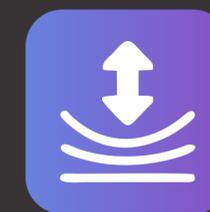


AU-TOMATION TO AI-TOMATION: SCALING UP FOR THE POST-COVID-19 ERA

Communications, Media & Information Services



PURPOSE-DRIVEN



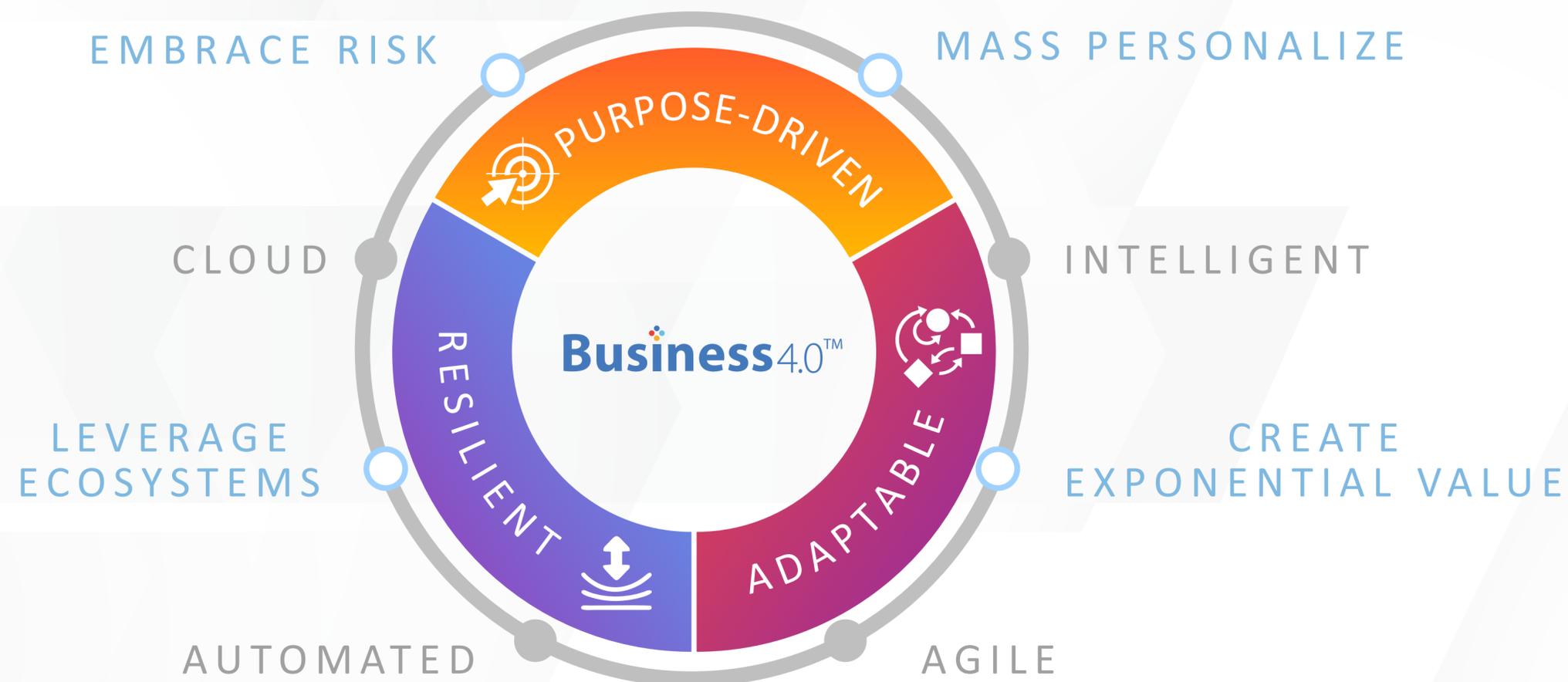
RESILIENT



ADAPTABLE

PURPOSE-DRIVEN, RESILIENT & ADAPTABLE

with Business 4.0™



Executive Summary

The course of COVID-19 continues to be highly fluid and uncertain, affecting the very fundamentals of the world around us. Every industry is grappling with business risk in terms of how their entire ecosystem of customers, employees, partners and suppliers is changing with this the new reality.

What will help Communications Service Providers (CSPs) to serve their customers better is AI-led automation (AI-tomation).

AI-tomation is becoming one of the fundamental pillars of a cognitive telco which can not only deliver operational efficiency and cost savings but also provide a huge potential to unlock significant growth and transformation benefits with the required flexibility to adapt to the changing economic environment.



PURPOSE-DRIVEN



RESILIENT



ADAPTABLE

Automation as a Basic Hygiene

IDC forecasts AI spending to grow from \$37.5 billion in 2019 to \$97.7 billion by 2023, with CAGR of 28.4% over the 2018-2023 forecast period¹. Automation is no more a strategic initiative for an enterprise - it is considered a basic hygiene. Several CSPs have pockets of excellence where they have applied automation with traditional capabilities such as RPA and devops automation. They have also ventured into applying AI for certain use cases such as intelligent assistant for customer service and bots for transaction processing. However, they are yet to fully exploit the potential of AI to drive significant business outcomes.

While there may be different views to look at what AI-based automation is, the key is to assess where the enterprise is in its evolution to adopt various automation techniques. This will enable a much larger value impact for the enterprise.



¹IDC, Worldwide Spending on Artificial Intelligence Systems Will Be Nearly \$98 Billion in 2023, According to New IDC Spending Guide (Sep. 2019), accessed 15 April, 2020, <https://www.idc.com/getdoc.jsp?containerId=prUS45481219>

Maturing to a Cognitive Enterprise

As business models evolve² in this ever-changing hyper connected world, CSPs are increasingly relying more on technology-led business transformations for effective decision making and insights through techniques such as Artificial General Intelligence³ as opposed to narrow AI to be able to perform any intellectual task. The objective is to eventually take the human out of the loop and make it zero-touch.

CSPs need to leverage a machine first approach (giving technology the first right of refusal to sense, understand, decide, and act) with analytics and AI in an adaptive and purpose-centric framework. The automation focus must span across the enterprise viz. service delivery, service operations and business operations – be it marketing, infrastructure, product, sales, IT or network (see Table 1).

Table 1: Automation Focus Areas

Service Delivery	Service Operations	Business Operations
<p>Increase release velocity and throughput leading to improved time-to-market</p>	<p>Activities around maintenance and operations, with an impact on service availability, reliability and infrastructure availability. Includes network availability, fault management, capacity management, configuration management, provisioning and NOC management</p>	<p>Scales beyond regular business process activities to provide a holistic view for improved revenues and end customer experiences</p>

²HBR, Making the Smart Call: Telcos Plot their Digital Future, accessed 15 April, 2020, <https://hbr.org/resources/pdfs/comm/tcs/MakingTheSmartCall.pdf>

³OpenAI Charter (April 2018), accessed 8 May, 2020, <https://openai.com/charter/>

AI-tomation for the New Normal

It is important for CSPs to adopt an enterprise wide AI-based automation journey to deliver effective business outcomes. The maturity towards the cognitive autonomy brings in capabilities that are most sought after today, given the remote enablement because of COVID-19.

For most organizations enabling zero touch is now a top priority across operations – especially in the areas of technology and networks. A leading CSP deployed bots in just three days to successfully activate over

500,000 new orders. This helped the company save over 70 person hours of effort and kept the customer commitment by not missing service activation deadlines.

Market analysts have indicated that post COVID-19, one of the main areas of focus apart from cloud services, will be on automation, robotics and going zero-touch⁴. This will aid them through the economic slowdown and also better manage lock downs in the future.

⁴IDC, New IDC COVID-19 Tech Index Points Towards Declines in IT Spending, But Also Pockets of Opportunity for IT Vendors (15 April, 2020), accessed 15 April, 2020, <https://www.idc.com/getdoc.jsp?containerId=prUS46212720>



The capabilities of the cognitive autonomy go beyond operational efficiencies and cost reduction. The strength of AI-led automation unravels a variety of use cases that fuels growth and transformation for a telco. The post COVID-19 market scenario is not yet clear, however, once the market opens up, enterprise will need to anticipate and respond to macro and micro challenges arising in a changing environment. A cognitive telco would be able to drive:

'What-If' analyses -

- What if I launch this new product, what will the uptake be? Which market segment will it impact?
- What if I fine-tune the campaign, how will the market react? How will it improve the uptake of the new product?
- What if I change the price of a product, what issues will arise? Will it have an impact on incoming calls ?

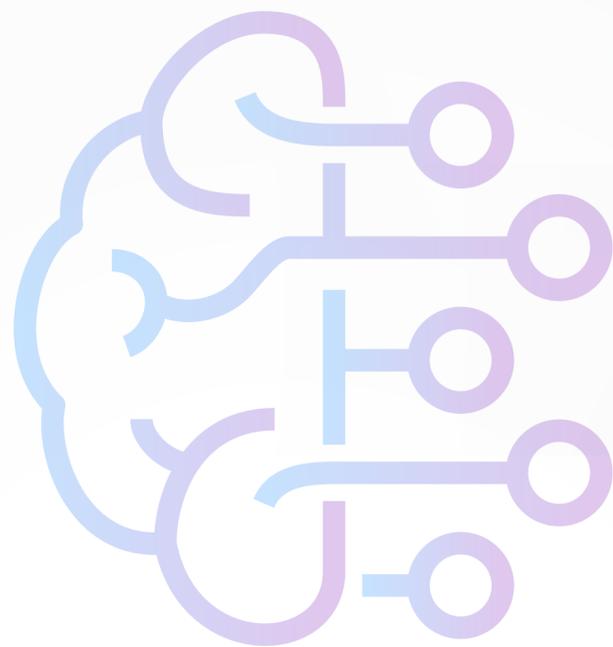
'If-What' analyses -

- Once this COVID-19 scenario gets over, what will be the demand for new products? Which products will be consumed more? What segments and categories of services will see high churn?
- If I must deflect more calls to IVR or self-care, what do I need to do?
- The new iPhone version is a totally different product. Post launch, what do I need to be prepared with - from marketing to sales to operations to call center to assurance?

In the cognitive autonomy, the ability to understand individual entity (be it customer, product, process) will improve. The readiness to enable insights and execute actions aligned to strategy for different enterprise functions like sales, marketing, network and IT will be compelling.

The realization of AI in a cognitive telco elevates the play of automation from the traditional operational efficiencies and cost savings and unlocks benefits in the outcome areas of customer experience, revenue enhancement, pan-enterprise insights to take transformational decisions.





Conclusion

While it is true that automation is considered a basic hygiene, the focus pre-COVID has been primarily on leveraging technology to create incremental value. Most CSPs in their digital transformation journeys, have several automation use cases in siloes and lacked a holistic pan-enterprise strategy. The pandemic has pushed enterprises to embrace technology to focus on remote enablement of the workforce and the execution of tasks and processes within the enterprise. Going forward we see the focus shifting beyond operational and cost efficiencies to building resilience. In the new era, CSPs will need to embrace a more purpose-centric cognitive journey to adapt to changing multi-stakeholder needs. They will need to anticipate and simulate the art of possible which is beyond the human mind's grasp.

About the **Author**



Santhanam Rajan

Industry Advisor,
Communications, Media and Information Services, TCS

Santhu heads the Industry Advisory Group for North America and works with CSPs in the space of digital transformation consulting and advisory services. He has over 24 years of experience in serving CSPs globally and holds a BE Mechanical from Annamalai University.



Kamalaksha Pai

Consulting Partner and Enterprise Architect,
Communications, Media and Information Services, TCS

Kamal heads Enterprise Architecture for Industry Advisory North America and works closely with CSPs to enable 5G architectures and the digital transformation. He has over 19 years of experience in serving CSPs globally and holds a BE Electronics from Mumbai University.



Contact

For more information on TCS' Communications, Media & Technology, please visit <https://www.tcs.com/communication-media-technology>

Email: global.cmi@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.

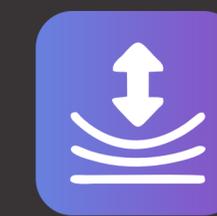
For more information, visit us at www.tcs.com

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



ADAPTABLE