



The Journey to SaaSification

Shifting to platforms will democratize the capability of businesses to offer new products and services

HiTech







PURPOSE-DRIVEN

RESILIENT

PURPOSE-DRIVEN, RESILIENT & ADAPTABLE with Business 4.0[™]







Abstract

Shifting consumer buying patterns in target industries will disrupt the technology and services segment and new technological innovations will drive new engagements and consumption models. The traditional models of selling and consuming software, driven by intellectual property and a services-led sales, delivery, and commercial construct, is shifting rapidly to an everything-as-a-service (XaaS) model. While the industry was already moving towards a XaaS model, the 2020 pandemic has accelerated that journey. Earlier, companies did not have the financial incentive to accelerate the shift, but in the current scenario, the industry will pivot from survive to thrive. Though SaaSification has been widely adopted early on in the software industry, many other industries are catching up.

This paper explores the need for SaaSification, the levels of adoption across industries, and the critical elements in operations and processes that businesses need to address to incorporate SaaSification in their current products, services, and capabilities.



PURPOSE-DRIVEN



RESILIENT



ADAPTABLE





The Need for SaaSification

Enterprises continue to adopt platform-driven business models over license-based ones as the former are more resilient, allow for faster customer acquisition, enable faster decision making with lower costs, and are continuously available for support, especially during unprecedented events like Coronavirus. Moreover, platform or software-as-a-service (SaaS) business models will shift the focus from capex to opex for organizations, thus reducing operational overheads.

Moving to SaaSified platforms will reset expectations for user experience and will ease the use and functionality of products and services. Due to their overlapping user bases, the boundary lines between business-to-consumer (B2C) and business-to-business (B2B) platforms will be blurred even more.

Because of COVID-19, products and services that were unique will be considered as the new baseline in terms of the user experience of platforms. The speed at which product engineering can evolve to deliver new functionality and reduce the time to market to bring consumer innovation to both B2C and B2B audiences, will determine the relevance of platforms for companies at large.



Platforms can be designed to accommodate the online and offline way of working, thus facilitating enhanced collaboration. The key components of a modern SaaS platform are highlighted below:

- Highly customizable and configurable platforms, comprising of multitenancy and globalization, with in-built security protocols.
- Control and flexibility in terms of metering and switching modules on and off from a consumption standpoint.
- Applications packaged with container technology such as Docker.
- Highly scalable bundle of microservices providing data and logic processes in discrete components.
- Dynamically managed by a controller, manager, or supervisor for orchestration and confederate processes for both functionality and scale.
- Enhanced customer experience through collaborative channels.
- Flexible SaaS models through configurable subscription and entitlement management.
- Increased agility and shortened product life cycle through PrivSecDevOps¹ engineering process.
- Aftermarket support driven by artificial intelligence.







¹ As regulatory frameworks mature and user-centric privacy becomes pivotal to technology platforms, privacy impact assessments will be instrumental to product engineering for data minimization and effective consent management processes and features. The expectation from DevOps tools for orientation towards 'PrivSecDevOps' is going to drive innovation in this space.



Enterprise Adoption of SaaSification

As COVID-19 pushes industries to reinvent themselves, firms will look to offer their existing products and services under the SaaS model. Figure 1 depicts the steps enterprises must take to SaaSify their products and services.





Figure 1. The SaaSification journey

We see enterprises adopt platforms in two ways:



Moving existing businesses to SaaS:

As companies look for faster ways to shift to the 'as-a-service' model, some firms will modernize their current products and applications and host them on the cloud. Some will take a step-by-step approach for faster launches, reducing costs, and other factors.





Building new platforms:

The pandemic has introduced new use cases for businesses and has changed customer needs and business models. This will push technology and services firms to develop new platforms in all areas of consumption, including but not limited to collaboration and virtual experiences; remote sales and seamless customer onboarding; learning, consulting, and advisory services as a product; remote tele-health and field support; and post-sales support.



The shift to SaaS will be a complex and long journey for many companies, requiring organizations to reconfigure not just their IT processes but their business strategy as well (see Figure 2):

Strategy: To shift to SaaSification, organizations will have to put in place complex decision-making processes. They need to assess the market for latent needs and feedback-based inputs; understand how customers will consume SaaSified platforms; and redesign their value chain to include partnerships, distribution, sales and marketing, and pricing and discount management.

Engineering build: Organizations have to develop SaaS products and services using evolutionary architectures to meet the changing demands of customers. These architectures also bring changes to engineering life cycle, including development, maintenance, upgrades, and support.

Business and IT operations: Business will undergo complex changes across entitlement, subscription, financials, customer management, sales and compensation management, and more. These process changes will also lead to new ways of handling IT systems.

Market Analysis & Assessment

Partnership Management

Sales & Marketing

Distribution Management

Pricing & Discount Management

Product Infra Management







Addressing Critical Elements of the SaaSification Journey





As businesses SaaSify their products, they must key in some salient factors in their operations and processes:

Business and value chain transformation

Companies have to realign their business to the SaaS model, including creating offerings, license subscription models, pricing structures, recurring revenue models, sales and compensation, and revising the entire configure, price, and quote (CPQ) cycle. Firms will also have to redesign their entire value chains².

Modernization:

Transformation

To meet user needs and drive speed, resiliency, scalability, and lead in a competitive market, SaaSification platforms must be built using modern web application architectures and design patterns. Further, the platforms must be created using modern cloud-native capabilities like containerization, function-as-a-service, cloud portability, edge computing and edge AI, and more.

Organizations have a mammoth task of modernizing current monolithic products and applications and shifting them to SaaS platforms. In some cases, it could be a complete re-engineering of products, while in other cases, it could be lift and shift in the first phase and then modernizing in latter phases. Organizations have to make these decisions based on priorities such as time to market, cost, customer experience, engagement models, and more.

Besides the complexity of re-engineering their platforms, organizations must also take into account business model changes as well as maintaining their existing customer base.







² TCS; SaaSification of Software Products: Redesigning the ISV Value Chain; https://www.tcs.com/saasification-software-products-redesigning-isv-value-chain



IT application and process transformation:

One of the critical elements in SaaSification is changing a firm's business model from a perpetual license to a subscription-based one, which will change a company's value chain. These changes will run across quote-to-cash processes, how a firm handles recurring billing, metering, invoicing, entitlement and subscription management, sales and compensation management, and more.

SaaSification will lead companies to change not only their IT application landscape but also their processes, which will be designed around customer needs and subscriptions. Perpetual license systems and entire quote-to-case processes are designed to handle stock-keeping units (SKUs) or unit-based processes.



Operations transformation:

To ensure that a business can operate in the SaaS model, firms will have to make changes to product deployment, release and life cycle management, maintenance, customer onboarding, cloud infrastructure management, and professional services of the product. Analytics will be key to understanding how customers are using the product, offering insights into customer churn, sales, marketing, and more.

Automated co-ordination:

In the current B2B and B2C segments, much human capital is wasted on co-ordination efforts in all functions and domains, including but not limited to engineering and product development, sales, human capital management, risk and compliance management, and more. Organizations on their SaaSification journeys must automate such co-ordination activities and allow human beings to engage in scenario planning and decision making.



SaaSification in Industry

Digital technologies such as the cloud, AI, machine learning, mobile, and social tools have significantly changed business models, enabling enterprises to unlock value and offer new services and offerings to their customers. In the digital economy, there was space for multiple players with legacy platforms in the traditional business models to operate. However, after COVID-19, organizations will be expected to adopt digital platforms for all their business processes. This will help them architect end-to-end experiences for their customers.

Earlier, firms fused several elements of digital technologies into their business processes and product and service experiences, with platforms being used in different degrees of engagement. In the post COVID-19 world, different industries will adopt platforms widely across processes for certain use cases:







Professional services



Software companies

Businesses in this segment have been structured to differentiate between human and machine elements. They also offer unique experiences with superior thought leadership. In the post COVID-19 world, product engineering and SaaSification will drive new models in this domain through the following:

- Touchless audits.
- Intuitive, socially responsible, and immersive recruitment.
- Complex tax and advisory services through self-service platforms with embedded domain capabilities.
- Merger and acquisition services through self-service platforms.

The industry is one of early adopters of SaaSification, and COVID-19 has re-emphasized the need for platform-driven businesses. With remote working becoming the norm in the current climate, software tools and technologies for collaboration and networking have seen a massive surge in use. This demand has forced software companies to re-evaluate product features and to make products and platforms more scalable.





Computer platforms and electronics firms

Businesses in this sector have

started on their journey of SaaSification. The surge in adoption of cloud during COVID-19 has already forced companies in the compute, storage, and networking space to change their business models. Industrial electronics companies can create value for their customers by offering device-as-a-service and bundling value-added services around the SaaS model.



Media, entertainment, and communication

Businesses in these sectors, including front office and back office operations, have witnessed a massive disruption within a matter of weeks. Platforms will revolutionize and transform how a cohesive crowd or community experiences events and consumes entertainment.



Accelerating the SaaSification Journey

Due to its complexity, SaaSification can be a time consuming, expensive, and burdensome endeavor. Accelerating this journey demands well-defined processes, informed decision making, evaluation of different options, tools for micro-level planning, and more. It also requires guidance on reusable components, a technology roadmap, and a migration and modernization path and reference architecture. The key to this acceleration lies in realigning business models and in reimagining product design and architecture.

While software companies have led the way in SaaSification, it is not limited to software companies born in the cloud. SaaSification democratizes the capability of enterprises across industries to offer their products and services under a XaaS model, thus expanding their market reach and helping them tap into a new set of customers.



Figure 4. Realigning business models and redesigning product architectures



About the **Authors**



Spandan Mahapatra is the Chief Technology Officer of the HiTech Business Unit at Tata Consultancy Services. He leads the portfolio which manages the Digital and Enterprise Transformation domain and technology initiatives.

Spandan also heads the Business Solutions Group within TCS' Alliance and Technology Unit. He and his leadership team have been instrumental in establishing one of the largest advanced technology innovation platforms at the TCS Innovation Lab in Cincinnati on hybrid cloud, driving interoperability with advanced technologies across infrastructure and application solutioning layers.

Spandan is a digital thought leader and advises customers globally on how to reinvent business models and drive digital reimagination initiatives by leveraging all the core capabilities in the era of Business 4.0TM.





Gajanan Kamble heads Software Product Engineering Services for the HiTech Business Unit at Tata Consultancy Services. He is also the Business Cluster Head for the Software Segment in HiTech. With 23 years of experience in the high

tech industry, Gajanan has played key roles across software product engineering, relationship management, presales, product management, engineering, and R&D in artificial intelligence.





Contact

For more information on TCS' HiTech solutions and services, please visit https://www.tcs.com/hitech

Email: HiTech.Marketing@tcs.com

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match.

TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model[™], recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at www.tcs.com

All content / information present here is the exclusive property of Tata Consultancy Services Limited (TCS). The content / information contained here is correct at the time of publishing. No material from here may be copied, modified, reproduced, republished, uploaded, transmitted, posted or distributed in any form without prior written permission from TCS. Unauthorized use of the content / information appearing here may violate copyright, trademark and other applicable laws, and could result in criminal or civil penalties.

Copyright © 2020 Tata Consultancy Services Limited







PURPOSE-DRIVEN

RESILIENT

