

A White Paper on Composable Enterprises

Executive summary

A business's success in the 21st century would depend vastly on its ability to adapt to the changing needs. Adapting here can mean adjusting to competition, finding ways to topple them in real-time, and utilising technology to drive growth.

It is why the concept of composable enterprise has gained so much traction in the last few years. Such companies do not depend on a centralised infrastructure (that others spend crores to acquire). Instead, they rely on open APIs, cloud, and superior analytics to drive their business and success.

The modern-day businesses no longer experience the bottlenecks traditionally caused by costly infrastructure, which was rigid in its application and scored low on adaptability. Any business looking to become a composable enterprise must understand that the change won't happen overnight. You will have to be patient and have the drive to remodel yourself.

Introduction

Gone are the days where applications were custom coded. The modern ones are composed. It allows them to do much more than they previously could and offers a host of additional benefits. It means that companies cannot go on a shopping spree in this department like in the past. They now have to match the blazing pace of technological changes and imbibe a hyper-selective approach.

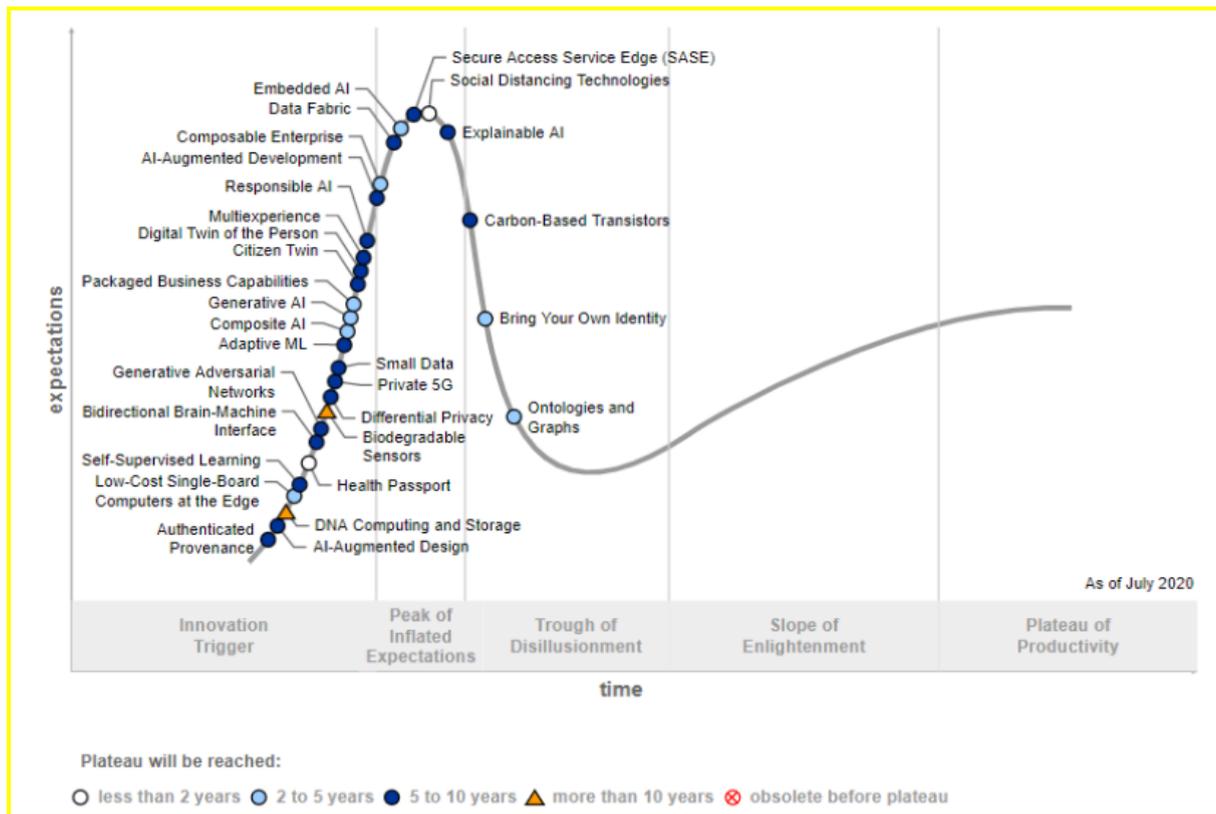
The tech sector's continual changes have led to a massive surge in organisations that do not hold back and offer their services in more ways than one. It is why services like automation tools, IaaS (Infrastructure as a Service), iPaaS (Integration Platform as a Service), subscriptions for applications, and more, are gaining traction.

The year 2020 supercharged the business world's endeavour to adopt a more versatile outlook. It had multiple proven techs that were once considered foolproof go redundant. Organisations had no past to fall back on, and they barely saw what was coming but had to find ways to survive.

The paradigm shift led to the rise of composable enterprises. These businesses could mould themselves, had no backlogs, did not commit to a model, and had the flexibility to meet the most unfathomable circumstances.

About Composable Enterprise

A Gartner [report](#) lists composite architecture as one of the five emerging trends that would be the key enablers in shaping technological innovations in the current decade.



What does composable enterprise mean? To describe in a single line – they are the future. Let us delve deeper.

“Composable business is a natural acceleration of the digital business that you live every day. It allows us to deliver... real-time adaptability and resilience in the face of uncertainty.”

- An excerpt from Gartner [Keynote](#)

The term ‘composable enterprise’ refers to an adaptable entity with the ability to map technology solutions rapidly. It lets them better cater to their business endeavours. The ability to integrate at will has been one of the critical enablers for businesses.

Businesses that describe themselves as composable are no longer coding and customising. They are instead more inclined towards configuring and integrating. The inculcation of an elastic cloud has helped them move away from on-premise workloads. It has enabled them to tackle adversities better and quickly adapt to the changing technological landscape.

So how are they able to achieve flexibility? All thanks to APIs (Application Programming Interfaces) and increased focus on modularity. Instead of depending on a rigid structure, APIs form the base of a composable enterprise. Businesses source them from internal data centres or third-party providers. It enables them to break down complex systems into easily modifiable blocks (APIs).

The traditional business environment had a host of costly assets that they acquired for running their organisation smoothly. These software suites gave them access to specific

software for multiple years and constrained their ability to try new ones because of the sky-high costs.

The modern business has a new focus and a revamped understanding of the software they use. Instead of acquiring everything, modern companies buy some of them, and subscribe to others like iPaaS, SaaS (software as a service), and IaaS (infrastructure as a service). It allows them to scale and switch at their convenience and not worry about costs.

Organizations that have adopted composable infrastructure report up to [48% savings on hardware cost](#). The majority of it - 35%, comes from server-related cost reductions.

Building Blocks

A Gartner report mentions that [69% of corporate directors](#) are pitching for embracing the building blocks and principles of composable business. They believe it would place them with the strength and the flexibility to handle the unprecedented volatility caused by the pandemic, and that would seem to continue affecting businesses in the near future.

A composable enterprise comprises three essential parts –

1. Composable thinking

Composable thinking refers to letting your mind be free of any baggage and allowing it to be creative. It states, it is better to refrain from defining 'composable,' and one should instead focus on modularity, discovery, autonomy, and orchestration. These would be the guiding light showing you the endless possibilities and the right time to develop something new.

2. Composable business architecture

Composable business architecture refers to a flexible and resilient structure of an organisation. It gives them the purpose and the strength to quickly adapt to the changing needs without fiddling with the entire ecosystem. It also allows you to access mechanisms that would otherwise not be possible for businesses with rigid business architecture.

3. Composable technologies

The composable technologies refer to the modern-day marvels. These are the building blocks that allow integrating everything in a business environment. It will enable enterprises to be composable and have the capabilities to adjust themselves to the changing needs with ease.

Goals

Everything around us exists for a reason. So do composable enterprises. Here are the goals of a composable enterprise –

Event-driven

A major event in the traditional business environment would often see businesses taking a long time to adjust. Companies would often take days to welcome a new client. The modern-day landscape does not give businesses such leeway. An event-driven architecture enables businesses to detect occurrences as soon as they take place. It also allows them to react to them in real-time.

Delivering innovation in the blink of an eye

Composable enterprise harps on improving the process for both internal and external users. It seeks to provide them with valuable offerings faster to enable them to get more out of their association with the business.

Ramp up the building, testing, and deploying times

The inculcation of iPaaS, SaaS, and other similar rented services with an able business structure augments the development and deployment processes. Instead of writing code from scratch and fret on it for days, a composable environment aims to eliminate the need to build things from ground level. It also enables them to cut costs, reduce duplication, and improve integration.

Scalability on demand

Scalability goes both ways. In the days of adversity, a business cannot continue operating at the same levels as before. With the help of APIs, composable enterprises can scale up or down in real-time. It means getting rid of earlier prevalent organisational silos and creating solutions that allow businesses to adjust better.

Characteristics of a Composable Enterprise

Here are the characteristics of a composable enterprise –

- It allows businesses to provide services on-demand.
- Most business processes are API-dependent, enabling easy integration and removal.
- APIs enable easy sharing of organisational data and processes to the partners.
- It will enable scalability with ease allowing your workforce to manage demand and requirements better.
- With APIs, you get optimum security built into each building block.
- You get solutions with a focus on bottom-up capability (not possible before in most cases).

The Importance of APIs and API Management Systems in a Composable Enterprise

As per [Global API Management Market Analysis](#), the API market size is speculated to grow to \$6.81 billion by 2025.

The traditional way of marketing nonchalantly forces businesses to choose compatible tools even if they were not the best fit. The marketers used to inculcate ESB (Enterprise Service Bus) which prevented other mechanisms from integrating properly with their solutions. It often acted as a bottleneck, as you had to decide your additions based on what you already own.

The API integration is changing the world altogether, and for good. Today, every application focuses on flexibility as its primary idea. It allows them to integrate a flurry of tools easily and eliminate confusion existing in the traditional approach.

Here is how APIs management systems are eliminating the redundant roadblocks in a composable enterprise landscape –

1. Monitoring and updating outdated API formats and converting them to REST API.
2. Continuous tracking of API and application performance.
3. Using third-party tools to standardise security authentication.
4. Developing a catalogue of working APIs to enable easy access, review, and search.
5. Setting up and standardising security authentication throughout the enterprise.

A composable enterprise is not merely about technology. It also encompasses people and process.

Technology is directionless if the people aren't capable enough to use it the right way. You require someone to steer even the most powerful ship in this world to its destination. It is the same in a composable environment too. There are three main elements here – technology, people, and process.

The **technology**, in itself, is a demanding one. If you are adopting it, you will have to remodel most strategies you had been using all this while. One primary example to understand would be a few years old IT infrastructure not having support for API-based composable enterprises. Most of these would require additional equipment to support it or will be deemed redundant.

IT leaders and the workforce paves the way for the business to inculcate the latest technology to leverage its potential. The process includes looking for probable use cases, designing new products that streamline the entire workflow and encouraging people to perform to their potential.

Our previous generations missed out on building business processes that would find relevance in the future. We can take a cue from them and ensure that we do not repeat the same. If we want to do better, we will have to adopt the idea of composable enterprise – a world where you do not have to change the entire vehicle just because any of its parts went berserk.

For that to happen, we will need an architecture laced with the following –

Accessible enterprise data layer

It is imperative for a composable enterprise architecture to aid the decision-makers and higher authorities to achieve the above-mentioned goals of a composable enterprise. The architecture will have to bifurcate the cream, i.e., filtering the data sources to achieve the desired results from everything else that they do not require. The segregated data should be integrated into the data flow to make them accessible and standardised.

High on adaptability

The modern-day environment demands impeccable software support irrespective of the device the workforce uses.

On-demand scalability

As we harp on modularity, it becomes imperative for a composable enterprise to scale on demand. The main aim of any business is to grow. As they expand, so will their service and other infrastructure requirements.

Automation capabilities

On-demand services can be a genuine success only when you eliminate manual intervention. Composable enterprise architecture's primary focus is getting rid of scripting and making every process available 24*7.

Self-service

The new-age architecture comes with self-service capabilities, i.e., key personnel should be able to access critical applications and data on their own. It would cut down on downtime and enable the business to continue as usual. It gets rid of the rigidity plaguing the traditional architecture.

Service-oriented

Another critical component of composable enterprise architecture is the reusability and loosely connected microservices. It would ensure that you can tweak vital functions and applications to remain in sync with the requisite business functions.

Architectural Leadership for the Composable Enterprise

Before the introduction of the cloud in the business landscape, IT was much simpler and manageable. There was an abundance of middleware that connected a host of acquired software. But we are gradually experiencing the death of centralised IT. The latest trends revolve around a well-thought-out distributed IT ecosystem.

Even though there are several challenges on the way, the prospects seem much more viable. There is a greater focus on making everything customer-centric. What is the result? There is an increased pressure of having to meet the customer demands across the board. It has also empowered the users and allowed them to make informed decisions.

The inculcation of APIs has allowed organisations to provide value throughout their value chain. It has also allowed them to maintain a favourable relationship with their stakeholders.

When it comes to enterprise composability, APIs support both internal and external procedures. The former helps in leveraging the overall team endeavour, whereas the latter allows customers to mix and match to find the correct information at the right time. APIs will enable them to compose and recombine in real-time and draw information from multiple sources.

It positions architecture as one of the critical enablers of the composable enterprise reality. But to do that, API designers must also remember the need to ace the non-functional requirements, such as security and compliance. It would require the IT team to build an intuitive, web-centric architecture first and then plan on executing the composable enterprise idea.

Another aspect we harp on with composable enterprise is decentralisation. But IT is not everyone's cup of tea, by default. So the team has to build an app store or something similar that can house all the templates and other vital data. It would gradually bring about the habit of self-service, which would then free the IT department of redundant tasks and allow them to focus on their core competencies.

Challenges With Implementing Composable Enterprise

Today, a ready-made application often falls short of expectations. It is the reason we see the demand for composable enterprise being at an all-time high. But when there is such a maddening demand, it also brings about a host of challenges.

Here are the issues that you can come across in your tryst to become a composable enterprise –

Finding the right balance

When you have so much to fiddle with, you can inadvertently end up overcooking and making it a mess. The last few years saw the rise of microservices and REST APIs. These have ensured that composable enterprise is no longer a directionless dream. But it has been criticised for being too vocal and not having enough results to show. So it is imperative for businesses to find a middle ground while building and integrating the packaged applications.

A packaged application refers to a group of APIs and entities that are serving a single business capability. These are mini-applications that are dynamic and easily scalable. But hiring multiple teams in managing them can often lead to friction. So it is imperative to let a single business team work it out independently for the best results.

Managing multiple packaged application and ensuring they are all in sync

The composable enterprise is about performance coupled with agility. It includes a group of packaged applications, each of which is separately managed. But these are all linked,

interoperable, and have common security and analytics needs. So it can often be an arduous task to manage them simultaneously.

Semantic barriers

A composable enterprise is a decentralised organisation. We see more businesses coming up with 'innovation teams' to help them adopt it. Although positive, behavioural, and semantic barriers have the potential to disrupt plans with ease. It means that even though we visualise everyone as one, it is practically tough to implement.

Not to forget, the presence of semantic or language barriers is further worsening the situation. It can lead to a disconnect between the teams or their members. Many businesses have started conducting cultural transformation programs and hand-coding certain aspects of what they are trying to create to tackle the glaring issues.

Partner With Quickwork to Turn Your Composable Enterprise Dream into Reality [Conclusion]

Gartner predicts that composable enterprise would be [one of the top trends](#) for 2021.

Gartner Top Strategic Technology Trends for 2021

People centricity



Internet of Behaviors



Total experience strategy



Privacy-enhancing computing

Location independence



Distributed cloud



Anywhere operations



Cybersecurity mesh

Resilient delivery



Intelligent composable business



AI engineering



Hyperautomation

Combinatorial innovation

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Gartner

The IT landscape's massive strides have promoted it from being a back-office sidekick to a full-fledged partner of every business.

The world of composable enterprise is exciting. The ability to be modular and shift strategies in real-time gives businesses an edge and a better chance to minimise losses. It also presents a unique opportunity to make the most of the resources.

About Quickwork

At Quickwork, we are looking to democratise automation and make it more accessible. We harp on giving you control and make everything more accessible. So we have brought about automation on the cloud, enabling you to access critical information on the go. Add to that the lack of any coding throughout the time you partner with us. We are looking to make it all super convenient for you and your workforce.

We thrive on providing optimum value. Instead of forcing you to accept a package deal, we follow a flexible, multi-tier pricing strategy at Quickwork.

Click [here](#) to understand more about our offerings and how we are looking to revamp the way businesses understand IT.