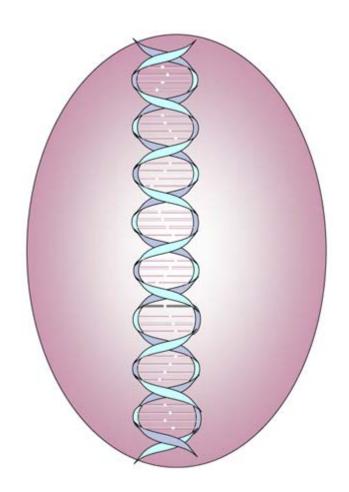
PRM-IT V3 Reference Library - A8 Administration

PRM-IT Version 3.0 April, 2008



PRM - IT IBM Process Reference Model for IT

Sequencing the DNA of IT Management



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Preface

The IBM Process Reference Model for Information Technology (PRM-IT) is a generic representation of the processes involved across the complete IT management domain. It contains a foundational examination of the IT process topic. It is for this reason the graphical image of the DNA double helix over the basic building block of a cell is used.

About this book

This is the tenth book in the PRM-IT Reference Library. As a reference manual, this book provides the complete description of all aspects of the process category.

Each reference manual begins with a summarization of the category, and then further considers each process in turn and the activities within each process.

Details are provided for:

- The definition of each activity
- Each control, input and output
- The sources and destinations of each control, input, and output (thereby showing the model linkages)

The full IDEF0 diagram for each category and each process is included.

The final page is a breakdown of the PRM-IT node tree for this category.

The PRM-IT Reference Library books

The PRM-IT Reference Library consists of thirteen books. The first book is the *General Information Manual*, it is a brief examination of the subject of IT processes, and provides a tour of the model.

The nine reference manuals are A0 through A8. The A0 Manage IT book examines the context of the processes for IT, exploring the key external agents — stakeholders and their interactions with IT. The reference manuals A1 through A8 provide the complete description of all aspects of the process categories.

The reference manual *IDEFØ Diagrams* presents the full model in IDEFØ notation, and *IDEFØ Node Tree* shows the ordered list of process categories, processes, and activities.

The final book, the *Glossary*, contains the definition of every process interface object for the model and provides references to where the objects are used.

PRM-IT Reference Librar	PRM-IT	Reference	Library
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- General Information
- A0 Manage IT
- A1 Governance and Management System
- A2 Customer Relationships
- A3 Direction
- A4 Realization
- A5 Transition

- A6 Operations
- A7 Resilience
- A8 Administration
- IDEFØ Node Tree
- IDEFØ Diagrams
- PRM-IT Glossary

Intended audience

An understanding of the full range of the processes relevant to IT in any business is of value to those within the IT function responsible for the specification, creation, and delivery of IT services (whether at the CIO or IT executive level), and who consider the direction and overall management of IT. Or, individuals who work within any of its competencies, needing to interface with other parts of the IT value chain or value net.

Equally, the stakeholders in the business of this IT capability will benefit from greater insight into how IT serves them. This insight will enable them to better influence IT decisions and activities, to their ultimate benefit.

Next steps

PRM-IT is a powerful management tool for purposes of investigating and identifying areas for improvement. PRM-IT also provides a proven starting-point for the design and implementation of new and upgraded IT management capabilities.

IBM IT consultants, architects, and specialists in global services who, working from this common base, are equipped with a full range of methods, techniques, and tools to assist its customers achieve their purposes.

[A8] Administration

Description

Purpose

The Administration process category brings together the processes that look after many of the non-technical resources: people, finances, and contracts, among others that support IT service delivery. It builds a sound foundation for the IT business, which other processes can deliver the IT services for the parent business.

Rationale

The processes in this category help build and manage the necessary infrastructure for controlling IT resources (such as hardware, software, and people). These processes are a necessary part of any endeavor's management system and contain the fundamental management building blocks of any organizational entity; namely, people management, financial and administrative management, pricing and contract management, and skills management. Failure in any of these areas of management could lead to the failure of the IT entity of the business. Without these processes, there would be no ability to accomplish the information technology mission of the business, regardless of the technology available.

Value

- Contributes to managing the business and finances of IT with an approach and discipline consistent with the business practices employed by the rest of the enterprise
- Provides accurate and up-to-date financial information to facilitate management controls
- Manages contracts and relationships with internal and external suppliers of products and services, optimizing the value and quality of service and support
- Attracts and retains a highly-skilled workforce to ensure that business needs can be met through IT
- Enables innovation through the capture and dissemination of knowledge

Controls

- Security Policy (From: A7 A72 A722)
- Architecture Baselines and Roadmaps (From: A3 A33 A334)
- IT Portfolio (From: A3 A36 A365)
- IT Strategy (From: A3 A31 A315)
- Service Catalog (From: A2 A23 A235)
- SLAs, OLAs, UCs (From: A2 A24 A243)
- IT Management Ecosystem (From: A1)
- Environment Information (From: Outside-the-Model)
- Business Strategy

Inputs

- IT Plan (From: A3 A36 A365)
- Service Metric Data and Reports (From: A6)
- Compliance Plans and Controls (From: A7 A71 A714)
- Asset Information (From: A5 A55 A553)

- Business Input (From: Outside-the-Model)
- Solution Design (From: A4 A42 A425)
- Business and IT Models (From: A3 A33 A333)
- IT Research Guidance (From: A3 A32 A325)
- Service Level Package (From: A2 A25 A255)
- Customer Input (From: Outside-the-Model)
- Supplier Input (From: Outside-the-Model)
- Business Funding (From: Outside-the-Model)

Outputs

- Customer Output (To: Outside-the-Model)
- IT Budget (To: A1 A12 A121 A123 A125 A13 A131 A132 A133 A14 A142 A2 A22 A221 A23 A233 A24 A241 A243 A26 A261 A3 A31 A314 A32 A321 A33 A331 A35 A353 A36 A365 A5 A53 A532 A55 A551 A7 A75 A752 A812 A814 A816 A82 A821 A84 A842 A843 A844)
- Supplier Output (To: Outside-the-Model)
- Underpinning Contracts (To: A1 A11 A114 A2 A24 A241 A243 A3 A31 A313 A5 A55 A555 A81 A813 A814 A824 A825 A826)
- IT Financial Reports (To: A1 A13 A131 A14 A141 A3 A36 A365 A366 A5 A55 A555 A6 A66 A661 A816 A82 A822 A824 A825)

Processes

This process category is composed of these processes:

- A81 Financial Management
- A82 Supplier Management
- A83 Service Pricing and Contract Administration
- A84 Workforce Management
- A85 Knowledge Management

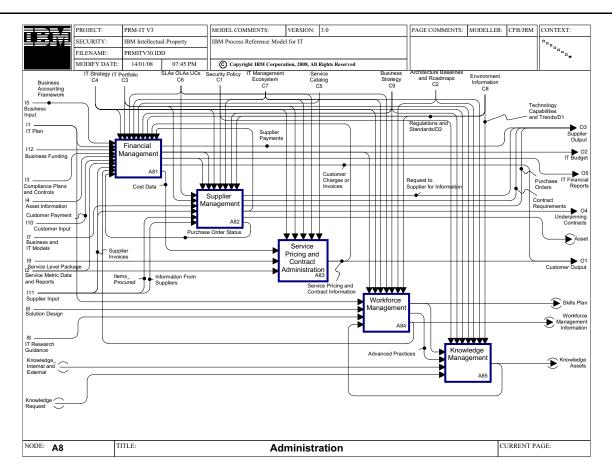


Figure 1. A8 Administration Diagram

[A81] Financial Management

Purpose

The purpose of the Financial Management process is to ensure that financial controls and procedures are in place to effectively predict and control IT budgets, enable business decisions, and ensure that legal, corporate and regulatory compliance is maintained. The outputs from the Financial Management process also enable benchmarking and business case analysis to support organizational decision making.

Outcomes

As a result of the successful implementation of this process:

- IT financial controls are established and enforced
- Operational data is transformed into financial information and management actions
- Compliance is ensured with legal, industry, and corporate standards and procedures
- Benchmarking and other financial comparisons are enabled
- IT portfolio decisions are assisted on investment by providing detailed business cases and by providing financial input to decision support
- IT budgets are effectively predicted and controlled

Scope

IT finance is focused on budgeting, accounting and (optionally) charging for IT resources

Includes

- Budgeting capital and operational
- Accounting including accounts receivable (AR) and accounts payable (AP)
- Charging
 - Metering, rating and billing
- Cost models and accounting systems
- ◆ Resource types:
 - Labor
 - Products
 - Services (inbound and outbound)
- Decision Support
- Financial analysis and reporting
- Collecting financial data
- Operational data collection requirements for financial purposes
- Design and implementation of accounting systems
- Analysis and control of the impact of chargebacks (influences on user and customer behavior)
- Paying internal and external invoices and bills
- Financial management (depreciation) of assets

Excludes

- Asset management (including life cycle management)
- Resource usage data collection
 - Systems and services (Service Execution)
 - Time recording and labor claiming (any process, especially Program and Project Management)
- Service, solution, and offering pricing (Service Pricing and Contract Administration)
- Contract management (Service Pricing and Contract Administration)
- Procurement (Supplier Management)

Controls

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

■ SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties."²
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

^{1.} ITIL V3 Glossary

^{2.} ITIL V3 Glossary

^{3.} ITIL V3 Glossary

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

■ Service Catalog (From: A2 A23 A235)

Catalog of all services offered for delivery by the IT service provider. Portions of it can be used as a means of communication to the customers, but there are also sections that describe details (usually not published outside the delivery organization) of how each service is provided.

ITIL defines Service Catalog as: "A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the sale and delivery of IT Services. The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes."

Business Strategy

The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.

■ Regulations and Standards

External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:

- Generally accepted accounting principles
- Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)
- Service Pricing and Contract Information (From: A83)

Ranges from generic to specific:

- Services and price list (the complete service price model)
- · Standard terms and conditions
- Individual actual and proposed terms and conditions for a specific customer
- Underpinning Contracts (From: A8 A82 A823)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ⁵

Inputs

■ Business Accounting Framework

Details of the business-wide financial framework, including the required interfaces with the IT Financial Framework.

ITIL V3 Glossary

^{5.} ITIL V3 Glossary

■ IT Plan (From: A3 A36 A365)

The set of approved projects and associated schedule, operating plan, service level management commitments, and resource allocation commitments and adjustments for a defined fiscal or planning cycle.

Business Funding (From: Outside-the-Model)

Defines the overall planned budget effort (people, money) for all planned services and activities in IT.

■ Compliance Plans and Controls (From: A7 A71 A714)

The authoritative and comprehensive statement of:

- The items for which compliance is required
- The means (policies, data specifications, procedures, techniques, tools) to achieve compliance
- The definition of required compliance metrics and reports by which conformance will be able to be demonstrated for required scrutiny

It will be the major vehicle for communications and guidance on compliance efforts.

■ Asset Information (From: A5 A55 A553)

Could be reports, covering multiple asset items, or just the specific information on an individual asset.

Customer Payment

Customer payment describes the incoming cash flow (real or virtual) from a customer. It is either the information about a customer payment (from the business' accounts receivable process) or could be the actual payment.

Service Metric Data and Reports (From: A6)

Significant service delivery event logs, volume, and other measurement data relating to how effectively and efficiently services are provided by IT. This data, which is available as requested both in raw format and as structured reports, is a component of all operations information and is the basis for service level reporting.

Supplier Invoices

Invoices from the suppliers for products and services delivered to IT.

- Workforce Management Information (From: A84 A842 A843 A844)
 - Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Purchase Order Status (From: A82 A824)

Status of orders (necessary to track the orders).

Outputs

■ Supplier Payments (To: A816)

Payments to suppliers, triggered by supplier invoices, for services delivered to IT.

■ IT Budget (To: A1 A12 A121 A123 A125 A13 A131 A132 A133 A14 A142 A2 A22 A221 A23 A233 A24 A241 A243 A26 A261 A3 A31 A314 A32 A321 A33 A331 A35 A353 A36 A365 A5 A53 A532 A55 A551 A7 A75 A752 A812 A814 A816 A82 A821 A84 A842 A843 A844)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

■ IT Financial Reports (To: A1 A13 A131 A14 A141 A3 A36 A365 A366 A5 A55 A555 A6 A66 A661 A816 A82 A822 A824 A825)

All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.

- Customer Charges or Invoices (To: A814 A816)
 Customer charges or invoices describe how much a customer is being charged or billed for the usage of IT in a certain period of time.
- Cost Data (To: A816 A83 A832)
 Describes the cost aligned with defined criteria. Typical criteria: by service, by customer, and by cost unit.

Activities

This process is composed of these activities:

- A811 Establish Financial Management Framework
- A812 Perform Financial Modeling
- A813 Plan and Control Budgets
- A814 Perform Financial Accounting
- A815 Administer Charging
- A816 Audit Financials
- A817 Evaluate Financial Management Performance

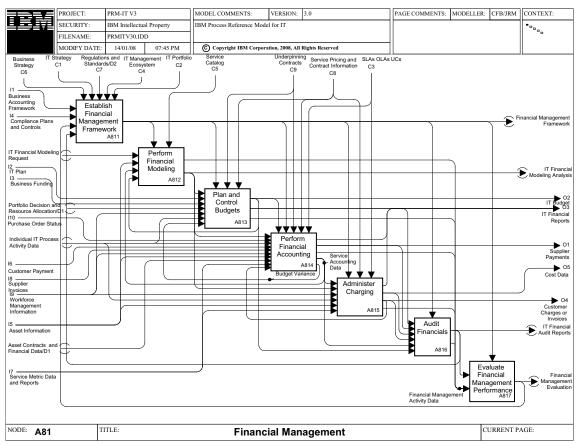


Figure 2. A81 Financial Management

[A811] Establish Financial Management Framework

Description

To establish the framework necessary to perform Financial Management, the following activities must be addressed:

- A financial management strategy has to be defined, balancing the goals and the effort expended for Financial Management
- The scope of Financial Management has to be defined including a detailed life cycle for the process, taking legal requirements and audit guidelines into account
- Financial Management has to be integrated into the balanced scorecard (or similar performance management) method of IT evaluation
- Measurements have to be defined that characterize how Financial Management helps to improve the overall performance of IT
- Documented and published review procedures must be accessible for all financial management practices
- The appointment of a process owner and other defined roles for process management should be addressed
- All individual frameworks for budgeting, IT accounting, and chargeback or service pricing have to be integrated

Finally, the structure and process of Financial Management have to be communicated effectively to all participants and stakeholders.

The establishment of the Financial Management Framework also includes the continuous improvement of financial management. That is, the analysis of the Financial Management process evaluations and the implementation of recommended improvement actions.

Controls

- Business Strategy
 - The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.
- IT Strategy (From: A3 A31 A315)
 - A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.
- Regulations and Standards
 - External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:
 - · Generally accepted accounting principles
 - Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)
- IT Management Ecosystem (From: A1)
 - To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.
- IT Portfolio (From: A3 A36 A365)
 - A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

Inputs

- Business Accounting Framework
 - Details of the business-wide financial framework, including the required interfaces with the IT Financial Framework.
- Compliance Plans and Controls (From: A7 A71 A714)

The authoritative and comprehensive statement of:

- The items for which compliance is required
- The means (policies, data specifications, procedures, techniques, tools) to achieve compliance
- The definition of required compliance metrics and reports by which conformance will be able to be demonstrated for required scrutiny

It will be the major vehicle for communications and guidance on compliance efforts.

- Financial Management Evaluation (From: A817)
 - A report describing the performance against the process quality measures, legal requirements, and fraud detection.
- IT Financial Audit Reports (From: A816)

Financial audits include validation that accounting rules are being accurately followed and that costs are aligned with the engagement and client objectives.

Outputs

- Financial Management Framework (To: A812 A813 A814 A815 A816 A817 A831)

 The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:
 - Strategic goals for the management of IT finances
 - Policies and orientation that apply to operating the various aspects of IT finances
 - Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration

[A812] Perform Financial Modeling

Description

This activity carries out financial modeling in order to determine the likely financial outcomes for a wide range of propositions under consideration. These propositions can be limited to the management of IT finances or be linked to proposals relating to the reach and range of support for the business, infrastructure developments, service variations or any other consideration for which the costs and benefits need to be represented in financial terms. Many requests will require innovation in the modeling approaches employed, in order to satisfy requests which differ in some way from requests previously considered.

The book *ITIL Service Strategy*, describes some general types of modeling that could be performed, ⁶ including:

■ Service Valuation – to identify the funding needed for a particular service, both the cost to the service provider and a view of the value added, in order to arrive at an overall cost to the customer that satisfies both provider and customer

^{6.} See ITIL V3 Service Strategy sections 5.1 and 5.2

- Demand Modeling to quantify the financial variations associated with demand management proposals
- Service Investment Analysis to provide the financial analysis that will be needed as part of any business case
- Variable Cost Dynamics to model and project the cost implications of different cost strategies

Controls

■ Financial Management Framework (From: A811)

The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:

- Strategic goals for the management of IT finances
- Policies and orientation that apply to operating the various aspects of IT finances
- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration
- Service Catalog (From: A2 A23 A235)

Catalog of all services offered for delivery by the IT service provider. Portions of it can be used as a means of communication to the customers, but there are also sections that describe details (usually not published outside the delivery organization) of how each service is provided.

ITIL defines Service Catalog as: "A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the sale and delivery of IT Services. The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes." ⁷

Inputs

- IT Financial Modeling Request (From: A226 A255 A264 A352 A422 A823 A824)
 A request for financial modeling to be performed so that the financial implications of a potential proposal relating to IT resources and capabilities can be understood. Any process can originate this type of request.
- Asset Information (From: A5 A55 A553)
 Could be reports, covering multiple asset items, or just the specific information on an individual asset.
- Service Accounting Data (From: A814)
 Information about the cost, ROI and value of IT services provided (or to be provided), used in financial reporting and for the allocation of costs and charges.
- IT Budget (From: A8 A81 A813)

 The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

Outputs

■ Financial Management Activity Data (To: A817)

Any data about the correct accomplishment and of process activities that support the evaluation of the overall Financial Management process (includes data gathered for legal reasons or for fraud detection).

^{7.} ITIL V3 Glossary

■ IT Financial Modeling Analysis (To: A226 A255 A264 A352 A422 A813 A814 A815 A823 A824)

The outcome of the request for modeling the financial implications of any aspect of the IT undertakings.

[A813] Plan and Control Budgets

Description

Budgeting ensures that predicted costs are matched by the budget, and that early warnings are given where this is not the case. Budgeting enables an organization to:

- Predict the money required to run IT services for a given period
- Ensure that actual spend can be compared with predicted spend at any point
- Reduce the risk of overspending
- Ensure that revenues will be available to cover predicted spend (where charging is in place)

Plan and Control Budgets is split into an initial activity and a recurring, ongoing activity.

Initially you have to establish the budgeting framework. This framework will be the base to plan and control the IT Budgets. This framework consists of three parts:

- Information model
 - Cost and IT entity alignment model
 - General thresholds
 - Plan of IT performance and capacity development
 - Plan of IT costs and bills for individual user
- Process and workflow
 - Definition of the budgeting process (zero based budgeting)
 - · Definition of the periods to check the budget
 - Definition of the escalation paths if a threshold is exceeded
- Tools
 - Data analysis tool
 - Reporting tool

There are two ongoing activities that are entangled with each other. In the planning part you analyze, together with representatives from the business, the future trends for business development, processes and activities. You use this data as input to define the future IT budget, breaking it down to single IT entities, and the budget planned for these entities (starting with hardware, software, personnel, among others). To be able to control the budget, these entities have to be connected with context information; that is, how many person hours are planned for a certain project, and how much capacity is needed for a certain application. You will get this data from the IT plan.

This budget planning has to be aligned with the overall budget planning process. After the budget is defined, it has to be approved.

This activity is revisited in a defined period, to adjust the IT budget planning to the changing business needs.

Using the actual cost data and performance data as gathered in Perform Financial Accounting, you measure periodically whether the cost and delivered capacity and performance are in line with the plan data. This information is compiled into reports and delivered to the sponsors of IT.

If these reports show deltas bigger than the defined thresholds, you have to take counteractions:

Discussion of the deltas and their reasons with the sponsor

- Replanning of the budget needed for this entity
- Re-approving the budget for this entity or stopping of this entity
- Addressing and discussing the topic of changing bills for IT

This activity is revisited in a defined period to analyze plan versus reality and start adjustments where necessary.

Controls

■ Financial Management Framework (From: A811)

The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:

- Strategic goals for the management of IT finances
- Policies and orientation that apply to operating the various aspects of IT finances
- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration
- Underpinning Contracts (From: A8 A82 A823)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ⁸

Service Pricing and Contract Information (From: A83)

Ranges from generic to specific:

- Services and price list (the complete service price model)
- Standard terms and conditions
- Individual actual and proposed terms and conditions for a specific customer

Inputs

■ IT Financial Modeling Analysis (From: A812)

The outcome of the request for modeling the financial implications of any aspect of the IT undertakings.

■ IT Plan (From: A3 A36 A365)

The set of approved projects and associated schedule, operating plan, service level management commitments, and resource allocation commitments and adjustments for a defined fiscal or planning cycle.

■ Business Funding (From: Outside-the-Model)

Defines the overall planned budget effort (people, money) for all planned services and activities in IT.

■ Portfolio Decision and Resource Allocation (From: A36 A365)

An allotment or apportionment of financial and other resources (possibly from both the business and IT) to develop or refine the product vision and product life cycle definition,

^{8.} ITIL V3 Glossary

- and plan for any project proposal not related to a specific product. The financial allotment includes consideration of both capital and expense funds.
- Workforce Management Information (From: A84 A842 A843 A844)
 Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Individual IT Process Activity Data (From every process)
 All defined process based measures (usage data) aligned with services and activities from which relevant financial values can be extracted or derived.
- Budget Variance (From: A814)
 Budget Variance defines the delta between the planned budget and planned results, and the actual spent effort and achieved results.

Outputs

- IT Budget (To: A1 A12 A121 A123 A125 A13 A131 A132 A133 A14 A142 A2 A22 A221 A23 A233 A24 A241 A243 A26 A261 A3 A31 A314 A32 A321 A33 A331 A35 A353 A36 A365 A5 A53 A532 A55 A551 A7 A75 A752 A812 A814 A816 A82 A821 A84 A842 A843 A844)
 - The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.
- IT Financial Reports (To: A1 A13 A131 A14 A141 A3 A36 A365 A366 A5 A55 A555 A6 A66 A661 A816 A82 A822 A824 A825)
 - All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.
- Financial Management Activity Data (To: A817)
 - Any data about the correct accomplishment and of process activities that support the evaluation of the overall Financial Management process (includes data gathered for legal reasons or for fraud detection).

[A814] Perform Financial Accounting

Description

Financial Accounting accounts (tracks and records) for all costs incurred. It enables the attribution of costs to customer service provided. It should aid investment, renewal decisions, and identify poor value for money, but without going into more detail than required. For example, charge a fixed amount for an agreed capacity. Identifies cost of changes, and performs ROI and cost-benefit analysis.

Financial Accounting enables an organization to:

- Account for the money spent in providing IT services
- Calculate the cost of providing IT services to both internal and external customers
- Perform cost-benefit or return-on-investment analyses

The goal of financial accounting is to understand:

- What drives the IT costs
- Whether IT delivers a good value for money

You have to start to analyze to what extent you want to analyze these topics and from which kind of analysis your IT performance would improve most. That is, IT cost transparency, understanding of cost driver, understanding IT process cost, understanding of linkage of business performance and IT cost drivers, understanding service costs, and understanding platform costs.

Initially, you have to establish the financial accounting framework. Therefore, you identify and set the scope of financial accounting and the accounting policy. Here you define:

- Reports and structure needed to reach these goals
- Business and IT events driving the IT costs

This is the base for the Financial Accounting Framework. This framework consists of different parts:

- Information model:
 - Cost model per cost unit, per system, per service, among others
 - Cost drivers from performance data
 - Value model service model and IT scorecard
- Process and workflow as described later:
- Tools: Focus of the tools is to gather the information from different sources and compile reports automatically from this data, helping to answer the IT goals. The tools needed come from these families:
 - Data mining tools
 - Data gathering tools fueled by the performance data
 - Reporting tools provides the performance data

Requirements for the Financial Accounting Framework will also be derived from Service Pricing and Contract Administration, as the pricing framework has to be represented in the accounting framework, and also from the overall financial management strategy.

After the framework has been implemented, Financial Accounting is an ongoing activity. On a regular basis:

- Cost data has to be gathered
- Performance data (like operational monitor data and labor data) have to be imported
- The data has to be calculated, analyzed, and linked according to the information model
- Reports on IT Performance (cost versus value) for the different stakeholders have to be generated
- Trends have to be identified and analyzed
- Actual financial data are reported to perform budgeting

Besides these cost and value analysis related activities, Financial Accounting includes some additional tasks:

- Collect, check, and pay bills to the suppliers
- Create financial reports, especially to serve legal requirements and requirements of corporate finance, such as depreciation of assets
- Support the investment appraisal process from a financial point of view

Controls

- IT Budget (From: A8 A81 A813)
 - The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.
- Financial Management Framework (From: A811)
 - The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:
 - Strategic goals for the management of IT finances
 - Policies and orientation that apply to operating the various aspects of IT finances

- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration
- Underpinning Contracts (From: A8 A82 A823)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ⁹

- Service Pricing and Contract Information (From: A83)
 Ranges from generic to specific:
 - Services and price list (the complete service price model)
 - Standard terms and conditions
 - Individual actual and proposed terms and conditions for a specific customer
- SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."¹⁰
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties."
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

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^{10.} ITIL V3 Glossary

^{11.} ITIL V3 Glossary

^{12.} ITIL V3 Glossary

Inputs

- IT Financial Modeling Analysis (From: A812)
 - The outcome of the request for modeling the financial implications of any aspect of the IT undertakings.
- Purchase Order Status (From: A82 A824)
 - Status of orders (necessary to track the orders).
- Individual IT Process Activity Data (From every process)
 - All defined process based measures (usage data) aligned with services and activities from which relevant financial values can be extracted or derived.
- Customer Payment
 - Customer payment describes the incoming cash flow (real or virtual) from a customer. It is either the information about a customer payment (from the business' accounts receivable process) or could be the actual payment.
- Supplier Invoices
 - Invoices from the suppliers for products and services delivered to IT.
- Workforce Management Information (From: A84 A842 A843 A844)
 Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Asset Information (From: A5 A55 A553)
 - Could be reports, covering multiple asset items, or just the specific information on an individual asset.
- Asset Contracts and Financial Data (From: A555)
 - Business records about an asset and related financial information. This includes data such as asset records, vendor information, asset costs and current value, tax data.
- Service Metric Data and Reports (From: A6)
 - Significant service delivery event logs, volume, and other measurement data relating to how effectively and efficiently services are provided by IT. This data, which is available as requested both in raw format and as structured reports, is a component of all operations information and is the basis for service level reporting.
- Customer Charges or Invoices (From: A81 A815)
 - Customer charges or invoices describe how much a customer is being charged or billed for the usage of IT in a certain period of time.

Outputs

- IT Financial Reports (To: A1 A13 A131 A14 A141 A3 A36 A365 A366 A5 A55 A555 A6 A66 A661 A816 A82 A822 A824 A825)
 - All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.
- Supplier Payments (To: A816)
 - Payments to suppliers, triggered by supplier invoices, for services delivered to IT.
- Financial Management Activity Data (To: A817)
 - Any data about the correct accomplishment and of process activities that support the evaluation of the overall Financial Management process (includes data gathered for legal reasons or for fraud detection).
- Service Accounting Data (To: A812 A815 A816)
 - Information about the cost, ROI and value of IT services provided (or to be provided), used in financial reporting and for the allocation of costs and charges.

■ Budget Variance (To: A813)

Budget Variance defines the delta between the planned budget and planned results, and the actual spent effort and achieved results.

[A815] Administer Charging

Description

The main goal of this activity is to charge customers in order to recover the cost of the IT services or perhaps to generate a profit from the services offered. The chargeback strategy is dependent on the business and IT models. The strategic goals can vary between refinancing IT investments, using chargeback to optimize the IT cost and value relationship from a business point of view, and in generating profit from IT. In comparison to Perform IT Accounting where the cost structures were the primary focus, and to the process Service Pricing and Contract Administration where defining the price for the services is the primary focus, this activity focuses on billing the customers of IT services delivered and receiving payment. Charging recovers in a fair way the cost of the IT services and influences customer behavior where necessary.

Administer Charging is split into an initial activity to set up the chargeback framework and a recurring activity to actually bill the clients and receive the money.

Initially, a chargeback framework has to be defined. For example:

- Information model:
 - The pricing strategy is an input from Service Pricing and Contract Administration
 - The pricing model is an input from Service Pricing and Contract Administration
 - User to IT client linkage (to align the bill for an individual user to the organization unit that has to pay the bill)
- Process:
 - Definition of the charging and compensation process. Legal requirements to the process and the bill and the way the bill is composed will differ due to organization form of the IT shop and the company. For example, IT as internal department, IT as an own organization, or IT services different legal organizations in different countries.
- Tool:
 - A chargeback tool gathers the usage data aligned to a user, links it to the prices for the services, and calculates the bill for a user

After the framework is established, bills for the user have to be generated periodically. These bills are based on the pricing model. The pricing model describes what data to measure to compile the usage information of a service.

The first step is to gather the performance data that is linked to the customer. This is an input from the Perform Accounting operating processes. Using the pricing model, a price for the complete IT usage of a specific client is calculated.

This data has to be aggregated to the level of detail that is delivered to the costumer organization, such as per cost unit or per department. Prior to delivery, the bill has to be checked for correctness.

After the bill has been delivered and depending on the chargeback and compensation process, correct payment has to be checked.

If the bill differs from the customer's expectation, an exception process is needed:

- To check the correctness of the bill
- To correct the bill, if necessary
- If correct and exceeding the expectation, to trigger exploration of the impact on the planned IT budget

Controls

■ Financial Management Framework (From: A811)

The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:

- Strategic goals for the management of IT finances
- Policies and orientation that apply to operating the various aspects of IT finances
- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration
- Service Pricing and Contract Information (From: A83)

Ranges from generic to specific:

- Services and price list (the complete service price model)
- Standard terms and conditions
- Individual actual and proposed terms and conditions for a specific customer
- SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties."¹⁴
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

Inputs

Service Accounting Data (From: A814)
Information about the cost, ROI and value of IT services provided (or to be provided), used in financial reporting and for the allocation of costs and charges.

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- IT Financial Modeling Analysis (From: A812)
 - The outcome of the request for modeling the financial implications of any aspect of the IT undertakings.
- Workforce Management Information (From: A84 A842 A843 A844)
 Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Individual IT Process Activity Data (From every process)
 All defined process based measures (usage data) aligned with services and activities from
- Asset Information (From: A5 A55 A553)
 Could be reports, covering multiple asset items, or just the specific information on an individual asset.

which relevant financial values can be extracted or derived.

Service Metric Data and Reports (From: A6)
Significant service delivery event logs, volume, and other measurement data relating to how effectively and efficiently services are provided by IT. This data, which is available as requested both in raw format and as structured reports, is a component of all operations information and is the basis for service level reporting.

Outputs

- IT Financial Reports (To: A1 A13 A131 A14 A141 A3 A36 A365 A366 A5 A55 A555 A6 A66 A661 A816 A82 A822 A824 A825)
 - All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.
- Cost Data (To: A816 A83 A832)
 - Describes the cost aligned with defined criteria. Typical criteria: by service, by customer, and by cost unit.
- Customer Charges or Invoices (To: A814 A816)
 Customer charges or invoices describe how much a customer is being charged or billed for the usage of IT in a certain period of time.
- Financial Management Activity Data (To: A817)
 - Any data about the correct accomplishment and of process activities that support the evaluation of the overall Financial Management process (includes data gathered for legal reasons or for fraud detection).

[A816] Audit Financials

Description

Examination of financial data (under defined criteria and guidelines) and the workings of the financial management process is performed for the purpose of confirming conformance to standards and practices. Additionally identifies irregularities and improvement opportunities. ITIL defines an audit as "Formal inspection and verification to check whether a Standard or set of Guidelines is being followed, that Records are accurate, or that Efficiency and Effectiveness targets are being met. An Audit may be carried out by internal or external groups." 16

Controls

■ Financial Management Framework (From: A811)

The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:

- Strategic goals for the management of IT finances
- Policies and orientation that apply to operating the various aspects of IT finances
- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration

Inputs

■ IT Financial Reports (From: A8 A81 A813 A814 A815)

All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.

■ Supplier Payments (From: A81 A814)

Payments to suppliers, triggered by supplier invoices, for services delivered to IT.

■ Cost Data (From: A81 A815)

Describes the cost aligned with defined criteria. Typical criteria: by service, by customer, and by cost unit.

Customer Charges or Invoices (From: A81 A815)

Customer charges or invoices describe how much a customer is being charged or billed for the usage of IT in a certain period of time.

■ Service Accounting Data (From: A814)

Information about the cost, ROI and value of IT services provided (or to be provided), used in financial reporting and for the allocation of costs and charges.

■ IT Budget (From: A8 A81 A813)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

Outputs

■ IT Financial Audit Reports (To: A143 A811 A817)

Financial audits include validation that accounting rules are being accurately followed and that costs are aligned with the engagement and client objectives.

■ Financial Management Activity Data (To: A817)

Any data about the correct accomplishment and of process activities that support the evaluation of the overall Financial Management process (includes data gathered for legal reasons or for fraud detection).

[A817] Evaluate Financial Management Performance

Description

This governance activity includes the evaluation of the performance of the Financial Management process, and aims at identifying improvement areas of the overall process. For example, the foundation and interfaces of the process, all activities and their accomplishment, the adaptability of the process, as well as the roles and responsibilities, including the respective skills.

In addition, the Financial Management process is to be evaluated against the goals and measures to understand its influence on overall IT improvements.

The basis for the improvements is the insights and lessons learned from the observations and analysis of activity accomplishments and results.

Due to the importance of correct financial data, there are additional process evaluations that have to be performed. One example is:

■ The process has to be evaluated against legal requirements, from a process and process output point of view; that is, the correctness of financial statements. In some industries and countries, fraud detection is a mandatory part of the evaluation. It might be necessary, due to legal requirements, for this evaluation be carried out by an independent third party.

Controls

■ Financial Management Framework (From: A811)

The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:

- Strategic goals for the management of IT finances
- Policies and orientation that apply to operating the various aspects of IT finances
- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration

Inputs

- IT Financial Audit Reports (From: A816)
 - Financial audits include validation that accounting rules are being accurately followed and that costs are aligned with the engagement and client objectives.
- Financial Management Activity Data (From: A812 A813 A814 A815 A816)

 Any data about the correct accomplishment and of process activities that support the evaluation of the overall Financial Management process (includes data gathered for legal reasons or for fraud detection).

Outputs

■ Financial Management Evaluation (To: A811)

A report describing the performance against the process quality measures, legal requirements, and fraud detection.

[A82] Supplier Management

Purpose

The purpose of the Supplier Management process is to manage interactions with suppliers and partners formally by selecting them based on their ability to meet identified requirements, and managing performance against the agreed commitments.

Outcomes

As a result of the successful implementation of this process:

- Attitudes and behaviors are promoted that encourage mutual success
- Procurement and delivery of products and services are optimized for maximum value across supplier relationships
- Obligations are met as efficiently and effectively as possible by both parties in the relationship
- Optimal value is achieved for costs in maintaining supplier relationships

Scope

Involves all aspects of managing relationships with suppliers and outsourcers and of the procurement of assets and services. Addresses the complete supplier and procurement life cycle from strategic considerations to tactical considerations, and to operational considerations.

Includes

- Agreement on joint architecture and risk controls
- Negotiation and enforcement of contracts
- Supplier evaluation, selection, and relationship management
- Supplier performance review, including:
 - Benchmarking
 - Terms and conditions conformance
- Procurement (placing the order), both against established contracts and for off-theshelf items
- Internal and external suppliers
- ◆ Formalizing the operational level agreement (OLA) items, where they are to be fulfilled by an external supplier, within an underpinning contract (UC)

Excludes

- Service Level Management
 - Establishing the substance of OLA items which relate to a supplier
 - OLA and UC service monitoring

- Physical logistics (Facilities Management)
 - Product and services requirements and specifications (from Solution Design, for example)

Controls

■ IT Financial Reports (From: A8 A81 A813 A814 A815)

All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.

■ IT Budget (From: A8 A81 A813)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

■ Security Policy (From: A7 A72 A722)

The statement of the types and levels of security over information technology resources and capabilities that must be established and operated in order for those items to be considered *secure*. It provides management direction into the allowable behaviors of the actors working with the resources and exercising the capabilities. It defines the scope of management and specifies the requirements for the security controls.

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

Business Strategy

The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.

Regulations and Standards

External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:

- Generally accepted accounting principles
- Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)

Inputs

■ SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."¹⁷
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties." 18
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party
 provides goods or Services that support delivery of an IT Service to a Customer. The
 Underpinning Contract defines targets and responsibilities that are required to meet
 agreed Service Level Targets in an SLA."19

These agreements can be in a draft or finalized status.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

■ Business and IT Models (From: A3 A33 A333)

Representations of relevant aspects of the business' activities, in model formats, and with or without the inclusion of related IT factors.

Supplier Invoices

Invoices from the suppliers for products and services delivered to IT.

■ Items Procured

Items received from a supplier in response to a formal purchase order.

■ Information From Suppliers

Any information that the suppliers can provide about themselves that supports the selection and evaluation process for suppliers, including:

- Responses to RFIs, RFPs
- Vendor briefings
- Financial information
- · Portfolio information

Outputs

■ Request to Supplier for Information

Any request for information from suppliers that directly goes to the suppliers, including:

- Financial information
- Portfolio information (which items can be supplied)
- · Standard terms and conditions
- RFIs
- RFPs
- Vendor briefings
- Contract Requirements

Contract requirements for communication to, and negotiation with, suppliers. The requirements cover items such as specifications, quantities, delivery dates, desired terms and conditions, maximum price.

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^{18.} ITIL V3 Glossary

^{19.} ITIL V3 Glossary

■ Purchase Orders (To: A825)

Order for products or services to a supplier resulting from procurement requests, including detailed information about the order. Also covers the negative case (if an item has to be returned to the supplier).

Underpinning Contracts (To: A1 A11 A114 A2 A24 A241 A243 A3 A31 A313 A5 A55 A555 A81 A813 A814 A824 A825 A826)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ²⁰

■ Asset (To: A552)

Each asset that has completed the procurement process (business now holds the title) and is available for productive deployment. During its useful life, it is managed by the Asset Management process.

Purchase Order Status (To: A81 A814 A824)
 Status of orders (necessary to track the orders).

Activities

This process is composed of these activities:

- A821 Establish Supplier Management Framework
- A822 Manage Portfolio of Suppliers
- A823 Manage Supplier Contracts
- A824 Manage Procurement
- A825 Evaluate Supplier Performance
- A826 Provide Supplier Product and Service Information
- A827 Evaluate Supplier Management Performance

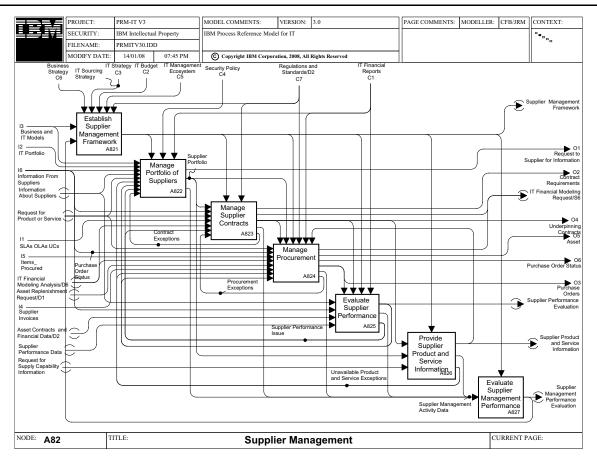


Figure 3. A82 Supplier Management

[A821] Establish Supplier Management Framework

Description

Based on the business and IT strategy and model, guidelines and a framework for Supplier Management have to be developed. The tasks in this activity include:

- Understanding the sourcing strategy and legal and self-imposed regulations with regard to suppliers
- Defining the strategy for supplier relationships: should they be long-term or will the business rely on ad hoc supplier selection
- Defining evaluation criteria for suppliers, supplier relationships and performance
- Defining and implementing practices and systems that support supplier management, including procurement and the maintenance of respective catalogs
- Determining skill requirements for the staff and assigning staff based on these systems

Finally, the structure and process of the supplier management including procurement have to be communicated to the process users.

The establishment of the Supplier Management Framework also includes the continuous improvement of supplier management. For example, the consideration of the Supplier Management process evaluation and the implementation of recommended improvement actions.

Controls

Business Strategy

The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.

■ IT Sourcing Strategy

Strategic guidelines about what services or business components are core (in-sourced or out-sourced) as far as this can influence the selection of suppliers for products and services.

■ IT Budget (From: A8 A81 A813)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

Regulations and Standards

External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:

- Generally accepted accounting principles
- Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)

Inputs

■ Business and IT Models (From: A3 A33 A333)

Representations of relevant aspects of the business' activities, in model formats, and with or without the inclusion of related IT factors.

Supplier Management Performance Evaluation (From: A827)

The result of the evaluation of the Supplier Management process, including identification of potential process improvement items.

Outputs

Supplier Management Framework (To: A751 A822 A823 A824 A825 A826 A827)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

[A822] Manage Portfolio of Suppliers

Description

This activity consists of the following tasks:

- Understand service or product requirements as a prerequisite for selecting the appropriate suppliers
- Search for appropriate suppliers
- Evaluate supplier candidates according to predefined criteria
- Select and prioritize suppliers
- Maintain supplier catalog with supplier information
- Manage (actively) the supplier portfolio by regularly revisiting supplier portfolio, maintaining and optimizing it according to the required services and products, as well as the supplier relationship management framework
- Manage supplier relationships to ensure optimal procurement ability

Controls

■ Supplier Management Framework (From: A821)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

■ Security Policy (From: A7 A72 A722)

The statement of the types and levels of security over information technology resources and capabilities that must be established and operated in order for those items to be considered *secure*. It provides management direction into the allowable behaviors of the actors working with the resources and exercising the capabilities. It defines the scope of management and specifies the requirements for the security controls.

■ IT Financial Reports (From: A8 A81 A813 A814 A815)

All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.

Inputs

■ Business and IT Models (From: A3 A33 A333)

Representations of relevant aspects of the business' activities, in model formats, and with or without the inclusion of related IT factors.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

■ Information From Suppliers

Any information that the suppliers can provide about themselves that supports the selection and evaluation process for suppliers, including:

- Responses to RFIs, RFPs
- Vendor briefings
- Financial information
- Portfolio information
- Information About Suppliers

Any information about potential suppliers that supports the selection and evaluation process for suppliers, including:

- Analyst reports and opinions
- Benchmark data
- Customer references
- Financial information
- Current relationship information
- Other publicly available information
- Request for Product or Service (From: A432 A442)

Information about required products and services that are needed by any IT process - but especially Solution Build and Solution Test. It will be used within the activities of selecting and managing the right portfolio of suppliers and respective supplier contracts, or to initiate actual procurement.

- Unavailable Product and Service Exceptions (From: A826)
 Information about exceptions (unavailability, permanent or temporary) of supply items that can influence procurement or require that the portfolio of suppliers is adapted.
- Supplier Performance Evaluation (From: A825)
 Evaluation of suppliers with regard to the relationship, compliance with agreed contract conditions including costs. Input for management of portfolio of suppliers.
- Supplier Performance Issue (From: A825)
 Exceptions or non-compliance of suppliers with regard to the agreed contracts that are recognized during Evaluate Supplier Performance, and that are needed as input for Manage Portfolio of Suppliers so that the supplier portfolio can be adapted if necessary.
- Contract Exceptions (From: A823)
 Exceptions or non-compliance of contracts that are recognized during Manage Supplier Contracts, and that are needed as input for Manage Portfolio of Suppliers, so that the supplier portfolio can be adapted if necessary.

Outputs

- Request to Supplier for Information
 - Any request for information from suppliers that directly goes to the suppliers, including:
 - Financial information
 - Portfolio information (which items can be supplied)
 - Standard terms and conditions
 - RFIs
 - RFPs
 - Vendor briefings
- Supplier Portfolio (To: A823 A824 A826)

List of potential suppliers. Includes information about each supplier (relationship) with regard to supply items, existing contracts, and the interfaces to this supplier.

■ Supplier Management Activity Data (To: A827)

Any data about the accomplishment of process activities that support the evaluation of the overall Supplier Management process.

[A823] Manage Supplier Contracts

Description

Supplier contract management is about:

- Defining scope of supplier relationship
- Negotiating contracts
- Creating contracts
- Administering contracts
- Regularly optimizing supplier contract terms and conditions
- Continuously auditing contract compliance

Controls

Supplier Management Framework (From: A821)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

Regulations and Standards

External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:

- · Generally accepted accounting principles
- Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)

Inputs

■ Supplier Portfolio (From: A822)

List of potential suppliers. Includes information about each supplier (relationship) with regard to supply items, existing contracts, and the interfaces to this supplier.

Information From Suppliers

Any information that the suppliers can provide about themselves that supports the selection and evaluation process for suppliers, including:

- Responses to RFIs, RFPs
- Vendor briefings
- Financial information
- Portfolio information
- Request for Product or Service (From: A432 A442)

Information about required products and services that are needed by any IT process - but especially Solution Build and Solution Test. It will be used within the activities of selecting and managing the right portfolio of suppliers and respective supplier contracts, or to initiate actual procurement.

■ SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer.

Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."²¹
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties."²²
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

- IT Financial Modeling Analysis (From: A812)
 The outcome of the request for modeling the financial implications of any aspect of the IT undertakings.
- Supplier Performance Issue (From: A825)
 Exceptions or non-compliance of suppliers with regard to the agreed contracts that are recognized during Evaluate Supplier Performance, and that are needed as input for Manage Portfolio of Suppliers so that the supplier portfolio can be adapted if necessary.
- Procurement Exceptions (From: A824)
 Exceptions during procurement (item no longer available from supplier) that can influence the management of supplier contracts.

Outputs

■ Contract Requirements

Contract requirements for communication to, and negotiation with, suppliers. The requirements cover items such as specifications, quantities, delivery dates, desired terms and conditions, maximum price.

- IT Financial Modeling Request (To: A812)
 - A request for financial modeling to be performed so that the financial implications of a potential proposal relating to IT resources and capabilities can be understood. Any process can originate this type of request.
- Underpinning Contracts (To: A1 A11 A114 A2 A24 A241 A243 A3 A31 A313 A5 A55 A555 A81 A813 A814 A824 A825 A826)
 - Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract

^{21.} ITIL V3 Glossary

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defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ²⁴

- Supplier Management Activity Data (To: A827)
 Any data about the accomplishment of process activities that support the evaluation of the overall Supplier Management process.
- Contract Exceptions (To: A822)

Exceptions or non-compliance of contracts that are recognized during Manage Supplier Contracts, and that are needed as input for Manage Portfolio of Suppliers, so that the supplier portfolio can be adapted if necessary.

[A824] Manage Procurement

Description

Procurement is about placing orders for items that have been requested and authorized. Includes hardware, software, services, external resources. The activities are:

- Receiving procurement requests
- Review procurement requests, and approve or reject them
- Initiate procurement by selecting the appropriate supplier and placing the order
- Tracking orders until delivery of ordered items
- Receiving procured items upon delivery by suppliers
- Maintaining valid information about the procured items received
- Handling escalations if necessary (during the entire procurement process until the potentially necessary return of ordered items)

Controls

■ Underpinning Contracts (From: A8 A82 A823)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ²⁵

■ Supplier Portfolio (From: A822)

List of potential suppliers. Includes information about each supplier (relationship) with regard to supply items, existing contracts, and the interfaces to this supplier.

■ Supplier Management Framework (From: A821)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

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Regulations and Standards

External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:

- · Generally accepted accounting principles
- Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)
- IT Financial Reports (From: A8 A81 A813 A814 A815)

All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.

Supplier Product and Service Information (From: A826)

Information about the items (products, services) that can be supplied by the suppliers in the portfolio, like the catalog of orderable supply items including

- Prices
- Service levels
- Supply options, (suppliers can supply these supply items)

Covers both external and internal suppliers. An example of an internal supplier: Facility supplier indicates lead-time and costs for equipping a new workspace.

Inputs

■ Request for Product or Service (From: A432 A442)

Information about required products and services that are needed by any IT process - but especially Solution Build and Solution Test. It will be used within the activities of selecting and managing the right portfolio of suppliers and respective supplier contracts, or to initiate actual procurement.

■ Purchase Order Status (From: A82 A824)

Status of orders (necessary to track the orders).

■ Items_ Procured

Items received from a supplier in response to a formal purchase order.

■ IT Financial Modeling Analysis (From: A812)

The outcome of the request for modeling the financial implications of any aspect of the IT undertakings.

■ Asset Replenishment Request (From: A552 A554)

A trigger to indicate that additional quantities of an asset are required in order to meet existing or anticipated requisitions.

Supplier Invoices

Invoices from the suppliers for products and services delivered to IT.

■ Unavailable Product and Service Exceptions (From: A826)

Information about exceptions (unavailability, permanent or temporary) of supply items that can influence procurement or require that the portfolio of suppliers is adapted.

■ Supplier Performance Evaluation (From: A825)

Evaluation of suppliers with regard to the relationship, compliance with agreed contract conditions including costs. Input for management of portfolio of suppliers.

Outputs

■ IT Financial Modeling Request (To: A812)

A request for financial modeling to be performed so that the financial implications of a potential proposal relating to IT resources and capabilities can be understood. Any process can originate this type of request.

■ Asset (To: A552)

Each asset that has completed the procurement process (business now holds the title) and is available for productive deployment. During its useful life, it is managed by the Asset Management process.

- Purchase Order Status (To: A81 A814 A824)
 Status of orders (necessary to track the orders).
- Purchase Orders (To: A825)

Order for products or services to a supplier resulting from procurement requests, including detailed information about the order. Also covers the negative case (if an item has to be returned to the supplier).

- Supplier Management Activity Data (To: A827)
 - Any data about the accomplishment of process activities that support the evaluation of the overall Supplier Management process.
- Procurement Exceptions (To: A823)

Exceptions during procurement (item no longer available from supplier) that can influence the management of supplier contracts.

[A825] Evaluate Supplier Performance

Description

In order to be able to manage the supplier portfolio successfully, a regular evaluation of the supplier performance has to take place. It will examine:

- Information from and about the suppliers
- Information about the compliance and service level attainment of suppliers according to the agreed contracts
- Information about how well procurement works with the suppliers

Based on this information the suppliers will be reviewed, the relationship to the suppliers will be evaluated and the compliance of suppliers with agreed contract terms and conditions as well as the agreed costs will be analyzed.

This performance assessment will result in recommendations by evaluating value and risks of the suppliers for the business.

Controls

■ Purchase Orders (From: A82 A824)

Order for products or services to a supplier resulting from procurement requests, including detailed information about the order. Also covers the negative case (if an item has to be returned to the supplier).

■ Underpinning Contracts (From: A8 A82 A823)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ²⁶

■ Supplier Management Framework (From: A821)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

■ IT Financial Reports (From: A8 A81 A813 A814 A815)

All reports on financial data of IT for different stakeholders. Covers a wide range of reports from outlining projected costs through after-the-fact financial analyses.

Inputs

■ Information About Suppliers

Any information about potential suppliers that supports the selection and evaluation process for suppliers, including:

- Analyst reports and opinions
- Benchmark data
- Customer references
- Financial information
- Current relationship information
- Other publicly available information
- Information From Suppliers

Any information that the suppliers can provide about themselves that supports the selection and evaluation process for suppliers, including:

- Responses to RFIs, RFPs
- Vendor briefings
- Financial information
- Portfolio information
- Asset Contracts and Financial Data (From: A555)

Business records about an asset and related financial information. This includes data such as asset records, vendor information, asset costs and current value, tax data.

■ Supplier Performance Data

Data from any IT process that relates to the performance of any supplied product or service that contributes to that process

Outputs

■ Supplier Performance Evaluation (To: A822 A824)

Evaluation of suppliers with regard to the relationship, compliance with agreed contract conditions including costs. Input for management of portfolio of suppliers.

■ Supplier Management Activity Data (To: A827)

Any data about the accomplishment of process activities that support the evaluation of the overall Supplier Management process.

■ Supplier Performance Issue (To: A822 A823)

Exceptions or non-compliance of suppliers with regard to the agreed contracts that are recognized during Evaluate Supplier Performance, and that are needed as input for Manage Portfolio of Suppliers so that the supplier portfolio can be adapted if necessary.

[A826] Provide Supplier Product and Service Information

Description

This activity is about providing information about supply items, like establishing and maintaining a supply item catalog (hardware, software, services, external resources) that contains information about:

- Supply items themselves
- Potential suppliers for these items including supplier priorities and options
- Supply item availability

This is a prerequisite for being able to handle procurement.

Controls

■ Supplier Management Framework (From: A821)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

Inputs

■ Underpinning Contracts (From: A8 A82 A823)

Content of contracts with suppliers, including terms and conditions, service level agreements (SLAs), among others. Covers both the actual contract itself, and information about it that is available as input for supplier evaluation and to other internal processes, such as financial management.

Information Technology Infrastructure Library (ITIL) defines underpinning contract as "a contract between an IT service provider and a third party. The third party provides goods or services that support delivery of an IT service to a customer. The underpinning contract defines targets and responsibilities that are required to meet agreed service level targets in an SLA." ²⁷

- Supplier Portfolio (From: A822)
 - List of potential suppliers. Includes information about each supplier (relationship) with regard to supply items, existing contracts, and the interfaces to this supplier.
- Request for Supply Capability Information
 - Request for information from any process within IT about the IT Service Provider's arrangements and capability to obtain supply items.

Outputs

- Supplier Product and Service Information (To: A662 A664 A735 A736 A824)
 Information about the items (products, services) that can be supplied by the suppliers in the portfolio, like the catalog of orderable supply items, including:
 - Prices
 - Service levels
 - Supply options, (suppliers can supply these supply items)

Covers both external and internal suppliers. An example of an internal supplier: Facility supplier indicates lead-time and costs for equipping a new workspace.

- Supplier Management Activity Data (To: A827)
 Any data about the accomplishment of process activities that support the evaluation of the overall Supplier Management process.
- Unavailable Product and Service Exceptions (To: A822 A824)
 Information about exceptions (unavailability, permanent or temporary) of supply items that can influence procurement or require that the portfolio of suppliers is adapted.

[A827] Evaluate Supplier Management Performance

Description

The evaluation of the performance of the Supplier Management process aims at identifying areas of the overall process that require improvement. For example, the foundation and interfaces of the process, all activities, their accomplishment, their degree of automation, as well as the roles and responsibilities including the respective skills. Target for evaluations are also the portfolio of suppliers and supply items.

The basis for the improvements is the insights and lessons learned from the observations and analysis of activity accomplishments and results.

Controls

■ Supplier Management Framework (From: A821)

The framework that contains all relevant information about the structure of the Supplier Management process, meaning the practices for supplier management and procurement. This includes evaluation criteria for selection and evaluation of suppliers, and relevant systems.

Inputs

Supplier Management Activity Data (From: A822 A823 A824 A825 A826)
Any data about the accomplishment of process activities that support the evaluation of the overall Supplier Management process.

Outputs

■ Supplier Management Performance Evaluation (To: A821)

The result of the evaluation of the Supplier Management process, including identification of potential process improvement items.

[A83] Service Pricing and Contract Administration

Purpose

The purpose of the Service Pricing and Contract Administration process is to establish a pricing mechanism for the IT entity to sell its services to internal or external customers, and to administer the contracts associated with selling those services.

Outcomes

As a result of successful implementation of this process:

- Prices are set that reflect the charging policies of the IT organization
- Pricing is aligned to achieve business objectives
- Requests for pricing are satisfied in a responsive manner
- Customer contracts and agreements are administered effectively and efficiently

Scope

This process applies if the decision is made to charge for IT services. It encompasses defining a pricing method, establishing prices, managing the resulting contracts, tracking the effect of pricing on how well the service or solution is being accepted by the customer, and examining proposals and contract continuation.

Includes

- Defining the charging pricing algorithm
- Providing standard prices for IT services
- Providing pricing alternatives (such as fixed, time and materials, and flexible terms and conditions)
- Monitoring impact on user and customer behavior and making appropriate adjustments

Excludes

- Metering (Service Execution, Data Management)
- Billing (Financial Management)
- Initiating pricing negotiations (Service Marketing and Sales)

Controls

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the

domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

■ SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."²⁸
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties."²⁹
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

■ Service Catalog (From: A2 A23 A235)

Catalog of all services offered for delivery by the IT service provider. Portions of it can be used as a means of communication to the customers, but there are also sections that describe details (usually not published outside the delivery organization) of how each service is provided.

ITIL defines Service Catalog as: "A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the sale and delivery of IT Services. The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes." ³¹

Inputs

■ Cost Data (From: A81 A815)

Describes the cost aligned with defined criteria. Typical criteria: by service, by customer, and by cost unit.

Service Level Package (From: A2 A25 A255)

Details of the expected implications to the service utility and warranty which will result from agreement with the relevant business units on the demand management approaches under which the service will be provided. ITIL definition: "A defined level of Utility and Warranty for

^{28.} ITIL V3 Glossary

^{29.} ITIL V3 Glossary

^{30.} ITIL V3 Glossary

^{31.} ITIL V3 Glossary

a particular Service Package. Each SLP is designed to meet the needs of a particular Pattern of Business Activity." ³²

■ Service Metric Data and Reports (From: A6)

Significant service delivery event logs, volume, and other measurement data relating to how effectively and efficiently services are provided by IT. This data, which is available as requested both in raw format and as structured reports, is a component of all operations information and is the basis for service level reporting.

Outputs

Service Pricing and Contract Information (To: A22 A226 A227 A24 A243 A365 A81 A813 A814 A815)

Ranges from generic to specific:

- Services and price list (the complete service price model)
- Standard terms and conditions
- Individual actual and proposed terms and conditions for a specific customer

Activities

This process is composed of these activities:

- A831 Establish Service Pricing and Contract Administration Framework
- A832 Collect Pricing Data
- A833 Provide Price Alternatives
- A834 Administer Customer Contract/ Agreement
- A835 Monitor Pricing Effects
- A836 Evaluate Service Pricing and Contract Administration Performance

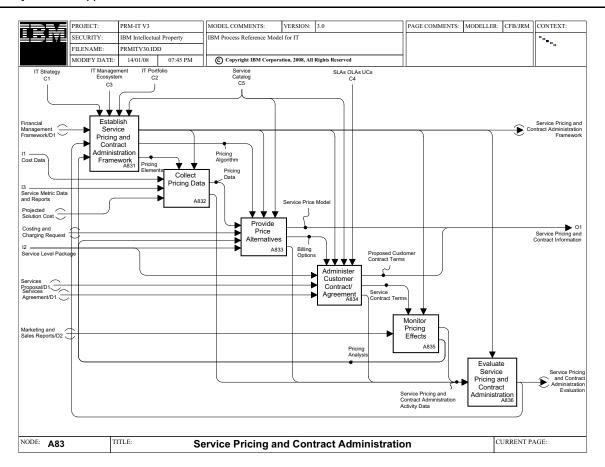


Figure 4. A83 Service Pricing and Contract Administration

[A831] Establish Service Pricing and Contract Administration Framework

Description

To establish the framework necessary to perform Service Pricing and Contract Administration, the following activities must be addressed:

- A service pricing and contract administration strategy has to be defined and be based on IT strategy, the business, and IT models. It should reflect whether (and how) user behavior and IT consumption should be influenced, and whether chargeback should be used as a tool to communicate the value of IT. The pricing strategy should also integrate how benchmarks with the market should be integrated.
- It has to be determined whether prices are set by forecasting, simulation, or other methods.
- Measurements have to be defined, to understand whether Service Pricing and Contract Administration help to improve the overall performance of IT.
- There must be documented and published review procedures for all service pricing and contract administration documentation.
- The appointments of a process owner and other defined roles have to be addressed.
- An organizational entity has to be established to regularly revisit the negotiated contracts.

Finally, the structure and process of Service Pricing and Contract Administration have to be communicated.

The establishment of the Service Pricing and Contract Administration Framework also includes the continuous improvement of Service Pricing and Contract Administration. This means consideration of the Service Pricing and Contract Administration process evaluation, and the implementation of recommended improvement actions.

As billing is described in Administer Charging from Financial Management, it is very strongly related to Service Pricing and Contract Administration. Service Pricing and Contract Administration have to be carried out in order that the chargeback framework can be established in Financial Management.

Controls

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

■ Service Catalog (From: A2 A23 A235)

Catalog of all services offered for delivery by the IT service provider. Portions of it can be used as a means of communication to the customers, but there are also sections that describe details (usually not published outside the delivery organization) of how each service is provided.

ITIL defines Service Catalog as: "A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the sale and delivery of IT Services. The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes." ³³

Inputs

■ Financial Management Framework (From: A811)

The overall strategy and definition for financial management, such as the procedural, organizational and other management mechanisms through which the process will operate. Includes:

- Strategic goals for the management of IT finances
- Policies and orientation that apply to operating the various aspects of IT finances
- Collection of evaluation criteria for qualifying and assessing the financial aspects of any investment under consideration
- Service Pricing and Contract Administration Evaluation (From: A836)
 Is a report combining how the process performance can be improved and how especially the pricing model can optimize the overall IT usage.

■ Pricing Analysis (From: A835)

A summary of the effects and implications of current and proposed algorithms, price points and service contract terms, used to provide feedback on pricing practices.

Outputs

- Service Pricing and Contract Administration Framework (To: A832 A833 A834 A835 A836)
 Describes the foundational framework for Service Pricing and Contract Administration, including descriptions of the following aspects of the process:
 - Strategic (vision, mission, value proposition)
 - Organizational (organizational mechanisms, roles, accountabilities)
 - Process (activities, workflows, inputs, outputs)
 - Technology (software, hardware) practices for managing customer transformation
- Pricing Algorithm (To: A833)

The formulas used to work with service pricing data to derive pricing alternatives for further evaluation.

Pricing Elements (To: A832)

The objects, factors and practices to be considered in developing service prices and contract terms.

[A832] Collect Pricing Data

Description

Based on chargeback strategy and the Service Catalog, the data sources to establish the pricing have to be identified and assessed for completeness. Once the services with service classes and levels are defined, all services measures have to be defined to measure the usage. This activity includes gathering resource usage data from system logs and automatically or manually inputting occasional charges for education or recurring charges for workstation rentals.

Controls

■ Pricing Elements (From: A831)

The objects, factors and practices to be considered in developing service prices and contract terms.

Service Pricing and Contract Administration Framework (From: A831)

Describes the foundational framework for Service Pricing and Contract Administration, including descriptions of the following aspects of the process:

- Strategic (vision, mission, value proposition)
- Organizational (organizational mechanisms, roles, accountabilities)
- Process (activities, workflows, inputs, outputs)
- Technology (software, hardware) practices for managing customer transformation

Inputs

■ Cost Data (From: A81 A815)

Describes the cost aligned with defined criteria. Typical criteria: by service, by customer, and by cost unit.

Service Metric Data and Reports (From: A6)

Significant service delivery event logs, volume, and other measurement data relating to how effectively and efficiently services are provided by IT. This data, which is available as

requested both in raw format and as structured reports, is a component of all operations information and is the basis for service level reporting.

■ Projected Solution Cost

Part of Solution Plans and Commitments, it provides anticipated costs of solutions before any actual cost data is available.

Outputs

■ Pricing Data (To: A833)

The pricing data consist of all measures needed to measure the service usage. This is input to the price model.

Service Pricing and Contract Administration Activity Data (To: A836)
 Focuses on data needed to analyze how to improve the process performance.

[A833] Provide Price Alternatives

Description

This activity creates one or more service price models for the service proposition under consideration. One important input is the chargeback strategy as defined in the framework. From the goals you can derive how price and cost are related in the service price model. A main activity here is to define the rule set by which the prices shall be calculated, and then apply this rule set to perform the pricing.

Because the price model is an important regulator of the usage of IT, the IT strategy should have an influence on setting the price. IT can be run as a cost center, distributing budgeted costs equitably among customers, or as a profit center, focusing on prices, revenue, and profit. One price list can be used for all customers or different price lists can be used for different customers, for different levels of usage, or usage at different times. The prices can represent the cost for a service, the value of a service, or can be strategic regulators. The costs per service are input from the Perform IT Accounting activity in the Financial Management process.

Controls

■ Pricing Algorithm (From: A831)

The formulas used to work with service pricing data to derive pricing alternatives for further evaluation.

■ Service Pricing and Contract Administration Framework (From: A831)

Describes the foundational framework for Service Pricing and Contract Administration, including descriptions of the following aspects of the process:

- Strategic (vision, mission, value proposition)
- Organizational (organizational mechanisms, roles, accountabilities)
- Process (activities, workflows, inputs, outputs)
- Technology (software, hardware) practices for managing customer transformation
- Service Catalog (From: A2 A23 A235)

Catalog of all services offered for delivery by the IT service provider. Portions of it can be used as a means of communication to the customers, but there are also sections that describe details (usually not published outside the delivery organization) of how each service is provided.

ITIL defines Service Catalog as: "A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the

sale and delivery of IT Services. The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes." ³⁴

Inputs

■ Pricing Data (From: A832)

The pricing data consist of all measures needed to measure the service usage. This is input to the price model.

■ Costing and Charging Request (From: A744)

An inquiry about (or an estimate of) the cost or charge related to a particular IT service or cluster of services.

■ Pricing Analysis (From: A835)

A summary of the effects and implications of current and proposed algorithms, price points and service contract terms, used to provide feedback on pricing practices.

■ Service Level Package (From: A2 A25 A255)

Details of the expected implications to the service utility and warranty which will result from agreement with the relevant business units on the demand management approaches under which the service will be provided. ITIL definition: "A defined level of Utility and Warranty for a particular Service Package. Each SLP is designed to meet the needs of a particular Pattern of Business Activity." ³⁵

Outputs

■ Service Price Model (To: A255)

The service price model describes all inputs needed (for example, service model, measures, service levels, customer) to derive a price for a delivered service. It is often presented as a multidimensional matrix, with one dimension for each input. It describes as output one price for each combination.

■ Billing Options (To: A834)

Describes different Service Price Models and how to choose between them.

Service Pricing and Contract Administration Activity Data (To: A836)

Focuses on data needed to analyze how to improve the process performance.

[A834] Administer Customer Contract/ Agreement

Description

To administer contracts and agreements ensures that terms and conditions are respected by both parties. Monitors ensure that data is current and accurate.

Initially, contracts and agreements are negotiated on the service level agreements that were negotiated in the Create and Maintain Service Level Agreements activity of the process Service Level Management. The SLAs are completed by adding a price per service and defining how the price related service usage indicators are defined. For each indicator, process and tools to measure the indicator have to be agreed to.

After these contracts and agreements have been established, they are revisited periodically to ensure both parties still agree on the goals that led to these contracts (and the underlying pricing model), or adapt the contracts to a new situation.

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Controls

- Billing Options (From: A833)
 - Describes different Service Price Models and how to choose between them.
- Service Pricing and Contract Administration Framework (From: A831)
 - Describes the foundational framework for Service Pricing and Contract Administration, including descriptions of the following aspects of the process:
 - Strategic (vision, mission, value proposition)
 - Organizational (organizational mechanisms, roles, accountabilities)
 - Process (activities, workflows, inputs, outputs)
 - Technology (software, hardware) practices for managing customer transformation
- Service Catalog (From: A2 A23 A235)

Catalog of all services offered for delivery by the IT service provider. Portions of it can be used as a means of communication to the customers, but there are also sections that describe details (usually not published outside the delivery organization) of how each service is provided.

ITIL defines Service Catalog as: "A database or structured Document with information about all Live IT Services, including those available for Deployment. The Service Catalogue is the only part of the Service Portfolio published to Customers, and is used to support the sale and delivery of IT Services. The Service Catalogue includes information about deliverables, prices, contact points, ordering and request Processes." ³⁶

SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

- ITIL definition of these terms:
- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."³⁷
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties." 38
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

^{36.} ITIL V3 Glossary

^{37.} ITIL V3 Glossary

^{38.} ITIL V3 Glossary

^{39.} ITIL V3 Glossary

Inputs

■ Service Level Package (From: A2 A25 A255)

Details of the expected implications to the service utility and warranty which will result from agreement with the relevant business units on the demand management approaches under which the service will be provided. ITIL definition: "A defined level of Utility and Warranty for a particular Service Package. Each SLP is designed to meet the needs of a particular Pattern of Business Activity." ⁴⁰

■ Services Proposal (From: A22 A226)

A document outlining a potential services solution to meet a specific set of customer needs.

■ Services Agreement (From: A22 A227)

A contractual agreement between IT provider and customer with the intent to exchange a set of committed deliverables from the provider for a price to be paid by the customer, under a set of agreed terms and conditions.

Outputs

■ Proposed Customer Contract Terms

Includes the agreed service level objectives, the corresponding service price model for one customer, the customer specific additional terms and conditions (contract period) and, often, planned usage data.

■ Service Contract Terms (To: A835)

Include the agreed service price model for one customer, and the specific additional terms and conditions (contract period).

■ Service Pricing and Contract Administration Activity Data (To: A836)

Focuses on data needed to analyze how to improve the process performance.

[A835] Monitor Pricing Effects

Description

This activity applies to revenue-flow and profit-and-loss analysis simulations, and to detailed reports on service use by customers based on the various pricing alternatives offered. Here you analyze whether a certain price model really changes the behavior of the users. This kind of an analysis helps you to understand whether you match the goals set in the chargeback strategy, and if the selected pricing model has the desired influence on the users' behavior. To understand whether the pricing leads to optimal IT costs, benchmarking with market data can be an additional input.

Controls

- Service Contract Terms (From: A834)
 Include the agreed service price model for one customer, and the specific additional terms and conditions (contract period).
- Service Pricing and Contract Administration Framework (From: A831)
 Describes the foundational framework for Service Pricing and Contract Administration, including descriptions of the following aspects of the process:
 - Strategic (vision, mission, value proposition)
 - Organizational (organizational mechanisms, roles, accountabilities)
 - Process (activities, workflows, inputs, outputs)
 - Technology (software, hardware) practices for managing customer transformation

Inputs

Marketing and Sales Reports (From: A22 A228)
Reports which indicate the outcomes of marketing and sales efforts and which compare the current sales and marketing execution to the market plan.

Outputs

- Service Pricing and Contract Administration Activity Data (To: A836)
 Focuses on data needed to analyze how to improve the process performance.
- Pricing Analysis (To: A831 A833)

A summary of the effects and implications of current and proposed algorithms, price points and service contract terms, used to provide feedback on pricing practices.

[A836] Evaluate Service Pricing and Contract Administration Performance

Description

This governance activity includes the evaluation of the performance of the Service Pricing and Contract Administration process, and aims at identifying the improvement areas of the overall process. For example, the foundation and interfaces of the process, all activities and their accomplishment, the adaptability of the process, as well as the roles and responsibilities including the respective skills.

In addition, the Service Pricing and Contract Administration process is to be evaluated against the goals and measures to understand its influence on user behavior and on overall IT improvements.

The basis for the improvements is the insights and lessons learned from the observations and analysis of activity accomplishments and results.

Controls

- Service Pricing and Contract Administration Framework (From: A831)
 Describes the foundational framework for Service Pricing and Contract Administration, including descriptions of the following aspects of the process:
 - Strategic (vision, mission, value proposition)
 - Organizational (organizational mechanisms, roles, accountabilities)
 - Process (activities, workflows, inputs, outputs)
 - Technology (software, hardware) practices for managing customer transformation

Inputs

Service Pricing and Contract Administration Activity Data (From: A832 A833 A834 A835)
 Focuses on data needed to analyze how to improve the process performance.

Outputs

Service Pricing and Contract Administration Evaluation (To: A831)
 Is a report combining how the process performance can be improved and how especially the pricing model can optimize the overall IT usage.

[A84] Workforce Management

Purpose

The purpose of the Workforce Management process is to provide the optimal mix of staffing (resources and skills) in order to deliver the agreed IT services at the negotiated service levels and commitments.

Outcomes

As a result of successful implementation of this process:

- An appropriately skilled and motivated workforce is attracted and retained
- Staffing and skills meet needs of the business, including required technical and business skills, both on a day-to-day basis and over time
- Compliance with all workforce-related legal and regulatory requirements and with corporate practices is ensured
- A succession strategy for leadership and critical skills is enabled
- Workforce management information is provided to support informed decision making on sourcing strategy

Scope

Any aspect of managing the human resources available and necessary for the IT endeavor to fulfill its obligations, including workload, skills, and personnel.

Includes

- Acquiring, hiring, retaining, developing, firing, retiring
- Introducing and orienting new resources to the workplace
- Skills management
- Workforce management, including capacity planning and forecasts
- Work and job design, including roles and responsibilities
- Skills development and training
- Performance evaluation
- Employee communications
- Workforce task management
- The execution of corporate human resources (HR) activities in relation to the IT workforce
- Representing human resource issues relating to the IT workforce to corporate HR

Excludes

- Establishing corporate HR policies and their deployment beyond IT
- Setting overall budgets for workforce
- Payroll and benefits administration
- HR systems (part of Portfolio Management and Solution Development and Deployment, in support of the business' HR processes)
- Managing the workforce of service providers
- Setting sourcing strategy

Controls

■ IT Budget (From: A8 A81 A813)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

SLAs, OLAs, UCs (From: A2 A24 A243)

The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

- SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."⁴¹
- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties." 42
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The

^{41.} ITIL V3 Glossary

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Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."43

These agreements can be in a draft or finalized status.

■ Business Strategy

The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.

■ Architecture Baselines and Roadmaps (From: A3 A33 A334)

Provides an agreed, published statement of the required architecture at a moment in time. Includes statements to assist in selection and evaluation of appropriate implementations of specified architecture building blocks.

■ Regulations and Standards

External official rules (typically driven by government) that call for business compliance, as well as established good practice standards from formal and informal bodies. Includes:

- Generally accepted accounting principles
- Legal requirements, such as Sarbanes-Oxley and its COSO (Framework for Financial Management)

Inputs

■ IT Plan (From: A3 A36 A365)

The set of approved projects and associated schedule, operating plan, service level management commitments, and resource allocation commitments and adjustments for a defined fiscal or planning cycle.

■ Solution Design (From: A4 A42 A425)

Solution design, including conceptual, macro, and micro designs, together with identified issues and risks, and formally validated and approved (signed off) by the key stakeholders. It not only covers all the functional and non-functional requirements of the solution, but also the design for meeting the compliance reporting requirements applicable to the solution.

■ IT Research Guidance (From: A3 A32 A325)

Guidance and recommendations about which trends and innovations should or should not be adopted. In other words, a summary of overall research results.

■ Knowledge Assets (From: A85 A855)

Any information from knowledge management that fulfills a knowledge request.

Outputs

■ Skills Plan (To: A371 A843 A85 A852)

Projection of skills needed, including indicating where training is required. For skills identified to be developed through external means, this represents a requisition to procurement.

Advanced Practices (To: A85 A853)

The knowledge and behaviors of leading practitioners that sets a benchmark for others to reach and emulate. The practices will contain subject-matter content, but will also cover techniques for content application and for mentoring.

Workforce Management Information (To: A365 A373 A374 A81 A813 A814 A815)
Profiles of current managed workforce including performance reviews, skills, training and compensation.

Activities

This process is composed of these activities:

- A841 Establish Workforce Management Framework
- A842 Forecast and Plan Workforce
- A843 Administer Human Resources
- A844 Manage Skills
- A845 Evaluate Workforce Management Performance

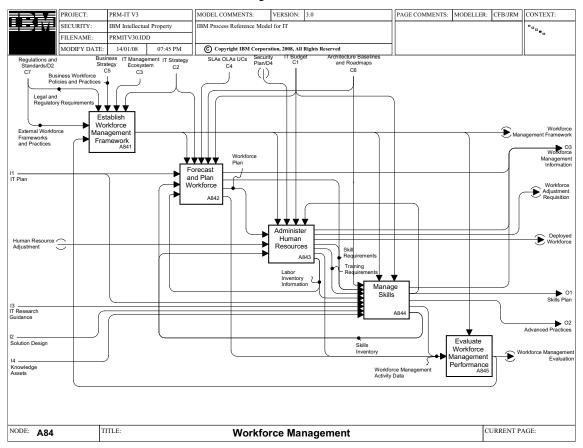


Figure 5. A84 Workforce Management

[A841] Establish Workforce Management Framework

Description

Based on the business, IT strategy, and the architectural models, guidelines and a framework for capacity management have to be developed. The tasks in this activity include:

- Understanding the requirements and specifications for workforce management
- Defining the strategy for workforce management tools and capabilities, and how they should be sourced. For instance, should they be developed in-house or rely more on vendor capabilities
- Defining evaluation criteria for workforce management solutions and services
- Establishing the framework for workforce management by defining and implementing practices and systems that support process activities
- Determining skill requirements for the staff and assigning staff based on these systems

Finally, the structure and process of Workforce Management, including escalation responsibilities, have to be communicated to the process users.

The establishment of the process framework also includes the continuous improvement of Workflows Management; that is, the consideration of the Workforce Management process evaluation and the implementation of recommended improvement actions.

- Legal and Regulatory Requirements
 Requirements from governmental and other regulatory bodies to be applied to the employment aspects of any business. An example would be Health and Safety legislation.
- Business Workforce Policies and Practices
 The workforce management policies and practices of the parent business.
- IT Management Ecosystem (From: A1)

 To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.
- IT Strategy (From: A3 A31 A315)
 A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

Inputs

- External Workforce Frameworks and Practices
 - Relevant models, designs and operational characteristics of workforce management approaches in peer businesses which could provide a basis for this IT Service Provider's Workforce Management Framework.
- Workforce Management Evaluation (From: A845)
 - An assessment of the overall performance of the process against the targets set in the process framework and an identification of possible process improvement areas.

Outputs

■ Workforce Management Framework (To: A842 A843 A844 A845)

[A842] Forecast and Plan Workforce

The conceptional structure describing the strategic (vision, mission, value proposition), organizational (organizational mechanisms, roles, accountabilities), process (activities, work flows, inputs, outputs), and technology (software, hardware) practices for managing customer satisfaction.

Description

Create a workforce forecast plan based on the IT portfolio requirements of the business and the current resource pool. Translate the workload associated with business requirements into skills and time. Map the skills and time requirements to the available resource pool, and reconcile gaps in the workforce plan.

Controls

- Workforce Management Framework (From: A841)
 - The conceptional structure describing the strategic (vision, mission, value proposition), organizational (organizational mechanisms, roles, accountabilities), process (activities, work flows, inputs, outputs), and technology (software, hardware) practices for managing customer satisfaction.
- IT Strategy (From: A3 A31 A315)
 - A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.
- SLAs, OLAs, UCs (From: A2 A24 A243)
 - The agreements that represent the interlinked set of commitments for the service utility and warranty that is to be provided to one or more customers. The agreement between the customer and the organizational unit that directly provides the service is known as a service level agreement (SLA) and is visible to the customer. The agreements that represent the commitments of the collective set of internal organizational units and external entities to provide identified sub-components of the overall service are known as operational level agreements (OLAs). OLAs are not usually visible to the customer. Contractual statements of the commitments by external entities are known as underpinning contracts (UCs).

ITIL definition of these terms:

 SLA: "An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer. A single SLA may cover multiple IT Services or multiple Customers."44

- OLA: "An Agreement between an IT Service Provider and another part of the same Organisation. An OLA supports the IT Service Provider's delivery of IT Services to Customers. The OLA defines the goods or Services to be provided and the responsibilities of both parties."⁴⁵
- UC: "A Contract between an IT Service Provider and a Third Party. The Third Party provides goods or Services that support delivery of an IT Service to a Customer. The Underpinning Contract defines targets and responsibilities that are required to meet agreed Service Level Targets in an SLA."

These agreements can be in a draft or finalized status.

- Architecture Baselines and Roadmaps (From: A3 A33 A334)
 - Provides an agreed, published statement of the required architecture at a moment in time. Includes statements to assist in selection and evaluation of appropriate implementations of specified architecture building blocks.
- IT Budget (From: A8 A81 A813)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

Inputs

■ IT Plan (From: A3 A36 A365)

The set of approved projects and associated schedule, operating plan, service level management commitments, and resource allocation commitments and adjustments for a defined fiscal or planning cycle.

- Skills Inventory (From: A844)
 - Repository for current and planned skills.
- Labor Inventory Information (From: A843)
 Repository for human resource allocations.

Outputs

- Workforce Management Information (To: A365 A373 A374 A81 A813 A814 A815)
 Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Skill Requirements (To: A844)

Forecast of human skills required to meet the demand for services in the IT Portfolio.

■ Workforce Plan (To: A843)

Forecast of human workload associated with business requirements or changes, and the subsequent plan for IT resources in support of the demand.

■ Workforce Management Activity Data (To: A845)

The metrics defined in the Workforce Management Framework and populated by all work performed within the process, as the basis to evaluate performance of the process.

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^{46.} ITIL V3 Glossary

[A843] Administer Human Resources

Description

Maintain staffing levels based on workforce plan (for example, hiring, promoting, demoting, dismissing, assigning) to ensure a pool of personnel with the required skills. Perform performance planning, evaluation, and compensation activities. Manage morale by assessing, understanding, and improving the factors that influence morale and increase productivity.

Controls

■ Workforce Management Framework (From: A841)

The conceptional structure describing the strategic (vision, mission, value proposition), organizational (organizational mechanisms, roles, accountabilities), process (activities, work flows, inputs, outputs), and technology (software, hardware) practices for managing customer satisfaction.

■ Security Plan (From: A72 A725)

A consolidated view and documentation of the resources, approach, procedures and assets to be protected together with a definition of the security practices and controls which will be enacted in order to fulfill the security policy. It covers both technical capabilities (for example, firewalls, encryption) and non-technical considerations (such as segregation of duties, training needs, user responsibilities).

■ IT Budget (From: A8 A81 A813)

The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

■ Skills Plan (From: A84 A844)

Projection of skills needed, including indicating where training is required. For skills identified to be developed through external means, this represents a requisition to procurement.

Inputs

Workforce Plan (From: A842)

Forecast of human workload associated with business requirements or changes, and the subsequent plan for IT resources in support of the demand.

Human Resource Adjustment

The flow of acquired, realigned, and released human resources which represents the workforce available for deployment.

■ Skills Inventory (From: A844)

Repository for current and planned skills.

Outputs

- Workforce Management Information (To: A365 A373 A374 A81 A813 A814 A815)
 Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Workforce Adjustment Requisition

The plans and requirements for adjustments (increase and decrease) in workforce numbers and job profiles. Might be relevant to either or both of the business' workforce management process and to the procurement process.

■ Deployed Workforce

Current IT human resource allocations.

- Skill Requirements (To: A844)
 - Forecast of human skills required to meet the demand for services in the IT Portfolio.
- Training Requirements (To: A844)
 - Statement of the purpose, timing and quantities of training needed to properly equip the workforce for their current and future work assignments.
- Workforce Management Activity Data (To: A845)
 - The metrics defined in the Workforce Management Framework and populated by all work performed within the process, as the basis to evaluate performance of the process.
- Labor Inventory Information (To: A842 A844) Repository for human resource allocations.

[A844] Manage Skills

Description

Assess the type, level and quantity of skills necessary for the IT service provider to meet its commitments. Identify skill increase (and decrease) actions so that the skills inventory will meet the requirements. Define employee development and training needs in support of the workforce plan and each employee's career aspirations. Oversee the fulfillment of skill programs.

Controls

- Workforce Management Framework (From: A841)
 - The conceptional structure describing the strategic (vision, mission, value proposition), organizational (organizational mechanisms, roles, accountabilities), process (activities, work flows, inputs, outputs), and technology (software, hardware) practices for managing customer satisfaction.
- IT Budget (From: A8 A81 A813)
 - The planned IT funding broken down in relevant ways, such as activities and milestones per period, to reflect the contents of the IT plan.

Inputs

- Architecture Baselines and Roadmaps (From: A3 A33 A334)
 - Provides an agreed, published statement of the required architecture at a moment in time. Includes statements to assist in selection and evaluation of appropriate implementations of specified architecture building blocks.
- Skill Requirements (From: A842 A843)
 - Forecast of human skills required to meet the demand for services in the IT Portfolio.
- Training Requirements (From: A843)
 - Statement of the purpose, timing and quantities of training needed to properly equip the workforce for their current and future work assignments.
- Labor Inventory Information (From: A843)
 - Repository for human resource allocations.
- IT Plan (From: A3 A36 A365)
 - The set of approved projects and associated schedule, operating plan, service level management commitments, and resource allocation commitments and adjustments for a defined fiscal or planning cycle.
- IT Research Guidance (From: A3 A32 A325)
 - Guidance and recommendations about which trends and innovations should or should not be adopted. In other words, a summary of overall research results.

- Solution Design (From: A4 A42 A425)
 - Solution design, including conceptual, macro, and micro designs, together with identified issues and risks, and formally validated and approved (signed off) by the key stakeholders. It not only covers all the functional and non-functional requirements of the solution, but also the design for meeting the compliance reporting requirements applicable to the solution.
- Knowledge Assets (From: A85 A855)
 Any information from knowledge management that fulfills a knowledge request.

Outputs

- Workforce Management Information (To: A365 A373 A374 A81 A813 A814 A815)

 Profiles of current managed workforce including performance reviews, skills, training and compensation.
- Skills Plan (To: A371 A843 A85 A852)
 Projection of skills needed, including indicating where training is required. For skills identified to be developed through external means, this represents a requisition to procurement.
- Advanced Practices (To: A85 A853)
 The knowledge and behaviors of leading practitioners that sets a benchmark for others to reach and emulate. The practices will contain subject-matter content, but will also cover
- Workforce Management Activity Data (To: A845)

 The metrics defined in the Workforce Management Framework and populated by all work performed within the process, as the basis to evaluate performance of the process.
- Skills Inventory (To: A621 A622 A842 A843) Repository for current and planned skills.

techniques for content application and for mentoring.

[A845] Evaluate Workforce Management Performance

Description

Performance evaluation of Workforce Management process aims at identifying areas of the overall process that require improvement. For example, the foundation and interfaces of the process, all activities, their accomplishment, their degree of automation, as well as the roles and responsibilities including the respective skills. The bases for the improvements are the insights and the lessons learned from the observations, and analysis of activity accomplishments and results.

Controls

■ Workforce Management Framework (From: A841)

The conceptional structure describing the strategic (vision, mission, value proposition), organizational (organizational mechanisms, roles, accountabilities), process (activities, work flows, inputs, outputs), and technology (software, hardware) practices for managing customer satisfaction.

Inputs

■ Workforce Management Activity Data (From: A842 A843 A844)

The metrics defined in the Workforce Management Framework and populated by all work performed within the process, as the basis to evaluate performance of the process.

Outputs

■ Workforce Management Evaluation (To: A841)

An assessment of the overall performance of the process against the targets set in the process framework and an identification of possible process improvement areas.

[A85] Knowledge Management

Purpose

The purpose of the Knowledge Management process is to focus on capturing and exploiting the information and knowledge needed by personnel to work effectively.

Definition of Knowledge Management: "The Process responsible for gathering, analysing, storing and sharing knowledge and information within an Organisation. The primary purpose of Knowledge Management is to improve Efficiency by reducing the need to rediscover knowledge". 47

Outcomes

As a result of the successful implementation of this process:

- Organizational and individual knowledge and skills are improved
- All areas of IT are assisted in providing optimized IT end-to-end business services
- Technologies are leveraged for capture, location, and dissemination of knowledge and expertise
- Communities of practice are able to optimize the use of organizational knowledge
- Innovation is promoted and enabled

Scope

The process emphasizes controlled but efficient access to assets across the organization, ensuring consistency and reuse as appropriate to take advantage of best practices and enable innovation.

Includes

- Management of IT knowledge and directly related business knowledge, including:
 - The full range of knowledge from technical to services
 - Knowledge gained from external sources as well as from internal activities
 - Interfaces to support any other IT process such as Incident Management
 - Life cycle management of knowledge, from development through retirement
 - Content management for knowledge data across all media and access mechanisms in which it resides
- Working with other IT processes so that the relevant knowledge in their data and information repositories is made available and is actively managed
- Linkage to business-side Knowledge Management (if a program exists)
- Coordination with skills building and learning activities
- Knowledge linkage with service providers and suppliers
- Knowledge linkage with customers
- ◆ Intellectual property management, such as patents and external publications

Excludes

- Understanding and acting on the knowledge (outcome management is the responsibility of all other IT processes)
- Establishing and operating the data and information repositories associated with individual IT processes; for example, the Configuration Management database
- ◆ General Knowledge Management for the business
- Content management for business Web-based data (responsibility of the business, with support from Data Management)

Controls

■ Security Policy (From: A7 A72 A722)

The statement of the types and levels of security over information technology resources and capabilities that must be established and operated in order for those items to be considered *secure*. It provides management direction into the allowable behaviors of the actors working with the resources and exercising the capabilities. It defines the scope of management and specifies the requirements for the security controls.

Business Strategy

The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

Architecture Baselines and Roadmaps (From: A3 A33 A334)

Provides an agreed, published statement of the required architecture at a moment in time. Includes statements to assist in selection and evaluation of appropriate implementations of specified architecture building blocks.

■ IT Management Ecosystem (From: A1)

To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

■ Technology Capabilities and Trends

Available external data, both uncoordinated and already analyzed, of world class IT technologies available, declining, and emerging.

Inputs

■ Skills Plan (From: A84 A844)

Projection of skills needed, including indicating where training is required. For skills identified to be developed through external means, this represents a requisition to procurement.

■ Advanced Practices (From: A84 A844)

The knowledge and behaviors of leading practitioners that sets a benchmark for others to reach and emulate. The practices will contain subject-matter content, but will also cover techniques for content application and for mentoring.

- Knowledge_ Internal and External
 All available internal and external formal or informal knowledge that might be relevant for the business.
- Knowledge Request
 A request by a user for a knowledge asset to be available to them.

Outputs

Knowledge Assets (To: A265 A613 A652 A653 A654 A84 A844)
 Any information from knowledge management that fulfills a knowledge request.

Activities

This process is composed of these activities:

- A851 Establish Knowledge Management Framework
- A852 Create and Maintain Knowledge Plan
- A853 Acquire Knowledge
- A854 Evaluate and Structure Knowledge
- A855 Disseminate Knowledge
- A856 Monitor, Assess and Report Knowledge Status
- A857 Evaluate Knowledge Management Performance

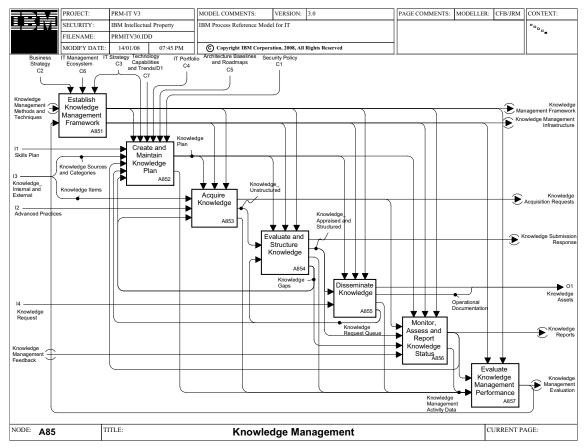


Figure 6. A85 Knowledge Management

[A851] Establish Knowledge Management Framework

Description

This activity consists of three main tasks that establish the base for Knowledge Management in the business:

- 1. Definition of Knowledge Management strategy has to be determined:
 - What the strategic goals are for Knowledge Management
 - What the strategic value of Knowledge Management is to the business
 - How the value can be measured
 - What knowledge is relevant for the business and necessary to stay competitive and ahead of competition
 - What knowledge sources are relevant (suppliers, partners, customers, internal processes, among others)
 - How to handle formal and informal knowledge
 - How to maintain a vital Knowledge Management in the business (motivation to participate, avoidance of bureaucracy, avoidance of low value knowledge)
- 2. Planning and implementation of Knowledge Management:
 - Based on the Knowledge Management strategy a Knowledge Management Framework
 has to be planned, designed and implemented, meaning the supporting technology has
 to be defined and installed. This includes that rules and policies are implemented to
 protect the knowledge of the business through management of access and security
- 3. Creation and maintenance of Knowledge Management capabilities. This includes:
 - Continuous research and evaluation of Knowledge Management technology
 - Ongoing access control for Knowledge Management system
 - Establishment of knowledge domains and supporting organizational or informal structures
 - Provision of an effective and efficient structure to capture and store knowledge
 - Definition of evaluation criteria for knowledge
 - Establishment of knowledge sharing culture
 - Management of intellectual property

Based on the outcome of these tasks, skill requirements for the staff have to be defined and, if necessary, training requirements have to be determined.

Finally, the structure, process, and technology for Knowledge Management have to be communicated to the process users.

The planning and implementation of the Knowledge Management Framework also includes the continuous improvement of Knowledge Management. For example, the consideration of the Knowledge Management process evaluation and the implementation of recommended improvement actions.

- Business Strategy
 - The business strategy stated in terms of strategic intent, roadmap, drivers, objectives and policies.
- IT Management Ecosystem (From: A1)
 - To paraphrase a dictionary definition: the complex of management system elements, their physical implementation, and all their interrelationships in the unit of space that is the

domain of the IT function. Its fundamental purpose is to provide an environment that is supportive of the carrying out of all of the IT activities defined elsewhere in this model.

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

Inputs

- Knowledge Management Methods and Techniques Available (best practice) methods and techniques for knowledge management (processes, structures) as an input when creating the Knowledge Management Framework.
- Knowledge Management Evaluation (From: A857)
 The result of the evaluation of the Knowledge Management process.

Outputs

- Knowledge Management Framework (To: A852 A853 A854 A855 A856 A857)
 The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)
- Knowledge Management Infrastructure (To: A853 A854 A855 A856 A857) Includes technology and organization (communities) to support the operation on this process, and to enable all other processes to exploit this capability, such as:
 - Technology specifications and implementations for knowledge management
 - Organizational structures necessary for carrying out the knowledge management process (both administrative structures as well as active participants in knowledge management, like communities).

[A852] Create and Maintain Knowledge Plan

Description

This activity is responsible for determining the knowledge content needed to support the undertaking of IT, and creating a plan to ensure that the right knowledge can be available when needed by any aspect of the IT undertaking.

It will create the plan by understanding:

- The direction that IT is taking in both a technical and a customer positioning sense
- General trends in knowledge aspects of the IT industry and of the industry of the parent business
- The specific skill areas that are being developed, and for which suitable knowledge will be needed
- The current strengths and weaknesses (gaps) in the available knowledge

The outcome of this will be used by the operational activities within the Knowledge Management process to guide the acquisition and dissemination of knowledge.

Controls

■ Knowledge Management Framework (From: A851)

The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)

■ IT Strategy (From: A3 A31 A315)

A consolidated statement of IT initiatives. Includes a summary of changes to IT capabilities and a summary of each strategic IT initiative. Also includes a statement of planned and required changes to the IT Portfolio and IT Plan. The IT Sourcing Strategy would be included.

Technology Capabilities and Trends

Available external data, both uncoordinated and already analyzed, of world class IT technologies available, declining, and emerging.

■ IT Portfolio (From: A3 A36 A365)

A central repository containing all the IT resources and assets, projects, and services controlled and managed by the IT organization, departments, and functions.

■ Architecture Baselines and Roadmaps (From: A3 A33 A334)

Provides an agreed, published statement of the required architecture at a moment in time. Includes statements to assist in selection and evaluation of appropriate implementations of specified architecture building blocks.

■ Security Policy (From: A7 A72 A722)

The statement of the types and levels of security over information technology resources and capabilities that must be established and operated in order for those items to be considered *secure*. It provides management direction into the allowable behaviors of the actors working with the resources and exercising the capabilities. It defines the scope of management and specifies the requirements for the security controls.

Inputs

■ Skills Plan (From: A84 A844)

Projection of skills needed, including indicating where training is required. For skills identified to be developed through external means, this represents a requisition to procurement.

Knowledge Sources and Categories

The meta-data aspects of the internal and external knowledge, such as:

- Potential knowledge sources
- Potential structure for knowledge
- Knowledge Reports (From: A856)

Reports indicating the status and key performance indicators for the knowledge being managed. They include identification of:

- Patterns and trends of usage
- Corresponding topics or items that could require additional or reduced focus in the Knowledge Management Plan
- Knowledge Request Queue (From: A855)

The entirety of knowledge requests that are as yet unsatisfied (because of time or knowledge gaps).

■ Knowledge Gaps (From: A854)

Any gaps in relevant knowledge that have been identified.

Outputs

- Knowledge Plan (To: A853 A854 A855 A856)
 Indicates the subject areas in which knowledge is required, and the type of knowledge items in those subjects. This includes guidance on knowledge subjects which are now stabilized, and those which are becoming less important.
- Knowledge Management Activity Data (To: A857)
 Any data about the accomplishment of process activities that support the evaluation of the overall Knowledge Management process.

[A853] Acquire Knowledge

Description

The acquisition of knowledge contains the development, capturing, and harvesting of (unstructured) knowledge. This includes both formal and documented, informal and tacit knowledge, and the acquisition of knowledge from all sources determined in the Knowledge Management strategy.

Important for this activity are the identified gaps in knowledge and the analysis of queued knowledge requests so that knowledge can systematically be captured according to the gaps and requests.

Controls

- Knowledge Plan (From: A852)
 - Indicates the subject areas in which knowledge is required, and the type of knowledge items in those subjects. This includes guidance on knowledge subjects which are now stabilized, and those which are becoming less important.
- Knowledge Management Infrastructure (From: A851)
 Includes technology and organization (communities) to support the operation on this process, and to enable all other processes to exploit this capability, such as:
 - Technology specifications and implementations for knowledge management
 - Organizational structures necessary for carrying out the knowledge management process (both administrative structures as well as active participants in knowledge management, like communities).
- Knowledge Management Framework (From: A851)
 - The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)

Inputs

- Knowledge Items
 - Any item or unit of information that feeds into knowledge management, that is included in any knowledge management repository and which belongs to one of the pre-defined relevant knowledge areas.
- Advanced Practices (From: A84 A844)
 - The knowledge and behaviors of leading practitioners that sets a benchmark for others to reach and emulate. The practices will contain subject-matter content, but will also cover techniques for content application and for mentoring.
- Knowledge Gaps (From: A854)
 - Any gaps in relevant knowledge that have been identified.

Outputs

- Knowledge Acquisition Requests (To: A856)
 - An identification of a specific requirement to obtain a body of knowledge so that it is available for any IT process activity.
- Knowledge_ Unstructured (To: A854)
 - Knowledge that has been acquired but not yet has been evaluated and structured. Can be documented or tacit knowledge.
- Knowledge Management Activity Data (To: A857)
 - Any data about the accomplishment of process activities that support the evaluation of the overall Knowledge Management process.

[A854] Evaluate and Structure Knowledge

Description

This activity contains tasks to convert the unstructured knowledge into structured knowledge:

- Valuing knowledge with regard to predefined evaluation and quality criteria (for example, to indicate the degree of conformance with established standards)
- Where the valuation indicates a knowledge item which has intrinsic value, activities relating to intellectual capital protection (such as patent submission) will be triggered
- Verifying and testing knowledge
- Structuring knowledge to aid subsequent matching knowledge to search requests
- Approving or rejecting knowledge for inclusion in knowledge assets
- Making the knowledge available in the selected level of knowledge assets, and updating any relevant search indexes
- Confirming the knowledge submission outcome to the submitter

Additionally to maintain and enhance the knowledge base of the business, this activity also addresses requirements to keep it current:

- Regularly reviewing the knowledge base
- Updating, archiving, or deleting knowledge
- Identifying and communicating gaps and new knowledge areas

- Knowledge Plan (From: A852)
 - Indicates the subject areas in which knowledge is required, and the type of knowledge items in those subjects. This includes guidance on knowledge subjects which are now stabilized, and those which are becoming less important.
- Knowledge Management Infrastructure (From: A851)
 - Includes technology and organization (communities) to support the operation on this process, and to enable all other processes to exploit this capability, such as:
 - Technology specifications and implementations for knowledge management
 - Organizational structures necessary for carrying out the knowledge management process (both administrative structures as well as active participants in knowledge management, like communities).
- Knowledge Management Framework (From: A851)
 - The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)

Inputs

- Knowledge_ Unstructured (From: A853)
 - Knowledge that has been acquired but not yet has been evaluated and structured. Can be documented or tacit knowledge.
- Knowledge Request Queue (From: A855)
 - The entirety of knowledge requests that are as yet unsatisfied (because of time or knowledge gaps).

Outputs

- Knowledge Submission Response
 - Response to the evaluation of knowledge, such as approval, rejection, rework, and others.
- Knowledge_ Appraised and Structured (To: A855 A856)
 - Knowledge that has been assessed according to predefined evaluation and quality criteria (checking for relevance, testing, scrutinizing)
 - Knowledge that has been structured so that it can be published in any knowledge management repository or otherwise made available to satisfy knowledge requests.
- Knowledge Management Activity Data (To: A857)
 - Any data about the accomplishment of process activities that support the evaluation of the overall Knowledge Management process.
- Knowledge Gaps (To: A852 A853 A856)
 - Any gaps in relevant knowledge that have been identified.

[A855] Disseminate Knowledge

Description

Covers the delivery of knowledge to users. It can include both proactively and reactively supplying knowledge, for example:

- Delivery of knowledge by publishing knowledge based on a certain schedule (proactive mode)
- Delivery of knowledge based on individual or group requests (reactive mode)

- Knowledge Plan (From: A852)
 - Indicates the subject areas in which knowledge is required, and the type of knowledge items in those subjects. This includes guidance on knowledge subjects which are now stabilized, and those which are becoming less important.
- Knowledge Management Infrastructure (From: A851)
 - Includes technology and organization (communities) to support the operation on this process, and to enable all other processes to exploit this capability, such as:
 - Technology specifications and implementations for knowledge management
 - Organizational structures necessary for carrying out the knowledge management process (both administrative structures as well as active participants in knowledge management, like communities).
- Knowledge Management Framework (From: A851)
 - The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)

Inputs

- Knowledge_ Appraised and Structured (From: A854)
 - Knowledge that has been assessed according to predefined evaluation and quality criteria (checking for relevance, testing, scrutinizing)
 - Knowledge that has been structured so that it can be published in any knowledge management repository or otherwise made available to satisfy knowledge requests.
- Knowledge Request
 - A request by a user for a knowledge asset to be available to them.

Outputs

- Knowledge Assets (To: A265 A613 A652 A653 A654 A84 A844)
 Any information from knowledge management that fulfills a knowledge request.
- Operational Documentation (To: A45 A454 A523 A613 A621 A651 A654 A655 A664 A723 A736 A764 A765 A766)

The subset of knowledge assets that represent the set of material, both externally provided and internally generated, required to support the development, deployment, operation, and maintenance of solutions and services.

- ITIL uses the term Operational Document Library to refer to an implementation of this output.
- Knowledge Management Activity Data (To: A857)

 Any data about the accomplishment of process activities that support the evaluation of the overall Knowledge Management process.
- Knowledge Request Queue (To: A852 A854)
 The entirety of knowledge requests that are as yet unsatisfied (because of time or knowledge gaps).

[A856] Monitor, Assess and Report Knowledge Status

Description

This activity monitors the usage, currency, completeness, and user satisfaction with the knowledge managed by this process. It assesses the status of these characteristics against the Knowledge Management Plan, and identifies patterns and trends of knowledge usage and requests, including topics for which requests are satisfied only partially or not at all. It makes these assessments available using reports, both regular and ad hoc.

- Knowledge Plan (From: A852)
 - Indicates the subject areas in which knowledge is required, and the type of knowledge items in those subjects. This includes guidance on knowledge subjects which are now stabilized, and those which are becoming less important.
- Knowledge Management Infrastructure (From: A851)
 Includes technology and organization (communities) to support the operation on this process, and to enable all other processes to exploit this capability, such as:
 - Technology specifications and implementations for knowledge management
 - Organizational structures necessary for carrying out the knowledge management process (both administrative structures as well as active participants in knowledge management, like communities).

Knowledge Management Framework (From: A851)

The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)

Inputs

Knowledge Acquisition Requests (From: A853)

An identification of a specific requirement to obtain a body of knowledge so that it is available for any IT process activity.

■ Knowledge_ Appraised and Structured (From: A854)

Knowledge that has been assessed according to predefined evaluation and quality criteria (checking for relevance, testing, scrutinizing)

Knowledge that has been structured so that it can be published in any knowledge management repository or otherwise made available to satisfy knowledge requests.

■ Knowledge Gaps (From: A854)

Any gaps in relevant knowledge that have been identified.

■ Knowledge Management Feedback

Feedback from any user of knowledge (the processes and the content) as to the usefulness, completeness, accuracy or any other relevant aspect.

Outputs

■ Knowledge Reports (To: A852 A857)

Reports indicating the status and key performance indicators for the knowledge being managed. They include identification of:

- Patterns and trends of usage
- Corresponding topics or items that could require additional or reduced focus in the Knowledge Management Plan
- Knowledge Management Activity Data (To: A857)

Any data about the accomplishment of process activities that support the evaluation of the overall Knowledge Management process.

[A857] Evaluate Knowledge Management Performance

Description

In order to control both the Knowledge Management process as well as the sharing and reuse of knowledge in the business, this activity evaluates according to the measurements defined in the Establish Knowledge Management Framework activity:

- Review the effectiveness of the Knowledge Management process activities (acquiring, evaluating, supplying knowledge)
- Assess the effectiveness of Knowledge Management in the business by analyzing knowledge sharing and submission, knowledge delivery, and knowledge usage by establishing tracking and reporting mechanisms

The review and assessment results will be used to document the overall knowledge management performance and to suggest improvement actions for the Knowledge Management processes, and for the Knowledge Management Framework itself.

Controls

- Knowledge Management Infrastructure (From: A851)
 Includes technology and organization (communities) to support the operation on this process, and to enable all other processes to exploit this capability, such as:
 - Technology specifications and implementations for knowledge management
 - Organizational structures necessary for carrying out the knowledge management process (both administrative structures as well as active participants in knowledge management, like communities).
- Knowledge Management Framework (From: A851)

The framework that contains all relevant information about the structure of the Knowledge Management process (the strategic goals for knowledge management, the definition of relevant knowledge, and knowledge sources)

Inputs

- Knowledge Reports (From: A856)
 - Reports indicating the status and key performance indicators for the knowledge being managed. They include identification of:
 - Patterns and trends of usage
 - Corresponding topics or items that could require additional or reduced focus in the Knowledge Management Plan
- Knowledge Management Activity Data (From: A852 A853 A854 A855 A856)
 Any data about the accomplishment of process activities that support the evaluation of the overall Knowledge Management process.

Outputs

■ Knowledge Management Evaluation (To: A851)

The result of the evaluation of the Knowledge Management process.

PRM-IT A8 Node Tree

A8 – ADMINISTRATION	
A81	Financial Management
A811	Establish Financial Management Framework
A812	Perform Financial Modeling
A813	Plan and Control Budgets
A814	Perform Financial Accounting
A815	Administer Charging
A816	Audit Financials
A817	Evaluate Financial Management Performance
A82	Supplier Management
A821	Establish Supplier Management Framework
A822	Manage Portfolio of Suppliers
A23	Manage Supplier Contracts
A824	Manage Procurement
A825	Evaluate Supplier Performance
A826	Provide Supplier Product and Service Information
A827	Evaluate Supplier Management Performance
A83	Service Pricing and Contract Administration
A831	Establish Service Pricing and Contract Administration Framework
A832	Collect Pricing Data
A833	Provide Price Alternatives
A834	Administer Customer Contract Agreement
A835	Monitor Pricing Effects
A836	Evaluate Service Pricing and Contract Administration Performance
A84	Workforce Management
A841	Establish Workforce Management Framework
A842	Forecast and Plan Workforce
A843	Administer Human Resources
A844	Manage Skills
A845	Evaluate Workforce Management Performance
A85	Knowledge Management
A851	Establish Knowledge Management Framework
A852	Create and Maintain Knowledge Plan
A853	Acquire Knowledge
A854	Evaluate and Structure Knowledge
A855	Disseminate Knowledge
A856	Monitor, Assess and Report Knowledge Status
A857	Evaluate Knowledge Management Performance

Figure 7. A8 Administration Node Tree