

Declutter adoption of 5G for enterprise digitalization

Whitepaper



The road to 5G

Digital transformation is not just jargon today, but a concept that has become imperative. Enterprise strategies of all leading businesses around the world are being driven by it. The need of the hour is clearly digitalization, and enterprise leaders are onboard this journey. What role does the advent of 5G play in this journey?



100x
speed



1 ms
latency



100x
capacity



10x
rise in
throughput



100x
efficiency



10x
rise in
density

The fifth generation of enterprise network promises a huge leap forward from the current 4G/LTE technology capabilities. 100x speed, latency as low as 1ms, 10x rise in density and throughput, 100x efficiency and capacity, and the choice to opt for either a Public or Private network architecture, 5G promises huge potential and brings with it the fuel to drive innovation and accelerate digital transformation. Global leaders are realizing the potential of 5G and are working towards enabling the shift today. But, like most other transformation scenarios, this one has its own challenges too.

Breaking down the 5G adoption journey

What hurdles are enterprises facing?



While 5G might be hailed as the future of networks packed with an array of benefits, enterprises are hesitant to make the shift. The opportunity does seem promising and has takers at the business level but the challenge arises within the operations team. The main challenge is that existing operations are all on wired legacy systems. The necessity today is to enable a high inertia shift from the existing operations but, without impact. These systems run on slow, wired networks that are very low on flexibility giving no room for migration or testing of next gen bandwidth / latency hungry use cases.

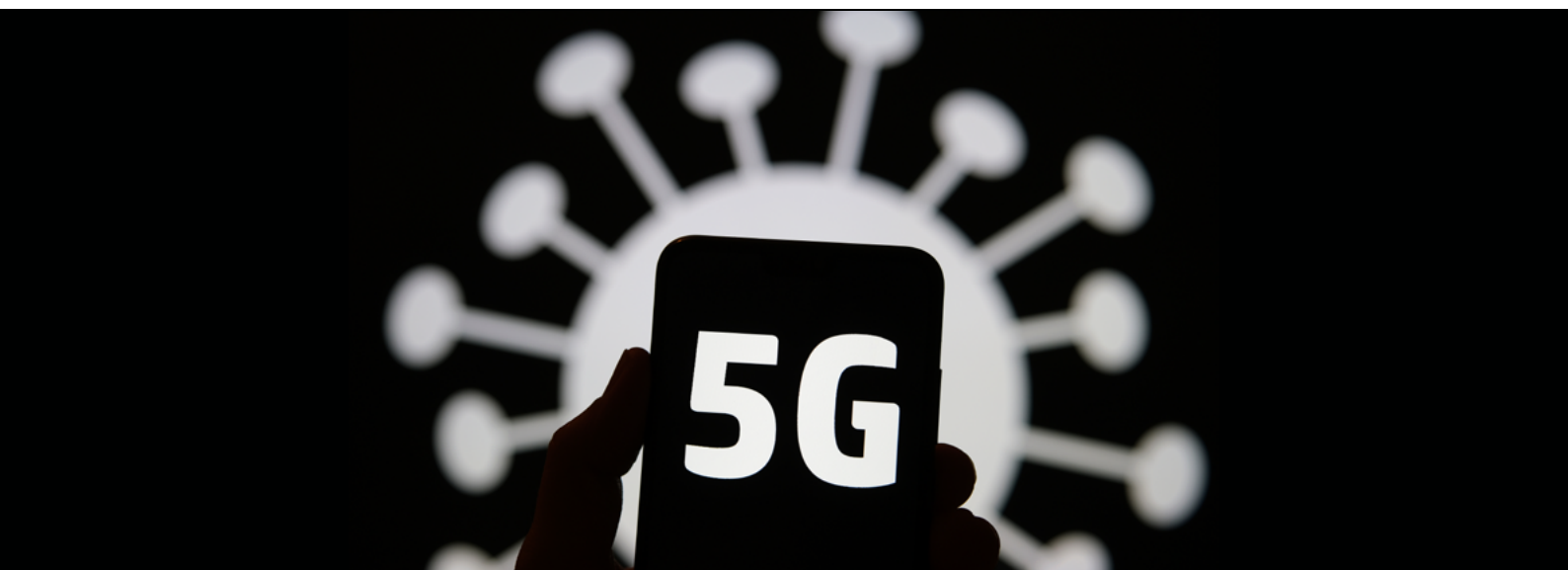
The reason enterprises are working on their digitalization journey is to optimize their operational expenditures. While 5G-powered transformation promises Opex improvements in a couple of years, it requires significant Capex investments. With the world still reeling from the impact of the pandemic, the adoption of 5G has taken a backseat, owing to the current economic situation. Enterprises have been working on continuity and stability mode. With cash flows and businesses still working on braving the storm, capital expenditures are not on the cards for most.

Another factor that is delaying the adoption process is the learning curve itself. Enterprises clearly understand the challenges they are facing. But, what they are in the dark about is the potential of 5G, its solutions, and their ability to help enterprises overcome their challenges. While most are exposed to the IT benefits, Operational Technology (OT) and its benefits are still unknown. Enterprises must walk through the learning cycle to truly understand and believe the benefits.

Is there a need for a change in the ecosystem?

The traditional approach of selling in silos poses a huge challenge in today's world as they have no takers in the market. Ecosystems have been selling products, devices, and networks as separate units. Today, despite massive investments in roadshows and marketing efforts, Communication Service Providers (CSPs) are not seeing any takers for these networks. The need is to make the shift and drive away from silos to a solutions-based approach that will help customers realise value through integration of the various units. Government policies on the enterprise spectrum are another factor that is affecting 5G adoption. While some countries like Germany and Japan have moved forward with their policies, others are still in the process that is time consuming and delaying adoption.

5G's impact in the post COVID-19 world



While the push for digital adoption may have increased multifold during the COVID-19 outbreak, Capex and other investments have been rather conservative and have understandably taken a back seat. The pandemic has adversely affected the economy but has also created an urgency for the development and adoption of 5G, making it a more impactful investment in the long run. According to a IHS Markit report, while global sales enablement may have lowered due to **13.1 trillion dollars** when compared to the pre-COVID-19 estimate, 5G's contribution to sales enablement is expected to be higher in **2035**.

The report also anticipates that 5G investments of just **7 countries - China, United States, Japan, Germany, South Korea, France, and the United Kingdom** will average at around **\$260 billion** annually by **2035**. It also forecasts the impact 5G will have on the global GDP and the impact investments in R&D and infrastructure will have on sustainable GDP growth. The IHS Markit report estimates that investment patterns in 5G will be similar to GDP, with China and USA dominating in 5G Capex and R&D investments, **\$1.7 trillion and \$1.3 trillion**, respectively.

The report forecasts that 5G will contribute almost **0.2%** of the global annual GDP growth rate of **2.7% between 2020-2035**, which would total a contribution of over **2.9 trillion dollars**. Putting things into perspective, 5G's contribution to GDP growth will be equivalent to current GDP one among the largest economies of the world, France.

From all this data, one thing is certain, 5G is slated to have an enormous positive impact on the growth of the global economy and can help accelerate the crawl out of the COVID pit. What enterprises need is a model that will help leverage 5G without demanding huge capital investments and affecting current operations.

Forging a path ahead for all stakeholders

Simplifying the process for everybody involved, Tech Mahindra brings **5G For Enterprise**, the problem solver everybody has been looking for. An end-to-end solution-as-a-service (SolaaS) suite that caters to needs of enterprises, ecosystems, and end customers seamlessly.



*A shift to a consortium approach
to solve the silos issue*

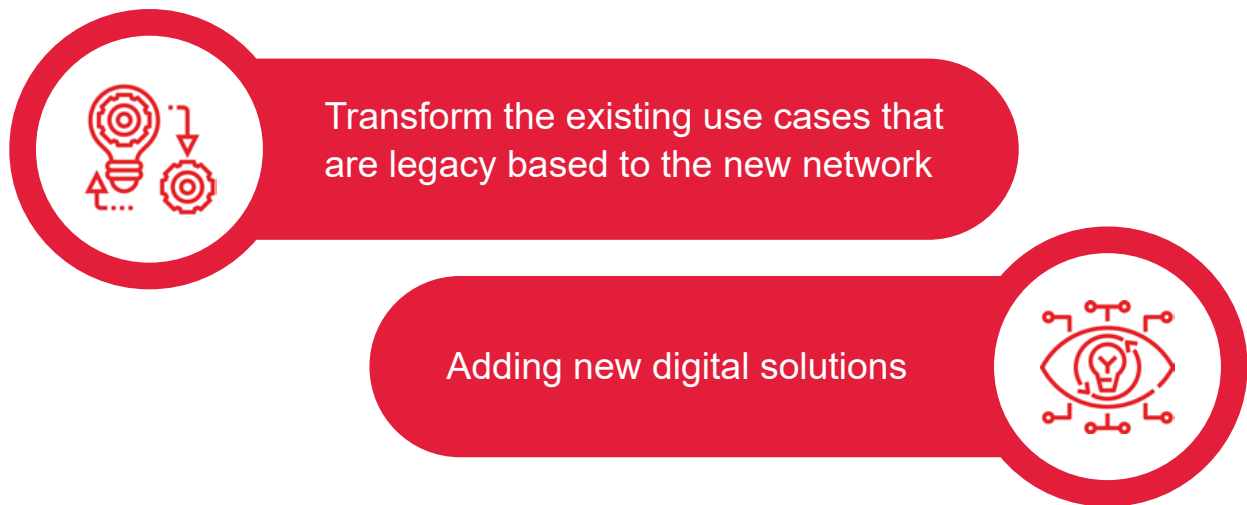


*Switch to a risk-sharing business
model among the ecosystem*



*And a solution-as-a-service
approach for the end customers*

Two key areas of concern are Capex investments and the lack of awareness when it comes to the value add benefits 5G adoption provides. Our consortium approach coupled with the risk-sharing model addresses these areas with a 2 stage process.



This helps enterprises make the shift to high-inertia shift to 5G without impacting operations and since these are co-invested solutions implemented in pilots, investments involved are minimal and benefits are realised before further investments are made.

What value does 5G For Enterprise bring to the table?

Enabling 'Smart' Farming



5G-powered IoT technology will change the way farmers operate and enable them to accelerate productivity by 10x. Sensors, drones, and the ability to process huge volumes of data will help implement precision farming. From sowing to pesticides and fertilizers, drones can perform data-driven actions to maximize productivity and they can perform the tasks in less than half the time. 5G solutions will help boost farmer produce, giving a huge push for socio-economic impact.

Facilitating 'Intelligent' Healthcare



An industry vertical that will benefit immensely from 5G-powered solutions is the healthcare sector. Whether it's faster data processing and transfers within the hospital or enabling healthcare access in remote parts of the world, 5G networks will change the way healthcare is given and received. Whether it's the socio-economic angle or an industry-perspective, 5G will prove to be a game changer.

Powering 'Factories-of-the-Future'



Secure private networks, amplified productivity, and the ability to leverage new-age technologies like AR/VR and automated intelligent vehicles, 5G digital solutions for the manufacturing sector will help build wireless and connected factories. 5G and Edge assisted Digital Factory solutions will enable intelligent, automated supply chains, 10% reduction in overall maintenance costs, and 30% drop in inspection time, thus enhancing productivity by 10-20%.

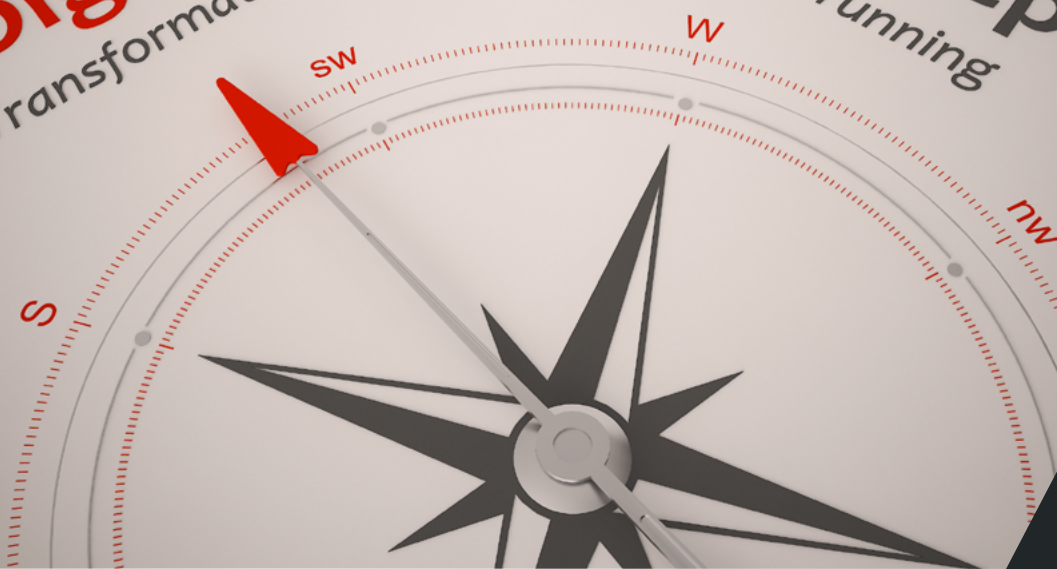
Expediting digital transformation

Tech Mahindra's **5G For Enterprise** is helping enterprises invest in a staggered fashion and we are committed to help customers during this recovery phase through focussed and impactful investments. We are investing on a risk sharing basis into a few pilots with E2E solutions covering cloud, edge, network, applications, and devices over private networks. This will help bring a lot more value at the bottom line and in the balance sheets. A comprehensive solution suite crafted for specific industries and phased transition to the future of enterprise networks, our 5G solutions-as-a-service is enabling accelerated enterprise transformation.

For more details about our offerings, please contact us at 5GForEnterprise@TechMahindra.com

Digital
Transformation

Keep
running



Reference

[IHS Markit- The 5G Economy in a Post-COVID-19 Era](#)



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