BP5- BUSINESS MODELLING: VALUE STREAM, PROCESS, SERVICE

Telecommunications Business Process – eTOM Flows

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- Prerequisite
 - Familiarity with eTOM level-2 processes, especially Fulfillment, Assurance and Billing

Understanding Process Flows



KPI to Capability Tracability



Understanding Process Flows



Understanding Process Flows

- eTOM is a business process framework organized as a hierarchical process listing or <u>decomposition</u>, i.e. "tree diagram" – which is great for classifying "what" a process does into categories and sub-categories …
- ... but eTOM does not contain process <u>flows</u>, i.e. "blocks and <u>arrows</u>" which people look for to understand "how" a process actually unfolds.



Understanding Process Flows: A Sample Process Decomposition

Enterprise Management



Customer

ture & Product Product Operations Construct Support Support

CustomerMarke Processes
 Service Product Processes
 Suppler/Partner Processes
 Sup

Network

rategy, Infrastructure & Product

Understanding Process Flows: A Sample Process Flow



Understanding Process Flows: **Process Decompositions and Flows are Complementary**

- Both process listings/decompositions and process flows are needed just like a book's index (listing by category) and table of contents (flow) are both needed, but for different purposes.
- Process flow, business stream, value stream, journey these terms are often used interchangeably, but the common intent is to show a <u>time sequence from</u> <u>one step to another</u> rather than a listing or decomposition which shows no such flows (eTOM out of the box).
- An eTOM listing/decomposition alone is helpful for creating "heat maps", to show what processes are in scope, where functional gaps exist, etc. ...
- ... but engaging clients in process discussions with eTOM but no process flows is hardly better than a dictionary and a blank sheet of paper – eTOM on its own simply has no process content the way most business people think of process!
- So we need to pre-build process flows, using TMForum examples, work from past engagements, process experts, best practices, etc.... but where do we start?

- There are infinitely many possible flows one can construct using eTOM blocks. Which flows are the best ones to prepare?
- Based on the need to have holistic and intuitive flows, our focus will be on customer-centric, "end-to-end" flows, suggesting a "closing of the loop", i.e. the customer who has triggered the flow by placing a request, receives satisfaction as to the request's completion by the end of the flow.
 - For example, the process flow "Configure Router" would not be an end-to-end flow from the customer's perspective, since it typically would not begin and end with a customer action.
 - However, a flow that begins with customer placement of an order, follows with fulfillment of the order by the CSP (including router configuration), and ends with customer confirmation of product delivery, would be an end-to-end flow.
- Unfortunately, there is no one common set of "end-to-end flows", although there is no shortage of terms for such constructs, often with an "X to Y" naming pattern, like "Lead to Order", "Order to Cash", "Hire to Retire", "Record to Report", etc.

Understanding Process Flows: TMForum Process Flows

 The relatively recent eTOM document "GB921 Addendum E" attempts to add to this discourse, by describing the several major customer-centric flows – the four depicted below will be the core of this presentation.



Understanding Process Flows: Accessing eTOM Documentation

- While TMForum and eTOM documentation is not at all necessary to go through this presentation, if you are a TMForum member, then you will have access to the source documents.
- The latest eTOM materials can be found here:
 - Primary archive PDF: <u>https://www.tmforum.org/resources/suite/gb921-business-process-framework-r14-5-1-pdf/</u>
 - Alternate archive Word: <u>https://www.tmforum.org/resources/suite/gb921-business-process-framework-r14-5-1-word/</u>
 - Handy Poster: <u>https://www.tmforum.org/resources/standard/business-process-framework-etom-poster-frameworx-14-5etom/</u>
- Note that the TMForum update cycle is 6-months, so these links may change, in which case you will need to search on the TMForum site for the latest archive of refreshed eTOM documents.
- Much of the content and images for this PowerPoint walk-through come from:
 - "GB921E End to End Process Flows R13.5.0.docx"
- Keep in mind that there is no one "correct" process flow. The examples which follow are illustrative, and suppress detail when it is repetitive or cluttered.
- We're now ready to begin with the first process flow …

Flow 1: Request-to-Answer

- Overview
 - This process flow comprises activities relevant to managing customer requests across all communication channels (customer interfaces).
 - Specific information requests or product requests from the customer are qualified and addressed.
 - This could lead to the preparation of a pre-sales offer if the customer shows interestin a particular product.
- Assumptions
 - The offer preparation may or may not lead to a reservation of resources in advance.
 - Resources might be reserved for some special products or customers depending on the operator's policies and procedures.
 - If the offer is accepted by the customer, the next process flow 'Order to Payment' istriggered.
- Examples
 - Customer calls in to request product and pricing information
 - Customer walks into a store interested in upgrading to an HD set-topbox
 - Customer logs on to a website to explore offerings
 - Customer sends an email to ask request product literature

Request-to-Answer: Key Elements

Tasks Presentation of portfolio	Request	Request-to-Answer	
 Customer access to products Customer access to product portfolio Handle customer retention and loyalty Handle customer data Offer management Handle product request Provide status information Provide consultation Trigger to perform cross- or upselling activities 	Input Customer need Customer product request General information request Product catalog Product portfolio 	Output Offer Product information General information Status information 	
	 Critic Time to offer Amount new customers (per product) Customer requests vs. offers Ability to offer seamless services Standardized vs. individual offers Product complexity 	 Cal Issues Request handling time Customer satisfaction measurement First done rate Availability of relevant information Availability of products and services at customer location Availability of contact center and channels 	

Request-to-Answer: Footprint in eTOM Level-2

eTOM Level2

- 1.1.1.1 CRM Support & Readiness
- 1.1.1.2 Customer Interface
 Management
- 1.1.1.3 Marketing Fulfillment Response
- 1.1.1.4 Selling
- 1.1.1.5 Order Handling
- 1.1.1.9 Retention & Loyalty

Request-to-Answer





Request-to-Answer: Where to Get eTOM Level-3 Detail?

timførum Inform innovate accelerate optimize	
	Addisendum D – Phoness Checompositions and Checompositions Experies Property Framework (#CMCR Fr13) 1.1.1.10 Bill Invoice Management
Frameworx Standard	
Business Procless	Management
Framework (eTOM)	Appy Printing. Appy Printing. Apply Produce & Distribute Interview Martine
Process Decompositions and Descriptions	Paper 8111288/Invinite Management decomposition Bill Investice Management
Business Process Framework GB921 Addendum D Release 14.5.1 March 2015	Process Genetal Process Context Process contex
	enterprise revenue is blied and mucics disvisent appropriately to outtomers. These processes are responsible for, but not limited to: ©TM Forum 2015. All lights Reserved. Page 80 of 6.36
Latest Update: Frameworx Release 14.5 TM Forum Approved	
Version 14.5.2 IPR Mode: RAND	
(2 TM Forum 2015. All Rights Reserved.	eTOM Level-3 Detail: GB921 Addendum D eTOM Level-4 Detail: GB921 Addendum DX

http://www.tmforum.org

Request-to-Answer: Relevant eTOM Level-2 Decompositions, Part 1



Note: For Level-3 block details, consult TMForum GB921 Addendum

Request-to-Answer: Relevant eTOM Level-2 Decompositions, Part 2





Request-to-Answer: Sample Flow in eTOM Level-3



Flow 2: Order-to-Payment

- Overview
 - This process deals with all activities which convert the customer request or an accepted offer into a 'Ready for use' product.
 - This process involves capturing customer order information, triggering the relevant provisioning process and handing over the order to the Service layer.
 - Once the product is successfully provisioned, the customer order is closed and the customer satisfaction is validated.
- Assumptions
 - This scenario is relevant for products offered to the mass customerbase.
 - Pre-order feasibility check verifies whether the requested product can be offered to the customer based on the service / resource availability, the product portfolio, and the customer's configuration.
 - Pre-order feasibility check would not generally involve the reservation of resources prior to issuance of customer order.
 - However, there might be a reservation of some critical resources, depending on the operator's policies and procedures.
- Examples
 - Customer calls to order high-speed internet
 - Customer walks into a shop to buy a mobile phone with service

Order-to-Payment: Key Elements

Tasks	Order-to-Payment		
Handle customer contract			
Handle customer data			
Handle customer order	Input	Output	
Check credit worthiness			
Order monitoring	Accepted offer	Invoice	
Check order entry	Contract	Ready for service confirmation	
Initiation of production order	Inventory information	Hardware, firmware, software	
Convert the customer interaction	Customer data	Order confirmation	
Consider service / resource / supplier partner layer	 Product elements, their relations and constraints 		
Testing of services and resources	 Suppliers, distributors, subcontractors, etc. (SLAs) 		
Activation of products			
Trigger to start data collection for billing	Critical Issues		
Generate & provide invoice	Rework rate	Reliability	
Trigger to start ongoing operation	Short cycle time between contract	Availability of relevant resources (e.g.	
Order splitting	closure and service usage (Time to	services, CPE, field service rep, partners)	
Trigger to perform cross- or up- selling activities	 In-time delivery of different product elements 		
	Time of order handling		
	Ability to offer seamless services		

Order-to-Payment: Footprint in eTOM Level-2

eTOM Level2

- 1.1.1.1 CRM Support & Readiness
- 1.1.1.2 Customer interface
 Management
- 1.1.1.3 Marketing Fulfilment
- Response
- 1.1.1.4 Selling
- 1.1.1.5 Order handling
- 1.1.1.9 Retention & Loyalty
- 1.1.1.10 Bill Invoice Mgmt
- 1.1.2.1 SM&O Support & Readiness
- 1.1.2.2 Service Configuration
 & Activation
- 1.1.3.1 RM&O Support & Readiness
- 1.1.3.2 Resource
 provisioning
- 1.1.4.1 S/PRM Support & Readiness
- 1.1.4.2 S/P Requisition Management
- 1.1.4.5 S/P Settlements & Payments Management

Order-to-Payment

Operations















Order-to-Payment: Sample Flow in eTOM Level-3



Flow 3: Usage-to-Payment

- Overview
 - This process deals with all activities related to the handling of the product/serviceusage.
 - The accuracy of pricing is ensured and all usage data is captured and duly processed for billing information requests and bill generation.
- Assumptions
 - This scenario is relevant for products offered to the mass customer base.
 - The process elements 'Mediate Resource Usage Records' and 'Guide Resource Usage Records' are not always applicable.
 - 'Perform Rating' element is usually under the Customer layer for customized products, and under the Service layer for standardized products.
- Examples
 - Customer makes toll calls
 - Customer receives a report of all long-distance phone calls made last month

Usage-to-Payment: Key Elements

Tasks Customer uses product Collect usage data	Usage-to-Payment	
Manage customer QoS / SLA Execute self service Execute self administration Analyze usage records Mediate usage records Rate usage records Generate invoice Provide invoice Trigger to perform cross- or up- selling activities Generate customer insights	Input Ready for service Usage of product Customer administration service 	 Output Close session Invoice Usage data repot Change of product administration Trigger to cross and up-selling
Product insights Network insights Identify relevant marketing activities	 Timely and accurate invoice Monitoring of service level / QoS Usage record collection Achieved service level Consistency of tariff configurations Usability 	• Transparency about billing relevant marketing activities)

Usage-to-Payment: Footprint in eTOM Level-2

eTOM Level2

- 1.1.1.1 CRM Support & Readiness
- 1.1.1.2 Customer interface
 Management
- 1.1.1.7 Customer QoS / SLA Management
- 1.1.1.9 Retention & Loyalty
- 1.1.1.10 Bill Invoice Management
- 1.1.1.13 Charging
- 1.1.1.14 Manage Billing Events
- 1.1.2.5 Service Guiding & Mediation
- 1.1.3.6 Resource Mediation & Reporting
- 1.1.4.1 S/PRM Support & Readiness
- 1.1.4.5 S/P Settlements & Payments Management

Usage-to-Payment











Usage-to-Payment: Sample Flow in eTOM Level-3



- Overview
 - This process deals with a technical complaint (problem) initiated by the customer, analyzes it to identify the source of the issue, initiates resolution, monitors progress and closes the trouble ticket.
 - The basis for a problem is an unplanned interruption to a product / service or reduction in the quality
 of a product/service. (In comparison, the process "complaint-to-solution" deals with customer inquiries
 in which the customer is not pleased with a product or handling speed of an inquiry etc.)
- Assumptions
 - This scenario is relevant only for technical complaints which are termed as 'problems'.
 - Problems such as no outgoing call or SMS and faulty handset, may be resolved at first level support or re-directed to other layers
- Examples
 - Customer calls to report that there is no internet access
 - Customer calls to report a cable channel has choppy video

Problem-to-Solution: Key Elements

Tasks **Problem-to-Solution** Handle trouble (e.g. customer incident) Handle customer retention and Output Input loyalty Receive trouble (e.g. customer Customer trouble (e.g. customer incident) Resolved trouble (e.g. customer incident) • incident) QoS monitoring report Record on customer satisfaction . Qualify trouble (e.g. customer Customer retention philosophy incident) Credit note or invoice (if applicable) ٠ Manage trouble (e.g. customer Identified improvement potential (if incident) applicable) Track and monitor trouble (e.g. Trigger to cross and up-selling customer incident) Ticket handling Trigger to perform cross- or upselling activities **Critical Issues** Availability of contact center and channels Usage of relevant information for the continuous process improvement Response time of the trouble (e.g. incidents) Permanent elimination of the problem reason Time to solution / conclusion Ratio of 1st and 2nd level resolutions Customer satisfaction measurement Stabilize endangered customer relationship

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Problem-to-Solution: Footprint in eTOM Level-2

eTOM Level2

- 1.1.1.1 CRM Support & Readiness
- 1.1.1.2 Customer interface
 Management
- 1.1.1.6 Problem Handling
- 1.1.1.9 Retention & Loyalty
- 1.1.1.10 Bill Invoice Management
- 1.1.1.12 Bill Inquiry Handling
- 1.1.2.3 Service Problem Management
- 1.1.3.3 Resource Trouble Management
- 1.1.4.3 S/P Problem Reporting & Management

Problem-to-Solution:




Problem-to-Solution: Relevant eTOM Level-2 Decompositions, Part 1





Note: For Level-3 block details, consult TMForum GB921 Addendum

Problem-to-Solution: Relevant eTOM Level-2 Decompositions, Part 2







Note: For Level-3 block details, consult TMForum GB921 Addendum D

Problem-to-Solution: Sample Flow in eTOM Level-3



Conclusion

- In this guided PowerPoint walkthrough, we have reviewed the following customercentric, end-to-end flows, and how they can be constructed out of eTOM processes:
 - Request-to-Answer
 - Order-to-Payment
 - Usage-to-Payment
 - Problem-to-Solution
- Remember, the eTOM framework does not contain process flows itself. eTOM gives you the elements with which to build a process (flow), and these elements are organized by process (hierarchy). To connect with business people, you need to have flows!
- This should help you on process projects, when you have to build process flows using eTOM.

For More Information

- TMForum
 - eTOM primary archive PDF: <u>https://www.tmforum.org/resources/suite/gb921-business-process-framework-r14-5-1-pdf/</u>
 - eTOM alternate archive Word: <u>https://www.tmforum.org/resources/suite/gb921-</u> business-process-framework-r14-5-1-word/
 - Within archive, find:
 - eTOM Process Flows: GB921E End to End Process Flows R13.5.0.docx
 - eTOM Level-3 Detail: GB921 Addendum D eTOM
 - eTOM Level-4 Detail: GB921 Addendum DX

Enterprise Transformation Planning



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Business Area Architecture



Process Hierarchy -Sample

STC

Telecom Knowledge Library – An Overview

A TSP Knowledge Library

The knowledge library is a distillation of knowledge from various process transformations and design projects that we have done for TSPs over the years. It consists of two key areas: The Process Library and the Value Blueprint (Metrics) Repository

Processes Covered

- Segments
- ✓Retail
- ✓Enterprise
- ✓Wholesale

Channels

- ✓ Call centre
- ✓ Self Service
- ✓ Retail Shop/ Dealer shop
- ✓Account Manager

✤Products

- Mobile voice and internet
- ✓ Fixed voice and internet
- ✓ IPTV/SAT TV/ Hybrid TV
- ✓Enterprise Products

Areas Covered

Across SIP and FAB areas
Product, segment and channel agnostic
Across BSS and OSS domains

Value Blueprint Repository

Processes Mapped to Metrics Mapped to Best Practices
A Balanced Scorecard Framework of Metrics
A Top Down ready reckoner to see what actions drive value

Total e-2-e Process Models - 180

Mapped to organizational swim-lanesCross-system process modelsKey to system capabilities and integration requirements



Evolution of the Knowledge Library

The Knowledge Library has evolved over years of transformative engagements with Telecom Service Providers with various business models and from multiple geographies.



Process Repository: Architecture

Our process repository is built on a 'two tower' approach, where we have standard eTOM blocks in one tower, e2e business scenarios in the other; with a clear mapping between the two.



Process elements are building blocks of end-to-end business process scenarios. These are:

- A description of the ideal ways of working
- Decomposition of Leaf nodes of eTOM
- Contain process attributes of RACI, System/Capability, Business Rules



An end-to-end business scenario is an integrated view of a set of interconnected activities carried out to achieve a common business objective across STC, like Lead to Activate. These are:

- Designed by concatenating process elements
- Provide an end-to-end view for IT realization and integration
- Measured through KPIs

Business Scenarios

Our E2E Business Scenario Framework



Our E2E Scenario Framework –

- Effectively marries the Product Life Cycle and the Customer Life Cycle
- Retains the "outside-in" perspective throughout the lifecycle
- Provides an end-to-end view of processes across organizational units and systems
- Is compliant to the *eTOM Framework*
- Enables process segmentation to ensure high returns on transformational investment

Process Repository: Samples



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Value Blueprint Repository

What is Value Blueprint?

We can say it is a map for Telco's , value drivers are the destinations where organizations need to reach. Levers and action items are the path to get there also there are the very important biz metrics acting like GPS to ensure that the organization is on the right track.



Assessment tool covering the Telco value drivers of Revenue and Margin, Operational efficiency and Customer experience. There is a laundry list of action items and associated levers that positively impact Telco organizational value. Exhaustive list of Business and dependent metrics tied to improvement levers.

Helps measure, communicate, improve and report on org activities.

Aids in identifying solution components

Value Blueprint: Metric Framework

Our Value Blueprint utilizes a metric framework to establish key KPIs which are then mapped to process areas with typical best practices or action items, which enables us to focus attention to things that matter most to the enterprise!

Customer Experience					Internal Efficiency				
	Access	Time	Quality	Cost	Time	Quality			
Be Aware							Acquisition		
Interact		Mean Customer Call Wait Time Request Elapsed Time % First Call Resolution	 % Calls Abandoned Distribution of Customer Requests Volume of Customer Requests 				CRM		
Choose		 Mean Duration to fulfill service order % Orders Delivered by commit date 	 % Service Usability Queries % Service Activation Failures % Early Life Failures 		 Mean Time Order to Activation Order to Activation Time by Process Type 	 % Orders Requiring Rework # Hours Per Fulfillment Issue % Orders Pending Error Fix 	Fulfillment		
Manage		 Incident Resolution Time % Problems resolved by due date 	 % SLA Violations % Problems reported by customers % Problems dealt within SLA % Repeat Problems 		 Service Problem Resolution Time Mean Time to Resolve Service Problems 	 Mean Time Between Failures % Maintenance Time Used for Repair % Problems by Cause 	Assurance		
Рау	 % e-Payments received % Payment transactions by method 	• Mean Transaction Posting Time	 % Bills Inaccurate % Billing Contacts % Bills Adjusted Internally % Bills from Last Cycle 		 Days to Prepare Bill Hours per Payment from Receipt to Posting Hours per Pricing Change Hours per Bill Fault resolution 	Mean Age of Billing Errors %XDRs falling into suspense # Times Billing Suspense Files Recycled per month	Billing		

Value Blueprint Samples

Value Drivers Mapped to Best Practices and Process Areas

Value Driver			
Mapped KPIs			
Benchmarked and			
Measured			

		Business Process	Criticality						
Telco Org Value	Value drivers	Improvement Levers	Action Items	L1	L2	Activity Status	Org. Value	Risk 🗸	Additional Comments
Telecom Organizational Value	Customer Experience	Time	Enable identification of the contact, its development, enhancement and update.	Customer relashionship management	Customer Interface management	Medium	Medium	Medium	Customer info updated every week.
		Time	Make available the latest customer info.	Customer relashionship management	CRM - Support & Readiness	High	Medium	Medium	Customer info updated every week.
		Time	Improve routing of calls to the appropriate staff	Customer relashionship management	CRM - Support & Readiness	Medium	Medium	Medium	
		Time	Focus on freeing the time of specializaed staff	Customer relashionship management	CRM - Support & Readiness	High	High	Medium	Jobs not distributed according to CE skill level.
		Time	Reduce wait time during customer interaction	Customer relashionship management	Customer Interface management	Low	High	Low	Average hold time is 50 sec close to benchmark value.

		Performance				
KPI's	Lever	Calculation	Baseline value	Benchmar k Value	Forecasted value	Value Analysis
Average Hold Time	Time	# Seconds for All Customer Call Waiting Time / # Customer Requests	40sec	50 sec	45sec	\Leftrightarrow
Average Handle Time	Time	# Minutes for All Customer Request Handling / # Customer Requests	4-9 min	10- 14 min	8-12 min	♣
First Call Resolution (FCR)	Time	# Customer Requests Handled to Completion on First Call	>71%	> 58%	>65%	

Process Mining – Ensuring Process Change



- RAPID INTELLIGENT PROCESS MINING (RIPM) is an X-RAY of the as-is process
- RIPM uses system logs to "generate" the as-is process and makes the pain-points in it manifest!
- It shows variants that exists in the current state process, which can be used a key input to standardization and 'should-be' design

Alignment with Industry Best Practice

The APQC and SCOR frameworks are used as a guiding mechanism for "Should be" process. They are the mapping layer which are aligned to best practices and COTS capabilities that will be deployed.



Best Practice - Case

- Expertise in providing End to End domain specific business architecture
- Leveraging experience form over 100 transformation programs
- · Exceptional design heritage and dexterity across Strategy, Process, Technology
- engagement Rich Domain Elaborate Experience Repository Wipro World Class Best Practice · Aligned with various Industry BPMN 2.0 and UML based process design Standards like APQC, SCOR, ISA, etc. to enable World Architecture standards · Usage of Standard Frameworks like A highly curated User Experience based APQC PCF and SCOR for Nokia's Journey Model View to cater to futuristic Industry Architecture Tools O2C Process Repository representation requirements & Techniques Association
- Wipro's repository has over 700 models for Supply Chain Specific processes of which 300+ have been anointed to used in this

Best Practice with the Business Process Library

Framework for Nokia Business Process Library

This process reference model has been built over time from Wipro's collective experience of standardizing and simplifying 'spaghetti' processes across quote to cash process



Value from a Process Library

Business Process Architecture will enable organization to easily envisage how to exploit the advantages from:

Monetizing radically new 5G Services	Achieving instant time to market	Offering seamless ubiquitous interactions	Invigorating customer's end-to- end experience	Serving customers on demand	Driving offer and product innovation
Better Eng	aroment	Better	Design	Bottor	litilization

Architectural Assets to better engage with CXO audience: Business focused architectural views around Journey views, Business Process, Scenarios and Use Cases to pique interest and enable easy dissemination amongst senior business leaders

Experience based Design: Customer, product and production journey view completeness, use case with specific goals, business scenario accuracy and future technology relevance as the measure to success.

Extensive Reusability of Process Library : Across various Prospects, Targets and existing Clients the library can be digitally made available for referencing for marketing, sales, product promotion and solution designing by simply sharing registered User ID and password

B2C Process Hierarchy

Wipro has a vast repository of Supply Chain processes, which are aligned with industry best practices (SCOR and APQC PCF), truncated architecture turnaround time, improved process repository reusability & reliability and improved process publishing, training and designing performance.

Wipro's O2C process hierarchy will provide up to 30 % of reduction in effort and time in Process Designing.



Please note that above hierarchy is for illustration purpose only

Aligning L3 Processes to E2E Architecture- Sample



Supplier

RAPIDS - An End to End Use Case



Telecom Process Repository

Process Excellence - Wipro Consulting Services



Level 0:

Strategy, Infrastructure and Product

The Strategy, Infrastructure & Product Process Grouping includes processes that develop strategy, commit to the firm, build infrastructure, develop and manage products, and that develop and manage the Supply Chain. In the eTOM, infrastructure refers to more than just the IT and resource infrastructure that supports products and services. It includes the infrastructure required to support functional processes, e.g., CRM, HR, Marketing. The Strategy, Infrastructure and Product processes direct and enable Operations.

These processes are not day-to-day processes that interact with the customer on a regular basis. They are processes that plan, commit, build, develop, assess and determine direction.

Telecom Process Repository Process Excellence - Wipro Consulting Services

Marketing and Offer Management

Level 1:

1.2.1 Marketing and Offer

Management

This horizontal functional process grouping focuses on the knowledge of running and developing the core business for an Information & Communication Service Provider enterprise. It includes functionalities necessary for defining strategies, developing new products, managing existing products and implementing marketing and offering strategies especially suitable for information and communications products Marketing and offer management are well known business processes, especially in the more competitive e-business environment, where the rate of innovation and brand recognition determine success. Although most companies carry out all these activities, depending upon the size of the company, they are combined in a variety of ways. These processes are enabling processes, but also the key processes that are accountable for commitment to the enterprise for revenue, overall product results and profit and loss. These processes deal with the creation of product, markets and channels; they manage market and product strategies, pricing, sales, channels, new product development (and retirement), marketing communications and promotion



Process Excellence - Wipro Consulting Services



Level 2:

<u>1.2.1.5 Product and Offer</u> Development and Retirement

Product Development & Retirement processes develop and deliver new products or services and product or service enhancements and new features, ready for implementation by the Operations processes. Additionally they handle the withdrawal of product offerings from the marketplace. Product Development and Retirement processes are project oriented (day to day management of product offerings are handled by the Operations processes). The key measures of this process are how effectively are the enterprise's products and services broadened and the time to market for new products and services or features. These processes also manage major product and service updates and enhancement. Business Case development tracking and commitment are key elements of this process, as are project management discipline with defined quality gates.



1.2.1.5.5 Develop Detailed Product Specifications

The Develop Detailed Product Specifications processes develop and document the detailed product-related technical, performance and operational specifications, and customer manuals. These processes develop and document the required product features, the specific service and resource requirements and selections, the specific performance and operational requirements and support activities, any product specific data required for the systems and network infrastructure. The processes ensure that all detailed specifications are produced and appropriately documented. Additionally the processes ensure that the documentation is captured in an appropriate enterprise repository.



This process aims at developing detailed technical, performance and operational specifications for the approved product concepts:

- 1. Determine product/Product Offering features
 - The technical and performance features of the product/offer to be developed is determined in this step.
 - Features are derived from the concept paper and the approved business proposal
- 2. Prioritize product/product offering features
 - The features determined are prioritized using the Quality Function Deployment NPD templates provided
 - Customer experience parameters are rated and impact of features on these parameters is scored and weighted.
 - Features of highest priority are selected
- 3. Define product/ product offering specifications
 - Features are decomposed into specifications using the templates to maintain traceability
- 4. Determine service components to be reused
 - Based on the product specifications service components in the Enterprise Service Catalogue that can be re-used are determined
 - Service Identifiers are documented
- 5. Identify Service Requirements to be built
 - Requirements to be built as new service components are documented in the format and template necessitated by the 'Service Development and Retirement' processes
- 6. Register service requirements in system
 - Documented service requirements are registered in the SDM workflow tool
- 7. Finalize Product Specifications based on inputs from resource and service
 - Once specification corrections are received from SDM and RDM departments, modifications are made to product specifications.
- 8. Prepare Product Specifications Document
 - Product specifications are documented and handed over to the 'Manage Product Development' process.

Process Repository: Two Tower approach





Wipro's Business Scenario Model



eTOM Business Process Decomposition

Hierarchical Level		Model Type Used
Level 0	Very High Level Process Grouping as per eTOM	Value Added Chain Diagram
Level 1	Level 1 represents the high level value chain as prescribed by eTOM Examples – • Customer Relationship Management • Service Development and Management	Value Added Chain Diagram
Level 2	Level 2 is a subset of level 1. It represents the 'Core Processes' of a high level value chain as prescribed by eTOM Examples – • Order Handling • Problem Handling	Value Added Chain Diagram
Level 3	Level 3 is a subset of level 2. It represents the 'business processes' within each L2 process	Value Added Chain Diagram
Level 4	Level 4 is a subset of level 3. It represents the activities contained within each of the L3 business processes	Value Added Chain Diagram
Level 5	Level 5 is a subset of level 4. Detailed expansion of a Level 4 processes capturing activities, roles, and associated information.	BPMN collaboration diagram (BPMN 2.0)

Business Scenarios - Overview

The process architecture consists of two views of processes – Business Scenarios and Process Elements.

Business Scenarios	Process Elements (Capabilities)
Strategy to Offering Campaign to Lead Lead to Order Order to Activate Usage to Bill Bill to Payment Customer Service	Level 2 Level 3
Support	Level 4 Level 5

An end-to-end business scenario is an integrated view of a set of interconnected activities carried out to achieve a common business objectives of CSP , like Lead to Activate. These are:

- Designed by concatenating process elements
- Use eTOM Leaf nodes
- Provide an end-to-end view for IT realization and integration
- Measured through KPIs

Process elements are building blocks or capabilities for end-to-end business process scenarios. These are:

- L4/L3 Process Models
- Decomposition of Leaf nodes of eTOM
- Contain process attributes of RACI, System/Capability, Business Rules

Business Scenarios (based on eTOM)



All Business Scenarios are mapped at the Leafnode level (that is eTOM L4 level) In case if eTOM has only defined levels till Level 3/2, then the last leaf would be L3/L2

Process Repository: Samples


Thank You

BP5- BUSINESS MODELLING: VALUE STREAM, PROCESS, SERVICE



Order Management is a major priority for process transformation



So what happens E2E in Order Management (L2)



Translated into a Process View - Add (in MACD) – End to End



For the Demo - Order Management Architecture – E2E Use Cases



What we going to address in the Demo for Order Management (L2)





Another Depiction – High Level Scope for Demo



High Level Solution Architecture



Use Cases – CSR Perspective



Architecture – Demo Use Cases & Scenarios – Page 1

Handle Request for PRI Product from a Prospect (ADD) - Happy Scenario

- A new customer is interested in the "PRI" product offering.
- He/she works with a CSR (using Sterling CPQ) to configure the product offering
- The CSR explains to her/him the feature's that are available
- The CSR prepares and saves a price quote that includes products/services and agreement details
- The Customer accepts the quote and when done the CSR submits the Customer Order for fulfillment.
 - Alternatively the Customer holds off on completing the order while the are in the "shop around" stage but may come back later to complete
- Order flows through the various fulfillment stages of Solution Design, Service Activation & Activation of Billing
- The customer (contact person) is notified of order completion (on a UNI/Leg basis).

Architecture – Demo Use Cases & Scenarios – Page 2

Handle Request for PRI Product from a Prospect (ADD) - Jeopardy Scenario

- A new customer is interested in the "PRI" product offering.
- He/she works with a CSR (using Sterling CPQ) to configure the product offering
- The CSR explains to her/him the feature's that are available
- The CSR prepares and saves a price quote that includes products/services and agreement details
- The Customer accepts the quote and when done the CSR submits the Customer Order for fulfillment.
- An Solution Design activity in the service order management process fails for a specific site
- An alert is raised and a task is created in a specific work queue for an engineer/technician
- The engineer/technician investigates the failed order and resubmits the task / activity
- The Order flows through the rest of the fulfillment stages of Solution Design, Service Activation & Activation of Billing
- The customer (contact person) is notified of order completion (on a UNI/Leg basis).

Use Cases – Engineer / Technician Perspective



Architecture – Demo Use Cases & Scenarios

Query for Customer Order Details & Status (CSR)

- An existing Customer will query their order details and status
- A CSR will query the system (SterlingOM) for details on a specific order based on Customer information such as customer name, customer address or CustomerOrderID provided by the customer
- The CSR provides relevant details on the order to the Customer, such as order status (complete, in progress etc), any items
 that are in jeopardy, any items that can not be activated at this time, and any changes to the Firm Order Commit Date.
- The CSR may also provide details on what products and services were part of the original order (this may lead to an
 upsell/cross sell use case which would result in a supplimentary order to an in-flight order).

Search for Orders (CSR)

- A CSR will query the system (SterlingOM) for a list of orders based on a specific search criteria (such as orders entered by a specific CSR, orders for a specific customer account, orders within a specific region, orders for a specific product or service etc.)
- The CSR scrolls through the list of orders and may optionally drill down to see the order details and status
- The CSR may refine the search and re-run the search as necessary

Architecture – Demo Use Cases & Scenarios

Look at Customer Order Activities Audit (CSR or Engineer)

- A CSR or an Engineer/Technician will query the sytem (SterlingOM) for Audit level details on a specific Customer Order (Use case may first use Search to first identify the specific order)
- The system will display an Audit of all the Transactions that the order has flowed through along with the intermediate statuses
- The Engineer may drill down to a second level in the Audit to see the specific XML message(s) that were issued and subsequently received

Query for Service Order Details & Status (CSR or Engineer)

- Based on a Customer initiated request to a CSR, a CSR may request an Engineer/Technician to investigate the details of an individual Service order. (or an Engineer may initiate the query based on a known resource limitation, outage or alert)
- An Engineer/Technician will query the system (SterlingOM) for details on a specific order based on CustomerOrderID or based on the Search use case(s)
- He/She will see a list of Service Orders associated with the search, along with the status of the Service Orders
- The Engineer may drill down to a second level in the Service Order to see details of what was include (including technical level details on the order)
- The Engineer may drill down to a further level in an Audit to see specific Tasks and specific XML messages as necessary.

Architecture – Demo Use Cases & Scenarios

View Alerts and Failed Orders Queue (Engineer)

- An Engineer/Technician will log into a specific failure queue and view a list of orders in alert status. There may be different queues for different types of Alert (if specialized engineers are used for different types of alerts).
- The Engineer will select one of the alerts and review the task associated with that alert. They may in addition look at Audit level details on a specific task to determine the root cause of the Alert, or this may be obvious from the Alert and Task information.
- The Engineer will correct the error(s) that caused the alert. This may be as simple as ensuring an end system is up and available, or it may require manual lookup in other end point systems and possible changes to the original order XML.
- The Engineer may re-submit the task that was in alert status and validate that the process is now proceeding correctly (or has successfully reached completion).
- This use case may sometimes involve allocation/assignment of a specific task to a specific Engineer or Technician so that the resulting activities can be tracked and managed, and so that a large pool of tasks/alerts can be handled by a pool of engineers.

Architecture - System Context



Overall Order Management ADD Process for Demo



Customer Order Management Process in A Case with OM package customization

Stubbed. But we recommend this be done before the order comes into core OM. See definition of OM slide



Service Order Management

Enrichment from the Catalog of the Service Order with attributes that would be needed by Cramer and other downstream systems.





Transaction Events / State Transitions

Transaction Detail: Design Solution(Outbound Shipment)							
Transaction ID COMC_DESIGN_S	SOLN.0001.ex				Transaction Name	Design Solution	
Externally Triggered	🖑 Time Triggered	🖁 User Triggered	D Others				
This Transaction is triggered	d from external systems						
Services Triggering	This Transaction						
		Service Name	2				Service Group Name
🕼 Events 🛛 🔎 Pickup S	tatuses 👘 🛃 Drop State	uses 🛛 📩 User Exi	its				
Events							
	Event Id				Event Name		
ON_SUCCESS	Eventia			On Success	Liventente		Y

vent Handler Definition: ON_SUCC	ESS						
				/□.	Continue	>/⊇∖	
				CC CHANGE ON SUCCESS		CC CALL COMPLETE ACTIVAT	E TRANSACTION

Transaction Events / State Transitions



Recommended set of states to be modeled for each of the transactions,

- RUNNING
- FAILED
- COMPLETED
- RESUMED
- SUSPENDED
- ABORTED

Native Invocation of Telecom Pack Business Services



Order Search List

Alerts Order Configuration

Application Console

) 🜔 🚳

Logged in as a CSR	
	ČSR

JSER 1

	Order L	List			Retrieved 10	record(s)
					🛛 View Details 🔒 Vie	w WorkList 🛛 View Tasks 🔏 View Audit ᠉ 🖨
	Order #	Status	Enterprise	Customer #	Order Date	Total Amount
	<u>C20-01</u>	SERVICE ORDER RUNNING	Comcast-Business	001Q00000Q2iG9_CMCST	02/20/2012 10:23:09	\$ 1,098.00
	<u>Y10000051</u>	TASK CREATED	Comcast-Business	001Q00000Q2iG9_CMCST	02/20/2012 10:36:18	\$ 609.00
ľ	<u>Y10000050</u>	TASK CREATED	Comcast-Business	001Q00000Q2iG9_CMCST	02/20/2012 10:36:18	\$ 489.00
2	<u>Y10000031</u>	CANCELLED	DEFAULT		09/26/2011 15:56:44	\$ 0.00
r .	<u>Y10000043</u>	Order Delivered	DEFAULT		10/07/2011 15:30:39	\$ 0.00
	<u>Y10000029</u>	Scheduled	DEFAULT		09/26/2011 15:36:33	\$ 0.00
	Y10000040	Scheduled	DEFAULT		09/26/2011 18:03:57	\$ 0.00
	<u>Y10000027</u>	Scheduled	DEFAULT		09/26/2011 14:39:35	\$ 0.00
	<u>Y100000042</u>	Scheduled	DEFAULT		10/07/2011 15:25:23	\$ 0.00
	<u>Y10000010</u>	SERVICE ORDER CREATED	RealityRealEstate		06/29/2011 02:33:58	\$ 2.99



catalog

L2 View of an Order – One of the Service Order View



L3 View of an Order – Enriched & Detailed Service Order

Attributes

Customer Order line Order # '100000050. Product EBLEUL Product EBLEUL Description Address Strip HI For Date Strip Minimum Value Schwicz Address Value Schwicz	🚺 🔂 Customer Order Line Detail 🗢		Save Help* Close	
Cutsomer Order Line V Image: Cutsomer V <td></td> <td></td> <td></td> <td></td>				
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L4 View of an Order – Task Level Statuses

	Order Line No	otes						Save Help*	Close
Orde	r Line		61						8
	Order # Y	10000076		Line #	1	Line Quantity	1.00		
	Product P Description F	RI FULL Gull(23)		Product Class		Status	SERVICE ORDER COMPLETED	i i	
	Activity Type	_DAL		Order Due Date	(
Note	s								8
	Contact Time	03/06/201 🖽 08:45:23	0	Contact User	csr1		Reason Code	*	
	Contact Type	-	Cor	tact Reference					
Add Note									
Date	User	Reason Contact Type	Contact Reference	Notes					
02/28/201	2 14:09:03			Service Order ha	s moved to RUNNING	G for this Order			
02/28/2013	2 14:09:15			Task '100000046	5' associated with the	e orderline has m	oved to 'TASK CREATED' State	us	
02/28/2013	2 14:21:31			Task '100000046	5' associated with the	e orderline has m	oved to 'DESIGN COMPLETED'	Status	
02/28/2013	2 14:21:31			Task '100000046	5' associated with the	e orderline has m	oved to 'ACTIVATION COMPLE	ETED' Status	
02/28/2013	2 14:21:31			Task '100000046	5' associated with the	e orderline has m	oved to 'TESTING COMPLETED	D' Status	
02/28/2013	2 14:21:31			Task '100000046	5' associated with the	orderline has m	to 'BILL		~
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Applying Sterling OM + Telecom Pack



Telecom Pack - SID based Common Messaging Model



Order Management ADD Processes – *Encompassing More Steps*



Order Management Architecture – RECOMMENDATIONS for all of these topics

Modeling Product Offerings / Products / Services / Resource

- Modularization of entities
- Aggregation of products/services/resources/discounts

Catalog Synchronization

- Billing, Inventory, Order Entry, Order Management
- Structuring of Processes / Workflows
 - eTOM based
 - Product Agnostic
 - Transactions & Tasks
 - Rule based execution of tasks
 - Dynamic selection of SOA Service endpoints
- Order Decomposition & Enrichment
- Order Task Dependency Management
 - Product / Service Order Level Holds
 - Dependency management between service orders

Integration with OSS/BSS

- Application agnostic services and interfaces
- Common Messaging Model
- Dynamic end point selection
- Order Management User Interface

Handling In-flight Order Changes / Supplements / Amends



Nokia Networks

Order Management Scope BPM/Workflow expectations

Nokia Internal Use


NEW ORDER MANAGEMENT PLATFORM SOLUTION

Order management platform is about

Document management

Database access/usage

Tasks and processes (end to end) as shown in the figure below

Traceability

Roles and responsibilities (with backup roles)

Interfacing to parallel process areas (PM, purchasing, offering, HR)

Flexible possibility to reporting

Optimally OM tooling would be built based on

Generic company wide databases

Configurable workflows / Business Process Management (BPM) & automation with clear User Interfaces (UI)

Company wide BPM / management tooling - with OM models (& others) Company wide (fast access/In memory) databases -to be used for OM (& other process areas) Company wide reporting solution to provide UI and access for OM as needed Outcome in practice company wide architectural layer for Workflow tools and databases, used for process management by different process areas, flexibly access neighboring flows. *Its needs to built and link this process tightly to parallel processing Offering, PM etc –(deep collaboration)*

Long Term solution: How do OM projects fit into NG ERP Landscape? Target: 2018



Long Term solution: How do OM projects fit into NG ERP Landscape? Target: 2018



Logistics Order Management Value Chain



Current solution for order handling: from order receipt to cash receipt PEGA SCOPE (expectation)



Future solution for order handling: from order receipt to cash receipt



II. Order Capturing & entry into the ERP 1.B L* to L100 : Recurrent Orders with high CCC Maturity Level / Gate 5



II. Order Capturing & entry into the ERP 2. L* to L100 : Recurrent Orders with Contracted Quote / Gate 5

fA CAE – Order management



FORMER ALU ROW PERIMETER





III Order release & order execution 1. From L100 to L295 / Simple & Medium Complex Orders / Order management Gate 5



III Order release & order execution 2. From L100 to L295 / Complex Orders / under progress



WORKFLOW REQUIREMENTS

Requirements:

•Managing service events triggered by different sources of tools and processes from Nokia.

- •Following up of defined control points and proactively manage inquiries and requests initiated from/to Nokia or any third party stakeholder involved in the process without waiting for trigger or instruction unless there's a decision point identified.
- •Liaison with multiple contacts related to order management.
- •Registering service events (requests and issues) as a work item with unique identifier.
- •Ability to link service events to particular SAP business transactions.
- •Ability to manage and split requests for multiple sub processes or end-customer cases using automation.
- •Dispatching the service event to resolver in minimum time for processing.
- •Providing timestamp for the start and closure of the service event and to any blocking point or dependency throughout the process.
- •Maintaining data for operational capacity planning, visibility and Service Level Agreement calculations.
- •Capturing issues to collect and aggregate data for continuous improvement.
- •Creating a single platform for communication across all markets about service events.
- •Simple messaging enabled between individuals limited to exchange of information but not for service request.
- •Inquiry management system in place with connection to work item and the capability to manage inquiry-feedback with multiple stakeholders in a chain.
- •Using real time visibility of the open work items and backlog to define operational daily priorities.
- •Ability to easily extend workflow management for additional process domains without the need of major redesign.
- •Recognize priority of the service requests and process them accordingly.
- •Transparency, simplicity and completeness in SLA data. It is service provider to ensure that all service request subject for SLA measures a registered in workflow.
- •Handling of escalations using workflow.
- •Workflow is required to support quality processes by creating visibility about transactional and process quality issues and the source/root cause of them •Provider to own the lifecycle of the request from the moment it is captured.

WORKFLOW REQUIREMENTS

This chapter describe Nokia initial expectations for managing Order Management Operations workflow. Final specification will be updated and detailed in RfQ and agreed with Nokia Market representatives.

Supplier is expected to share solution proposals for the listed items. Supplier - based on its experience - is encouraged to introduce any further idea or concept by disclosing required details and supporting facts/result for understanding which could contribute to Nokia's future success.

The provider will perform detailed assessment on Nokia SAP tool standards and any workflow impacting tool and process requirements prior to designing its workflow tool solution.

The provider is expected to capture and process automated catalogue based requests without Nokia intervention.

Provider in its responsibility will maintain its workflow solution in accordance with current and future Nokia tool, milestone and process standards.

•Requirements:

•Managing service events triggered by different sources of tools and processes from Nokia.

•Following up of defined control points and proactively manage inquiries and requests initiated from/to Nokia or any third party stakeholder involved in the process without waiting for trigger or instruction unless there's a decision point identified.

•Liaison with multiple contacts related to order management.

•Registering service events (requests and issues) as a work item with unique identifier.

•Ability to link service events to particular SAP business transactions.

•Ability to manage and split requests for multiple sub processes or end-customer cases using automation.

•Dispatching the service event to resolver in minimum time for processing.

•Providing timestamp for the start and closure of the service event and to any blocking point or dependency throughout the process.

•Maintaining data for operational capacity planning, visibility and Service Level Agreement calculations.

•Capturing issues to collect and aggregate data for continuous improvement.

•Creating a single platform for communication across all markets about service events.

•Simple messaging enabled between individuals limited to exchange of information but not for service request.

•Inquiry management system in place with connection to work item and the capability to manage inquiry-feedback with multiple

TICKETING SYSTEM REQUIREMENTS

Ticketing System tool

The Provider will implement a Web Interface allowing:

- •To display a request type catalog
- •any Nokia person or delegates to capture any request type
- •to display the request type status to any requester (request coming through Web Interface or through email)
- •to display the CSO status to any requester based on Nokia policy milestones
- •to follow up the activities in real time (in out, pending, on time or not) for single request type or at CSO level to display trends in term of volume and performance

The provider will implement a workflow tool allowing:

- •to capture all requests coming via Web, email, automatic notification, batch
- •to dispatch and prioritize the request to the right agents & /or robot
- •to follow up any items including in bulk request
- •to display on line the relevant work instruction for the agent for remaining manual tasks
- •to cross check Agent authorisation/qualification for the request type
- •to display the workflow status
- •to capture the effort & the lead time associated to the request
- •to identify any pending time due to Nokia or other dependencies
- •to capture starting, pending time and closure with date/hour/minute
- •to provide on real type back log report
- •The workflow is enabling to attach and store necessary docs (different lists, PODs etc.)
- web based (user portal where you can log the request or drill down the report) as than it would be easy to bring in any stake holders we want to use it

TICKETING SYSTEM REQUIREMENTS (CON'T)

- The capture and effectively management rework/revision process for corrections or approval chains in place
- Workflow should cover all Logistics Milestones from L* to X650
- Any future change in Nokia Logistics Milestone definitions is to be reflected in providers workflow management system
- Critical Service Level (CSL-Service Provider's ownership) and Key Measurements (KM-Nokia ownership) should be completely linked to LMSs
- Selection of Order Complexity should be mandatory for all SRs (Service Requests) at the time of Customer Purchase Order (CPO) Receipt. (Completion of these SRs create CPO IDs. This step is also applicable for Scratch Purchase Orders/Free of Charge Purchase Orders for creating FOC PO IDs
- Service Requests for all Tasks can be created in sequential steps of LMSs. Meaning Service Requests for Sales orders can be created only by selecting CPO ID, Service Request for Invoice can be created only by selecting Sales Order, Service Request for Shipping Requests can be created only by selecting Invoice and DNs and so on.
- Integration of other Nokia tools should be automated and avoid manual intervention. Operations Control Tower development team should have close coordination and involvement.
- Time stamps should be at the time when an Shipping Request is handed over from Nokia to Service Provider and vice versa
- Tabs for handing Shipping Requests may detail its different statuses, example (1) Return (2) Re-submit (3) Completed (4) Rejected (5) Approved (6) Corrections Out of Rejected Shipping Requests (Root cause for corrections may be by Nokia or Service Provider or other Business Partners)
- Lead-time and Effort should be measured for each activity (Tab) e.g. (1) Return 2hrs Any Shipping Request which needs clarification or missing inputs should be returned to sender (3) Completed Lead-time based on identified CSL/KM And so on
- Tool should provide Complaint Menu which may be used for measuring Quality, Claims for Damage/Loss
- Tool should have separate menu only for Inquiries having separate maid ID, Mobile #, On-line Chatting

II. Order Capturing & entry into the ERP 1.B L* to L100 : Recurrent Orders with high CCC Maturity Level / Gate 5



II. Order Capturing & entry into the ERP 2. L* to L100 : Recurrent Orders with Contracted Quote / Gate 5

fA CAE – Order management



FORMER ALU ROW PERIMETER





III Order release & order execution 1. From L100 to L295 / Simple & Medium Complex Orders / Order management Gate 5



III Order release & order execution 2. From L100 to L295 / Complex Orders / under progress

