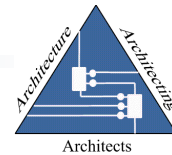




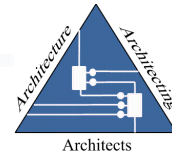
Architecture Strategy Choreographs the Dance of Change

Dana Bredemeyer and Ruth Malan
Bredemeyer Consulting
Tel: (812) 335-1653
Email: dana@bredemeyer.com
Web: <http://www.bredemeyer.com>



Outline

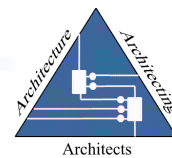
- Architecture 501
 - or Architecture for ~~dummies~~ the intelligent
- Enterprise Architecture 501
 - or Enterprise Architecture for ~~dummies~~ the intelligent
- Strategy 501
 - or Strategy for ~~dummies~~ the intelligent
- Putting the Lessons Together



Architecture 501

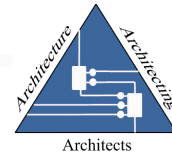
- What is architecture?
 - the set of decisions that an architect makes
- What is an architect?
 - the person who makes architecturally significant decisions
- What is architecturally significant?
 - the architect decides

absolute nonsense, or really keen sense?



What is Architecture?

- Architecture is the organizational structure of a system
 - the elements or components that comprise the system, their externally visible properties, and their interrelationships
 - the architectural mechanisms that address cross-cutting concerns or systemic properties
- Architecture is the expression, in terms of views and descriptions, of a set of decisions addressing
 - system strategy
 - system decomposition and composition
 - system properties or cross-cutting concerns
 - system integrity



Architecture Decision Model

Architectural Strategy

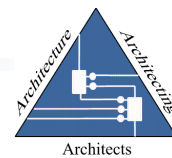
- Translates business strategy to architecture strategy; sets technical direction for the system; establishes architectural vision, principles, philosophy and objectives
- *Focus: make high-level decisions that will strongly influence the architecture of the system; rule certain choices out, and guide selection and tradeoff decisions*

Architecture

- Structures and relationships; described in various views; documents assumptions and rationale
- *Focus: provide overall system views, showing system building-blocks and their interrelationships; address cross-cutting concerns; take a system-wide view in setting priorities and making tradeoffs*

Architectural Guidelines, Policies and Standards

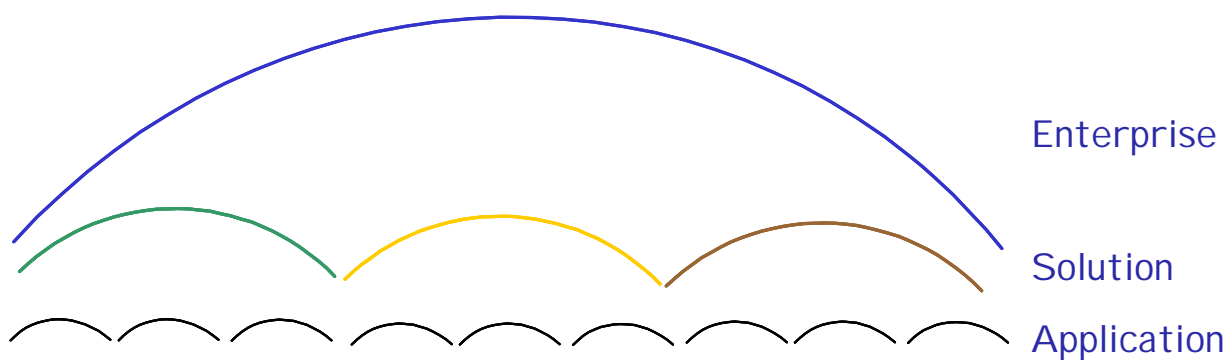
- Use model and guidelines for applying the architecture; policies, mandates and standards to address architecture objectives; recommendations
- *Focus: guide engineers in creating designs that maintain the integrity of the architecture; guide procurers in purchasing technologies and solutions*

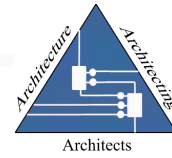


What is Architecturally Significant?

or “What Decisions does the Architect Get to Make?”

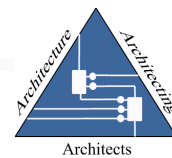
- A concern is architecturally significant if it must be dealt with at the level of the system
 - It is largely a matter of *scope of impact*
 - strategic and broad impact ==> architecturally significant





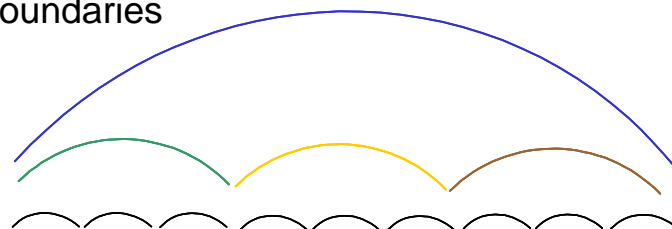
Principles to Guide Architects

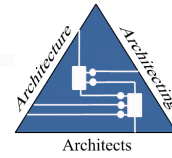
- **Minimalist Architecture Principle:**
 - Keep your architecture decision set as small as it possibly can be, while still meeting your architectural objectives.
 - *If a decision can be delegated to someone with a more narrow scope of responsibility, then do so!*
- **Decisions with Teeth Principle**
 - Only make a decision part of your architecture if you can make it stick
 - *There must be a process to ensure the decision is adhered to*
 - *or you must be passionate enough about it to do what it takes*
- **Connect-the-Dots Principle**
 - Show how decisions relate to higher level goals or decisions
 - *You must document and communicate this traceability*



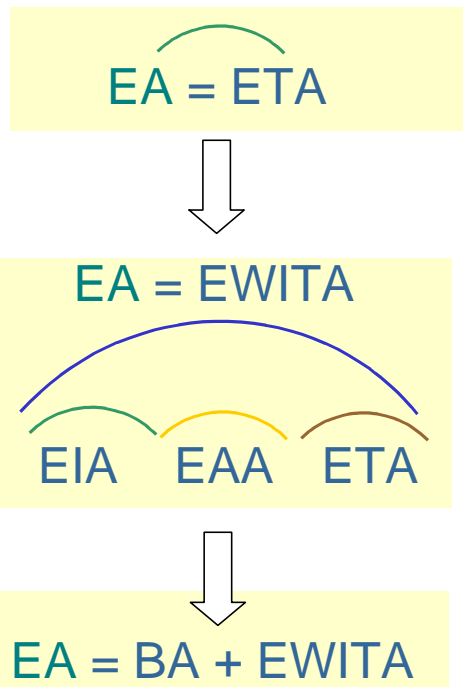
Enterprise Architecture 501

- **What is Enterprise Architecture?**
 - The defining characteristic that differentiates Enterprise Architecture from other architectures is that the *system* of interest is the entire enterprise
 - concerns and decisions are addressed at enterprise scope
 - it crosses (internal) organizational boundaries e.g.,
 - covers multiple business units
 - crosses functional boundaries





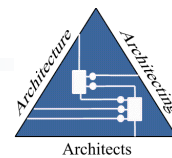
Evolving Definition of Enterprise Architecture



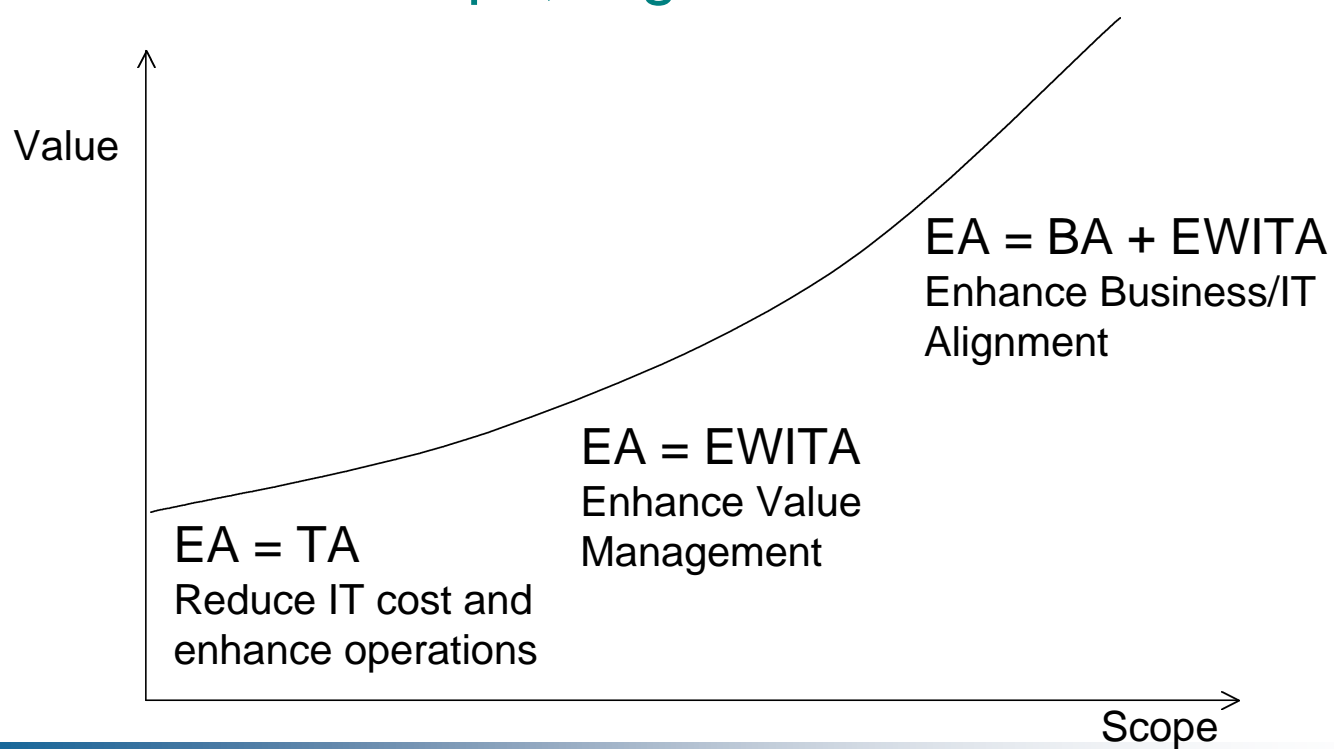
- The definition of Enterprise Architecture has been evolving
 - Technology Architecture alone was not sufficient to address enterprise IT goals like “a single view of the customer”
 - Enterprise IT Architecture alone is not sufficient to ensure business/IT alignment

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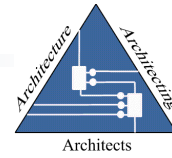


Evolving Definition of EA Broader Scope, Higher Potential Value



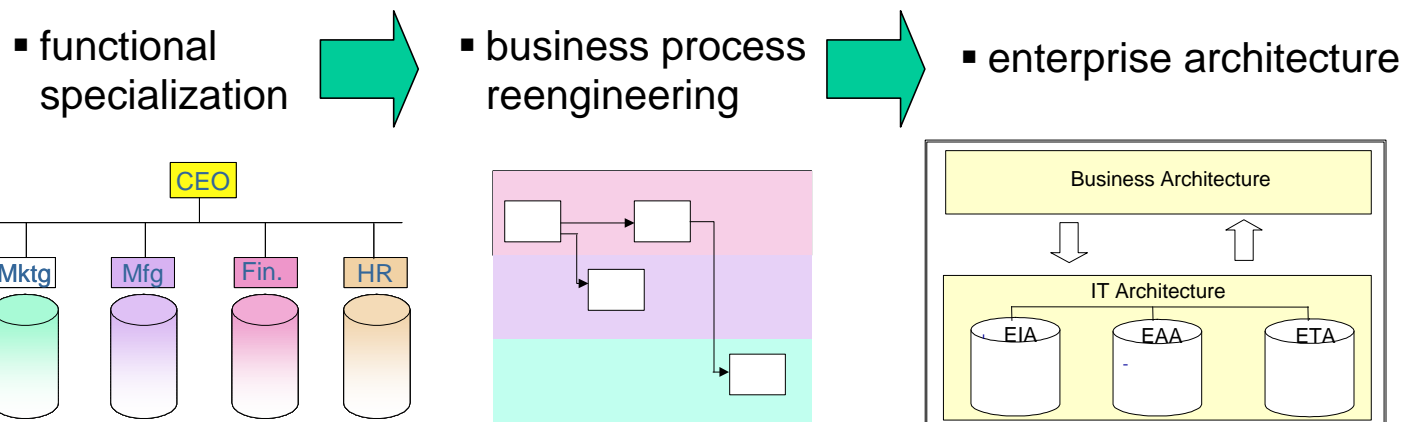
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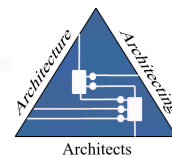
Evolution of Organizational Design

- Organizational Design has also progressed through a series of “revolutions”



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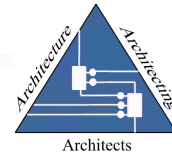


Evolutionary Paths Converge at Enterprise Architecture

- Organizational Design and Enterprise Architecture have converged because
 - we cannot *ignore technology* in business process design
 - we cannot *ignore the business* in technology solution design
- Enterprise Architecture = the architecture of business capabilities
 - We need to design business *capabilities*, that are a combination of
 - people
 - process and
 - technologyworking together to produce business results

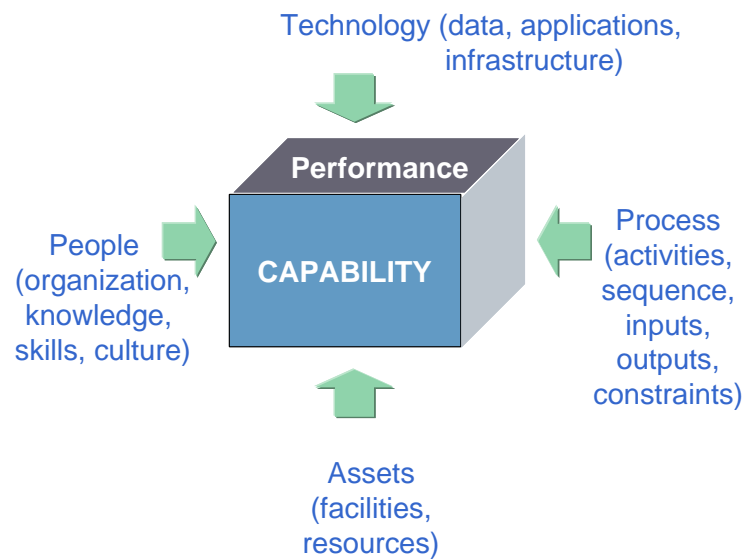
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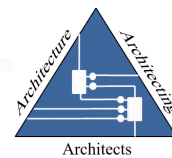
Business Capabilities

- Business capabilities may be
 - inherent in people/process only (manual)
 - very few left these days
 - provided by fully automated systems
 - not too common in most industries
 - produced by a collaboration between people and technology in technology-enabled processes
 - create more efficient and effective processes
 - enable innovation through better access to information, enhanced productivity or by acquisition by purchasing technology solutions
 - aligned by strategic performance objectives

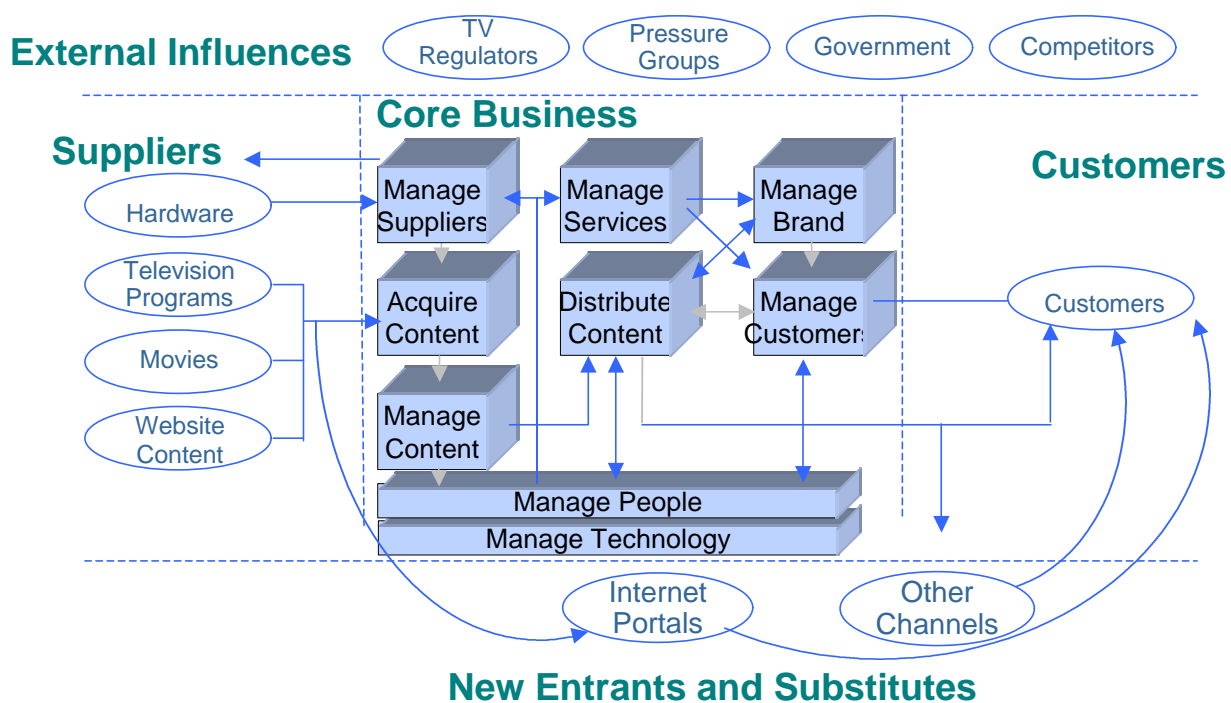


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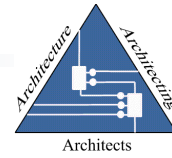


EA as Business Capabilities Architecture What Does it Look Like?



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Strategy 501

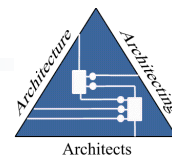
- What is strategy?
 - Strategy sets direction, articulating a high-level path forward
- What is business strategy?
 - Our business strategy establishes
 - our unique **identity**
 - our differentiating **value proposition**
 - our differentiating **capabilities**

Competitive Strategy

Identity

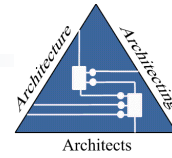
Value Proposition

Capabilities

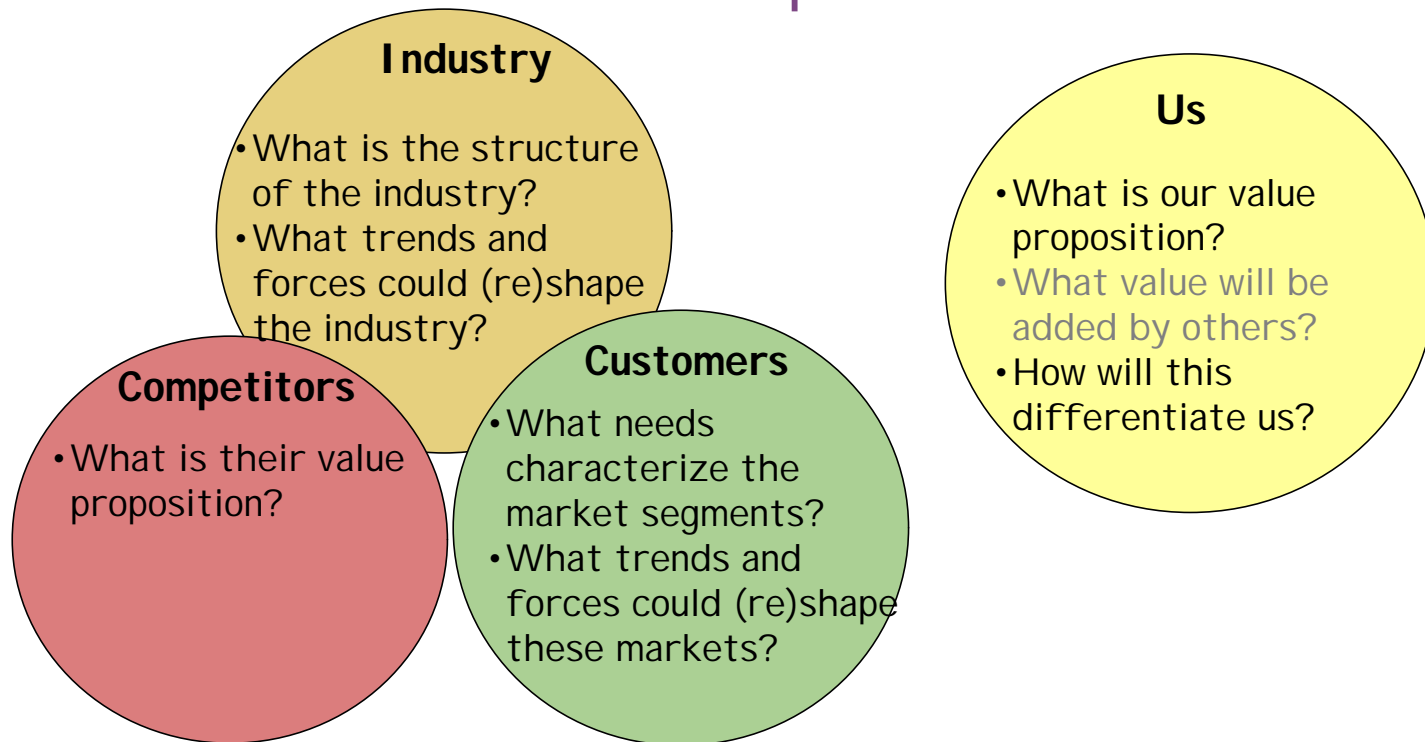


Strategy Formulation: What is our unique Identity?

- The key here is a *Statement of Identity*
 - that is crisp, memorable, easy-to-communicate
 - that will align our organization and distinguish us from others in the marketplace:
 - “We are the easy-to-use smart technology company” (Apple?)
 - “You can depend on our products” (HP?)
 - “We are the low-price airline” (Southwest?)
 - What *are* we known for, and what do we *want* to be known for?

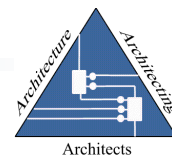


Strategy Formulation: What is our Value Proposition?

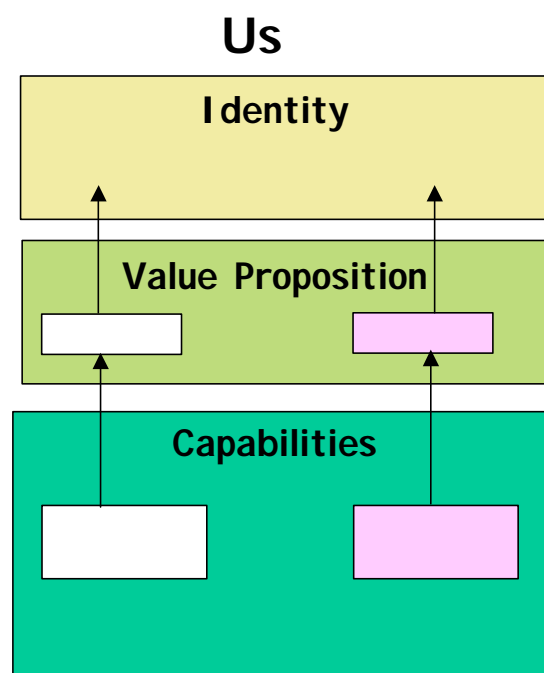


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Strategy Formulation: What Capabilities do we Need to Build?



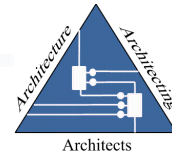
What capabilities do we need to

- create
- enhance
- sustain

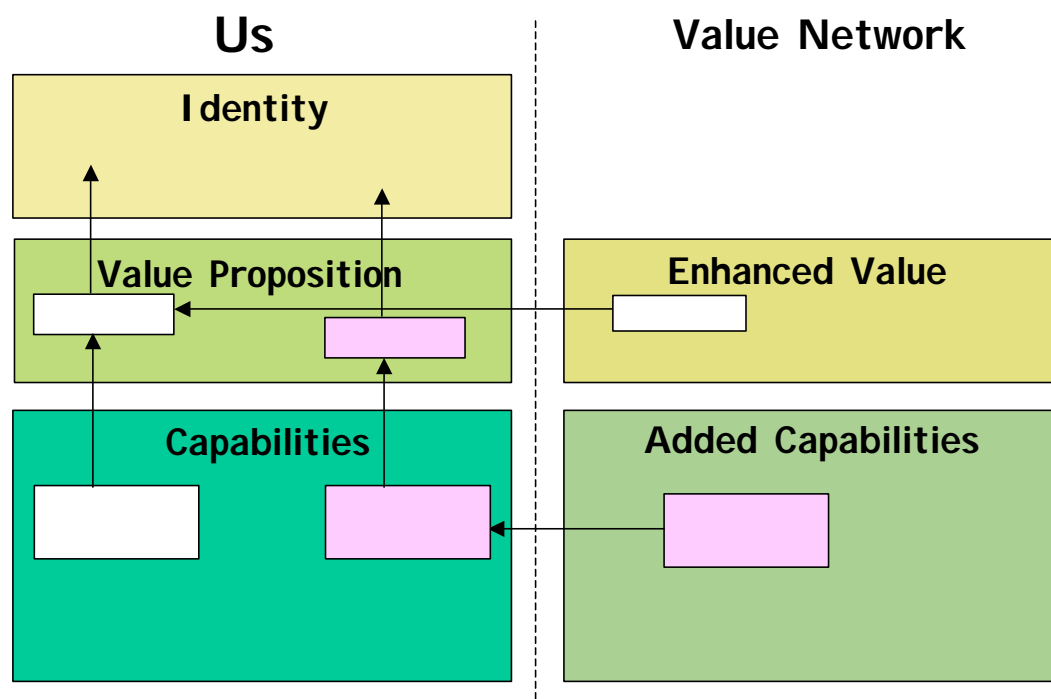
to deliver our value proposition?

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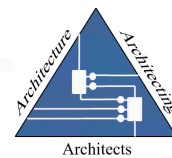


Strategy Formulation: What Role will the Value Network to Play?



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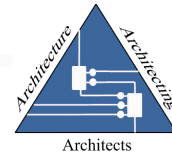


Strategy Implementation

- Strategy implementation has two critical parts
 - *transmission*: not just communication of the strategy, but transfer of energy and empowerment
 - *assessing effectiveness*:
 - establish performance measures related to each strategic objective
 - monitor progress toward objectives

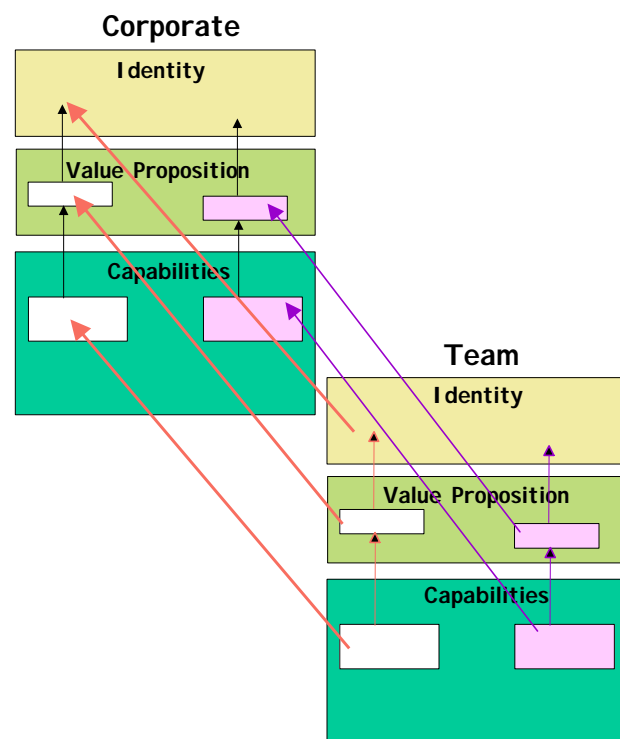
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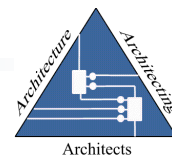
Strategy Implementation: Transmission

- **Goal:** empower, invigorate and inspire the entire organization to do their best work to accomplish the business strategy
 - because they can make a difference, they will!
- **Key tool:** Strategy Maps, showing how each group aligns with and expands on higher level
 - identity
 - value proposition
 - capabilities



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Strategy Implementation: Assessment

- **Assess performance**
 - set sub-ordinate objectives related to strategic business objectives
 - from strategic to tactical
 - monitor progress towards strategic objectives
 - from the ground up
- **Key tool:**
 - Balanced Scorecard
 - at every level

Corporate					
Strategic Theme	Strategic Objective	Measure	(year) Baseline	(year) Target	Strategic Initiative(s)
Financial					
Competitive					

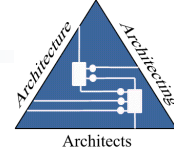
Objective

Team					
Strategic Theme	Objective	Measure	(year) Baseline	(year) Target	Strategic Initiative(s)
Financial					
Customer					

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It All Seems So Simple Yet ...



"Business" creates strategy



IT executes... ???

"IT doesn't get it!"

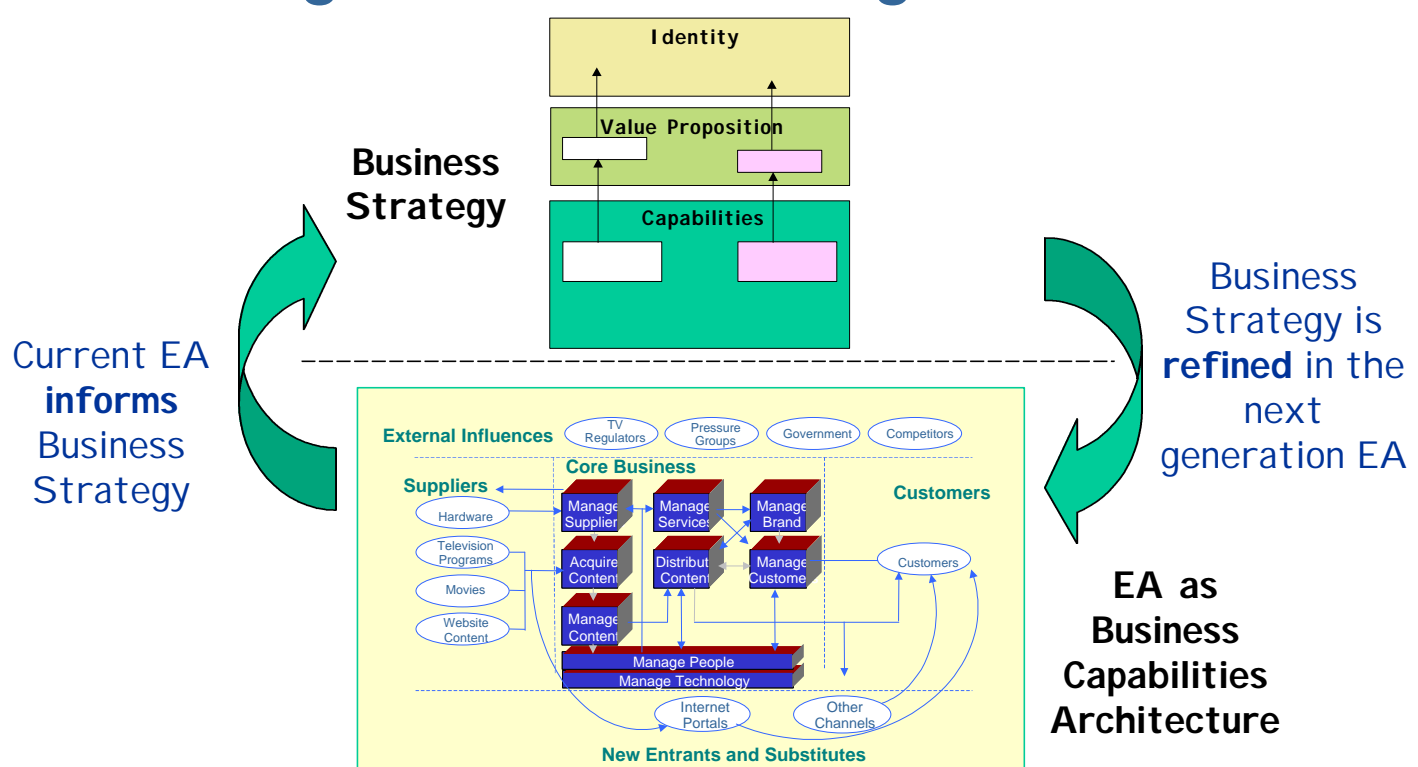
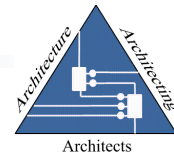
"The business doesn't get IT!"

"IT doesn't matter!",
Nicholas Carr, HBR, May 2003

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Putting the Lessons Together

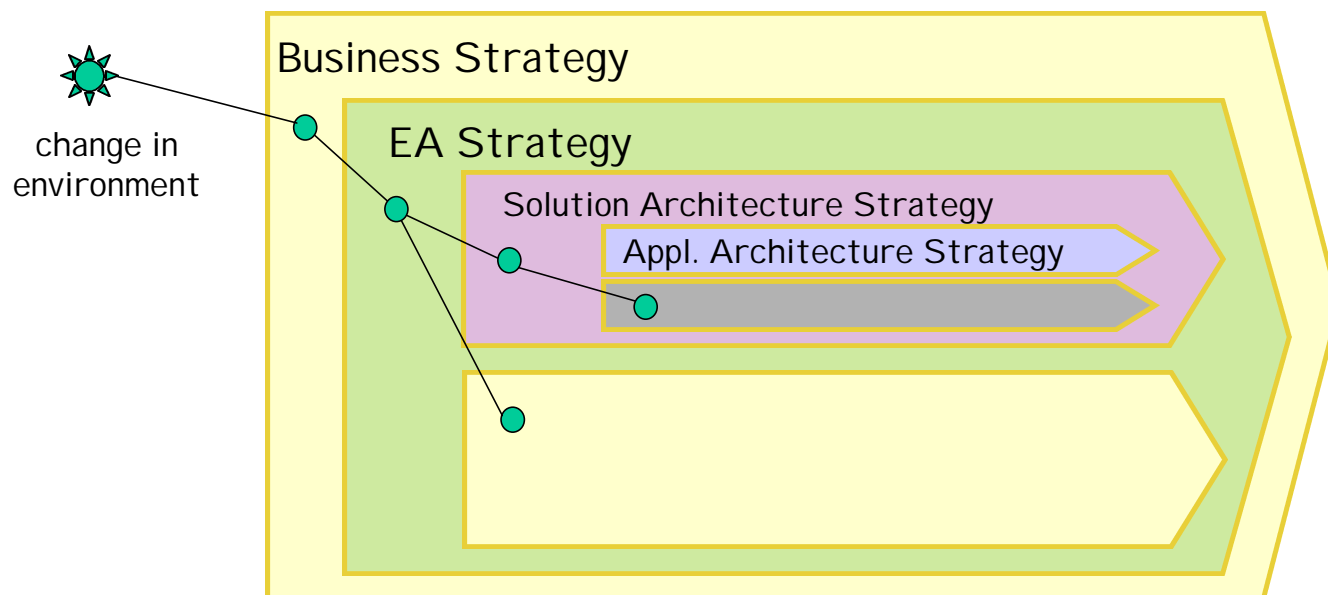
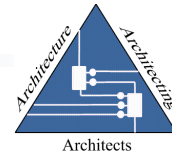


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Architecture Strategy

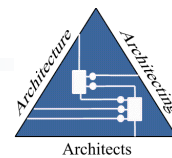
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Review



- Key Lessons

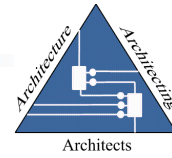
- Architecture addresses concerns that have strategic and broad impact across the system.
- Enterprise architecture is most effectively treated as the architecture of the capabilities of the business, where capabilities are created by people, process, and technology together.
- Competitive strategy establishes the organization's unique **identity**, its differentiating **value proposition** and its priorities for building, sustaining and jettisoning **capabilities**.
- Now Enterprise Architecture is the natural next step after business strategy, and creates the bridge between business strategy and technical strategy.

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Resources

GEAO



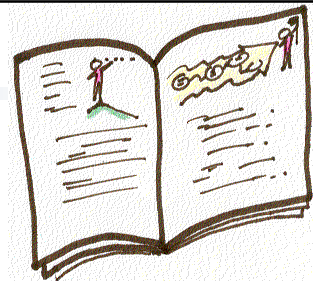
- The Global Enterprise Architecture Organisation (GEAO)

- <http://www.geao.org/>

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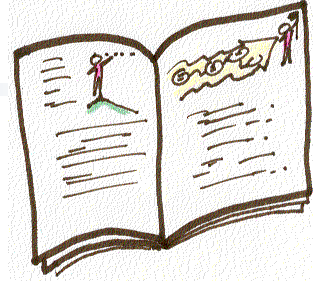
Architecture Books



- Hofmeister et al. *Applied Software Architecture*, 2000
- Maier, M. and E. Rechtin, *The Art of Systems Architecting*, CRC Press, 2002.
- Rechtin, E. *Systems Architecting: Creating and Building Complex Systems*. Prentice-Hall, 1991.
- Spewak, S. H., *Enterprise Architecture Planning*, Wiley, 1992.

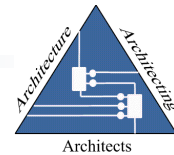
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References Strategy Books



- ❖ Kaplan, Robert and David Norton, *The Strategy Focused Organization*, Harvard Business School Press, 2001.
 - If your management team uses the Balanced Scorecard, this one is a must read. Strengths: covers Balanced Scorecard and Strategy Maps.
- Kaplan, Robert, and David Norton, *The Balanced Scorecard*, Harvard Business School Press, 1996.
- ❖ McGrath, Michael, *Product Strategy for High Technology Companies*. 2nd ed. McGraw-Hills, 2001.
 - ❖ Very highly recommended! Strengths: good treatment of product platforms
- Porter, Michael, *Competitive Strategy*, Free Press, 1998.
 - *This is a classic!* Strengths: very good treatment of strategy, analysis of competition, market signals, industry structure

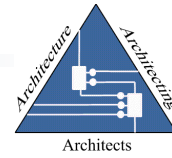
References Architecture Papers



• Architecture

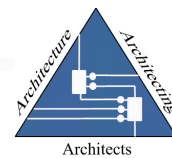
The following papers are published on <http://www.bredemeyer.com/papers.htm>

- Bredemeyer, Dana, "James Madison and the Role of the Architect", June 1999.
- Malan, Ruth and Dana Bredemeyer, "Software Architecture: Central Concerns, Key Decisions", May 2002.
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- Malan, Ruth and Dana Bredemeyer, "The Visual Architecting Process™", May 2003.
- Malan, Ruth and Dana Bredemeyer, "Architecture Teams", March 2001.
- Bredemeyer, Dana, and Ruth Malan, "The Role of the Architect", by Dana Bredemeyer and Ruth Malan, 2002.



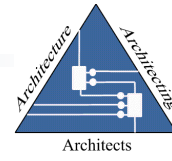
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- Strategy
 - Morris, Charles and C. Ferguson, "How Architecture Wins Technology Wars", *Harvard Business Review*, March-April 1993
 - Malan, Ruth and Dana Bredemeyer, "Architecture Strategy", <http://www.bredemeyer.com/ArchitectingProcess/ArchitectureStrategy.htm>



Resources

- Web Resource Sites
 - Resources for Software Architects: <http://www.bredemeyer.com>
 - Enterprise-wide IT Architecture: <http://www.ewita.com>
 - Global Enterprise Architecture Organisation: <http://www.geao.org/>
 - Enterprise Architecture Community: <http://www.eacommunity.com/>
- Enterprise Architecture Project Sites
 - Department of Commerce IT Enterprise Architecture Home Page <http://www.hpcc.noaa.gov/docita/>
 - HCFA IT Architecture site: <http://www.hcfa.gov/standards/ita/itarch.asp>
 - NASCIO's Adaptive Enterprise Architecture Development Program Resources <https://www.nascio.org/hotIssues/EA/index.cfm#tool-kit>



Training

- American Management Association, *Strategic Planning Processes for Formulating Winning Strategy*, <http://www.amanet.org/seminars/cmd2/2526.htm>
- Bredemeyer Consulting's *Enterprise Architecture Workshop* and *Role of the Architect Workshop* both include a module strategy on that describes and lets you practice our approach to Architectural Strategy. See <http://www.bredemeyer.com>
- Grove Consultant's International *Strategic Visioning* training will provide you with a very useful skill in graphically facilitating groups through the strategy process. See <http://www.grove.com>
- Wharton Business School Executive Education Program, *Strategic Thinking and Management for Competitive Advantage*, <http://aresty-direct.wharton.upenn.edu/execed/course.cfm?Program=STM>