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CREATING AN UNPRECEDENTED IMPACT WITH ITS BUSINESS PLATFORM FOR SMALL BUSINESSES & ONLINE STARTUPS

All of a sudden an instant messaging platform has made a massive transformational impact on the Economy – from startups, to small and medium businesses and from healthcare to social entrepreneurship in our country – this is a Voice&Data exclusive.



WhatsApp
Version 2.12.13

COMMENTS ON THE DRAFT INDIAN TELECOMMUNICATION BILL, 2022 ('THE DRAFT BILL')

28

Broadband India Forum (BIF) – has shared a detailed set of comments on the proposed Draft Indian Telecommunications Bill. Extracts from the very exhaustive comments





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[CONTENTS]

08 COVER STORY

CREATING AN UNPRECEDENTED IMPACT WITH ITS BUSINESS PLATFORM FOR SMALL BUSINESSES & ONLINE STARTUPS

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INTERVIEW

24 “Heyhomie offers homepreneurs a full stack e-commerce platform on Whatsapp” **Anuj Mehta**



44 “PM WANI & Promising Indians – spreading WiFi coverage in the country” **Prerna Singh**



TECHNOLOGY

26 Building the case for Direct to Mobile using 3GPP 5G Broadcast for India’s Broadcast Digitization



TECHNOLOGY

36 A Review of Draft Indian Telecommunication Bill, 2022



42 How to make the Internet truly multilingual

48 Key reasons why broadcasters must integrate OTT into their distribution strategy



52 Realising the dream of Connectivity and Growth for Rural India

56 What dropped at Google Cloud Next and Microsoft Ignite

REGULARS **6** Voicemail **7** Opening Note

[NEXT ISSUE]



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NEXT ISSUE

Telecom Trends for 2023



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**GAJENDRA
UPADHYAY**

[OPENING NOTE]

2022 IS A WATERSHED YEAR FOR TELECOM POLICY AND REFORMS

The year 2022, will be a watershed year for India's Telecom from the Policy perspective.

For one, it marked a full year of reforms in the sector (kickstarted by our Hon. Minister for Communications Shri Ashwini Vaishnaw). These reforms have had a catalytic impact on the decades old processes and systems that were being followed.

Be it the enormous decision to redefine adjusted gross revenue (AGR) that eased the financial burden on operators, or streamlining of the licensing process by moving them all online to the saral sanchar portal (<https://saralsanchar.gov.in>) for applications, registrations, renewals and payments of fees, the cumulative impact has been extremely positive.

Some of the reforms are not visible to the daily users, but it has had a compounding impact on operations. Many of the processes for applying for licenses and spectrum were managed manually earlier. This involved a lot of paperwork, long waits, endless follow ups, poor visibility on the next steps and required dedicated resources to keep track.

By moving them online the Government has made all of these more transparent, eased the tracking of applications and their status and freed up precious resources for telecom operators. This is a saving and also enabled them to focus on more important work.

Voice&Data covered this in detail in our September 2022 cover story (<https://bit.ly/3GbdWCQ>).

The year also saw some landmark new draft legislations and bills that will have a very long term impact. Most of our Telecom laws and rules are over a hundred years old. For example, the Telegraph Act dates back to 1885 and the Wireless Act is from 1933. There have been incremental additions and changes but broadly the framework and terminology has remained archaic.

The Draft Telecommunications Bill 2022 aims to reform this and put in place a completely new framework, covering the latest in technology, platforms, applications and services – including the licensing requirements for delivery of services over high speed wireless networks like 5G and beyond.

This has opened up a debate from competing sections in the sector on what can or cannot be included under the licensing framework. For example, telecom networks, mobile services and Internet Service Providers (ISPs) have been subject to licensing norms for long. Certain fixed financial and compliance requirements are part of their licenses.

On the other hand, streaming of content over networks, be it movies, sportscasts or web series over the Internet or even services like instant messaging and chat on the Internet (which offer voice and video communications to be shared between parties) have remained outside any licensing requirements.

The new Bill aims to bring all of these services (referred to as over the top or OTT) under some kind of a regulatory and licensing regime. This has obviously opened up a big debate between the incumbent operators who believe that OTT services are impacting their revenues by providing similar kinds of services (entertainment being a rasion d'être of data consumption by users).

On the other had the OTT platforms like Meta, Netflix, Amazon and WhatsApp are of a different view. They believe these services are not of the same type or technology. They contend that the technology stack in use is not the same as that for network services and therefore the regulatory norms for OTT should not be on the same lines.

In this issue we cover some of the exhaustive submissions on these very intense and important topics by the industry. The final outcome will shape the future of Telecommunications and mobile services in our country over the next decade.

Convergence, which has long been a topic of discussion, has all of a sudden dawned upon us, without many of us noticing it. Text, voice, video, data, audio and the Internet of Things (IOT) are all communications over the Internet – and connectivity on wireline, wireless and satellite brings these services to end devices seamlessly.

With 5G networks already in operation, we have now covered nearly 30 years since the first 2G mobile networks went live in 1994.

And the year 2022 – globally not just in India – will remain a watershed year for enabling some truly impactful capabilities for users of mobile phones.

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WHATSAPP IS TRANSFORMING INDIA'S ONLINE COMMERCE – POWERING SMALL & MEDIUM BUSINESSES (SMB), PROVIDING SCALE TO STARTUPS AND CREATING **HUGE SOCIAL IMPACT**



All of a sudden an instant messaging platform has transformed into something much larger with a massive transformational impact on the Economy – from startups, to small and medium businesses and from healthcare to social entrepreneurship in our country – this is a Voice&Data exclusive.

BY GAJENDRA UPADHYAY

Most Indians would be familiar with “Boondi ka laddoo” – a sweet delicacy that is a popular snack – but few would know of Boondi as an artificial intelligence (AI) driven Chatbot running on WhatsApp Business Messenger that helped leapfrog the Bombay Sweet Shop – which is the new age “mithai” shop offering unique, designer and gourmet twists to Indian sweets / mithai.

Developed by Haptik – a startup that was acquired by Reliance Jio Platforms – the Boondi chatbot was Bombay Sweet Shop’s first point of contact for all its customer communications. Boondi handled queries, answered questions on its products, shared order delivery details with customers (who asked for it), and even directed customers to the sweet shop’s website.

Boondi was the first contact for customers to the brand over WhatsApp. It created a great experience for customers.

“Over the last year and a half Boondi has helped us close 40% of queries that come in,” says Yash Bhanage, Co-Founder of Bombay Sweet House - a twist on the traditional Indian sweet shop. “Bombay Sweet shop is

our re-imagined Indian sweet store where we take your traditional Indian sweets and recreate them in our own Willy Wonka way,” he says.

House of Mangalam is a popular brand that sells camphor-based products for the traditional Indian pooja. It also sells a range of other products like air fresheners. In March 2021 the group decided to use the direct to consumer (D2C) route by taking orders on its website. It started off well, but ran into communications challenges when customers were not able to instantly resolve doubts or raise queries. WhatsApp for Business – apart from the potential reach of almost 500 million users allowed House of Mangalam to engage with its customers in real time. It was able to inform them of their order status, brought back nearly lost customers who had abandoned their shopping cart, sent out promotional campaigns, offered discount coupons and shared their catalogues.

These are not just a few stray cases of startups or existing brands leveraging India’s most well known and preferred instant messaging (IM) platform, WhatsApp. The country’s largest and most well known corporate house, Reliance Industries has seen its value.



“We are not a Super App like WeChat. We are evolving like a Tech platform, where businesses can build in their experiences and embed unique features as they want.”

– Ravi Garg, Director Business Messaging India, WhatsApp @Meta

[COVER STORY]

WHATSAPP

In November 2021, Mark Zuckerberg made an announcement on his official Facebook page calling it “the first ever end-to-end shopping experience on

WhatsApp.” This marked the launch of JioMart on the WhatsApp Business Messaging platform – which has gone on to create a paradigm change in the way Indian small businesses are launching, expanding, reaching out to customers and creating new business opportunities online. E-commerce aided by WhatsApp has helped them multiply their revenues and increase visibility.

Haptik WhatsApp business



Haptik is a WhatsApp business solution provider (there over 20 such partners that WhatsApp works closely with). “Haptik started early in this space,” says Aakrit Vaish, Founder speaking to V&D.

The sheer momentum and size of the opportunity that Haptik was addressing appealed to the Jio Platforms team. “Haptik has specialised in creating chat bots on WhatsApp – that help enterprises achieve their customer interactions in an automated and seamless fashion,” Aakrit explains.

Jio Platforms picked up an 87% stake in Haptik as it fit into its enterprise offerings and business expansion plans.

Haptik has created a separate entity called Interakt focused only on small businesses. In the process, it has helped countless small startups scale up – one of the most spectacular ones being Bombay Sweet Shop.

JioMart itself is a great example. Notwithstanding the massive reach of the parent Jio and its network or the gigantic financial might of the Reliance Group, JioMart found WhatsApp to be an ideal enabler for scaling its direct to consumer business. Meta announced the details of this on its website:

“JioMart on WhatsApp will enable people in India, including those who have never shopped online before, to seamlessly browse through JioMart’s entire grocery catalog. Shoppers can add items to their cart and make a payment to complete the purchase – all without leaving the WhatsApp chat.”

JioMart leveraged the enormous reach of WhatsApp to create a simple and convenient way for online shopping. It helped them reach out to tens of millions of potential customers almost instantly on a customized chatbot built

How JIO HAPTIK helped Bombay Sweet Shop scale up



Case Study

The impact of using Interakt for WhatsApp marketing

100 Orders placed in a single day

1.56L Revenue generated in a day

40% of customer queries are handled by Boondi, the bot.

4X increase in revenue since onboarding with Interakt

The Conversational Commerce Journey



by the Jio Platform owned Haptik. Haptik had spotted the WhatsApp Business messaging trend early and started building applications on the WhatsApp APIs. It customized chat solutions for small businesses that made it easy for users to discover products on JioMart, add them to their shopping carts and pay for them in just a few clicks.

JioMart has seen a 68% repeat purchase rate ever since it started using the WhatsApp channel. This is much higher than its online stores. In October of 2022, the WhatsApp bot clocked 2 lakh orders for JioMart. On an average JioMart today is fulfilling 1500+ daily orders. There is a 15% conversion rate of users / potential customers that access the bot and end up buying products from its store. This conversion is much above industry averages of below 5% on most other channels.

Customers are happy too. They can confirm delivery information and pay – using a number of options, including the WhatsApp payment gateway itself. Or any of the other payment options which Haptik has integrated with its chatbot.

“Payment is just one of the enablers on the platform,” says Ravi Garg, Director Business Messaging India, WhatsApp@Meta. In an exclusive chat with Voice&Data he shared some interesting highlights on the explosion of business use cases and some of the key drivers of WhatsApp for Business. “Payment platforms including

UPI is a long term strategy and investment, as it is a part of every business process,” he told us.

In fact, payment was one of the key factors that allowed HeyHomie, a Gurgaon based Startup that helps home entrepreneurs find new ways to sell, to launch its platform quickly. “We are amongst the first few platforms to offer a native WhatsApp Pay (UPI) feature to our customers,” says Anuj Mehta, founder of Hey Homie.

“Customers of HeyHomie (who are mostly home entrepreneurs selling through the platform) can now have the ease of collecting payments (from their respective customers) within the WhatsApp itself, without moving their customers to an external browser.” This is a huge value in not allowing customers to abandon a transaction. “For all Non UPI Payments, we’re using other payment gateways,” he explained.

WhatsApp has an estimated 490 million users in India today. It is the IM platform’s largest user base in the world. And this is a hidden goldmine as it allows enormous reach. Globally too WhatsApp (with nearly 2 billion+ users) is the largest instant messaging platform followed by China’s WeChat (owned by Tencent) with approximately 1.3+billion users.

WeChat is similar to WhatsApp in many ways as they offer text messaging, voice messaging, sending multimedia files, online payments, and a host of add on

WhatsApp took less than 13 years from its origin in 2009, to reach 2 billion users globally – with 25% of them in India alone.

Quick Stats on WhatsApp user growth

2010	10 million
2012	100 million
2016	1 billion
2017	1.5 billion
2021	2 billion

Meta commissioned Kantar survey results - April 2022

- 86% of online adults in India message with a business at least once a week
- 83% of online adults surveyed in India agree that messaging is a quick and easy way to communicate with a business
- 70% of online adults say they would prefer to make a purchase via messaging than going to a store

services like booking a taxi, online stores and merchants and much more. But it caters mostly to the China market.

The WhatsApp Business Messaging solution aims to be a little different in approach. “We are not a Super App like WeChat,” says Ravi. “We are evolving like a Tech platform, where businesses can build in their experiences and embed unique features as they want,” he explains. Slowly the platform is transforming into a simple to use technology of choice for businesses. Ravi expands on how this is happening. “At WhatsApp, we are committed to being India’s digital ally in its transformational journey of becoming a digitally inclusive society. People start their day and end their day on the WhatsApp platform. While most use WhatsApp’s end-to-end encrypted messaging service to stay connected securely to friends and family, they have now discovered the great value of using the channel to connect to businesses and access products and services on WhatsApp,” he says.

Momentum has built up slowly over the last one year creating a snowball effect more recently. More and more small and medium enterprises (SME), startups and even established brick and mortar businesses are turning to WhatsApp – leveraging its easy interface to connect to their customers.

In a survey this year, over 70% of Indian online adults said they preferred messaging over email or calls. (Source : Kantar online survey commissioned by Meta - April 2022).

Customers do not like to keep “waiting for a customer executive” when they need to talk about a product or

service. Such calls have created plenty of dissonance; the customer wants an instant response. That option is now available with businesses responding instantly on WhatsApp.

WhatsApp Business Messaging has tapped into this big opportunity. Helping improve responsiveness of small businesses, entrepreneurs and established brands. Their customer service responses have improved significantly due to the “instant” nature of the platform. And this has also created a whole new ancillary industry – of WhatsApp developers and partners who build customised solutions. Haptik falls into this category.

Haptik picked up the signs of businesses moving to WhatsApp at an early stage and specialised in creating chat bots on WhatsApp. The objective was to help enterprises achieve better response times to their customer interactions. It was automated and seamless.

Jio Platforms saw the value in this and picked up an 87% stake in Haptik. The framework was a perfect fit for Jio’s own enterprise and SME offerings – on its high speed 4G and 5G data networks. Enabling digital businesses (be it finance, trade or health) is one of the fundamental building blocks of Jio’s future.

WhatsApp is making this possible. “We see WhatsApp as the future of how people and businesses will communicate and get business done,” says Ravi. With decades of experience in the IT, Telecom and Value Added Services (VAS) space behind him, Ravi has seen the snowball effect before. The mobile telephony revolution had a slow start in the early 2000s – with 2G and some 3G data networks. But it rapidly scaled into a billion users in the next decade as mobile data became cheaper and network effects set in offering enhanced value to users.



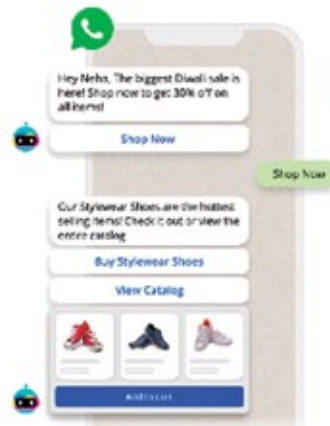
3 Pillars of Conversational Commerce



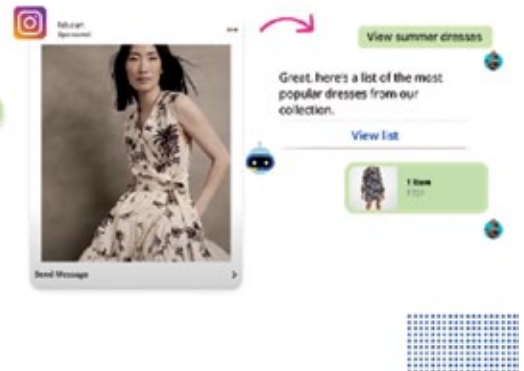
Commerce Chatbot



Proactive Messaging



Click to WhatsApp



Applications like WhatsApp which fall in the category of Over the Top (OTT) solutions have helped accelerate the momentum. Ravi's experience with Microsoft in building up the SME and Cloud businesses and driving the adoption of mobile gaming during his earlier stint at Nazara Technologies, gives him a very deep understanding of the Indian digital eco-system. This will be a huge benefit for WhatsApp to scale its Business Messaging solutions. Understanding consumer behaviour for adoption of new applications and technology by Indian consumers holds the key.

WhatsApp Business Messaging is proving to be a game changer and transformative for online commerce. Being able to engage with millions of other WhatsApp users, starting rich conversations at scale and delighting customers with a seamless experience are all factors that are contributing to its adoption.

Retailers, airlines, banks, fishermen, hardware traders, architects, tailors, self-help and women empowerment groups and dozens of others have already made a switch. They are seeing gains like happier customers, more efficiency from their customer service agents and improvements in marketing and sales. Unlocking new and faster ways to engage with their customers to close the cycle has become easier.

For example, proactively sending a boarding pass or sending a reminder to a customer or informing them that their requested item is back in stock, sending instant

information on flash sales, deals, new launches, catalogues or menus are all easier, faster and easy to implement.

For the user, it is a no-brainer. The WhatsApp's user interface, its multilingual support of nearly 12 Indian languages, the trust and reliability of the platform (as familiarity has created) has made this a democratized digital access.

"Its security and simplicity takes away user-inhibition towards technology for 'new-to-digital' users and is making WhatsApp the first digital gateway for millions of users," Ravi says.

HOW TO SET UP THE WHATSAPP BUSINESS ACCOUNT

Download the WhatsApp Business App from the Google Play Store or the App Store (Apple device) for free. Create an account on it to get started.

The WhatsApp Business App is ideal for a small business. However, for a growing SMB looking to expand its operations, the advanced version of WhatsApp Business called the WhatsApp Business API is a preferred solution.

KEY DIFFERENCE

The WhatsApp Business App supports only one user whereas the WhatsApp Business API enables multiple users to log in from different devices and work together seamlessly.

The Revenue Opportunity for WhatsApp in Business Messaging

The first 1,000 conversations each month are free so businesses can start to build experiences their customers will find valuable before they begin to pay.

Thereafter there are charges for conversational messages. These are classified under User Generated and Business Generated conversations.

User-initiated: A conversation that initiates in response to a user message. Whenever a business replies to a user within the 24 hour customer service window, that message will be associated with a user-initiated conversation. Businesses can send free-form messages within this 24 hour customer service window.

Business-initiated: A conversation that initiates from a business sending a user a message outside the 24 hour customer service window. Messages that initiate a business-initiated conversation will require a message template.

Both these conversations are for a 24 hours window. The user generated conversation is charged at Rs 0.30 / conversation and the business generated message is at Rs 0.50 per conversation for a duration of 24 hours. If a new conversation thread is started after 24 hours, then the charges are repeated.

According to some approximations of those who have used the WhatsApp APIs to reach out to their prospective customers, it takes an average of about 3 conversations to make a sale. So an average customer would consume 3 conversations (over a few days). This means there is a cost of about Rs 1.20 that is incurred towards engaging a customer on WhatsApp to close a sale – this is immensely valuable and economical. This cost considers an average of 40p / conversation into account. A combination average between user and business generated conversation.

Theoretically – with 15 million small business users in India, if even 30% of them generate 1 conversation a day (lasting over 24 hours) that translates to approximately Rs 45 Lakhs in daily revenues. The maths quickly adds up as the number of users and conversations go up. If the user base is 50% and they generate 1 conversation a day – that is Rs 75 lakhs daily. There could be instances of a user generating more than 1 conversation with different businesses in a day.

What does it cost an average retail business (like Bombay Sweet Shop) to acquire a customer.

Cost of Acquisition differs across categories but typically retail customers cost upto Rs 400 in acquisition. And the average basket value of purchase is between Rs. 1100 - 1300.

Jio Haptik, has seen a 15% conversion metric for customers like JioMart. This means for every 100 customers, 15 of them end up placing an order.

Financial Services is another success story. In the case of Upstox Haptik has onboarded 220K users against 3.5 Million Conversations.

Thus, WhatsApp has a clear monetisation value path and a revenue driver. There are many other possible avenues like running ads/banners or cross references that could further multiply these commercials for WhatsApp.

WhatsApp Business App VS WhatsApp Business Platform

	WhatsApp Business App	WhatsApp Business Platform (API)
AUDIENCE	Small business owners like a bakery or hair salon.	<ul style="list-style-type: none"> Medium and larger businesses like a bank or airline that need a more powerful solution to connect with their customers at scale. Developers that want to build directly on top of WhatsApp to further customize their experience.
FEATURES	<ul style="list-style-type: none"> Business Profile to let customers know basic information about the business. Automated Features like quick replies and away messages to reply and easily answer common questions and let customers know when the business is available. Labels to organize chats and categorize customer conversations. Commerce Features - Businesses can create catalogs to showcase the goods and services they offer so people can easily find something they want to buy, add it to a cart and send their order. 	<ul style="list-style-type: none"> Business Profile to let customers know basic information about the business. Proactive Notifications - Business-initiated template messages to deliver important, timely updates that people opt in to receive - like a boarding pass, delivery confirmation or track-and-ship alert. Productivity Features - List messages present a menu of up to 15 options so customers don't need to type out a response. Reply buttons allow people to quickly make a selection from up to three columns with just a quick tap. Commerce Features - Businesses can showcase and share their products and services up to 20 items as a message directly within the chat.
COST	The WhatsApp Business app is free to download and free to use.	Businesses are charged for the conversations they have with their customers.
HOW TO GET STARTED		Businesses can sign up directly or work with one of our business solution providers. Learn more on how to get started here.

For the Business API, there is need to partner with a WhatsApp Business API service provider – a list of which is available on the WhatsApp site.

WHATSAPP BUSINESS API

Lets businesses offer great customer service through personalized messages, templates, automated responses and bulk notifications.

- Gives a unified platform for sending important alerts and notifications to clients.
- Helps businesses form strong relationships with customers building trust and loyalty which is the holy grail.
- Allows management of large volumes of incoming messages
- Gives a better understanding of customer's needs and expectations by keeping a record of past conversations, purchases and other customer traits.

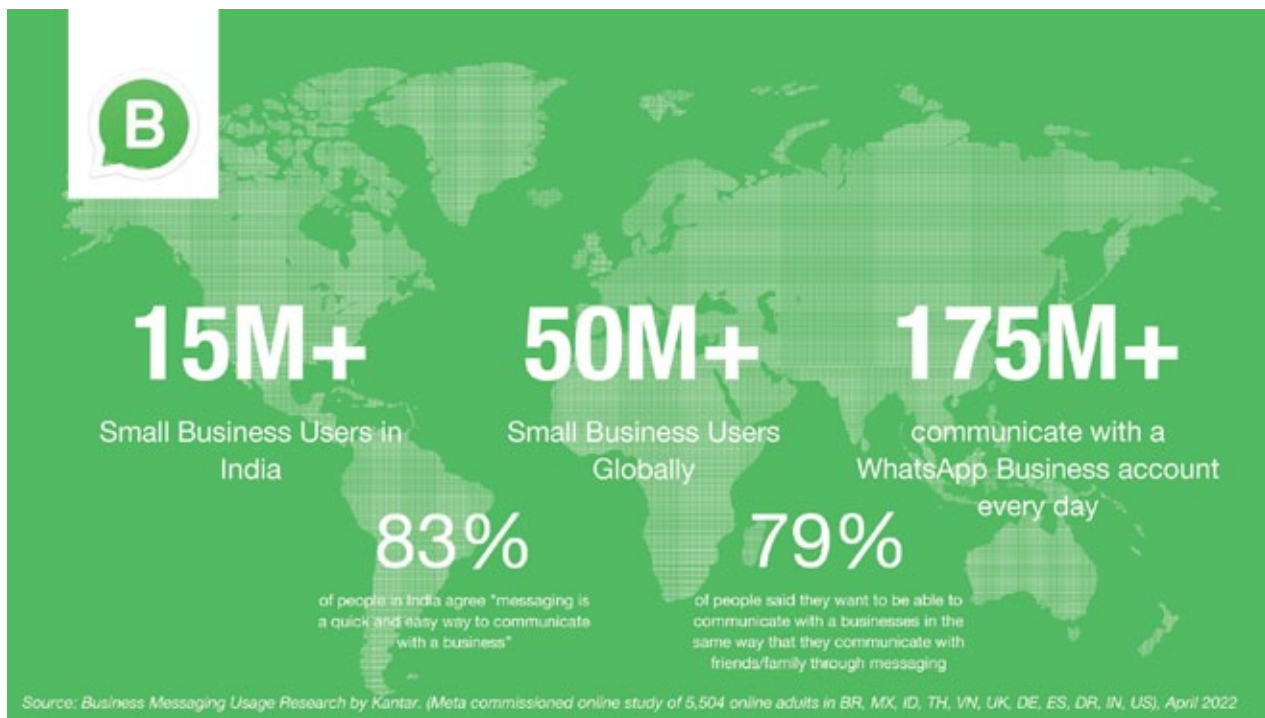
- Helps SMB reach out to customers, obtain direct feedback.
- Helps with responsive chat widgets which when implemented will allow customers to connect easily.

A WhatsApp Chat button can also be added to Facebook Ads and Posts to direct users to WhatsApp conversations.

BUSINESS OPPORTUNITY

"We think with 'business messaging' WhatsApp will play a significant role in the next phase of the country's digital transformation," Ravi says about its future growth possibilities. Messaging is possible across the spectrum of WhatsApp's business offerings (WhatsApp Business App, WhatsApp Business Platform (API), WhatsApp Cloud API). This is a big step in digitizing and empowering Small Businesses.

More than 15 million entrepreneurs in India rely on the WhatsApp Business App today. Which is the manual, free



to use app for small businesses that helps them connect with their customers and service them better. This reliance on WhatsApp is growing. For millions of businesses in India now WhatsApp is their main digital presence – it’s their website, their store counter, their payment gateway

and marketing machine. Empowerment never got easier or quicker.

WhatsApp partnership with SEWA (self employed women’s association) is an example of how this

The manual WhatsApp Business App is being leveraged by SMBs across the length and breadth of the country. A few examples

- **Jeevan Handicrafts:** Deepak from Nagaur, Rajasthan started Jeevan Handicrafts to empower women and to eliminate unemployment in his village by making traditional Indian dolls - kathputlis. During the first phase of lockdown, he started using the WhatsApp Business App allowing him to expand his business across India and effectively, making the business less dependent on tourism, wholesalers or retailers. The versatility of the platform allows brands to build immersive custom experiences that consumers find valuable, thus helping brands increase their engagement with customers.
- **Gullu’s Kitchen:** Sagar, a foodie at heart, started Gullu’s food outlet in August 2019, but his business nosedived during the lockdown. He then digitized his business using the WhatsApp Business App and that helped him double his sales.

The WhatsApp Business platform - WhatsApp’s enterprise API solution on the other hand, is being leveraged by governments and organizations across sectors, in the country to scale digital and financial inclusion. WhatsApp’s API offering is growing incredibly quickly with hundreds of thousands of businesses helping people with everything from customer support to ordering groceries to accessing educational materials to booking their COVID Vaccines.

The WhatsApp Business App is “Democratizing digital access in India” – enabling small businesses to build an online presence to connect with customers beyond physical/ geographic boundaries – thereby driving up sales, revenues and very often eliminating the need for small businesses to even build a website!

empowerment is working. SEWA wanted to enable and empower its women entrepreneurs at the grassroots level. During the pandemic WhatsApp enabled women farmers of Kashmir to connect with customers in Gujarat to sell thousands of kilos of apples and cherries creating an alternate ‘supply-chain’ on WhatsApp.

MannDeshi, another women empowerment non-profit body leveraged WhatsApp for a remarkable turnaround. Small enterprises that ran tailoring units for school uniforms were left with loads of fabric but no food on the table for their families during the pandemic! It was an extraordinary circumstance and an opportunity. They decided to use the fabric to make masks instead. This was a masterstroke, though unclear at the time. They created and circulated videos within their community members of the mask-making skill, using WhatsApp. Soon there were several, small groups of women, operating and coordinating the mask making activity within their villages. Together, these women made 10 lakh masks

within a few months and sold them in urban cities.

In Kerala too, fishermen have created communities (of their most prospective customers) to share details of fresh catch and pricing to book orders on the WhatsApp Business App, even before reaching the shores with the fish.

These are not isolated examples of innovation that a simple messaging technology platform has created. Lives and livelihoods are dependent on it.

WHATSAPP API EXAMPLES OF INNOVATIVE USE-CASES THAT REDEFINE CONSUMER CONVENIENCE IN THE COUNTRY, INCLUDE

- **JioMart – an India first initiative:** The First End-to-End shopping experience on WhatsApp with JioMart in India, wherein we enabled an end-to-end shopping experience with secure payment options, right within a WhatsApp chat thread.

JoMart
Commerce on WhatsApp

JioMart's WhatsApp Bot, created by Haptik, allows users to complete their grocery shopping on WhatsApp.

JioMart wanted to enable a simple and convenient way of online shopping for millions of Indian citizens.

JioMart's WhatsApp Chatbot makes it easy for users to discover the products they want and add them to their cart with only a few clicks. Users can confirm delivery information and pay using any payment method, all in just three clicks.

Mark Zuckerberg made the announcement on his official Facebook page calling it the "first-ever end-to-end shopping experience on WhatsApp".

Since its launch in November 2021, JioMart has seen a 68% repeat purchase rate through the WhatsApp channel.

1500
Average Daily Orders

68%
Repeat Rate

15%
Conversion Rate

★ In October alone, the WhatsApp bot clocked 2 Lakh Orders

Isha Ambani, Executive Director of Reliance Retail Ventures

[COVER STORY]

WHATSAPP

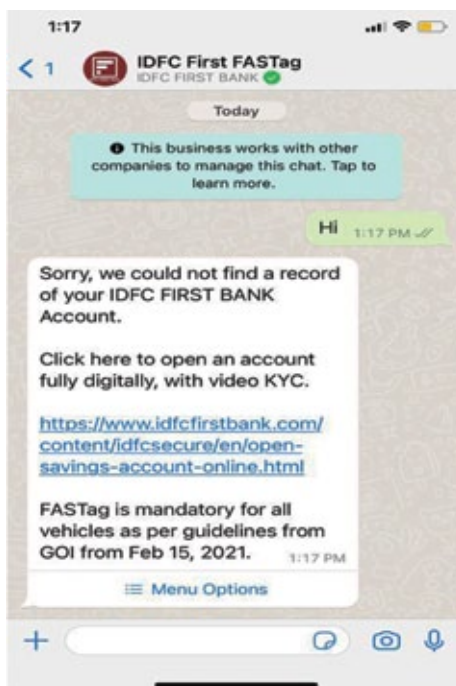
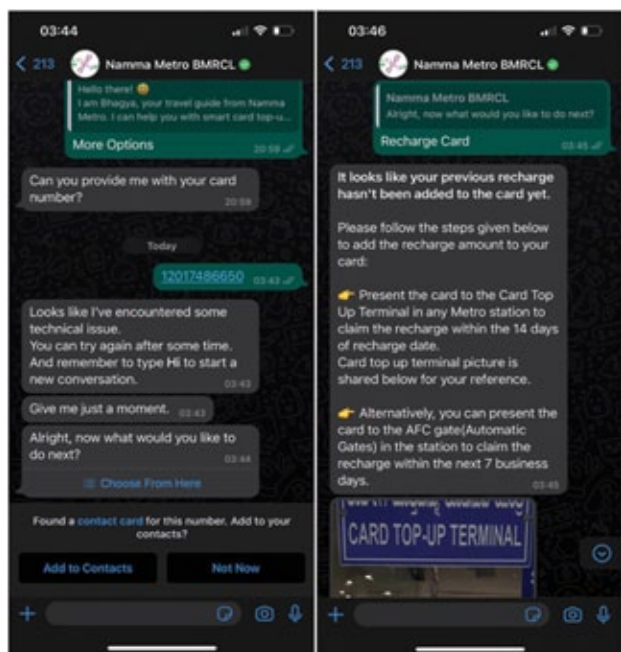
Enabling everyday convenience on WhatsApp

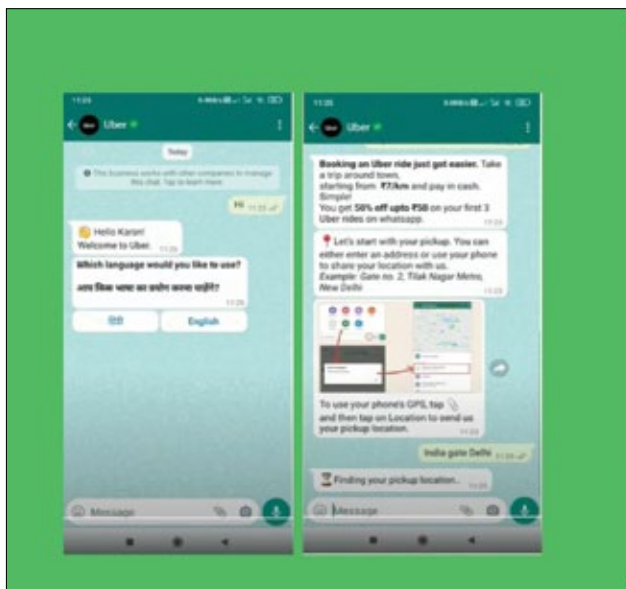
JioMart on WhatsApp
[JioMart: https://wa.me/+91787070776](https://wa.me/+91787070776)

Metro ticket booking: BMRCL on WhatsApp
[BMRCL: https://wa.me/+915105600077](https://wa.me/+915105600077)

FASTag Recharge on WhatsApp
[IDFC: https://wa.me/+919665555555](https://wa.me/+919665555555)

- BMRL’s WhatsApp chatbot:** The first transit service globally to use WhatsApp for end to end QR ticketing. The chatbot is integrated with UPI powered payments on WhatsApp and will allow 0.5 million Namma Metro commuters to purchase tickets and recharge their metro travel pass right within the WhatsApp chat-thread ; sharing a news report that you may find insightful.
- IDFC-FIRST Bank:** Has enabled the Bank’s customers to recharge FASTags using payments on WhatsApp, an industry first initiative [FASTag is an electronic toll collection system in India]. The solution allows IDFC customers to recharge their FASTags right within IDFC FIRST’s WhatsApp chatbot using payments on WhatsApp UPI.





WhatsApp to Ride: Uber & WhatsApp Expand Partnership to Delhi NCR

On August 3, 2022 Uber announced the launch and expansion of the WhatsApp to Ride (WA2R) product feature for users in Delhi NCR, one of Uber's top cities globally by volume. Through this integration, riders across Delhi NCR will be able to book an Uber ride via its official WhatsApp chatbot, one of India's most popular chat apps.

The WA2R feature was first launched in Lucknow, in December 2021. The expansion of this partnership to Delhi, marks a superior and more intuitive product experience as well as multilingual capabilities in English and Hindi for enhanced user experience. Built on the WhatsApp Business Platform, the partnership will expand access to Uber's mobility services to a new segment of consumers through integration in two languages.

Contact:

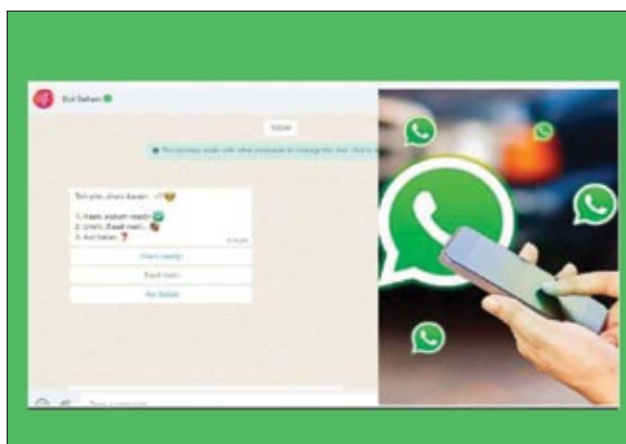
<https://wa.me/917292000002?text=Hi%20Uber>

WhatsApp user interface demonstration:

[WhatsApp User Interface Demonstration | Uber - YouTube](#)



- **Uber's 'WhatsApp To Ride' experience:** Uber launched a pilot of their WhatsApp to Ride (WA2R) service for users in Lucknow. The pilot revealed that the WA2R audience is younger than the average Uber App users ; 33% of the inbounds during this pilot were from new users, indicating a potential opportunity with WhatsApp to acquire new users. The success of the Lucknow pilot prompted Uber to expand the WA2R service in Delhi NCR, earlier this year
- **Urbanic:** Urbanic, an e-commerce women's fashion company sees a delivery rate of 98-99% for all of their real-time order notifications on WhatsApp. They now see a 70% response rate from customers, representing a 30% increase in positive customer engagement. These significant improvements to customer communication have reduced Urbanic's inbound customer inquiries by 30%, particularly in regard to shipping questions.
- **RedBus's train tracking through WhatsApp:** This solution eases the anxiety of train journeys for nearly 22 million passengers of intercity trains by helping them know their ticket confirmation status, time of arrival, or running status of their trains in real time.
- **SBI General Insurance:** SBI GI's WhatsApp chatbot enables easy access to insurance products through WhatsApp. It has made available health insurance and two-Wheeler Motor Insurance for customers to buy insurance in a simpler and secure manner, right within WhatsApp.
- **Girl Effect** is supporting adolescent girls to build agency around sexual and reproductive health through verified health services on their BolBehen WhatsApp chatbot ; during the pilot, 13,000+ users onboarded the bot; 1400+ girls accessed a health service for the first time through this WhatsApp chatbot.



Bol Behen

In March 2022, WhatsApp announced a new chatbot in India in collaboration with the non-profit organization called Girl Effect.

The AI-based chatbot, named "Bol Behen" will help adolescent girls and young women with concerns regarding their general health and sexual wellbeing. The Chatbot is available in both Hindi and English (Hinglish) and is designed to provide content on topics like relationships, sexuality, and reproductive health. The chatbot also allows users to ask their own questions on different topics. The "Bol Behen" (Speak, sister in English) chatbot can be accessed with a phone number or via an invite link on the web.

Contact:

<https://wa.me/730449661>



JioMart has seen a 68% repeat purchase rate ever since it started using the WhatsApp channel. This is much higher than its online stores. In October of 2022, the WhatsApp bot clocked 2 lakh orders for JioMart.

Customer Spotlight: Upstox

Upstox, India's largest investment platform, makes online investments easier with a WhatsApp Chatbot

Upstox, one of Asia's largest investment platforms, sought to build a WhatsApp chatbot to onboard new users and guide them in their investment journey.

Upstox partnered with Haptik to build an AI-powered WhatsApp chatbot that helps with onboarding new users and guiding them with personalized workflows. Upstox's 10M customers love using Haptik's Intelligent Virtual Assistant to learn about investment and get immediate support, and Upstox's increased CSAT of more than 50% is testament to that.

Additionally, Haptik's Proactive Messaging allowed Upstox to send WhatsApp notifications to users and achieve a 20% increase in the number of trades following the launch of Proactive Messaging!

220.5K Customers Onboarded in less than 6 months

20% Increase in number of trades

"Haptik has been pivotal in helping us explore the various engagement and sales opportunities that come with an AI-powered chatbot, firing up our sales pipeline and giving us a competitive advantage on our mission to drive exceptional customer experiences at scale."

Shrinivayanan, Co-Founder, Upstox

The graphic also features a screenshot of a WhatsApp chatbot interface for Upstox. The chatbot says: "Hi Janni! Welcome to Upstox, the no. 1 investment platform. Please choose an option." Below this are buttons for "IPO" and "Open an Account". The "IPO" button is selected, leading to a screen titled "Live IPO: Nykaa FSN E-commerce ventures" with buttons for "See Cutoff Price" and "Select Bid Price". A circular inset shows a woman using her smartphone.

• **Utilities:** IOCL and BPCL have built full-service WhatsApp chatbots that are making it easy for customers to message these businesses to make gas bookings, service reservations, and access other related services easily.

The WhatsApp's Business Platform has enabled governments at both the central and regional levels across India to deliver fast, efficient governance and create better citizen engagement – on a whole range of critical and timely services.

It has partnered with over 40 government entities (across state and central governments) to enable digital governance solutions that enable citizen engagements on issues like public health, social welfare and grievance redressal.

For example, the MyGov Helpdesk chatbot on WhatsApp is the go-to solution for millions in the country to access accurate information and public services.

The Common Services Centre chatbot provides end to end telehealth solutions on WhatsApp. The Mumbai Municipal Corporation's MyAssist BMC chatbot on WhatsApp offers 80+ citizen services to Mumbaiers.

Several innovative and impactful use-cases have emerged in India during the pandemic and also beyond – which were powered by the WhatsApp Business Platform.

Examples of the impact of MyGov WhatsApp chatbot: **MyGov use-case:** In March 2020, when the pandemic crisis struck the world, the WhatsApp team helped set up the MyGov Corona Helpdesk chatbot. People could access authoritative and authentic Covid-19 related information. This helped in countering the massive confusion about this crisis.

In 2021, when the second wave of the pandemic struck, MyGov Helpdesk was expanded to include information about hospitals and availability of beds across the



The social impact of all these services is huge. “We strongly believe that WhatsApp can be a powerful tool for scaling this social impact and delivering solutions for a range of services like education, healthcare and skill development,” says Ravi Garg.

country, centers for Oxygen, food supplies, medicines and other support that helped people in emergency situations. Apart from being easy to navigate and use it helped citizens navigate through one of the most difficult times we have ever faced.

Steadily, the chatbot also expanded to include vaccination bookings and Covid-19 Vaccination certificates - downloads were easier through the chatbot.

Till date, over 85 million people have accessed the bot for Covid related response and relief alone information. 3 million Vaccination slots have been booked and over 40 million vaccine certificates have been downloaded. The MyGov Corona Helpdesk chatbot has been renamed - MyGov Helpdesk to include the Digilocker facility to help citizens access all their important documents like PAN, Aadhar, Driver's License, Board exam certificates, passports etc. at the touch of a button. WhatsApp being the underlying enabler.

The social impact of all these services is huge. “We strongly believe that WhatsApp can be a powerful tool for scaling this social impact and delivering solutions for a range of services like education, healthcare and skill development,” Ravi says touching on some of the newer areas where impact is imminent. “Over the years, we have continued to launch multiple use-cases across many sectors.”

Education and skill development:

- **ConveGenius** and some other ed-tech institutions are delivering education to students through WhatsApp based learning models.
- **DoubtNut** has created an App where students can send

the picture of your math questions and a WhatsApp bot provides you with the video solution of your queries.

- **WhatsApp** has tied up with the National Skill Development Corporation to help skill India's youth digitally via the WhatsApp platform. This will fill the need gap of upskilling and provide a huge learning opportunity for millions.

Financial Inclusion:

- WhatsApp announced a pilot program across Karnataka, Telengana and Maharashtra aiming to empower villagers with access to digital payments through 'payments on WhatsApp'. Hundreds of thousands of villagers have been onboarded to use digital payments across over 1200 locations. Additionally this has created an ecosystem of users and merchants on the ground who are now transacting digitally.
- WhatsApp's democratized access resolves friction and enables entities to provide essential services like micro-pensions, micro-insurance and micro-credit through the medium of WhatsApp to reach the underserved communities who deserve them the most
- Small finance banks like AU and Equitas that are focused on rural segments, farmers, and micro-industries are operating services through WhatsApp.
- People can now access and purchase health insurance from State Bank of India as well as micro-pensions from India's National Pension Scheme on WhatsApp.

Healthcare:

- **Tele-health consultation:** The government's Common Services Center (CSC) recently partnered with

WhatsApp vs Email: why messaging app beats email when it comes to customer service

Using of a messaging app for customer service instead of email is far more personal, immediate and convenient. While email too can be accessed on mobile, we're mostly using our smartphones to stay in touch with friends and family. That makes us more active on messaging apps like WhatsApp – studies have found that users spend almost 38 minutes on average on the chat app every day.

When your customer is so active on the platform, why not make use of it to offer more proactive customer service too? The convenience of checking the response as compared to having to sift through emails to find a reply, is obvious!

IT'S MORE PERSONAL

Emails are actively used for more 'professional' conversations. Long email chains and delayed access make them slow. Messaging apps like WhatsApp help in actively engaging with customer conversations. Customer service experiences become personalised.

ENGAGING

WhatsApp allows easy uploads of photos, videos, PDF files along with the usual text messages.

FASTER

Average response time for emails can range from a few hours to several days. WhatsApp offers almost immediate responses. The platform witnesses a 99% open rate.

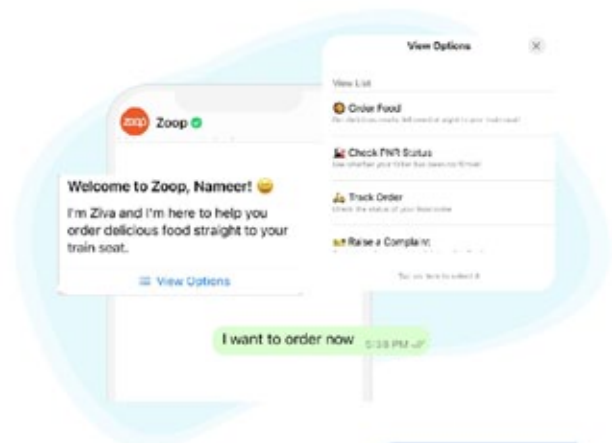
Customer Spotlight: Zoop India

Zoop India, IRCTC's in-train delivery service, made it very easy for passengers of the Indian Railways to order food via an easy-to-use, self-serve WhatsApp chatbot!

Zoop India, a food delivery service, wanted to overcome the challenges of limited internet access and even more limited food options on train journeys!

Partnering with Haptik, Zoop India moved their primary channel of communication of all its partner restaurants & end users to WhatsApp, making restaurant food booking available on WhatsApp!

The WhatsApp chatbot enables users to use Zoop to seamlessly order food at any upcoming station as per their convenience without the hassles of downloading an additional app. It also provides quick and easy 3-click payment experience within WhatsApp to place instant orders with real-time tracking and support.



7000+ Average Month Orders on WhatsApp

"The problem of lack of access to quality food in trains is something we wanted to resolve. Tens of millions of people travel on trains each day and Haptik, in partnership with Zoop, is helping passengers order their favorite meals and get delivery straight to their seats."

Puneet Sharma, Founder, Zoopindia.com



WhatsApp is playing a massive role in transforming health care supply and processes in the country.

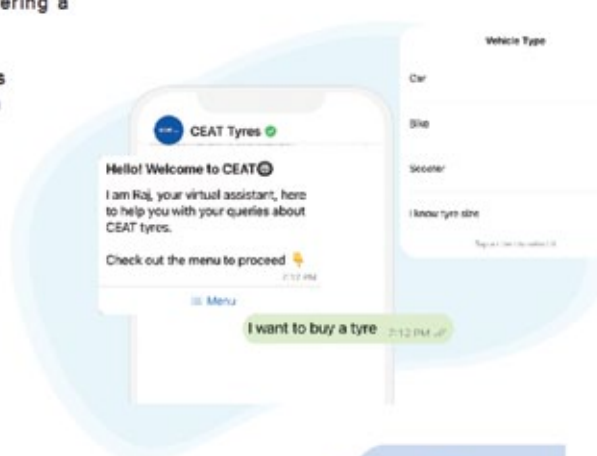
Customer Spotlight: CEAT

CEAT, a leading tyre manufacturer, is generating quality leads by offering a differentiated experience on WhatsApp.

CEAT sought to have effective and engaging conversations with its customers at scale. The bottomline was to collect high-quality leads, improve conversion rates, and expand its brand presence.

CEAT partnered with Haptik to build a WhatsApp chatbot that helps generate sales-qualified leads by interacting with customers, making product recommendations, and offering discounts - all at the right stages!

Since implementing the WhatsApp chatbot, CEAT has observed a 542% increase in leads. In fact, lead generation via the WhatsApp chatbot has proven to cost-effective when compared to other social acquisition channels.




542% Increase in leads through WhatsApp chatbot

28% Lead to conversion rate

70% lower cost per Lead than Social

"Our chatbot conversations and leads have grown since we implemented the WhatsApp chatbot. Automating the chatbot has reduced agent load thus reducing acquisition and manpower costs."

Vidur Anand, Head of eCommerce, CEAT



WhatsApp to launch a dedicated helpline called 'CSC Health Services Helpdesk'. This WhatsApp chatbot provides a digitally inclusive teleconsultation solution for people across rural and remote India. The helpdesk on WhatsApp makes it easy for people to seek support from administration, consult with doctors, access a wide range of resources and get their queries addressed.

- **Healthcare Incubator:** The WhatsApp Healthcare Incubator Program, is an initiative that will support organizations in building digital solutions, for a healthier future. The program aims to facilitate positive and measurable health outcomes at scale by leveraging the WhatsApp Business Platform.

Partnerships with civic bodies during the pandemic:

- **X-Ray Setu** - offers easier diagnosis of COVID-19 by uploading health data.
- **The CovidAshaBot** helped in providing Oxygen Supply.

- **Robinhood Army** used its deep network of volunteers to run its Senior Patrol campaign to remove vaccine hesitancy among senior citizens.

It is not an exaggeration to say that WhatsApp is playing a massive role in transforming health care supply and processes in the country. All of these services have built their offerings on WhatsApp Business Platform.

"Going forward, our goal is to invest in awareness and education for 'new-to-digital' users," Ravi told us. "While we know a portion of the digital-savvy, urban users will eventually choose the WhatsApp experience, there is a lot of upside to investing in awareness and adoption of rural and new-to-digital users. We will continue to simplify and scale "everyday" use cases that are meaningful to everyday users. Mass technology and societal transformation happens when the use cases move from novelty to necessity." 🙌

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Anuj Mehta
Founder, HeyHomie

Anuj Mehta (founder HeyHomie) is one of the early entrepreneurs to leverage the business feature of WhatsApp as a platform including its payment solutions on UP and Payment Gateway

WHAT TRIGGERED THE THOUGHT OF USING WHATSAPP BUSINESS MESSAGING

WhatsApp is the most widely used chat applications by Indians. Interestingly, a good majority of businesses that are started or run from home (Homepreneurs) are using WhatsApp as their primary tool for lead generation and sales channel. Having said that, WhatsApp isn't offering any in-app ecommerce functionality for its users as a default functionality, and this leaves them to look out for other ecommerce tools available in the market which are either web or app based.

Interestingly, homepreneurs are not very comfortable with using web / app-based ecommerce tools because it requires them to hire a professional agency to manage these online stores and the expensive signup cost along with recurring charges to manage the stores on an ongoing basis is a deterrent for them.

Those who still manage to get their website are struggling to convert sales on their website as there is limited scope to manage native customer retargeting, build abandoned cart recoveries, create referral programs for their customers, build communities, lower their CAC (Customer Acquisition Cost) and likewise are some of the critical points which any homepreneur would require to grow their business, but unfortunately they can't do it today because either such features are way too expensive or they don't have an understanding of who to hire or how to execute the same. And all this may be available via a website/ app, but then at what cost and is it viable?

At HeyHomie we have worked towards addressing this void via our Social Commerce SaaS Platform that operates

“Heyhomie offers homepreneurs a full stack e-commerce platform on Whatsapp”

on WhatsApp & Instagram; ours is a full stack offering, i.e. from an E-commerce store till last mile delivery along with exhaustive customer life cycle management for building higher LTV and data sets to retarget them.

This means now any homepreneur can either start their entrepreneurial journey from the comfort of home or scale their existing home business by setting up their stores on WhatsApp & Instagram via HeyHomie's channel. We used the Official WhatsApp Business APIs to build this.

WHAT WAS THE BENEFIT YOU SAW BY USING WHATSAPP BUSINESS MESSAGING

Building our SaaS product around WhatsApp was an absolute no brainer for us. The reasons were quite simple

- The majority of our customers (sellers) and their respective customers (buyers) are on WhatsApp
- Moving them out of WhatsApp and building a journey on web/ app stores is a challenging task
- Coexisting within the WhatsApp ecosystem was the best bet as our sellers/customers and their respective buyers/customers don't have to change their behavior with respect to communicating with their buyers/customers or even while accepting orders or shipping them. WhatsApp is the default app they use for all business or communication purposes
- We wanted to leverage the power of WhatsApp Groups, which inherently is the default go to market strategy for most homepreneurs
- WhatsApp is a true quick commerce experience and that's exactly what our sellers/ customers have been looking for. Leveraging on WhatsApp's ecosystem allows us to bypass the need to build UI/ UX efficiencies at our end.

HOW HAS THE RESPONSE FROM YOUR CUSTOMERS BEEN

Since our launch in Feb 2022, we have pivoted 3 times and these pivots happened because of the customer feedback we received. We have been very receptive to the feedback received from our beta users as it allowed us to understand what it takes for us to make them (our customers) successful.

We started as a Marketplace but with pivots in place, we're now a SaaS Company offering WhatsApp & Instagram QR Shops (Social Commerce) to Homepreneurs & select Brands.

WHO IS THE TYPICAL CUSTOMER FOR HEYHOMIE

Our key customers are Homepreneurs and they can be categorised in the following manner

- Creators Ecosystem
- HomeChefs
- Jewellery Sellers
- Clothing Sellers
- Packaged Products

HOW DID THE WHATSAPP UPI AND PAYMENT GATEWAY HELP YOU.

Yes, so we are amongst the first few platforms to offer native WhatsApp Pay (UPI) feature to our customers. In this way, our customers can now have the ease of collecting payments within WhatsApp itself, i.e. without moving their customers to an external browser. For all Non UPI Payments, we're using other payment gateways.

HOW HAVE YOU SEEN YOUR OWN GROWTH ON ACCOUNT OF THIS

At the launch, we witnessed a significant surge in seller registrations, and we were quite successful in onboarding our sellers, but as we pivoted, we had to make some hard decisions about moving our platform from public access to beta users access only.

The Beta Program actually helped us in making the product simple, efficient & blazing fast. We're still running our Beta Program and are expected to make the product open to the public by early Jan 2023 (via Waitlist Program). Under the beta program, we have a little over 500+ sellers who have either setup their stores on WhatsApp or Instagram.

We will soon launch the Waitlist Program for public users, where they can sign up and get the chance to setup their own stores on WhatsApp & Instagram for FREE!

Apart from this, we provide all our sellers with WhatsApp and Instagram QR Codes, Shop & Product URLs and extensive insight on how they use these stores with their existing Facebook, Instagram, WhatsApp, Youtube and other social accounts. We don't charge our customers for any conversational message pricing for WhatsApp, which is actually charged by Facebook to us. We only charge our sellers when they sell. Our pricing is built on the ideology of Pay As You Go. 🍷

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BHARAT B. BHATIA

Building the case for Direct to Mobile using 3GPP 5G Broadcast for India's Broadcast Digitization

New business models have to emerge between public broadcaster, TSPs and OTT players



India is now at the cusp of a broadcast digitization. With the Govt. of India also considering citizen centric services targeting mobile phones, the public broadcaster Doordarshan can now look to a new lease of life. With high level discussions now taking place within the Ministry of Information and Broadcasting (MIB) and its sister organizations including Prasar Bharati and Doordarshan, it is imperative that the policy makers make note of global developments on this front.

Doordarshan has, multiple times in the past, been making efforts to move up the technology path towards broadcasting modernization. However, the lengthy bureaucratic processes and possibly some bad commercial planning, such modernization and adoption of new technologies did not gain traction. This in fact caused substantive subscriber erosion and revenue losses over time. The latest shut down of its DVB (digital video broadcasting) services (which was supposed to digitize the use-cases) for lack of an ecosystem is a case in point.

Essential ingredients for a success story in broadcasting is to focus on the digital content delivery and of the development of a device ecosystem. This needs immediate attention of the decision makers in MIB, else their renewed efforts would lead to further loss to the exchequer and time, with the risk of consumers waiting for a world class broadcast service migrate into choosing other options. To avoid history repeating itself, MIB and Prasar Bharti need to undertake an end-to-end cost-benefit analysis of the entire planning, while ensuring that natural resources are utilized optimally for providing quality public services. Three unknowns need to be accounted for in this planning analysis: the

broadcast radio network that includes the core network, monetization of the spectrum resources and the end-user device ecosystem.

The broadcast network with technologies to reach mobile devices will be a transformative change for the public broadcaster (moving from analog to current generation digital), but probably the one with lowest priority in the whole migration. Digitization comes with its own baggage of challenges. The traditional model of employing High-Power High-Tower (HPHT) transmitters for roof top reception needs a review taking into account the Low-Power Low-Tower (LPLT) transmitters. Secondly, the broadcaster may need to seamlessly integrate into their 3GPP based cellular core network of TSPs for offering advance services including off-load, authentication, security, and session maintenance, etc.

The second unknown is the license to operate a broadcast service in the broadcast spectrum. New business models have to emerge between public broadcaster, TSPs and OTT players keeping in mind the needs of the Indian consumer. The public broadcaster has prior experience sharing spectrum to private players (FM licenses) and a similar licensing model should be explored for offering Broadcast services. This is going to be a win-win scenario for multiple players in the ecosystem.

The broadcaster will earn revenue by licensing spectrum and leasing airtime in the HPHT transmitters, the cellular operator and OTT players may use this model as an additional opportunity to reach new subscribers which is currently not addressed in the DTH or OTT models. For a cellular operator, this is also an efficient means to offload live OTT content. This model is very

The license to operate a broadcast service in the broadcast spectrum will have to take into account new business models that are emerging – keeping in mind the players which are now public broadcaster, TSPs and OTT.

elegant to scale in which the administration can leverage it to offer citizen centric services (e.g., schools, agriculture, public disaster broadcasting, etc.) by becoming or partnering with another DCO.

The third and final unknown (but the challenging of the three) is the ability to reach end-user devices. Ironically, this is often overlooked in the planning. India is complicated for several reasons, i) it is an open market i.e. an operator is not able to decide what functionality can get into a device, ii) it is a cost sensitive market i.e. competition forces OEMs to trim down on new functionalities to be added. The story of broadcasting digital content to mobile phones for India will likely succeed only when the technology is integrated into “open market” end-user devices without impacting the cost. And for that to happen India needs to focus and invest on globally harmonized standards and technology that has a high success of getting into mobile phones.

The 3GPP Long Term Evolution (LTE) Evolved Multimedia Broadcast/Multicast Service (eMBMS) has been built upon LTE with as minimal change as possible to the existing structure. 3GPP has specified LTE-based 5G broadcast (since Rel-16 and ongoing standardization in Rel-17) and NR MBS (ongoing standardization in Rel-17) with minimum additions, possibly limited to software updates. Both these 3GPP family of technologies aim to address audiovisual needs of citizens.

- LTE-based 5G broadcast address high-tower/high-power deployments, requiring specific band (470-694/698 MHz or parts thereof) and can also work in the existing channel bandwidths of 6, 7 and 8 MHz (Rel-17).
- NR MBS can be deployed, in existing 3GPP mobile bands and Rel-17 networks that would enable not only general MBS services but also transparent IPv4/IPv6 multicast delivery.

3GPP undertook this work as the enabler of the delivery of services over multicast and/or broadcast connections, resulting in overall cost minimization and easy adoption by operators. With 3GPP Rel 14, eMBMS has been extended with Enhanced TV (enTV) features

that enables TV broadcasters to deliver their services also over eMBMS.

These standards were first developed in the 3GPP through the active involvement of global broadcasters and then subsequently adopted into Indian national standards by the Telecom Engineering Center (TEC). Among the many enhancements to the system, highlights include greater radio broadcast range, free-to-air services, and transparent mode delivery of digital video signals.

These feature enhancements attracted global TV broadcasters to offer their services into mobile devices, to enable service continuity and greater coverage. Extended MBMS (xMB) interface is introduced between Broadcast/Multicast Service Center (BM-SC) and content provider. In transport-only mode delivery, content providers send application data to the 3GPP network, and the BM-SC simply forwards the data in a transparent fashion to the user device. In summary, the broadcasters now have a technology that reuses 3GPP silicon to offer broadcast content into mobile devices without increasing the bill of materials (BOM) for manufacturers and consumers, thereby capable of creating an ecosystem and allowing for its success.

Note: the author is a renowned ITU expert and together with IAFI is an advocate of globally harmonized technology adoption. With years of experience behind him, he can confidently advocate for technologies developed by the broadcasters in 3GPP and adopted by ITU into the M.2150 recommendation. The 3GPP ecosystem of vendors and devices OEM is rich enough for commoditizing the technology in a shorter time that would further allow the broadcasters from all the ITU nations to further leverage and adopt into respective national standards. Since India has already adopted these technologies into national standards, it also has a first mover advantage to create a local ecosystem using this technology. 🙌

Bharat Bhatia is the President of the ITU-APT Foundation of India (IAFI) and Vice Chairman of the World Wireless Research Forum (WWRF) for Asia Pacific Region. He has worked as a spectrum regulator in India and as the international head of spectrum team of Motorola solutions
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Comments on the Draft Indian Telecommunication Bill, 2022 ('the Draft Bill')

Broadband India Forum (BIF) – has shared a detailed set of comments on the proposed Draft Indian Telecommunications Bill. Extracts from the very exhaustive comments



EXTRACTS FROM BIF SUBMISSION

BIF has submitted that the current framework has many good features, like:

- Independent regulator in TRAI
- Expert Appellate Tribunal / adjudicator of disputes in TDSAT;
- Regulator's (TRAI) and licensor's (Central Government) functions clearly segregated
- Transparency due to public consultations for recommendations / regulations

Indian regulatory framework is an example of global best practice in telecommunication regulations. This has

resulted in the orderly growth of the sector (2nd largest and the fastest growing network in the world) and served interests of service providers and consumers and is the basis for huge investments (nearly Rs.10 lakh crores) and competition in the sector.

The existing edifice is built on Section 4 read with definition of 'Telegraph' in Indian Telegraph Act, 1885 ('ITA') and Section 11 of TRAI Act.

Under Section 4 of the ITA, the President of India has conferred exclusive privilege of establishing, maintaining,

There is a marked contrast between the legal framework provided in the Draft Indian Telecommunication Bill, 2022 (referred to as 'the Draft Bill' in this document) and the corresponding current framework for telecommunications.

and working telegraphs to Central Government (represented through DG-Telecoms and inter-alia Secretary, DoT), with proviso under which Secretary, DoT, under this exclusive privilege can grant licenses for these defined activities (i.e. establishing, maintaining, and working telegraphs) to the private licensees. The license under section 4 of ITA is for establishing, maintaining, and working telegraphs and the license can have other conditions, pertaining to these activities.

While we appreciate the need to modernise the framework, it should not negate the existing framework, which has enabled us to get to this enviable position, but build up on the same. We strongly recommend that the term 'Telegraph' in the existing ITA should be replaced in the Draft Bill with the term 'Telecommunication Network', to be consistent to the framework and to be in sync with changing telecommunication technology.

It must be understood and appreciated that the edifice is premised within the domain of 'telegraph' and 'telecommunication network', and therefore we cannot have a telecommunication service except from a telecommunication network. Conversely, a service which comes from a non-telecommunication network cannot be deemed to be telecommunication service under the Draft Bill / Act.

However, we see a completely different licensing framework in the Draft Bill. It is based on a complex and confusing structure of definitions of 'telecommunication', 'telecommunication services' and 'telecommunication network' and introduction of separate categories of licenses for 'telecommunication services' and 'telecommunication network'.

In the play of words in the definitions, 'telecommunication network' has been decoupled from 'telecommunication services' so that licenses can be given only for so called 'telecommunication services'. In our view, the definition of 'telecommunication services' is incorrect and misleading because 'telecommunication services' cannot be provided without 'telecommunication

network' and that part is missing in the definition of 'telecommunication services'.

In view of the above stated confusing play of the words, the result is that any service which is made available to the users from non-telecommunication networks or methods is deemed to be under the license purview in the Draft Bill. This leads to a grossly anomalous and impractical situation where many OTT and IT services get construed as telecommunication services and can be subjected to license, even when there is no establishment, maintaining or working of telecommunication network by them.

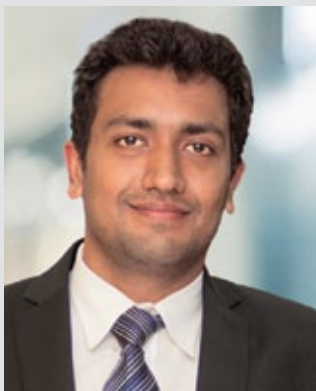
The Draft Bill, for example, includes OTT Communication Services, even though OTT Communication Service provider have no telecommunication network. However, this anomalous inclusion is in sync with the confusion and incorrect picture of licensing created in the Draft Bill.

Bringing the OTTs under the ambit of the telecommunication service license also implies that the Government only holds the exclusive privileges to decide, build, develop and operate the OTT Apps. Such a situation is grossly anomalous, highly impractical and will lead to a collapse of the entire app ecosystem and thereby impacting innovation and growth of the economy.

In the matter of OTTs, apart from the fundamental fact that they are not produced from a telecommunication network, there are many other strong and substantive reasons, which differentiate them sharply from telecommunications, which are given in section dealing with definition of telecommunication services.

Broadcasting service is another such example. It is included as an element in the definition of telecommunication services. Broadcasters need license for wireless telegraphy under the existing telecommunication laws. However, the aspects like respective service, its tariffs, quality, content regulation etc. are not part of the telecommunication license and all these aspects are governed by Ministry of Broadcasting / respective

The term 'Telegraph' in the existing ITA should be replaced in the Draft Bill with the term 'Telecommunication Network', to be consistent to the framework and to be in sync with changing telecommunication technology.



Ankit Agarwal
MD, STL

Right of Way rules have to be further simplified

India is on the journey of building digital infrastructure that will put us on a strong pitch for global leadership in technology, manufacturing and services. Policy frameworks have an important role to play. The proposed telecom bill 2022 aims at making these policy frameworks "future ready".

We need to think 10 years, 20 years ahead.. Today's Infrastructure requirements have surpassed the traditional needs of just towers, fiber, conduits, and ducts. We need to expand digital Infrastructure in a more holistic and all-encompassing manner. This is where the importance of street furniture will come into play. Millions of small cells will be required to be deployed using street furniture such as electricity poles, billboards, smart poles and traffic lights.

Additionally, in order to improve the optical fiber coverage in the country, aerial fiber will need to be deployed on street furniture for quickly providing reliable high-speed fiber backhaul to small and macro sites. For backhaul fiberisation, Right of Way rules will have to be further simplified in terms of procedure and charges for deployment or renting and sharing the street furniture.

Funding is, of course, a critical piece. The government should take a more 'expanded' view and form a "India Digital Infrastructure Fund" with a single mandate to create, manage, upgrade and monetise India's digital infrastructure. The fund should not depend only on government sources alone, but also include private sources including market borrowing (like tax-free bonds, etc.).

Lastly, there should be a separate fund for Technology and Innovation to catalyse R&D, skill development and intellectual property. India already has big strengths like talent and ability to master scale. In the coming decade, the combined power of technology and innovation will give us the edge.

guidelines. However, the Draft Bill, instead of confining Broadcasting to only telecommunication equipment licensing has included this service per se under the scope of telecommunication services! This, in our view, will result in confusion and legal uncertainty. Under the provisions of the Draft Bill, the aspects like broadcasting services, its tariffs, quality, content regulation etc. Would be covered in telecommunication license.

We, therefore, strongly view that the concerned definitions and the provision of Chapter 3 be amended

to keeping in mind that licensing should be for telecommunication network wherein type of service and related aspects may be mentioned, as a condition, if and only if, such service falls within four corners of what is capable of being produced from a telecommunication network. OTT Communication service, Broadcasting service, Internet based communication cannot, therefore, be included by way specific inclusions or by way of providing a very wide definition of telecommunication services while missing the basic ingredient of 'telecommunication network'.

We note that the existing legal and regulatory framework is getting negated by the Draft Bill, where the Central Government will have over-broad and far reaching powers and the roles of an independent Authority and Appellate Tribunal will get seriously diluted.

The Draft Bill makes significant amendments in TRAI Act, the functions of the Authority to make recommendations and discharge functions being significantly curtailed by subsections (d) to (k) in Section 46 in the Draft Bill. The provisions empowering TRAI to make recommendations and discharge functions are 'Notwithstanding anything contained in the Indian Telegraph Act, 1885'. The Draft Bill dilutes these non-obstante powers by substitution of 'In consonance with the Indian Telecommunication Act, 2022'.

In order to keep this momentum of growth of telecom sector in the country, the Authority needs to be an independent entity and operate within the framework of the existing TRAI Act. Any dilution in the powers of TRAI may have severe implications, including decline in investor confidence, which will be an act of deterrence to the growth of the sector. The respective subsections in Section 46 of the Draft Bill should be deleted.

Sub-section (j) and (k) of Section 46 of the Draft Bill which make different amendment in Section 11(20) of TRAI Act can have a serious impact on predatory pricing issues. Section 46(j) in the Bill is amending Section 11(2) of TRAI, and it dilutes TRAI powers by replacing existing non-obstante clause with 'in consonance to the Indian Communication Act, 2022'. With this TRAI's function under 11(2) become subservient to the Draft Bill and in the Draft Bill the Central Government has all the powers.

The introduction of power on issuing directions to TRAI under section 46(k) of the Draft Bill will result in Central Government having a role in matters pertaining to predatory pricing, which is not envisaged in the current framework and which role has to be conducted by independent regulators like existing TRAI and CCI.

We find that aspects like Appeal and Alternate Dispute Resolution in Chapter 3 of the Draft Bill is also at variance with functions of TDSAT as prescribed in TRAI Act. In our view, in light of existing provisions in the TRAI Act regarding adjudication of disputes there is no need of having Sections 10 and 11 in Chapter of the Draft Bill.

In short, we note that the existing legal and regulatory framework is getting negated by the Draft Bill, where the Central Government will have over-broad and far reaching powers and the roles of an independent Authority and Appellate Tribunal will get seriously diluted.

We believe that the scope of 'telecom infrastructure', as given in the Draft Bill, needs to be significantly enhanced to address faster rollout of 4G/5G and beyond, Satcom and other technologies through (i) legal provisions street furniture, (ii) legal provisions for deployment of small cells and in-building deployments and (iii) legal provisions for infrastructure providers' scope to cover active as well as passive elements in rendering services to telecommunication licensees. RoW permissions should be on technology neutrality basis, which will help in proliferation of Satcom, Public Wifi etc.

With respect to the Spectrum Management, it is most strongly iterated that there should not be any auction for satellite spectrum as it is a shared spectrum and auction will not be in line with international practice. Terrestrial spectrum and Satellite are on entirely different footing and as different as chalk and cheese.

The Draft Bill should include all satellite usage (including the GMPSC service) within the list of purposes for which spectrum can be assigned through administrative processes in line with international best practices and to give abundant clarity, the Draft Bill should explicitly specify unlicensed spectrum for Public Wi-Fi Use (5MHz) and for innovative applications such as Short-Range Devices (SRDs).

OTT COMMUNICATION SERVICES UNDER THE AMBIT OF IT ACT

OTT services, including OTT Communication Services, are clearly differentiated and can be distinguished from the definition of telegraph as provided in the Telegraph Act or from telecommunication services / telecommunication networks, as explained above. Thus, licensing under Indian Telegraph Act or its replacement, does not apply to OTTs. Moreover, OTTs services should be governed by the IT Act 2000, being information technology services.

With respect to the Spectrum Management, it is most strongly iterated that there should not be any auction for satellite spectrum as it is a shared spectrum and auction will not be in line with international practice.

Security concerns like KYC, if applicable, to OTT services in the interest of consumers may be addressed within the purview of the IT Act. The KYC is done by respective sectors independently even if they ride on telecommunication services.

The analogy is Banking, which heavily depends on telecommunication services for transactions including OTP over SMS and internet banking. All these transactions are messages.

With regard to KYC for Banking, the Banking Laws/Rules/Guidelines apply. On same principle, in case of OTT Communication APPs, if KYC is to be applied then the same should be under the IT Laws/Rules.

The KYC in case of banking is different than telecommunication, depending upon various aspects including traceability and security, which aspects may be similar to telecommunication, but the processes and governance is sector specific under different law. Similarly in case if there is a need for KYC for OTT Communication services, the processes and governance will be different to that of telecommunication or banking

and will be sector specific. It may be incorrect to assume that only because KYC of OTT is to be considered as a requirement, it needs to be brought under telecommunication law.

CONTRARY CONTENTIONS ARE NEITHER VALID NOR RELEVANT

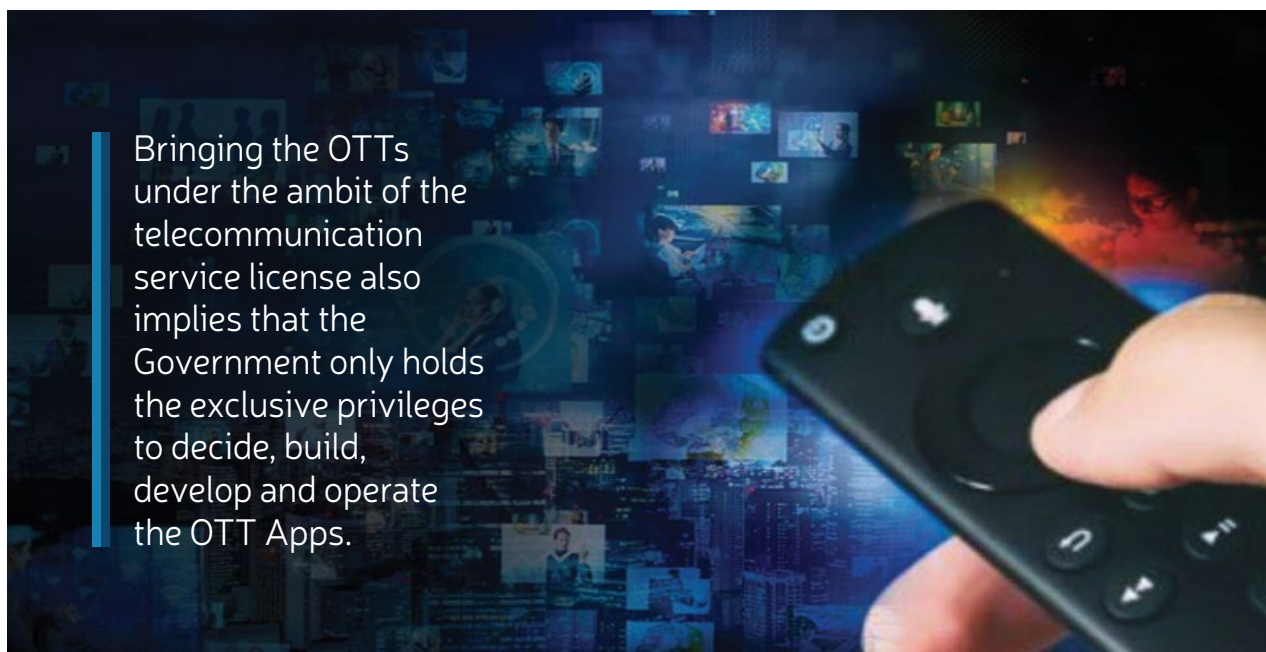
There are some contentions claiming that OTT Communication Services should be brought under the purview of Draft Bill for which the following reasoning is provided:

- Same Service Same Rule
- Level Playing Field
- OTT is a free riding service

BIF submits that such contentions are not correct, both under law and policy. Further such contentions may be driven by commercial objectives. These contentions cannot have any bearing on exercise such as the present, which is going to frame law of the land for many years to come.

OTT Communication Services are not same as TSPs' services, rather they are completely different.

Bringing the OTTs under the ambit of the telecommunication service license also implies that the Government only holds the exclusive privileges to decide, build, develop and operate the OTT Apps.



The commercial argument that OTT is a free riding service is neither correct nor is relevant for the current purpose. OTT service providers and users pay TSPs for network usage costs.

OTT Communications / OTTs are essentially Apps and not telecommunication services, and like any App, they use internet, and they do not own or work a telegraph / telecommunication network.

Telecom networks and OTT applications operate in different layers (network layer and application layer respectively).

Application layer is not part of telecommunication network and it will incorrect to assume that Government will have exclusive right to operate Apps and grant licenses in respect thereto. OTTs have no exclusive right to deploy their applications.

TSPs can, and often do, provide their own OTT application/s. On the other hand, an OTT application provider would need a licence to deploy a TSP Network.

In view of the above, OTT services are mere applications provided to end users over the internet. They neither operate a telecommunication network, nor lease telecommunication network capacity from a telecommunication network for the provision of their services.

For the same reasons, the Level Playing Field contention is also not correct. Art.14 of the Constitution of India guarantees equal treatment only to persons who are equally situated.

This is a well-established point and enough case law is available on the same. OTTs and TSPs have vast and critical differences between them and are not equally positioned, as explained above. Therefore, they cannot be treated as equals.

Moreover, unequals are also required to be treated unequally. Importantly, equal treatment to unequals is nothing but inequality. To put both categories at par is wholly unjustified, arbitrary, unconstitutional, being violative of Art.14.

Art.14 guarantees equal treatment to persons who are equally situated.

The commercial argument that OTT is a free riding service is neither correct nor is relevant for the current purpose. OTT service providers and users pay TSPs for network usage costs. Moreover, the business models of OTTs and TSPs are very different and OTT never bypasses and simply cannot bypass the Broadband/ Telecom infrastructure to provide the OTT services to its users. It is well acknowledged that there is a symbiotic relationship between APPs and TSPs and that means that both are different.

Regarding the TSPs' demand for an access charge for use of their network, the European Regulator - BEREC in its recent findings through BoR (22) 137, in October 2022, section 2, has affirmed that "ultimately, it is the success of the CAPs (Content & Applications) which lies at the heart of the recent increases in demand for broadband access or, from a different perspective, traffic growth beneficial to ISPs."

The other key points in this respect in the said BEREC report are as follows:

1. "There is no evidence of "free-riding". Costs for internet connectivity are typically covered and paid for by ISPs customers."
2. "There is a concern that a direct compensation from large CAPs to large ISPs could endanger the principle of net neutrality and lead to a competitive distortion putting smaller and medium-sized ISPs at a disadvantage despite the fact that such alternative players often account for a considerable amount of the fibre network roll-out."
3. "Traffic is requested and thus "caused" by ISPs 'customers and not by CAPs."
4. "Ultimately, it is the success of the CAPs [...] which lies at the heart of the recent increases in demand for broadband access" or, from a different perspective, traffic growth is beneficial to ISPs"
5. "CAPs and ISPs are mutually dependent on each other. The demand from ISPs customers for content

We believe that the scope of 'telecom infrastructure', as given in the Draft Bill, needs to be significantly enhanced to address faster rollout of 4G/5G and beyond, Satcom and other technologies.

drives demand for broadband access. Availability of broadband access drives demand for content."

6. "Both sides of the market – CAPs on the one hand and users of these applications on the other hand – already contribute to paying for Internet connectivity. There is no evidence that operators' network costs are already not fully covered and paid for in the Internet value chain (from CAPs at one end, to the end users, at the other)"BEREC's preliminary assessment is that this still holds true in 2022 as it did in 2012. "

7. "In 2012, BEREC refuted the argument that traffic is "caused" by CAPs: "ETNO's proposals do not seem to have taken account of the fact that the request for the data flow usually stems not from the CAP but from the retail Internet access provider's own customer (who "pulls" content provided by the CAPs, and from whom the ISP is already deriving revenues). Ultimately, it is the success of the CAPs (from whom ETNO wishes to extract additional revenues) which lies at the heart of the recent increases in demand for broadband access (i.e. for the ISPs 'very own access services)". The fact that the flow of data is done at the request of the ISPs 'customers could for example be seen during the COVID-19-crisis where internet traffic increased significantly for a period based on end-user demand."

It is submitted that if OTT Communications are included in the ambit of the Draft Bill then, besides other reasons, the same will go against the interest of economy for the following reason:

1. Internet openness promotes innovation, investment, and competition and has been one of the primary reasons behind the huge success of Apps. Even in case of OTT Communication Services, the major application and content providers were all new entrants at some point, and the power of ideas pushed through the open internet helped them to establish themselves.

2. The Draft bill appears to have misplaced priorities toward protecting TSPs' interest over consumers' interest. This runs counter to the interests of the consumers as it would:

- i. Create an entry barrier, lowering and harming the competition in the OTT market; and
- ii. Create a limited set of technology or media information provided to users with the intention of creating a monopoly or secure information.

The proposed intent in the draft bill will adversely affect the innovation in the OTT industry that spurs investment and generates spin-offs in the economy.

Examples are airline booking, hotel reservations, taxi transportation etc. where aggregated service sourcing through Internet applications has enabled businesses to reduce costs and design new pricing models tailored to individual customers without the applications provider owning inventory, property, or directly providing the end- service.

In view of the above it is respectfully submitted that OTT Communications Service should be excluded from elements in the definition of telecommunication services in the Draft Bill.

Internet based communication services should be deleted from the elements included in the definition of Telecommunication Services

Internet based communication service are also APP based services and not telecommunication services. We submit that the reasons given with respect to OTT Communication services for exclusion from definition of telecommunication services would also apply to Internet based communication services and such service be excluded from elements in the definition of telecommunication services in the Draft Bill. 🙏

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Key Highlights



NEP 2020
Aligned
Curriculum



Blended mode
of learning



Focus on
Holistic
Development



Optimum
Student-Teacher
Ratio



Play-way
method based on
Thematic Curriculum



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Preparation
Programmes for
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A Review of Draft Indian Telecommunication Bill, 2022

A review was earlier attempted through the draft Communication Convergence Bill in the year 2000-02 but without much progress or success



BY PRAVEEN SHARMA

Bringing in a new law while repealing law (Indian Telegraph Act 1885) which is more than 137 years old requires some courage particularly on the subject as complicated as telecom licensing and couple it with need to repeal other law (Indian Wireless Telegraphy Act 1933) which is about 90 years old requires lot of commitment, daring and handwork. Daring, because this was earlier also attempted with draft Communication Convergence Bill in the year 2000-02 but without any success. It is for this reason that I want to begin this review with a word of thanks and appreciation for the present leadership at Department of Telecom led by Hon'ble Cabinet Minister Shri Ashwini Vaishnaw.

There was always a crying need for a new Statute to govern telecom services as earlier Acts namely the Indian Telegraph Act 1885, the Indian Wireless Telegraphy Act 1933 and the Telegraph Wires (Unlawful Possession)

Act 1950 have lived their utility and new Act was required to consolidate the provisions of aforementioned three Acts with the advancement of technology and to address new evolving business models. The new Law to govern provision, development, expansion and operation of telecommunication services, networks and infrastructure, spectrum assignment and matter related to all of aforesaid.

I know for sure that lot of thought, hard work and mid night oil has gone in the drafting of this draft Indian Telecommunication Bill 2022 and a critique / review of the draft is no way to berate the hard work but to give constructive suggestions on what further can be done with the draft Bill.

CHAPTER 2 DEFINITIONS

2 (5) "customer equipment" means equipment deployed on the premises of a person, other than the equipment

There was always a crying need for a new Statute to govern telecom services as earlier Acts namely the Indian Telegraph Act 1885, the Indian Wireless Telegraphy Act 1933 and the Telegraph Wires (Unlawful Possession) Act 1950 have lived their utility.

of the licensee or registered entity, to originate, route or terminate telecommunication, or equipment used by such person for accessing telecommunication services;”

Comment: The Definition of “customer equipment” is very vague. Does it debar licensee from deploying customer equipment at customer premises? What is the difference between the terms “to originate, route or terminate telecommunication” and “for accessing telecommunication services;” in the definition above? There is a need to provide clearer definition in the Bill.

One may argue that the reason to define ‘customer equipment’ in the manner it has been defined is to restrict entities from using Radio backhaul using the customer equipment as the telecommunication equipment Clause 2(18) as defined includes the customer equipment however a customer equipment cannot be used for backhaul creation. However, when we look at the definition of Telecommunication network clause 2(20), it does not consider customer equipment as part of the telecommunication network. Now, this would create a dichotomy as telecommunication networks are used to provide telecommunication services however the customer equipment are part of the service but not the part of network. This may cause concern towards compliance to various standards regarding those equipment which resides at customer premise (under the ownership of the customer). However, it is essential to deliver telecommunication services by connecting them to the telecommunication network. It is understood that Customer will be taking the ownership of such equipment to ensure compliance with the respective standards for the ‘customer equipment’ as the same are not part of telecommunication network.

2(20) Reason for exclusion of customer equipment from the definition of telecommunication network is not very clear.

2(21) Definition of telecommunication services: Definition of the term telegraph in the earlier Indian Telegraph Act 1885 was very vague, dated and all-encompassing and reads as follows:

[(1) “telegraph” means any appliance, instrument, material or apparatus used or capable of use for transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, visual or other electro-magnetic emissions, Radio waves or Hertzian waves, galvanic, electric or magnetic means.

Explanation. – “Radio waves” or “Hertzian waves” means electro-magnetic waves of frequencies lower than 3,000 giga-cycles per second propagated in space without artificial guide;]

Under first proviso to the Section 4 of the Indian Telegraph Act 1885, Government had the power of licensing in following terms “Central Government may grant a license, on such conditions and in consideration of such payments as it thinks fit, to any person to establish, maintain or work a telegraph within any part of [India]”. All the present licenses of telecom services are issued in pursuance of powers under provision as mentioned aforesaid and it can be seen that definition of telegraph is very wide and therefore the Government licensed whatever services it wanted to.

The new Act rightly changes the basis of licensing from telegraph to telecommunication services and there was an opportunity to bring more clarity and regulatory certainty to the statutory provisions of licensing requirements for telecom services. Unfortunately, definition of telecommunication services in the new Bill is also very vague and all-encompassing. What is needed is exact clarity in terms of what/which are the services which would require license in terms of existing services and which are new services proposed to be added in the licensing regime on light-touch regulation basis or even otherwise. Use of very generic terms like Internet-based communication services, video and data communication services, Interpersonal communication services, and over-the-top (OTT) communication services makes the definition and requirement of licensing vague and subject to diverse subjective interpretation, which any draftsmen of new statute would ideally avoid. There is an element of inherent regulatory uncertainty as the services proposed to be licensed are not listed in the definition.

The new Act rightly changes the basis of licensing from telegraph to telecommunication services and there was an opportunity to bring more clarity and regulatory certainty to the statutory provisions of licensing requirements for telecom services..

Any services/ solution which use telecom connectivity services as an input service but provides some other services should not attract license requirement barring those services which are similar in nature and substitutable to the licensed telecom services. Therefore, the definition of telecommunication services should only cover the licensed services, i.e., Wireless Access services, Internet Access services, NLD, ILD, GMPCS and other licensed services only and OTT Communication Services which are similar and substitutable to licensed telecommunication services. It should exclude wireline access services, e-mail, voice mail, audiotex, videotex, and internet-based communication application services.

Further, the definition of terms needed like RoW, OTT Communication services, Internet Communication services need to be provided in the new bill.

CHAPTER 3: LICENSING, REGISTRATION, AUTHORIZATION AND ASSIGNMENT

Section 3 Exclusive Privilege: The exclusive privilege Section 3(1) and licensing power Section 3 (2) is now in respect of telecommunication services and not telegraph which is an improvement over existing Act.

However, the need for having power, in the public interest, to exempt the requirement of license, registration, authorization or assignment under sub-section (2), in the manner as may be prescribed is debatable particularly when public interest conditions are abstract and not defined and is discriminatory towards licensed entities.

Section 4 Licensing, Registration, Authorization and Assignment

4(1) : Since the license agreement is a contract there is no need to mention specific terms and conditions of license in the Act as is being done as it takes away the flexibility of the Government to determine terms and conditions of the license. Supreme Court as per *UoI and Anr vs AUSPI and ORs SC judgment in SLP CA 5059 of 2007*, has held a license granted under proviso to sub-section

(1) of Section 4 of the Telegraph Act is in the nature of a contract between the Central Government and the licensee. Any specific mention of terms of license would take away the flexibility in framing terms and conditions of license. Amended Clause 4(1), it is suggested should read as under:

“4(1) The grant of license, registration, authorization or assignment under sub-section (2) of Section 3, shall be subject to terms and conditions, including payment of entry fees, license fees, registration fees or any other fees or charges by whatever name called, as may be prescribed.”

4 (2) : Regarding prohibition to amend terms of license retrospectively: Exception provided for in Section 4 (2) should be removed or alternatively conditions, where such modification would be resorted through, should be provided.

Section 5 : Spectrum Management

Section 5(2)(b): Assignment of Spectrum without auction administratively: There is a provision in the Bill that the Government may assign spectrum through an administrative process for Governmental functions or other purposes or purposes in view of public interest or necessity as provided in Schedule 1. The Government will have the discretion to decide to whom it would allocate spectrum on administrative basis as it has reserved power to amend the list of entities in Schedule 1 as per item no 19 of Schedule 1. Schedule 1 lists PMRTS, radio backhaul for telecommunication services, satellite-based services like teleports, Direct to Home (DTH), DSNG, VSAT, NLD, ILD, Mobile Satellite Service, etc. There is a need to include CNPN services in Schedule 1 as per the latest policy decision of the Government reference DoT letter dated 27th June 2022 issuing Guidelines for CNPN license. The Government also needs to allocate spectrum administratively to ISPs for broadband services and also replacement spectrum to those ISPs who have vacated spectrum in 3.3 GHz band.

There are provisions to delicense spectrum in the Bill

There is a need to review some of the clauses to make this Bill clearer and more transparent for the industry, which is vital for attracting more investments in the sector.

(Section 5(5)) which needs to be exercised more often by the Government .

Section 6 : Sharing, Trading, Leasing and Surrender of Spectrum

Rules for spectrum sharing and trading should be liberalized further. In a welcome move , Spectrum leasing is also enabled through the new Act reference Section 6 of the new Bill which may create a secondary market for spectrum and proliferate efficient and better usage of a scarce natural resource in case spectrum user club is game for this commercial opportunity.

Section7: Breach of Terms and Conditions

The proposed Bill consolidates, updates and simplifies various provisions on penalties and offences under the existing law. For breach of terms and conditions, the Government, among others, can issue cease and abstain orders, suspend a license, registration, authorization or assignment, curtail the period of such license, registration, authorization or assignment or revoke or vary such license, registration, authorization or assignment. There is significant reduction in the quantum of penalty. Breaches have been categorized as (i) Severe (Penalty up to Rs.5 Crore), (ii) Major (Penalty up to Rs.1 Crore), (iii) Moderate (Penalty up to Rs.10 Lakh), (iv) Minor (Penalty up to Rs.1 Lakh), and (v) Non-severe (Written warning). Defined in Schedule 4 of the proposed Bill. A licensee can give a voluntary undertaking to take specified action to rectify the breach as per Section 8 of the Bill. This is a very big positive for the industry and promotes Ease of Doing Business (EoDB) in a big way.

8. Voluntary Undertaking

The proposed Bill has introduced a new concept of 'voluntary undertakings'. To this end, the licensee or registered entity has an option to voluntarily disclose any breach of the license or registration terms by giving an undertaking that specified action will be taken by such entity. Once the voluntary undertaking is accepted by the DoT, it shall bar any proceedings against such entity. This is also very innovative solution and will result in open and transparent working.

9. No refund of fees

The move to refund amounts in case of voluntary surrender of license by an Entity is a welcome move.

10&11. Appeal & Alternate Dispute Resolution

Appellate Authority needs to be defined.

Introduction of Alternate Dispute Resolution -(ADR) Settlement process in the draft Bill, will dilute the exclusive powers of the sectoral adjudicating expert body namely TDSAT. which has come into existence because of a special TRAI Act. This is a grave cause of concern as the "suitable mechanism" for ADR has not been mentioned in the proposed draft Bill and can be arbitrarily notified by the Government in its favour later.

CHAPTER 4: RIGHT OF WAY FOR TELECOMMUNICATION INFRASTRUCTURE

The proposed Bill seeks to remove current limitations by providing an enforceable and enabling framework that facilitates RoW for laying or building telecommunication infrastructure by any facility provider. The term "facility provider" includes any licensee or registered entity, including any contractor or sub-contractor or agent working for the Central Government or licensee or a registered entity.

Right of Way needs to be defined.

There needs to be a non-obstante clause in the Central Government powers to prescribe charges under this Act which should give over-riding effect to any other Act of Central/State Government and Rules made thereafter or any other Rules made by any of the Public Entity defined under this Act.

Therefore, clause 13(2) needs to be revised as follows:

13(2) The public entity shall grant permission under sub-section (1) in an expeditious manner, and within the timelines, as may be prescribed failing which the permission will be deemed to be granted after prescribed timeline elapses.

TRAI has been entrusted with the function of ensuring compliance to the terms and conditions of the license vide Section 11(1) (b)(i) and there are some field units of TRAI operational, DoT LSA units are performing these functions.

The new bill should contain a provision that the local authorities – municipality, gram panchayat, development authority etc. would need to align their building bye laws in line with Central Government rules/ provisions related to telecom services.

CHAPTER 5: RESTRUCTURING, DEFAULTS IN PAYMENT AND INSOLVENCY

21. Special Framework governing defaults in payment by licensees, registered entities or assignees: A special framework governing payment defaults by licensees has been included in the Act wherein the Government can take measures to defer payments, convert shortfall payments into shares of licensee or write off such outstanding amounts or part thereof and relief from payment of such amounts or part thereof.

There is a need to have a similar framework governing the payment of the dues by the licensees whose assessment of dues is delayed due to various reasons including litigation and the Government should have the power to take such payments in installments when such payments get assessed and determined by the Government.

22. Power to waive fee, interest, additional charges, penalty or grant exceptions

The Government has also reserved the power to waive, in part or full, any fee, interest, additional charges, penalty or grant exception in case of mitigating circumstances, including interests of consumers, ensuring competition, continued supply of services, and any circumstance of public interest or national security. This power should be exercised in cases where dues are claimed in a delayed manner by the Government due to delay in assessment or reasons including litigation. Interest, Penalty and Interest on Penalty should be waived in all such cases and simple interest should be applied for such dues in for the reason of fairness.

CHAPTER 6: STANDARDS, PUBLIC SAFETY AND NATIONAL SECURITY

23. Power to prescribe standards

23 (c): In respect of 23 (c) regarding issuing standards

on reliability of the provision of any telecommunication services to the public, there is an avoidable overlap of powers with TRAI as TRAI has executive powers on QoS issues which includes reliability of services. Section 11(1)(b)v states that TRAI will discharge the function of “lay-down the standards of quality of service to be provided by the service providers and ensure the quality of service and conduct the periodical survey of such service provided by the service providers so as to protect interest of the consumers of telecommunication service”. There is a clarity needed on which Authority will discharge this function. There is a similar overlap regarding which Authority will ensure compliance to the terms and conditions of license on which also some clarity is needed. While statutorily, TRAI has been entrusted with the function of ensuring compliance to the terms and conditions of the license vide Section 11(1) (b)(i) and there are some field units of TRAI operational, DoT LSA units are performing these functions.

24. Provisions for Public Emergency or Public Safety

For the sake of transparency and clarity there is need to define the terms Public Emergency, Public Safety, Public Order. Suitable illustrations may be given for better clarity.

CHAPTER 7: TELECOMMUNICATION DEVELOPMENT FUND

USOF has been named as Telecom Development Fund and scope of the Fund has been widened significantly to include R&D and support introduction of new telecom services, technologies, and products. Also added in the scope is the functionality of skill development and training in telecom. Licensees have been paying 5% of their AGR as contribution towards this Fund and TRAI in 2015 had recommended reduction of this levy to 3% of AGR. Further, the levy of 5% for USO was fixed in 2000 when the telecom network coverage was very poor in the country. It would be therefore in the fairness of the things if the individual licensee’s contribution is reduced to 2 % of the AGR for 7 years have already elapsed when TRAI recommended making this levy at 3% of AGR.

The Bill proposes amendments to the Telecom Regulatory Authority of India (TRAI) Act, 1997 which significantly dilutes the recommendatory power of TRAI and gives DoT more than an upper hand.

CHAPTER 9: PROTECTION OF USERS

33(1)&(2) Unsolicited Message Framework: The Bill creates a framework for the government to protect users from 'specified messages'. 'Specified messages' have been defined as messages that offer, advertise, or promote goods, services, solicit interest in property, businesses, employment, or investment. The Bill provides for prior user consent, preparation, and maintenance of Do Not Disturb (DND) registers and the mechanism to enable users to report specified messages received in contravention of this Section. This is in addition to the measures taken by TRAI under its TCCCP Regulation 2018 which have not provided effective remedy against the unsolicited communications to the end Users.

34. Duty of Users: No user shall furnish any false particulars, suppress any material information or impersonate another person while establishing identity for availing telecommunication services and any non-compliance of the same would entail penalty as provided in the Bill.

Tighter KYC norms and traceability of messages: The proposed Bill requires licensed entities to ensure that they identify the persons to whom they provide telecommunication services. The Bill places an obligation on TSPs to do this through a 'verifiable mode', as prescribed by the government. This would also be applicable to users of OTT communication services and its service providers.

Application of provisions of proposed Personal Data protection legislation: In order to protect the customers, the new bill can have a provision that the relevant provisions under the Personal Data Protection applicable law would be applicable to customers availing telecom services.

Spam Control/Fraud Prevention by mandatory user identity and traceability of communication.

Framework for Internet Shutdown: Clause 24(2)(b) provides a clear statutory internet suspension power,

which did not exist earlier. There is no provision for judicial oversight over the suspension orders.

46. Amendment to Act 24 of 1997

Dilution of TRAI Act: The Bill proposes amendments to the Telecom Regulatory Authority of India (TRAI) Act, 1997 which significantly dilutes the recommendatory power of TRAI and gives DoT more than an upper hand in dealing with TRAI recommendations. For example, the Government can straight away reject the recommendations of TRAI without giving any reasons and without the requirement of sending a reference back. Additionally, there is no obligation cast upon the Government to necessarily seek recommendations of TRAI in respect of terms and conditions of the license. The proposed changes are against the principles of transparency, accountability and constructive cooperation between the statutory Regulator and the Government. It also dilutes the stature of the statutory Regulator as an expert body.

Since lot of powers are proposed to be exercised by the Government unilaterally now, it is essential that these powers are exercised in a transparent manner for which a clause similar to Section 11 (4) of the TRAI Act should be there as follows:

"The Central Government shall ensure transparency while exercising its powers and discharging its functions under this Act."

I applaud the Government efforts in bringing this Draft Bill which is a revolutionary step towards more certainty and ease of doing business for Telecom Sector. However, there is a need to review some of the clauses as highlighted in above review to make this Bill clearer and more transparent for the industry which is vital for attracting more investments in the sector. 🙌

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How to make the Internet truly multilingual

Enabling people to reap the incredible benefits of the Internet in their own languages and scripts is a matter of equity and inclusion



BY JIA-RONG LOW

Most people around the world don't speak English as a first language and don't use the Latin script. For many of them, the fact that most domain names, email addresses, and websites are in English and use the Latin script, presents a significant hurdle to accessing the Internet.

It does not have to be that way. Internationalized Domain Names and Universal Acceptance are the bridge that will bring the next billion users online and create an Internet that is truly multilingual. We only need to build and cross it.

While English is not the first language for most of the world, it is the most used language on the Internet. The prevalence of English and the reliance on its alphabet (i.e., the Latin script) creates significant obstacles for, and potentially excludes, billions of people who would prefer to access the Internet in their own languages and scripts.

Enabling people to reap the incredible benefits the Internet provides in their own languages and scripts is a matter of equity and inclusion. It can also unlock vast educational, cultural, and economic opportunities. This is particularly important for Asia generally, and India

When people realized that they could access websites purely in their own script, the excitement on their faces was clearly visible. Language is a barrier for entry to the Internet, and IDNs can help break it down.

The National Internet Exchange of India (NIXI) currently runs 15 IDNs covering 22 Indian languages. The Indian government is also working to digitize 650,000 villages. This could lead to at least 650,000 IDNs.

specifically, where projections say most of the next billion Internet users are located.

Internationalized Domain Names, or IDNs, and Universal Acceptance of IDNs are the bridge transporting us to the multilingual Internet of tomorrow. IDNs make it possible for people around the world to use domain names in their local languages and scripts, while Universal Acceptance, or UA, ensures that all systems connected to the Internet recognize and render different languages and scripts properly.

I have travelled to different countries in the region, such as Cambodia, Laos, Myanmar, and Thailand to talk about IDNs. When people realized that they could access websites purely in their own script, the excitement on their faces was clearly visible. Language is a barrier for entry to the Internet, and IDNs can help break it down.

From these trips, we have since established many Label Generation Panels, which are working groups comprised of language and coding experts who determine which characters and letters can be included in a top-level domain name. The work for 26 scripts has now been completed, 19 of these scripts are used in the Asia Pacific region. That most of them are being used here only underscores the tremendous opportunities we have.

It surely helps when governments, like India's, strongly support IDNs. The National Internet Exchange of India (NIXI) currently runs 15 IDNs covering 22 Indian languages. The Indian government is also working to digitize 650,000 villages. This could lead to at least 650,000 IDNs coupled with business opportunities for web designers, providers, e-commerce services, and others all flowing from those local language websites.

The country is also home to some 20,000 local language media outlets. While most of them have an Internet presence, to access their websites one still needs to type the English alphabet. Imagine being able to access

your local language media in Hindi or other languages? Imagine the creative and economic potential this could unleash?

Unfortunately, IDNs by themselves are not enough to create a truly multilingual Internet. Software and applications need to be programmed to accept IDNs. Many programmers are still not aware of the existence of IDNs and, as a consequence, most current software and applications only accept familiar domain names, such as .com, .org, or .in. We therefore need to not only raise awareness with technology companies, but, where required, help train their programmers to code their applications in such a way that they are able to render, or accept, all IDNs and long-form top-level domains. This is what the term Universal Acceptance describes.

In India, despite laudable government efforts to boost IDNs, there is still plenty of work left to do. According to a report report (<https://uasg.tech/download/uasg-027-country-based-evaluation-of-websites-for-acceptance-of-email-addresses-in-2020-en/>) by the volunteer-led Universal Acceptance Steering Group of 50 local websites surveyed in India, including government, media, academia, bank and e-commerce, only 11 percent accept Hindi IDN emails.

It does not have to be this way. India is poised to lead the way for the region when it comes to IDNs and UA, and ICANN stands ready to help. Partnering with the government of India and different stakeholders including the UA Local Chapter led by the Federation of Indian Chambers of Commerce & Industry (FICCI), we are planning various activities in 2023 to spread the word about IDNs and UA.

The future of the Internet is multilingual. Let's build it together. 🌍

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INTERVIEW

PROMISING INDIAN SOCIETY



Prerna Singh

Founder President, Promising Indian Society

“PM WANI & Promising Indians – spreading WiFi coverage in the country”

Promising Indians has been expanding the WiFi footprint using the PM WANI framework to enable remote and rural populations easy access to the Internet. Prerna Singh, director and founder spent some time to give her perspectives on the changing landscape of Internet in India.

WHAT HAS BEEN THE JOURNEY OF PROMISING INDIANS WITH PM WANI SO FAR – NUMBER OF HOTSPOTS, USAGE AND NEW APPLICATIONS LAUNCHED

Promising Indian Society is currently implementing PM WANI projects in Uttar Pradesh, Gujarat, Chhattisgarh, Uttarakhand, Rajasthan, Punjab and Bihar for premium parliamentary constituencies. The experience so far has been very enriching and challenging at the same time.

There is a long way to go for creating desired digital infrastructure as the ground reality is lack of awareness amongst masses, inadequate fibre lines with almost nil maintenance and software support from centre.

We are committed to create 1 lakh Entrepreneurs by implementing PM-WANI Projects on PAN India basis till 2024. We have been working on 112 Aspirational Districts for creating public WiFi hotspots together with a few Members of Parliaments (MP) at different locations. We have submitted proposals to various Public Sector Undertakings, Corporates and organisations to join hands together and take this project to next level.

We have received approvals for 250+ hotspots in the states of Gujarat, Rajasthan, Uttarakhand, Uttar Pradesh, Punjab, Chhattisgarh and Bihar. There is wide acceptance from public and now we have raised demand of more than 1000 hotspots at various locations.

The data usage in 4 months is more than 1 terabyte.

WHAT IS THE NEXT STAGE OF DEVELOPMENT OF SOME OF THE KEY CONSTITUENCIES LIKE VARANASI AND GANDHINAGAR WHERE YOU ARE USING WIFI TO ENABLE HEALTH AND EDUCATION INITIATIVES

Time and cost are two critical elements for the implementation, the key question is how we can rollout the broadband connectivity to the rural areas in the quickest and most cost-effective manner. The government is keenly looking forward to the speedy implementation of broadband connectivity for the success of its 'marquee' Digital India program.

Promising Indians Society is the only organization which is implementing PM-WANI projects under CSR initiative to create entrepreneurs at grassroot level. Not only it will create self-sustainable model but also empower small business owners/ shopkeepers by augmenting their income.

The uniqueness of using the premium constituencies is the model which we will be setting up will reach out to

We have received approvals for 250+ hotspots in the states of Gujarat, Rajasthan, Uttarakhand, Uttar Pradesh, Punjab, Chhattisgarh and Bihar. There is wide acceptance from public and now we have raised demand of more than 1000 hotspots at various locations.

My Vision for DigiGaon is simply empowering Rural Women through Multi-Skilling, and capacity building to convert them into Village Level Entrepreneur (VLE) and work as PDO (Public Data Office) under PM-WANI (Pradhan Mantri- Wifi Access Network Interface) framework.

masses quickly. The concept of “PM-WANI” framework, enables, the creation of a public hotspots for use of the local entrepreneurs to enable them to provide much needed broadband access to rural masses as a business case without any perpetual subsidy. We have aggressive plans for next year when dream of our Hon’ble Prime Minister will be realized in his own constituency.

HOW IS WIFI ENABLING A SOCIAL AND INCLUSIVE REVOLUTION IN OUR COUNTRY ?

Internet has become a necessity. The Internet is not just an information tool but is now a personal, social and economic development platform. The Internet has changed business, education, government, healthcare, and even the ways in which we interact with our loved ones—it has become one of the key drivers of social evolution.

Importance of the internet was driven home during COVID. It became a lifeline. From education to health and safety, daily groceries to social interactions everything relied totally on digital platform and internet connectivity. The demand for high speed data has increased many fold. The application ecosystem has fuelled the data consumption in the form of videos. This trend is not going to slow down. In fact, it will further fuel more activities online.

Offering Internet-based digital services is the key determinant of digital empowerment of citizens. It boosts entrepreneurship leading to new avenues of employment. For low income segments affordability of high speed Internet access is still a challenge. We need high speed public Wi-Fi at affordable rates to meet such demand. At present, there are around one lakh Wi-Fi hotspots in the country. As a public data office many entrepreneurs have set up public Wi-Fi hotspots under the PM-WANI framework.

We as PDO are trying to solve the problem of poor Internet connectivity and to bring high speed Internet

at low cost within the reach of every Indian for digital inclusion and reducing the digital divide in country through our organisation.

PROMISING INDIANS – THE FOUNDATION – ALSO HONORS ACHIEVERS IN THE TECHNOLOGY AND SOCIAL SECTORS – WHAT ARE YOUR CORE OBJECTIVES AND REASONS FOR THIS

The 6th edition of one of the largest annual flagship events “Promising Indian Conclave & Awards 2022” is taking place at Constitutional Club of India on 18th of December, 2022. This is one of the largest corporate events and the ethos behind constituting these awards is to globally present India as a business destination.

We have one exclusive category of Idea & Innovation wherein we award people in the field of Technology.

This event has a focussed session on PM-WANI to discuss the challenges and the way forward for PM-WANI Projects. There will be one panel discussion representing key stake holders from Ministry, Department of Telecommunications, C-DoT etc. in the conclave.

WHAT IS YOUR VISION ON DIGIGAON ?

My Vision for DigiGaon is simply empowering Rural Women through Multi-Skilling, and capacity building to convert them into Village Level Entrepreneur (VLE) and work as PDO (Public Data Office) under PM-WANI (Pradhan Mantri- Wifi Access Network Interface) framework.

We will support the leadership and participation of rural women in all issues that affect their lives with better rural livelihoods. This all is possible because of the training imparted by us will skills to pursue new livelihoods and adapt technology to their needs. 🙌

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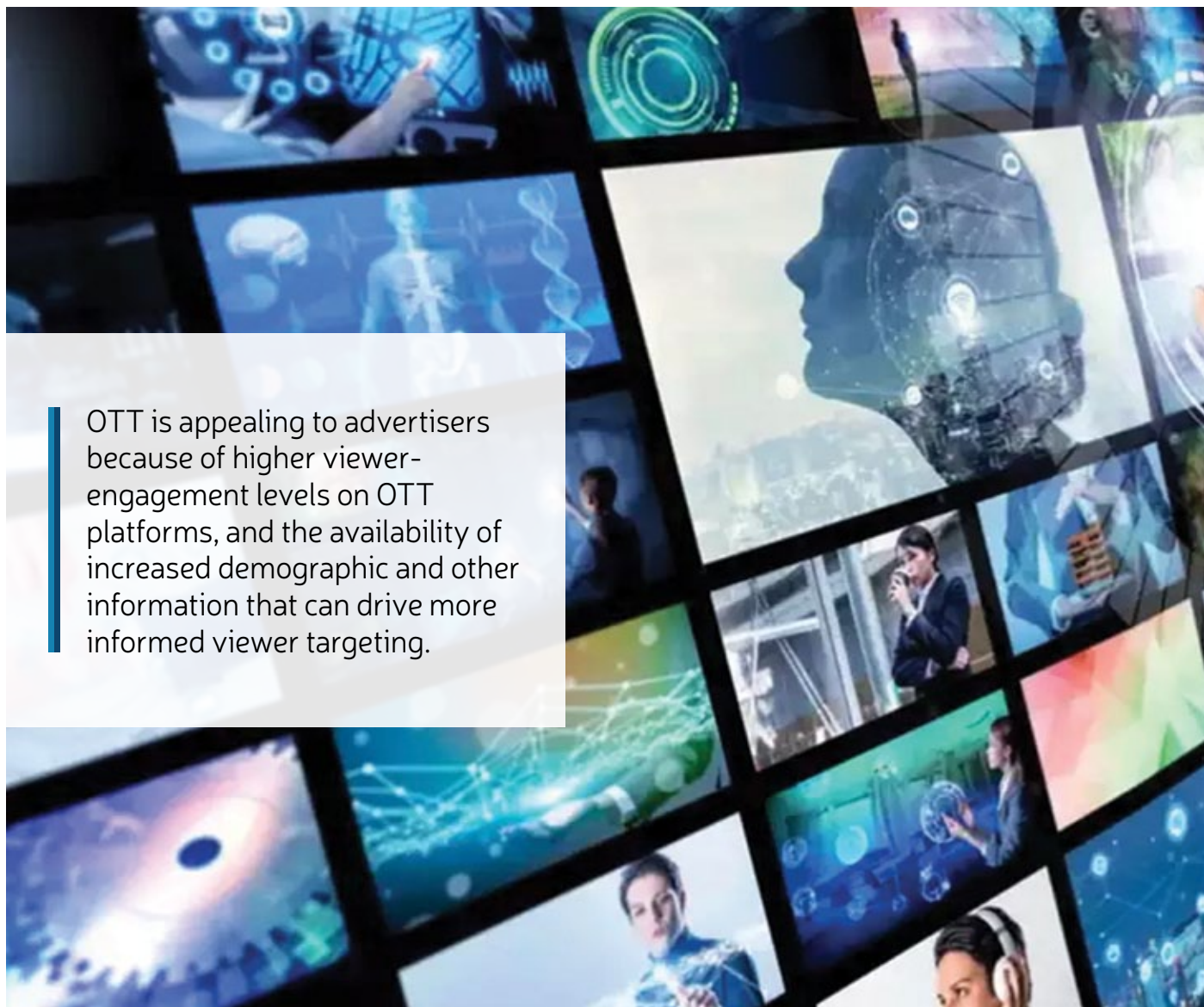
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Key reasons why broadcasters must integrate OTT into their distribution strategy

The OTT world offers devices that are purpose built for specific need-states, from mobile devices accessible on the run, to smart TVs larger screens and lean-back vibe.

BY RICK ALLEN



OTT is appealing to advertisers because of higher viewer-engagement levels on OTT platforms, and the availability of increased demographic and other information that can drive more informed viewer targeting.

As a country with one of the youngest populations in the world, India has adopted digital media extremely aggressively. This growth is spurred on by millennials who have changed the way India shops, creates friendships and most of all, consumes content. Infinite choice is not merely a reality – especially for the young, it is an expectation. That extends to selection of languages, devices, genres and viewing times. India's enormous diversity produces an ever-growing volume of content for an audience that expects to make their own viewing choices.

First, audiences have demonstrated a clear preference for digital consumption of news and entertainment,



where OTT video streaming services allow each consumer to watch whatever they want, whenever they want it. Deloitte's 2022 Technology, Media, and Telecommunications report predicts that India's OTT space will grow at a CAGR of more than 20% to reach US\$13–15 billion over the next decade. Deloitte says that this growth will be driven by heavy investment in original content, pricing innovations, low data costs, and the rise of short-form content. More importantly, the analyst firm also says that the progression from the early to mass stage might come at a cost to the broader media industry, as subscribers, especially in tier-1 and tier-2 cities, may switch from watching traditional linear TV to more streaming. That makes OTT distribution a fertile ground to attract new viewers, and a necessity to retain your existing audience.

The OTT world offers devices that are purpose built for specific need-states, from mobile devices accessible on the run, to smart TVs larger screens and lean-back vibe. News organizations are leaning into each of these device categories to become the natural home when news breaks, and the constant improvement of connection speeds will shift even more live news viewing to OTT.

As the above Deloitte report notes, the market for providing video streaming services in India is highly fragmented, with more than 40 streaming players vying for the Indian customer's attention and wallet. There are global streaming service providers such as Amazon, Hotstar and Netflix who are competing with local players such as Zee5 and Voot, in addition to a number of regional players (including those offering global access to content in regionally-dominant languages).

ADVERTISING-BASED VIDEO ON DEMAND MODELS

As streaming surges, the popularity of advertising-based video-on-demand (AVOD) is growing rapidly as an OTT streaming business model. The Deloitte report notes that AVOD in India is expected to increase from a revenue of US\$1.1 billion in 2021 to US\$2.4 billion by 2026. As AVOD audiences grow, many advertisers are making their ad buys "contextually" - placing their products in front of viewers whose choice of content indicates a predisposition favorable for the advertiser. Accordingly, more and more Indian broadcasters are adding OTT services, and OTT ad units, to their offerings for advertisers. OTT is appealing to advertisers because of higher viewer-engagement levels on OTT platforms, and the availability of increased demographic and other information that can drive more

As streaming surges, the popularity of advertising-based video-on-demand (AVOD) is growing rapidly as an OTT streaming business model.

informed viewer targeting. Trends in other markets offer clues for Indian broadcasters: some 40% of Disney's recent record-breaking ad "upfront" came from OTT sales, for example.

Similarly, advertisers can modulate their ad frequency to track streaming viewing behavior, like "binge watching" (viewers who watch more than two episodes of a particular show in a single viewing). These ad buys are meant to target those streaming over a long period and can be specific to the show being watched. The repetition necessary for effective advertising can now be delivered in part by taking advantage of bingeing behavior.

Broadcasters' expertise lies in content creation, audience analysis, and effective marketing. Streaming services having substantial expertise working with broadcasters can greatly simplify the technical lift of a robust OTT presence. At ViewLift, we have spent years learning the workflows required within news organizations, as distinguished from those of movie studios or sports leagues. For viewers to focus on the content, everything behind the scenes needs to be optimized for internal broadcast staffers to have the easiest route from production to delivery. And broadcast business owners require real-time analytics, across the full panoply of device types. Your winning streaming partner will be one with the right domain expertise and easy-to-use feature-rich back-ends.

USE AN OTT STREAMING PLATFORM TO INTEGRATE OTT INTO YOUR BROADCAST DISTRIBUTION AND ADVERTISING STRATEGY

OTT streaming solutions come with several features, like geo-fencing, multi-language support and localized payment platforms, allowing clients to take their content to a global audience. A case in point is oichoi, an OTT streaming service that offers Bengali-language content directly to viewers across the world. By partnering with Viewlift, the company customized its platform to optimize the content delivery via popular smartphone brands even in low network-bandwidth environments. Besides being integrated with local network service providers

and a breadth of payment methods, the platform offers a multilingual user interface to capture and engage its audience. The result -- 65% YoY growth in SVOD revenue; 13 million subscribers in the first three years of operation; and 40% of revenue from international users.

In a world of endless viewing choices, speed to market becomes a critical factor for content owners deploying OTT services. For RugbyPass, the largest independent English-language rugby audience network, that meant launching a fully functional streaming service in just four days by partnering with ViewLift and using the company's fully customizable ready-to-deploy app . Combining that entry speed with ViewLift's full global payment capabilities allowed the company to acquire subscribers from 92 countries in its first season.

A combination of linear and VOD solutions also allows the audience to access aired shows at their convenience.

Cloud-based platforms such as ViewLift offer a complete end-to-end solution to content owners to distribute and monetize their content across multiple device platforms, including web, mobile, over-the-top, connected TV, smart TVs and gaming consoles.

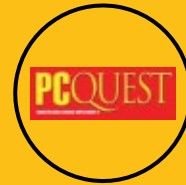
Top OTT platforms also provide deep real-time analytics for broadcasters to gauge viewer behavior constantly. For example, broadcasters can drive a personalized experience with recommendation engines that can decrease user churn, and create best-in-class experiences.

Adding OTT services to your linear broadcasting can attract new viewers, delight existing ones, and improve your appeal to advertisers. Embrace those opportunities, and simplify the process by aligning with the right technical partner. Over-the-top will become a powerful tool for your growth. 🍷

Rick Allen, Founder & CEO at ViewLift
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Realising the dream of Connectivity and Growth for Rural India

India has some notable success stories in promoting rural connectivity. One example is Google India's Internet Saarthi programme (in partnership with Tata Trust)



BY PRAVEEN CHERIAN

What is common between Elastic Run, Meesho, Udaan and Dealshare?

Apart from the fact that they are Unicorns, these organisations have bet big on the rural India connectivity and commerce story. Urban elite studied the power of rural consumers mainly through the book 'Fortune at the bottom of the pyramid' by CK Prahalad but for long, this massive segment of almost a billion was ignored, even pilloried.

Covid pandemic recalibrated a lot of the status-quo across a shell-shocked world. One of them was organisations and institutions understanding the power of remote work and by extension, the importance of countryside connectivity.

India has some notable success stories in promoting rural connectivity. One example is Google India's Internet Saarthi programme (in partnership with Tata Trust). This programme has benefited more than

India is at the cusp of a digital revolution and our government in partnership with telecom operators, service providers, regulators, industry, and academia has lined up several key initiatives to turbocharge India's rural connectivity at breakneck speed.

India's overall digital economy prowess has a direct impact on its share of Indian GDP. A world bank study shows that a 10% increase in broadband penetration translates to a 1.4% growth of GDP in the developing countries.

22 million rural women and due to which male vs female participation in rural connectivity has got somewhat normalised.

India is at the cusp of a digital revolution and our government in partnership with telecom operators, service providers, regulators, industry, and academia has lined up several key initiatives to turbocharge India's rural connectivity at breakneck speed. Some of them are outlined below:

- **Focus on Digital Infrastructure:** World's biggest rural broadband project Bharatnet has set up an ambitious target to provide fast, reliable, affordable, and scalable broadband access to all 2.5 Lakhs Gram Panchayats in the country through a mesh of interconnected OFC's spanning lakhs of kilometres to realise the vision of Digitally connected India. 1,77,550 Gram Panchayats (GPs) have been made service ready till June 2022. The scope of BharatNet has been extended up to all inhabited villages beyond GPs in the country by 2025.
- **Gigabit ambition:** Once the basic infra highway for internet access is laid, it's paramount that this highway is able to support fast bandwidth of rich data (Audio, video, streaming, LIVE calls etc) and this is where the National Broadband Mission (NBM) comes in. Imagine, entire rural India getting speeds of upto 50 Mbps (by 2024-25) which as of now we get in top urban cities in the country. NBM aims to bridge digital divide, accelerate the growth of digital communications infra, empower and facilitate digital empowerment & inclusion and provide unbiased, non-discriminatory, and universal access to broadband to all and sundry.
- **Enabling policies for fast 5G rollouts:** It's important to note that the recent changes done by the DoT to the ROW Act 2022 has been highly welcomed by everyone as that would ensure seamless, frictionless and uniform roll out of 5G services across the country through better coordination between all

the stakeholders for permission and deployment of digital infrastructure across the country.

India's overall digital economy prowess has a direct impact on its share of Indian GDP. A world bank study shows that a 10% increase in broadband penetration translates to a 1.4% growth of GDP in the developing countries. This data alone should be the harbinger of the exciting times ahead of us. In the last 5 years, Internet's contribution to our GDP increased from 5.6% to 16%

However, not all is as good as it looks. Even though the above parameters give a very utopian outlook of our Digital and Rural Connectivity story, there are, however, chinks in this shiny armour. Rural India internet usage is confined to browsing of social media platforms along with watching videos/listening to audios, however, most of the districts still lag far behind when it comes to online shopping, banking and digital payments - use cases that will take rural communities closer to parity. Government has been actively working to create a level playing field for our rural audience, however it needs to quickly address the following concerns on war footing to ensure we see a prosperous, connected and a fully empowered India.

Agile and ongoing addressal of Policy shortfalls
Cracking the code for scale and affordability for rural connectivity | Innovative approaches for overall digital and financial literacy

Our Ex-President and India's missile man – Dr APJ Abdul Kalam famously said: "Smart habitation is an area where cities and villages live and work in harmony and where the rural-urban divide has been reduced to a thin line"

The time has come for us to collectively realise this ideal... 🙌

Praveen Cherian is the Chief Executive Officer-
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What dropped at Google Cloud Next and Microsoft Ignite



BY DANIELLE ROYSTON

Google Cloud and Microsoft Azure went head-to-head with their annual events a couple of weeks ago. As they kicked off, I offered my take on which sessions were most relevant to telco. Now, I'm circling back through all the big announcements made by both companies to highlight the ones communication service providers will care about the most.

NEWS FROM NEXT

If you missed the event, you can catch up with this helpful 13-minute recap of the highlights. Here are the most notable nuggets.

T-MOBILE + GOOGLE CLOUD

The biggest telco headline to come out of Google Cloud Next is that T-Mobile has finally signed with a hyperscaler: Google Cloud. The partnership's initial focus will be improving customer experiences with data analytics, artificial intelligence (AI), and machine learning (ML). The teams will put T-Mobile's subscriber data to work to learn more about customers, predict usage trends, understand

customer sentiment, and find new business opportunities. T-Mobile is probably jealous of everything Vodafone's been doing through its partnership with Google Cloud—as every telco should be! You know I'm a big advocate for using the public cloud to enhance and personalize the subscriber experience; it's part of my vision for my company, Totogi. I'm definitely looking forward to seeing what T-Mobile and Google Cloud achieve.

GET A MOVE ON: DUAL RUN AND MIGRATION CENTER

Migrating to Google Cloud just got easier. Dual Run is a new service that'll help you move your mainframes to the public cloud. The press release says banks, retail, and healthcare have mainframes, but I know telco STILL has them, too. Now, there's help. The Migration Center is designed to help you assess and plan your move, and Database Migration Service helps with the actual migration. I love how hyperscalers are dipping down into reality to help telcos move data and workloads to the public cloud.

AN OPEN DATA CLOUD ECOSYSTEM

Back to what Vodafone and Google are doing with the telco's subscriber data—creating a single source of truth for the entire organization that can reduce costs, streamline operations, and bring new offerings to customers worldwide. You get why this is a big deal. Telcos are sitting on a goldmine of data that could improve customer service, identify new lines of business, and even tailor plans to individual subscribers. Google's open data cloud ecosystem helps you to aggregate and understand all your data from all sources in all storage formats from all cloud providers, so you can put it to work, apply AI and ML, make it more accessible, and get more insight from it. This is a huge benefit of moving to the public cloud, and the available tools keep getting better.

FIVE MORE NEW REGIONS ON THE WAY

Google Cloud is in a building frenzy! Already at 35 regions, with five opened this year and four more announced, it added another five to the list: Austria, Greece, Norway, South Africa, and Sweden. If not having a data center near you is keeping you from the public cloud, just wait a minute. There will be one (or more) in your backyard soon enough.

ITEMS FROM IGNITE

Microsoft didn't have much Ignite content specifically for the telco industry, but there's still plenty of good telco news that came out of the event.

ON THE EDGE: AZURE PUBLIC MULTI-ACCESS EDGE COMPUTE (MEC)

After launching Azure public MEC in preview last year, Microsoft made it generally available during Ignite. (The company's Azure private MEC launched last year.) This solution enables enterprises and developers to deliver high-performance, low-latency applications and experiences using operators' public 5G networks. It'll be available next month in Atlanta and Dallas, and "soon" in Detroit and NYC.

THE GRASS IS GREENER: DATABASE MIGRATION ASSESSMENT FOR ORACLE

There's a new database migration tool in town. Like Google Cloud and AWS, Azure is paving the way to leave your on-prem data center behind. The Database Migration Assessment for Oracle is an Azure Data Studio extension powered by Azure Database Migration Service that helps with the move from Oracle Database to Azure Database for PostgreSQL. It's in preview only right now, but should help Oracle customers cut costs and maintain performance. (If Amazon can get off Oracle, you can too!)

MORE METAVERSE

As Mark Zuckerberg announced at Meta Connect (also this week), the metaverse has legs—especially in the enterprise space. At Ignite, Microsoft echoed this sentiment in several ways. A 20-minute session called The Industrial Metaverse promoted the idea that there are three metaverses: consumer, commercial, and industrial.

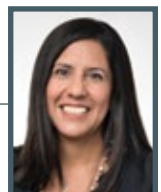
- The consumer metaverse (where Meta fka Facebook is working, and Microsoft will go with Xbox) is all about entertainment and connecting in our personal lives. This is what usually comes to mind whenever someone says "Metaverse."
- The commercial metaverse is where Microsoft hopes to take Teams, and to that effect it used Ignite to announce Basic, Premium and Ultimate tiers; Mesh avatars; new features; and new apps. This was a sort of a womp-womp announcement; there are SO MANY ways to make the commercial metaverse experience better. Living through COVID and all the webcam fails we saw as people started to use them more than they ever had, surely we can do better than blurred backgrounds and cat filters.
- The industrial metaverse is where Microsoft says we can connect "the physical and digital world to help drive us forward in the world of industry." And there's a new business team, Industrial Metaverse Core, to help customers create immersive software interfaces to simulate and improve all kinds of industrial processes, as described here.

All that said, the metaverse—whatever form it ends up taking—is a very exciting opportunity for telco because there's no way any of it can work without your network. I'm not saying telcos need to solve the metaverse problem and build all their apps, but I think they should make their networks super open to it—and figure out how to monetize it (maybe charge by the API call, like DISH plans to do).

Honestly? I'm ready. If I could create an awesome, virtual-reality me, and be in India and Australia simultaneously, and skip a bunch of business travel, SIGN. ME. UP. That's a wrap on this year's Google Cloud Next and Microsoft Ignite. Next up, AWS re:Invent, running November 28 – December 2, 2022. 🍷

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Airtel announces ultrafast 5G connectivity on-the-go in Hyderabad

- Connects the entire corridor of the Hyderabad Metro Rail
- Secunderabad & Kacheguda railway station and Imlibun bus terminal are now live on Airtel 5G Plus

Bharti Airtel (“Airtel”), telecommunications services provider today announced the launch of its cutting edge 5G services in the city connecting key locations and transport hubs including the Metro Rail, Railway stations and the Bus terminal.

Hyderabadis can now enjoy ultra-fast 5G connectivity on the go while they travel in the Hyderabad Metro Rail. Commuters can also avail Airtel’s 5G services at the Secunderabad & Kacheguda railway stations along with the Imlibun bus depot, Telangana’s biggest inter-state bus terminal (ISBT).

In addition, customers can access Airtel 5G Plus in multiple locations in the city including Begumpet, Banjara Hills, Jubilee hills, Hi-tech City, Gachibowli, Bowenpally, Kompally, RTC Cross Roads, Koti, Malakpet, Charminar, Habsiguda, Uppal, Nagole, Kupatpally, Miyapur etc. Airtel is in the process of augmenting its network further making its services available across the city in due course of time.

Airtel 5G Plus works across all 5G phones and promises to give customers massive speeds and best voice experience. Customers who have 5G smart phones can now enjoy the high-speed Airtel 5G Plus on their existing data plans until the roll out is more widespread. No SIM change is needed as the existing Airtel 4G SIM is 5G enabled. The services are being rolled out in a phased manner as the company continues to construct its network.

Commenting on the launch, Shivan Bhargava, CEO, Bharti Airtel, Andhra Pradesh and Telangana said, “I am thrilled to announce the launch of Airtel 5G Plus in the city that will touch lives of millions of commuters every day as they commute using different modes of transport. Airtel customers can experience ultrafast network and enjoy speeds upto 20-30 times faster than the current 4G speeds while on the go. We are in the process of lighting up the entire city which will allow customers to enjoy superfast access to High-definition video streaming, gaming, multiple chatting, instant uploading of photos and more.”

According to the telco, Airtel 5G Plus will bolster the entire portfolio of services that Airtel offers. In addition, it will allow superfast access to High Definition video streaming, gaming, multiple chatting, instant uploading of photos and more. With this launch, India will get a fillip to economic growth as Airtel 5G Plus revolutionizes education, healthcare, manufacturing, agriculture, mobility and logistics.

The telco also added that, in the last one year, Airtel has demonstrated the power of 5G with a host of powerful use cases that will change the way we lead our lives and do business. From India’s first live 5G network in Hyderabad to India’s first 5G powered hologram to India’s first recreation of a game changing world cup match played at a time when there was no TV coverage to India’s first 5G connected ambulance to India’s first private 5G network with Bosch for boosting manufacturing productivity, Airtel has been at the forefront of 5G innovation.



5G to propel India's economic growth : Deloitte-CII report

- 90% of the consumers will be looking for a digitally enhanced shopping journey whether engaging at home, via mobile or inside a physical location
- Indian telecom industry to grow by US\$12.5 billion every three years; Market for AR/VR technologies likely to reach USD 1.634 billion (INR 13,070) crores by 2025.

With the advent of 5G and the potential to boost innovation across the globe, Deloitte India and CII in a report released today have projected the Indian telecom industry to grow by US\$12.5 billion every three years. India is all set to pave its path towards 'Atmanirbhar Bharat' as 5G will accelerate economic growth, increasing job opportunities and connecting the urban and rural population. It will drive efficiency in critical sectors, such as energy, healthcare, and agriculture, a step in the direction of not only commercial consideration but also social outcomes.

Together with ultra-low latency and high data rates, 5G is expected to create avenues of collaboration and alliances as well as drive India to re-imagine a whole new way of engaging in the new, faster, agile digital world. Newer trends will emerge like smartphones becoming bigger and slimmer, likely becoming more foldable or expandable. Given the embedded 5G hardware, technology will be seen summarizing the world in our hands via smartphones seamlessly bending reality into virtual reality.

Digital experiences will transform traditional shopping behaviours and the focus will be on providing enhanced customer experiences by combining the benefits of physical brick-and-mortar stores with immersive shopping platforms.

While telecom companies continue to strengthen their 5G capabilities and build a robust infrastructure, various state governments are gearing up for the adoption of 5G connectivity for good governance.

In addition, the allocation of spectrum licences to non-telecoms will help promote nonpublic captive networks which would not only yield benefits for major telecom and technology companies, but also strengthen India's start-up ecosystem, enabling them to operate as system integrators for enterprises and administer their 5G private networks. Deloitte expects a spurt in private network requirements in Indian industries once the benefits of the shift have been realised, ultimately solidifying the B2B enterprise telco story.

Peeyush Vaish, Partner and telecom sector leader, Deloitte India said "With the right mindset and technological prowess, the Indian Telecommunication Industry can use 5G to accelerate economic growth and

resilience in the country. 5G is also expected to empower organizations to act on rich datasets in realtime, offering unprecedented visibility, insights, and control over assets, products, and services. We also expect a surge in the requirement for private networks in Indian industries once they comprehend the benefits of shifting to 5G network."

He added, "While the current outlook for the Telecom sector looks stable, there is a need for telecom companies to revisit their strategies and keep pace with new technologies and evolving marketplace. Apart from commercial benefits, 5G can also work as a growth propeller for Industry 4.0 by facilitating use of Information and communication technology (ICT) across sectors like manufacturing, education, healthcare, agriculture, finance and others. This will not only transform businesses in India but also create value for the society at large."

Key trends emerging include:

- **5G transforming ideas to reality:** 5G will cater to the rising need for high-end digital infrastructure required across all human experiences from entertainment to education and beyond. The increasing demand for immersive content across various industrial sectors such as healthcare, edTech, manufacturing and retail, among others will necessitate the high-speed 5G network as a driver for seamless connectivity within the ecosystem
- **Telecom Infrastructure: The 5G Footing:** Recent trends such as cloudification, orchestration, and virtualization are enabling extremely agile and scalable networks. A typical broadband and mobile network consists of several passive infrastructure components which combine to become a complete ecosystem forming the base for all deployments in the telecom sector
- **New smartphone market vs 5G uptake:** Demand for smartphones is anticipated to rise as internet usage increases; this demand will be fuelled by the requirement to adopt fintech, e-health, and e-learning
- **5G as a benison to Indian economy:** One of the direct economic benefits will come from the efficiency gains associated with operations, processing, and communications; all of which will contribute to cost reduction and improvement of margins
- **Ameliorating the 5G Ecosystem:** The approval of the Production Linked Incentive (PLI) schemes is expected to improve investor sentiment, attract more investment into India, stimulate innovation and R&D and reduce the significant imports of telecom equipment, thus demonstrating the government's commitment to its flagship programme, "Atmanirbhar Bharat"

Bharti Airtel launches its 5G services in Lucknow

Airtel's 5G services are currently operational in select locations in the city, including Gomti Nagar, Hazratganj, Aliganj, Aishbag, Rajajipuram, Aminabad, Jankipuram, Alambagh, and Vikas Nagar

Bharti Airtel announced the launch of its 5G services in Lucknow, the capital city of Uttar Pradesh today. Airtel 5G Plus services will be available to customers in Lucknow in a phased manner as the company continues to construct its network and complete the roll out.

Airtel's 5G services are currently operational in select locations in the city, including Gomti Nagar, Hazratganj, Aliganj, Aishbag, Rajajipuram, Aminabad, Jankipuram, Alambagh, and Vikas Nagar. "I am thrilled to announce the launch of Airtel 5G Plus in Lucknow. Airtel customers can now experience ultrafast network and enjoy speeds upto 20-30 times faster than the current 4G speeds. We are in the process of lighting up the entire city which will allow customers to enjoy superfast access to High-definition video streaming, gaming, multiple chatting, instant uploading of photos and more," said Sovan Mukherjee, CEO, Bharti Airtel in Uttar Pradesh.

Airtel has launched its 5G services in total 13 cities of India so far including Delhi, Mumbai, Bengaluru, Chennai, Hyderabad, Nagpur, Siliguri, Lucknow, Patna, Gurugram, Varanasi, Guwahati and Panipat.

Customers with 5G enabled devices will enjoy high speed Airtel 5G Plus network at no extra cost until the roll out is more widespread, the company said in a statement.



The company plans to expand its network to cover the entire city in the coming months.

The process to start using Airtel's 5G services is to first ensure that your device supports 5G network. Nearly all 5G-enabled smartphones now hold up Airtel's 5G. You need not change your SIM, just a prepaid 4G plan recharge on your 4G SIM is required, following which, as and when you're in Airtel's 5G network coverage zone, you will be able to access 5G services on your device.

BSNL 4G to be upgraded to 5G in 5 to 7 months, says Vaishnaw

In order for the telecom company to begin the trials for 5G services, BSNL has requested that Tata Consultancy Services (TCS) provide equipment for 5G testing.

In 5-7 months, the 1.35 lakh telecom towers held by the State-owned BSNL would have their 4G technology upgraded to 5G, according to Union telecom and railway minister Ashwini Vaishnaw. The minister stated during a CII event that the government intends to expand the telecom technology development fund from Rs 500 crore annually to Rs 4,000 crore in order to support domestic innovation.

According to a report by PTI, Uday Kotak CEO of Kotak Bank, asked Vaishnaw about the role of BSNL in the telecom industry. Vaishnaw responded that BSNL would play a significant stabilising role in the telecom industry.

According to him, BSNL has roughly 1,35,000 mobile

towers nationwide, with a significant presence in rural areas that are still not completely serviced by other telecom operators.

In order for the telecom company to begin the trials for 5G services, BSNL has requested that Tata Consultancy Services (TCS) provide equipment for 5G testing.

As stated in the PTI report, "We are taking that model to telecom space. A Telecom Technology Development Fund of Rs 500 crore every year has gotten established. We will be taking that to Rs 3,000-4,000 crore per year. That technology development fund will be available to the entire industry," Vaishnaw said.

OnePlus and Jio collaborate to bring Stand Alone True 5G tech ecosystem in India

First 1000 beneficiaries will additionally receive complementary Red Cable Care plan worth INR 1499 and Jio Saavn Pro plan worth INR 399



OnePlus, the global technology brand, collaborated with Jio, India's digital services player, claiming to bring in the evolutionary Stand Alone 5G technology ecosystem in India. Owing to the collaboration, all the OnePlus 5G devices will be powered by Jio True 5G technology.

OnePlus devices with access to Jio True 5G network from 1st December onwards include the latest OnePlus 10 Series, OnePlus 9R, OnePlus 8 Series as well as the Nord, Nord 2T, Nord 2, Nord CE, Nord CE 2 and Nord CE 2 Lite.

Similarly, OnePlus 9 Pro, OnePlus 9 and OnePlus 9RT will also have access to Jio True 5G network shortly.

According to the businesses, Jio and OnePlus teams have been actively working together at the backend to make 5G technology more accessible to Indian consumers and continue to expand their 5G technology services across the product portfolio.

As a part of the partnership, consumers will also be provided cashback benefits worth INR 10,800 which will be provided for eligible OnePlus and Jio 5G users during the OnePlus anniversary sale period from December 13th – December 18th.

First 1000 beneficiaries will additionally receive complementary Red Cable Care plan worth INR 1499 and Jio Saavn Pro plan worth INR 399.

Addressing the collaboration, Navnit Nakra, OnePlus India CEO and Head of India region, shared, "We are delighted to be partnering with Jio team to bring in 5G technology to our community in India. With 5G technology, users will enjoy a truly seamless, speedy internet experience, while achieving a lot more from

their daily use of smartphones than they could possibly imagine. With 5G becoming prevalent, OnePlus continues to demonstrate leadership in 5G R&D and has been the fastest in the industry to bring 5G devices to consumers across the globe. OnePlus launched the first line-up of 5G smartphones in 2020 in India, with the OnePlus 8 series in April 2020. Since then, all our smartphones are 5G-ready."

Speaking on the occasion, Sunil Dutt, President, Reliance Jio Infocomm Limited, said, "We are delighted to have OnePlus as a strategic partner to Jio, that has worked with us, to enable a sturdy 5G device ecosystem in India. The real power of a 5G smartphone can only be unleashed by a True 5G network like Jio, that is built as a Standalone 5G network, the most advanced network of its kind. Jio True 5G will enable hundreds of new and powerful experiences that can be experienced on a leading device like OnePlus. All Jio users using OnePlus devices will be able to access truly unlimited 5G internet under the Jio Welcome Offer in areas where Jio True 5G has or is being rolled out rapidly."

Indian consumers recently witnessed an innovative 5G collaboration between Jio and OnePlus at the renowned India Mobile Congress (IMC) in Delhi wherein exciting 5G use cases were successfully demonstrated to Jio users with eligible OnePlus devices.

According to OnePlus, it led the 5G smartphone market in the affordable premium segment (INR30K – 45K) as well as 20K-30K price segment in India, in terms of shipments, in Q3 2022 as per Counterpoint Research India smartphone model tracker Q3 2022.

Zero charge for SMS broadcast during disasters decides TRAI

The Telecom Regulatory Authority of India (TRAI) on Tuesday issued Telecom Tariff (69th amendment) order 2022 on Tariff for SMS and Cell Broadcast alerts disseminated through Common Alerting Protocol (CAP) platform during disasters/non-disasters.

Department of Telecom (DoT) requested TRAI to provide tariff for SMS and Cell Broadcast alerts/messages to be disseminated by TSPs through CAP platform during disasters/non-disasters.

DOT allows SMS/Cell Broadcast free of cost only for a definite period and for events where specific request for free-of-cost messages comes from NEC/NCMC/SEC/Nodal Authorities. However, there are occasions when the government would like to send alert messages to the public forewarning of a possible disaster or occasions where the public has to be informed of special events such as holding of relief/vaccine/medical camps/specific law and order related situations etc.

Accordingly, as per extant practice, TRAI issued a Consultation Paper on "Tariff issues related to SMS and Cell Broadcast alerts disseminated through Common Alerting Protocol (CAP) platform during disasters/non-disasters" on November 3, 2021, seeking comments and counter comments from stakeholders by December 1, 2021 and December 15, 2021 respectively.

The Authority also conducted an Open House Discussion (OHD) through video-conferencing mode on the issues raised in the Consultation Paper.

After considering the views of all stakeholders/participants and analysis thereof, the Authority inserted Schedule XIII to the principal Tariff order, in clause 3 of the Telecommunication Tariff Order, 1999, which provides the following Tariff for Short Message Services (SMS) and Cell Broadcast alerts disseminated by service providers through Common Alerting Protocol platform.

The Authority decided to prescribe a Tariff of Rs. 0.02 (paise two only) for SMS alerts/messages sent during disaster and non-disaster situations, other than those sent as per as per directions issued under the Disaster Management Act, 2005 (53 of 2005).

Considering the significance of alerts/messages sent as per direction issued under the Disaster Management Act, 2005 (53 of 2005), the Authority has decided that no charges shall be levied for such SMS/Cell Broadcast – alerts/messages sent either during a disaster or prior to notification of disaster or after the expiry of disaster.

TRAI said TSPs shall broadcast messages to all the subscribers through Cell broadcast free of cost during disaster and non-disaster period. (ANI)



**THIS DECEMBER 2022, DATAQUEST UNVEILED
“HOW INDIAN IT INDUSTRY BOUNCED BACK AFTER PANDEMIC ERA”
IN ITS ANNUAL DQTOP20 EDITION.**

Dataquest also unveiled the much awaited Dataquest-CMR Digital Index Survey 2022.

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MediaTek unveils Dimensity 8200, chipset for premium 5G smartphones



MediaTek today announced the Dimensity 8200, the company's newest chipset for premium 5G smartphones. Smartphones powered by the Dimensity 8200 are claimed to offer flagship level experiences – including connectivity, gaming, multimedia, displays and imaging – at a more accessible price point. Built on the 4nm-class process, the new chipset delivers unparalleled power efficiency. It also integrates an octa-core CPU with four Arm Cortex-A78 cores operating at up to 3.1 GHz, along with a powerful Mali-G610 graphics engine, for better performance across applications, according to MediaTek.

According to the company, to enhance gaming performance, the chipset takes advantage of MediaTek's HyperEngine 6.0 gaming technologies so users can enjoy smooth high framerate gameplay without suffering connection drops, FPS jitter, or gameplay hiccups. MediaTek's Intelligent Display Sync 2.0 technology intelligently adjusts the display refresh rate according to the game frame rate detected, which helps provide smoother viewing experiences.

"The MediaTek Dimensity 8200 will enhance the gaming experience on premium 5G smartphones, and will deliver smoother gameplay with higher framerates, impressive graphics, and seamless connectivity," said CH Chen, Deputy General Manager of MediaTek's Wireless Communications Business Unit. "Plus, the Dimensity 8200's power efficiency enhancements make it so consumers don't have to sacrifice battery life to enjoy super high performance," he added.

Powered by a flagship-level Imagiq 785 ISP, the Dimensity 8200 is capable of supporting 320MP photos and capturing true-to-life 14-bit HDR video on up to three cameras simultaneously, and recording cinematic video by double camera capture for the most natural bokeh effect. The chipset also has exceptionally fast AI-noise reduction to retain fine details, particularly in low-light environments.

The fully integrated 5G modem in the Dimensity 8200 features the latest 3GPP Release-16 standard technology and 3CC carrier aggregation to amplify sub-6GHz performance. The chipset also supports tri-band Wi-Fi 6E for faster wireless connectivity, while the 2x2 antenna ensures improved performance and connection reliability.

Additional features of the Dimensity 8200 include:

- Powerful AI processing unit to maximize the efficiency of dedicated AI tasks and fusion processing.
- Ultra-efficient Vulkan SDK to provide faster and more effective ray tracing effects.
- Support for brilliant 120Hz WQHD+ and 180Hz Full HD+ displays.
- Immersive viewing experiences with HDR10+ Adaptive support, 4K AV1 media decoding, and AI SDR-to-HDR video playback.
- Incredible audio quality with Bluetooth LE Audio technology and Dual-Link True Wireless Stereo Audio.
- Dimensity 8200 will power 5G devices launching in the global market starting in December 2022.

Princeton Digital Group launches flagship data center in Mumbai

MU1 will be powered up to 40% by renewable energy and will operate on minimal water consumption

Princeton Digital Group (PDG), data center provider for Asia, launched its flagship data center (MU1) in India today. Its MU1 data center provides 48 MW of critical IT capacity across two buildings and has achieved the rare feat of IGBC Platinum certification, according to PGD. With an investment of USD 300 million, MU1 is reportedly built across six acres within a larger IT campus at Airoli, Navi Mumbai. The campus will deliver secure and scalable data center capacity to hyperscalers – large cloud, content, commerce and fintech companies.

According to the company, in line with PDG's vision to be the most progressive data center player in the region in sustainability, MU1 will be powered up to 40% by renewable energy and will operate on minimal water consumption. In addition to achieving IGBC Platinum certification, which is the highest standard of Green Buildings Certification, MU1 is claimed to be the first Open Compute Project (OCP) certified data center in the country and will also be an Uptime Tier III certified facility.

Commenting on the launch, Rangu Salgame, Chairman, Chief Executive Officer and Co-Founder of PDG said, "India is one of the fastest growing data center markets in the world today and is a key focus market for PDG. We are committed to delivering hyperscale grade capacity at global standards to our customers in India. The launch of MU1 further strengthens our position as a leading Pan-Asia datacenter operator, that is focused on

creating sustainable value and being an enabler of digital growth. Our continued track record of delivering on our commitments is a key factor that makes PDG the partner of choice for hyperscalers across Asia Pacific."

Established in 2017, PDG is Asia's hyperscale datacenter market with presence in five countries with a portfolio of 20 data centers and 600 MW capacity. PDG also claimed to have a solid growth pipeline to establish more data centers in India, to serve the country with highly secure, scalable, and sustainable services and solutions, across multiple cities.

"The demand for data centers has accelerated rapidly, driven by large-scale cloud adoption, enhanced Internet penetration and extensive digital transformation. Our MU1 data center provides state-of-the-art internet infrastructure, designed to meet mission critical requirements. With a formidable team of highly experienced data center professionals, PDG has ambitious plans to scale and expand across India and is also committed to the cause of grooming young engineering talent into leaders of tomorrow," said Vipin Shirsat, Managing Director, India, PDG.

PDG said it is expanding rapidly across Asia, with several projects under construction. The company is backed by blue-chip institutional investment firms, Warburg Pincus, Ontario Teachers' Pension Plan (OTPP) and Mubadala Investment Company (Mubadala).



DoT proposes to drop Bharatnet infra from its asset monetisation plan

According to the NMP document, 5,25,706 kilometres of optical fibre has been laid under Bharatnet project which aims to connect all villages in the country with a high-speed broadband network

The Department of Telecommunications (DoT) has proposed not to monetize rural broadband network infrastructure built under Bharatnet project and plans to replace it with alternate assets to achieve its target fixed under the National Monetisation Pipeline (NMP), sources said. Sources also told PTI that BSNL tower monetisation bid launch will be targeted within FY22-23. According to sources, the earlier attempt to monetise the asset under Bharatnet failed to get satisfactory response from private players. "Bid response under PPP (public-private partnership) mode was not satisfactory," the source said.

DoT under the ministry of communications has so far not raised any money through asset monetisation against the target of Rs 20,180 crore in the current financial year. An e-mail sent to DoT seeking comments remained unanswered.

According to the NMP document, 5,25,706 kilometres of optical fibre has been laid under Bharatnet project which aims to connect all villages in the country with a high-speed broadband network. The indicative monetisation value for Bharatnet fibre assets is considered based on a capex approach, sources added.

Earlier the scope of the project was limited to 2.5 lakh panchayats, which has now been extended to village level. In the first phase of telecom asset monetisation proposed in FY23, the NMP estimates to realise Rs 20,180 crore, which includes Rs 15,780 crore from Bharatnet fibre and Rs 4,400 crore from mobile tower sale.

According to the document, BSNL's 13,567 mobile tower assets and MTNL's 1,350 towers have been valued at Rs 8,800 crore. Both the public sector units jointly own 69,047 mobile towers. The government has monetised assets worth Rs 33,422 crore under the National Monetisation Pipeline (NMP) in 2022-23 so far.

(PTI Report)

Swisscom launches 5G FWA services for business clients

Swisscom is utilizing 5G Mobile Access to improve the fixed network architecture and expand the accessibility of ultra-broadband with up to 1 Gbps of bandwidth

A 5G fixed wireless access (FWA) solution has been introduced by Swiss full-service provider Swisscom. Customers of Swisscom Business can now use the 5G FWA services that were made available by the telecom company last week. B2B customers can now install a fixed internet connection utilising 5G technology at their corporate facilities due to Swisscom's 5G Fixed Wireless Access Services.

Using 5G wireless technologies, this solution enables business clients without fixed-line connection to connect to their corporate network.

According to the business, Swisscom is making the fastest internet accessible to business customers in locations of temporary business sites and in places where normal network expansion is not possible with the help of this solution.

Friederike Hoffmann, Head of Connected Business Solutions at Swisscom said: "5G FWA offers great potential for our business customers. They can use it to benefit from the fastest Internet at their sites and be ready to make full use of all services."

Swisscom is utilizing 5G Mobile Access to improve the fixed network architecture and expand the accessibility of ultra-broadband with up to 1 Gbps of bandwidth. 5G FWA serves as a failover (backup) with added security of a mobile network connection for the Internet connection supplied by a copper or fibre optic link. As a result, the 5G FWA solution can serve as a 5G mobile backup. Mobile coverage, either 5G or 4G, is necessary for 5G FWA.

The Mobile Access and Backup service utilises a tiny receiver, or Customer Premises Equipment, or CPE. An external 5G SIM card is put in the Nokia 5G Mobile Toolkit, which also supports 4G. The Swisscom network is accessible wirelessly thanks to the toolkit's connection to the mobile communication tower. Customers in the business world have the choice of using 5G FWA with Enterprise Connect as a 5G Mobile Backup or 5G Mobile Access solution. The 100-meter cable used by the 5G Mobile Toolkit is available.

This December 2022, PCQuest unveiled “Most recognised brands in its annual **ENTERPRISE CHOICE AWARD 2022 - Volume 2**”



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Spirent introduces SimORBIT solution for LEO satellite simulation

Industry-first SimORBIT solution provides high-level accuracy for Low Earth Orbit satellite simulation



Spirent Communications, provider of test and assurance solutions for next-generation devices and networks, today announced availability of SimORBIT, the first high-accuracy orbital modelling software solution specifically developed for Low Earth Orbit (LEO) satellite simulation. Created in partnership with space-borne receiver developer SpacePNT, Spirent SimORBIT enables developers to calculate LEO orbits and their distinctive characteristics more precisely and realistically for GNSS/PNT testing.

Testing space-based applications in the field is extremely difficult and cost prohibitive, which is why accurate lab testing is vital. The new era of LEO satellites demands highly accurate modelling of the Low Earth Orbit environment to provide the realism needed for high-value testing, including representing the distinct gravitational and atmospheric impact LEO satellites will endure in space. Using Spirent's SimORBIT model, developers can now accurately replicate LEO orbits for the first time, enabling customers to test using simulations that more closely resemble the true operating environment of a LEO satellite, according to the company.

"Until now, PNT testing on LEO applications has been limited due to the lack of an integrated solution that could offer realistic LEO orbital data together with GNSS simulation capabilities," explained Adam Price,

Spirent's Vice President of PNT Simulation. "By working in close collaboration with SpacePNT, we have been able to develop the SimORBIT tool to bring a new level of accuracy and realism to LEO application testing by combining the simulation of precise LEO orbits and highly accurate GNSS signals," he added.

This capability complements the ability of Spirent's simulation systems to generate non-ICD signals via I/Q injection, or by the unique Spirent "Flex" feature, enabling new space based PNT signals to be developed in the lab as realistically as possible.

"As a leader in LEO PNT technology, we at SpacePNT are always keen to partner with other industry market leaders such as Spirent for the testing of PNT technology," said CEO and Founder, Cyril Botteron. "Spirent's open and rich PNT simulation environment has made the collaboration seamless, and we are proud to offer such a new, innovative building block for this rapidly emerging key PNT technology," he further added.

Spirent provides the most comprehensive and realistic GNSS test environments, working with leading PNT players to deliver the flexible, scalable, and future-proof architecture needed to evolve with technology. The SimORBIT orbital model highlights the company's continued commitment to providing customers with the most realistic, most valuable solutions for testing space-based applications, stated the businesses.

Airtel launches 'World Pass' – One pack for travel across 184 countries

- Significantly higher value in terms of data and voice benefits. More economical even compared to local connections abroad
- 24/7 call centre support on call and WhatsApp chat
- Unlimited data for emergency usage and messaging applications
- Power to Manage everything yourself on the Airtel Thanks app

In order to make staying connected easy, intuitive and compelling, Airtel has launched 'Airtel World Pass'. The telco said that, The World Pass revolutionizes the experience for all international travel because it works seamlessly across 184 countries. So even if you are en-route at an Airport or travelling to two or more countries one pack now covers all your roaming needs.

Airtel said that the worst effects of the COVID-19 pandemic ebb, we are beginning to witness a massive surge in international travel both for work and leisure. India, in fact, has seen a jump of 3X in international travellers this year, which is likely to double next year.

This change comes on the back of extensive customer research conducted by Airtel that showed that many customers find International Roaming packs in general confusing across the whole global Telco industry, according to the business. As a result, many are not connected when they want to be. Or they seek complex alternatives of temporary connections abroad. Airtel has now solved this problem structurally with the launch of the Airtel World pass.

Commenting on the launch of the Airtel World Pass, Shashwat Sharma, Director Consumer Business, Bharti Airtel said, "At Airtel, our mission is to solve customer problems so that our experience speaks for itself. The feedback that we have heard on international travel related concerns has compelled us to launch a defining proposition for our customers – the Airtel World Pass. This offers our customers one pack for the globe, significantly greater value, allows them to control what they use on the app and allows for emergency data usage long after the pack allowance is over."

"With Airtel World pass, we have set a new standard in the global telecom industry. I am certain our customers will benefit hugely from it as they travel the world, keeping their phones switched on, no matter where they



are. As a matter of fact, our new plans offer significantly better value than travel or local sims in most countries." Sharma added.

Airtel World Pass – Key Features Include

One Plan for travel to 184 countries. No confusion over which zone or pack to select. No need for multiple packs across multiple countries or transit airports

24X7 Call centre support for the customer from any corner of the world, absolutely free of cost. A dedicated number 99100-99100 available on call and WhatsApp for all international travelling customer, serviced with a network and experience specialist squad for a real-time resolution of issues.

Special Packs for long stay/frequent travellers – Prepaid and postpaid packs specifically designed for frequent travellers and long stay customers that offer up to 1 year validity at an affordable cost.

Plans packed with significantly higher value for customers. In addition, customers will have Unlimited data available for emergency usage and messaging applications.

All control in the customers hand where they can manage their entire International roaming needs on the Airtel Thanks app, with updates on usage, billing amount or addition of data or minutes as needed.

Details of the Airtel World Pass are below for both Postpaid and Prepaid customers

Airtel collaborates with Meta to expedite India's digital ecosystem

Airtel has signed an agreement to help increase operational efficiency of Open RAN and facilitate energy management and automation in radio networks using advanced analytics and AI/ML models

Bharti Airtel ("Airtel"), digital communications solutions provider, and Meta Platforms, ("Meta") today announced a collaboration to support the growth of India's digital ecosystem. Airtel and Meta will jointly invest in global connectivity infrastructure and CPaaS based new-age digital solutions to support the emerging requirements of customers and enterprises in India.

Airtel mentioned that foundational connectivity infrastructure such as subsea cable systems are crucial for supporting the rising demand for high-speed data and digital services as India prepares to roll out 5G networks later this year. With the constant endeavor to augment the nation's infrastructure, Airtel will partner with Meta and STC to extend 2Africa Pearls to India. According to the telco, 2Africa is the world's longest subsea cable system and is expected to provide faster internet connectivity to almost 3 billion people globally. Airtel and Meta will extend the cable to Airtel's landing station in Mumbai and also pick up dedicated capacity to further strengthen its submarine network portfolio. The 2Africa cable will significantly boost India's cable capacity and empower global hyper-scalers and businesses to build new integrated solutions and provide a high-quality seamless experience to customers, stated the business.

As members of the Telecom Infra Project (TIP) Open RAN project group, Airtel and Meta have been pioneers of Open RAN technologies with the shared goal of increasing ecosystem diversity, driving innovation, and cost-efficiency in connectivity networks. According to Airtel, it has signed an agreement to help increase operational efficiency of Open RAN and facilitate energy management and automation in radio networks using advanced analytics and AI/ML models. Airtel also informed that it is currently conducting trials for 4G and 5G Open RAN solutions on select sites in the state of Haryana and will commercially deploy the solution across several locations in India over the next few quarters. Airtel will share its learning with wider ecosystem partners within the TIP community, including Meta, to help accelerate the deployment of Open RAN based networks across the world.

Businesses in India are rapidly shifting to cloud-based solutions to serve their customers digitally. As per the telco, Airtel IQ, the world's first network embedded



CommunicationsPlatformasaService (CPaaS) ecosystem, offers cloud communication across voice, messaging and video channels to help enterprises transform their customer engagement and drive profitability by leveraging automation and boosting revenue. Airtel informed that it will integrate Meta's WhatsApp within its CPaaS platform. With this integration, businesses will now be able to use WhatsApp's rich features and reach to provide an unparalleled omni-channel customer engagement to enterprises.

Vani Venkatesh, CEO – Global Business, Bharti Airtel said: "We, at Airtel, are delighted to deepen our partnership with Meta to serve India's digitally connected economy by leveraging the technology and infrastructure strengths of both companies. With our contributions to the 2Africa cable and Open RAN, we are investing in crucial and progressive connectivity infrastructure which is needed to support the increasing demand for high-speed data in India. We look forward to working closely with Meta to deliver best-in-class digital experiences to our customers in India."

Francisco Varela, vice president of mobile partnerships for Meta said: "Subsea cables and open, disaggregated networks continue to play a huge role in the foundational infrastructure needed to support network capacity and fuel innovation. We look forward to continuing our collaboration with Airtel to further advance the region's connectivity infrastructure that will enable a better network experience for people and businesses across India."

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- Security & Compliance • Talent & Skill gap in Cybersecurity • Cybersecurity best practices
- Trends & Predictions in Ransomware

KEY HIGHLIGHTS

- Multi-city evening conference • Leadership Keynote & Panel Discussion • 30+ Cybersecurity experts
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WHO SHOULD ATTEND?

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DigiYatra makes paperless entry possible at 3 airports

DigiYatra is a facial recognition app designed to make checking in for flights easier for travellers. Passengers must first install the DigiYatra app which can be downloaded on the smartphones

To simplify air travel, the government has implemented paperless entry at a few airports beginning this Thursday. Union Minister for Civil Aviation Jyotiraditya Scindia on Thursday launched Digi Yatra from the Indira Gandhi International Airport, New Delhi, for three airports in the country.

As a part of this programme, facial recognition software dubbed “DigiYatra” will be used at airports to verify identity. As a result, customers would not need to carry both their ID and boarding permit.

The programme will be introduced at seven airports in its initial phase, beginning with three, Delhi, Bengaluru and Varanasi and then moving moving on to the remaining four, Hyderabad, Kolkata, Pune and Vijaywada by March 2023. The technology will then be introduced all around the nation.

In August, GMR group-owned Delhi International Airport Limited (DIAL), a joint venture, formed as a conglomerate between GMR Group (54%), Airports Authority of India (26%), and Fraport AG & Eraman Malaysia (10% each) announced the launch of the centre’s DigiYatra programme, by releasing the application’s beta version for Android platforms. The necessary infrastructure is already in place at Terminal 3 of the Delhi Airport, whereas other airports are also putting it in place.

How does DigiYatra operate and what is it?

DigiYatra is a facial recognition app designed to make checking in for flights easier for travellers. Passengers must first install the DigiYatra app which can be downloaded on the smartphones. It is available for both iOS and Android smartphones. Passengers can check in using this app without needing a boarding pass in paper form. The travellers would also be able to drop off their checked bags in addition to checking in. As stated, the purpose of DigiYatra is to make passengers’ experience of flying rapid and flawless.

Currently this service is only available to passengers of Air India, IndiGo, and Vistara. Spicejet is expected to support the project soon. All travelers taking domestic flights on the aforementioned airlines at the airports of Delhi, Bengaluru, and Varanasi can now check in easily using DigiYatra.

How can users access the DigiYatra service?

A traveller must register their information on the DigiYatra App utilising Aadhaar-based validation and a self picture capture in order to use this service. The following step requires you to scan the boarding pass, and the credentials must be provided to airport officials.



COAI releases statement on misleading views in media on OTTs

Communication OTTs do not contribute to the exchequer in the form of taxes, levies, license fee, etc. as they are not presently regulated by the Ministry of Communications, although their services are similar to that provided by the telcos. Hence, the definition of OTT Communication services need to be clearly incorporated in the Telecommunication Act itself, added COAI in its statement.

There are misleading views being propagated in the media by Big Tech advocates basis the legitimate demand of the TSPs seeking a 'usage charge' from OTTs that ride on their networks to provide competitive services like voice/video calling and messaging to the same consumers, according to Cellular Operations Association of India (COAI).

The statement further read that, it is being said that the revenues earned by the infrastructure provider should also be shared with the entity using it in the same proportion. This is as ludicrous a suggestion as can be imagined. By a very simple analogy, telecom networks are akin to roadways whereon the services for public consumption – such as public transport vehicles like buses operate, similar to the OTT service providers. The passengers or users of the service pay for ride tickets on roads or similarly for data packs to avail digital services. Notably, the vehicles pay toll/road taxes for using the roadways which contributes towards its maintenance and upkeep. The outrageous suggestion of roads paying to the vehicles for getting passengers on their network is unheard of. OTTs though, are not paying anything to the TSPs presently for their network costs.

Besides cannibalizing the services of the telecom operators, OTTs consume humongous bandwidth, which stresses the telcos' networks and necessitates their continuous and speedy up-gradation and development. This is in addition to the fact that TSPs' networks are already overstretched due to the growing volume of mobile and fixed broadband traffic, and also need to be expanded continuously to cover the connectivity requirements across the country and cope up with the exponential usage growth. Needless to mention, this expansion also involves deployment of latest technologies for better customer experience. In fact, the quality of service cannot be downgraded by the TSPs as the same is regulated by TRAI to ensure good services to the customers unlike OTTs, who may upgrade/downgrade their services since they have no QoS obligations.

OTT players are 'free riding' on the TSPs' Networks while using the TSPs' consumer base for monetizing their services and earning massive profits/benefits.



TSPs have contributed an amount of approx. Rs. 17,627 Cr. towards License Fee and Rs. 7,073 Cr. towards SUC for the FY 2021-22 alone. This is besides the mammoth amounts invested towards spectrum acquisition and network infrastructure. OTTs on the other hand, have nil or very minuscule contributions to the Government despite their robust revenues. Communication OTTs do not contribute to the exchequer in the form of taxes, levies, license fee, etc. as they are not presently regulated by the Ministry of Communications, although their services are similar to that provided by the telcos. Hence, the definition of OTT Communication services need to be clearly incorporated in the Telecommunication Act itself, added COAI in its statement.

It is also being argued that OTTs invest substantially on data centers, undersea cables, content hosting centers, content delivery networks, etc., which is greater than the TSPs' network costs and investments. This is another flawed comparison, and it is misdirecting to suggest that TSPs do not invest to the same extent. In fact, apart from the telecom network (on land), Indian TSPs too have invested heavily in laying of Undersea Cables for setting up their international network connectivity.

A dated report from the European Telecom Regulator BEREC is being quoted selectively, expressing concern that direct compensation from content and applications

[NEWS BYTES]

like OTTs could endanger the principle of net neutrality. In actuality, TSPs can neither provide bandwidth boost to OTTs, nor throttle/block their services by choice to save bandwidth, owing to the conditions inscribed in their license. The telcos demand for usage charge is proposed to be uniformly applied based on actual usage of the network by the OTTs.

Keeping in mind the need to nurture startups and MSMEs in the OTT ecosystem, COAI has also suggested that such players with low usage need not be required to pay the usage charge, so as to aid their growth. So, innovation and entrepreneurship would not get affected.

The COAI proposal will meet the objectives of adequate funding for creating robust telecom infrastructure, increased revenue for the exchequer and continued

innovation as only large OTTs generating high traffic would be required to contribute via usage charge, without impacting small OTTs and retail users.

The fact that economies across the world are advocating the need for OTTs (majorly owned by Global Tech giants) to contribute towards digital infrastructure development cannot be undermined. India has set global precedents in taking forward-looking and prudent decisions keeping in mind the well-being of both consumers and the industry in the long-term. As rapid technological evolution may pose similar policy challenges going forward, appropriate provisions must be made to ensure that the policy, regulatory and security mandates of the nation do not get compromised or become discriminatory in any manner.

Amantya Technologies exhibits 5G VoNR from its 5G lab in Gurgaon

5G VoNR was made by emulating an end-to-end live 5G environment using Amantya's in-house Standalone (SA) 5G Core Network, RAN solution, and IMS Server, and is claimed to be a huge 5G milestone for the company.

Global product engineering and system integration company, Amantya Technologies announced that it has successfully demonstrated 5G Voice over New Radio (VoNR) call from its state-of-the-art 5G Lab in Gurgaon, India.

This is claimed to be another significant breakthrough in the company's rapidly growing 5G solutions portfolio. Amantya's previous launches include avant-garde 5G solutions and IP accelerators including Astra5G, an end-to-end Enterprise 5G solution, 5G Network-in-a-Box (for building fully functional 5G Labs), and Standalone 5G Core.

Sanjay Bisen, CTO of Amantya Technologies said, "The successful demonstration of 5G VoNR call is a significant step forward for Amantya's growing 5G capabilities. With this, we hope to offer our customers high-definition and seamless voice and video experiences over 5G and several advanced voice applications and use cases. It will help supercharge macro-level and enterprise 5G deployments and creating 5G testing & simulation environments. Such breakthroughs are powerful affirmatives for our team and motivate us to go full steam ahead in exploring the true potential of 5G and take it to our customers across the globe."

According to the business, 5G VoNR was made by emulating an end-to-end live 5G environment using Amantya's in-house Standalone (SA) 5G Core Network, RAN solution, and IMS Server, and is claimed to be a huge



5G milestone for the company. While the key benefit of VoNR is ultra-high definition of the call, 5G VoNR also provides an integration point with applications and content such as announcement and conferencing. Additionally, it also supports integration with Rich Communication Services (RCS) in the IMS server. By demonstrating its 5G VoNR capabilities, Amantya can now provide complete IMS integration and various new services offered over the IMS network in 5G core infrastructure.

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KEY HIGHLIGHTS

- 1 day forum & awards
- Keynotes & panel discussion
- Seven plus sessions
- Thirty plus speakers
- Voice&Data jury awards
- Voice&Data awards for excellence
- Networking lounge
- Product demo
- Live social feeds
- Feedback, polls and many more

WHO SHOULD ATTEND?

- Policy Makers, Regulators/Govt. Bodies
- CEO/CTO's/CXO's of Service Providers
- CIO/IT Heads of Enterprise Users
- Academia/R&D Experts
- VAS/Cloud/Content/Application Service Providers
- CXO's of Defence/Citizen Networks
- Start-ups & Investors
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Reach out to the technology decision makers of the telecommunication industry.
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