

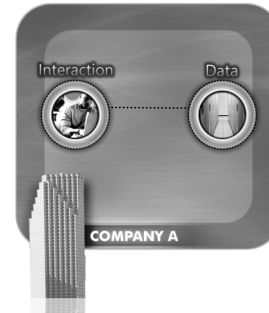
Viewpoints in Service Orientation

Or

**Business is from MARS
Technology is from VENUS**

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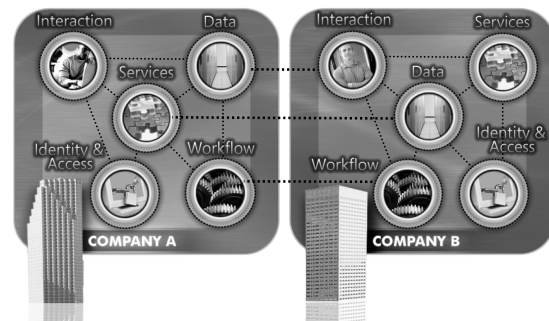
The Imperative to Connect



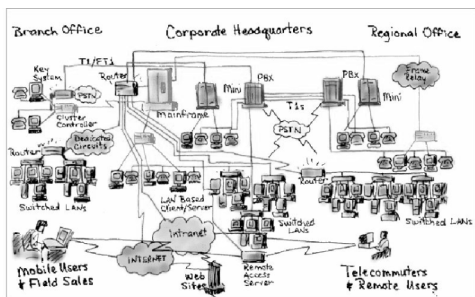
The Imperative to Connect



The Imperative to Connect



Real World IT Architecture (?)



(needed a) ...blueprint to bring order to the "spaghetti layer of applications, boxes and wires"
Toby Redshaw VP of Strategy & Architecture Motorola

Business is from Mars,
IT is from Venus

Consider the idea of a Contract

If Business is from MARS, then a Contract:

- Can be viewed as a "bundle of legal commitments"
- Forms a legal governance & audit control model
- Asserts compliance / non-compliance conditions
- Is the formal legal agreement of a business relation

If IT is from VENUS, then a Contract:

- Is a core Tenet of Service Orientation
- Is a WSDL in Web services
- Is a policy that can be supported by WS-Policy

Dave Welsh

Enterprise Architect
Summit 2005

Service Think for MARS and VENUS

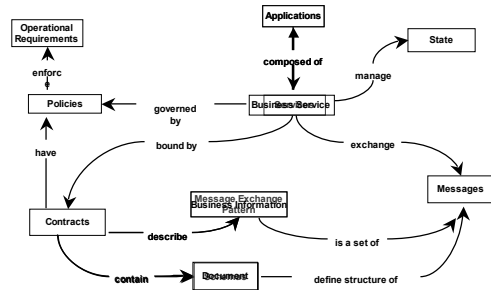
Gentle Reminder on the existing 4 Tenets of Service Orientation

- Boundaries are explicit
- Services are autonomous
- Services share schema and contract, not class
- Service compatibility is determined based on policy

Business Tenets for Service Orientation (from **Mars**)

- For every interaction, there's an exchange of information and also a legally enforceable commitment exchange by each service owner.
- Legal entities, people or organizations with a shared acceptance of common rules or legal environments or business conventions are only able to make commitments.
- ... and there are a few more not listed here.

Service Orientation for Business



Architectural Tenets for MARS and VENUS

Gentle Reminder on the existing 4 Tenets of Service Orientation

- Boundaries are explicit
- Services are autonomous
- Services share schema and contract, not class
- Service compatibility is determined based on policy

New (?) Business Tenets for SOA

- For every interaction, there's an exchange of information and a legally enforceable commitment exchange by each service owner.
- Legal entities, people or organizations with a shared acceptance of common rules or legal environments or business conventions are only able to make commitments in a business transaction.
- ... and there are a few more not listed here.

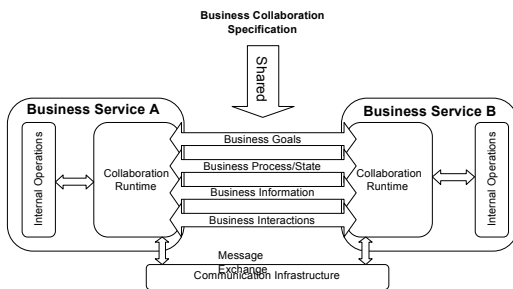
Timeless Business Processes

- Yesterday's business process
 - Everyone had a number and the Business Process was: Tell the operator of a number, and ... magic happens!
- Today's business process
 - Everyone has a number and today's Business Process is: Type in a number and ... magic happens!
 - Loosely Coupled in action.**
- When we start looking at Business Processes as Business Services
 - We start to see "Events"
 - Picking up the phone**
 - We start to see "Services"
 - Making the call, Answering the call**



It is Business Processes that drive Services Architecture

Focus on Semantic Interoperability for Services



Where are we?

Businesses are naturally service oriented and event driven

- Serious personalization to get closer to the customer; Dell, Amazon, ...

30 years of electronic transactions (EDI, ...)

- Cost as the major impediment to adoption; cost of 'mapping' from MARS to VENUS. But why?

Documents are over defined (data & structure) with too many options. The implementations are confused, the business relationship gets confused. MARS wants to get an answer on the state of business, VENUS wants to know the state of a document exchange. More confusion if the contexts get switched.

From Documents to Business Processes for Services Orientation

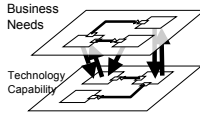
- A real world business service wants more than 1 application to meet all its functionality.
- In a Services approach, the provider defines the information required and it's structure; in effect half the mapping cost is eliminated.
- **Service Orientation looks at technology from a business process perspective.**

Getting to a Services Oriented world? -

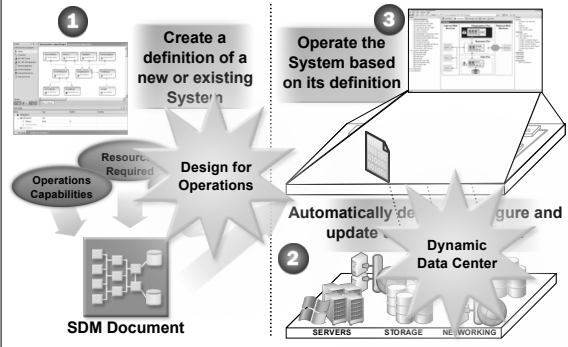
The Modeling Imperative

Model-based design and development

- Models have to be first-class artifacts
- Models enable development
 - Models can abstract and aggregate information and support checks and other forms of analysis
- Tooling for Domain Specific Languages
 - DSLs are small, highly focused languages for solving some clearly identifiable problem document structure definition etc
 - example of a vertical industry DSL for modeling the logical structure and collaboration of HL7 Healthcare standard interactions.
- Software Factories
 - Domain specific software processes, tools, languages and content to automate tasks

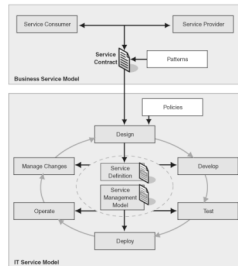


Microsoft's Dynamic Systems Vision



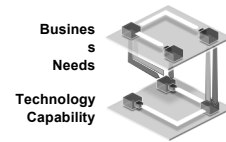
Business Oriented Service Management

- Theme work of reifying Business with IT. Details at TechED 2005
- Business Service Model
 - Based on Open Business Standards
 - Technology neutral, produces many things for a Software Factory including a Business Level SLA.
- IT Service Model
 - Extending the DSI concept by directly consuming a Business SLA.
 - Modeling the full IT management lifecycle
 - Allows for a prescriptive best use of the Microsoft Platform to it's fullest.



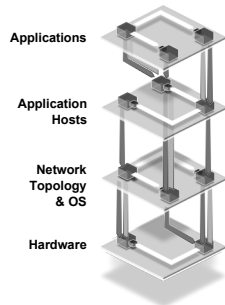
Model-Based Design & Development

- Models as first-class artifacts
- Models as a set of abstractions that enable design and development
- Intrinsic alignment across business and technology capabilities
 - Domain specific languages and tooling
- Models facilitate in-band governance and compliance



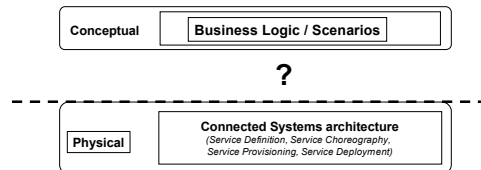
Model-Based Management

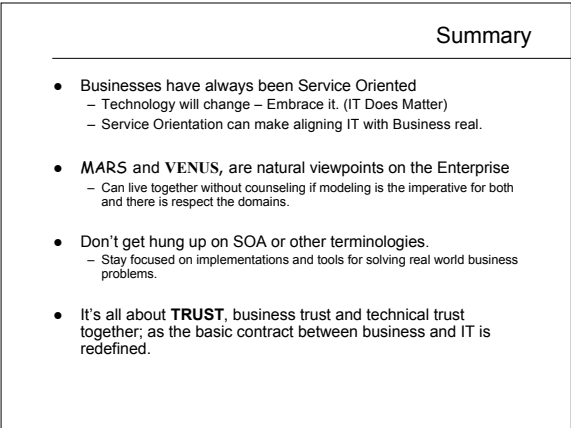
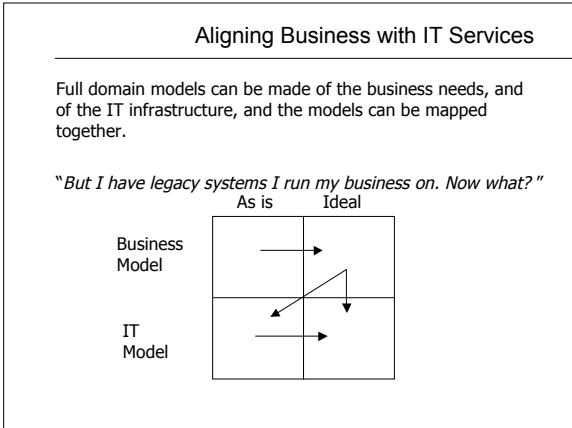
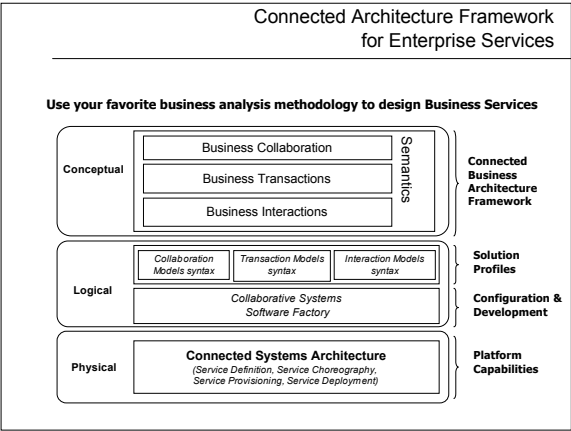
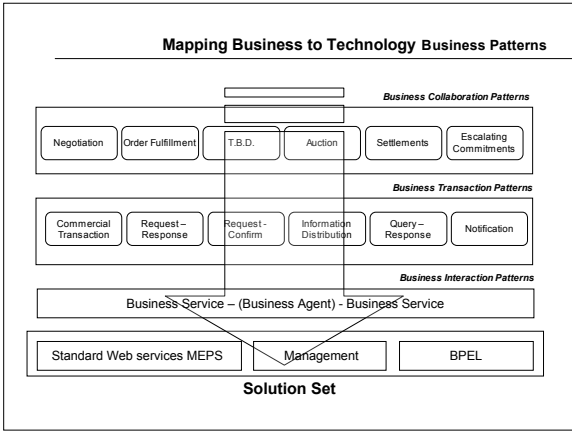
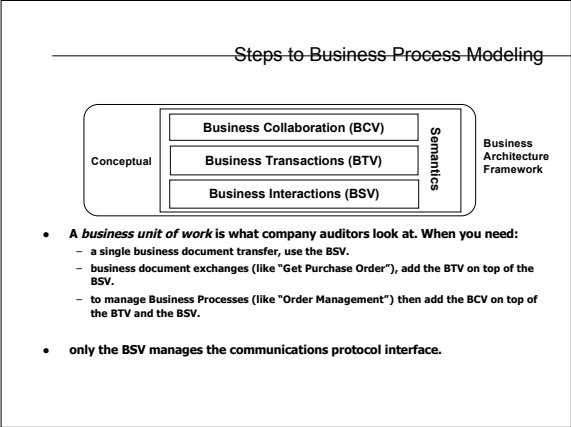
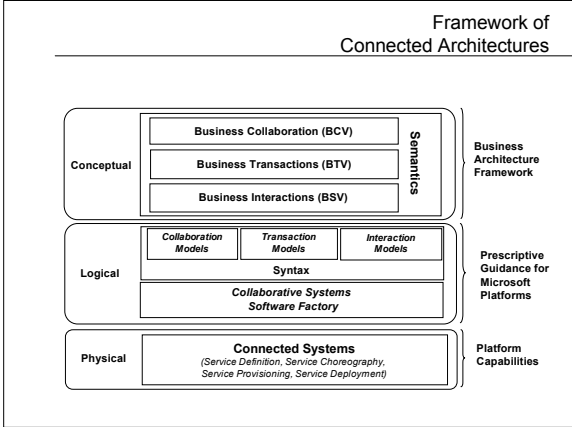
- Models as a set of abstractions that drive management and operations
- Machine-readable, capturing intent of application and infrastructure architects
 - Developer constraints
 - IT policy and topology
 - SLA
- Models to drive down friction between design and operations



Business Needs to IT Solutions

"Connected Systems means taking business logic and putting it on the network as Web services and giving users the power of aggregation of those services together as a richer experience".







Dave Welsh

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