



# The Architecture of Abundance

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*CTO, The Open Group*

Midwest Architecture Community Collaboration  
November 2017



# Overview

- » Background: How did we get here?
- » What is needed to thrive in the digital world?
- » What is The Open Group doing to respond?



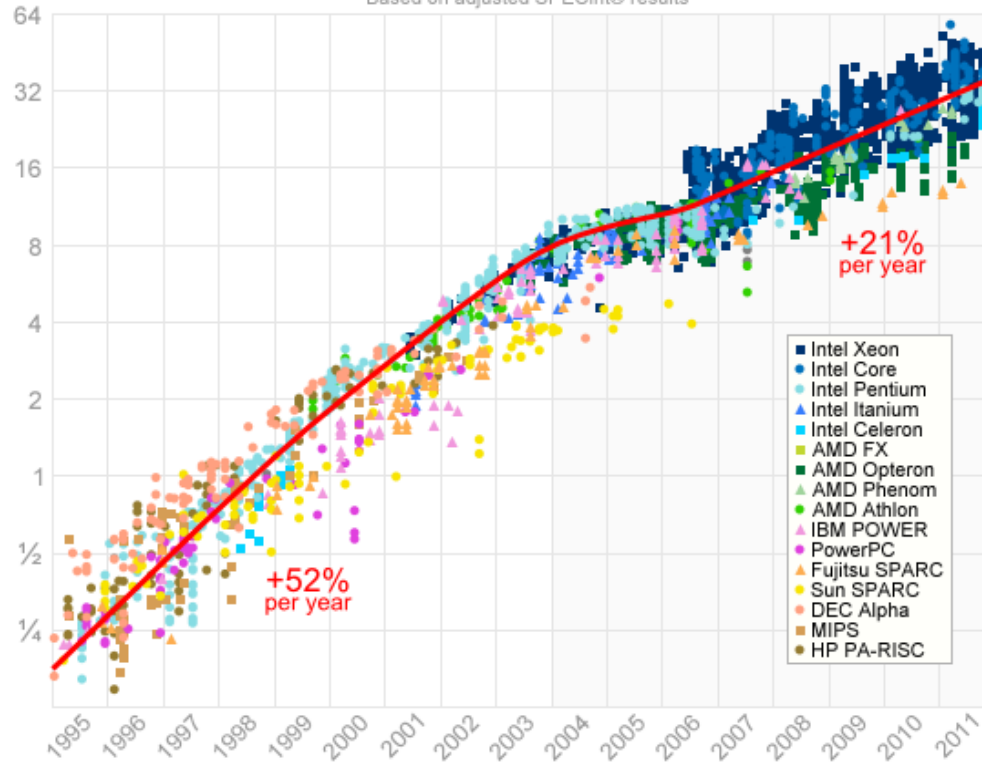
# Abundance of Computing



# The Abundance of Computing

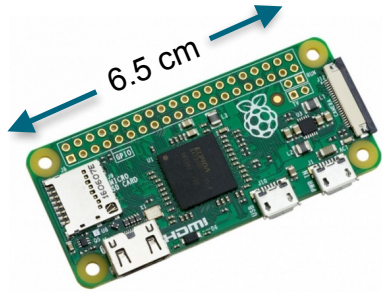
## Single-Threaded Integer Performance

Based on adjusted SPECint® results





# The Abundance of Computing




***= 1200 x***



# The Abundance of Computing



# Abundant Computing As a Commodity

 IBM Bluemix

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**Company**

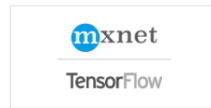
Amazon Web Services (AWS) - Cloud Computing Services

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**AWS DEEP LEARNING AMIS**  
Get started with deep learning on the cloud



**DYNAMODB AUTO SCALING**  
Automatically adjusts capacity in response to request volumes



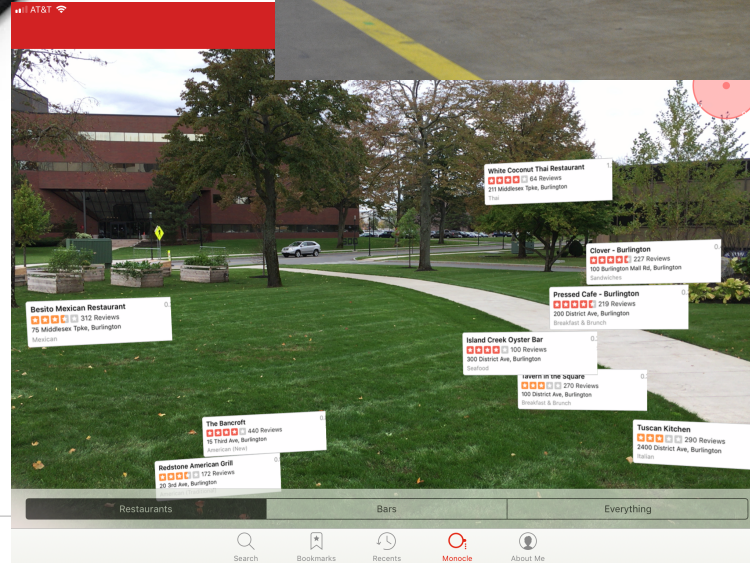
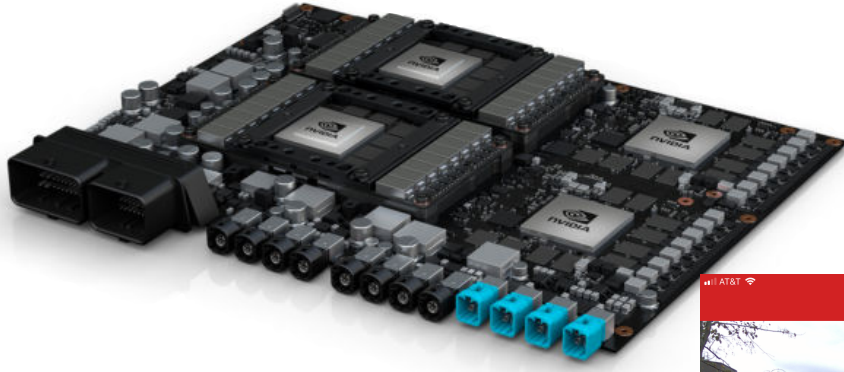
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Learn how to build better bots



**AMAZON POLLY**  
What is text-to-speech?

[Explore Our Products](#)

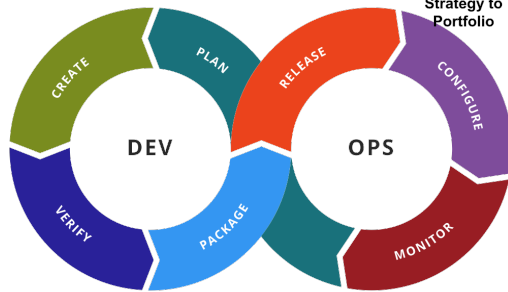
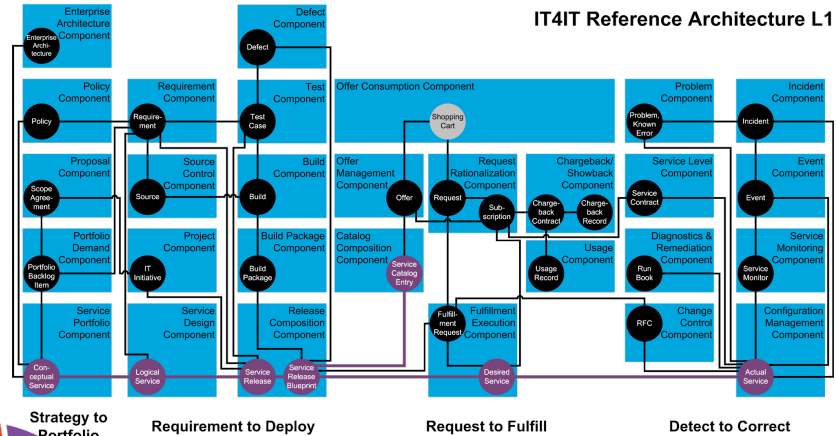
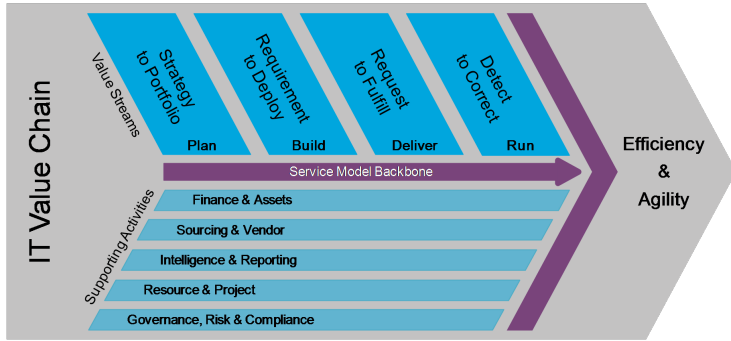
# Specialized Computing



# Abundance of Development



# Managing Rapid and Iterative Development



By Khramagiy - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=51215412>



# An Abundance of Developers?





# An Abundance of Developers



BUSINESS INSIDER

TECH INSIDER

## Apple cofounder Steve Wozniak just launched a new startup to reinvent tech-industry training



Chris Weller

11h

8,598



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PRINT

Steve "Woz" Wozniak, cofounder of Apple Computer and inventor of the Apple II computer, announced on Friday the launch of his latest startup, [Woz U](#).

The venture is a "digital institute" meant to help people gain skills in computer science to fill gaps in high-paying technology roles. Wozniak, beloved for his affability, said Woz U was created to make tech less intimidating.

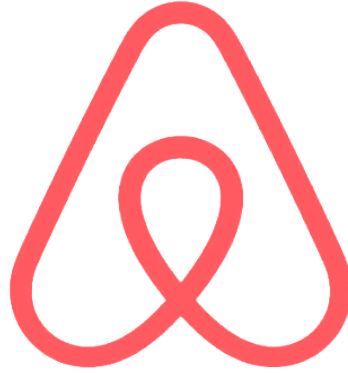


*[Business Insider](#)*  
*[October 12 2017](#)*

# Abundance of Choice



# Digital Products and Digital Intermediation (D2P)



# Digital Personal Preference

Recommended for you, David

Based on Your Past Purchases, We Think You'll Enjoy

## 2 Get Measured in Under 30 Seconds

Your phone's camera is now 20% more accurate than a professional tailor

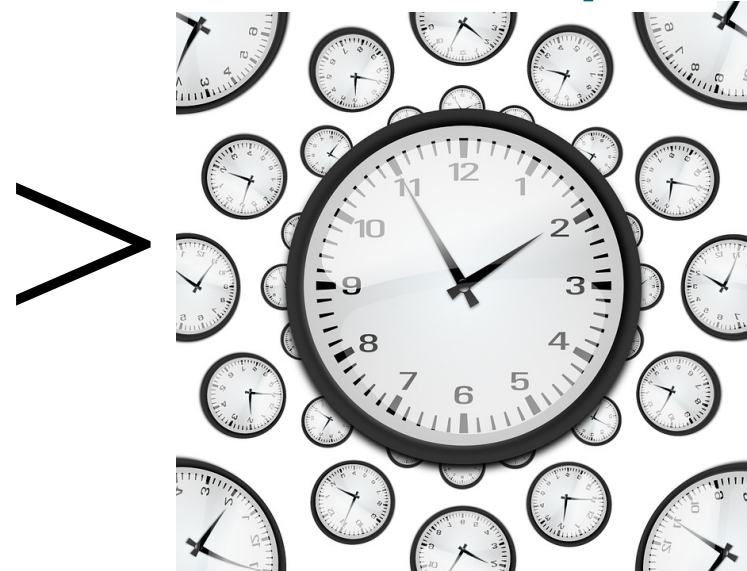
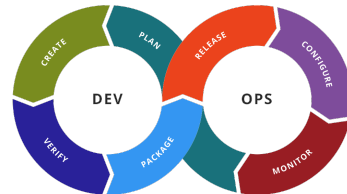
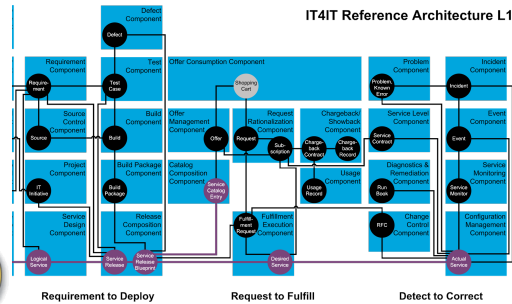
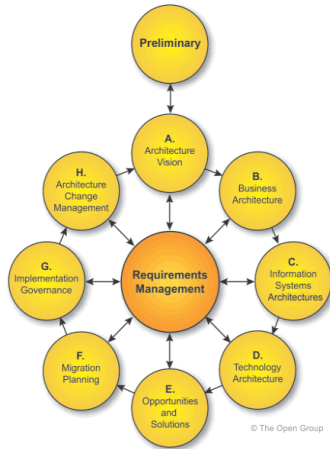


# The Anti-Abundance



# The Anti-abundance of Time

*An iterative approach to exploring digital markets requires digital processes that operate inside the market decision loop*



By McKinsey - Open View, CC BY-SA 4.0. Requirements Management Architecture (RMA) © 2017

# The Anti-abundance of Time

“If the rate of change on the outside exceeds the rate of change on the inside, the end is near.”



*John Francis "Jack" Welch, Jr.*



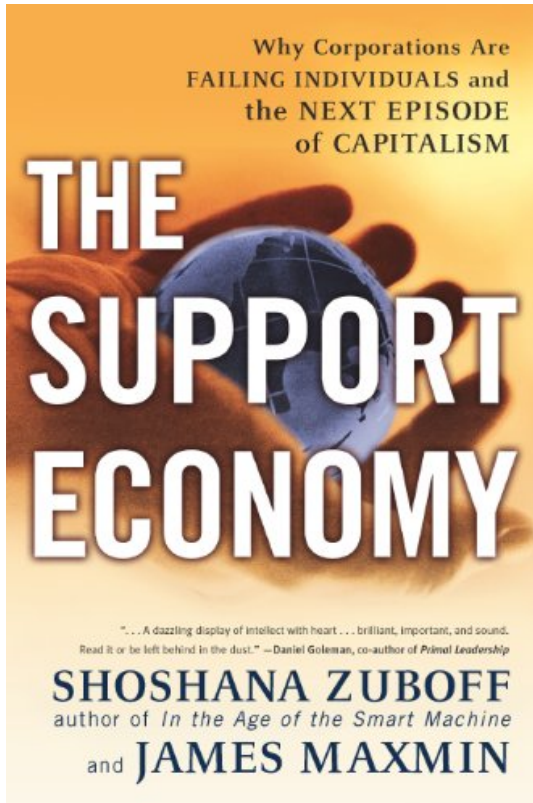
# The Anti-abundance of Time (v2)



# What is Needed to Thrive in an Abundant Digital World?



# Digital Convergence



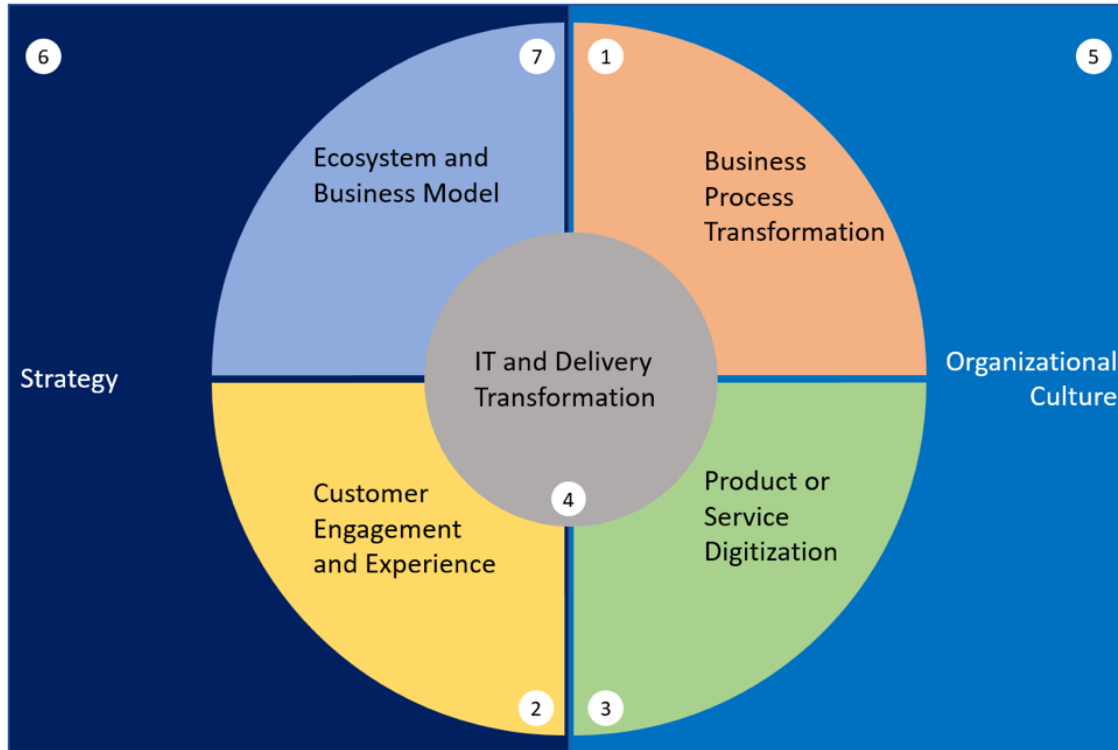
## Customer-Unique Products and Experience Demand



# Key Themes

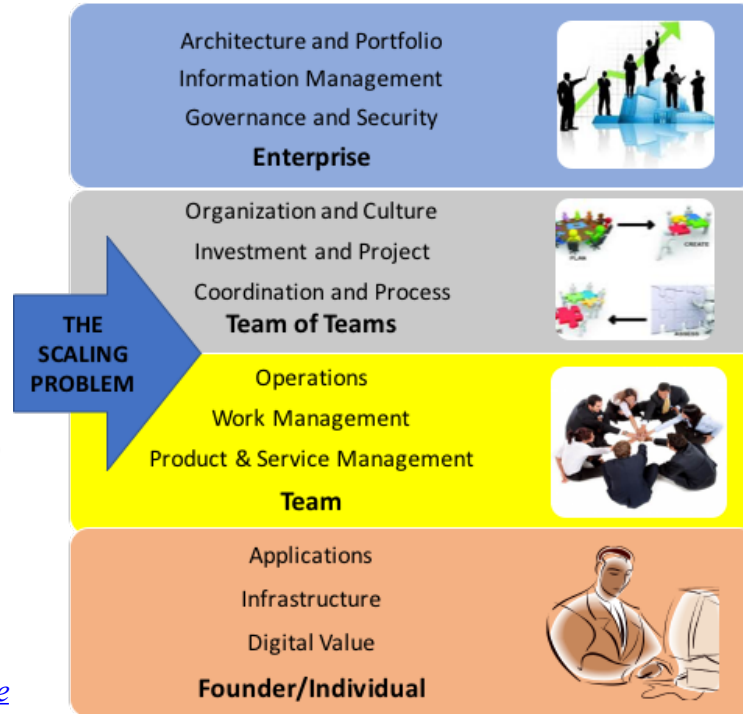
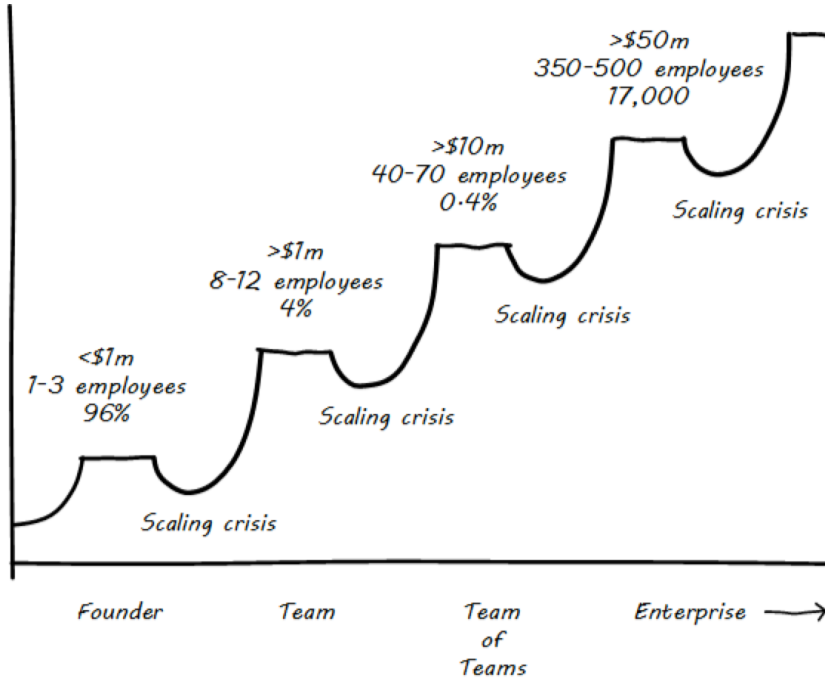
- » Customer-unique products, services and experiences
  - » Value driven
- » Guidance for operation at all scales
  - » Respect emergence - give guidance for transition points
- » Iteration to explore markets - incremental, continuous
- » Management and processes that work at market speeds
- » Development of a digital workforce

# Process: The Levers of Transformation



*W17D, The Seven Levers Of Digital Transformation*

# Process: Emergence



Key state transitions.

Emergence & formalization are a function of scale

W17A, [Towards A Digital Professional Body Of Knowledge](#)

# People: A Digital Workforce

- » “It’s wrong to assume that all open positions must be filled with experienced digital talent only. **Companies need to learn to develop talent themselves. They need to be open to young people and, more than ever, to recruit by potential rather than references and reputation.** Companies should be able to give everyone in their organization the opportunity to experience and learn the new digital technologies, and this includes providing the space for talent to develop naturally.”

McKinsey & Co, “[Upgrading your business to a digital operating system](#)”



# People: Guidance for Practitioners at all Levels

守 破 離

*Follow*

*Detach*

*Transcend*

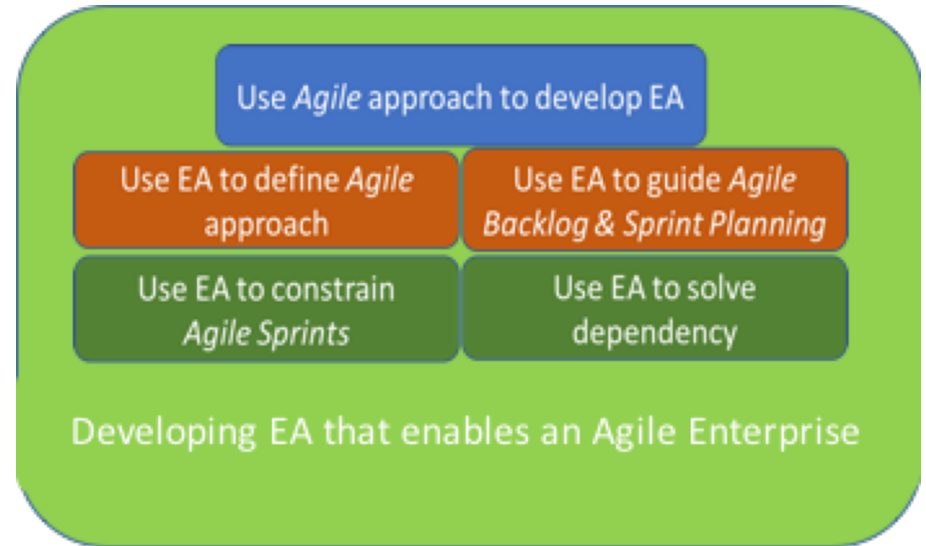
<http://www.aikidofaq.com/essays/tin/shuhari.html>

# What The Open Group Is Doing



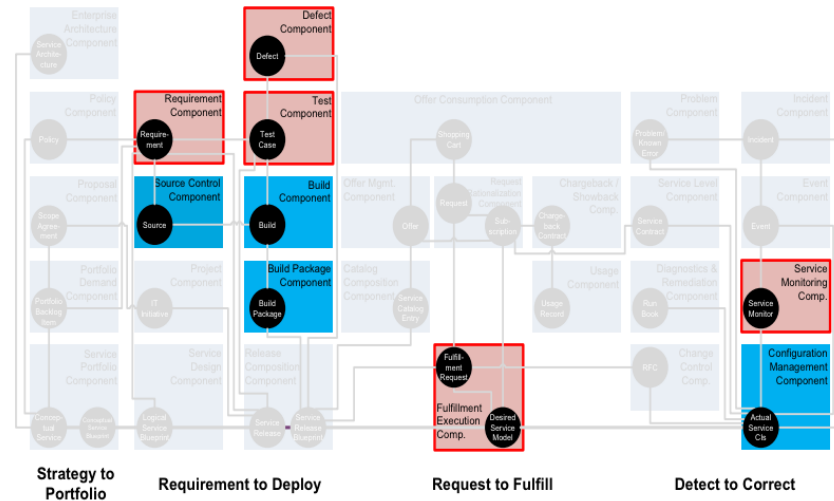
# Enterprise Architecture

- » An agile approach to develop EA
  - » “Just enough” EA to get started on capabilities and portfolio
- » Guidance and constraints for implementation teams
- » Scalable EA - when there are no EAs



# IT Management

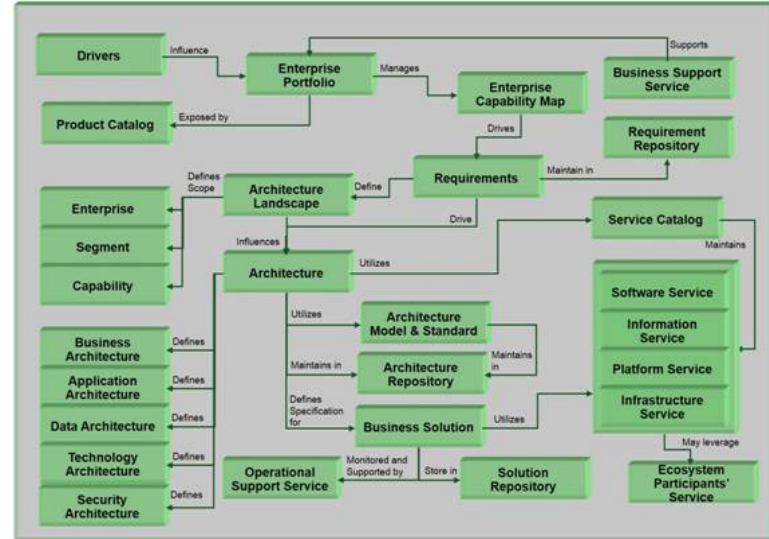
- » Guides on implementing effective IT value chains for digital practitioners at all scales



*Team View, W17A, [Towards A Digital Professional Body Of Knowledge](#)*

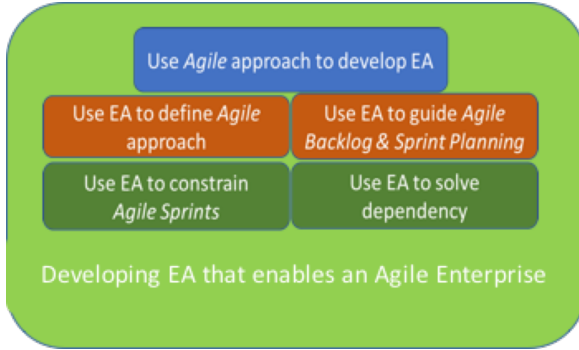
# A Platform for a Digital World

- » Provide the reference architecture needed for all phases of digital transformation development, deployment and operation
- » Digital developers as a top-tier consumers of Open Platform 3.0

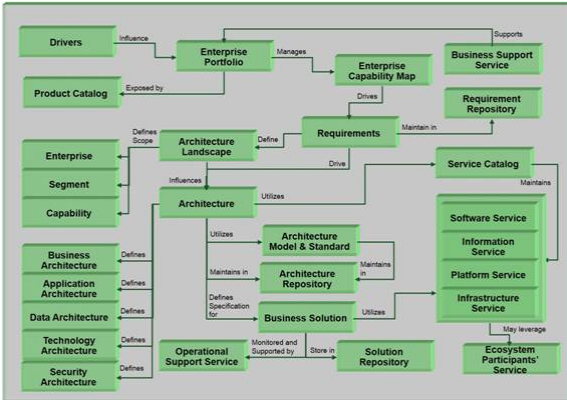


# Bringing It All Together

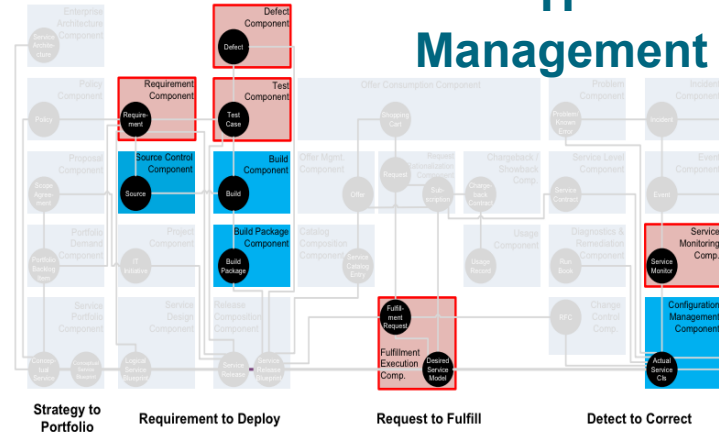
## Agile EA



## Digital Platform



## IT Management



A Body of Knowledge for Digital Practitioners

# Join us in the Digital Practitioner Work Group

- » Objective: Develop and promote an understanding of what it means to be digital, and to establish best practices for organizations providing a digital customer experience
- » Open to all members of The Open Group
- » Currently collecting input on direction and developing roadmap, outlining a **Digital Practitioner Body of Knowledge**
  - » Get in on ground floor

*<https://collaboration.opengroup.org/dbcx/index.php>*



# Final Thoughts



# Thoughts for the Architecture Community

- » Embrace a change of viewpoint: Managing scarcity -> optimizing customer-centric products and services
- » Digital delivery is core, not context
- » You **will** have a digital workforce



# Thank You



# Backup



# Why Agile EA?

Or, what your boss sees at the airport...

