

August 1, 2022

The Future of Business is Composable

Steve Daly, Vice President Technology



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Me...

- VP Technology for Fusion Alliance
- 34 Years In IT
 - Application Development
 - Enterprise Architecture
 - Cloud since 2007
- Married. Two boys in college (University of Cincinnati and Ohio University)
- From Louisville, KY/Live in Loveland, OH
- Written 2 books; Spoken internationally on technology solutions to business challenges
- Avid Formula One/Indy Car fan; Cooking; Music (DJ and Drummer for 30+ years)
- Purveyor of High-Quality Dad Jokes (if there is such a thing)
- I was a clown in Macy's Thanksgiving Day Parade!





APIs
— over —
IPAs

UPCOMING EVENT

APIs over IPAs:

**The future of business
is composable**

Tuesday, August 30, 4-7 p.m. ET
Wolf's Ridge Brewing | Columbus, OH

Register at apisoveripass.com

Follow Fusion Alliance on LinkedIn for more upcoming events like this!

Halfway through 2022

Fork in the road



”

The greatest danger in times of turbulence is not the turbulence; it is to act with yesterday's logic.”

Peter Drucker

Digital Transformation is
NOT...





As business needs change, organizations must be able to deliver innovation quickly and adapt applications dynamically — reassembling capabilities from inside and outside the enterprise. To do this, organizations must understand and implement the “composable enterprise.”

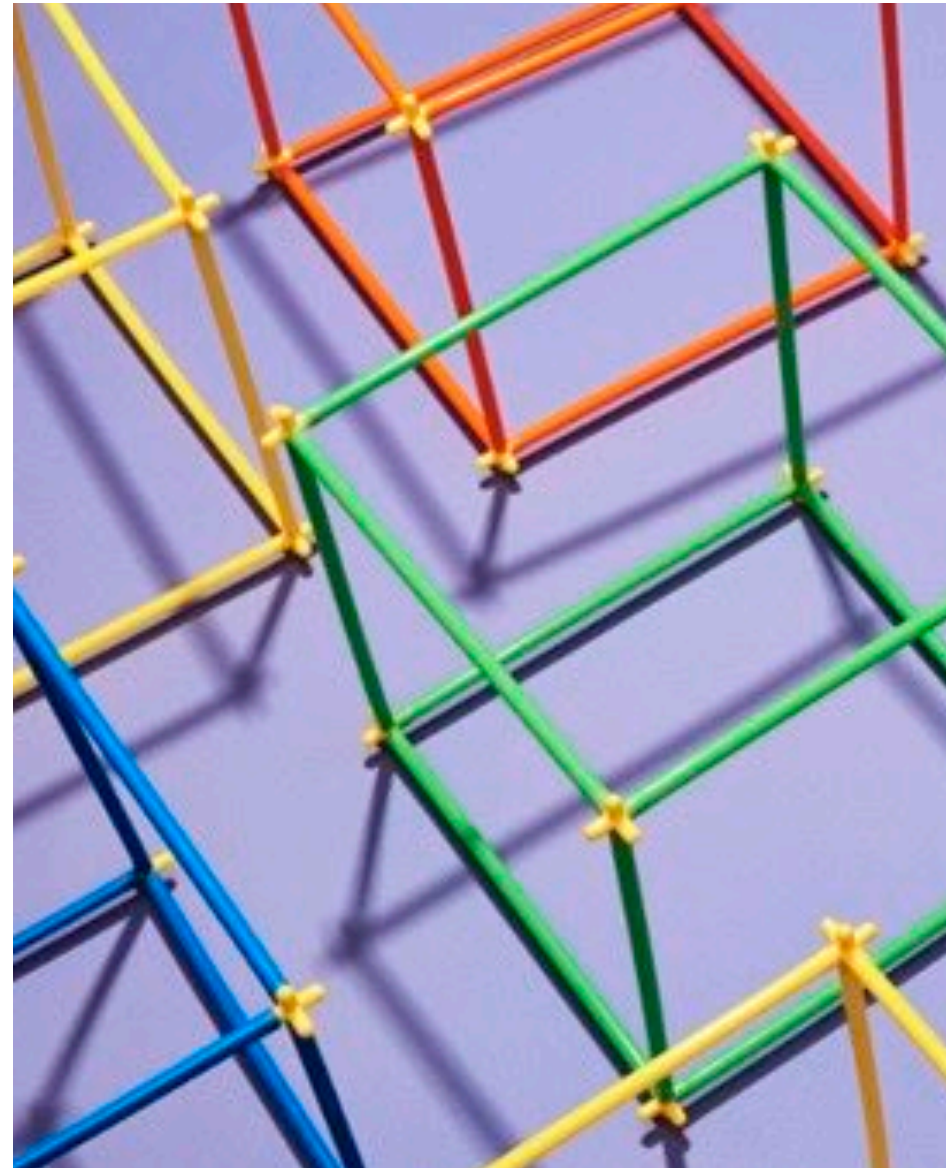
Gartner

What is “composability?”

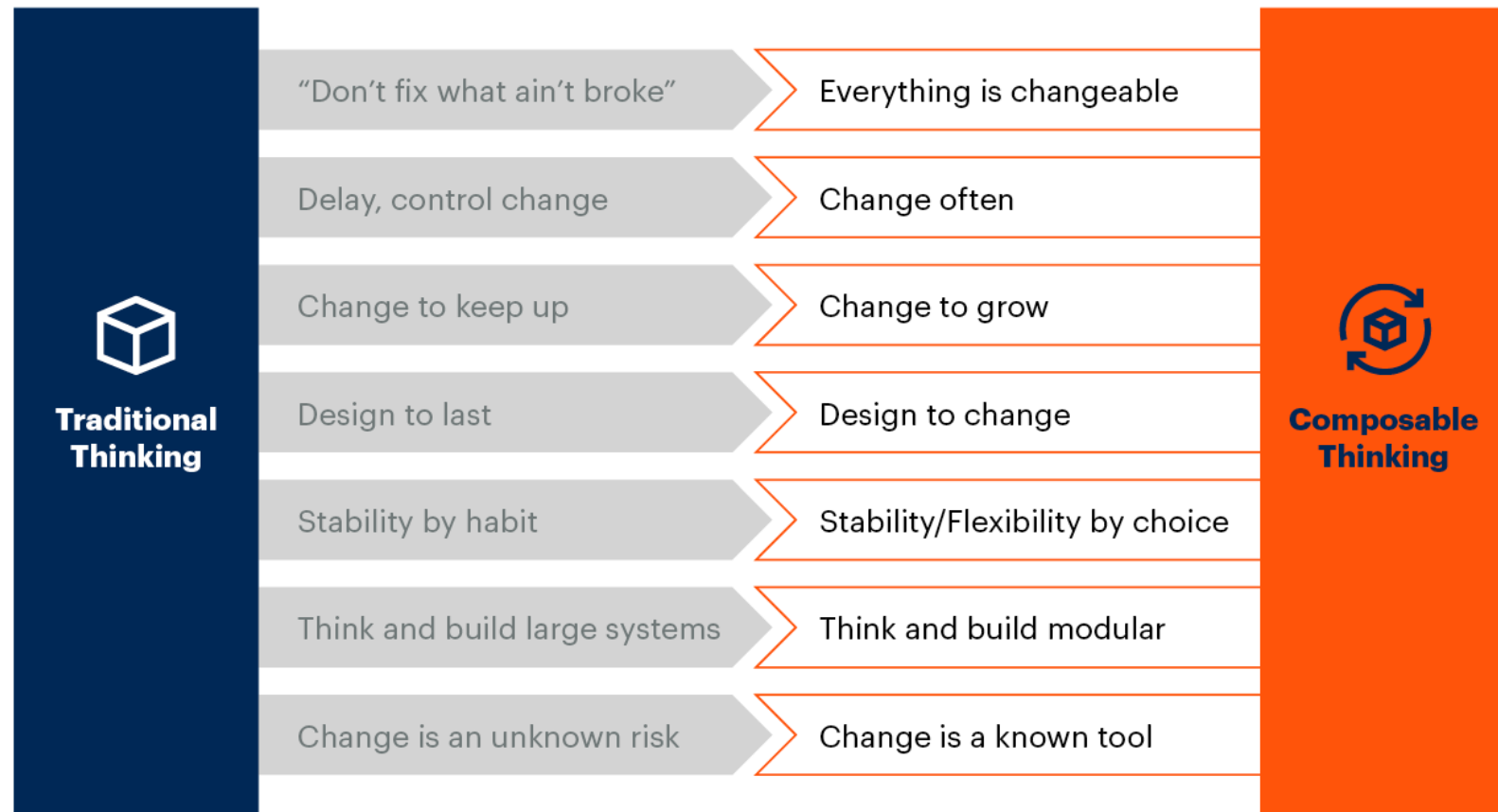
Composability is a design approach that enables systems — **IT systems, organizations, products, etc.** — to adapt quickly to changes while staying resilient.

True composability leads to stable systems that are easier to maintain and upgrade over time. Composability is what makes it possible to limit technical debt and enable us to take advantage of new technologies as they come along.

The essential value of composability is the readiness to be recomposed: The readiness for fast, safe and efficient change to match the demands for efficiency, resilience and adaptability of business. Although “fast” is often an enemy of “safe” and “safe” can be a challenge to “efficient,” the design principles discussed in this research can advance all three in a balanced manner.



Adopting Composable Thinking



Source: Gartner
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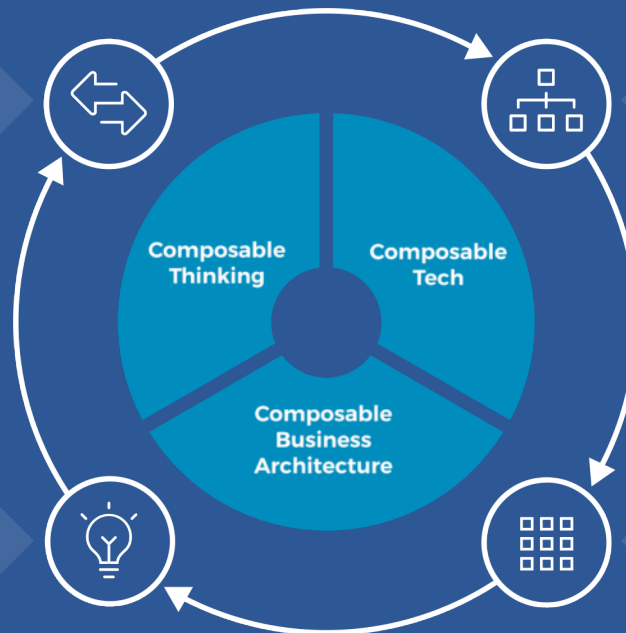
Core design principles for composable architecture

Orchestration

Prescribing and negotiating interactions between components – to enable recomposition and forming process

Discovery

Ability to discover and understand design opportunities and components – to guide, track, and secure changes



Modularity

Partitioning a domain into managed component – to scale and control change

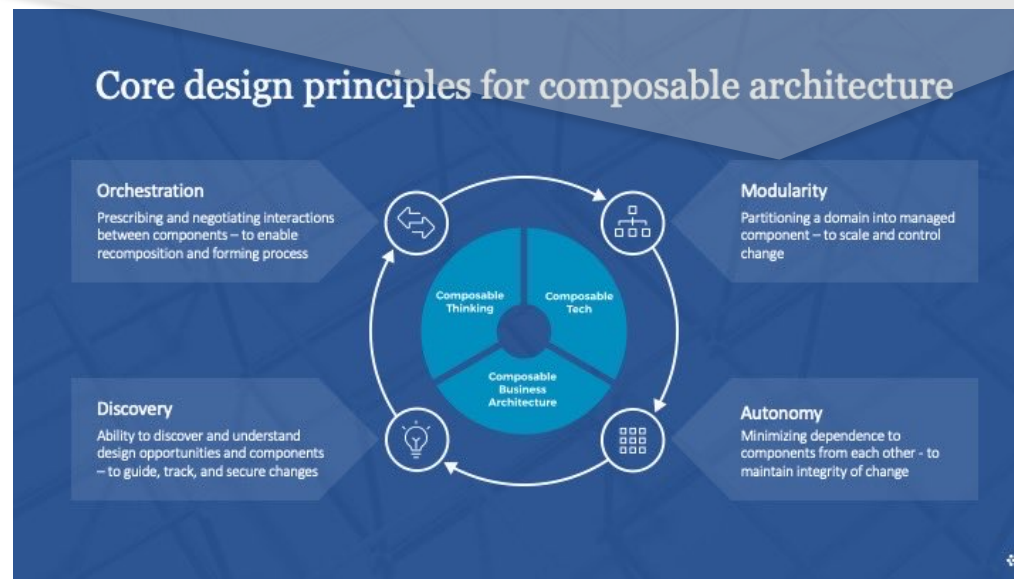
Autonomy

Minimizing dependence to components from each other - to maintain integrity of change

Modularity



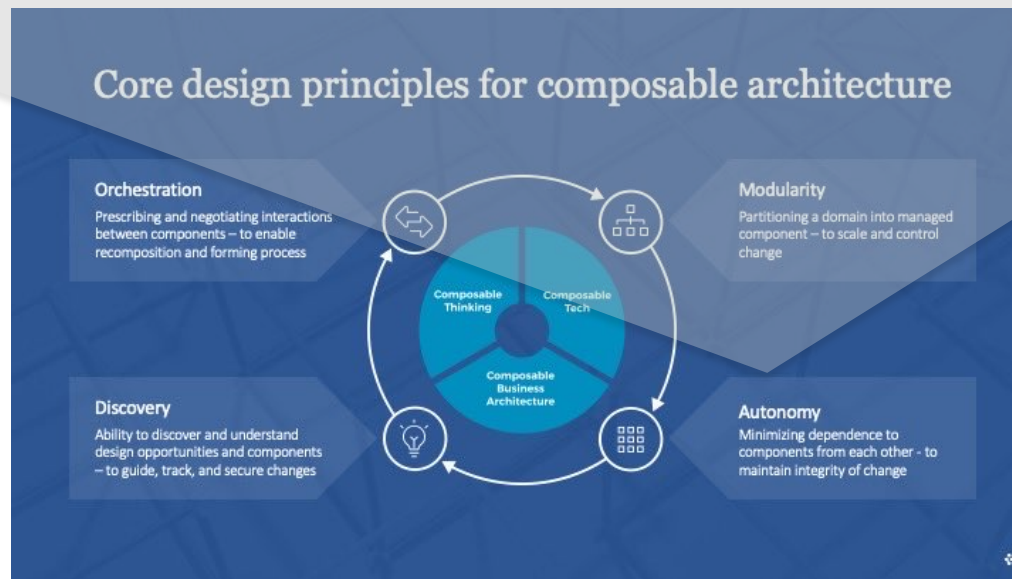
Modularity is central to composability, whether it is applied to software, organization or business model planning. Whatever building blocks are provided for the composition define the character of the resulting architecture. **One of the key differentiators of the composable enterprise experience is that application design and redesign (composition and recomposition) are performed with direct participation of business and technology professionals operating as multidisciplinary teams**



Autonomy



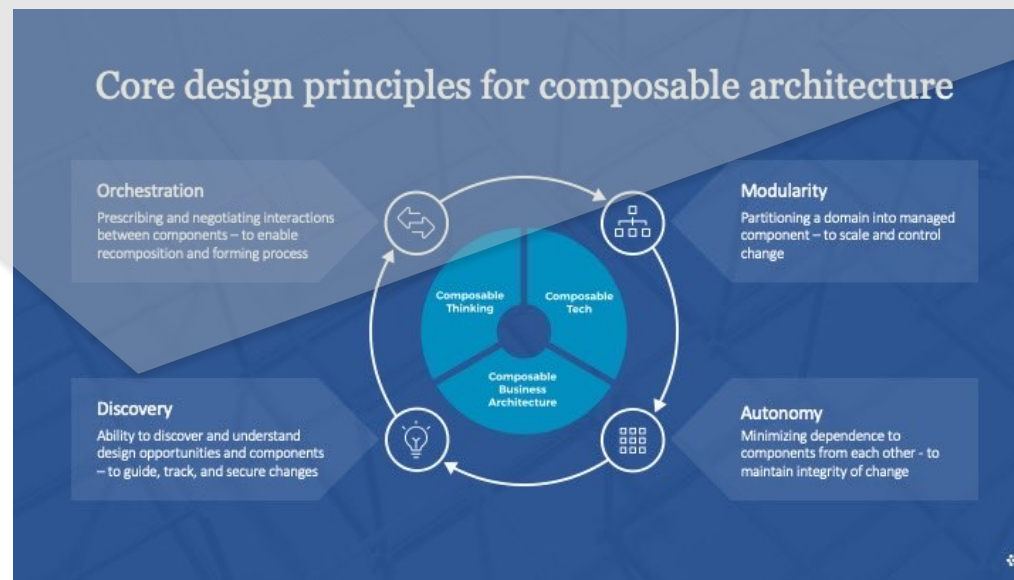
Autonomy is the characteristic of the modularity that maximizes self-contained independence of the components. In the business application software design, **the autonomy implies the ability of the components to fully manage their internal integrity, impose minimal burdens on other components when they are changed or replaced, suffer minimal dependency on changes in other components, and be capable of operating alone or in new, unanticipated combinations.** Complete autonomy is rarely achievable, but each improvement of this measure will translate to the overall improvement of the organization's composability experience.



Discovery



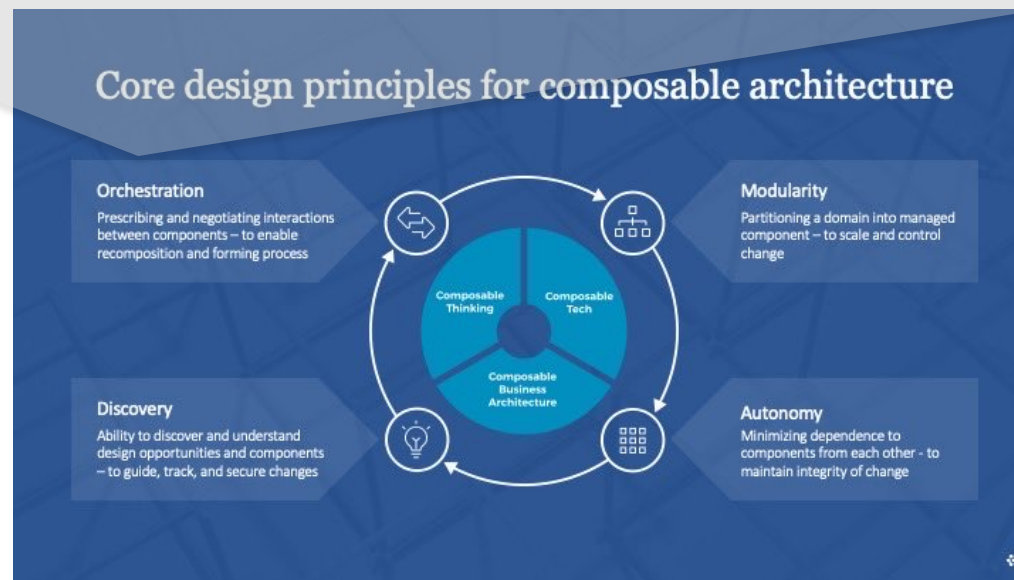
Discovery readiness is about making it easy for teams to find the components, determine if it will be useful for them, and having enough documentation for the teams to be able to integrate easily. Readiness for discovery implies the clarity, completeness and usability of documentation and other metadata. Advanced discoverability includes support of introspection to establish operational characteristics of the component, such as the metrics of performance and resource consumption. At runtime, some discovery metadata may be used for process control.



Orchestration



Orchestration refers to the preparedness of the components for composition, integration and governance in development and runtime environments. In composable business application software, “orchestration” reflects the openness of the components to interact with other software, and the support of the prevailing models and protocols of communication. Orchestration also measures how well the components are equipped for monitoring, tracking, securing and the DevOps operations and other forms of governance. In other words, it is the gauge that measures the quality, openness, safety and controllability of the encapsulation.



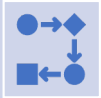
S I M P L E



AND
THE LIVING
IS EASY'

RIGHT?

Key challenges to composability



Complexity – As you move toward composability, the number of modules you create and have to orchestrate can rise exponentially. You will need the architecture and tools to manage this complexity, as well as a “marketplace” to implement advanced forms of discovery and to manage advanced forms of metadata.



Control – With modules sourced from outside your organization, it might be more difficult to exercise the control that you need over them. The marketplace must apply policies to manage the distribution of data.



Risk – If you share modules outside the boundaries of your organization, you risk spreading your data and intellectual property into the ecosystem. Again, the marketplace applies policies and only allows modules in the endpoints that protect the internal integrity of the data they own.



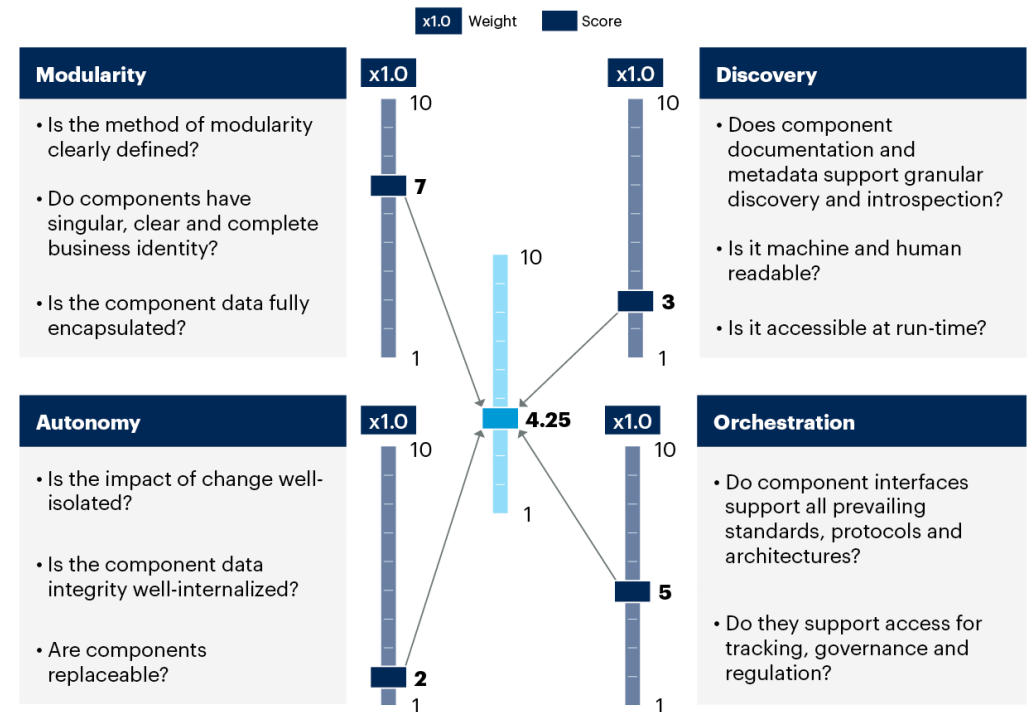
Skills – To succeed at composability, your team will need new skills, competencies and tools, as well as time to learn and gain experience. For example, teams will require familiarity with APIs and microservices, as well as communication skills to deal with a larger and more diverse stakeholder universe.



How to start

- Identify which parts of your organization, such as customer segments or products, change quickly and often, as they are most likely to get the most benefits from composability. Start small and grow. Applying composability incrementally will allow you to both demonstrate its value and train your teams.
- Apply continuous improvement, look for opportunities to improve, and grow the skills and competencies of your team. As you do so, expand the approach to other areas.
- Establish the catalog/marketplace to institute a controlled environment for a growing collection of endpoints and use cases.

Apply the Gartner Composable Business Index to Assess Composability of Existing Applications and to Design Applications With Composability in Mind



Source: Gartner
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M



Microservices

A



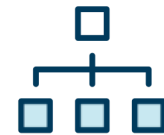
API-first

C



Cloud-native

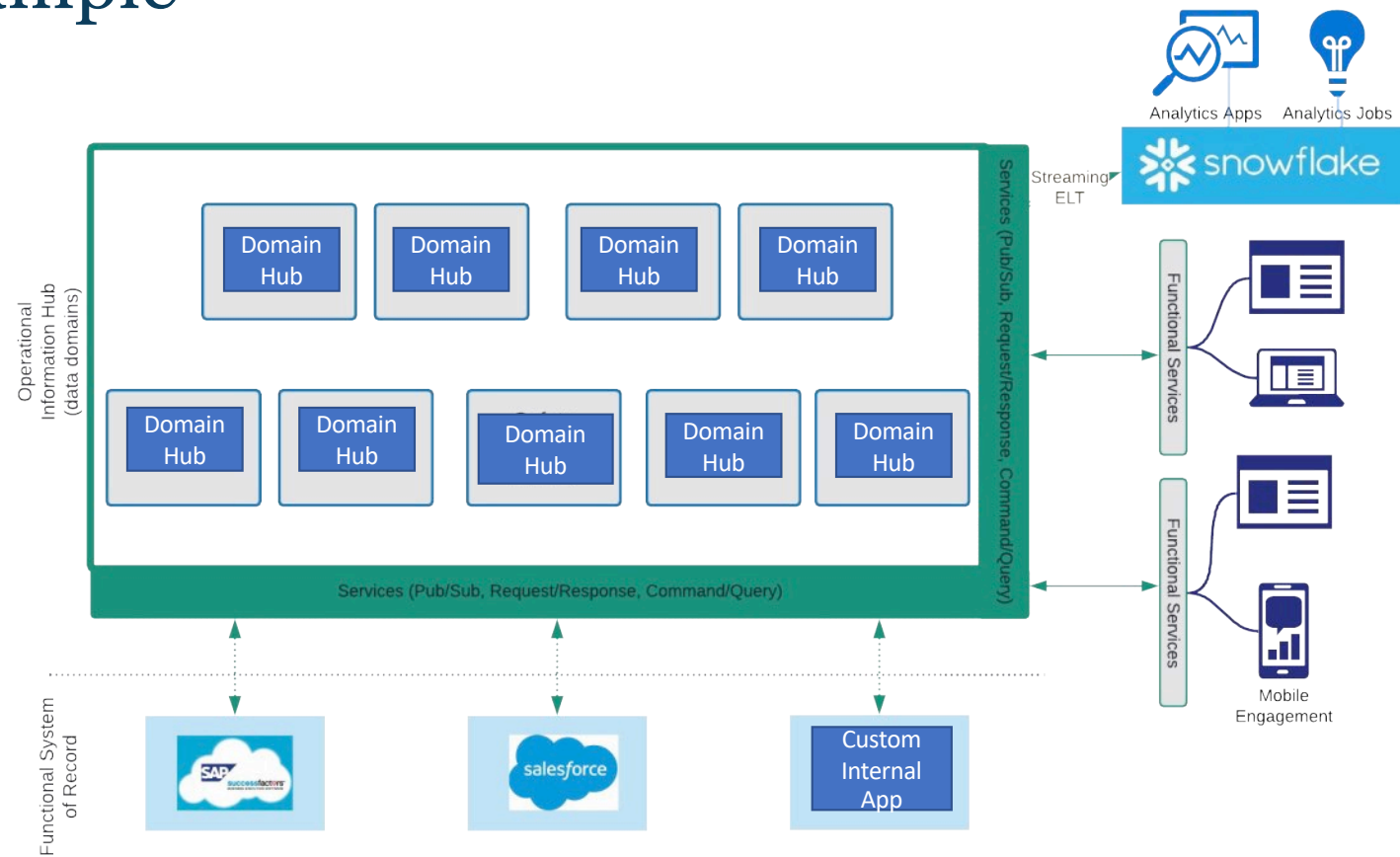
H



Headless

ACME-ized Example

- Act as a logical system of reference.
- Stay up to date through event-sourcing
- Protect against FSOR maintenance and outage.
- Eliminate Point-to-Point integrations



Questions???

