

# NGOSS Compliance Testing

**“NGOSS powered”™ industry-wide compliance  
program steering team**

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**TMF03 - Tuesday, May 20, 2003, 4:15 P.M. – 4:45 P.M.**



# Agenda

- NGOSS Compliance Testing – Overview
  - ❖ Alain Lemoine, Eftia OSS Solutions
- NGOSS Compliance Testing - Update
  - ❖ Narasinga Rao, Component Insights
- NGOSS Compliance Catalog
  - ❖ Alpna Doshi, Satyam Computers

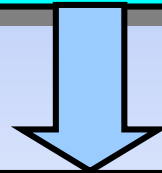
# NGOSS Compliance Testing - Overview

Alain Lemoine, Eftia OSS Solutions  
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# Why NGOSS Compliance?

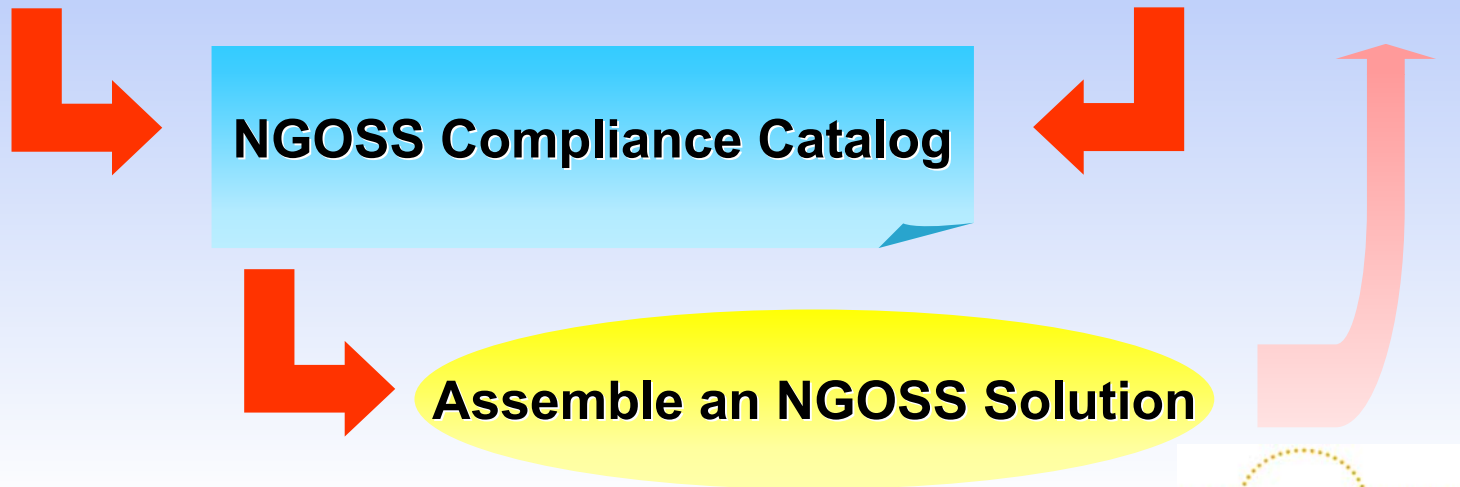
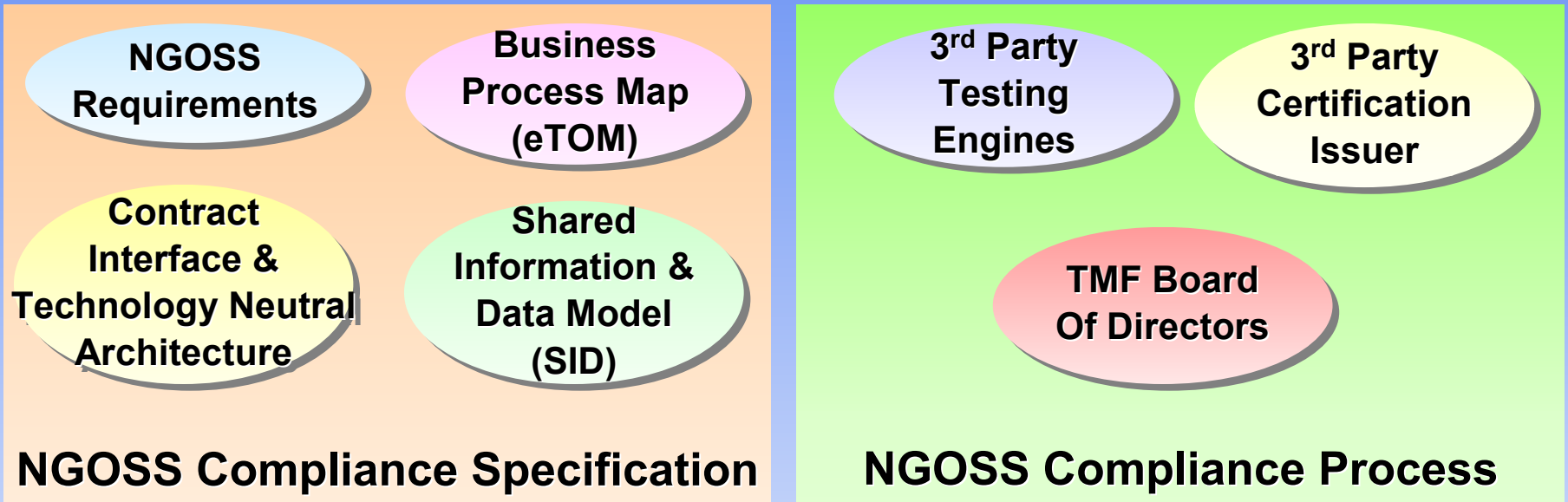
TM Forum's goals:

- Make NGOSS real for the benefit of all stakeholders (service providers, network operators, equipment & OSS/BSS vendors)
- Promote and support the availability of NGOSS components and systems based on mainstream technology



Definition of NGOSS Compliance  
Clear policy on NGOSS Compliance

# NGOSS Compliance



# NGOSS Compliance Testing

## Principle Compliance

- Component based
- Contract centric
- Externalized process control
- Common communication mechanism
- Shared information
- Directory driven

## Domain Coverage

- Functions
- Data domains
- Business Processes

**Compliance Matrix**

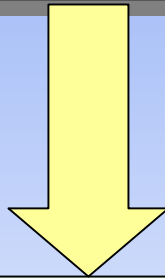
# Review of earlier work

- NGOSS Compliance Testing
  - ❖ Methodology
  - ❖ Scope
    - ◆ Common Communications Vehicle
    - ◆ Contract Defined Interfaces
    - ◆ Contract Registration & Trading
    - ◆ Externalized Process Control
    - ◆ Business Domain Coverage (Functions)
  - ❖ Documents (TMF050, TMF050A)
  - ❖ Benefits - Compliance Matrix
  - ❖ Process for compliance testing
  - ❖ Case Study - Dimension Data
- Presented at TMW Nice & Las Vegas, 2002

# NGOSS Compliance Documents (TMF 50, 50A)

**Testing Strategy (TMF050)**

Business Justification  
Current business Scope  
Testing strategy/principles



**Testing Information  
Requirements (TMF050A)**  
(Technology Neutral)

Information Model  
Test Descriptions  
XML Schemas

# NGOSS Compliance Testing - Update

Narasinga Rao, Component Insights

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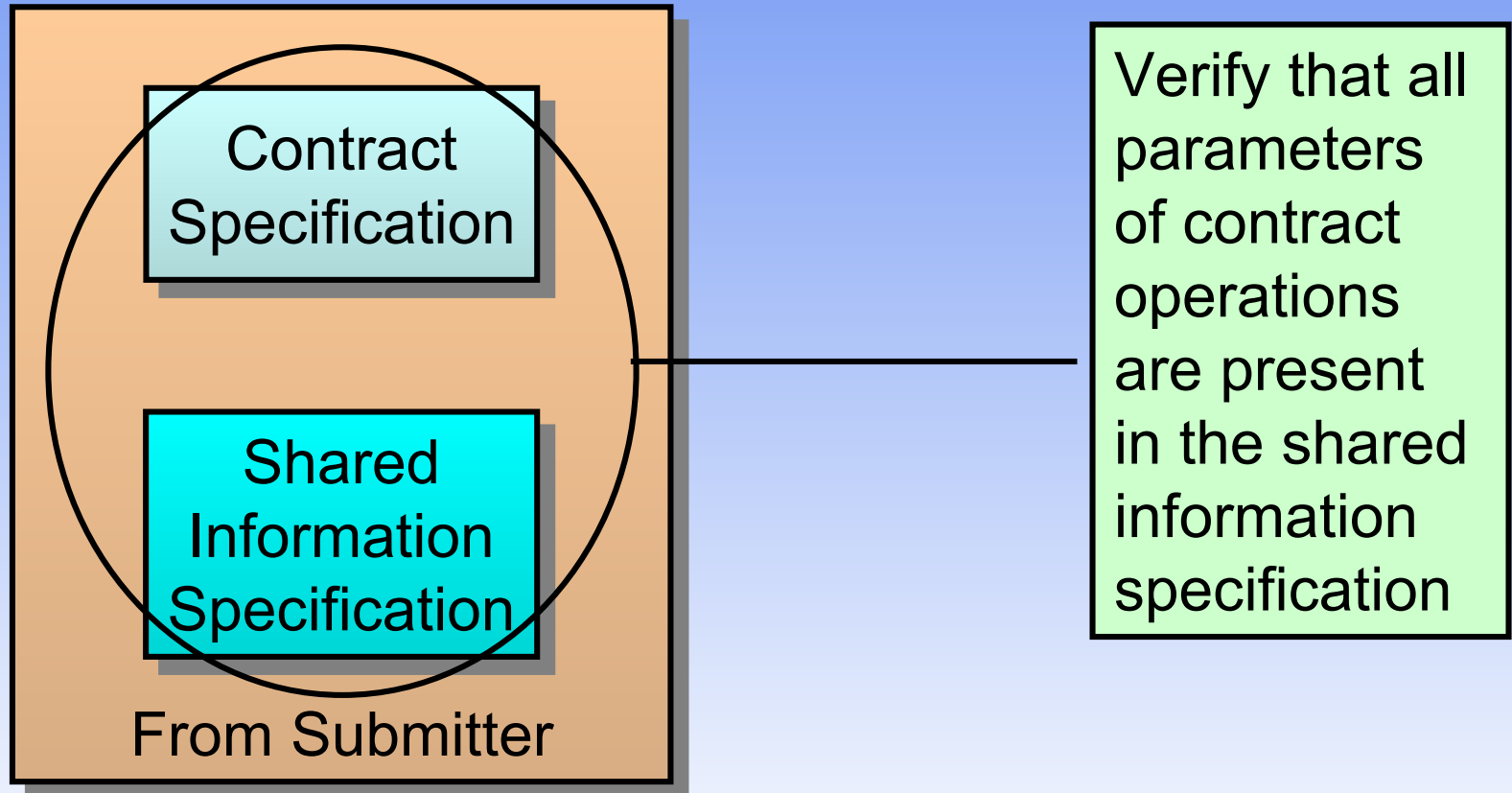
# Agenda

- Testing areas added to scope
  - ❖ Contracts/Shared Information Specification
  - ❖ SID (Shared Information/Data) Compliance
    - ◆ What is SID?
    - ◆ Benefits of SID compliance
    - ◆ Testing for SID compliance
- Next Steps

# New Areas of Testing

- Tests
  - ❖ Shared Information Test
  - ❖ SID Entity Test
  - ❖ SID Coverage Test
- Inputs
  - ❖ Contract Specification
  - ❖ Shared Information Specification
  - ❖ SID Mapping Specification
- Reference
  - ❖ TMF053B
  - ❖ NGOSS Common Entities

# Shared Information Test



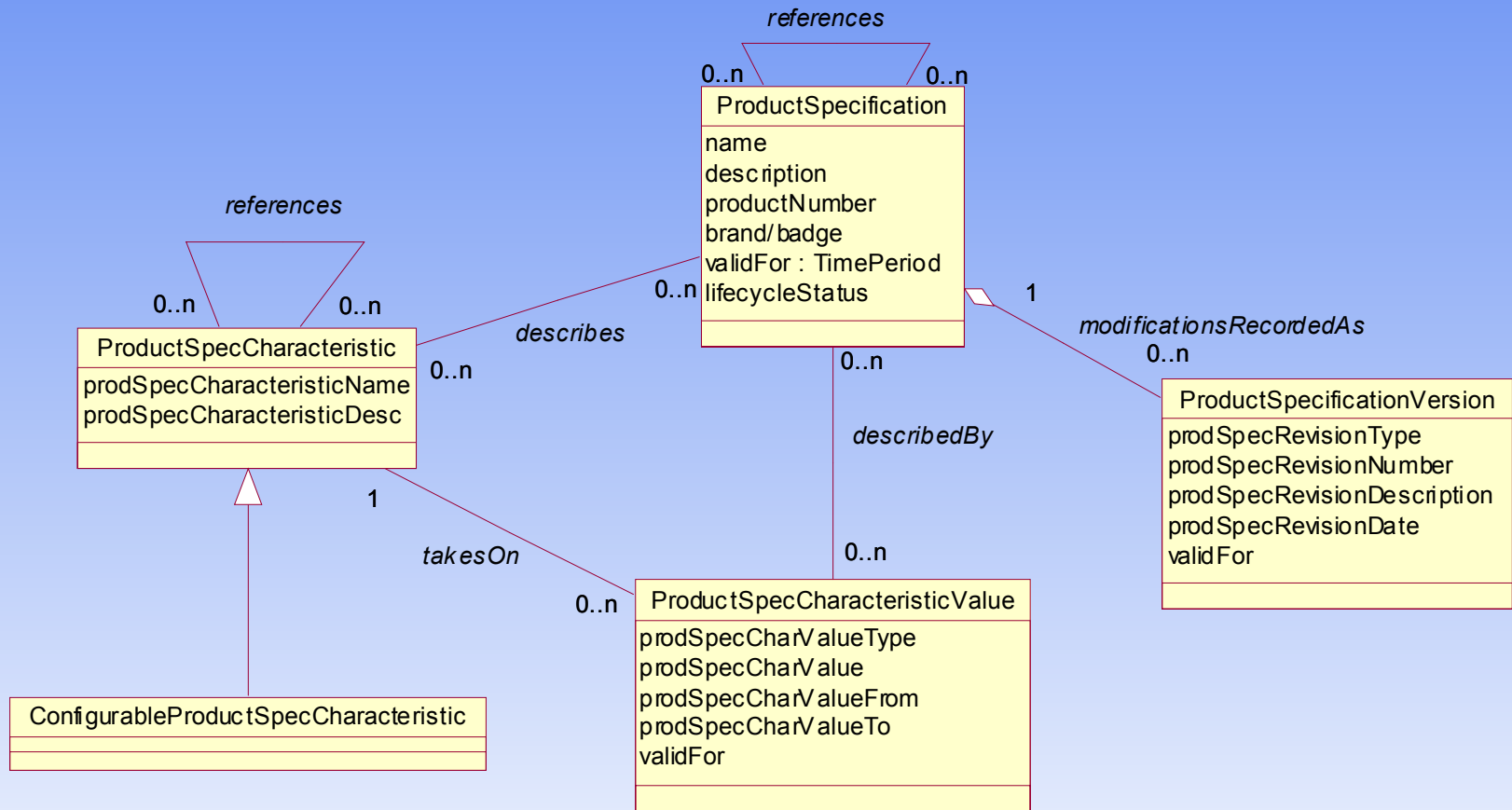
# What is SID?

- Information/data reference model and a common information/data vocabulary for communication service industry
- Provides an 'entity' view, i.e. 'things' affected by business processes
- Therefore, a companion to eTOM
  - ❖ eTOM provides process view
  - ❖ SID provides entity view
- Organized using Domains
  - ❖ Market/Sales, Product, Customer, Service, Resource, Supplier/Partner, Enterprise, Common Business

# Benefits of SID Compliance

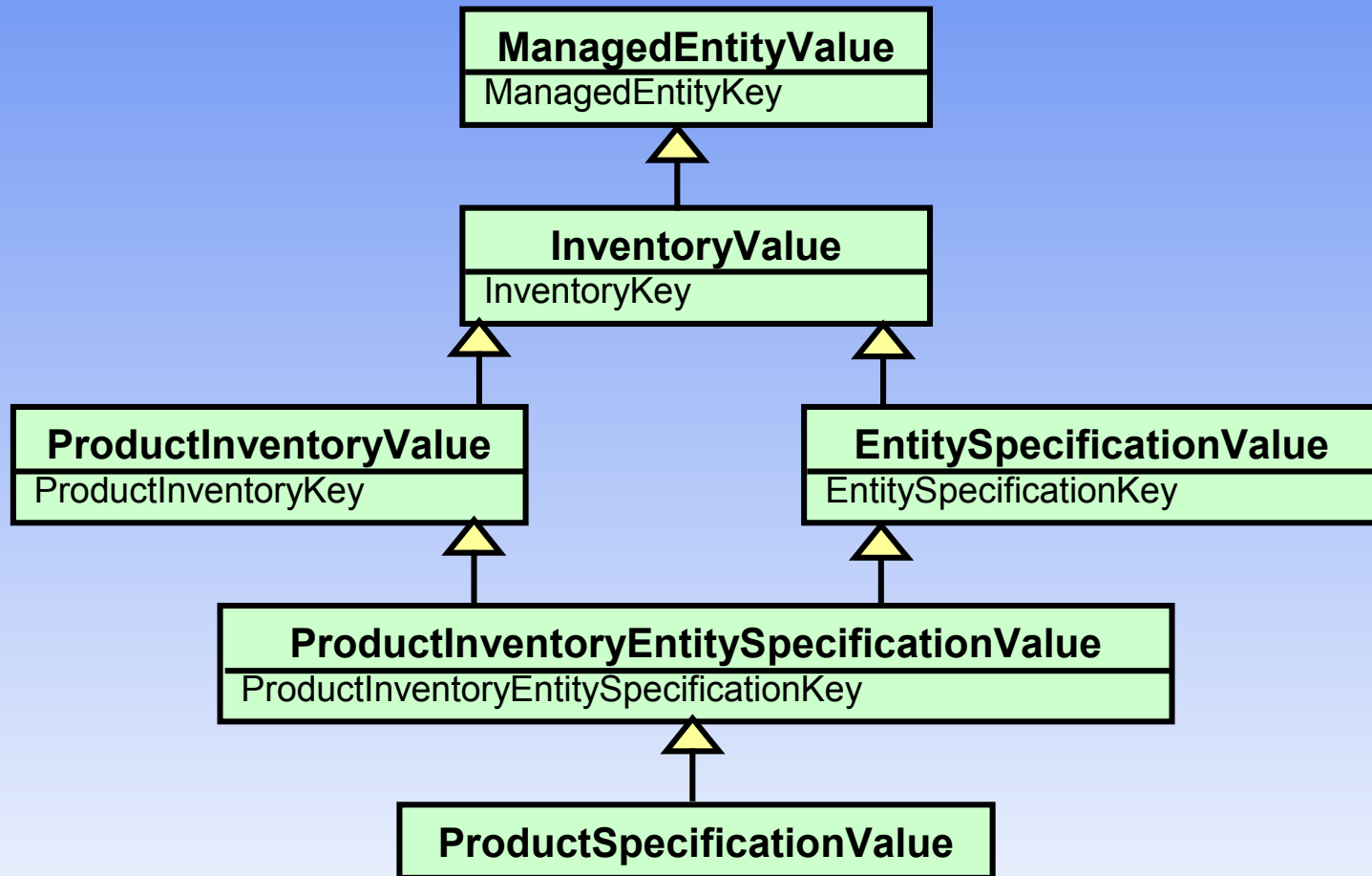
- Provides a measure of:
  - ❖ Ease of integration (time, effort, cost, ...)
  - ❖ Commonality of terminology
  - ❖ Domain coverage
  - ❖ Ease of procurement
- This measure can be used to
  - ❖ Identify technology evolution
  - ❖ Identify gaps and overlaps within components/solutions for risk analysis
  - ❖ Assist in component/solution procurement and supplier selection, and
  - ❖ Market component/solution capabilities

# SID Excerpt – Product



Source: GB 922 Addendum 3 –  
Product Business Entity Definitions

# OSS/J Product Inventory Model

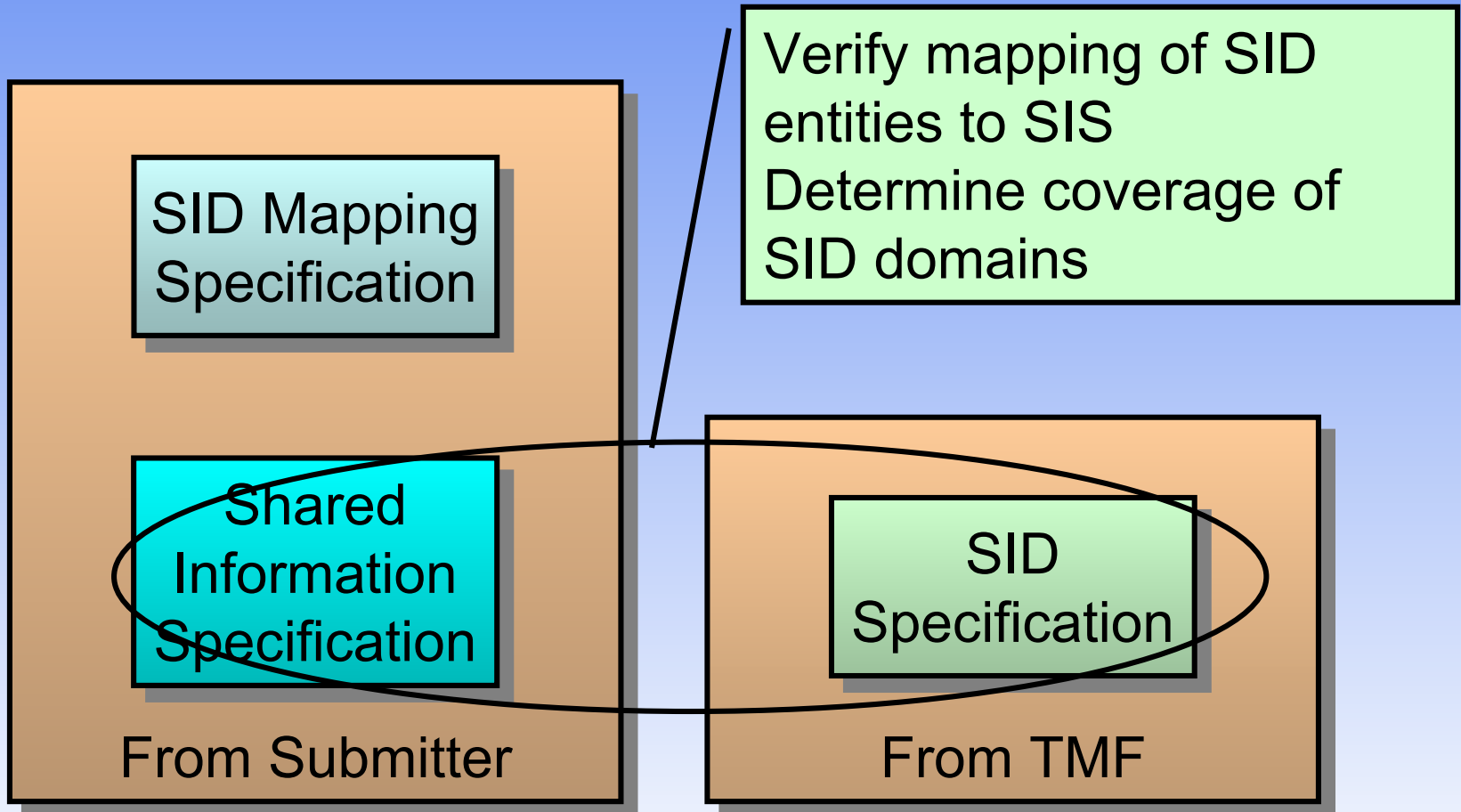


Source: JSR 142 - OSS Inventory API  
Note: All are Value-Type Interfaces

# SID – OSS/J Mapping

- All value types derive from AttributeAccess, which stores attributes as Name-Value pairs
- SID attributes must be mapped to Name-Value pairs with specific names
- Example:
  - ◆ SID class: ProductSpecificationCharacterstic
  - ◆ SID attribute: prodSpecCharacteristicName
  - ❖ Maps to:
    - ◆ OSSJ class: ProductSpecificationValue
    - ◆ OSSJ attribute: getAttributeNames (inherited from AttributeAccess)

# SID Test



# Next Steps

- Issues to be resolved
  - ❖ Mapping from SID to SIS
  - ❖ Semantics/Relationships
- Other Areas
  - ❖ eTOM, Registry, Distribution Transparency
- Exception Test Cases
- Synergy with Red Team
  - ❖ Link specifications to compliance testing
- NGOSS Compliance Catalog

# Overcoming Industry Challenges Through NGOSS Compliance Catalog

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# Agenda

- About NCC
- Business Problem
- Strategy
- Workflow
- Architecture
- Inputs and Outputs
  - ❖ Other Catalysts Participating
- Summary

# Catalyst Project

## NGOSS Compliance Center (NCC)

- What is NCC?
  - ❖ Comprises a list of products and solutions that have been certified as NGOSS-compliant
  - ❖ Initially a “Proof Of Concept”
  - ❖ Basis of NGOSS compliance
    - ◆ Testing criteria defined by the NGOSS Compliance team, and
    - ◆ Implementation by multiple testing engines

# Why NCC (Business Problem)?

- NGOSS Compliance Catalogue a cornerstone of NGOSS compliance program in particular and the TMF NGOSS program in general
- Numerous and diverse vendors existing in the OSS/BSS domain, offering products, services and solutions that are non-standard, proprietary
- Advent of new technologies causing vendors in the name of compliance have started using the NGOSS branding for their non-compliant products and solutions.

# NCC Stakeholders

- Satyam Computer Services Ltd (Team lead)  
([www.satyam.com](http://www.satyam.com))
- NGOSS Compliance Team (Sponsor)  
([www.tmforum.org](http://www.tmforum.org))
- Testing Engines
  - ❖ ILOG ([www.ilog.com](http://www.ilog.com))
  - ❖ Fair Isaac (BlazeAdvisor) ([www.blazesoft.com](http://www.blazesoft.com))
- Potential Users
  - ❖ Other Catalyst Projects

# NCC Success Criteria

- Number of organizations/stakeholders involved (At least three)
- Number of the products and solutions
- Number of different types of OSS Vendors in Catalogue
- Number of TM Forum members and external entities supporting the NGOSS Compliance Catalogue as single source of NGOSS compliant solutions

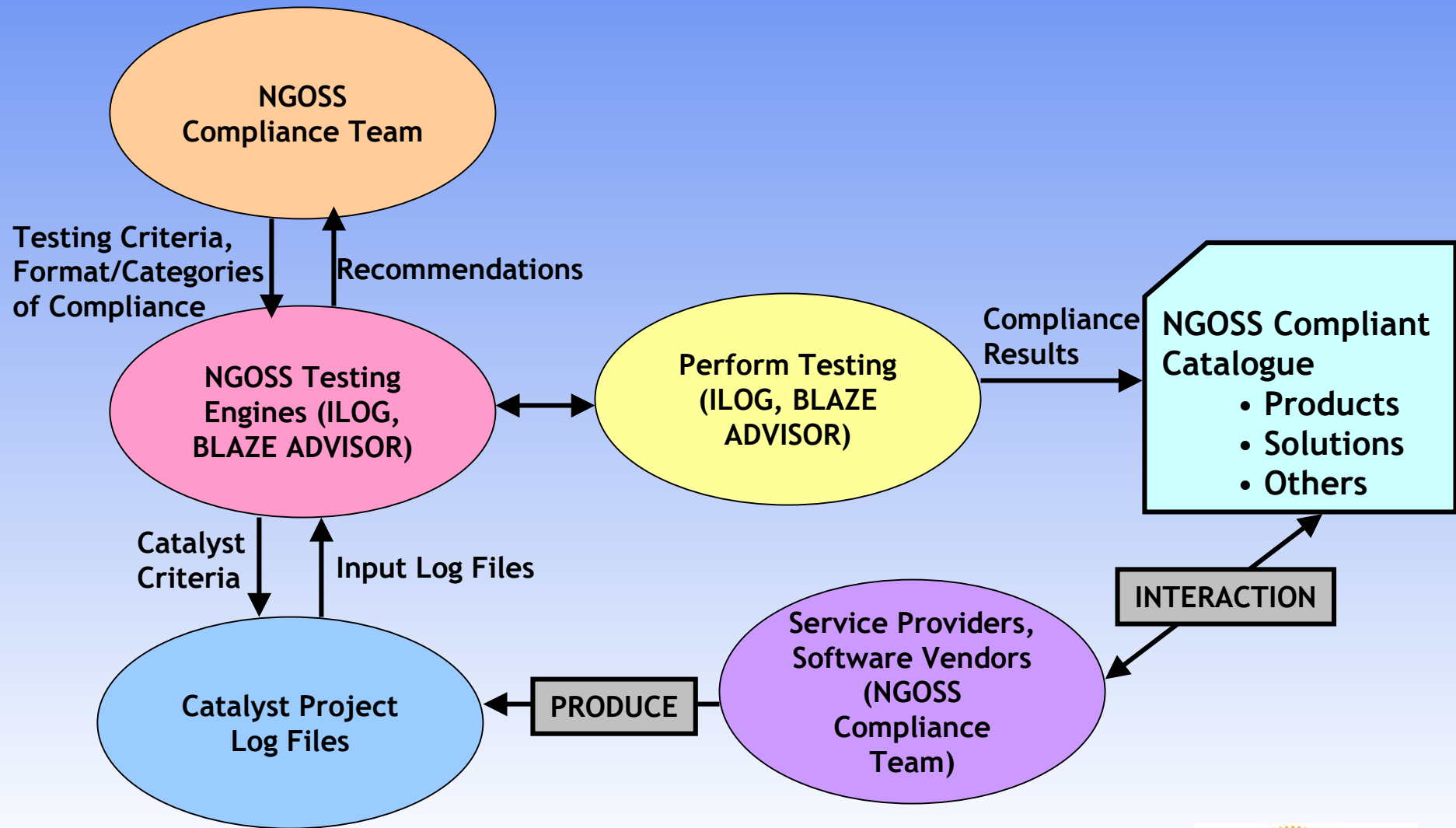
# NCC - Solving the Business Problem

- A common reference system to describe products and solutions at Nice show that can receive NGOSS Powered™ status
- Compliance of vendor solutions to NGOSS compliance principles
- Creation of quick integration solutions between NGOSS compliant products and solutions

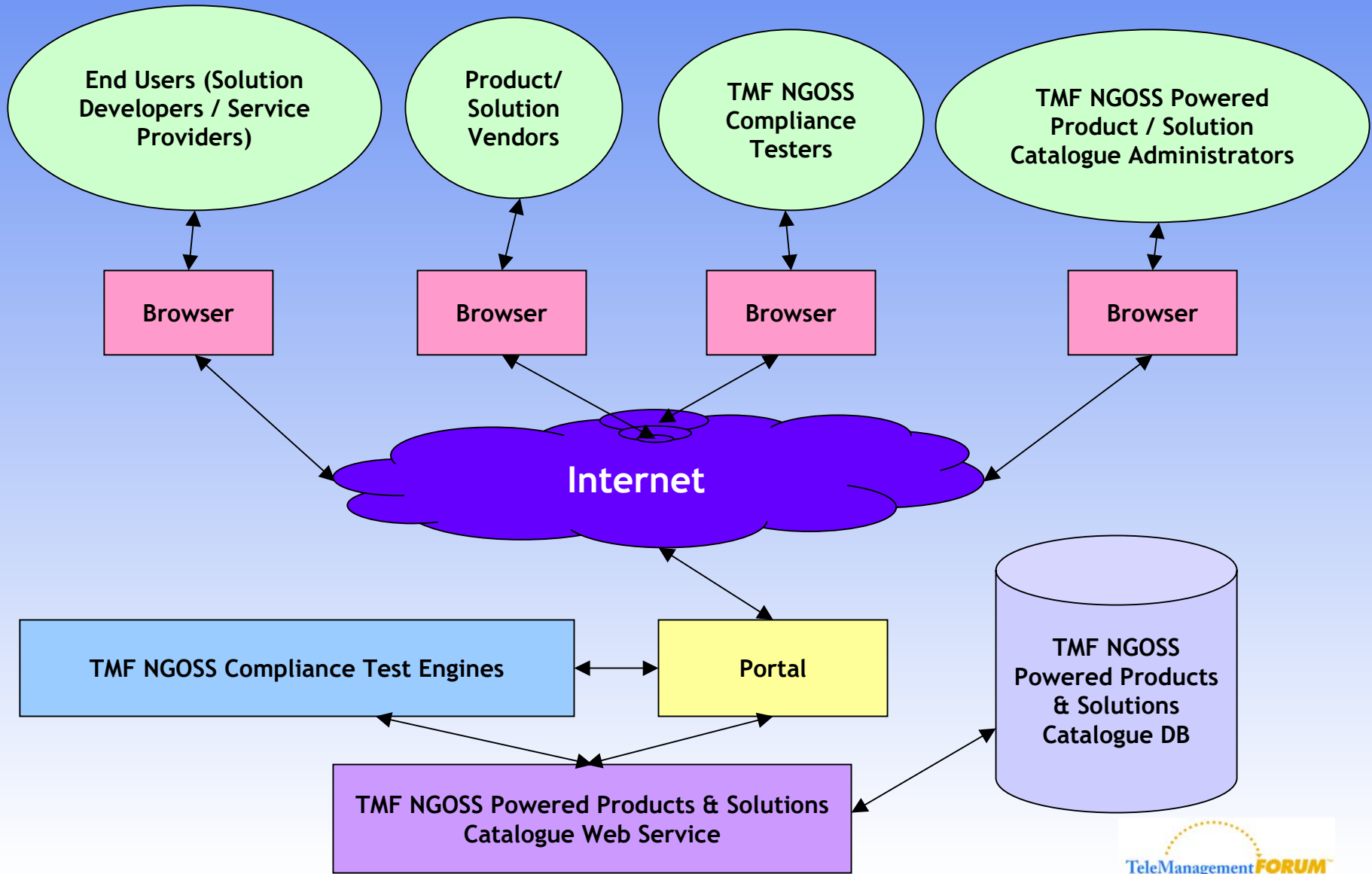
# NCC Strategy

- Relationship with TM Forum Projects
  - ❖ Participant vendors certified as NGOSS Powered™ added to Catalogue
  - ❖ Integrate with processes defined by the NGOSS Compliance team (Catalogue being an outcome path of the NGOSS compliance program)
  - ❖ Work with other TM Forum catalyst projects
  - ❖ Use NGOSS Marketing to promote benefits of inclusion in the Catalogue to vendors and other organizations and forums

# NCC Actors



# NCC Technical Architecture



# Example NCC Input – PLM Catalyst

- PLM - Product Lifecycle Management
- Leverage NGOSS concepts and standards
- Improve Processes and Systems related to building and releasing new products
- Appropriate product information automatically driven to the right operations systems and catalogs in the network
- Focus on Strategy, Infrastructure & Product (SIP) section of the eTOM

# PLM Catalyst Architecture

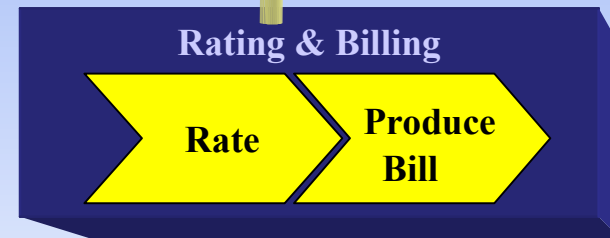
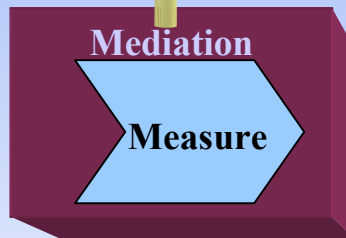
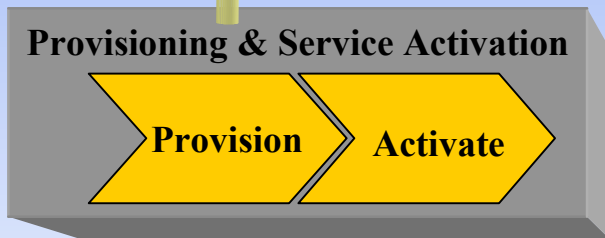
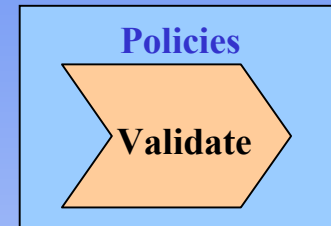
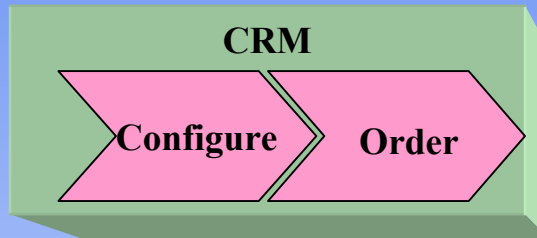
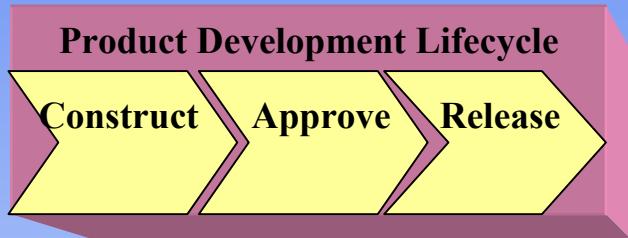
## Product Creation

*Joule IntrOSSpect™*

## Order Entry

*Siebel eCommunications™*

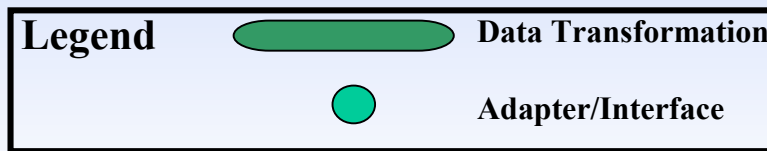
*Fair, Isaac Blaze Advisor™*



*Kabira KPSA™*

*Portal Infranet™*

## Order Management

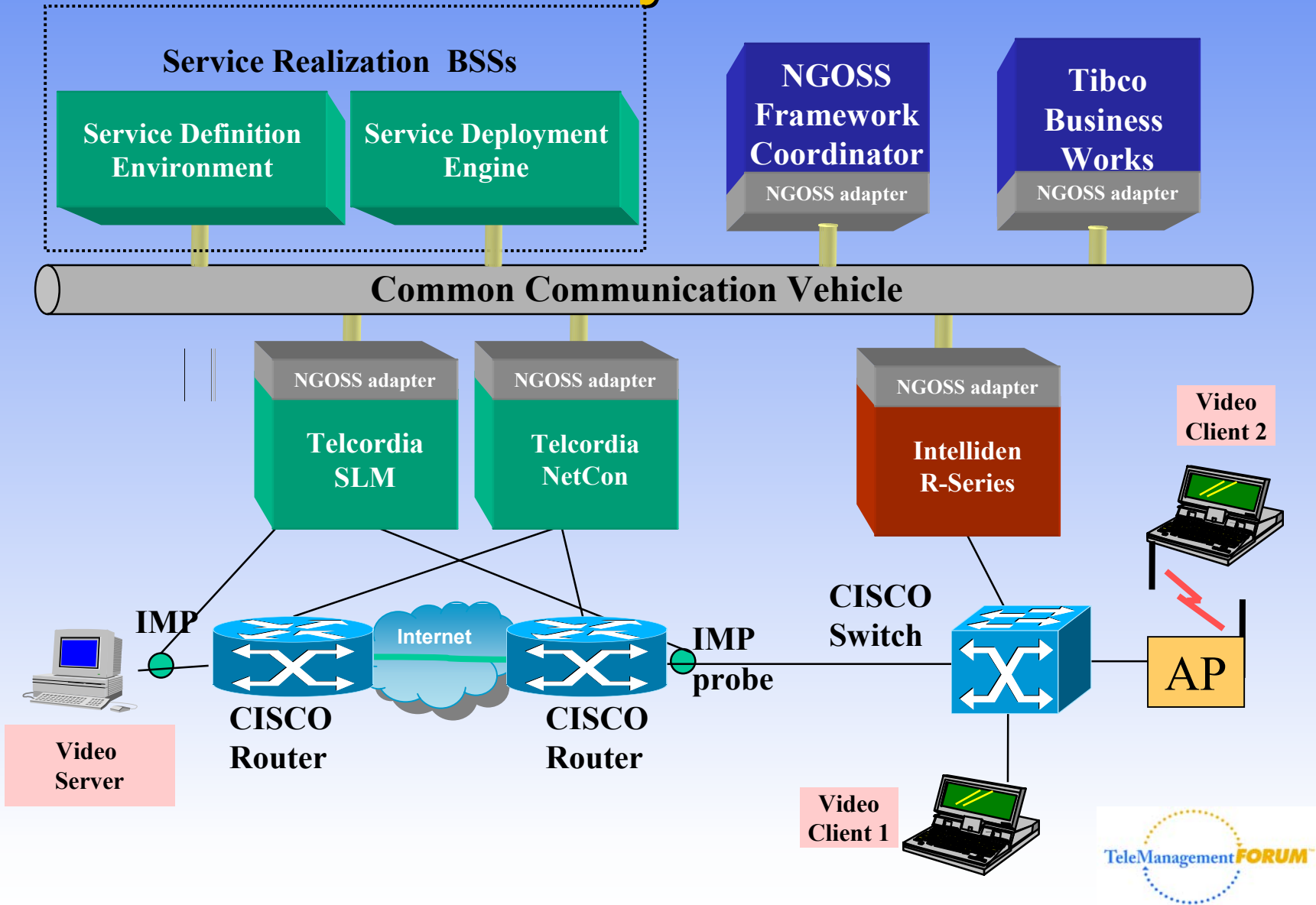


# Example NCC Input - PROFITS

- PROFITS - Providing Fast Innovative Services
- Service model concept to facilitate
  - ❖ Rapid introduction and management of new revenue generating services
  - ❖ Adaptation of the deployed services in response to customer behavior and market conditions
- Service development lifecycle, with linkage to
  - ❖ eTOM service fulfillment, assurance, and billing flows
  - ❖ Core NGOSS concepts
    - ◆ Contract-based OSS interfaces
    - ◆ SID
    - ◆ Externalized business process flows
- Enhanced SID compliant service model that captures dependencies and integrates high level services with the underlying network and related process items

*Service  
Centric,  
End-to-End  
Management*

# PROFITS Catalyst Architecture



# Catalyst Project - NCC Inter-working

## Catalyst

Catalyst Project  
(PLM/PROFITS)

IMPLEMENTS  
&  
USES

NGOSS Principles

PRODUCE

Log Files  
and  
Criteria

INPUT

NGOSS Testing  
Engines (ILOG,  
BLAZE ADVISOR)

TESTING

Perform Testing  
(CHECK for NGOSS  
Compliance)  
(ILOG, BLAZE  
ADVISOR)

## NCC

NGOSS  
Compliance Team

USES

- Recommendations
- Testing Criteria (TMF 50, 50A)

YES  
NGOSS  
Compliant

NGOSS Compliant  
Catalogue

- Products
- Solutions
- Others

# Conclusion

- A major Solution Provider for Service Providers
- A first hand tool for short listing NGOSS compliance vendors
- Proof of Concept with capability of commercial maturity
- TMF Compliance can be recorded /modified/ enhanced

# Thank You!

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