



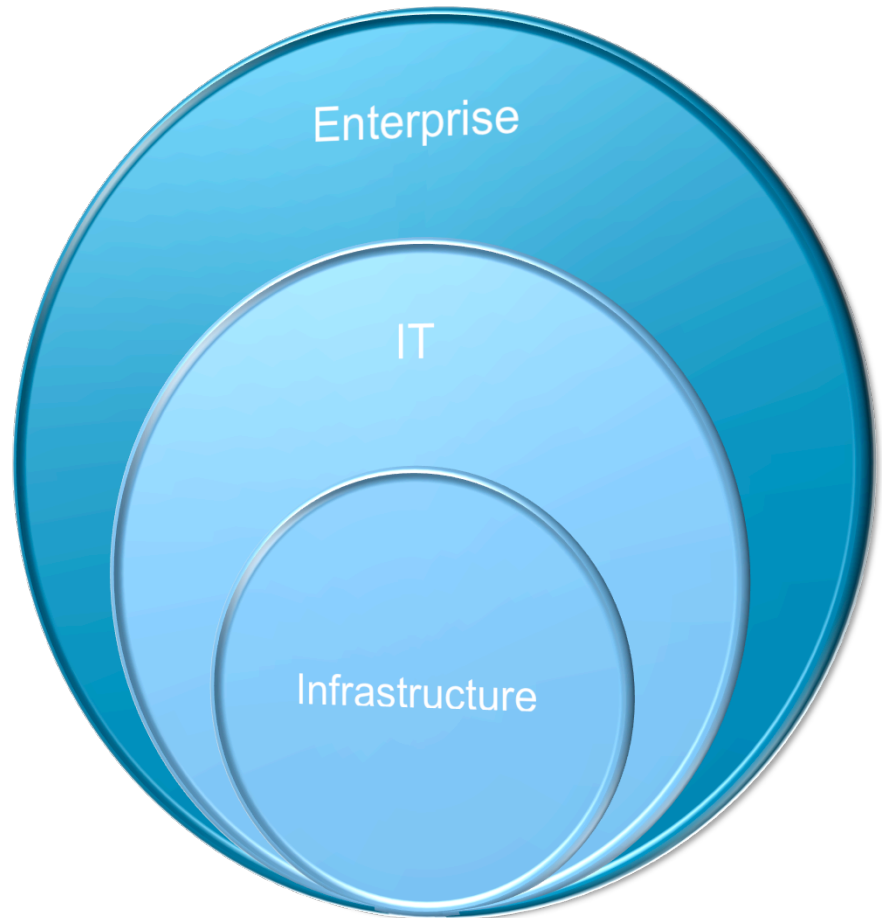
Enterprise Architecture Applied to the Infrastructure Layer

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13 September 2013



Infrastructure at the heart of IT and core of the Enterprise

It needs to be architected



Agenda

- 1 What is Architecture for Cisco
- 2 How do we apply Enterprise Architecture at Infrastructure Level
- 3 Lessons Learnt

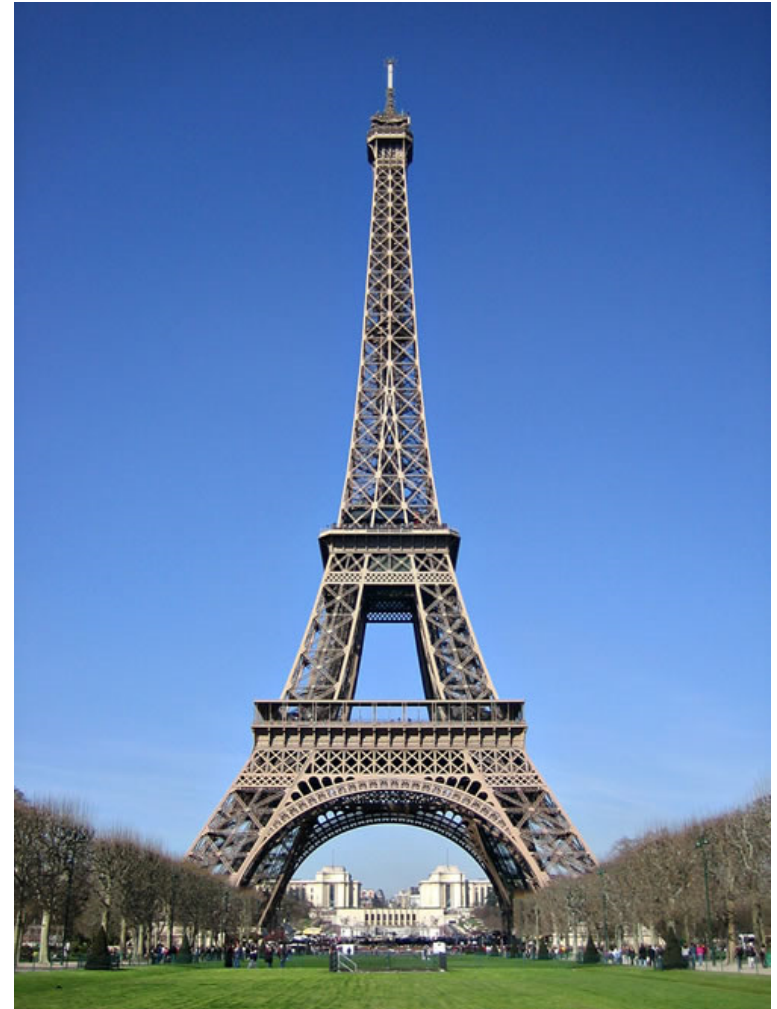
Architecture helps to see the “forest for the trees” ...

- Essential part of the enterprise
- Complexity demands broader view
- CIO is more business focused
- IT as a business
- Service driven solutions
- Architecture bridges the gap
- Architecture is complex work



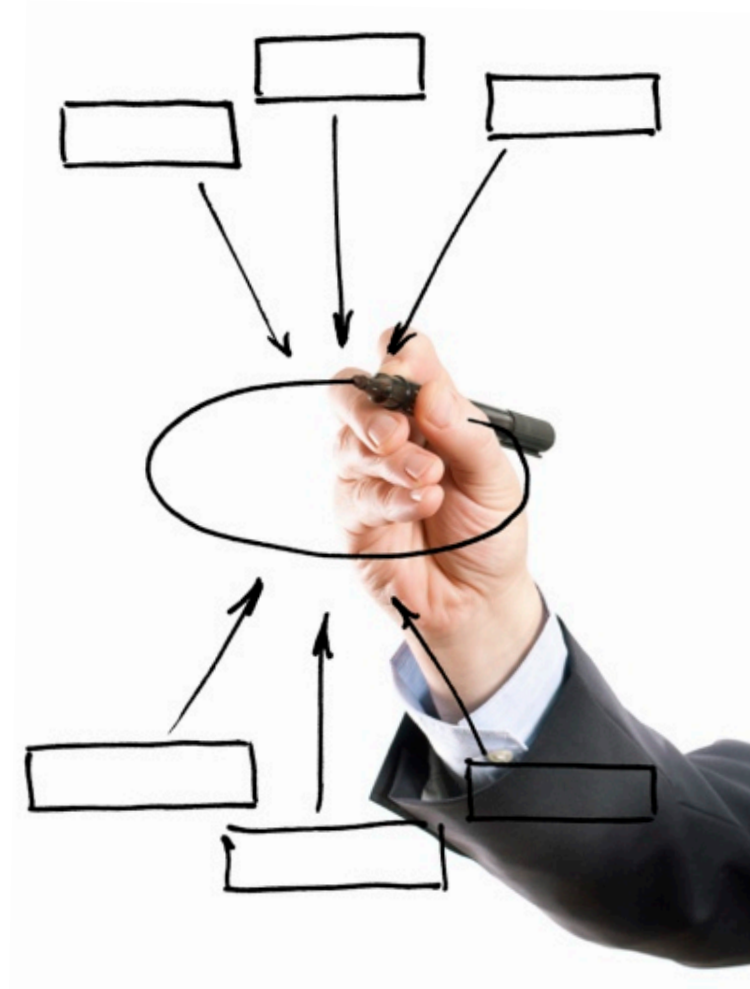
This is not a picture of Architecture !

Equating this with Architecture is a common misconception. It is an implementation or an instance as a **result of architecture work.**



The Big Picture View (as opposed to the detailed view)

- Describing complex objects in an abstract way – starting from the idea – so they can be implemented potentially many times
- Describing these complex objects from all possible angles (what, how, where, who, when and why)

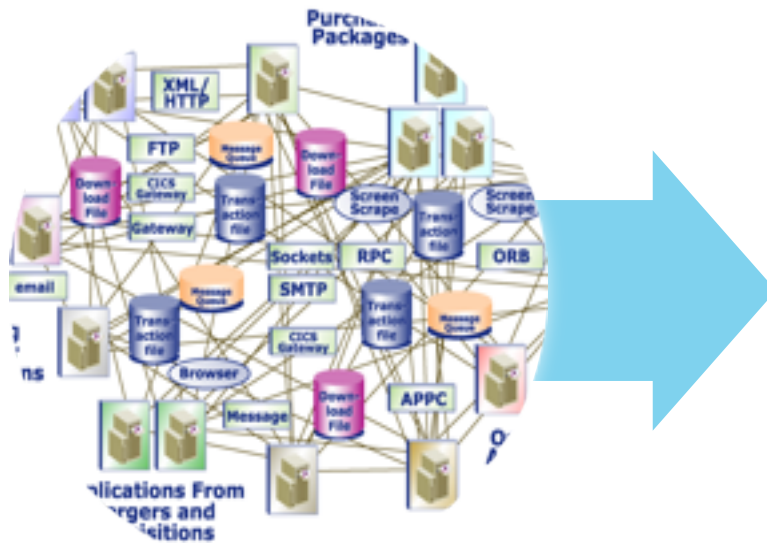


Architecture is NOT a “thing”

Architecture is an APPROACH

So WHY use an architecture approach?

Lack of Architecture



Results in

IT – Business disconnect

Silos

Increased cost, duplication

Unclear view

Lack of synergy

Bottom line:

**You can build first class technical solutions...
that don't solve business problems!**

Infrastructure Architecture is many times confused with design

Architecture

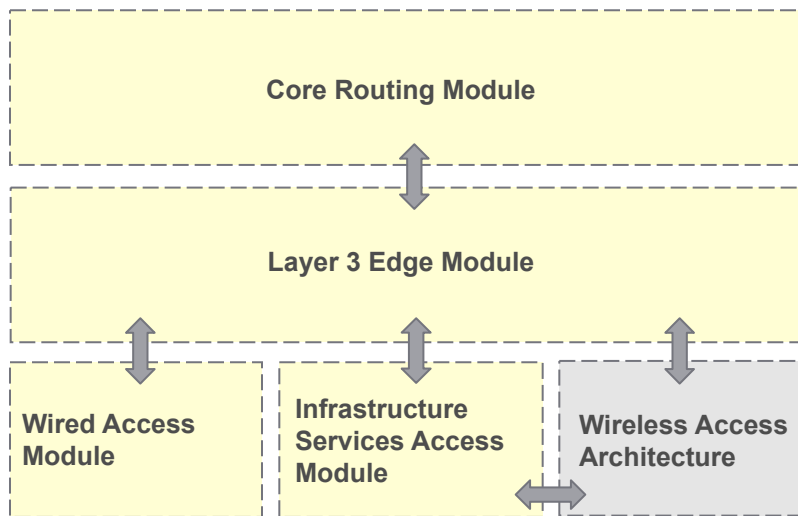
Building Blocks

Components

Abstract Capabilities

Relationships

Simplification



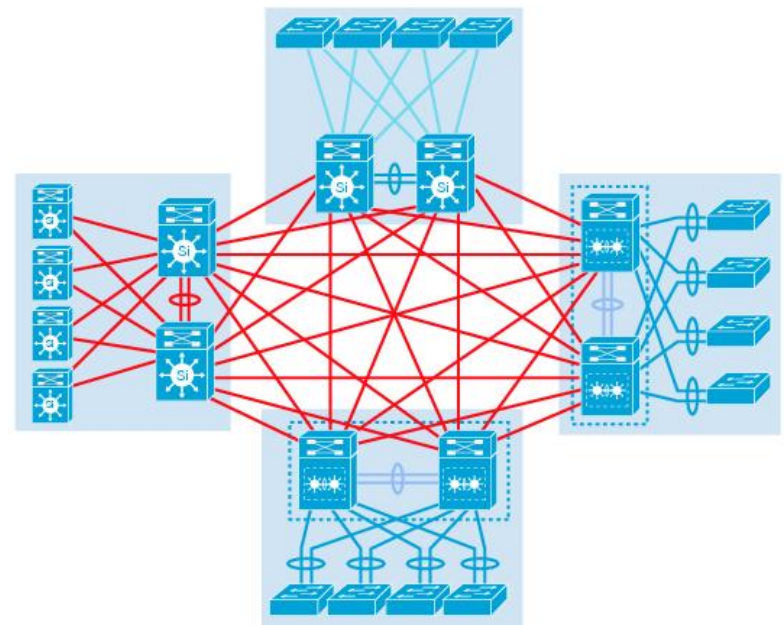
Design

Best Solution

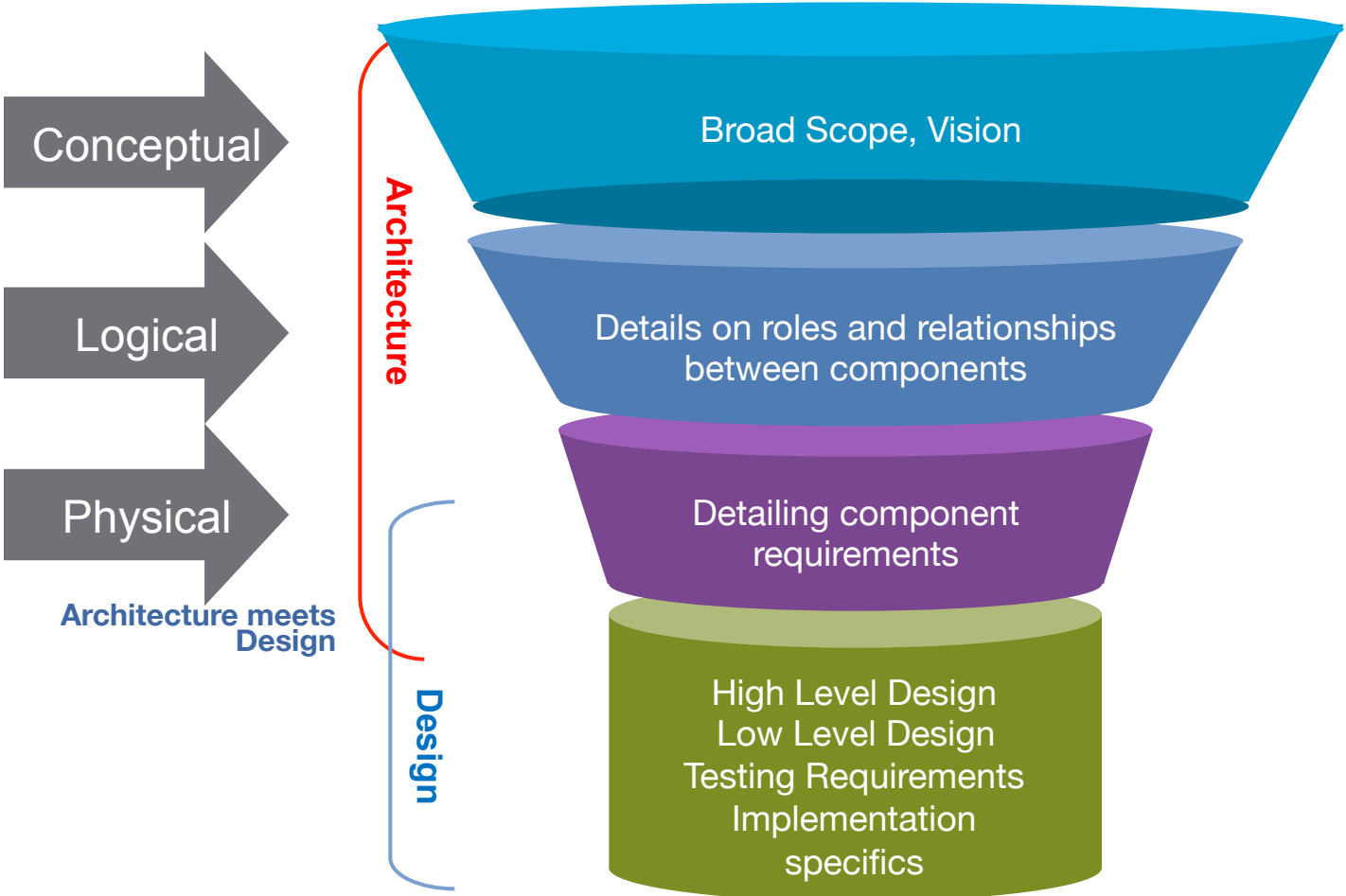
Correct Product

Performance

Scaling

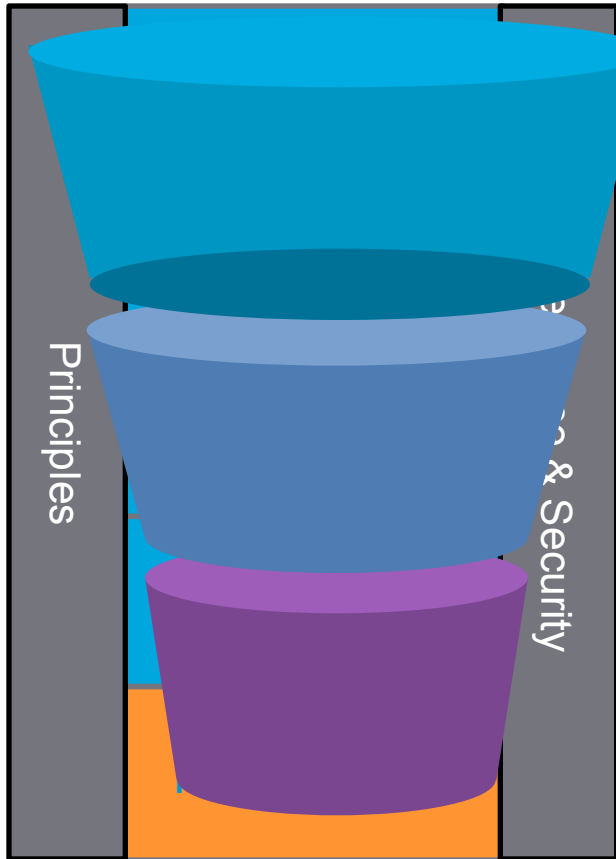


We operate architecture at different levels of abstraction

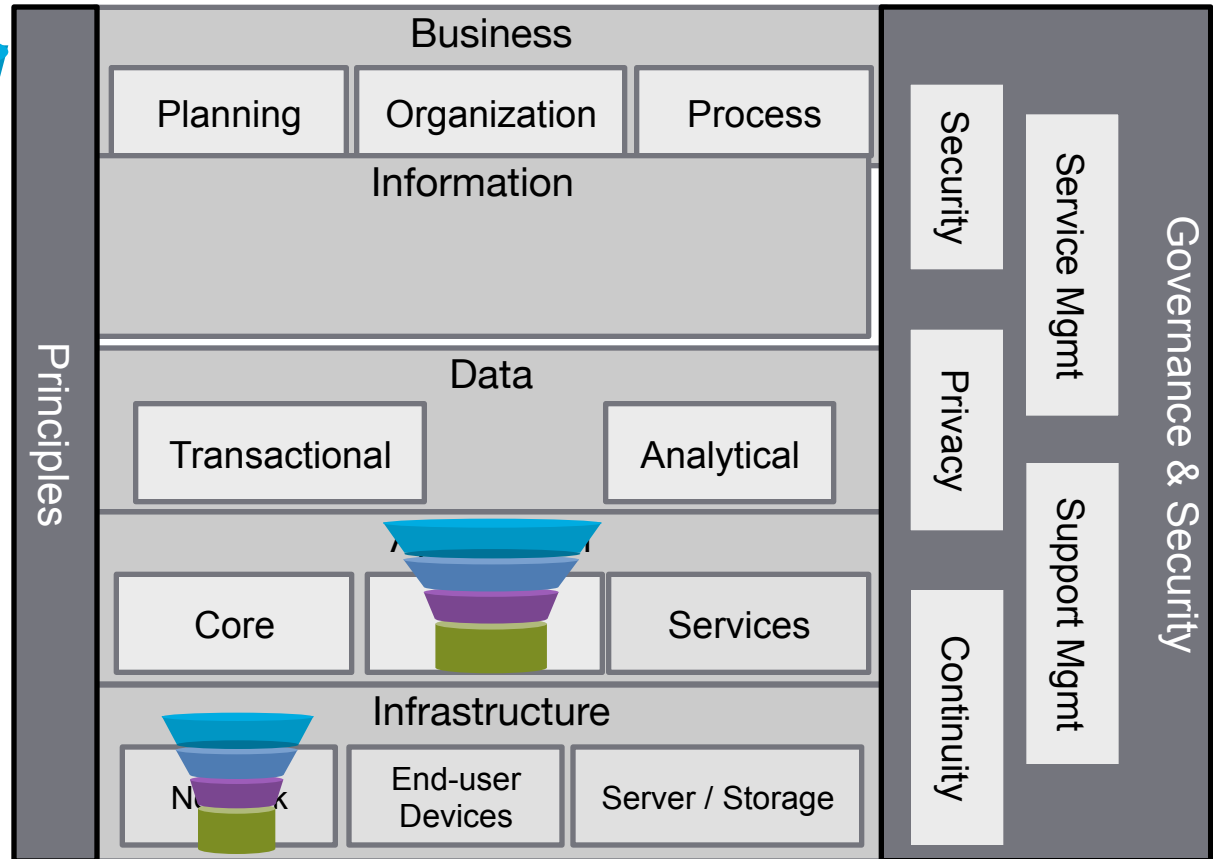


... which may apply to different scopes, depending on role and function.

Level 1



Level 2



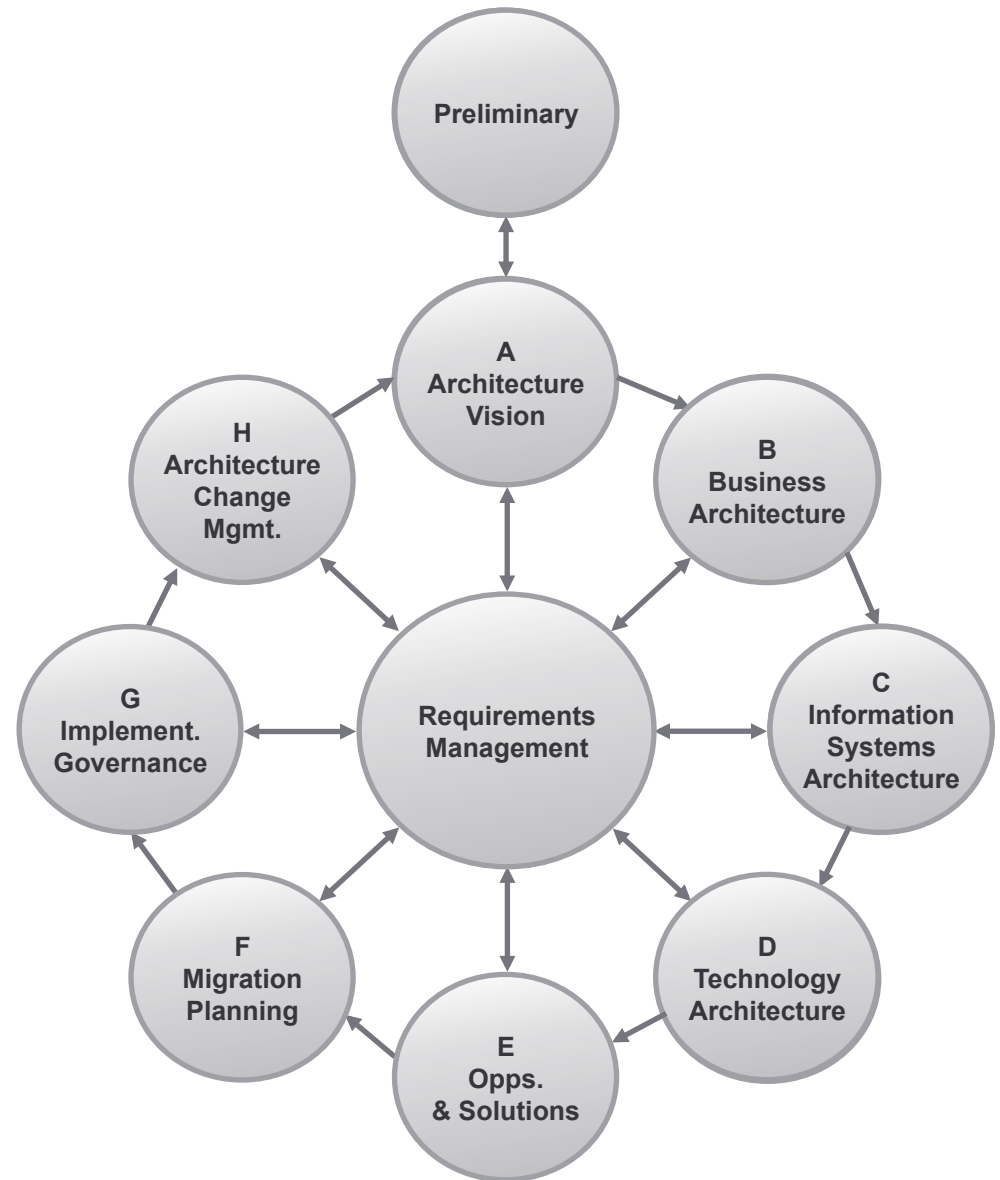
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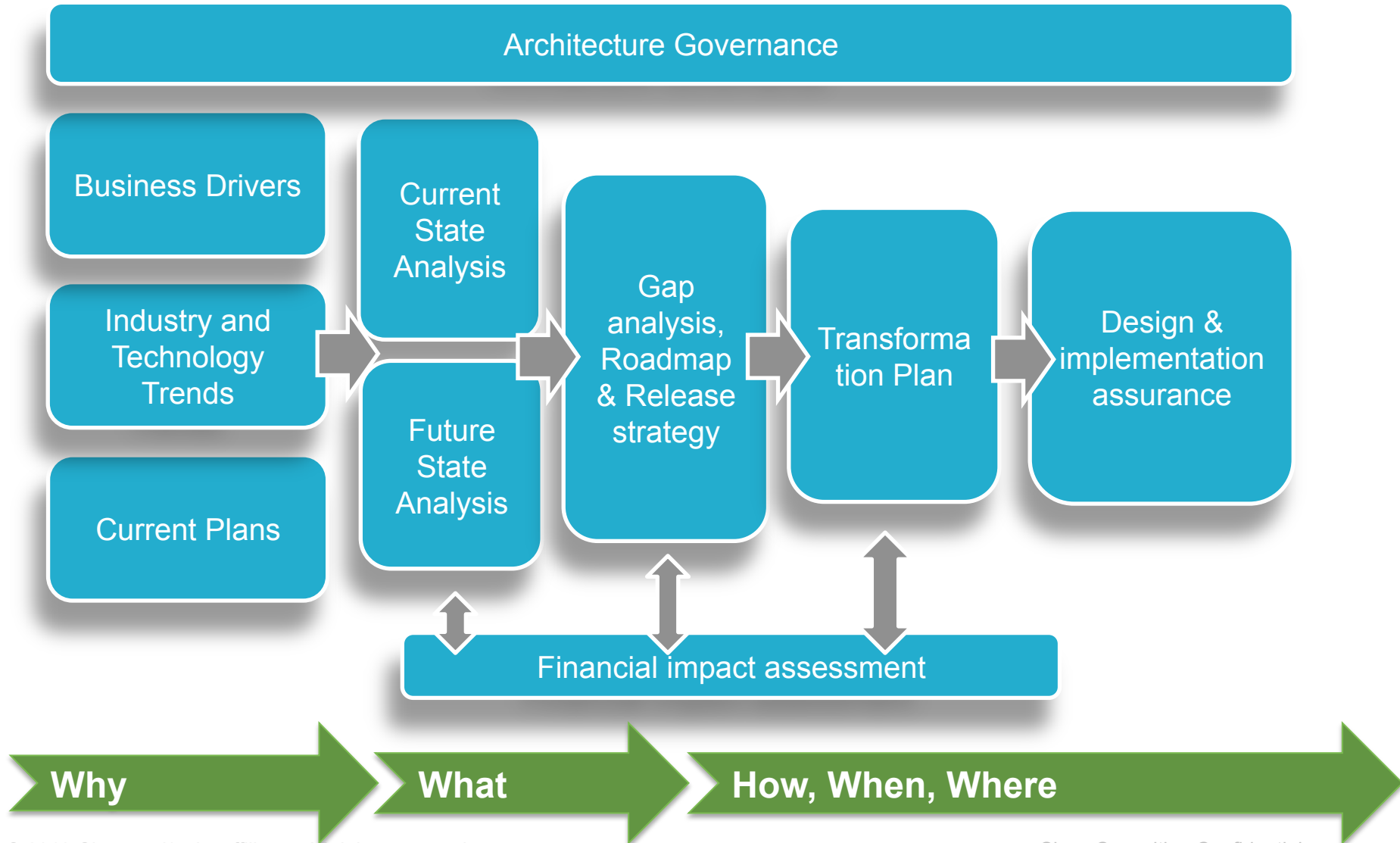
How does Infrastructure Architecture help?

A **infrastructure architecture** framework and **governance process** supports **consistent** delivery of **infrastructure services**:

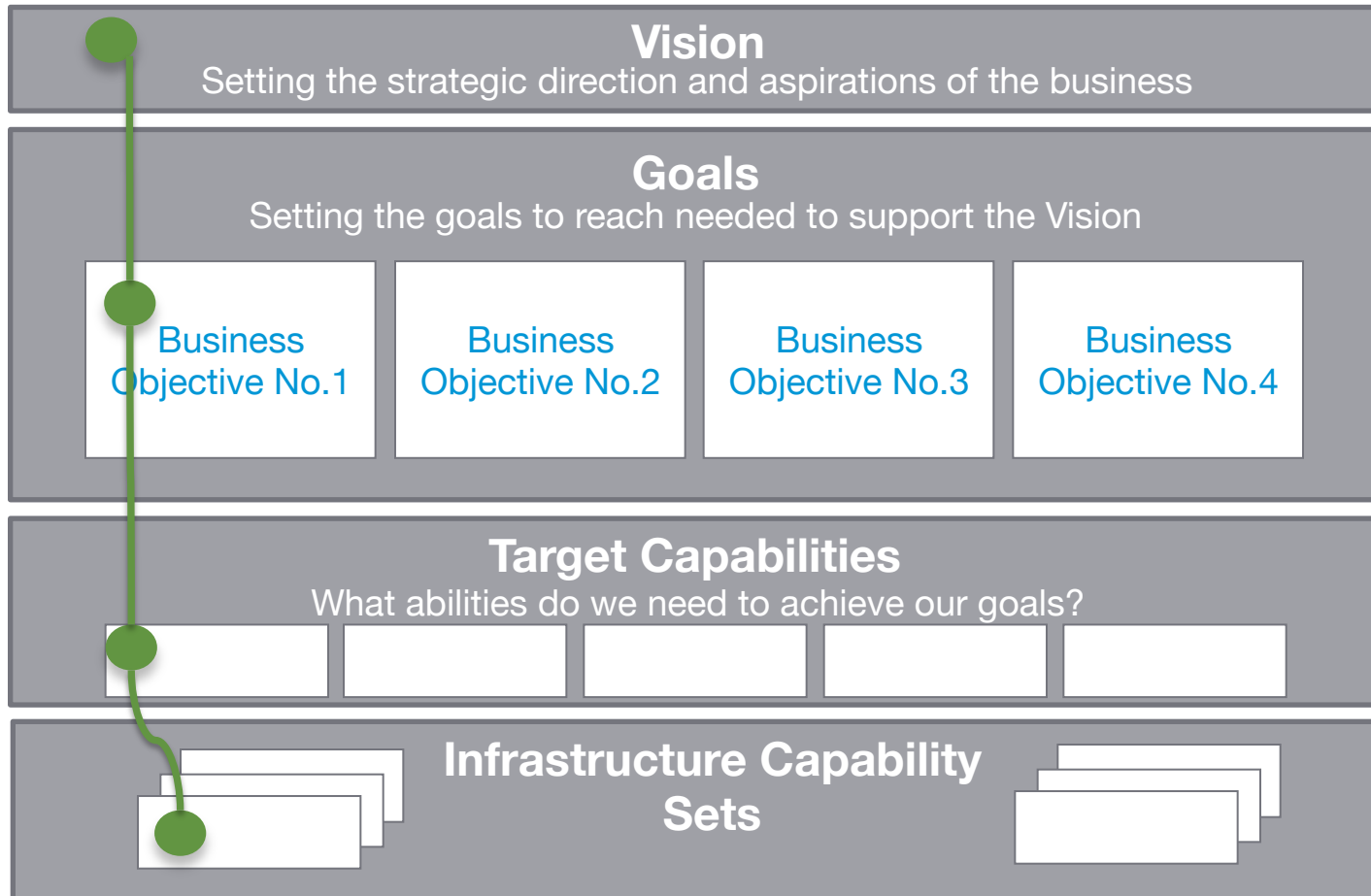
As a methodology
our approach is
inspired in
TOGAF



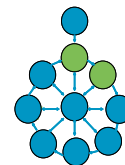
... which is used as the basis for the infrastructure architectural methodology



The approach aligns capabilities with business goals.



Infrastructure capabilities can in fact be mapped directly to business needs



Case Study – European National Pensions Fund – Example

Product Sales and Marketing

Improve Product Awareness

Branch Office Development

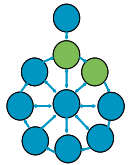
Business Drivers

- Pension and insurance products are difficult to maintain and communicate to customers and staff
- Currently ~80 x pension types available
- Office profile is rising to develop more personalized customer relationships leading to the delivery of more products

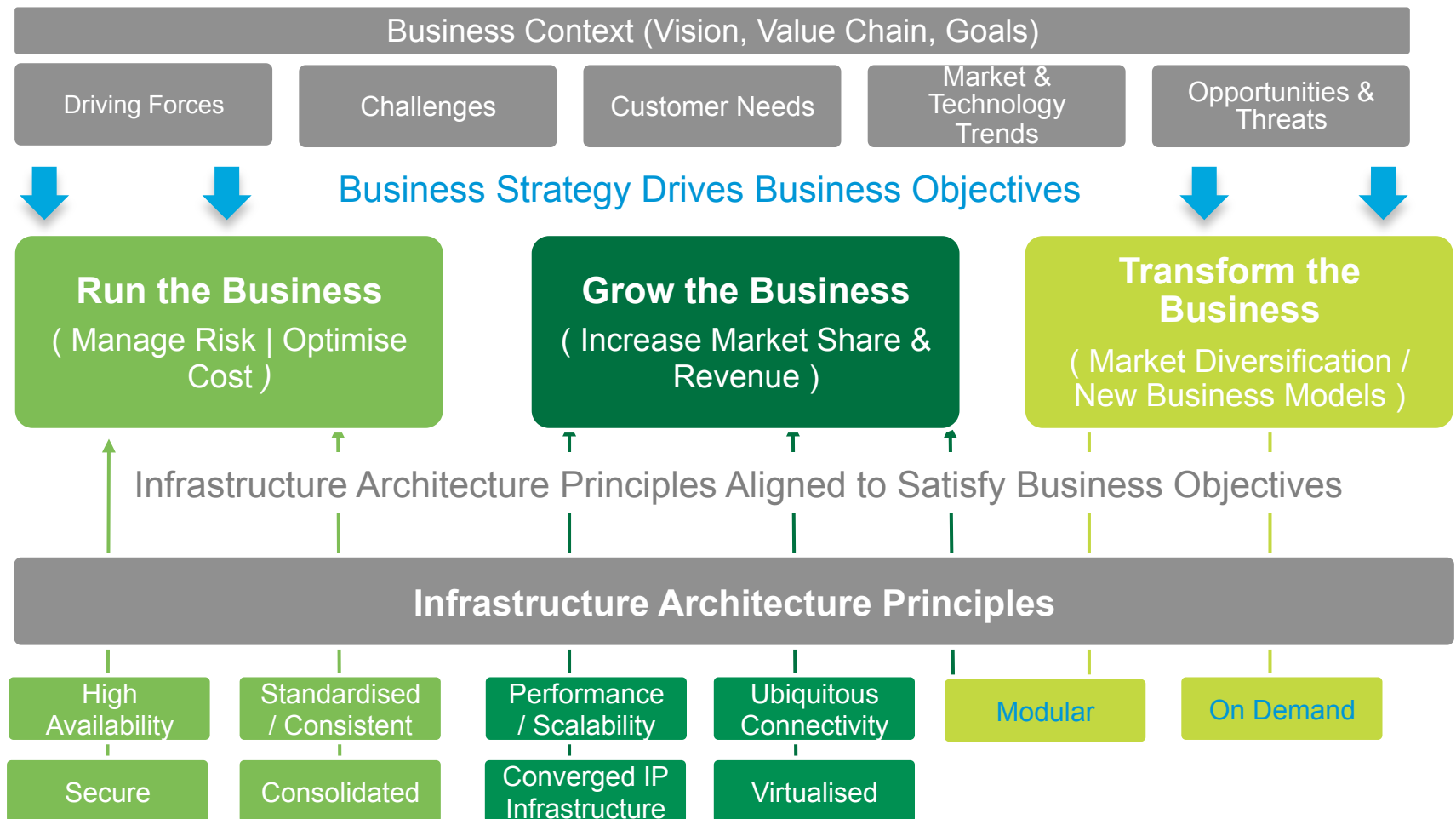
Infrastructure Capabilities Required

- Network Service: Mobility
 - Wireless technology improving responsiveness & application accessibility options for the Sales Force
- Network Service: Video & Collaboration
 - Enabling multi-media for accelerated product awareness
 - Remote branch sales consultations, enhanced customer interaction.
- Infra Service: Application Delivery
 - Accelerating, optimizing, and securing branch connectivity for remote “LAN-like” access to centrally hosted services.

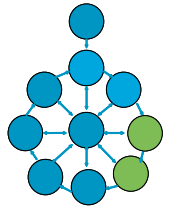
However, defining Principles is key in the process of aligning infrastructure architecture with business goals



Example



Technology is not the only thing architected as IT is more and more managed like a business



IT Capability Maturity Framework

Managing IT Like a Business

Managing the IT Budget

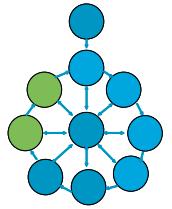
Managing IT for Business Value

Managing IT Capability

IT-CMF
IT CAPABILITY
MATURITY FRAMEWORK™

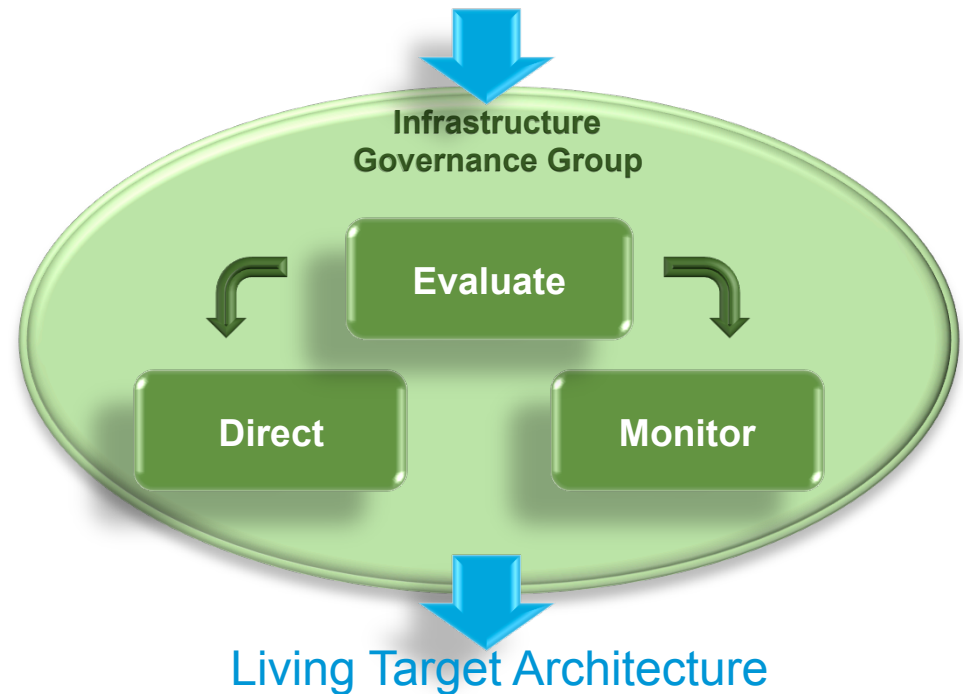
IVI INNOVATION™
VALUE
INSTITUTE

Taking advantage of architecture work to transform & make change happens



Introduce an **Infrastructure Governance Group**

(Architecture Management Office) alongside the empowerment of the existing teams.



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The path is plastered with pitfalls

- Unable to “sell” architecture or gain buy-in
- Lack of sponsorship, leadership, & governance
- Lack of visibility and credibility
- Seen as academic
- Tools (too early / too late)
- Re-branding Design as Architecture!
- Lack of architecture evolution & maintenance



Where we have seen success happens that there is:



- Sponsorship by CIO Office
- Leadership by all IT and Business owners
- Engagement by business development groups during project concept sessions
- Open and honest behaviour with respect for each unit's requirements
- A collaborative and sharing culture
- A team that understands business, processes and has the ability to match technology solutions to deliver value –
it's not a pure technical design role

Thank you.

