Plug and Play: Revolutionizing Marketing with Composable MarTech Architecture

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Abstract: *The COVID - 19 pandemic exposed the world to new realities of external business changes such as changing customer preferences and disruption of supply chains. In 2020 itself, analyst firm Gartner concluded 'The future of business is composable'. Composable business means creating an organization made from interchangeable building blocks. [1] During COVID - 19, in - person interactions became limited and everything switched to virtual, creating an enormous load on the digital infrastructure for marketing such as asset management, websites and email servers. It also triggered a fast moving, ever evolving marketing technology landscape to accommodate new needs. e. g. virtual events. Even today, solutions that feel cutting - edge one day are outdated the next. How does a company then establish a solid marketing infrastructure and yet stay nimble to adapt or pivot as per the changing macro or micro environment? This article explores how in a post - COVID era, companies are now looking forward to adopting a composable marketing setup so that they are able to operate in an agile and resilient manner at scale.*

Keywords: Marketing Technology (MarTech), Composability, Modularity, Service Oriented Architecture, Microservices, CDP, Customer Data Platform, First Party Data, Headless Architecture, Legless Architecture

1. Introduction

The term 'composability' is derived from the design principles of software engineering and if we extend this concept to marketing, it means building a marketing technology stack using interchangeable, modular components that can be easily assembled, disassembled, reassembled or replaced according to the specific needs of a business.

For a long time, marketers looked forward to one software catering to all their needs. They wanted to manage data, content, email, website, advertising and social media all through a single software. Today, that vision of monolithic systems has been achieved but in many cases, customers are not getting the full breadth of features, functionality and ROI from their single - vendor martech investments. [2]

COVID - 19 changed the way we shop. There was a massive surge in e - commerce activity and the existing online shopping infrastructure creaked under the weight of this new trend. In a typical set up, to make any change to the front - end, it needed to be changed at the back - end or vice versa. This became a bottle neck in ensuring efficient operations, superior delivery experience and optimal scalability. Developers had to wait for permission to change something at the front end without letting it affect the backend. Or if the traffic to the website spiked during a sale or promotion, the back - end infrastructure could not be scaled up to handle the increased traffic, without affecting the front - end.

Enter the 'headless' architecture that decoupled the front - end presentation layer from the back - end logic and data management. Thus it allowed businesses to create custom front - end experiences for different channels and devices, while still maintaining a unified back - end system for managing data and functionality to support omnichannel marketing initiatives. [3]
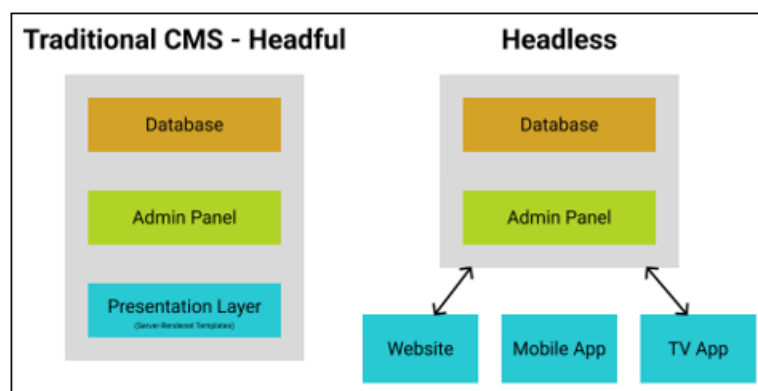
Source: Hygraph [4]

The idea of 'headless' is groundbreaking, but practically it is still evolving. It is also not enough or the complete solution for composability. Instead, the ability to be 'legless' - breaking down the silos on the backend, and easing integration with best - of - stack backend tools - is considered one step further and now emerging as something just as important for enterprises to be able to provide genuinely omnichannel experiences. ' [5]

'Legless' architecture requires decoupling enterprise data, content, and decisioning services from single - channel engagement systems, like email, web and social. Essentially, the core system exists without certain functionalities ("legs") and relies on external systems or services to perform those functions. [6]

Case Study for Composable Customer Data Platforms (CDP)

With the rise in regulations around consumer data privacy and the potential phasing out of third party cookies, the importance of strategic first party data for effective marketing cannot be overstated.

First party data is data which has been collected directly from customers and audiences through various marketing channels. A Customer Data Platform (CDP) is a software tool that collects and unifies first party data gathered from multiple sources into a central system to create a single view of each customer.

Difference between CRM and CDP

It should be highlighted that a Customer Data Platform (CDP) is different from a Customer Relationship Management (CRM) tool. While both manage customer data, they serve different purposes.

A customer relationship management (CRM) tool is primarily used by the sales team and focuses on intentional interactions with the company. Thus, a CRM is used to manage the sales pipeline, customer support, and maintain customer relationships.

On the other hand, a Customer Data Platform (CDP) is used by marketers and aggregates data from multiple sources to create a comprehensive view of the customer. A CDP builds detailed customer profiles by combining first, second and third party data and is used to generate personalized, data - driven campaigns which can convert to get the desired business goal. E. g. new client acquisition or subscription renewal.

Traditional CDP vs. Composable CDP

A traditional CDP is a packaged solution designed for collecting, storing, modeling, and activating customer data. This type of CDP operates by hosting and managing the data within its own system (s). [7]
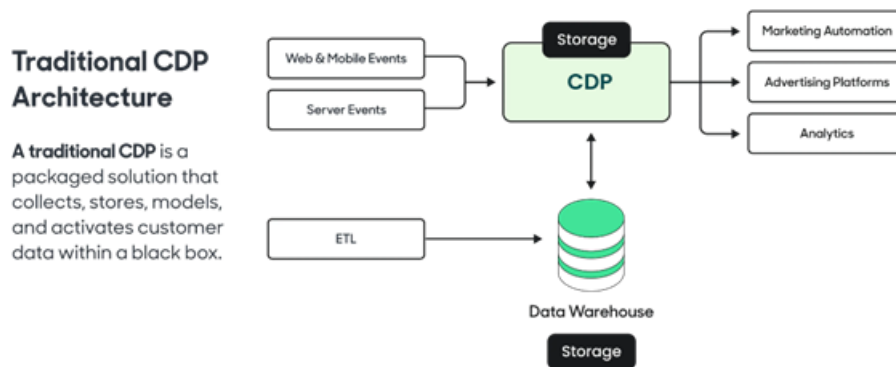

Source: Hightouch [7]

Since features like data ingestion, processing, normalization, event tracking, identity resolution and data activation are tightly integrated in one platform, there is a vendor lock - in and no flexibility in upgrading or downgrading the individual components as per the true business requirements. Instead, an organization can end up paying for the entire CDP suite, even if only specific features and capabilities are being used or some component does not integrate well with the existing marketing stack. This can become a problem when marketers are trying to work with reduced budgets and are under pressure to do more with less.

To solve this problem, we can apply the concept of "legless architecture" to a Customer Data Platform (CDP). This means that the platform is primarily designed to collect, unify, and organize customer data without having built - in distribution capabilities. In other words, a legless CDP uses the concept of 'modularity' and focuses on data ingestion, integration, and management only. It relies on other systems or platforms to activate (distribute) that data through marketing campaigns, customer engagement, and other use cases.
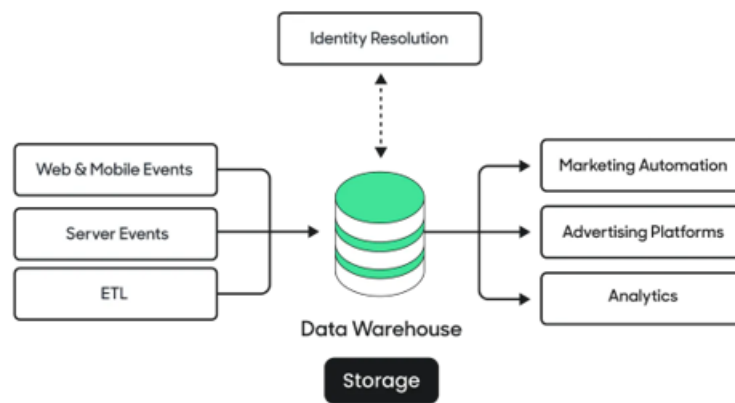
Thus, the flexible, modular architecture of a composable CDP provides all the functionalities of a traditional CDP, but with each component fully customizable to meet an organization's specific requirements.

Further, it democratizes the data function for marketers and increases speed - to - market. With a composable CDP, a marketer no longer has to wait for a data analyst to run a SQL query and send the results as a CSV for the marketer to upload in the Marketing Automation platform. Since the marketer interface is directly connected to the data warehouse, an analyst could query the SQL database and directly deliver the results to wherever the marketing team needs: marketing clouds, ad networks, and CRM applications.

Thus, a composable Customer Data Platform (CDP) is also effective in breaking down organizational silos and brings together marketing and data teams without demanding more of each group. Data teams continue working with their tools and infrastructure. Marketers, likewise, build and activate audiences with their no - SQL - required applications. [8]

So is Composability the Future of MarTech?

It should be noted that 'composability' is a spectrum and not a feature. [9] So the extent of composability for each business will vary. A startup has different marketing needs than a big corporation. In general, when a company is in its early stage, using affordable tools for various purposes is the way to go. So Marketo, Pardot or HubSpot may not be required. Instead Constant Contact, MailerLite or Mailchimp can be considered for email marketing. For CRM, Salesforce may not be required. Instead, depending on the use case, a free CRM, Google Sheet, Attio or Pipedrive is good enough. Later, as the needs of the startup evolve, volume of the data captured increases and more funding comes in, the stack can be upgraded with better software. When it is already an enterprise level stack, some softwares do specific things better than others and that may factor in when accounting for the business use cases. For example, some vendors have specific out of the box integrations built - in which function much better than stitched integrations done through iPaaS solutions such as Zapier.

The goal of this article is to make the reader aware of the composable era of MarTech. It is to be noted that 'composability' in MarTech also comes with its challenges such as the myth of no vendor lock - in or reduced operating costs. For example, in the case of a CDP, composable CDP solutions introduce their own form of vendor lock - in, particularly with data warehouse providers. Further, the initial storage cost savings may be offset by increased compute costs and operational inefficiencies. [9]

In closing, the journey of a thousand miles begins with a single step, so the first step is to define what 'composability' means for your organization and at what level it can best serve the company. Second, assess the 'internal appetite' of the decision makers to adopt composability in alignment with the future business strategy. Third, get into the tactical details and assess vendors against your organization's composability requirements, budget and real - life use cases. Ask for proof of concepts to thoroughly test the new technology and then make a recommendation to the senior management for the next steps.

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