investment from future cash flows resulting from the investment
  - Include discounted cash rate (value of money over time)
  - If cash generate > investment then good investment
- Internal Rate of Return
  - Discount rate at which the present value of an investments future cash flows equals the cost of the investment

# Comparing Different Types of Value

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- Value has a diverse meaning therefore it is challenging to compare proposals that have different propositions
- Judgement needs to be applied in order to determine the best proposition
  - Engineer vs “bean counter”
- Need a scorecard to contrast propositions using common metrics
  - Revenue Impact
  - Cost Reduction
  - Patient or customer satisfaction
  - Quality of care
  - Compliance

# Comparing Different Types of Value

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- Score are applied to each Value extracted from the Proposition
- Weighting factors may be applied as some metrics are more important to others
- Scorecards can be compared and generate discussion which then increases understanding of evaluations (and often changes the evaluation)
- Scores should be defensible- especially when reviewing the IT Proposal!

# Tactics for Reducing the Budget

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- Budget limitations are crucial to business, often it needs to borrow the budget from a bank for investment or the organisations budget is fixed long term.
- All IT Proposals go into a list
- Approval is based on the available funding and long term objectives (strategy)
- Each entry is assessed and if approved moves to the next stage
- See p. 230 Table 7.2

# Tactics for Reducing the Budget

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- Senior Executive Leadership determines the spending plan and selection of approvals
- Scoring of the initiatives is a key part of the budget planning process
- However other assessment tactics can be employed
  - Mandatory requests (regulatory – no choice)
  - Delay, defer to another year
  - Workload, over stretched departments
  - Internal management control (lack of)
  - Poor value propositions (untrusted)
  - Other services exist but not implements that have better return
  - Recognised value but full budget not available, spread over server years (do it operationally)

# Common Proposal Problems

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- Often during the review leadership meet problems related to the estimates of resources needed
- If undetected can lead to overstatement and understatement of value
- Long term this can lead to executive displeasure when not recognising value
- The value may never have been achievable in the first place!
- Over estimation of the reduction of resource savings

# Fractions of Effort

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- Typical scenario
  - New process saves 15 minutes per day per employee
  - Calculated based on 200 staff, 25 shifts, each 8hrs
  - = 12,500 hours saved!
  - But this is not a savings, the staff will just do other tasks
  - Or translate 12,500 to 6 FTE, can 6 staff be terminated to realise the savings, but, the rest of the work done by those staff cannot be completed by existing staff, thus impact the ability to deliver patient care
  - Only works if tasks can be redistributed evenly and does not impact performance



# Reliance on Complex Behaviour

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- With high intensity groups often services may not be used in the way they were designed to be used
- or the processes defined by the new service do not reflect the complex behaviour of the worker and the worker follows a process that best fits their needs
- There the value identified in the proposition is never realised because people do not work the way the software does
- Need to accommodate the behaviour of the user in their working environment
- E.g. end-of-day activities, personal notes, task updates

# Unwarranted Optimism

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- The owner of the proposition is over optimistic about the value of the service (in their eyes it is the best thing ever!)
- Over optimistic about
  - Nothing can go wrong with the project
  - Perfect control of all variables
  - Belief that they know everything in detail, in truth they really only think they know
  - Believe that everyone can give full time to the project and that nothing outside the project will happen!
    - Resource plans, budgets, vacations, sick time, elections...

# Shaky Extrapolations

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- Projects often see early success in implementation and lead proponents to think that such gains will continue at the same rate
- In truth, it may be less and often much harder to achieve
- EMR Adoption Program had high uptake because the early adopters were keen, the followers were much slower and needed more assistance/support
- Eventually succeeded but the adoption rate was not consistent over the life of the program

# Others....

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- Underestimating Effort: not fully including all the effort required to support the project and including the costs (and resource availability)
- Fairy-Tale Savings: Proponents indicate staff/resource reductions because of new service, however when asked to reduce budget they indicate that the savings cannot be fully realised.
- Post-Implementation Costs: Failure to include the operational costs into the value equation beyond year 3. What is the operational support budget needed to manage the service (year after year)?

# Ensuring the Delivery of Value

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- After delivery of the service, the actual realisation of the value needs more work by management to ensure the value defined is realised
- The operations staff need to review the proposal to understand the value and how they need to realise
- Critical Task – Peer Review of proposal before going to SMT (Senior Management Table)

# Was the homework done?

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- Was the proper work done to ensure that the value is practical?
- SMT Questions:-
  - How does the plan advance (fit) with strategy?
  - Is it clear what will improve, reduced, what measures were used?
  - Does the plan have a clear executive support?
  - Resource requirements well understood (achievable/realistic)?
  - What are the risks?
  - Do we have the right resources/people assigned to the project

# Require Formal Proposals (Intake)

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- Have a process in place to control project submissions
- Have executive support before entering process
- Develop tools and documentation to support the proposal (templates)
- Formal review committees (review before going to SMT)
- Set limits and parameters to intake and evaluate
  - ROI rate, minimum investments, new service over enhancements to services

# Accountability for Investment Results

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- 3 steps:
  - Owner defends investment in the service and costs
  - Project Sponsors need to be defined as they will own the service and be accountable for its success
  - Presentation: use predefined (recurring) review committees to analyse proposals and develop skills in understanding good from bad, figure out the must ask questions, understand the implications of moving ahead with the proposals (impacts to resources)



# Manage the Project Well

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- Value can be reduced in a badly implemented project
- Cost over-runs, deadline failures, unhappy customers
- Factors for bad projects:-
  - Project scope badly defined
  - Accountability is unclear
  - Poor skillsets
  - Magnitude of the task is misunderstood
  - User are not participants, mere bystanders

# Manage Outcomes

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- Often the outcome of a project is slow to realise it it may not always be instant
- Management, users, technical staff, analysts etc. often have to fine tune processes, training material, process documentation, improve communications, grow understanding of the service before it becomes effective.
- Don't just walk away thinking "job done..."

# Post implementation Audits

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- Rarely does an organisation revisit a project to understand if the value promised was achieved
- Tendency to believe the value will “settle in” as the service matures
- Auditors should review projects and the services delivered to determine if value was realised
- Measure proposal values against actual results
- Close?
- Need to close the gap?
- Next time, what would we do differently

# Audits Intention to Management

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- Signal leadership interest in ensuring the delivery of results
- Identify follow-up steps
- Support organisational learning of IT value realisation, and that it is important to them and the business
- Reinforcing accountability for results (performance management)

# Celebrate Value Achievement

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- Recognise the teams that deliver the value promised
- Reward if possible
- Report to management (and investors)

# Organisational Governance

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- Executives are integral to the efforts to achieve value
- They are key to the strategy of the organisation and therefore to the delivery of the business value of the organisation
- SMT should control the long term plan and the proposals that constitute that plan

# Analysis of the IT Value Challenge

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- Recognising Value is not easy
- Factors will exist that make value recognition difficult (even fail)
- Healthcare – the public is the primary concern
- Changes to services and priorities can change rapidly (COVID-19 – who thought this would happen 2 years ago?)
- Macro and Micro factors can impact value realisation 9(we cannot always do anything about them)

# Summary

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- IT Value is complex and diverse across differing initiatives
- Techniques vary based on the nature of the value
- Project Proposal is central to understanding service value
- Define a common proposal structure
- Estimation of value is complex
- Factors exist that impact the realisation of value
- Leadership is key, a strategy is required that services can be related to



# Learning Objectives

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- Understand what a Service Description is
- What is IT Value?
- How does the Service Description relate to delivering value?