ITIL4® SVC and Value Streams

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bmc

This publication has been revised by Barclay Rae to bring the content up to date with current ITIL® guidelines. Rae is an independent management consultant, analyst, and writer in the ITSM Industry, with over 20 years consultancy experience involving over 500 projects. He is a ITIL4 co-author and lead editor of the ITIL4 Create, Delivery and Support publication, co-author of the 2016 "ITIL Practitioner Programme," plus a contributor to SDI standards and certification programs. Rae has over 30 years' experience in IT and is also currently operating as the CEO of ITSMF UK.

Note to Readers

This publication highlights the key elements of the ITIL Service Design publication and includes commentary on important concepts from BMC and ITIL experts.

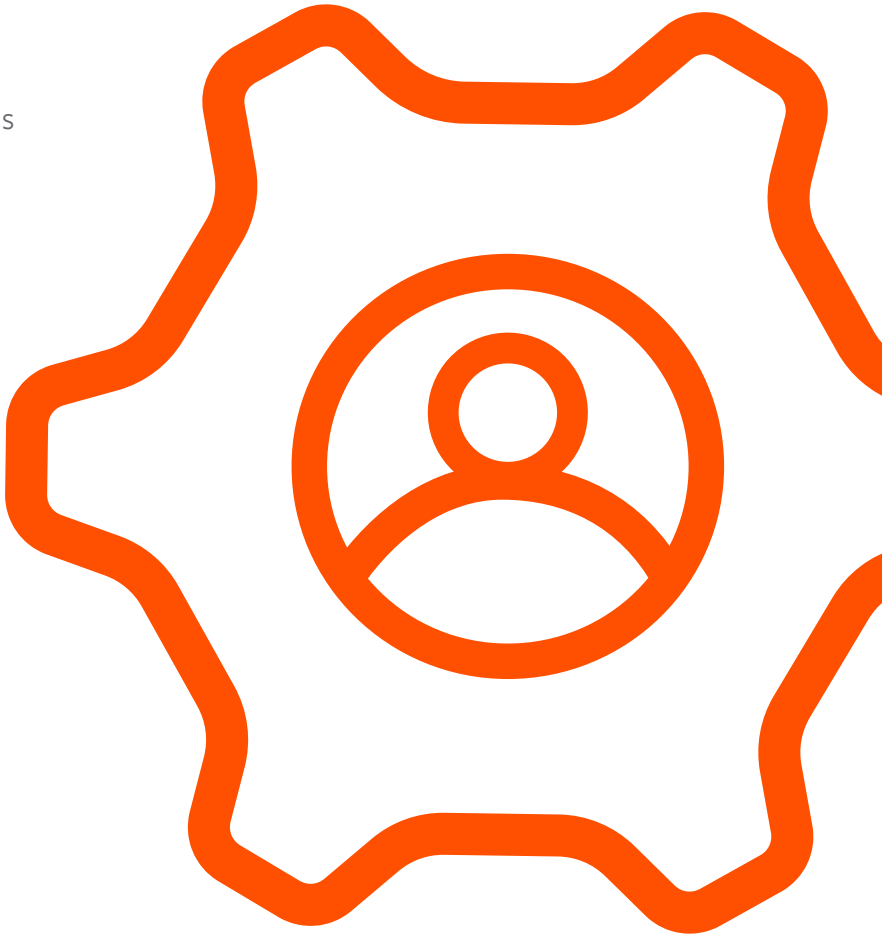
Introduction

In early 2019 Axelos released the latest version of the global best practice for IT Service Management, ITIL 4. In the version of the framework Axelos has gathered subject matter experts from around the globe to ensure greater alignment and integration with modern day working practices, methodologies and standards, including DevOps, Agile and Lean approaches.

ITIL 4 recognises the focus of modern IT organizations on digital transformation, customer experience and the drive for service excellence. The framework is designed to offer practical guidance to any organization looking to understand how to adopt and apply a best practice mindset and approach to their IT Service Management capabilities.

ITIL 4 is specifically designed to address the needs of all verticals and levels of maturity, whether an organization be high velocity in nature, steady and stable evolving through organic growth. The concepts and models defined can be used to deliver excellence and drive maturity in any approach to IT Service Management.

ITIL 4 is a significant development from previous version, although much of the detailed 'practice' content remains in a recognisable form. The context and positioning of ITIL has however developed as a strategic and unifying element across the business and technology landscape. The approach has changed to ensure that ITIL meets the needs of a modern digital based service management workforce.



Overview

ITIL 4 has introduced a number of new concepts designed to address the needs of modern digital enterprises and service management organisations. It is designed to elevate the effectiveness and efficiencies that can be leveraged from existing methodologies, standards and approaches. These include the Service Value System, Practices, The 4 Dimensions of Service Management and the re-statement of the Guiding Principles.

The service value system describes "how all components and activities of the organization work together as a system to enable value creation". The SVS takes opportunities and demands and generates value. Central to the service value system is the service value chain.

The service value chain is the core operating model of ITIL 4, it is a set of interconnected activities that an organization performs to deliver a valuable product or service to its consumers and to facilitate value realization.

The 6 core elements of the service value chain are:

1. Plan
2. Improve
3. Engage
4. Design & Transition
5. Obtain/Build
6. Deliver & Support

Summary of service value chain elements:

- All incoming and outcoming interactions with parties external to the service provider are performed via engage value chain activity
- All new resources are obtained through the obtain/build activity
- Planning at all levels is performed via plan activity
- Improvements at all levels are initiated and managed via improve activity
- Creation, modification, delivery, maintenance and support of component, products and services are performed in integrated and coordinated way between design and transition, obtain/build and delivery and support activities
- Products and Services, Demand and Value are NOT value chain activities; they are SVS components

Each activity within the service value chain represents the steps and organization takes in the creation of value. Each activity transforms inputs into outputs. These inputs can be demand from outside the value chain or outputs of other activities. All the activities are connected, with each activity receiving and providing triggers for further action.

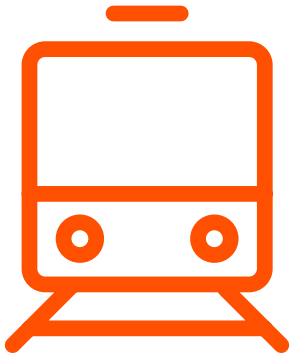
Practices work together across the service value chain to manage and deliver the required value streams.

Value streams are the various 'joined-up' practices, activities and actions that are used across the value chain. A value stream represents a cross-functional set of activities that are involved in delivering a specific value-based output. This can include such things are include resolution of an incident, delivery of a new service, improvement to an existing service or access to an application or resource. The value chain on its own is static, like a frame, delivering no value, until a 'value stream' is run through it and whereby value is co-created and delivered.

One analogy that can be used is to liken the service value chain to the rail network and think of the trains as the value streams, going to specific destinations and using the parts of the rail network in line with the journey and destination requirements (some journeys will require high speed trains and track and are all about reaching the destination quickly, others may be more scenic and require more attention to the experience rather than the arrival time). Some journeys may have the same destination and visit the same stations but utilise the infrastructure in different ways (in ITSM terms this addresses organisations who adopt Agile or those with more traditional approaches to service delivery).

Various practices, roles and stakeholders are involved in delivering a variety of value streams and this provides the flexibility that is required in complex and complicated business environments.

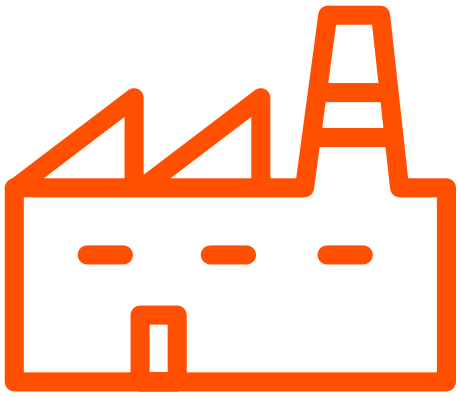
This is the true benefit of the service value chain as defined within ITIL 4 – i.e. as a flexible operating model that can be used by any service provider, regardless of the structure, methodologies and culture of their organization.



Organizations can use the service value chain in different ways to deliver the same services based upon their operating principles and business requirements. One organization may deliver a service based upon a steady state, low risk approach to service management and thus to deliver its value streams may regularly utilise more of the chain (such as Plan, Engage, Design and Transitions, Obtain/Build, Deliver and Support than a high velocity organization that has a fast moving business and a more agile approach whereby they spend more time in design/transition and deliver and support. No matter what the culture and operating mode an organization has, it should always have the improve activity embedded in its decision making and daily activities.

The service value chain is not a linear series of cause and effect processes, rather it is a flexible model which can be used in an iterative and agile manner.

The service value chain within ITIL 4 is designed to encompass the needs of any type of organization. It's design has arisen to help meet the challenges of ITSM in today's modern digital business economy where agility, speed of adoption and an increased focus on digital transformation are the differentiators between a successful ITSM provider and one which may struggle to realise value to its customers.



Plan

The purpose of the plan value chain activity is to ensure a shared understanding of the vision, current status, and improvement direction for all four dimensions and all products and services across the organization.

The plan activity covers strategic, tactical and operational direction and planning, it ensures requirements from the business are understood and validated and that the necessary polices are followed. Plan will need to understand the vision, objectives, outcomes and definition of value by the business and ensure these form the basis for the provision of products and services throughout their lifecycle.

The practices which most heavily contribute to the plan activity are:

General Management Practices

- Architecture Management
- Continual Improvement
- Information Security Management
- Measurement and Reporting
- Portfolio Management
- Relationship Management
- Risk Management
- Service Financial Management
- Strategy Management
- Supplier Management
- Workforce and Talent Management

Service Management Practices

- Availability Management
- Business Analysis
- Service Level Management

Key inputs to the plan activity:

- Policies, requirements and constraints
- Consolidate demands and opportunities provided by engage
- Performance information, improvement status reports and initiatives from improve
- Knowledge about products and services from design and transition
- Knowledge regarding third party components from engage

Key outputs of the plan activity:

- Strategic, tactical and operational plans
- Portfolio decisions for design and transition
- Architecture and policies for design and transition
- Improvement opportunities for improve
- Product and service portfolio for engage
- Contract and agreement requirements for engage

Example Value Stream involving the plan activity:

Value Stream: New Service Identification and Provision

Description: Relationship management surfaces a new opportunity for the service provider to expand its portfolio based upon discussions with the business and the requirements for a new service offering required by the business to underpin their strategic objectives and is not currently part of the provider service catalogue or pipeline. This change in operational direction and service offering/capability would be overseen by the plan activity.

Other value chain activities involved: Improve, Engage, Design and Transition

Potential roles involved may include: Sponsor, customer, service level manager, business relationship manager, portfolio manager, change manager, finance manager, project manager

Improve

The purpose of the improve value chain activity is to ensure continual improvement of products, service and practices across all value chain activities and the four dimensions of service management.

Continual improvement is both and ethos and a practice. Improvement approach and thinking needs to be embedded in all planning, operational activity and performance. There should be nothing outside the scope of continual improvement, it is key to every organizational keeping pace with the demands of its customers and being able to continually co-create value. Whilst continual improvement should be the responsibility of every member of staff in a provider organization, ITIL 4 recommends a dedicated team focussed on this area (for some organizations this may be a full time role for others it can be a steering group which meets regularly with representatives from across the support structure).

The practices which most heavily contribute to the improve activity are:

General Management Practices

- Architecture Management
- Continual Improvement
- Information Security Management
- Knowledge Management
- Measurement and Reporting
- Organizational Change Management
- Relationship Management
- Risk Management
- Workforce and Talent Management

Service Management Practices

- Capacity and Performance Management
- Change Control
- Problem Management

Key inputs to the improve activity:

- Product and service performance information from deliver and support
- Stakeholder feedback from engage
- Performance information and improvement opportunities from all other value chain activities
- Knowledge and information about new and changed products and services from design and transition and obtain/build
- Knowledge and information about third-party service components from engage

Key outputs from the improve activity:

- Improvement initiatives for all value chain activities
- Value chain performance information for plan
- Improvement status reports
- Contract and agreement requirements for engage
- Service performance information for design and transition

Example Value Stream involving the improve activity:

Value Stream: Service Level Target Achievement

Description: Service level management identifies a lack of required performance against an agreed target in the service level agreements. This is discussed with the customer during a service review and an initial timeline for improvement action is agreed. The improve activity would provide a point of consolidation, the required performance information and drive the improvement initiative whilst also providing improvement status reports for use by service level management.

Other value chain activities involved: Engage, Design and Transition, Deliver and Support

Potential roles involved may include customer, service level manager, service desk manager, continual improvement manager, measurement and reporting analyst, change manager

Engage

The purpose of the engage value chain activity is to provide a good understanding of stakeholder needs, and continual engagement and good relationships with all stakeholders.

Engage covers all interaction and contact between a service provider and a service consumer as well as all stakeholders. This activity recognises multiple form of engagement methods such as:

- Face to Face
- Phone
- Online forms (self-service portal)
- Email
- Social Media
- Collaborations Tools
- All other written communication

It should also be addressed in terms of emerging technologies such as chat bots and voice interaction devices.

Engagement will happy at every level of the organization and will be done within every practice. There will be some practices that use this activity as a primary element of their daily operations such as Service Desk and Relationship Management, but it should be governed and underpinned by policy across the provider (and consumer) organizations.

The practices which most heavily contribute to the engage activity are:

General Management Practices

- Continual Improvement
- Information Security Management
- Relationship Management
- Risk Management
- Supplier Management

Service Management Practices

- Business Analysis
- Incident Management
- Service Catalogue Management
- Service Desk
- Service Level Management
- Service Request Management

Key inputs to the engage activity:

- A product and service portfolio from plan
- High-level demand for services and products from internal and external customers
- Detailed requirements for services and products provided by customers

- Requests and feedback from customers
- Incidents, service requests, and feedback from users
- Information on the completion from current and potential customers and users
- Marketing opportunities from current and potential customers and users
- Cooperation opportunities and feedback provided by partners and suppliers
- Contract and agreement requirements from all value chain activities
- Knowledge and information about new and changed products and services from design and transition and obtain/build
- Knowledge and information about third party service components from suppliers and partners
- Product and service performance information from deliver and support
- Improvement initiatives from improve
- Improvement status reports from improve

Key outputs from the engage activity:

- Consolidated demands and opportunities for plan
- Product and service requirements for design and transition
- User support task for deliver and support
- Improvement opportunities and stakeholders' feedback for improve
- Change or project initiation requests for obtain/build
- Contracts and agreements with external and internal suppliers and partners for design and transition and obtain/build
- Knowledge and information about third-party service components for all value chain activities
- Service performance reports for customers

Example Value Stream involving the engage activity:

Value Stream: Management and resolution of a user complaint

Description: A user contacts the service desk via an online portal, email or phone to register a complaint regarding the management of a ticket which was logged previously. The engage activity would provide the initial point of interaction with the user, as well as ongoing updates, liaison and confirmation of resolution, the engage activity would cover interaction with other stakeholders such as the customer, sponsor or a third-party where appropriate.

Other value chain activities involved: Improve, Deliver and Support

Potential roles involved may include user, service desk analyst, service desk manager, service level manager, account manager, service owner, resolver team manager

Design and Transition

The purpose of the design and transition value chain activity is to ensure that products and services continually meet stakeholder expectations for quality, cost and time to market.

For design to be effective it has to focus on the specific requirements that have been captured, validated and agreed with the business. Design and transition should always focus on quality and have a clear understanding and apply appropriate governance to costs. Time to market is a key consideration within all design and transition approaches, the provider has to design and transition in line with the appetite for acceleration and risk from the business and ensure it meets those expectations.

The practices which most heavily contribute to the design and transition activity are:

General Management Practices

- Architecture Management
- Continual Improvement
- Information Security Management
- Measurement and Reporting
- Project Management
- Relationship Management
- Risk Management
- Supplier Management

Service Management Practices

- Business Analysis
- Change Control
- IT Asset Management
- Problem Management
- Service Configuration Management
- Service Design
- Service Validation and Testing

Technical Management Practices

- Deployment Management
- Infrastructure and Platform Management

The key inputs to the design and transition activity are:

- Portfolio decisions from plan
- Architectures and policies from plan
- Product and service requirements from engage
- Improvement initiatives from improve
- Improvement status reports from improve
- Service performance information deliver and support, and improve
- Service components from obtain/build
- Knowledge and information about third-party service components from engage
- Knowledge and information about new and changed products and services from obtain/build
- Contracts and agreements with internal and external suppliers and partners from engage

The key outputs of the design and transition activity are:

- Requirements and specifications for obtain/build
- Contract and agreement requirements for engage
- New and changed products and services for deliver and support
- Knowledge and information about new and changed products and services for all value chain activities
- Performance information and improvement opportunities for improve

Example Value Stream involving the design and transition activity:

Value Stream: Upgrade to a major version of an application

Description: Via relationship management the benefits, requirements and outline of the timeline are discussed and agreed for an upgrade to the next major version of a business application. The design and transition activity will initiate the design in line with the quality, cost and time to market expectations and agreements committed to the business. The design will be done in line with the requirements identified and in adherence with architectural policies and due governance. Transition will be completed as per the agreed processes and milestones.

Other value chain activities involved: Plan, Improve, Engage, Design and Transition

Potential roles involved may include customer, service level manager, business relationship manager, portfolio manager, change manager, release manager

Obtain/Build

The purpose of the obtain/build value chain activity is to ensure that service components are available when and where they are needed and meet agreed specifications.

The obtain/build activity ensures that any components required for the delivery of services and products are either procured or built in line with design specifications and service modelling. The service components from this activity may be delivered to design and transition or to deliver and support.

The obtain/build activity within ITIL 4 is a key enabler of a DevOps approach and enables fast development methodologies and approaches.

The practices which most heavily contribute to the obtain/build activity are:

General Management Practices

- Continual Improvement
- Information Security Management
- Measurement and Reporting
- Project Management
- Risk Management
- Supplier Management

Service Management Practices

- Business Analysis
- Change Control
- IT Asset Management
- Service Configuration Management
- Service Design
- Service Validation and Testing

Technical Management Practices

- Deployment Management
- Infrastructure and Platform Management
- Software Development and Management

Key inputs to obtain/build activity:

- Architectures and policies from plan
- Contracts and agreements with internal and external suppliers and partners from engage
- Goods and services provided by internal and external suppliers and partners
- Requirements and specifications provided by design and transition
- Improvement initiatives from improve
- Improvement status reports from improve
- Change or project initiation requests from engage
- Change requests provided by deliver and support
- Knowledge and information about third-party products and services from design and transition
- Knowledge and information about third-party service components from engage

Key outputs of the obtain/build activity:

- Service components for deliver and support
- Service components for design and transition
- Knowledge and information about new and changed service components to all value chain activities
- Contract and agreement requirements for engage
- Performance information and improvement opportunities for improve

Example Value Stream involving the obtain/build activity:

Value Stream: Fulfilment of a user request for a new phone

Description: A user logs on to a self-service portal and access the request fulfilment element of the service catalogue, they are presented with a list of available mobile devices which can be ordered/purchased (subject to relevant approval mechanism). This is logged as a service request and handled by the service desk at first point. The request will be handled by the appropriate provider team and once authorised will trigger a procurement workflow for a new device. Upon delivery the device will be configured according to policy and issued to the user to complete the request.

Other value chain activities involved: Engage, Deliver and Support

Potential roles involved may include user, service desk analyst, procurement officer, first/second line technician

Deliver and Support

The purpose of the deliver and support value chain activity is to ensure that services are delivered and supported according to agreed specifications and stakeholders' expectations.

Other than the engage activity, from the consumer perspective this activity within the service value chain is the most used and visible during daily use of services and products. Ultimately it is this activity which has the most direct link to the co-creation of value. Many organizations will map customer journeys primarily within the activities contained within this part of the service value chain, although it should be noted that customer journeys in their true sense can encompass all parts of the chain.

The most user centric part of any ITSM service provider is deliver and support, it is here that services are made available for users to access, it is also where the service desk practice will be primarily focussed given that they are the single point of contact for all support related to service issues (incidents) and requests.

The practices which most heavily contribute to the deliver and support activity are:

General Management Practices

- Continual Improvement
- Information Security Management
- Knowledge Management
- Risk Management
- Supplier Management

Service Management Practices

- Change Control
- Incident Management
- Monitoring and Event Management
- Problem Management
- Service Desk
- Service Request Management

Key inputs to deliver and support are:

- New and changed products and services provided by design and transition
- Service components provided by obtain/build
- Improvement initiatives from improve
- Improvement status reports from improve
- User support tasks provided by engage
- Knowledge and information about new and changed service components and services from design and transition, and obtain/build
- Knowledge and information about third party service components from engage

Key outputs of deliver and support are:

- Services delivered to customers
- Information on the completion of user support tasks for engage
- Product and service performance information for engage and improve
- Improvement opportunities for improve
- Contract and agreement requirements for engage

Example Value Stream involving the obtain/ build activity:

Value Stream: Resolution of an incident

Description: A user contacts the service desk to report an issue with a business application, the service desk logs this ticket as an incident but is unable to fix at first point of contact so assigns the ticket to the appropriate resolver team. The resolver team acknowledges the incident ticket and contacts the user to gather further information and carry out investigative and diagnostic actions, with an aim to provide a resolution to the fault, the resolution identified and applied is successful, normal service is restored to the user and the ticket is resolved.

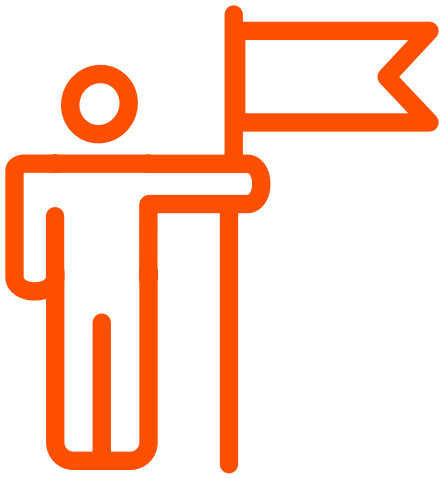
Other value chain activities involved: Engage

Potential roles associated with value stream: user, service desk analyst, first line technician

Common Challenges to an Effective Service Value Chain

There are number of challenges that may apply to any are of the ITIL 4 framework however many can have a specific impact upon the service value chain, its effectiveness and efficiency, these include:

- Commitment and effective direction from management and senior executive
- Adequate resources, budget and time
- Practice scope and capability
- Adequate service management policies, processes and procedures
- Knowledge management maturity levels
- Monitoring and measurement capabilities
- Integrated technologies and applications
- Support for change and cultural change
- Establishment, management and development of relationships
- Cooperation between the service provider and the service consumer
- Effective tools and supporting technologies
- Knowledge of and adherence to applicable standards and regulations
- Effective metrics and analysis



Conclusion

In order to continue as sustainable and successful businesses, every organization needs to continually evolve and adapt itself to its marketplace and the ever-changing business drivers and needs of its customers.

This evolution and improvement will include every part of a service providers DNA, be it the products and services it offers to customers, its structure, third party contracts, work practices and methodologies or even the service-based culture. To stand still in a digital world means to be left behind, customer perception is key, and they expect their providers to be innovative in terms of both technology offerings and services.

Even if ITSM providers do not adopt some of the more formal agile practices and methodologies, to the eyes of the customer they need to present themselves as an agile organization capable of meeting the challenges of the digital transformation and the digitally enabled workplace.

The service value chain is an agile enabling operating model which due to its flexible and iterative application can align itself to the desired strategic, tactical and operational service delivery approaches of today's modern service providers.

Whilst earlier versions of the ITIL framework were not seen to be aligned to agile software development, ITIL 4 has a fresh approach with the concept of the service value chain as it recognises that software development is:

- By its nature ever changing, evolving and iterative
- Approaches to development are more often based upon "bite size chunks" (iterations) rather than full waterfall (big bang)
- Is aided by regular and targeted collaboration between development, operational and customer teams and stakeholders
- Is based upon the need to deliver a minimum viable product quickly, aligned to business benefits and outcomes

Whilst the service value chain is promoted as a key enabler to agile working, it would be wrong to say that this precludes its benefits to a more traditional and steady state-based service provider.

The service value chain can equally align itself to a more linear approach to service delivery, the elements of the chain have been carefully thought out to ensure potential for adoption across the ITSM industry.

Organizations that have invested in and are finding value creation in the ITIL v3 lifecycle based upon Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement, there is an relatively straightforward transition from a v3 approach ITIL 4 by leveraging the service value chain and thus realizing the benefits it can bring. At a simple level we can align:

- Service Strategy to Plan
- Service Design to Design and Transition
- Service Transition to Design and Transition and Obtain/Build
- Service Operation to Deliver and Support
- Continual Service Improvement to Improve

This is of course a rather simplistic view and the conversion is unlikely to be such a linear process, however it does show that ITIL 4 is a major step forward and an evolution not a revolution. To truly enable the power or ITIL 4 due consideration would need to be applied to all of its key concepts, including the service value system, guiding principles, the four dimensions of service management and practices.

Practices are crucial to the effective operation and value creation activities of the service value chain. They can work across all elements of the service value chain aligning to the working methods and standards adopted by the organization.

For the adoption of the ITIL 4 framework to truly enable value co-creation no part of the framework should operate in isolation, this is one of the key tenants of the service value system which describes the organization as all components and activities of an organization working together as a system.

The service value chain is the central component of the service value system and as such has an organic link and relationship with all other elements if it (Governance, Practices, Guiding Principles, Continual Improvement).

Governance will set the direction and control mechanism that the service value chain activities will need to understand and adhere to.

Practices are the sets of organizational resources that will work across the service value chain to perform work and accomplish objectives, they essentially deliver the service value streams through appropriate use of the service value chain.

The Guiding Principles are recommendations that guide the organization in all circumstances, they can be applied to every activity performed within the service value chain to ensure stakeholders are:

- Consistently focusing on value (for the consumer and the provider)
- Start where they are (cost and time savings by avoiding re-inventing the wheel)
- Progress iteratively with feedback (agile alignment)
- Collaborate and promote visibility (DevOps mindset and working practices)
- Think and work holistically (understanding the bigger picture of service)
- Keep it simple and practical (lean thinking)
- Optimize and Automate (enabling a focus on efficiency and the customer experience)

Continual Improvement is both an ethos and an operational approach and should be embedded in the thinking of every activity within the service value chain.

The 4 dimensions of Service Management are the foundation of an ITSM provider's capabilities. Without taking notice of all of these dimensions, the service value chain will be unable to operate in an optimum way and ultimately will struggle or potentially fail to create value for the consumer and stakeholders.

In order to function and deliver value, the service value system needs a holistic perspective across the four dimensions:

Organizations and People – The right people with the right skills available at the right time in the right place. There should be a culture of service excellence driven by a committed and effective leadership team who cascade relevant information in a timely and consistent manner.

Information and Technology – Ensuring efficient and effective hardware and software solutions, supporting tools and technologies in place. Sources of Information and knowledge need to be identified, managed and leverage and appropriate communication systems should be in place.

Partners and Suppliers – Most services and products provided by an ITSM organization have a reliance to a greater or lesser degree on the contracts in place with third parties and their performance against the contract objectives and targets. Third parties need to be managed accordingly and the contract targets in place should underpin the agreements in place between the provider and consumer.

Value Streams and Processes – Practices work across the service value chain and are the organizational resources that deliver the defined and required value streams. These practices carry out their work based upon one or more processes which define the steps required to turn inputs into outputs.

The service value chain is an operating model designed to help organizations address IT service management in the modern digital world.

Value streams represent end-to-end objectives that are delivered by practices utilizing the relevant elements of the service value chain – not simply the delivery of one or more elements in isolation.

Every organization will create value streams to address specific situations or carry out certain tasks. Value streams are specific to each organization based upon their business, required outcomes and operational approach, once designed they should be subject to continual service improvement.