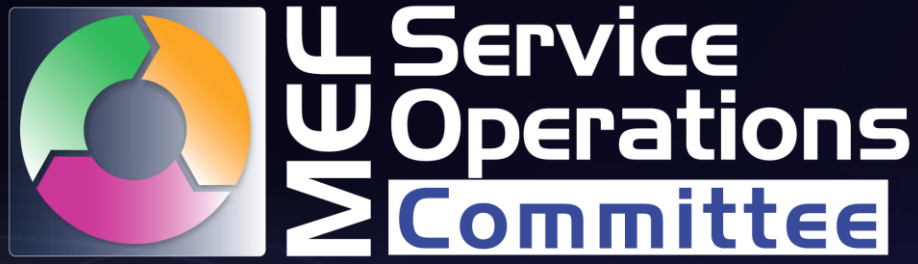


Introducing the Specifications of the MEF

MEF 50: Carrier Ethernet Service Lifecycle Process Model

MEF Reference Presentations

- **Intention**
  - These MEF reference presentations are intended to give general overviews of the MEF work and have been approved by the MEF Marketing Committee
  - Further details on the topic are to be found in related specifications, technical overviews, white papers in the MEF public site Information Center:
    http://www.mef.net/carrier-ethernet/technical-specifications

Outline

- **Approved MEF Specifications**
- **This presentation**
- **About this Specification**
- **In Scope / Out of Scope**
- **Terminology, Concepts & Relationship to other standards**
- **Section Review**
  - Business Process Flow notation
  - Carrier Ethernet Lifecycle Management
    - Product Lifecycle Management
    - Service Operations Lifecycle Management
- **Process Flow Example**
- **Summary**

Approved MEF Specifications*

Specification	Description
MEF 2	Requirements and Framework for Ethernet Service Protection
MEF 3	Circuit Emulation Service Definitions, Framework and Requirements in Metro Ethernet Networks
MEF 4	Metro Ethernet Network Architecture Framework Part 1: Generic Framework
MEF 6.1	Metro Ethernet Services Definitions Phase 2
MEF 7.1	EMS-NMS Information Model Phase 2
MEF 8	Implementation Agreement for the Emulation of PDH Circuits over Metro Ethernet Networks
MEF 9	Abstract Test Suite for Ethernet Services at the UNI
MEF 10.2	Ethernet Services Attributes Phase 2
MEF 11	User Network Interface (UNI) Requirements and Framework
MEF 12.1	Metro Ethernet Network Architecture Framework Part 2: Ethernet Services Layer
MEF 13	User Network Interface (UNI) Type 1 Implementation Agreement
MEF 14	Abstract Test Suite for Traffic Management Phase 1
MEF 15	Requirements for Management of Metro Ethernet Phase 1 Network Elements
MEF 16	Ethernet Local Management Interface

*Current at time of publication. See MEF web site for official current list, minor updates and superseded work (such as MEF 1 and MEF 5)

Approved MEF Specifications

Specification	Description
MEF 17	Service OAM Framework and Requirements
MEF 18	Abstract Test Suite for Circuit Emulation Services
MEF 19	Abstract Test Suite for UNI Type 1
MEF 20	User Network Interface (UNI) Type 2 Implementation Agreement
MEF 21	Abstract Test Suite for UNI Type 2 Part 1: Link OAM
MEF 22.1	Mobile Backhaul Implementation Agreement Phase 2
MEF 23.1	Class of Service Implementation Agreement Phase 2
MEF 24	Abstract Test Suite for UNI Type 2 Part 2: E-LMI
MEF 25	Abstract Test Suite for UNI Type 2 Part 3: Service OAM
MEF 26.1	External Network Network Interface (ENNI) – Phase 2
MEF 27	Abstract Test Suite For UNI Type 2 Part 5: Enhanced UNI Attributes & Part 6: L2CP Handling
MEF 28	External Network Network Interface (ENNI) Support for UNI Tunnel Access and Virtual UNI
MEF 29	Ethernet Services Constructs

Approved MEF Specifications

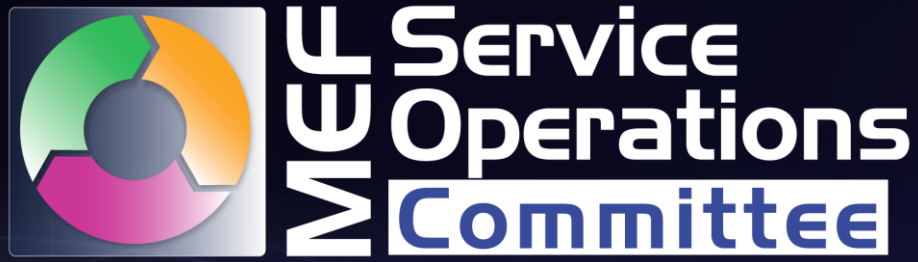
Specification	Description
MEF 30	Service OAM Fault Management Implementation Agreement
MEF 31	Service OAM Fault Management Definition of Managed Objects
MEF 32	Requirements for Service Protection Across External Interfaces
MEF 33	Ethernet Access Services Definition
MEF 34	Abstract Test Suite for Ethernet Access Services
MEF 35	Service OAM Performance Monitoring Implementation Agreement
MEF 36	Service OAM SNMP MIB for Performance Monitoring
MEF 37	Abstract Test Suite for ENNI
MEF 38	Service OAM Fault Management YANG Modules Technical Specification
MEF 39	Service OAM Performance Monitoring YANG Modules Technical Specifications
MEF 40	UNI and EVC Definition of Managed Objects Technical Specification
MEF 41	Generic Token Bucket Algorithm Technical Specification
MEF 42	ENNI and OVC Definition of Managed Objects Technical Specification
MEF 43	Virtual NID (vNID) Functionality for E-Access Services Technical Specification
MEF 44	Virtual NID (vNID) Definition of Managed Objects Technical Specification
MEF 45	Multi-CEN L2CP Technical Specification

Approved MEF Specifications

Specification	Description
MEF 46	Latching Loopback Protocol and Functionality Technical Specification
MEF 47	Carrier Ethernet Services for Cloud Implementation Agreement
MEF 48	Service Activation Testing Technical Specification
MEF 49	Service Activation Testing Control Protocol and PDU Formats Technical Specification
MEF 50	**Carrier Ethernet Service Lifecycle Process Model Guidelines Document**

MEF 50 Specification Overview

MEF 50	Carrier Ethernet Service Lifecycle Process Model
Purpose	A Guidelines document which provides a process model for the generic Carrier Ethernet service lifecycle, including Service Operations Lifecycle management and Product Lifecycle management for MEF defined services.
Audience	All, since it provides the fundamental Carrier Ethernet Service Lifecycle required to operationalize Carrier Ethernet services.



Overview of MEF 50

About MEF 50

- **Purpose:**
  - This presentation is an introduction to MEF 50 – Carrier Ethernet Service Lifecycle Process Model
- **Audience**
  - Service Providers delivering Carrier Ethernet Services
  - Solution/application vendors developing applications or integrations for Carrier Ethernet Service Fulfillment, Assurance or Billing.
- **Other Documents**
  - MEF 50 establishes a foundation for specifications developed by the Service Operations Committee
  - Presentations of other MEF specifications and an overview of all specifications is available on the MEF web site
  - Other materials such as white papers and case studies are also available
  - Service Lifecycle Process Model leverages the TM Forum's Business Process Framework

MEF 50 - In Scope/Out of Scope

- MEF 50 guidelines are primarily driven by needs to operationalize Carrier Ethernet (CE) services using well structured business processes.
- The process model is composed of a series of Process Flows woven together to form a comprehensive CE service lifecycle
- Process Flows are constructed using Business Process Elements leveraged from TM Forum's Business Process Model

Terminology and Concepts

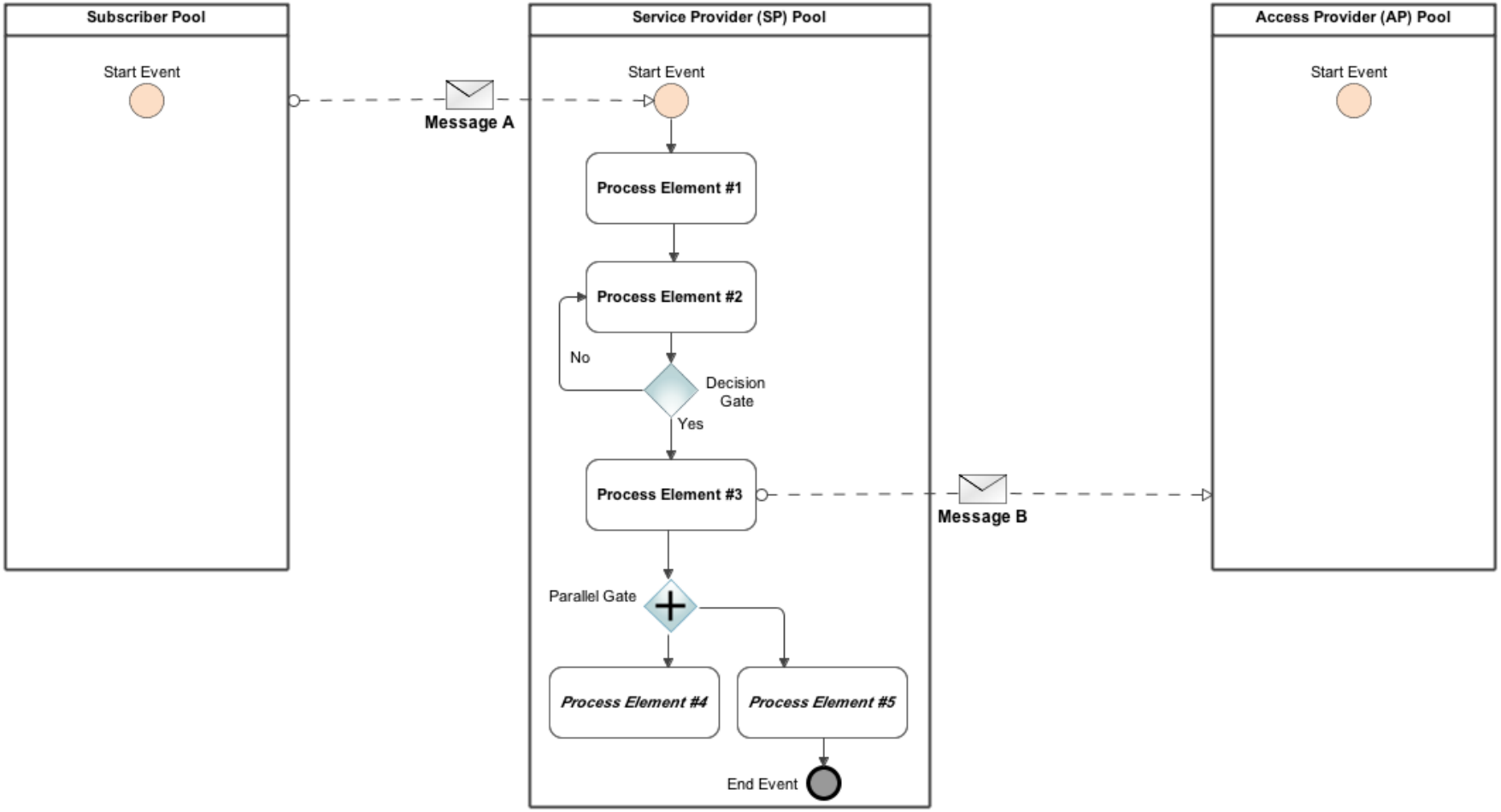
- **MEF 50 introduces business process and lifecycle management terminology**
  - Product Lifecycle
    - Encompasses definition, planning, design and implementation of new products, features or enhancements
  - Service Operations Lifecycle
    - Encompasses selling, order handling, configuration, activation, testing, customer/partner interactions for a service instance.
  - Business Process Model and Notation (BPMN)
    - A graphical representation for specifying business processes and process flows in a business process model
  - Process
    - Describes a systematic, sequenced set of functional activities that deliver a specified result.
  - Process Element
    - Building blocks or components used to assemble end-to-end business processes.
  - Process Flow
    - A graphical representation of the behavior of process elements in an end-to-end process view

TM Forum Business Process Framework

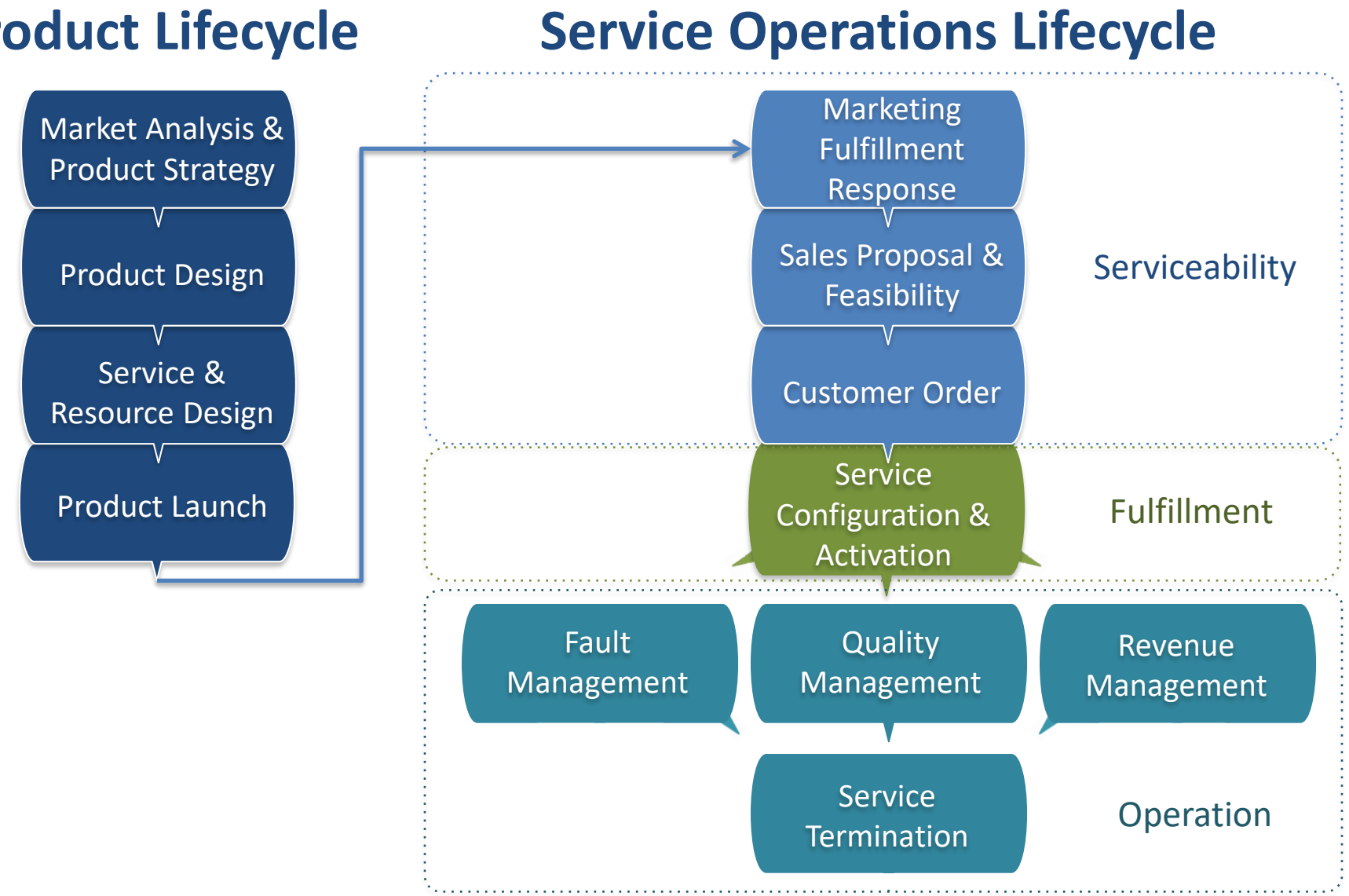
- MEF 50 leverages the TM Forum Business Process Framework (eTOM) Process Element definitions and decompositions applicable to a Service Provider's business
- The eTOM Process Element definitions are the building blocks for creating Carrier Ethernet Process Flows
- MEF 50 focuses primarily on Level 3 Process Elements

Business Process Flow Conventions

- **Process Flows captured using BPMN Collaboration Diagrams**



Lifecycle Management



Product Lifecycle Management

- **Product Lifecycle Management for CE includes the following stages**
  - Market Analysis and Product Strategy
    - Establishes the types of products offered to the market and how they will be sold
  - Product Design
    - Develops specific products and product offerings and establishes requirements for services, resources and partners to support them
  - Service and Resource Design
    - Develop the technical designs that support the required products using design process steps at the service and resource level
  - Launch Products
    - Makes products available to the market and ensures that orders for the products can be successfully filled

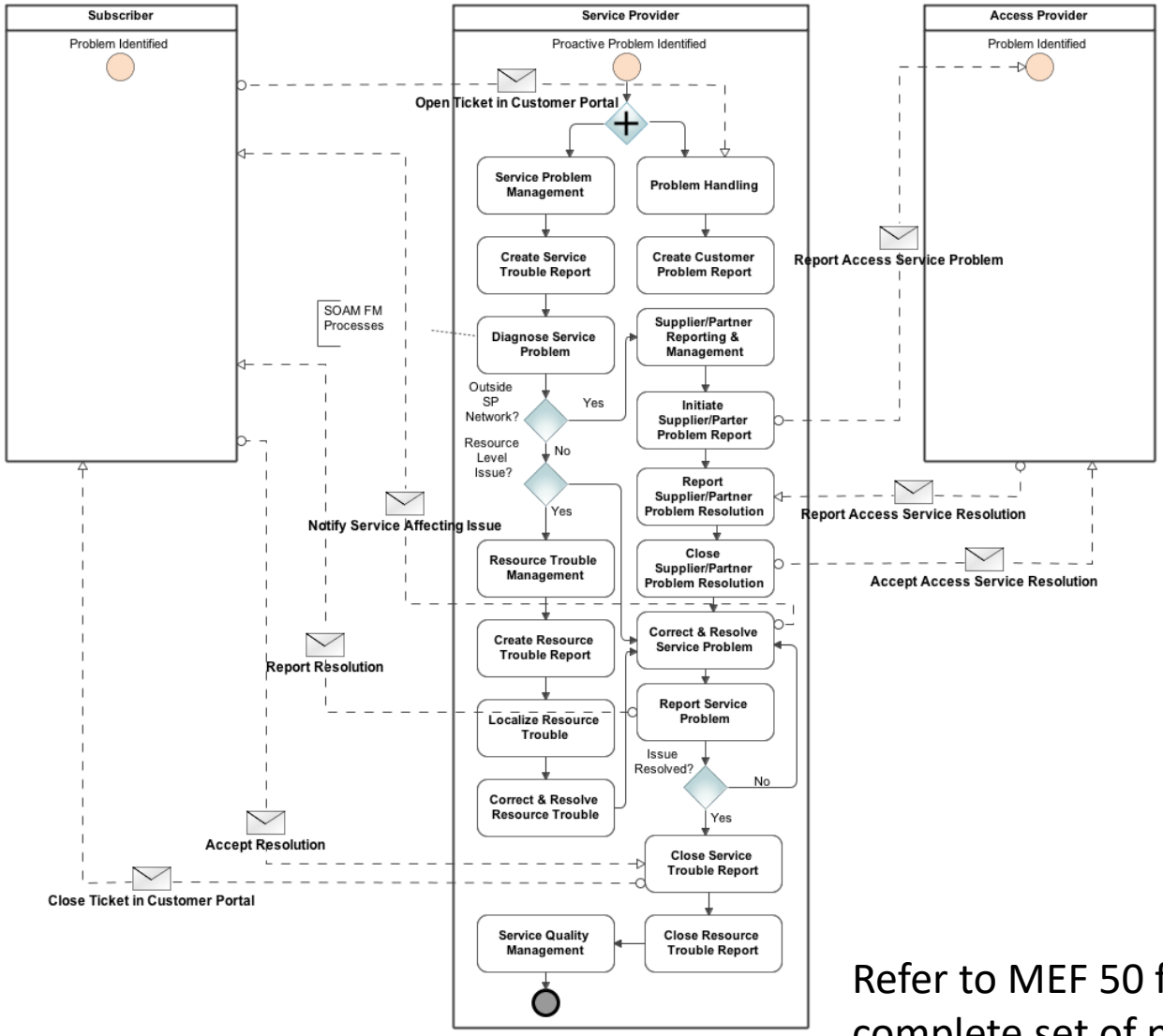
Service Operations Lifecycle Management

- **Service Operations Lifecycle Management for CE includes the following stages**
  - Marketing Fulfillment Response
    - Includes processes to market products and enable initial customer inquiry of product offering and price
  - Sale Proposal and Feasibility
    - Includes processes to check customer eligibility and product availability and feasibility. Also includes processes for partner requisition feasibility
  - Capture Customer Order
    - Includes processes for customer order for new product offer, modification of an existing product, or deletion of an existing product
  - Service Configuration and Activation
    - Includes processes for creation and activation of the service instance

Service Operations Lifecycle Management (cont.)

- **Service Operations Lifecycle Management for CE includes the following stages**
  - End-to-End Service Testing
    - Includes processes for testing and hand-off of the service to the customer
  - Service Problem Management
    - Includes processes for Service Operations, Administration and Maintenance (SOAM) activities including Fault Management and in-service test and troubleshooting
  - Service Quality Management
    - Includes processes for SOAM activities including Performance Monitoring
  - Billing and Revenue Management
    - Includes processes for usage monitoring, charging, billing and managing customer payments
  - Terminate Customer Relationship
    - Includes processes for ending the relationship with the customer

Process Flow: Service Problem Management



Refer to MEF 50 for the complete set of process flows

MEF Service Operations Committee

Summary

Summary MEF 50

- MEF 50 defines the Carrier Ethernet Service Lifecycle Process Model including Product and Service Operations Lifecycle management
- The process flows defined by MEF 50 provide a standard business context in which other SOC projects can develop detailed work products to enable standardization and automation of the Carrier Ethernet Service Lifecycle.

Related Documents

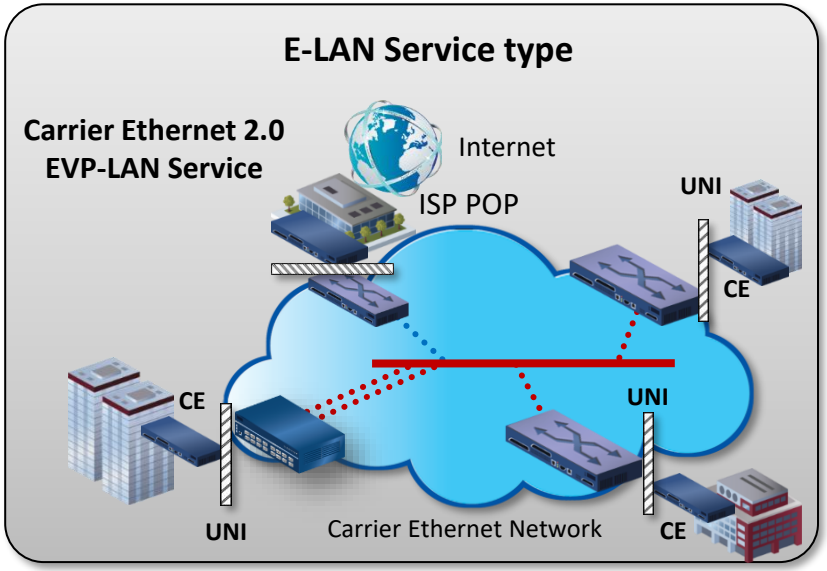
- TM Forum Business Process Framework (eTOM) GB921
- Object Management Group (OMG) Business Process Model Notation (BPMN)

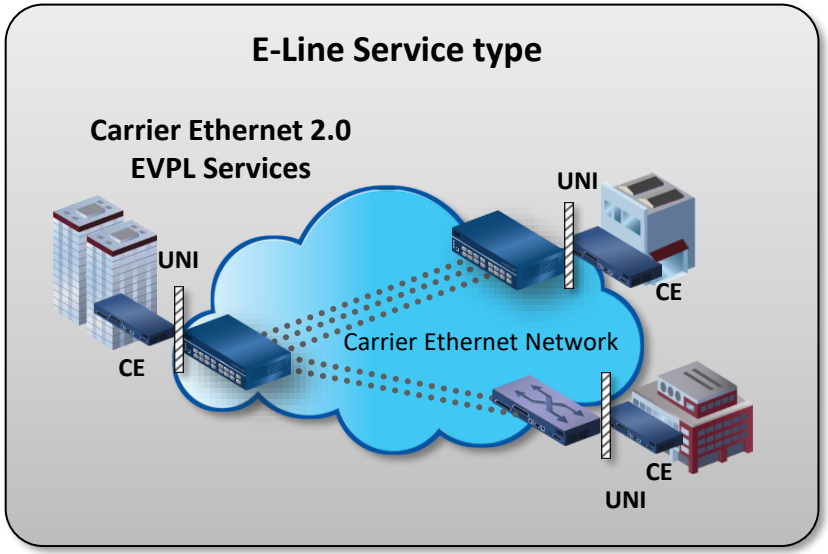
Final Word

- **Carrier Ethernet Service Lifecycle Process Model**
  - In the context of MEF 50, Business Process Flows define each stage of the CE Service Lifecycle
- **Next Actions (For Further Information)**
  - Read the full MEF 50 Guideline document
  - Read the TM Forum Business Process Framework Primer
  - Understand the principal Process Element components and capabilities

For Full Details …

Please visit http://www.mef.net
Select Specifications on Left Navigation to access the full specification





EVC: Ethernet Virtual Connection

UNI: User Network Interface. the physical demarcation point between the responsibility of the Service Provider and the responsibility of the End-User/Subscriber

CE Customer Equipment

MEF Service Operations Committee

Accelerating Worldwide Adoption of Carrier-class Ethernet Networks and Services

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