

improving

customer experience in b2b markets

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REPORT

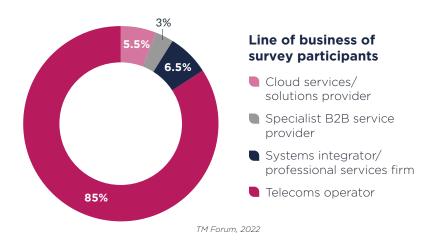
the big picture

Many communications service providers (CSPs) have identified B2B markets as a primary source of revenue growth. As a result, they are examining how the customer experience (CX) they deliver to different B2B market segments and industry verticals must change and improve. This brings business models, partnering strategies, product plans and technology investments into focus, potentially calling for a full rethink of the business support system (BSS) infrastructure that underpins aspects of a CSP's CX.

M Forum has surveyed more than 100 experts across five global regions to gauge their attitudes on current priorities for customer experience management and improvement in their B2B organizations.

Of our survey respondents, 93% work directly for CSPs, cloud service providers or specialist B2B service providers, while the remainder work for systems integrators (see chart). Nearly a quarter (24%) work in a CSP's B2B organization in a dedicated capacity, while for another 62% that is part of their job.

Although the biggest portion of our survey participants (45%) work in IT, other responsibilities are also represented: network (23%); products, sales and



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CSPs hold a range of differing views on how best to approach B2B market challenges, which CX challenges are the most daunting, and how they are working to solve some of those challenges. alliances (11.5%); operations (10.5%); customer service (4%); and corporate roles (6%).

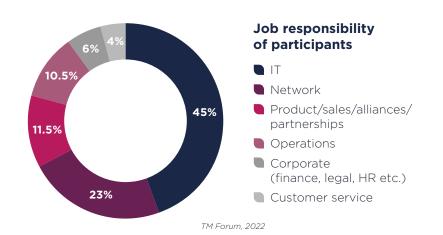
Participants come from Africa (35%); Europe (32%); Asia-Pacific including China (17%); the Middle East (14%); and North America (2%).

The results of our survey reveal that CSPs hold a range of differing views on how best to approach B2B market challenges, which CX challenges are the most daunting, and how they are working to solve some of those challenges.

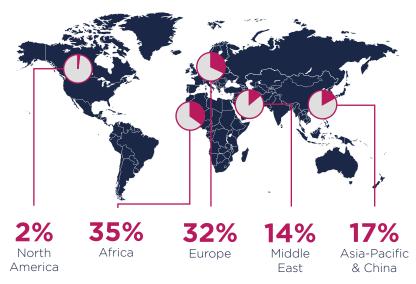
We also asked experts from both CSP and management consulting companies how CSPs' CX, business processes and BSS infrastructure need to evolve side by side. These discussions consider factors such as the differences between B2B and B2C customer experience requirements, and IT budgets.

Read this report to understand:

- Why a majority of CSPs are working to improve their B2B customer experience (CX)
- How CSPs are addressing necessary changes in B2B account management skillsets
- Whether CSPs feel zero-touch automation or engagement management capabilities must be improved
- Which technical challenges are proving the biggest hurdles to B2B CX improvements
- How to assess the potential need for legacy BSS replacement
- What makes a customer experience and BSS strategy for B2B different from one for B2C.



survey respondents by region



TM Forum, 2022



section 1:

service providers gear up for ambitious B2B market growth

More than half of the participants in <u>our recent Benchmark report, *Mapping a path to telco revenue growth*</u>, said they expect a CAGR of more than 6% in communications service providers' B2B businesses in the next five years. They also said that CSPs are engaged, on average, in 2.6 different B2B vertical markets today (see chart on <u>page 6</u> for main vertical markets CSPs are focusing on).

hile this growth rate sounds aggressive for an industry where revenue for traditional services has been largely flat or negative, our Benchmark showed that CSPs can point to steady 3.5% revenue growth in B2B markets prior to the Covid-19 pandemic in 2020.

CSPs say they are now increasing their focus on perceived growth opportunities such as security, IoT and cloud services across a variety of vertical industries. To date, however, these services typically make up just roughly 1% of a CSP's revenue. But the belief in 5G as a B2B revenue growth engine runs deep. Our Benchmark survey also found that 30% of CSPs worldwide have pinned their B2B revenue growth plans on 5G, while another 57% consider it important to their plans.

CSPs are emphasizing new revenue growth coming from a combination of a focus on industry verticals and more robust offerings. As a result, many have been forced to determine whether the customer experiences their B2B organizations currently deliver are aligned with the services and business models they plan to offer. In many cases, CSPs admit or infer the answer is no, as they identify needs for improvement in both account management skillsets and self-serve, zero-touch capabilities. But. savs Lugman Shantal, CEO, Makman Consulting: "The biggest gap is the business model." Shantal explains that CSPs typically work with suppliers unilaterally, assuming the vendor should do as they, the customer, requires. As a B2B solutions provider, however, the CSP becomes the vendor, which makes it "very challenging for B2B account managers to shift".

knowledge



What is CX for B2B?

CSPs have spent a lot of time examining <u>customer experiences</u> for B2C organizations and their digitalization, but B2B is a different game. "Businesses don't act like consumers," says Richard Scoggins, Market Development Director, Alliances, Accenture. He explains that the "nuances of customer-to-client interactions are like a multiverse", where a customer may contact a CSP for an infinite number of reasons. As a result, Scoggins says, CSPs TM Forum, 2022

have invested substantially in AI- and machine learning-based digital tools that enable the B2C CX "to take on a personality where the customer leaves the call feeling better".

Traditional B2B interactions, by comparison, are more finite and focused on practical matters that impact a business rather than personal matters. "B2B is simple," Scoggins explains: "Take my order, I need to renew a service, or I have a dispute with my bill...But there's not a lot of emotion in it. It's a pure transaction, where in B2C it's more emotion and understanding the client on a personal level."

Traditional B2B customer experiences also tend to depend on phone communication, says Mohammad Rubbyat Akram, Vice President End to End Delivery Management at Bangladesh mobile operator Robi Axiata. "This is what needs a major overhaul," he says, particularly considering future deployments of industrial 5G, 5G private networks and network slicing use cases.

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You have to be the one-stop-shop for the IoT bits, the connectivity, the dashboard, for sustaining the solution, and for managing the ecosystem."

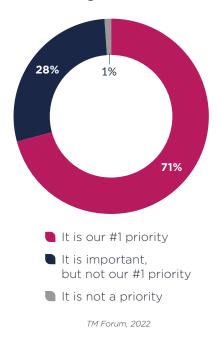
The point of an overhaul, as Akram describes it, would be to provide "customers with the full ability to configure the services they require", using "simple tools but supported by complex backend integration on the CSP end". This CX, Akram says, needs to apply to a range of services in addition to communications services, including cloud, ondemand network slicing, and large-scale IoT and sensor deployments. The CX for these services also entails lifecycle management and a variety of platform-as-a-service options, Akram says.

The other bookend to CX for B2B, on the other hand, is a professional services-style model suited to delivering larger solutions and based on the "one back to pat" approach, says Scoggins. For CSPs to maximize the value they offer in B2B verticals, they may need to reduce customers' costs and the pain of dealing with technical complexity. "You have to be the one-stop-shop for the IoT bits, the connectivity, the dashboard, for sustaining the solution, and for managing the ecosystem," says Scoggins.

CX improvements

A majority of CSPs we surveyed for this report (71%) say that improving CX is not just a priority, but their top priority. Another 28% say CX is important, but not their number one priority (see chart). This may seem like a subtle difference, but its significance bears out in further examination of the data.

> Importance of improving CX for CSPs' B2B organizations



Further analysis reveals that CSPs who make CX improvement their number one priority are more often considered CX category leaders in their B2B markets than those who do not. While 47% of all CSPs surveyed say they are category leaders in CX and have high net promoter scores (see chart on page 8), of those who make CX their number one priority 58% are also CX category leaders and only 7% say their brand is perceived neutrally.

Managing digital ecosystems

The TM Forum Digital Ecosystem Management project aims to help members design, plan, operationalize and assure new market opportunities, including complex B2C, B2B and B2B2X business models. It does this by providing tangible assets and best practices that enable structured, scalable approaches to commercializing new types of services and ecosystems. The project has delivered assets, architecture and component suites for IoT services, and is developing more for connectivity-as-a-service, zero-touch partnering and more ecosystem use cases.

The project will develop digital ecosystem playbooks that offer practical guidance. A component suite technical workstream will work on developing the architecture, API components and data models for connectivity-asa-service and zero-touch partnering. Business case development work will evaluate the return on investment for digital ecosystem initiatives, with case studies in smart energy, smart health and smart mobility. And monetization and management work will define new or emerging 5G business models by leveraging a series of use cases and assessing impacts to revenue management and revenue assurance business capabilities.

For more information contact Joann O'Brien

<figure>

We are considered a category leader and have high NPS We are a challenger with an improving experience and NPS We are neutral. Our CX is neither praised nor disliked and our NPS fair We are negative. Our CX is disliked and our NPS scores have suffered We have not previously served B2B markets

By comparison, only 21% of CSPs that say CX is important but not their number one priority are CX category leaders, while 34% say their brands are perceived neutrally in B2B markets.

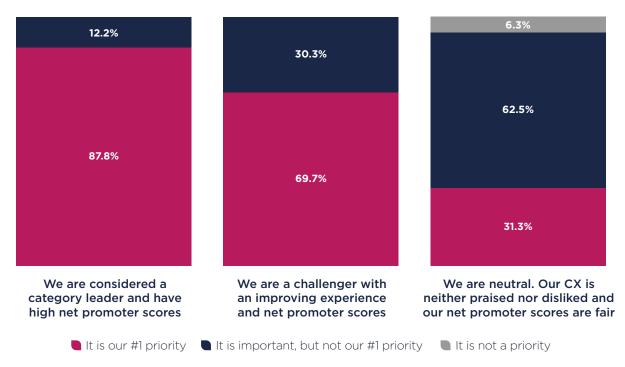
An equal number of CSPs – those who are, and are not, making CX improvement their number one priority – are considered challengers with improving experiences and net promoter scores (NPS). TM Forum, 2022

Not surprisingly, then, there is frequently a direct relationship between whether a CSP prioritizes CX improvement and how its brand is perceived in B2B markets. What CX improvements are needed is changing, however, as B2B markets diversify, CX expectations increase, and new competitors are encountered. These factors can be particularly challenging for CSPs that are new to the B2B world.

New competitors

Many CSPs, particularly in markets that more recently have had a monopoly model, may have little B2B background. "CSPs in developing countries still have a monopoly structure," says Shantal at Makman Consulting. "If their history was B2B, their future will be B2B." He says interconnect carriers, for example, "like to see their future as B2B". Companies that have traditionally focused

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Category leaders make CX their #1 priority more often

TM Forum, 2022

on B2C markets, however, tend to "struggle to focus on the B2B side", Shantal adds.

A further issue, he explains, is that many business and government organizations may not wait for CSPs to bring mature, vertical-specific products and customer experiences to market. Instead, they are partnering directly with CSP technology suppliers or having their needs catered to by hyperscalers. This changes the market's pecking order and raises the bar for CX. "CSPs considered themselves the masters of 4G and 5G and now they will face much more competition," Shantal says. Some of these competitors may also not be confined by the organizational and technical challenges CSPs face in adapting their CX to suit their B2B market ambitions, such as legacy systems and processes and a relative lack of zero-touch automated services.

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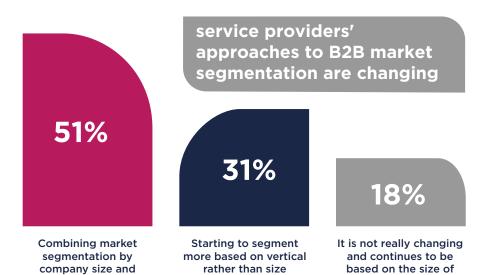
section 2:

how service providers are changing to improve B2B CX

As communications service providers (CSPs) look to grow B2B revenue, many are making changes to how they segment and address markets (see chart). About half (51%) of our participants say they are now identifying market segments by a combination of company size and industry vertical, whereas just 18% continue to segment only by company size. Nearly a third (31%) are now weighing industry verticals more than company or account size.

SPs are also taking action to address the need for new or additional account management skills. As offerings expand into solutions using a broader array of devices, applications and third-party provided services, account management must expand too, particularly if the solution delivery process looks more like a professional services engagement than a digital selfserve transaction.

Most CSPs (78%) are educating and training their own teams to up their game and support new B2B revenue growth. At the same time, nearly half (48%) are recruiting



vertical

TM Forum, 2022

the business

CSPs are addressing the need for changes in account management skills



TM Forum, 2022

new people and new skillsets. Almost a third (31%) are counting on third-party partners to support customers completely, while fewer than 20% are moving to zero-touch account management today to minimize their need for people in the process.

Investing in skills

Whether a provider emphasizes industry vertical over customer size directly impacts how they invest to gain new account management skills. The CSPs in our survey group that emphasize industry vertical over customer size when segmenting markets are 2.5 times more likely to add account management skills by educating staff or training existing account managers. In contrast, CSPs that combine industry vertical and customer size are twice as likely to recruit new people to expand their account management skills.

Those CSPs who will rely more on third parties to bolster account management skills are also twice as likely to move to zero-touch account management. The inverse is also true: those moving to zerotouch account management are 2.5 times as likely to rely more on third-party partners. These CSPs are no less likely than others, however, to educate and train their own staff as well.

For many CSPs, an emphasis on industry vertical over size infers a focus on solutions rather than device or connection volumes. This approach represents a radical change not only in how CSPs segment and address markets, but also in incentivebased compensation. Shifting to a focus on solutions, which increasingly are derived from multiple partners' contributions, also means adjusting how stakeholders are incentivized and compensated.

TM Forum training and certification

TM Forum offers professional executive training courses, delivered by experts in virtual classrooms, through engaging self-paced online formats, and through onsite events when appropriate. The <u>full course</u> <u>catalog</u> includes three levels of training across a range of themes to build skills in specific areas and gain career certifications.

For example, the *Fundamentals of Customer-centricity* course introduces tools and approaches for organizations aiming to become more customer centric, including ways to use behavior data and analytics across multiple channels both to support customers and measure performance. And our *AI in telecoms overview* helps you to understand how artificial intelligence is changing the telecoms industry, how we think about modern networks and the impact of 5G.

Find out more about our range of training opportunities.

B2B ecosystems

Another key difference between B2C and B2B customer experiences is the complexity of the B2B ecosystem. "The customer is an ecosystem that consists of the customer, distributors and internal customers, so there are really three groups of customers in B2B," says Luqman Shantal, CEO, Makman Consulting. "It's a digital ecosystem; it's not about fixing the order-to-payment flow, but about knowing the ecosystem and mapping it properly."

Shantal cites TM Forum CurateFx as an example of a way to do this type of mapping (see box). CurateFx is a software-as-aservice (SaaS) tool that brings stakeholders together across the partner and customer ecosystem. It allows them to collaborate to define roles, capture problem statements, and refine value propositions for each player. Shantal explains that with this kind of tool, all stakeholders use a common language to define how decisions are made across the ecosystem; how data is shared; how revenue models and compensation flows are structured; and which APIs are in play, when relevant. "It's about gaining a complete line of sight across all the entities in the ecosystem," says Shantal.

Distributor roles

Although the B2B ecosystem is changing, expanding and being disrupted, traditional distributors continue to play key roles for CSPs in sourcing, warehousing, selling and shipping equipment. Distributors also sustain networks of resellers that sell CSP services to their B2B customers, typically at high volume, which range from activating SIMs to building private enterprise networks.

Ecosystem management with CurateFx

<u>CurateFx</u> is a cloud-based software-as-a-service (SaaS) solution that can visualize the various stakeholders in an ecosystem, helping them to manage digital transformation. It enables <u>CSPs and their partners</u> to collaborate and make data-driven decisions around complex business scenarios, modeling everything from application providers and hyperscalers to complex service ecosystems dedicated to large customers, such as enterprises or government institutions.

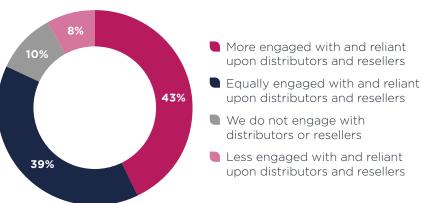
CurateFx users say it is particularly useful in bringing business and technical people together by providing visual interaction tools to overcome language barriers and achieve clarity. This kind of collaborative, multi-party solution is reflective of the major changes CSPs face in shifting from connectivity providers to more diverse digital service providers.

Of our survey participants, 43% see themselves becoming more engaged with and reliant upon distributors and resellers in the next several years, whereas 39% see no change in the relationship. Meanwhile 18% of CSPs either do not engage with distributors or resellers or see themselves being less engaged with them.

Just how much of a challenge integration and data sharing with partners like distributors and resellers will be depends on whether a CSP is actively expanding its partner ecosystem. The 30% of our participants who say integration and data sharing is their biggest hurdle to improving their B2B CX (see chart p.13), are twice as likely to increase their reliance on distributors and resellers. Meanwhile the 52% who say integration and data sharing has an impact on CX, but is not their biggest problem, are twice as likely to be equally or less engaged with distributors and resellers in the next several years.

Improvements needed

A majority of CSPs agree that key elements of their CX, including self-service automation on the one end and engagement management



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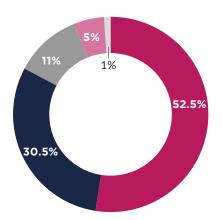
CSPs' relationships with distributors and resellers are evolving



on the other, need improvement across all market sectors. But whether they are relevant to the customer or market segment depends, primarily, on the solution or service provided. For example, activating a few new phones might be a self-serve exercise; building a private mobile network is an engagement. Yet, even in SOHO and small and medium-sized business (SMB) markets, a majority of CSPs agree their engagement management needs to improve.

Similarly, a large-scale engagement does not preclude the need for a self-serve CX. Imagine a CSP building a private 5G network on a campus with a layer of cloud, edge, and network services accessible on top of it. While the 5G network launch and upkeep looks like an engagement, the users' day-to-day experiences would be digital self-serve, and ideally zero-touch automated.

It may be important, however, for CSPs not to become overly focused on their pursuit of zero-touch automation. The idealized experiences Amazon Web Services (AWS) users enjoy will not apply to many CSP use cases because they require collaboration across the partnercustomer ecosystem. Projects like these often include activities



Impact on B2B CX of data integration and sharing with suppliers and partners

- It has some impact, but we have bigger issues
- It has a major impact and is our biggest challenge
- It has little or no impact
- We are the rate limiter and need to catch up with partners
- It is not something we have considered

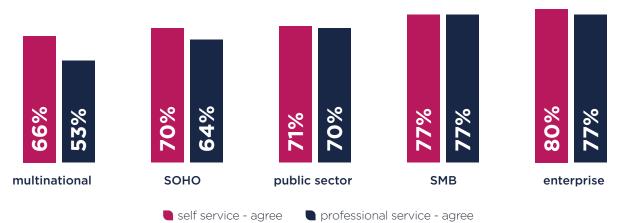
TM Forum, 2022

like physical network buildouts or other large-scale deployments that require time, dependent resources and people to complete.

Arnold Buddenberg, Enterprise Business & IT Digital Transformation Architect, Orange Group, explains that most people understand the AWS or Google Cloud model because it simply configures storage or compute services, and the user agreements are simple and reasonable. This is an example of zero-touch, Buddenberg says, in that "when you create an account, you have cloud storage."

In CSP B2B markets, however, cloud storage could mean building a data center for the customer, which is not a zero-touch exercise. Buddenberg explains that "service complexity determines, more or less, the zerotouch options", because "there is a hierarchy in service provisioning, with levels of zero-touch and levels of account support". So, while nearly every opportunity may have a relevant use case for zerotouch automation, larger and more complex opportunities cannot be fulfilled by zero-touch alone.

Buddenberg also warns that "a zero-touch solution for partner data sharing is not so easy to realize," not only because there are not yet standards for such data exchanges, but also because "CX data is far from harmonized."



CSPs need to improve B2B customer experience services

TM Forum, 2021

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section 3:

service providers' biggest CX technical challenges

More than half our survey participants report that data quality is a major technical challenge as they work to improve CX for B2B markets. But it is not among the most frequently cited challenges in terms of severity (see chart on page 15).

he major technical challenges for our survey respondents, as they work to improve CX for B2B customers, are: systems and process integration (62%); legacy system technical limits (62%); and achieving real-time network, service and customer visibility (60%).

Participants who listed systems and process integration and process and task automation as major technical challenges are almost twice as likely (1.7x) to become more engaged with distributors and resellers within the next several years. They are also twice as likely to cite integration and data sharing with partners as their biggest hurdle to B2B CX improvement.

By contrast, those who listed systems and process integration and process and task automation as medium challenges are three times more likely to say integration and data sharing with partners impacts CX but is not their biggest problem. They are no more or less likely to be more engaged with distributors and resellers within the next several years.

Clearly, creating ecosystem-based products and experiences can exacerbate many of the technical challenges CSPs will face as they work to grow in B2B markets. Based on the data, providers that take on this effort inevitably encounter challenges with systems integration, data quality, process automation and legacy systems.

severity of technical challenges to improve CX for B2B customers

Systems and process integration

Legacy system technical limits

Real-time network, service & customer visibility

Process and task automation

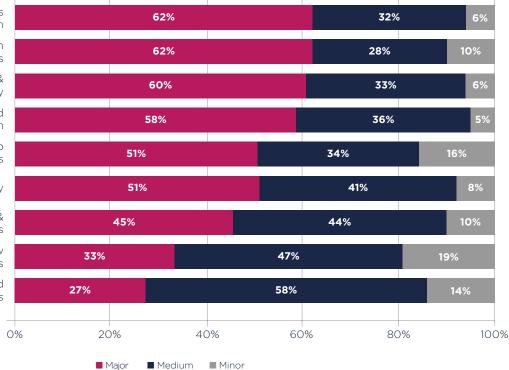
Lack of in-house skills to leverage new tech options

Data quality

Educating business users & changing habits

Lack of access to new tech to solve old problems

Lack of captured process definitions



TM Forum, 2022

Legacy limitations

The debate around whether and how to replace legacy business support systems (BSS) that manage billions in revenue and provide key aspects of a CSP's customer experience strategy continues. The technical limits of legacy systems are a major challenge for 62% of participants in our survey, but it's the slew of related challenges that come with these limits that may pose the greatest threat to CSPs trying to improve their CX in B2B markets, which in turns poses risks to their ambitions.

While legacy systems may often be derided for being too inflexible and costly to carry forward, they continue to play a major role in what customers experience day to day. Every time a business customer adds or changes account data, looks at their usage history, or runs a billing report, the chances are they are interacting with one or more legacy systems, albeit with a web app and an API layer between them.

Despite such approaches, our data suggests legacy system criticisms are warranted. When legacy system limitations are a major challenge for a CSP, many other technical challenges are likely to be major too, such as data quality; process and task automation; lack of captured process definitions; and lack of access to new technology (see graphic on <u>page 16</u>).

On the contrary, when legacy systems present only a medium technical challenge, other issues are more likely to be minor challenges, such as systems and process integration and educating business users. Lack of captured process definitions is more likely to be a medium challenge when legacy systems are a medium challenge.

Similarly, when legacy systems are a minor challenge, data quality, lack of captured process definitions, and lack of access to new technology are much more likely to be minor challenges – and in the case of data quality a hefty 16 times more likely.



Addressing legacy issues

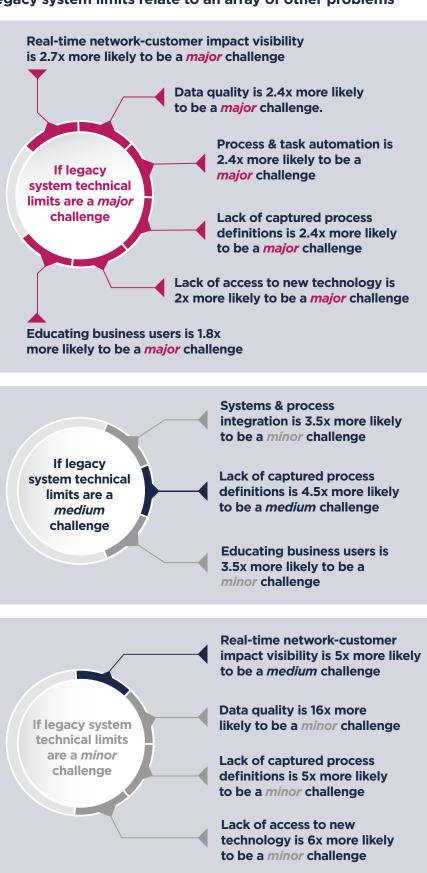
Many CSPs are now asking themselves how a modern BSS should be designed to support B2B services, business models, vertical markets and their associated customer experiences. Legacy systems pose major technical challenges for more than 60% of our participants, and debates continue around how and whether to replace them. Lee Clifford, BSS Enterprise Architect with specialist B2B service provider Vonage, says it depends on the existing BSS scenario as to whether a big bang replacement, greenfield transition or stepwise transformation makes sense.

"If I am working on a single BSS component that has lots of technical debt, then I would be looking at the big bang approach for the delivery of a new application, with a planned migration strategy, including decommissioning within the scope," Clifford explains.

In cases where multiple BSS solutions must be merged, such as in post-M&A environments, and each has its own technical debts and limits, then Clifford sees a potential fit for "a greenfield delivery with a playbook for customer migration that each legacy BSS solution can integrate with".

Clifford adds that while stepwise or incremental delivery is typically his first option, despite the potential for longer delivery timelines, application stability must be factored into the decision. "When you have instability coupled with technical debt, costly project delivery, data issues, or other reasons that are making a solution urgent, then keep it simple, build in isolation, and then migrate customer data and responsibility to your new solution."

So how should the new solution be constructed? Clifford says: "Designing BSS functionality



Legacy system limits relate to an array of other problems

is the old way of working. Why spend lots of money when you can utilize out-of-the-box functionality?" His preference would be to use "a fully [softwareas-a-service] SaaS-based solution" that uses standard data models for applications and a product data-driven architecture. Clifford says a BSS-as-a-service solution can be operated with "a handful of administrators, which reduces our operational costs and provides a quicker time to market".

TM Forum's Open Digital

<u>Framework</u> can help CSPs improve the digital customer experience for the 5G age. It is an interactive, continuously evolving collection of tools, knowledge and standards that give CSPs a blueprint to deliver intelligent operations. And it provides a migration path from legacy IT systems and processes to modular, cloud-native software orchestrated using AI (see <u>page</u> <u>27</u> for more information).

TM Forum has a <u>range of</u> <u>resources</u> designed to help CSPs improve their CX, such as: a Customer Experience Maturity Model to understand how they are progressing; guidelines to ensure they are using the right metrics to measure CX; and a guide to show CSPs how AI can help deliver a 360-degree view of the customer.

In the next section we set out some key steps CSPs can take to improve CX for different B2B market segments.

How do business support systems for B2B and B2C markets differ?

While the fundamental components of business support systems (BSS) for B2B markets and services are not very different from those for B2C, differences specific to supporting customers do stand out. Lee Clifford, Enterprise BSS Architect, Vonage, shares his top five.



Sales channels: Digital, in-store and staff-driven interactions are all in the B2B and B2C mixes, but Clifford notes that larger businesses "prefer to work with a dedicated sales team for a more customized solution". These sales can include demonstrations and proofs-of-concept "that are just not options from any other sales channel", he says.



Customer models: An important question in BSS for B2B is "What does the customer object represent, and do I need a hierarchy?" says Clifford. He says a two-tier customer hierarchy with parent-child relationships for the home office and other locations is typically sufficient. In this model, partner objects represent entities like resellers and distributors. These types of customer model objects and relationships typically are not relevant in BSS for B2C.



Allowance management: Allowances can work very differently in the B2B world, Clifford explains. For example, a parent business might buy a group allowance that all child entities can access, like a data pool for a distributed salesforce. Rollover allowances are not common in B2B, although often a mainstay in B2C CX.

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Billing and invoicing: Businesses tend to have more specific requirements for receiving their bills than consumers. For example, says Clifford, customers not only want a summary or detailed digital document, but they may also want a flat file to analyze with their own systems. Most businesses also require a unique purchase order number on any invoice and may want 30-, 60- or 90-day payment terms with special conditions.



Resellers: In the B2B world, most CSPs work with resellers. They may have BSS solutions of their own and require APIs to manage their accounts, calculate commissions and access usage information, says Clifford. This type of third-party access would not typically be relevant in a B2C setting.



section 4:

make it happen – improving CX for different B2B market segments

Communications service providers (CSPs) face a range of interrelated challenges as they work to improve their customer experience (CX) capabilities to support their B2B revenue growth ambitions. But our survey participants and experts have clear advice on how a CSP might envision customer experiences that suit different B2B market segments, potentially with a mix of both improved zero-touch, self-service functionality and engagement management skills.



Making CX improvement the #1 priority makes a difference

A full 71% of our participants say that improving CX for B2B is their top priority, and 58% of them are CX category leaders in their markets with high net promoter scores (NPS). Of the 28% who say CX is just important, only 21% are category leaders while 34% have a neutrally regarded brand and fair NPS scores. So, while making CX improvement the top priority does not guarantee success, it does increase the likelihood of category leadership and customer satisfaction.



Think of the B2B customer as an ecosystem

For most CSPs, a B2B customer interaction can involve the customer, internal customers the CSP's direct customer serves, and one or more distributors. In fact, 39% of our survey respondents plan to engage more with distributors and resellers in the next few years; 43% will remain equally engaged. "It's a digital ecosystem," says Luqman at Makman Consulting. "It's not about fixing the order-topayment flow, but about knowing the ecosystem and mapping it properly." A B2B CX, as a result, must span the ecosystem, raising the bar for things like partner and process integration, data sharing and real-time customer impact visibility. CSPs can leverage the <u>TM</u> <u>Forum Curate FX</u> tools and asset libraries to accelerate and simplify collaborative ecosystem mapping.



Some legacy systems should be replaced, though carefully

"A stepwise or incremental delivery can have a much longer delivery time, and although this would be my first option I would consider

stability of the application," says Clifford at Vonage. The decision whether to replace legacy systems, says Clifford, is like a car that needs an engine repair: "You would not bother if the floor and sides of the car were all rusted and falling apart," he says. Similarly, an unstable legacy system's replacement can be made urgent by creating a new stack in isolation and migrating "data and responsibility" to the new, stable solution. CSPs can consider this approach today, he says, thanks to a healthy BSS-as-a-service market.



Aim to make many more customers self-sufficient

For platform-based services and those that can be zero-touch automated, most B2B CX needs a major overhaul, says Akram at Robi Axiata. Those experiences tend to be phone-centric, which won't suffice for services like industrial 5G, 5G private networks and network slicing, he says. An overhaul should provide customers with "the full ability to configure the services they require", says Akram, with simple user tools and lifecycle management for sophisticated services like cloud compute and storage, on-demand network slicing, and large-scale IoT and sensor deployments.



Whether zero-touch makes sense depends entirely on the service

Service complexity is the key determinant in whether it makes sense to deploy zero-touch automation. Buddenberg at Orange Group explains that while simple processes like network slice activation make sense for zero-touch automation, more complex opportunities cannot be fulfilled by zero-touch alone. However, zero-touch automation could be part of large-scale solutions delivered and supported with a professional services or engagement management-based customer experience. CSPs can access a wealth of guides, best practices and specifications for zero-touch automation as part of the TM Forum Agile Operations Toolkit. And read our latest report, Autonomous networks: exploring the evolution from level O to level 5 to learn about CSPs' progress to zero-touch automation.

B2B solutions should not burden customers with complexity

For CSPs to maximize value, they must remove most customers' cost and pain related to technical complexity. They could provide a solutions-based engagement model, where the CSP is the primary provider of complete solutions which comprise ecosystem components ranging from IoT devices and connectivity to analytical dashboards. Simplifying this complexity for customers means a CSP must "identify where the problem is, know how to fix it as efficiently as possible, and communicate to everyone who's been impacted", says Scoggins at Accenture.



Remember CSPs, you're the vendor now

CSPs' suppliers will remind them that stepping into a solutionscentric role in B2B markets means becoming a vendor. In a role that may combine connectivity operator, systems integrator and cloud provider, a CSP must shift from dictating its expectations to suppliers to having companies like their suppliers dictate solutions expectations to them. Furthermore, being a vendor means having sales teams and processes that have a major impact on CX and a provider's first impression to the customer. "Salespeople tend to over promise," says Shantal at Makman Consulting, "so if there's no governance and structure, the CX will be hectic."

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5G Connected Enterprise -A Digital World of Possibilities

Introduction

The world of Telcos is now going beyond SIMs or connected points, and is becoming a world of humans, machines, analytics, processes, and systems of engagement. A world where challenges need to be addressed with industry specific solutions. And, to make this transaction towards becoming technology companies, CSPs need to move away from just being focussed on connectivity to start seeing things from not only their customer point of view but also from the viewpoint of their customer's customer. Telcos need to understand the issues faced by their customers.

Telecom operators are expecting to grow their B2B revenues, where more than 50% of CSPs expect to see long term revenue growth from B2B services, while only 10% of CSPs can currently boast of substantial earnings from B2B offerings. The enterprise revenue of leading CSPs such as Verizon and Telefonica range from 30 – 35 % of their total revenues for the year 2018-19. To improve the B2B revenue growth further, operators will have to make the right technological and strategic choices.¹



Rise of the Virtual Telco

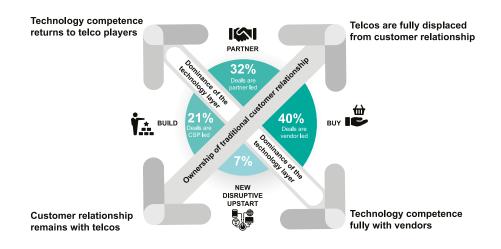
Telcos are evolving their B2B business strategy to get closer to their customer needs by offering more specialised solutions rather than managing customer expectations with generic products. With the pandemic accelerating digital transformation, Telcos are now focussing on enterprise businesses due to its immense potential in generating additional revenues and improving topline growth. With the aim of providing a combination of technology and telecom solutions on a single platform, telecom companies are going beyond their core connectivity offerings, bridging the gap between Telcos and Technology companies that are looking to provide more innovative solutions for monetizing software and enterprise products. Thus, giving rise to the Virtual Telco.

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Connected Enterprises – A Digital world of Endless Possibilities

Partnering with enterprise customers to seize B2B2X opportunities is the next step towards creating the best customer experience and remain competitive and relevant. To seize the B2B2X opportunity, CSPs need to create the right last-mile connectivity with enterprise customers in order to orchestrate an enterprise-wide ecosystem. Joint workflows can be put in place to engage and educate customers, boost operational efficiencies and in turn create a great customer experience.

The pandemic over the last couple of years, has also highlighted the need for all-present, secure and quality connectivity to maintain operations remotely. This has further increased the demand for automation, virtual connectivity, and remote management of enterprise operations. While Telcos shift their focus to their customers' customers needs. the digital evolution seen in telecommunication companies can prove to be a bedrock for other industries to recover from the effects of the pandemic. The Connected Enterprise global

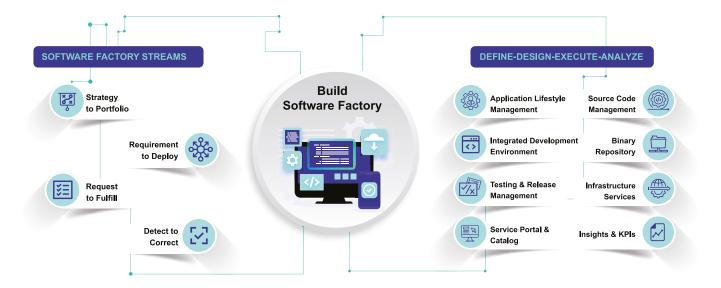


market can see a potential of \$300 billion with an average CAGR of 25% per sector by use of 5G network, emerging technologies and upskilling². Where, advanced wireless technology of 5G and its use cases are the primary opportunity and disruption that industries need for leveraging B2B and B2B2X business models. The use cases range from automated vehicles and augmented reality, to crop awareness, smart cities, automated factories and other adjacent market verticals.

To unlock the 'Digital World of Possibilities' for the 5G Connected Enterprise ecosystems CSPs have to enable long term, medium term and short-term strategies, that rest on the question of whether to **Build, Buy or Partner,** for extending B2B services and monetization prospects of the future.

To Build, Buy or Partner?

As innovation blurs sectoral lines and disrupts old business models, to retain a dominant position, CSPs will need a blended approach to Digital Transformation with skilling and enhancing internal capabilities and cost efficiencies while also forming strategic alliances with vendors and niche partner ecosystems services that enable access to vital external capabilities and reduce time to market for new services. Enterprise customers will benefit by avoiding multi-sourcing strategies to meet their needs. The

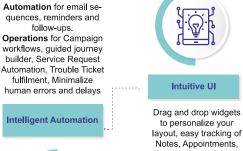


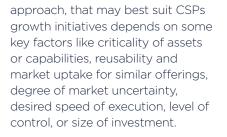
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Elevated Customer Engagements

Organized 360 degree view, real time segmentation, Mood analytics, Personalized recommendations, Optimized search and intuitive menus ensure a meaningful engagement with reduced AHT





I. From Telco to Techco -**CSP led Virtual Telco**

When industry dynamics are well understood, and an asset or capability is central to a welldefined strategy, an acquisition or internal development may serve as the optimal growth path. Despite inherent challenges for Telcos to build their own products including significant market uncertainty, large investment costs, prolonged time to market, there are certain proposed initiatives aligned to a CSP's organization strategy that will help drive innovation within their sphere of competence and leverage existing assets and customer relationships. Here CSPs have a strategic advantage to own their own revenue control points, in providing services such as:

a) ICT or connectivity solutions including leased line, dedicated internet and Multiprotocol Label Switching (MPLS) - all aimed at providing fixed and voice connectivity flexibility between

the different locations/offices of the Enterprise.

Intuitive UI

to personalize your

Events, Tasks, Sched-

ules & Calendars along

with SLA alarms and no-

tifications make DCLM your intuitive assistant in managing work at hand

- b) Unified communications, driven by IP based systems
 - Provision of Machine 2 Machine (M2M) capabilities via SIM cards for fleet management or metering utilities such as water, electricity etc.
 - Other VAS services such as bulk SMS/USSD, toll free voice/SMS services

CSPs can also explore a CSP-Vendor led Build, Operate and Transfer model, where CSPs become the core partner for enterprises to co-create customized products/solutions and manage these products & services post launch. This will ensure cost effectiveness for the enterprises with shorter delivery time for new services, business continuity and low risk. This will be a logical step for the CSPs to transform themselves from being a telco to a techco, with a focus on customer centricity.

II. CSP Secondary Supplier to Enhance Customer Experience

For telcos to buy software products through secondary suppliers presents opportunities as well

Support for multiple languages, multiple calendars, multiple currencies, multitenancy, multiple lavouts. multi-channel and multiple LOBs all allow DCLM to be universally implemented and easy to use

Multi – Enabled platform





Know what to do next with personalized recommendations, insightful reports, triggers and notifications with the help of Big Data and Analytics

as challenges. With CSPs being used to sell connectivity and not solutions or services, it is a better alternative for them to look for external support through suppliers. The capability of telcos to learn through doing can help them make this transition over time. It is better to partner with secondary suppliers as they have the knowledge and understanding to integrate advanced technologies into business processes and data layers to sell the solutions across different industries.

Omnichannel customer experience

Omnichannel experience in telecommunication is the approach of making services seamlessly available for the customers. It not only involves providing good user interfaces across devices, but also integrating various processes across multiple channels and offering solutions that provide a '360 customer view'. The idea is to not let the customer feel disconnected and provide a consistent experience throughout the complex customer journey. By converging business outcomes with the customer user journey, telecom companies need to draw out a short, medium, and long-term technology landscape to leverage digital transformation and establish improved customer relationships.

Business Journey – Enterprise E2E



B2B must work on presenting a seamless, interactive, and holistic approach that provides buyers the opportunity to connect with the business in the way that suits them and Omnichannel customer experience will address all devices, touch-points, and platforms that a customer will use at every step of the journey.

This approach helps B2B segment retain consistency in their messaging and brand—all the while enhancing the customer experience based on that collected insight

Customer value management through customer-centric culture

With ever increasing focus on convergent services, digital CRM (Customer Relationship Management) and self-service for enterprises becomes more important than ever. This ensures that telcos can meet the customer demand through fast, efficient services. CRM makes it possible to solve customer issues, build loyalty, and provides opportunities to sell more services. As the nature of products and services can be complex, transparency is of the utmost importance, meaning enterprises must be made aware of their subscriptions and the charges against each of those subscriptions. This must be created in the CRM application and propagated to all the customer touch points to create a seamless experience.

Creating visibility to Enterprises

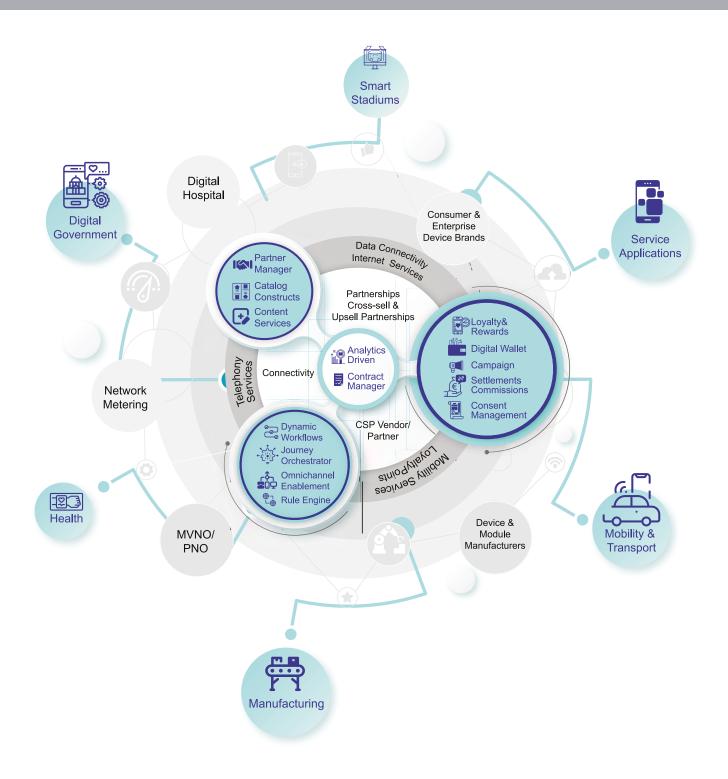
More than 60% of the CSPs have highlighted that providing realtime network, service & customer visibility as their key technical challenge for increasing customer experience. This can be mitigated by providing Enterprise selfservice application, that gives one touch access to Enterprises to get an instant view of the submitted orders, manage their hierarchy, request for new products & services and raise tickets. The enterprise 360 view will also ensure that sales and customer facing teams are always updated with the latest information available and provide better experience

be used to manage operational performance and business scalability, by providing intelligent data points to improve monetization. This automated communication process from different data sources can help telecom industry improve customer experience and monitor security and quality of performance. By implementing solutions through real-time analytics, telecom industry can leverage network events for actionable insights.

Open APIs

Given the logical extension of enterprises to explore 5G use cases for different verticals and personas, integrations are only going to become much more complex in the future. Conformance to TM Forum defined Open APIs can make this transition easier for CSPs and reduce their integration cost, while still enabling new use cases and vertical integrations.

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III. Leveraging niche enterprise services through partnerships

In situations, when there is significant market uncertainty or where CSPs can make a shift from focussing only on their own capacities, instead of adopting a monolithic approach focused only on their own services and capabilities, CSPs can prepare to address enterprise demand in conjunction with an ecosystem of partners. In the latter case, forming an alliance can create strategic optionality by allowing organizations to learn rapidly about a new capability or a new market space without devoting an outsized investment of time or capital. Leaving behind the traditional business models telcos will have to focus on tailored, customer-specific/verticalized solutions, which will be co-created and delivered along with service

Tecnotree Ecosystem Framework for CSPs

	BUILD ECOSYSTEM	BUY ECOSYSTEM	PARTNER ECOSYSTEM
	Connectivity SDN MEC 5G/Cloud Network	CSP Vendors Sis Hyper Scalers Security Data & IOT Specialists Analytics Platforms	Devices Industry specific solutions Application Providers
Differentiated Capability		$\bigcirc \bigcirc \bigcirc \bigcirc$	•
Capital Requirement	$\bigcirc \bigcirc $	000	•
Operationally critical		000	
Competition in the Market for Vendors/Partners	0	000	00000
Speed to Market	0	000	00000
Market Uncertainity	•	000	00000
	Build when solution is important for differentiation, critical to strategy, and aligns with existing capabilities	Buy when solution creates synergies with existing capabilities, the market is understood, and control is paramount	Partner when rapid speed- to- market is required, solution is adjacent to current strategy or capabilities, and market uncertainty is high

providers, partners, and vendors. The key drivers for the ecosystem led approach are 5G, IoT and Edge Computing.

- ICT revenue enabled by 5G will reach \$1.5tn by 2030, but only \$700bn will be accessible to 5G operators
- Total IoT connections in 2023 will be 3.2bn
- 48.5m 5G IoT connections by 2023, which will include 32% surveillance cameras and 39% connected cars
- 5G will add \$8tn to global GDP in 2030

To achieve goals like growing CSP core business, monetizing new products, and generating more revenue, telcos are turning to new ecosystems with interconnected services through vertical industries that can fulfil a variety of consumer needs through vendor enabled integrated technology platforms. This CSP-Vendor enabled network can give CSPs an edge in realizing enterprise revenue growth by allowing digital value chains to converge between digital competitors and co-operators, driving the growth of coopetition models that are vital in empowering digitally connected communities while continuing to redefine the volatile partner landscape not to mention maximizing revenues, increasing operational efficiencies, and keeping costs under control.

Many industry partners are able to offer end to end fulfillment for verticalized solutions, and CSPs can utilize this opportunity by providing their core product, i.e., 5G connectivity along with an array of services through an extended digital framework. CSPs can now become anchors of 5G ecosystems and include partnered applications such as enterprise services with connected capability, 5G cloud, edge computing, (AI) IoT connected facilities, integrating host of connected enterprise apps critical for developing autonomous vehicles, connected healthcare, and creating smart working solutions through end-to-end fulfillment across public and private networks.

As the CSPs focus on B2B segment is increasing and the expected CAGR from B2B is projected to grow from existing 3.5% to 6%, with 87% of CSPs pinning their revenue growth plans based on 5G, it's quintessential for CSP's to explore avenues to increase customer experience, by working closely with their enterprises either being a virtual telco/techco or cocreating with a secondary supplier or through strategic partnerships depending on the size of the enterprises.

²https://home.kpmg/in/en/home/insights/2021/08/connected-enterprise-digital-5g-technologies.html

https://www.tecnotree.com/wp-content/uploads/2021/07/TM-Forum-Enterprise-Infographic.pdf



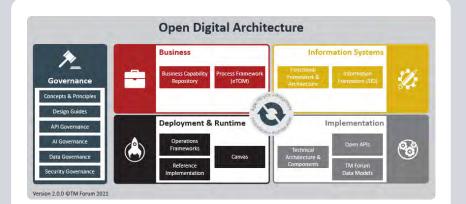
tm forum open digital framework

A blueprint for intelligent operations fit for the 5G era

The <u>TM Forum Open Digital Framework (ODF)</u> provides a migration path from legacy IT systems and processes to modular, cloud native software orchestrated using AI.

The framework comprises tools, code, knowledge and standards (machine-readable assets, not just documents). It is delivering business value for TM Forum members today, accelerating concept-to-cash, eliminating IT & network costs, and enhancing digital customer experience.

Developed by TM Forum member organizations through our <u>Collaboration Community</u> and <u>Catalyst proofs of</u> <u>concept</u>, building on TM Forum's established standards, the Open Digital Framework is being used by leading service providers and software companies worldwide.



The framework comprises TM Forum's <u>Open Digital Architecture</u> (ODA), together with tools, models and data that guide the transformation to ODA from legacy IT systems and operations.

Open Digital Architecture

- Architecture framework, common language and design principles
- Open APIs exposing business services
- Standardized software components
- Reference implementation and test environment

Transformation Tools

- Guides to navigate digital transformation
- Tools to support the migration from legacy architecture to ODA

Maturity Tools & Data

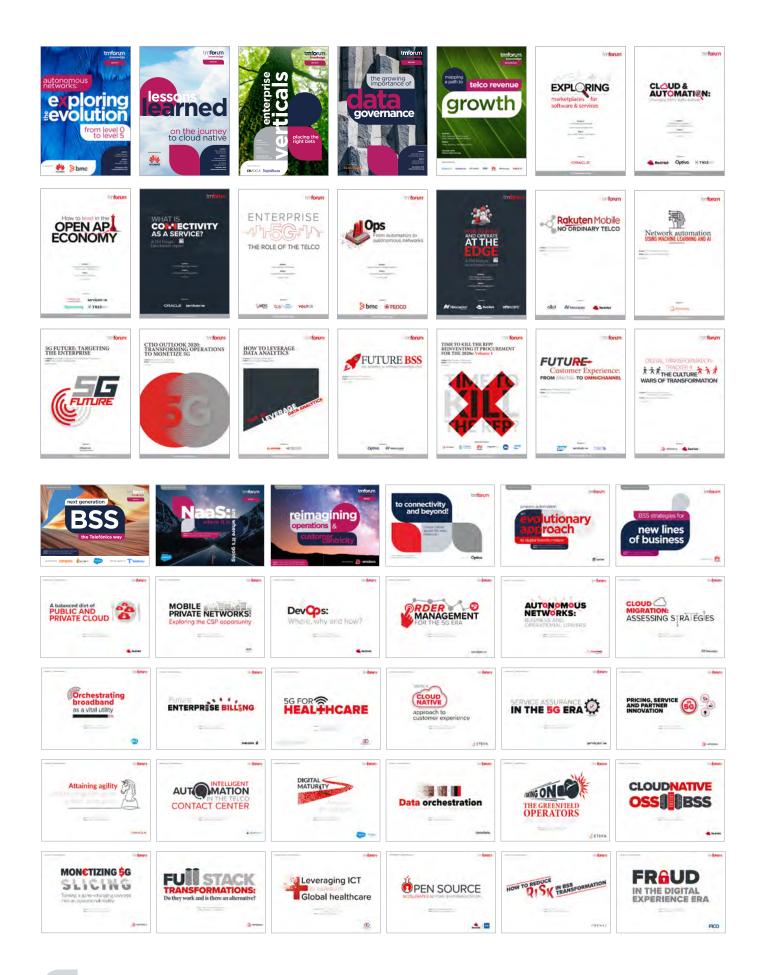
- Maturity models and readiness checks to baseline digital capabilities
- Data for benchmarking progress and training AI

Goals of the Open Digital Framework

The aim is to transform business agility (accelerating concept-to-cash from <u>18</u> <u>months to 18 days</u>), enable simpler IT solutions that are easier and cheaper to deploy, integrate and upgrade, and to establish a standardized software model and market which benefits all parties (service providers, their suppliers and systems integrators).

Learn more about member collaboration

If you would like to learn more about the Open Digital Framework, or how to get involved in the TM Forum Collaboration Community, please contact <u>George Glass</u>.





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for more about how tm forum can help you improve the customer experience, please contact **Aaron Boasman-Patel**