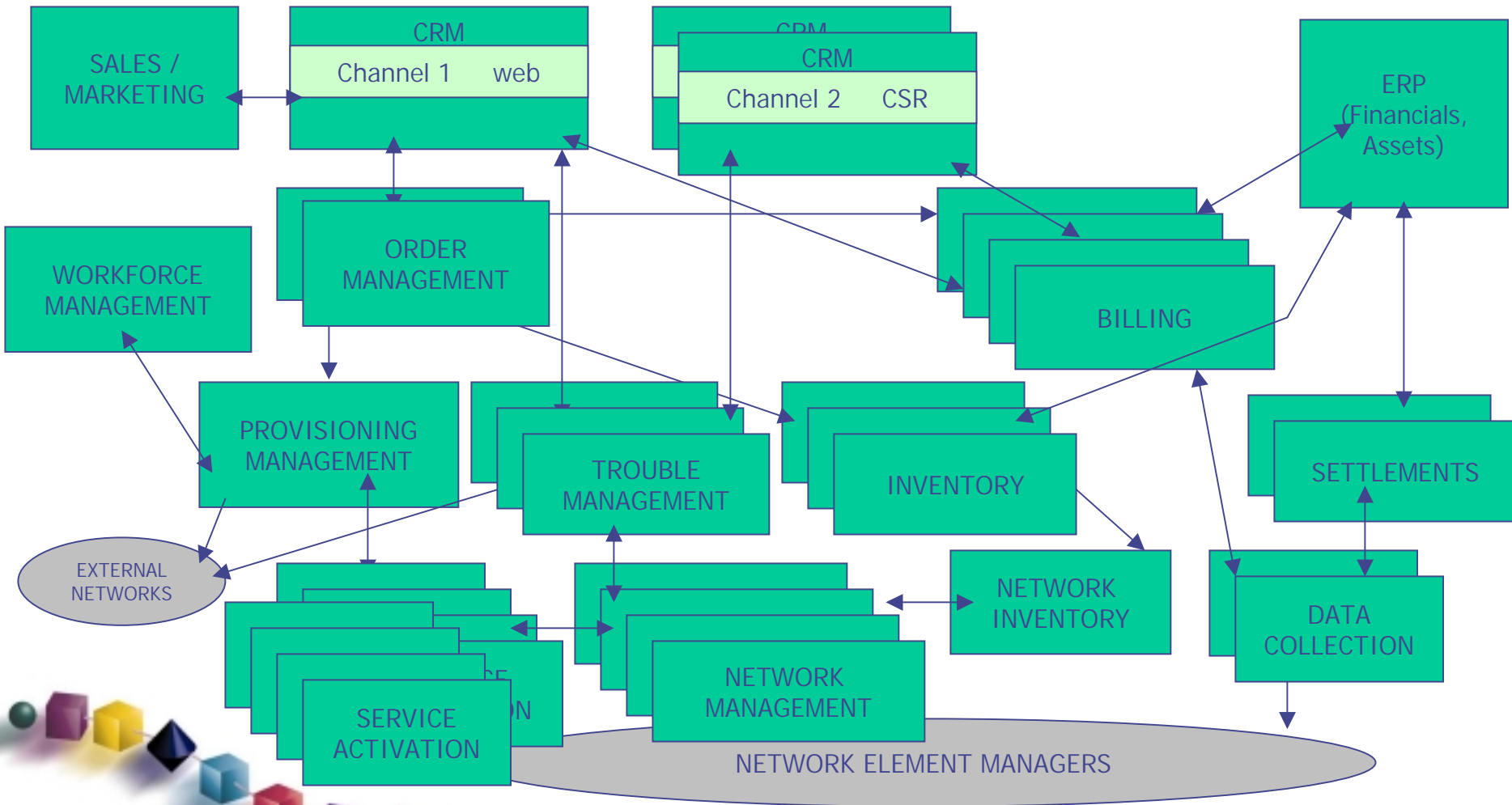# NGOSS
New Generation OSS
The future, or missed opportunity?

MTBC
Jan 18, 2002

Barbara Lancaster

1

Typical OSS Infrastructure

The OSS Business Today

- The software application and systems integration business for the telecommunications industry is huge:
  - $20B in 2000 revenues and growing
  - Hundreds of software application vendors
  - Dozens of systems integration companies
- For the Service Provider this results in a high cost for systems acquisition, integration and management
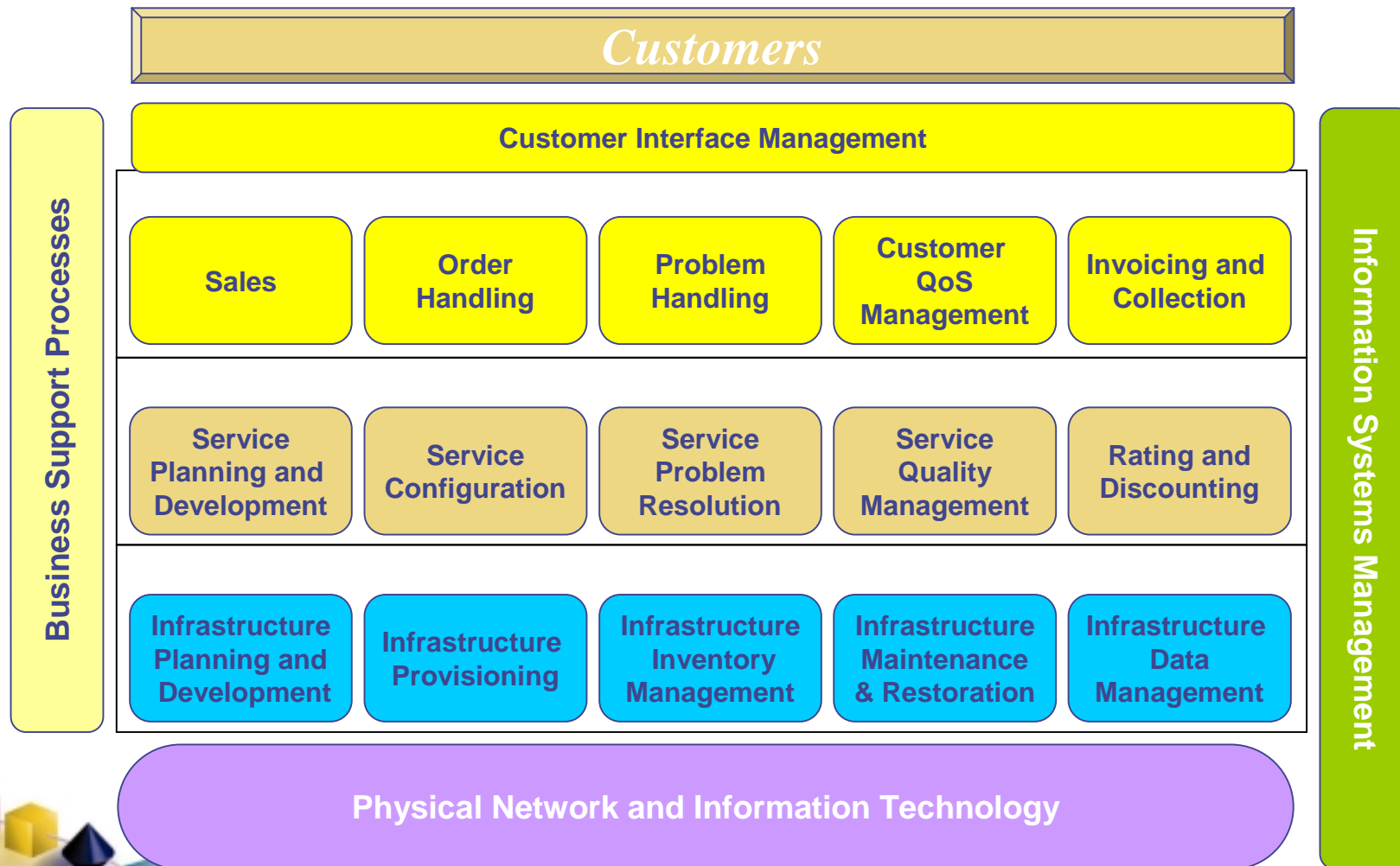 - $10-15M investment in OSS is typical for a start up company

The Cost of Complexity

- High barrier to entry
- Longer path to profitability
- Increased risk and uncertainty
- Impeded achievement of 271 approval
- Increased effort and cost to introduce new services
- Increased costs for end users

TMF Operations Model

Customers

Customer Interface Management

Sales	Order Handling	Problem Handling	Customer QoS Management	Invoicing and Collection
Service Planning and Development	Service Configuration	Service Problem Resolution	Service Quality Management	Rating and Discounting
Infrastructure Planning and Development	Infrastructure Provisioning	Infrastructure Inventory Management	Infrastructure Maintenance & Restoration	Infrastructure Data Management

Business Support Processes

Information Systems Management

Physical Network and Information Technology

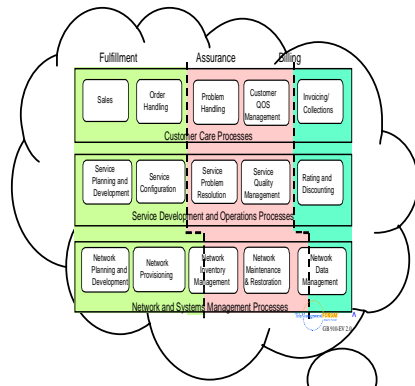Telecom Operations Model © TMF - Adaptation by LTC International
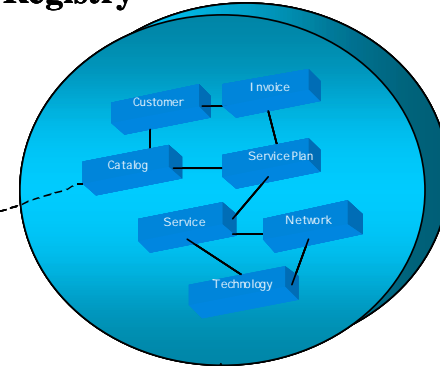
5

What is New Generation OSS?

- An attempt to create standards for systems, data, and processes to support efficient and cost-effective OSS choices

- NGOSS™ is the term TMF uses to describe
  - a "loosely coupled" distributed component architecture
  - along with functioning application components
  - upon which Communications Service Provider business can run.
  - The components interact through a communication infrastructure
  - The components can be programmed through the use of a process management tool to control the business processes of the service provider using the functionality provided by the components.
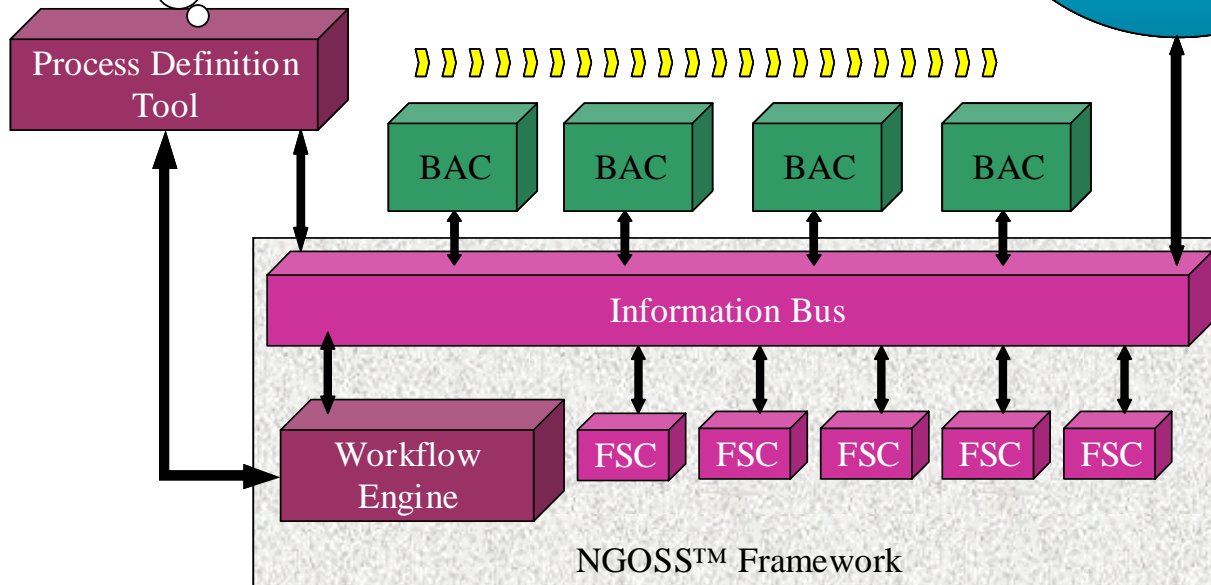
NGOSS Infrastructure
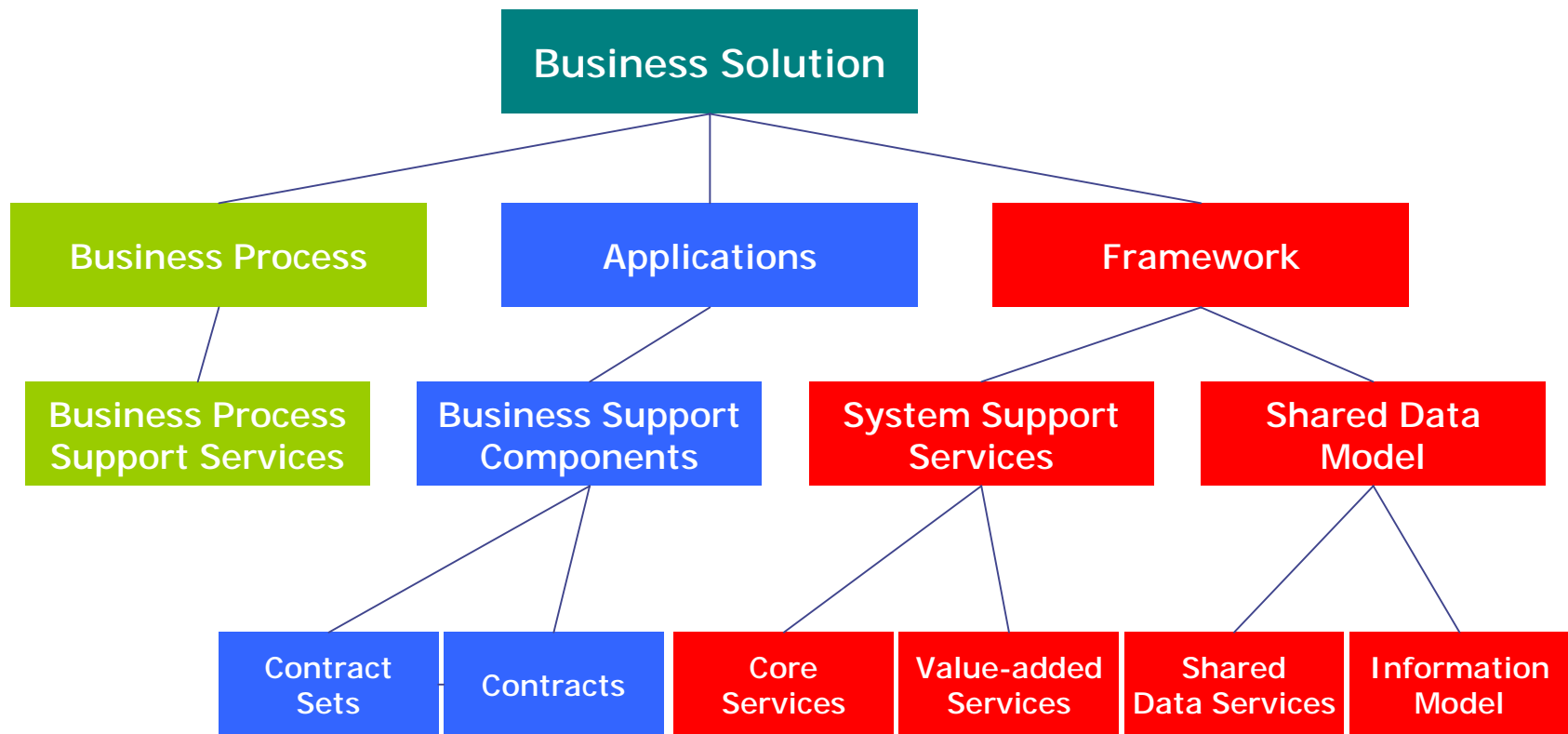

NGOSS™ Registry

NGOSS™ Shared Data Model

Process Definition Tool

BAC   BAC   BAC   BAC

Information Bus

Workflow Engine

FSC   FSC   FSC   FSC   FSC

NGOSS™ Framework

BAC: Business Aware Component
FSC: Framework Service Component

process workflow

© TMF

7

NGOSS Decomposition


```
                        ┌──────────────────────┐
                        │   Business Solution   │
                        └──────────────────────┘
              ┌───────────────────┼───────────────────┐
    ┌──────────────────┐  ┌──────────────┐   ┌──────────────┐
    │ Business Process │  │ Applications │   │  Framework   │
    └──────────────────┘  └──────────────┘   └──────────────┘
```

- Business Process
  - Business Process Support Services
- Applications
  - Business Support Components
    - Contract Sets
    - Contracts
- Framework
  - System Support Services
    - Core Services
    - Value-added Services
  - Shared Data Model
    - Shared Data Services
    - Information Model

Problem Solved!

- For Service Providers, NGOSS means…

  - Dramatically reduced cost to acquire, implement and maintain "plug and play" OSS components

  - End to end control of business processes linked to support systems

  - Reduced time to market, new services quickly and easily supported by off-the-shelf components.

Problem solved?

- For Software Application Vendors NGOSS means…
  - Creating new modular applications to new standards (or rewriting existing)
  - Trading freedom for openness
  - Becoming dependent on others.
- For Systems Integrators, NGOSS means…
  - Reduced revenues
  - Higher profitability (perhaps)

Where is NGOSS today?

- "Catalyst" is the leading initiative
  - "Fine Grain" program supported by WorldCom
  - Progress is demonstrated twice a year at the TMF conference
- Complete NGOSS development standards available… when?
- No major Software Vendor pinning entire development strategy on NGOSS.

What drives creation of a standard?

- A standards body can define it, for example:
  - Carrier to carrier connectivity
  - Network element interoperability
  - GSM
- But - driving to standards takes investment, clout, persistence (clear financial benefit)
  - Service Providers?
  - Software vendors?
  - Systems Integrators?

Service Providers

- Very large service providers have extremely complex IT environments
  - Most have tried several times to get out from under their legacy environments
  - Few have succeeded, even on a small scale
- Smaller service providers have little purchasing leverage to dictate major change

Software Vendors

Outside NGOSS

- any functional footprint
- any data definition
- self-contained (all elements required to execute software as stand alone application)
- optional offering of interfaces for integration
- ad-hoc publication and upgrade policy
- optional involvement in distribution directory management
- can shrink or grow functional footprint

Within NGOSS

- adhere to object constraints defined by NGOSS
- use common, shared data model
- only deliver the function of the object
- adhere to 'plug-and-play' methodology with published 'services'
- engage in contracts with infrastructure vendors
- subscribe to location directory services
- functionality is constrained but can develop any number of 'pluggable' objects

Systems Integrators

- Simple, plug and play, "hot swap-able" all spell the end of multi-year, multi-million integration projects

NGOSS Adoption Prediction

- At the network element layer there will be some acceptance
  - Application vendors in this space are accustomed to working with standards
- Moving up the layers, acceptance will be very slow
  - the objects are heavily impacted by business logic
  - humans are not machines, businesses look for differences

Watch the NGOSS space

- Today, there is no one driver seeking market domination through NGOSS

- Should an 800-pound gorilla step forward, the game will change entirely…

Thank You

Barbara Lancaster

972 234 8997

Email: blancaster@ltcinternational.com

www.ltcinternational.com