



HP Darwin Reference Architecture Framework – Principles for the Adaptive Enterprise

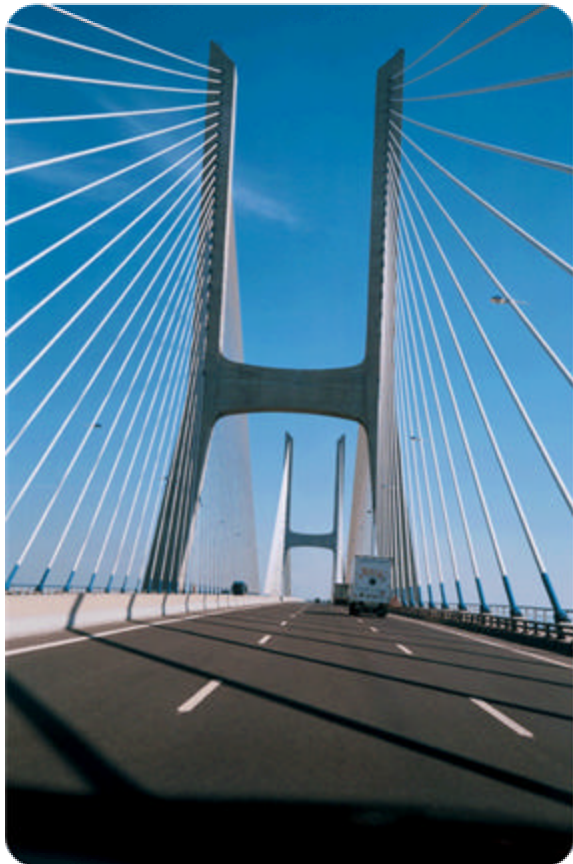
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Why an Adaptive Enterprise
Architecture Framework?

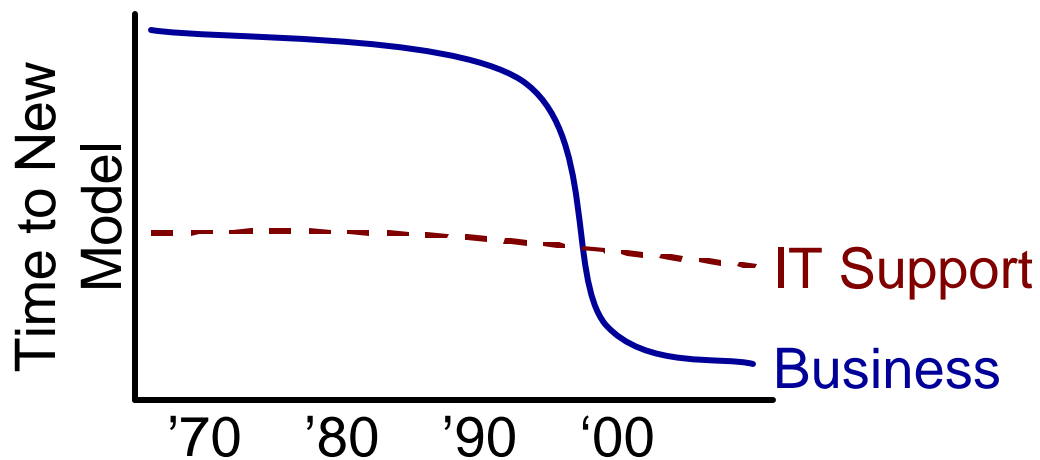
HP Darwin Reference
Architecture Overview

Becoming an
Adaptive Enterprise

Enterprise Architecture & EA Frameworks Coming of Age



- Best tool & practice to address Enterprise complexity
 - Business & IT
 - Linked with Strategy/Planning/EPMO & Financial controls
- Not a 1-shot!
- Change is the hard problem



Challenge for EA:

- How to be relevant?
- How to avoid being the bottleneck on business agility?

Business agility: the new dimension



Improve agility:

- Enable business to respond to:
 - changing markets
 - competitive pressures
 - regulator mandates
 - etc.

- Enable business and IT to synchronize
- Use ability to change as a competitive advantage

Manage costs:

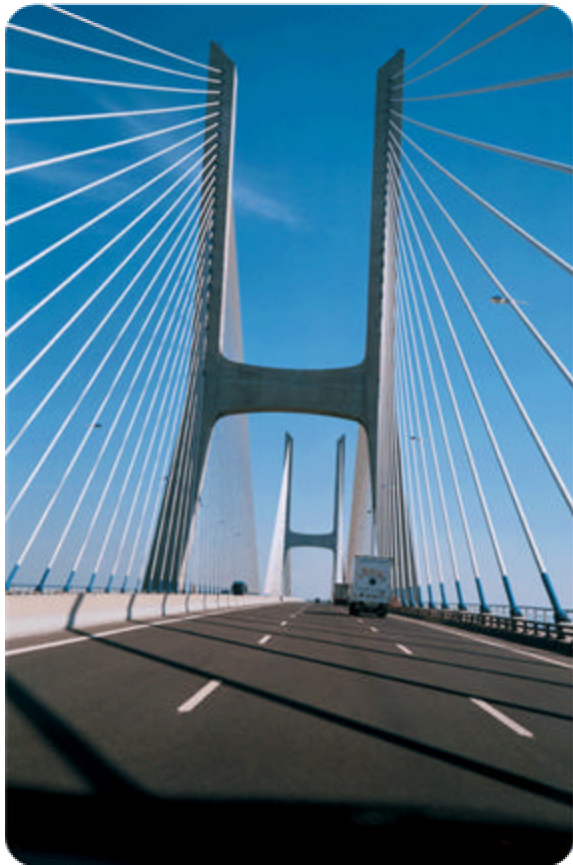
- Reduce cost of change & integration
- Lower operations and acquisition costs
 - # servers, apps, ...
- Balance fixed vs. variable costs

Increase quality:

- Improve customer satisfaction
- Link and extend value chain
- Improve service levels across the value chain

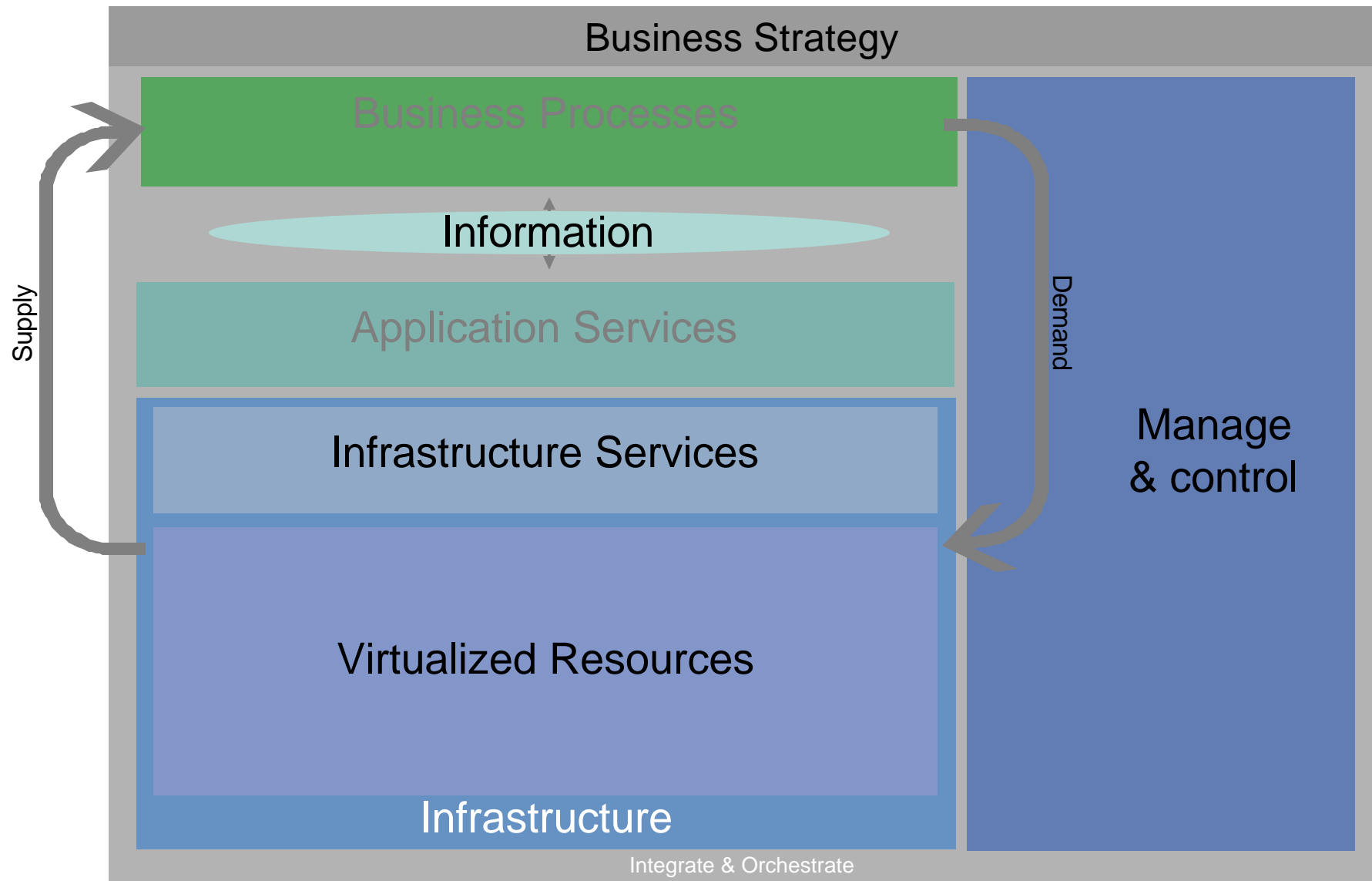
Mitigate risk:

- Ensure security and continuity of business operations
- Risk of not innovating
- Impact of technology implementation on people and process



HP Darwin Reference Architecture Overview

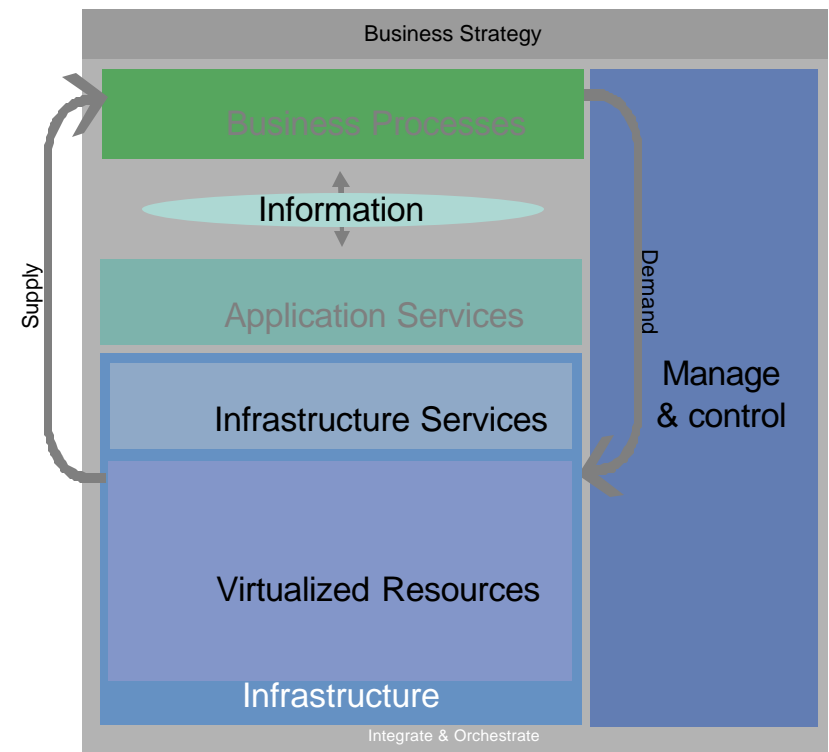
The HP Darwin AE Reference Architecture – Top-level Components



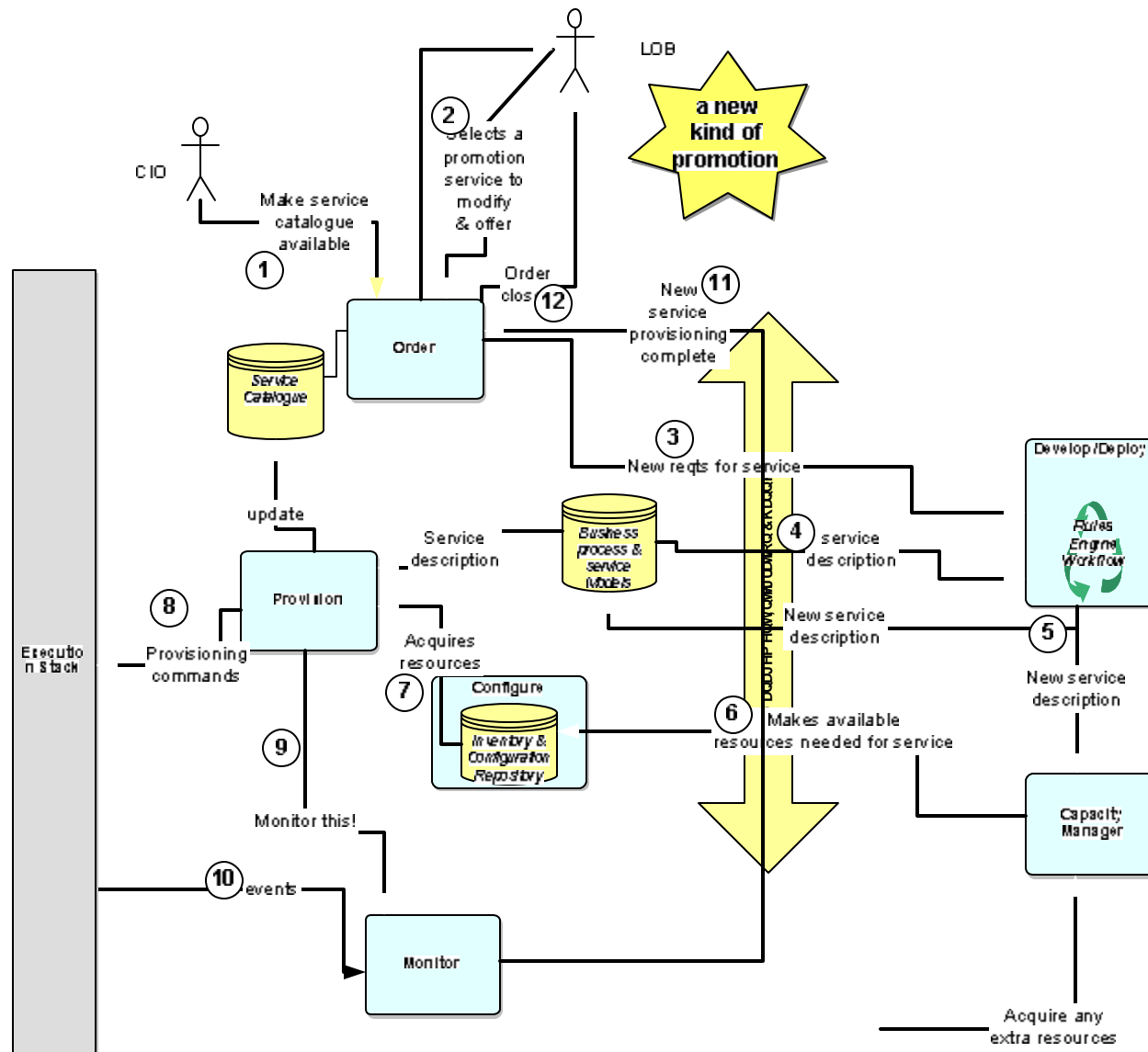
Key Principles of the HP Darwin AE Reference Architecture



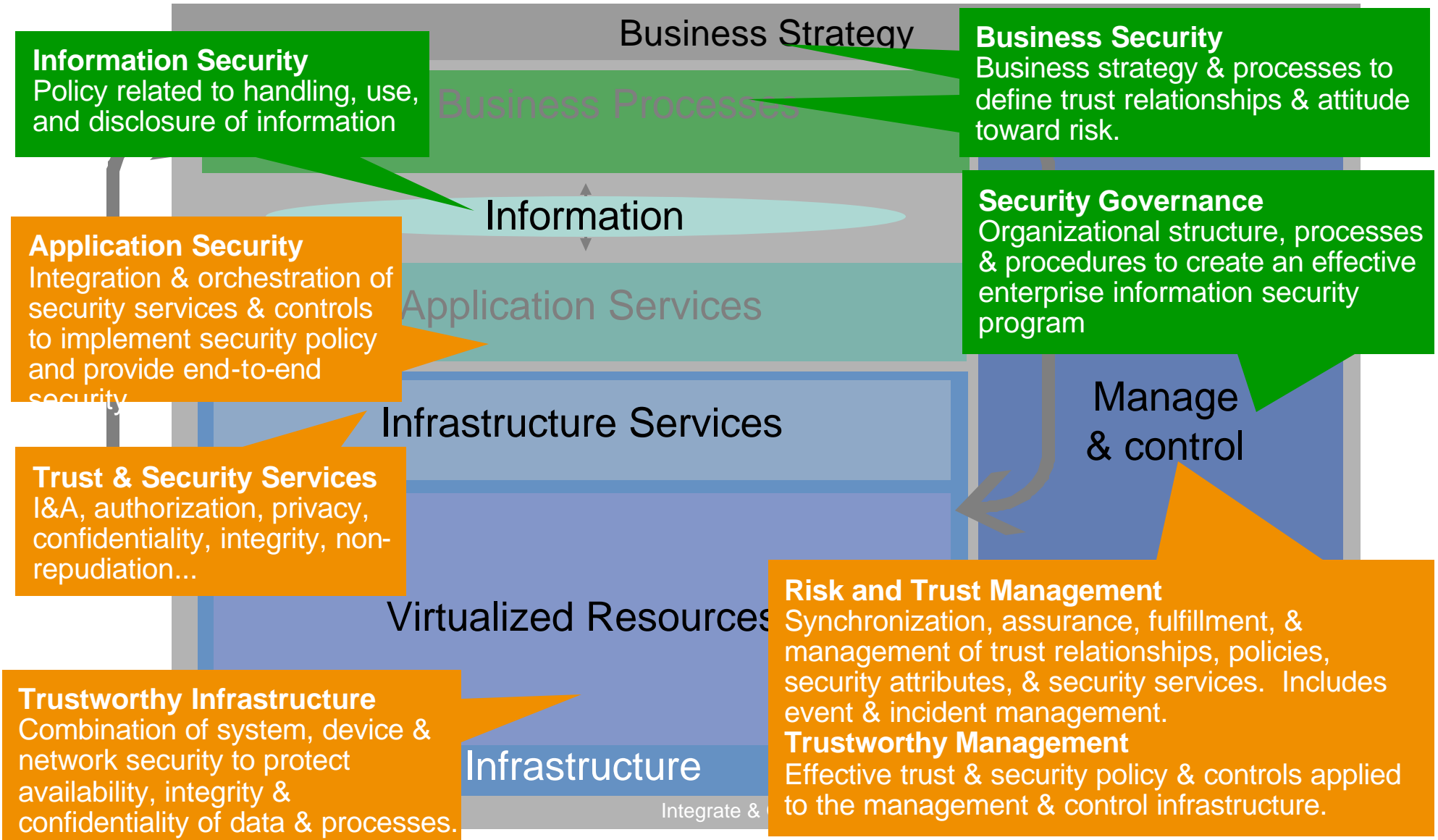
1. Manage business processes end to end (across silos & extended value net)
2. Business metrics drive IT (closed loop)
3. Virtualize & dynamically scale resources
 - Servers, storage, networks
 - Apps, info, business processes
4. Automate & orchestrate processes
5. Adopt industry standards
6. Adopt Services Oriented Architecture
7. Exploit repeatable patterns at all levels
8. SLAs to cover system qualities
9. Build in instrumentation & control panels
10. Create an end-to-end IT value chain
11. Integrated platform for mgt. & control
 - OSS & BSS
 - Continuous secure operation
 - Lifecycle management
12. Evolution vs. revolution

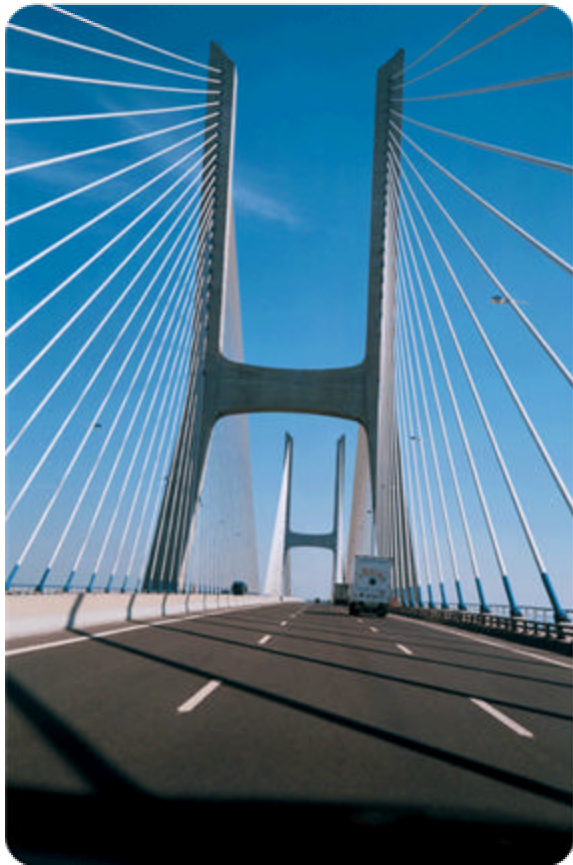


Example: Use Case Overlays to Show Behavior & Value



Security Example: “Overlays” for System Qualities, Technologies, Standards, Products, & Services



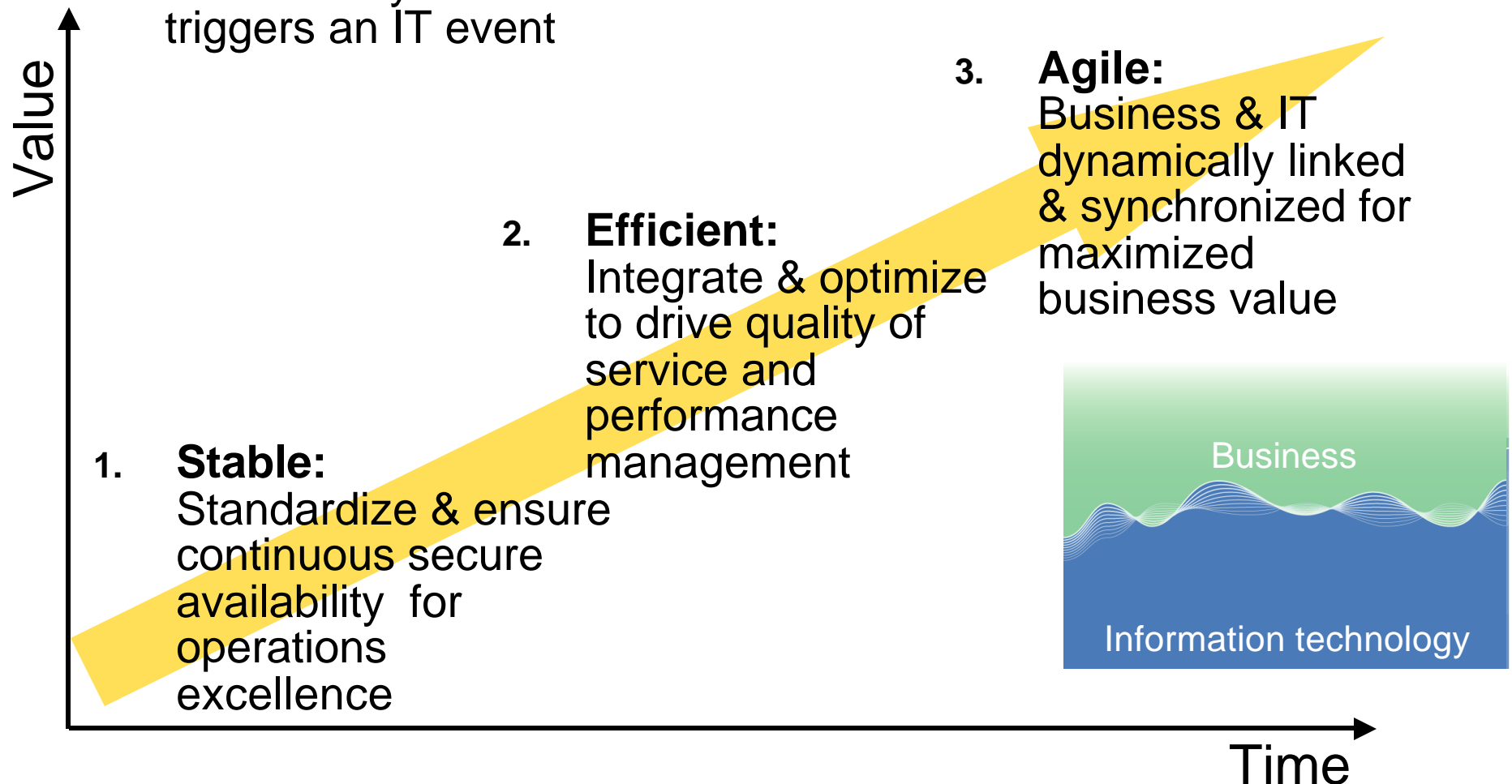


Becoming an adaptive enterprise

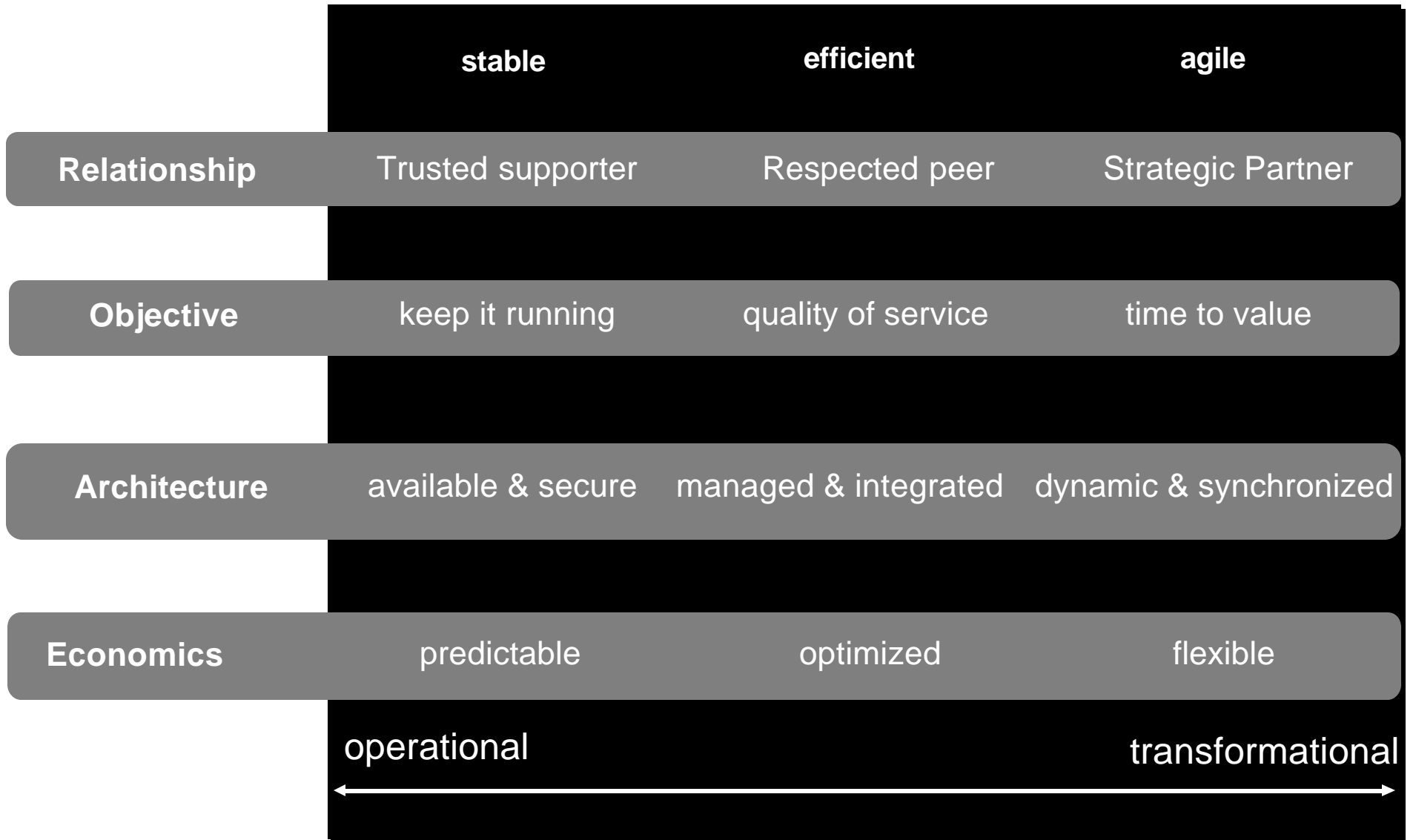
HP's Adaptive Enterprise Vision



The Adaptive Enterprise is the ultimate state of fitness in a world where every business decision triggers an IT event



Evolution to an Adaptive Enterprise



Evolution to an Adaptive Enterprise – architectural transformations on the customer journey



	stable	efficient	agile
Business processes	Un-formalized processes, each operates in a silo tied to a specific application	Some processes defined, utilize multiple apps and planned IT embodiment	Process formalized & automated, independent of apps, tied closely to metric performance indicators
Information	Information stored by each app separately	Info links between some value chain members, shared across some apps	Virtualized info exchange between processes and apps, analysis for business innovation
Application Services	Stove piped per function, dedicated infrastructure resources for each app	Some apps shared by and linked across multiple business processes	All apps available as services to all processes and info across value chains through an SOA
Infrastructure Services	A few simple shared services such as network services	Consolidated services such as security shared across multiple apps	Web based services shared across multi-sourced IT environments
Virtualized Resources	Clustering and partitioning, resources dedicated to specific apps and services	Virtualized resources within data centers, some automated provisioning	Balanced multi-sourced capacity-on-demand with comprehensive automation
Management and Control	Manage resources	End-to-end service mgt	Proactive business synchronization based on business success criteria
	← operational		transformational →

Key Steps toward the Adaptive Enterprise



Step 1.

Measure and assess business agility.

time

range

ease

Step 2.

Architect and integrate by applying a consistent set of design principles.

simplification

standardization

+

modularity

integration

Step 3.

Manage and Control.

assess

advise

act

Step 4.

Extend and Link.

suppliers

functions

channels

customers

- Journey to Adaptive Enterprise is evolutionary; requires a continuous architecture effort (think “city planning”)
 - Main journey stages are: stable, efficient, agile
- Journey requires collaboration and support across IT and the business; need to break down unhelpful barriers
- Adaptive Enterprise architecture framework focuses on enabling change and balance across imperatives: cost, quality, risk, and agility
 - Full range of dimensions:
 - Layers & components, principles, behaviors, patterns, system qualities, technologies, standards, products, services
- New investments should enable the journey

“It’s not the strongest of the species that survives,
nor the most intelligent;
it is the one that is most adaptable to change.”

Charles Darwin



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