

Service-Oriented Enterprise Architecture Workshop

22nd April 2008

THE *Open* GROUP

Dr Christopher J Harding
Forum Director

Tel +44 774 063 1520 (mobile)

c.harding@opengroup.org

Thames Tower
37-45 Station Road
Reading
RG1 1LX
UK

www.opengroup.org

THE *Open* GROUP
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Project Strategy Meeting

22nd April 2008

*Enterprise Architecture
International*

Dr Christopher J Harding
Senior VP, Sales

Situation

- ❑ We have been engaged by TB Fabrications Ltd to develop an Enterprise Architecture Vision based on SOA
- ❑ We hope that this will lead to a full architecture development contract
- ❑ We will use TOGAF
- ❑ The Vision that we produce will be as described in TOGAF Phase A
- ❑ It will be presented to TB's Board and Architecture Team

Objectives

- Scope the work required to develop
 - Vision and
 - Full architecture
- By taking a first pass through phases B, C, D.

Agenda

- ❑ Background
- ❑ Inputs from TBFL
- ❑ Our SOA Artefacts
- ❑ Baseline and Target Architectures
 - Business
 - Information Systems
 - Technology
- ❑ Conclusions

Background

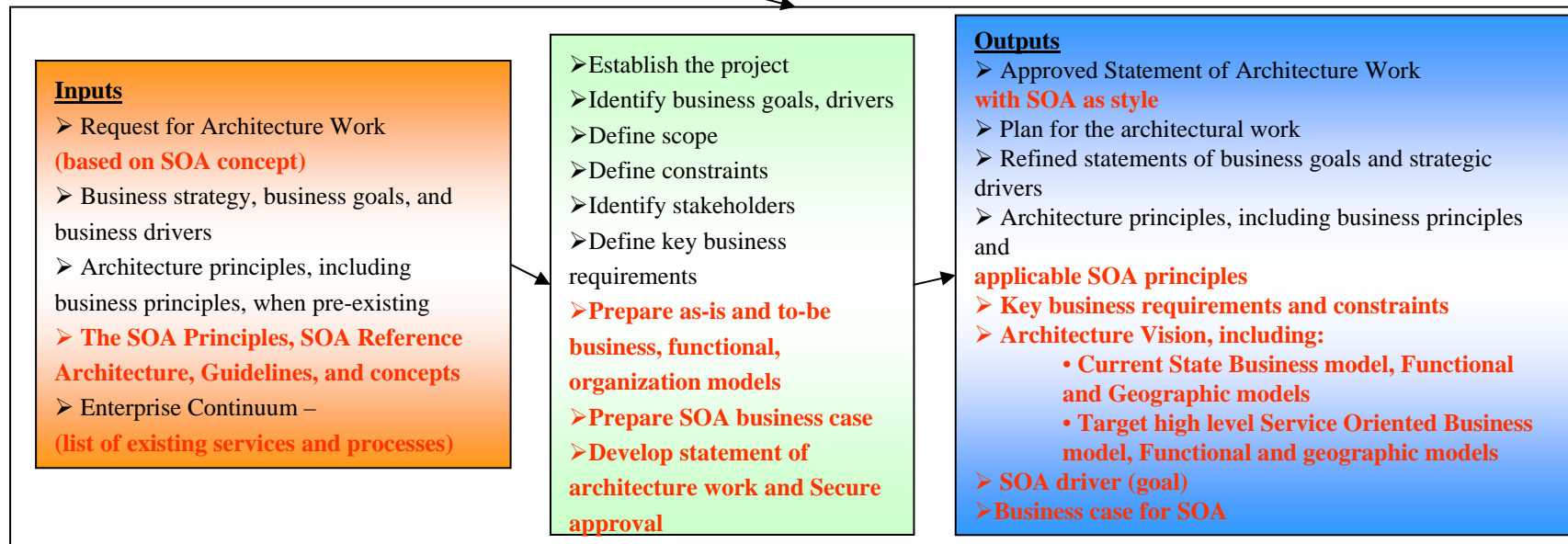
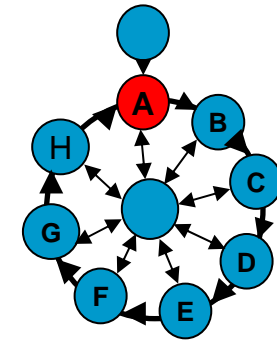
TB Fabrications

- ❑ Family-owned firm
- ❑ Makes custom metal fabrications for the construction industry (staircases, balustrades, guttering, doors, . . .)
- ❑ Factory and offices in Glasgow, UK
- ❑ \$50M turnover, 250 employees
- ❑ Business suffering due to poor enterprise architecture

Phase A: Architecture Vision

Objectives:

- To ensure proper recognition and endorsement from business sponsors
- To validate the business principles, business goals, and strategic business drivers
- To define the scope of the current architecture effort
- To define the relevant stakeholders, and their concerns and objectives
- To define the key business requirements and the constraints
- To articulate an Architecture Vision addressing requirements and constraints
- To secure formal approval to proceed
- To understand the impact on, and of, other enterprise architecture development cycles
- **To develop business case for SOA for this architecture cycle**



Phase A Objectives

- ❑ To ensure proper recognition and endorsement from business sponsors
- ❑ To validate the business principles, business goals, and strategic business drivers
- ❑ To define the scope of the current architecture effort
- ❑ To define the relevant stakeholders, and their concerns and objectives
- ❑ To define the key business requirements and the constraints
- ❑ To articulate an Architecture Vision addressing requirements and constraints
- ❑ To secure formal approval to proceed
- ❑ To understand the impact on, and of, other enterprise architecture development cycles
- ❑ **To develop business case for SOA for this architecture cycle**

Phase A Outputs

- ❑ Approved Statement of Architecture Work
 - **with SOA as style**
- ❑ Plan for the architectural work
- ❑ Refined statements of business goals and strategic drivers
- ❑ Architecture principles, including business principles
 - and **applicable SOA principles**
- ❑ **Key business requirements and constraints**
- ❑ **Architecture Vision, including:**
 - **Current State Business model, Functional and Geographic models**
 - **Target high level Service Oriented Business model, Functional and geographic models**
- ❑ **SOA driver (goal)**
- ❑ **Business case for SOA**

Phase A Steps

- ❑ Establish the project
- ❑ Identify business goals, drivers
- ❑ Define scope
- ❑ Define constraints
- ❑ Identify stakeholders
- ❑ Define key business requirements
- ❑ **Prepare as-is and to-be business, functional, organization models**
- ❑ **Prepare SOA business case**
- ❑ **Develop statement of architecture work and Secure approval**

Phase A Inputs

- ❑ Request for Architecture Work
 - **(based on SOA concept)**
- ❑ Business strategy, business goals, and business drivers
- ❑ Architecture principles, including business principles, when pre-existing
- ❑ **The SOA Principles, SOA Reference Architecture, Guidelines, and concepts**
- ❑ Enterprise Continuum –
 - **(list of existing services and processes)**

Inputs from TBFL

Request for Architecture Work

- ❑ Organization sponsors
- ❑ Organization's mission statement
- ❑ Business goals (and changes)
- ❑ Strategic plans of the business
- ❑ Time limits
- ❑ Changes in the business environment
- ❑ Organizational constraints
- ❑ Budget information, financial constraints
- ❑ External constraints, business constraints
- ❑ Current business system description
- ❑ Current architecture/IT system description
- ❑ Description of developing organization
- ❑ Description of resources available to developing organization

TB Fabrications Mission

- ❑ To produce high-quality custom-designed metal fabrications for the building industry – anything made of metal that the architect wishes to specify but cannot obtain “off the shelf”.

Business Strategy

- ❑ Family owned and run
- ❑ Design and production at single site
- ❑ All work in-house - no sub-contracting
- ❑ Sell to trade customers – architects and builders
- ❑ Product promotion to the public as well as to trade
- ❑ Advertising and sales through trade publications and the Internet
- ❑ Materials ordered to meet demand – no significant stock holding

Business Goals and Drivers

- ❑ Long-term goal
 - Steady profit to support owners
- ❑ Short-term drivers
 - Sales have been declining steadily
 - No major change in business environment
 - Good product and workforce
 - Customer dissatisfaction due to long lead times and missed delivery dates
 - More efficient operation based on better IT is seen as solution

Opportunities and Constraints

□ Opportunities

- Death of founder enables radical changes to be made
- Recent web-based system enabling customers to design and configure products is a success – attributed to SOA

□ Constraints

- New development means borrowing – should be phased with return from initial phases
- Don't want to lay off staff

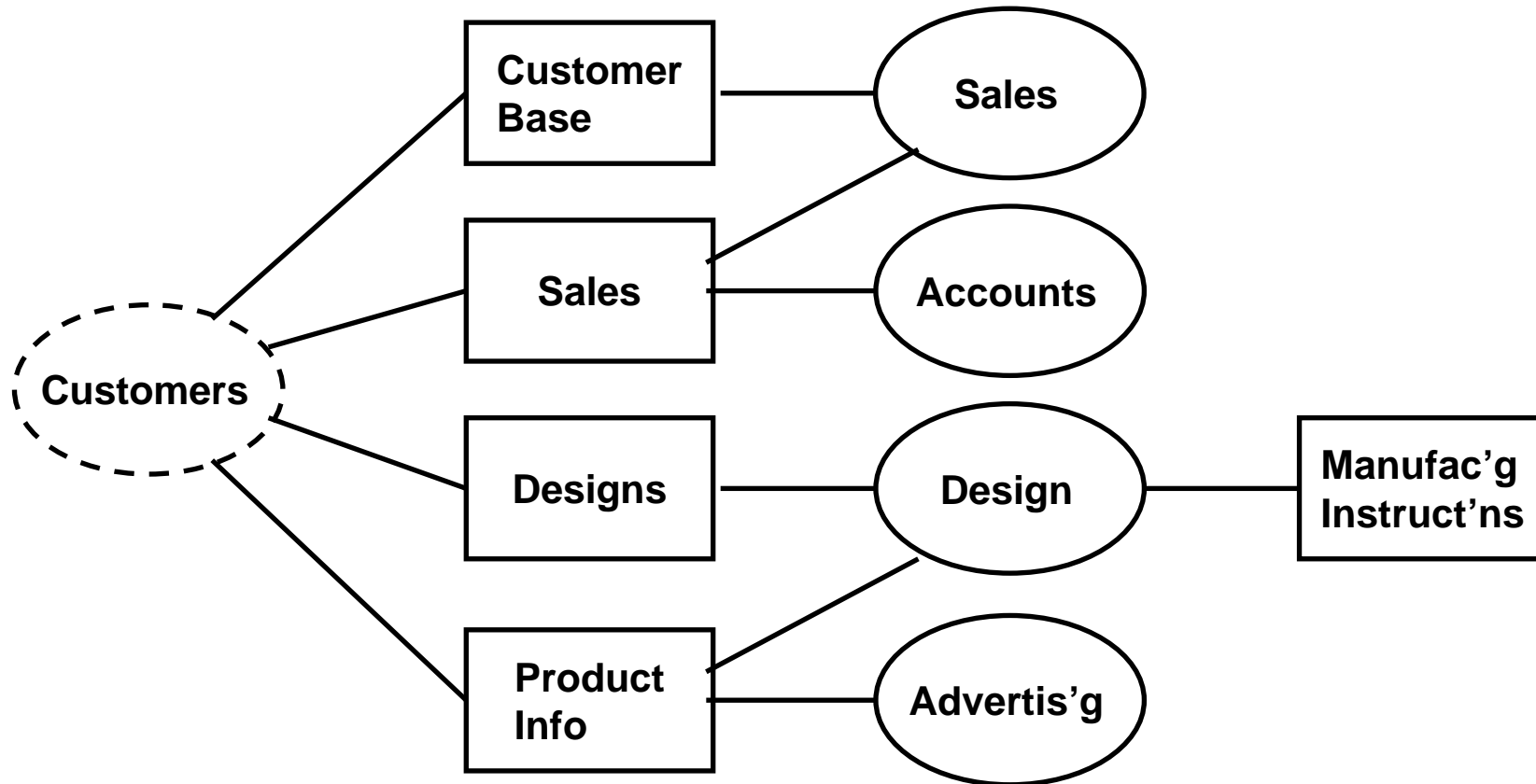
Scope of Eventual Architecture Work

- To develop an enterprise architecture for TBFL with recommendations for a phased implementation.
 - (TOGAF Phases A-D with recommendations that could be followed in E-G)

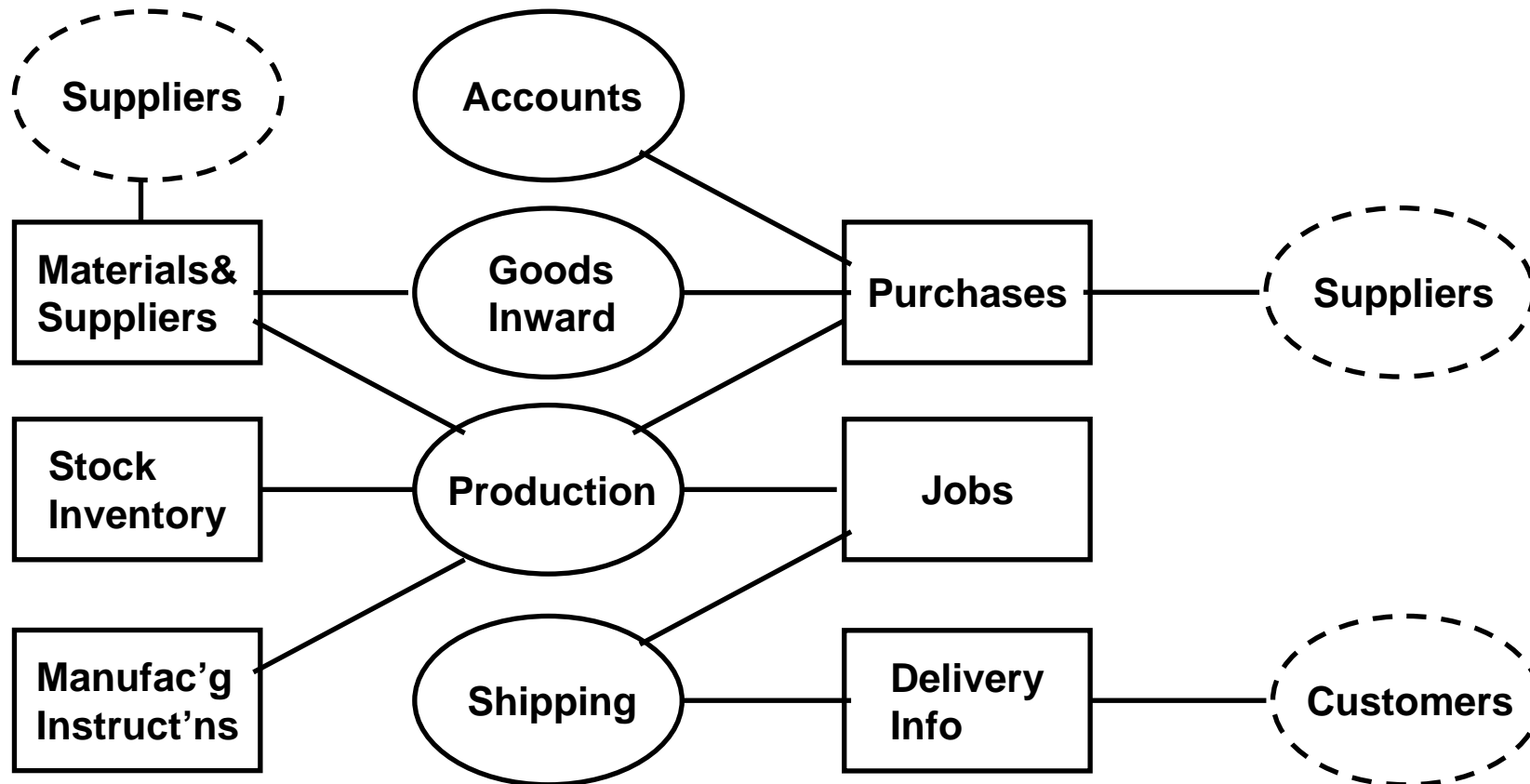
Business Architecture

- ❑ Orders
- ❑ Delivery
- ❑ (Plant & Equipment)
- ❑ (IT)
- ❑ (HR)

Business Architecture – Orders



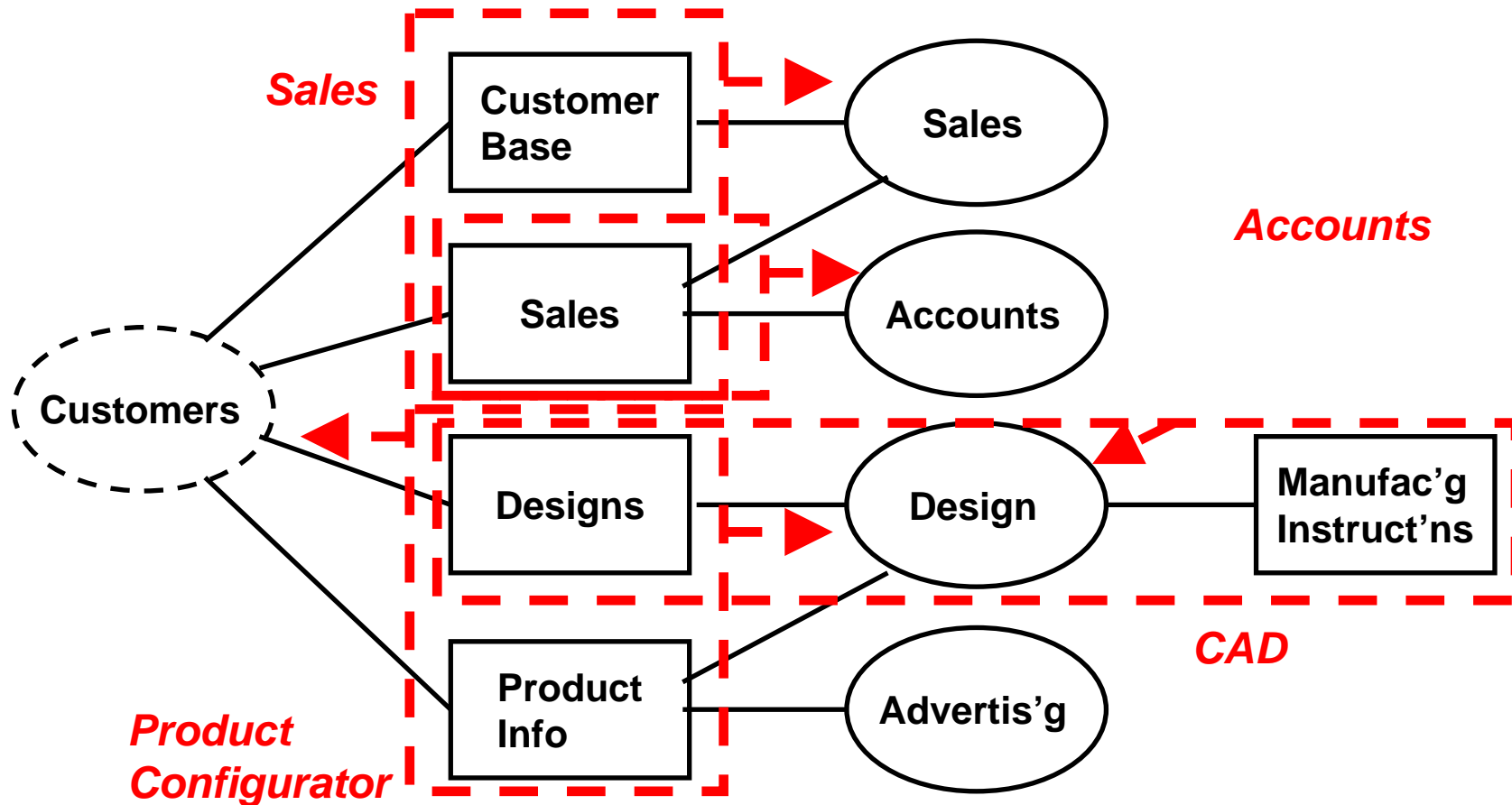
Business Architecture – Delivery



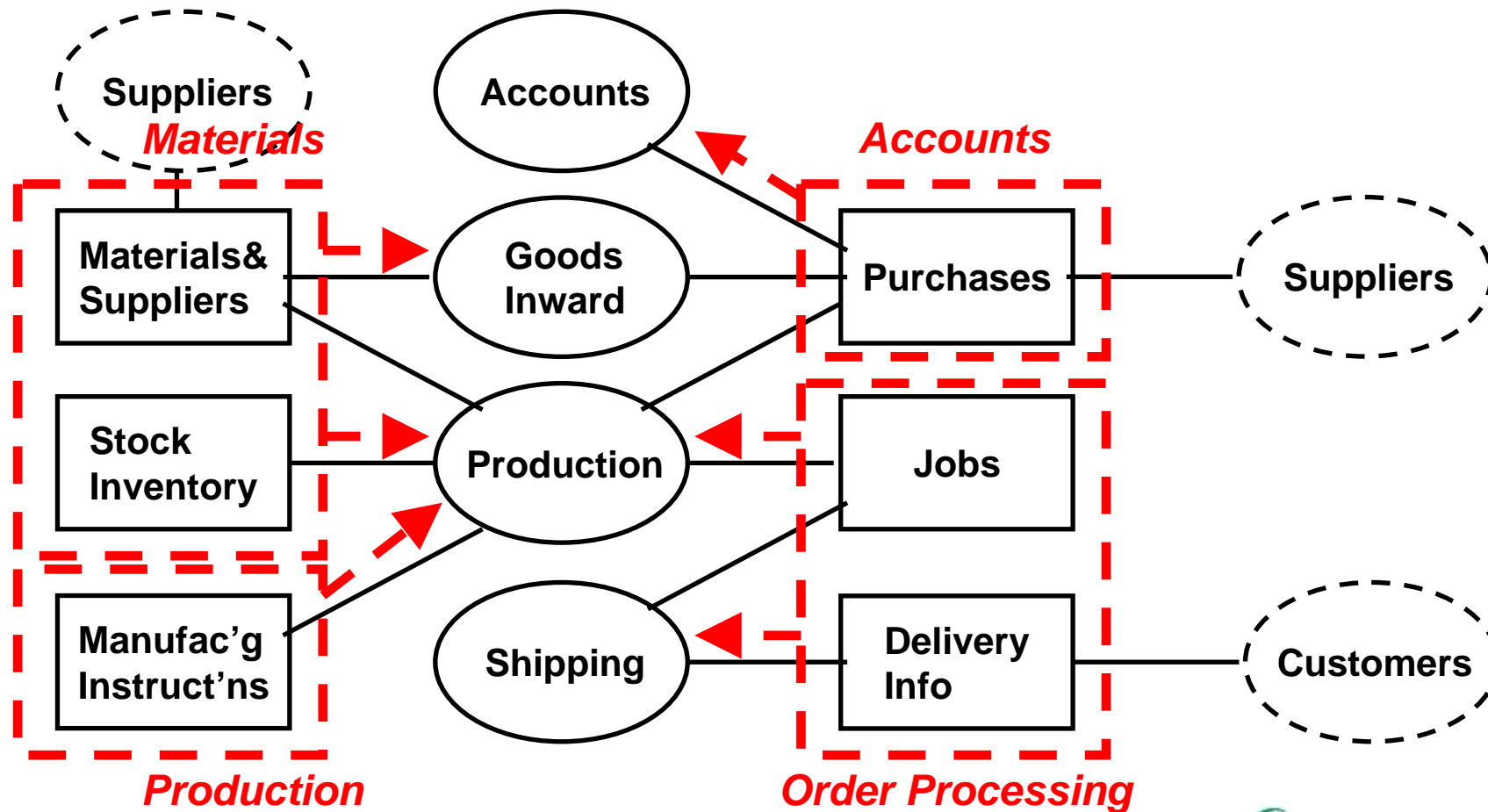
Information Systems

- ❑ Sales: Subscription to SAAS sales package
- ❑ Accounts: Proprietary accounts package
- ❑ CAD: Proprietary computer-aided design package
- ❑ Product Configurator: in-house-developed web services that enable customers to do their own product configuration via a graphic web interface.
- ❑ Order Processing: Proprietary package.
- ❑ Production: Miscellaneous metal-bashing machines. Some are interfaced via a LAN to a PC in Production Control, where attempts are made to keep track of throughput, etc. There is no integrated manufacturing system.
- ❑ Materials: Database of materials, suppliers, and stock levels
- ❑ Various: PCs with spreadsheets and documents.

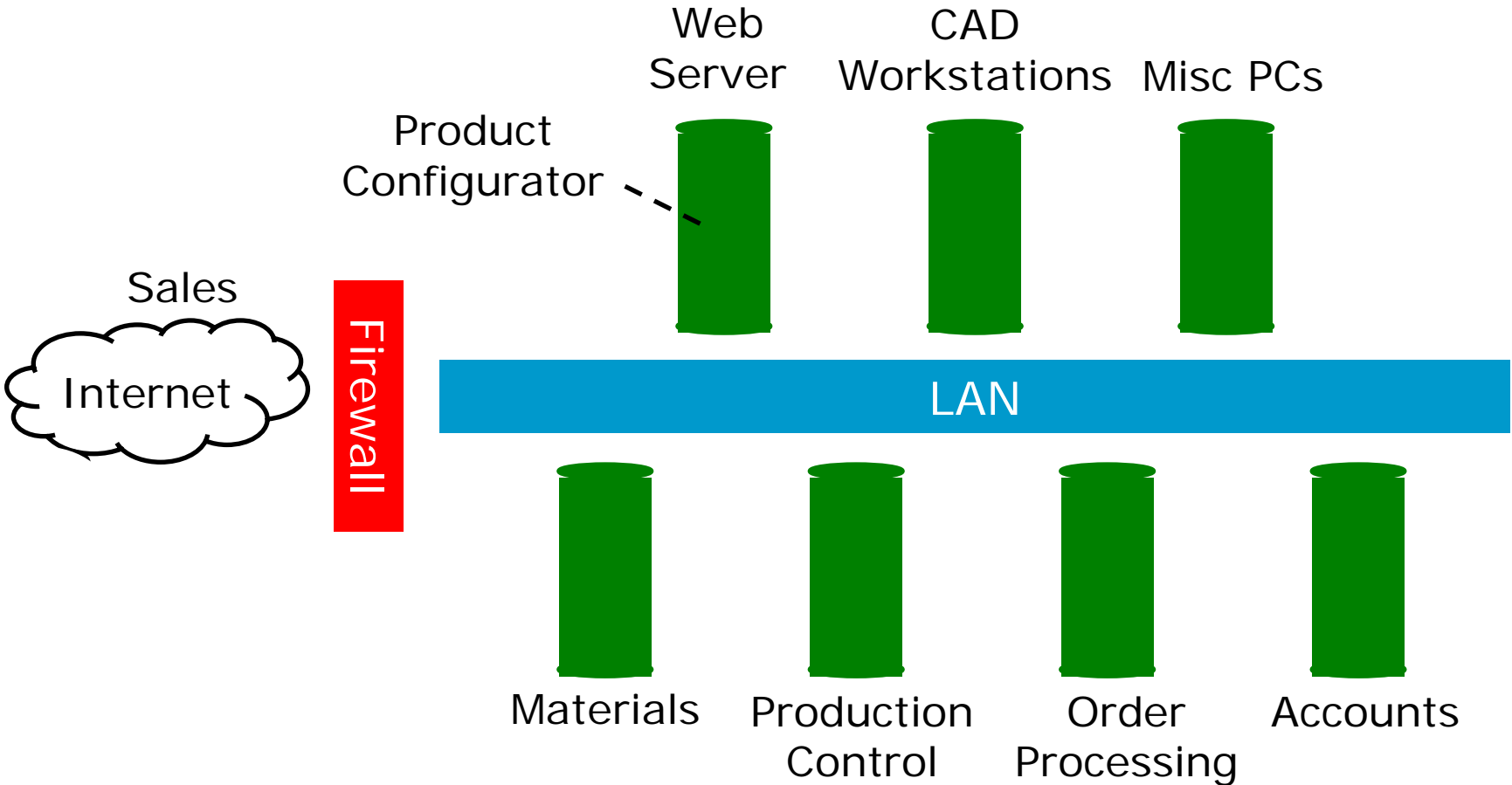
Information Systems – Orders



Information Systems – Delivery



Technology Architecture



Architecture Principles

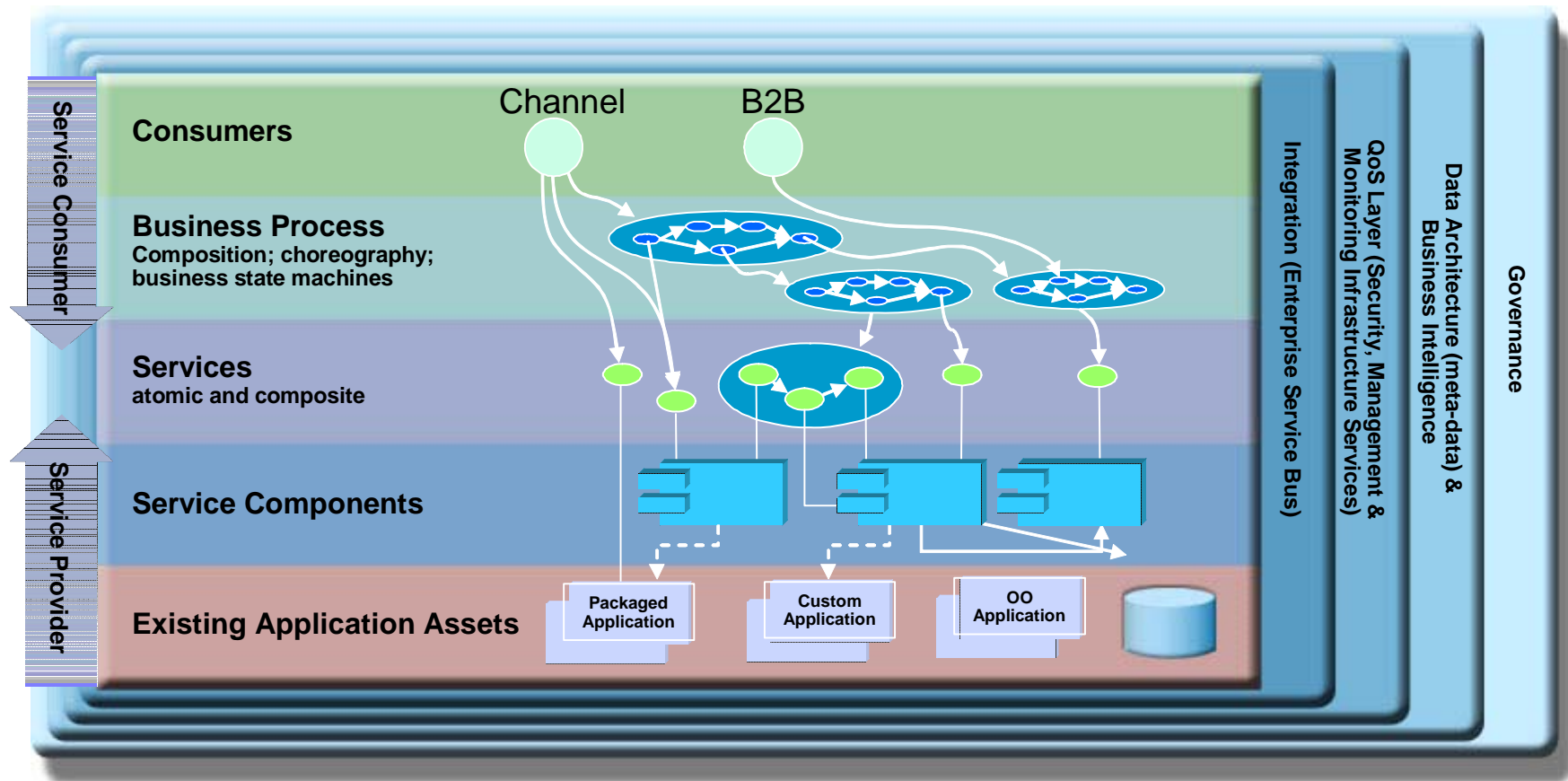
- Standard Principles from TOGAF 8.1.1

Our SOA Artefacts

SOA Principles

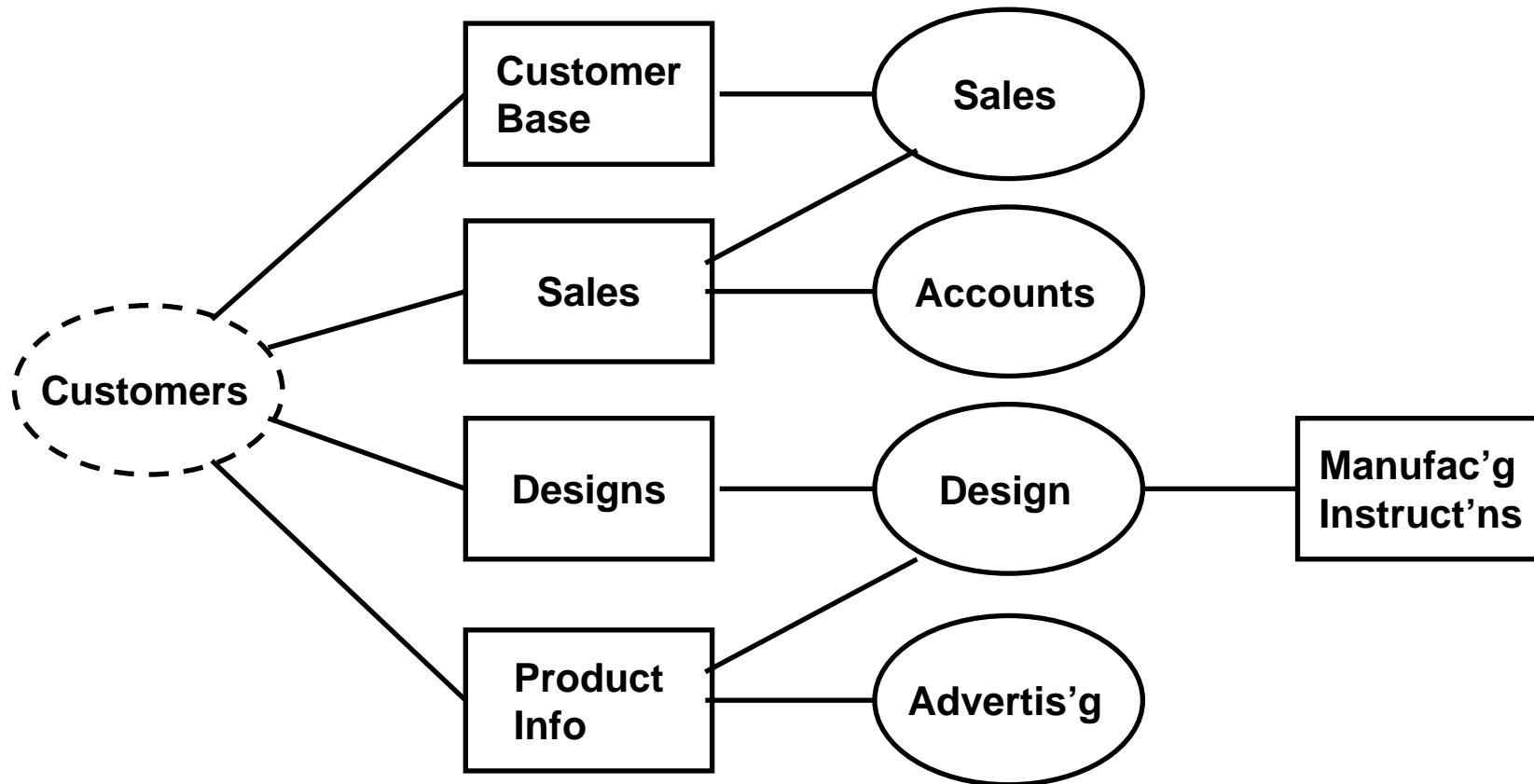
- ❑ Service Orientation
- ❑ Service Composition
- ❑ Messaging
- ❑ Service Discovery
- ❑ Service Virtualization

SOA Reference Architecture

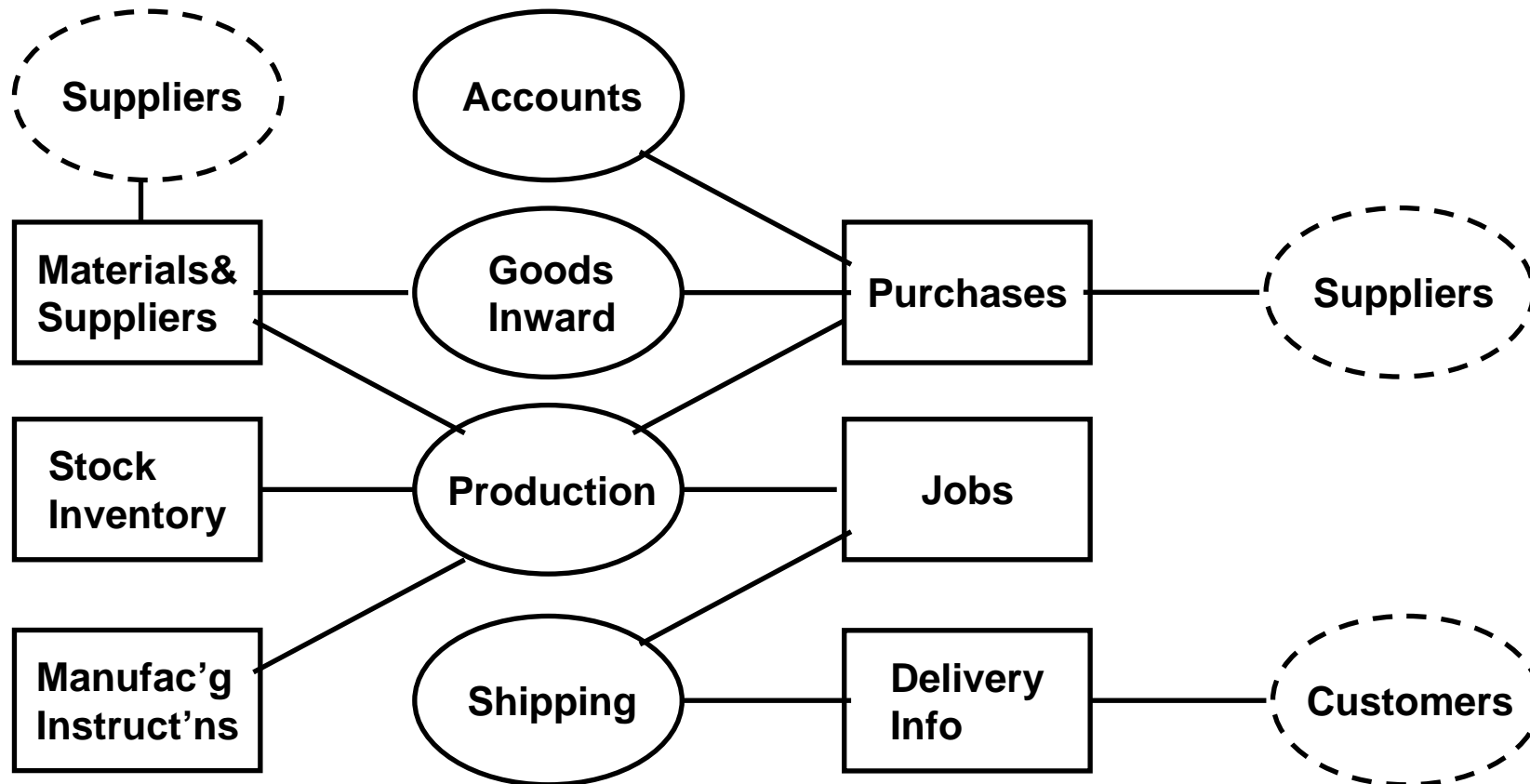


Baseline Business Architecture

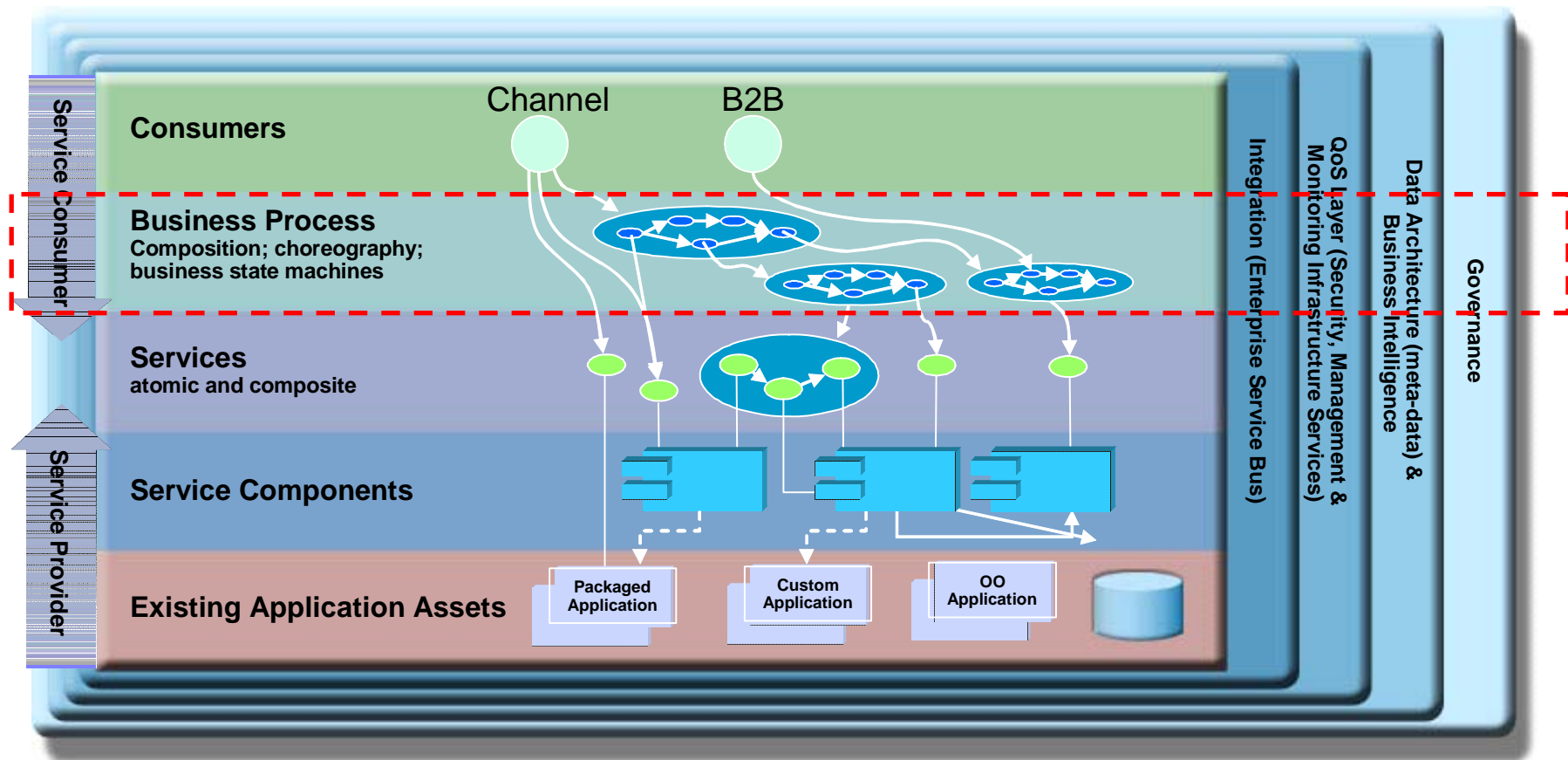
Business Architecture – Orders



Business Architecture – Delivery



SOA Business Architecture



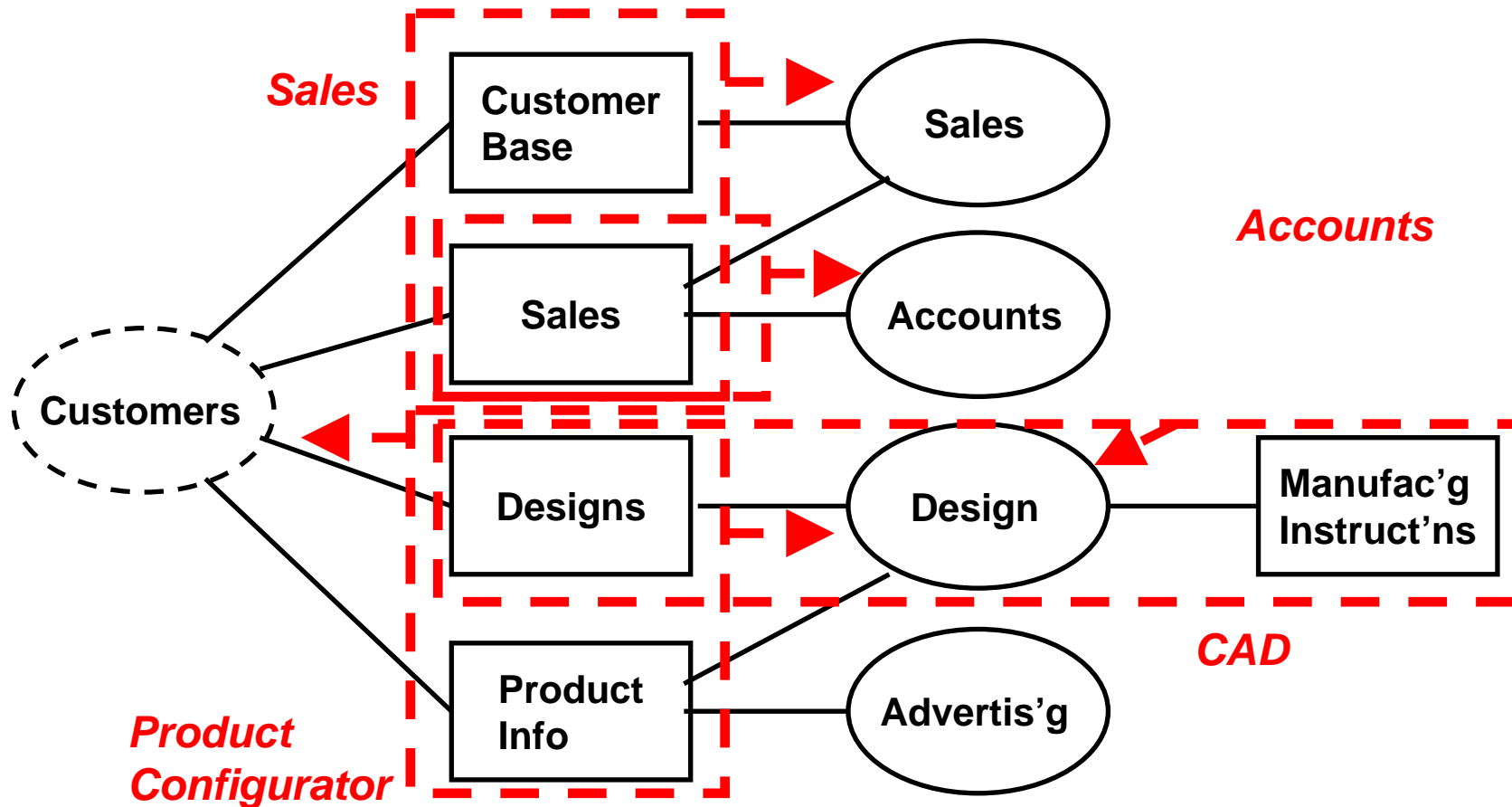
Target Business Architecture

Baseline Information Systems Architecture

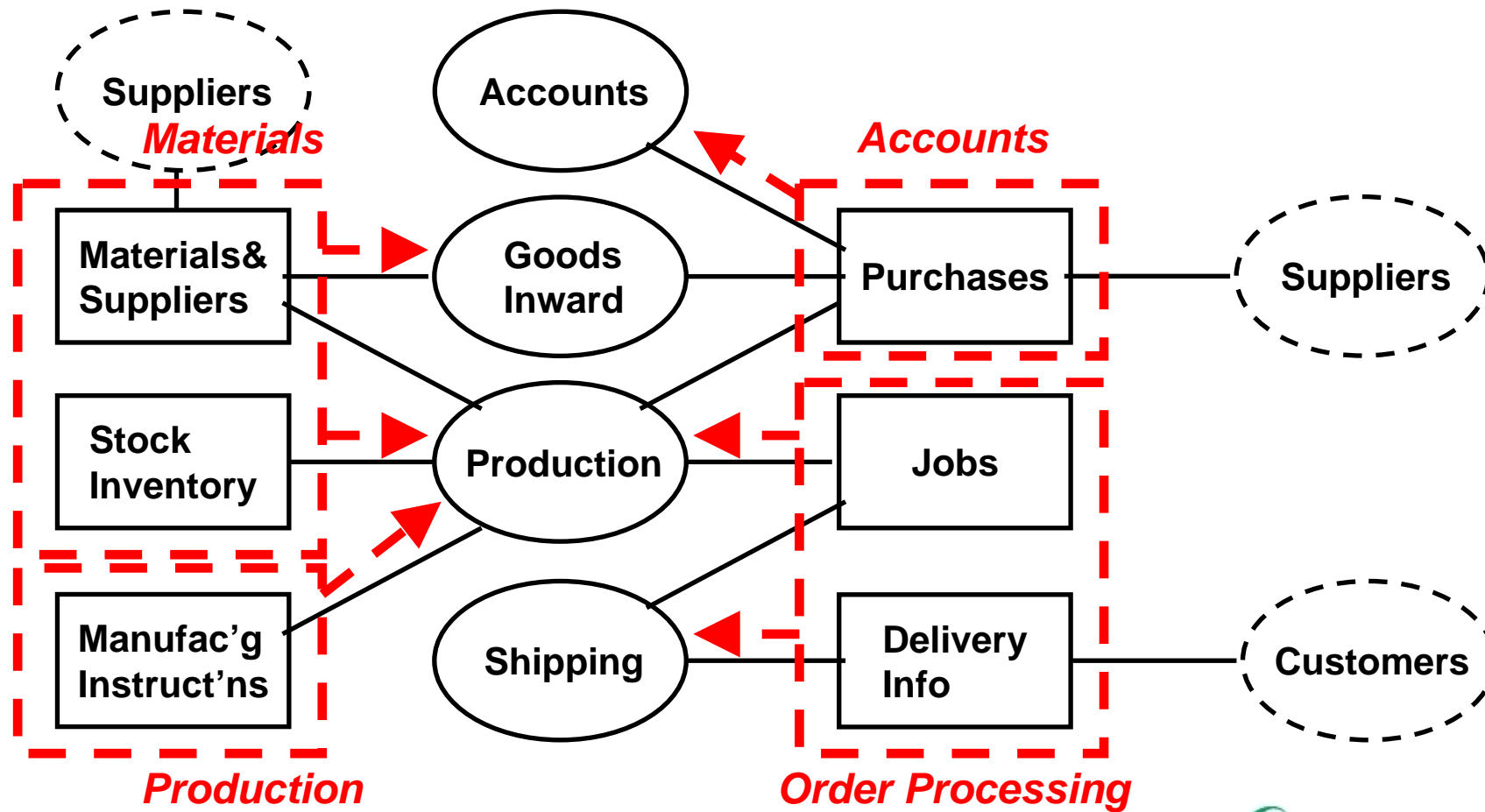
Information Systems

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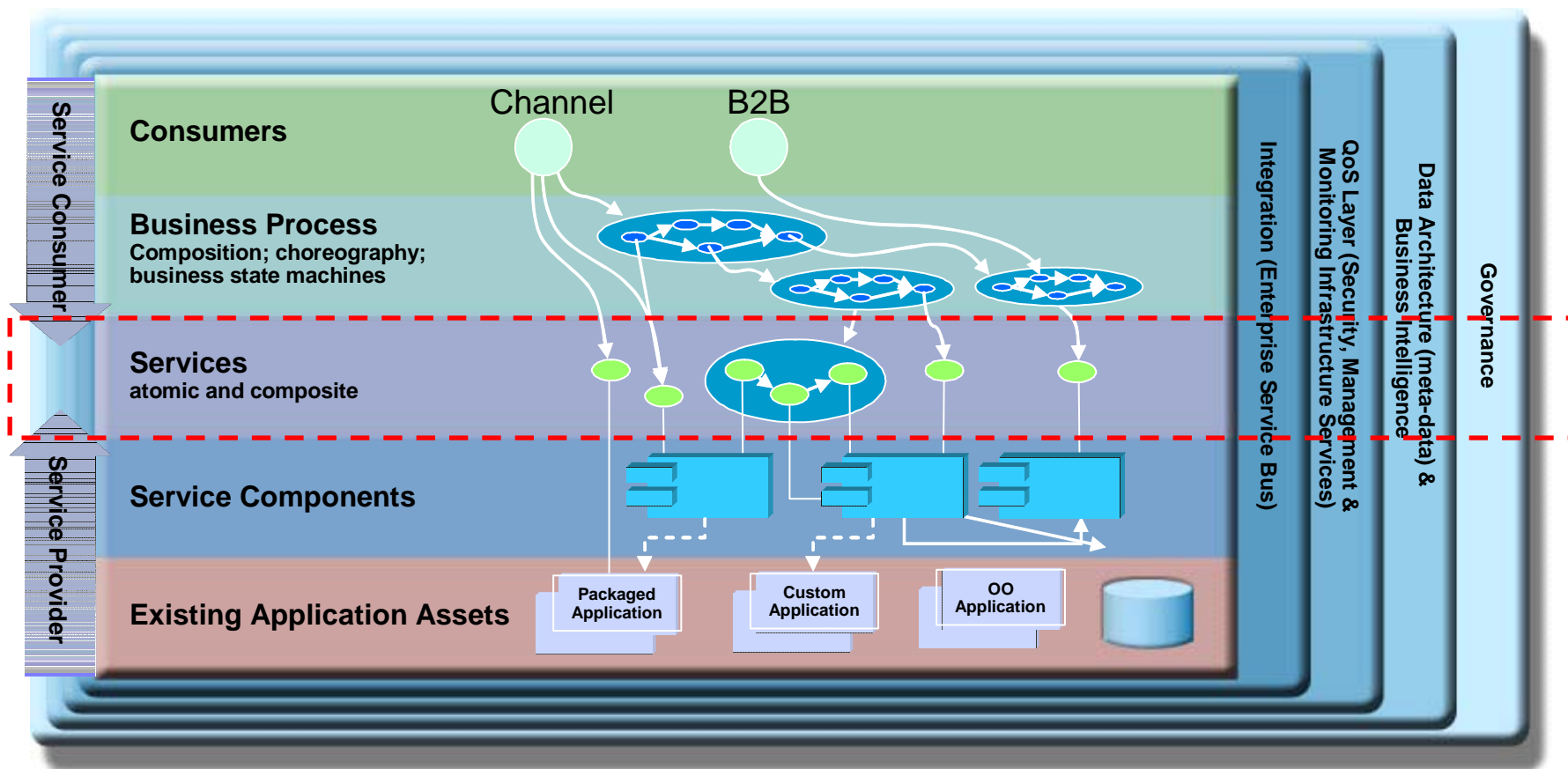
Information Systems – Orders



Information Systems – Delivery



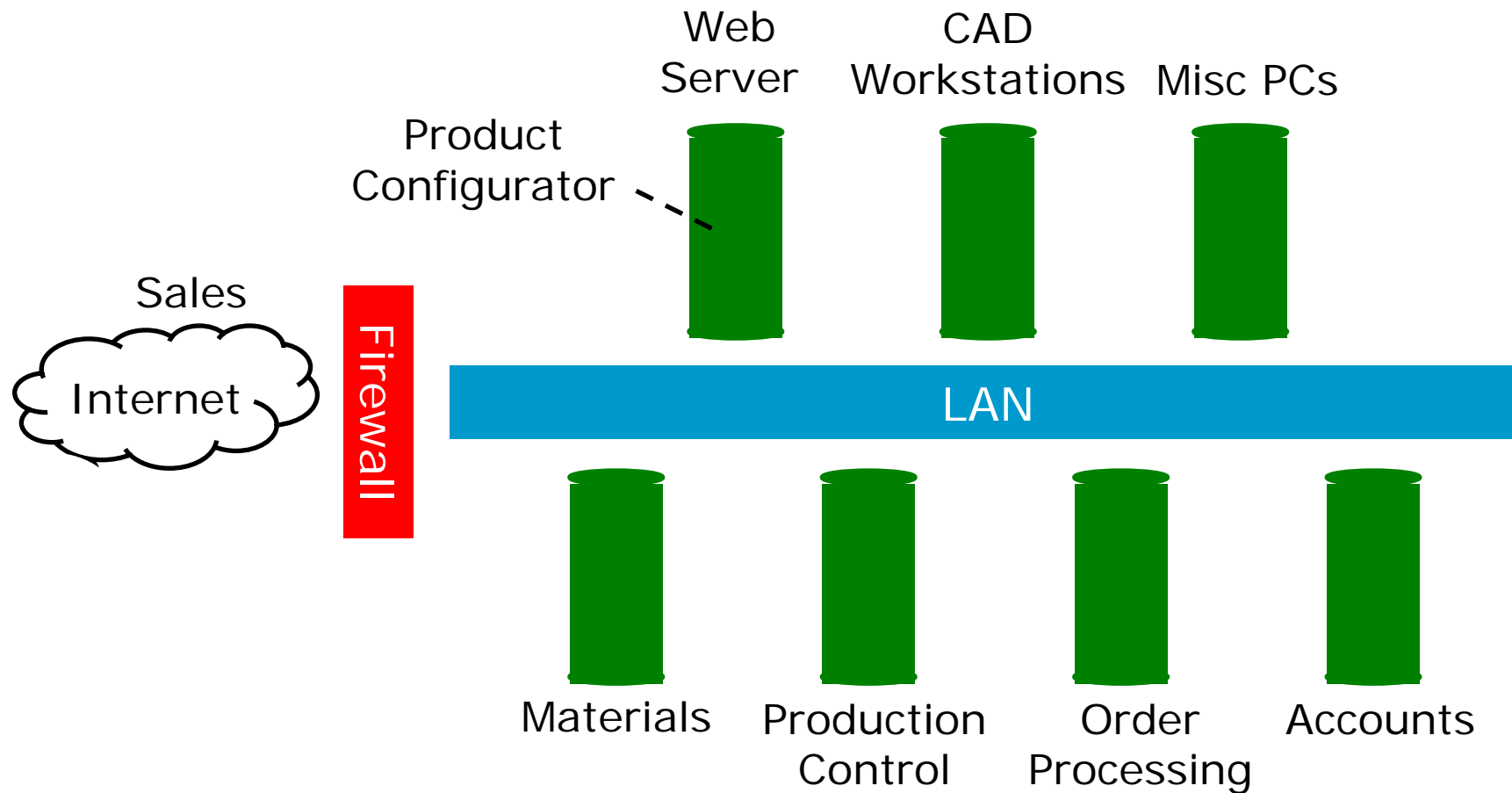
SOA Information Systems Architectures



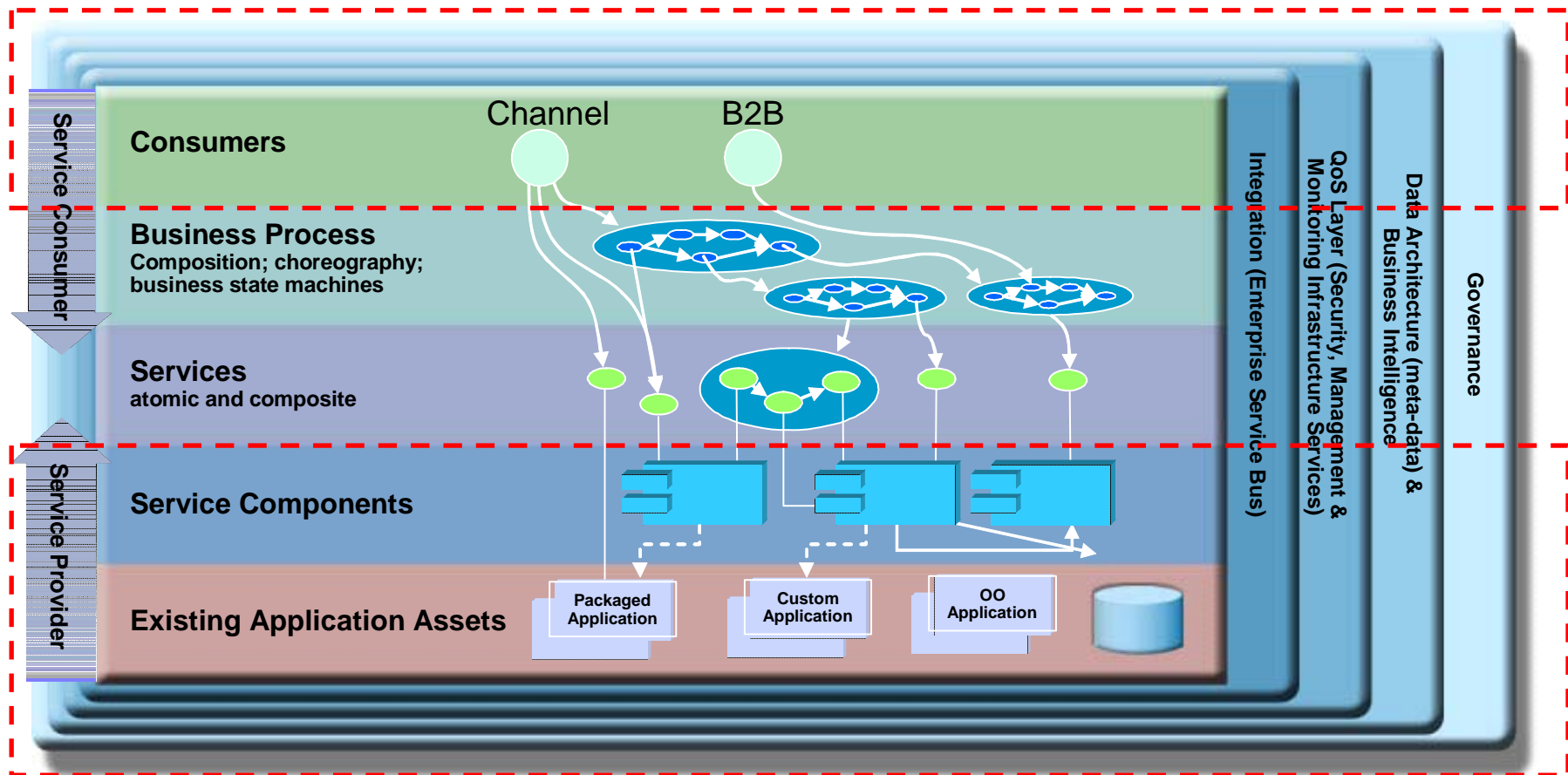
Target Information Systems Architecture

Baseline Technology Architecture

Technology Architecture



SOA Technology Architecture



Target Technology Architecture

Conclusions

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Thank you!