



Annual Report

2018-19

5G in India
When and How?



Annual Report 2018-19

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डा० आर एस शर्मा
Dr. R S Sharma



अध्यक्ष
भारतीय दूरसंचार विनियामक प्राधिकरण
Chairman
TELECOM REGULATORY AUTHORITY OF INDIA

Message



The Indian telecommunications industry has contributed immensely to the country's overall growth and has been the backbone of the nation's economy. The sector is shaping the Digital India initiative which aims to build a digitally empowered global knowledge economy. As the sector regulator, TRAI has played the role of catalyst for growth in the sector and also for technological innovations. TRAI has also collaborated with the Department of Telecommunication (DoT) in formulation of the National Digital Communication Policy (NDCP 2018) and is committed to work towards its implementation. NDCCPR 2018, aims to build and sustain a sound digital infrastructure in the country.

TRAI believes that adoption of newer technologies will not only help in opening new revenue streams but will also benefit consumers. Keeping this in view, TRAI's new NDCCPR 2018 regulations (the UCC regulations) has been notified, which envisages adoption of blockchain technology to effectively control Unsolicited Commercial Communication (UCC), giving more choices to the consumers and providing revenue generation opportunities to the telecom service providers. TRAI is also working on the much needed regulatory framework for Over-the-Top (OTT) service providers and is likely to come out with its recommendations soon.

The next quantum leap for the sector will occur once 5G services are commercially rolled out. On this front, the authority has given its recommendations on the spectrum pricing. Adoption of 5G services and its availability at affordable price points will give much needed fillip to various emerging technologies such as IoT, AI, AR/VR, drone, smart city projects, robotics, etc.

TRAI looks forward to working with the industry to further the policies of the government, ensure customer satisfaction and promote the health of the industry. At the same time TRAI would like to convey our compliments to COAI for being an effective interface between regulator, policy maker and the industry.

I would like to wish COAI all success in all its future endeavor and for successful completion of the Annual General Body Meeting 2019.

(R.S. Sharma)

अरुणा सुंदरराजन, आई.ए.एस.
सचिव
Aruna Sundararajan, I.A.S.
Secretary



भारत सरकार
संचार मंत्रालय
दूरसंचार विभाग
Government of India
Ministry of Communications
Department of Telecommunications



MESSAGE

At the very outset, I would like to state that the Indian telecom sector is going through transformational changes, technological advancements, positive policy interventions, growing investments and increasing tele-penetration.

The year gone by witnessed the formulation and roll out of the much awaited National Digital Communications Policy 2018, which has set out ambitious goals of providing broadband connectivity at 50 Mbps, attracting \$100 billion worth of investment and creating 4 million new employment opportunities in the telecom sector by 2022.

It also lays emphasis on emerging technologies such as 5G, IoT, AI, M2M, Ease of Doing Business, sharing of spectrum, trading and harmonisation, connecting uncovered regions in the North East, LWE regions and Andaman and Nicobar Islands.

The key milestones include 5 times growth in broadband access with India becoming the highest mobile data consuming nation globally at 1.3 Billion GB per month, the successful implementation of BharatNet Phase 1 where Optical Fibre Cables (OFCs) were laid out at a phenomenal rate of 200-800 kms per day, taking the cumulative coverage from 7 Lakh Kms in 2014 to 14 Lakh kms in 2018, connecting over 1 lakh Gram Panchayats.

We are aware that efficient communication and broadband services can expedite significant economic progress of nations. The telecom sector currently contributes 6% to the country's GDP against that the NDCP has set a target of 8%. Year 2022, will truly be a seminal year for the sector if all the NDCP 2018's targets are achieved. With ambitious goals such as universal broadband coverage of 50Mbps, 10Gbps at all Gram Panchayats, 10 million public Wi-Fi Hotspots and 4 million new jobs, India will no longer be dubbed as an emerging nation. As of now, effective implementation of the policy is of paramount importance and the Department of Telecommunications has a list of 104 avant-garde initiatives under this Policy.

The “hyper competitive” Indian telecom market has only seen the beginning of many disruptions, yet it offers ample growth potential to not only draw massive investments but also ensure requisite profitability. We are bullish in our approach as the country is currently the fastest growing economy in the world, with significant potential for technological growth and innovation. The telecom department will continue to work extensively towards facilitating ease of doing business and reduce the burden of regulatory compliance that are deterring the sector from realising its potential. The Government, on its part, is leaving no stone unturned in extending assistance and ensuring that the requisite telecom infrastructure and services are put in place which will accelerate the industry’s growth, in the times ahead. The COAI, the industry and the Government regime to work in tandem for ensuring faster implementation of the NDCP 2018.

Moreover, with the augmented proliferation of emerging technologies such as 5G, M2M, IOT, AI etc., the next big paradigm shift is still awaited. We must take into account, 5G is not just about faster data speeds and unparalleled connectivity, it is also about unravelling an entire host of new and exciting use cases that were hitherto been considered straight out of some Hollywood Sci-Fi. 5G in action in health, agriculture, education, BFSI, smart cities and logistics, smart farming, smart manufacturing, drone patrolling for road safety, holograms and remote robotic healthcare and such, will revolutionise the India along with the world as we see it. The 5G technology proposes to have a collective economic impact of \$1 trillion by 2035, and is anticipated to vigorously reform the product development/manufacturing space. 5G upholds the promise of transforming India into part of a dynamic global manufacturing supply chain.

Over the next few years, more than \$100 billion worth of investments will be needed for the end-to-end deployment of 5G infrastructure in the country. Once, commercially operational, the technology will open up fresh revenue streams for telecom service providers, thereby contributing to the sector’s overall financial health.

Apart from this, in order to combat falling revenues, telcos will have an opportunity to adopt innovative business models. Converged services with voice telephony, wired and wireless broadband, and television services along with content, Internet of Things, financial payments, are likely to help in adding new revenue streams.

It is imperative that we embrace technology-led transformation in order to leapfrog towards a brighter future. I am certain that with the present renewed focus on strengthening and modernising our telecommunications sector, we would soon be able to achieve our objective of wide spread and equitable growth.

The telecom sector is expected to require over **40 lakh additional skilled manpower by 2021-22. Imparting the right skill sets remains a critical concern area and I am happy to see that the industry is putting in all efforts towards achieving the desired results.**

I take this opportunity to compliment COAI and its members who have been significantly contributing towards the growth of the sector and also in the growth of the nation. Wishing you the very best in your endeavours in the days ahead.



(ARUNA SUNDARARAJAN)

Chairman's Message



With the onset of Industry 4.0, the digital revolution unleashed across the country is gathering pace and the Indian telecom industry is at the core of driving this transformation.

Having connected India's billion plus population more than half of which uses mobile internet – telecom operators have established robust 4G networks with nationwide, to make India the highest data consumption market in the world with a consumption of more than 32 million TB in year 2018.

Despite several adversities and burgeoning financial stress, telecom service providers have remained steadfastly focussed on delivering value to customers, expanding coverage and capacity and introducing new age technologies.

Widely recognised as a critical enabler of economic growth, the telecom industry is at the forefront of delivering the Government's ambitious programs such as Digital India, Smart City and Bharat Net, by enabling Digitalisation in industry, government, services and administration.

The consolidation that the telecom industry witnessed in the recent past has resulted in an appropriate industry structure of 3 private operators and 1 public sector service provider. This structure is just right for our country to ensure choice for the consumer and healthy competition amongst the telecom service providers

The progressive National Digital Communications Policy (NDCP) 2018, has laid down a clear roadmap for the way forward, thereby ensuring that India's digital play remains at par with global leaders while encouraging innovation and use of the latest technologies such as Convergence, Big Data, IoT, Cloud, Augmented Reality, Robotics and Artificial Intelligence.

The bygone fiscal year 2018-19, was both turbulent and eventful in several aspects. With the start of the new financial year, there is renewed hope and expectation that the fiscal year 2019-20, will mark a major inflection point in the fortunes of the sector. The telecom sector provides the much needed connectivity layer, critical for transforming India into a veritable global knowledge economy with digitalisation at its very core.

Revival of the sector, critical for economic growth:

In response to debilitating hyper-competition, tumbling revenues, squeezing margins, while still to expand mobile broadband coverage and content delivery, the industry consolidated into a three private player market and one government owned player. With consolidation now firmly in place, telecom operators, who have invested more than INR 10.4 lakh crore till date, will further continue their investment, to drive India towards a \$1 trillion digital economy over the next few years.

However, for it to play its due role in Industry 4.0 to ensure growth and innovation, it is vital that immediate steps are taken to restore the financial

health of the sector. The industry is reeling under a cumulative debt of INR 7.64 lakh crores with revenues dipping below INR 2 lakh crores, leading to a loss of more than INR 5000 crores to the exchequer.

In spite of being widely recognised as an essential service, India's telecom industry is one of the highest taxed, with service providers paying more than 30% of their revenues in the form of taxes and levies, while telcos in the rest of the world pay around 10%. The NDCP 2018 recognizes this anomaly and hence it needs to be corrected immediately.

It is absolutely necessary for all relevant stakeholders to relook and rationalise multiple charges including spectrum usage charge and license fee, high level of GST (18%) and Import duties (20%) on essential items such as 4G and 5G equipment. The industry has made several pleas to the Government seeking urgent measures for debt restructuring, rationalisation of levies, and release of INR 35,000 crore GST input tax credit locked up with the government and we are very hopeful that the new financial year will bring some much-needed relief.

It is critical for the telecom sector to remain financially strong and play its due role in shaping the future of the country that needs to be built on the bedrock of digital.

Need to relook at spectrum auction and pricing strategy:

This decade witnessed Governments maximising revenue from highly priced spectrum which was aggressively bid by operators to be able to sustain and be competitive. Consolidation in the sector has led to sufficient spectrum availability amongst the remaining players and this now calls for a change in the auction and pricing strategy. With 5G on the anvil, spectrum should be made available to players at modest reserve prices so that the efforts of telecom operators to enhance network capacities is not hampered due to the high prices.

Provisioning of harmonized, contiguous,

interference free spectrum will further help reduce costs and make the sector more efficient. Having established pan-India 4G networks, operators need allocation of backhaul spectrum i.e. Microwave, E & V bands at reasonable prices for seamless connectivity and customer experience. Government should make this available to licensed players expeditiously.

Taking mobile broadband to a Billion Indians:

For India to become a digitally empowered global knowledge economy, taking mobile broadband to a billion Indians across diverse socio-economic and demographic sets, is an absolute imperative. This will make critical services like health, education, banking services and governance seamlessly accessible to masses, overcoming physical barriers.

NDCP 2018 has set the target of providing universal broadband coverage of 50Mbps, 10Gbps at all Gram Panchayats, 10 million public Wi-Fi Hotspots and 4 million new jobs. As part of the Government's BharatNet initiative, telecom operators have collaborated to provide end-to-end connectivity to 80,000 gram panchayats so far. Emerging technologies that hinge on telecom, such as AI and IoT, once adopted, will immensely benefit all sectors and open new vistas for the economy.

The current digital infrastructure is enabled by a 'fiber first' approach and has also been recognized by the NDCP. The implementation-collaborative model proposed in the policy is expected to expedite roll out and improve infrastructure sharing between public, local, and private entities, to increase the access to fiber optic cables in municipalities, rural areas, and national highways.

Right of Way (RoW) rules are the key enablers for expediting the deployment of underground (optical fibre) and over ground (mobile towers) infrastructure in India. With quality service being the top priority of telecom service providers, RoW rules need to be implemented on the ground with urgency.



The Industry requires a more concerted and collaborative effort amongst all stakeholders including the central and state governments and the local bodies.

Developing secure networks for ensuring data privacy:

As we prepare for the digital era, data privacy becomes a key area of focus for network planners. Network security is of paramount importance and the industry is taking all the necessary measures to ensure customer data remains safe. The explosive growth in the quantity and quality of personal data has created a significant opportunity to generate new forms of economic and social value.

Government, Regulator and the industry has held several discussions and consultations to develop a robust privacy and data protection framework and we believe that aligning with the GDPR [General Data Protection Regulation] may be the right step in this direction.

Preparing India for 5G:

As India now prepares for 5G, operators are readying their networks, forging partnerships, developing use cases and setting up trials to take India at par with the rest of the world in the commercial launch of 5G services.

A robust 4G network is a must for laying a strong foundation for 5G. With sufficient spectrum in their hands and capex outlays, telecom service providers in India are currently focused on optimising 4G networks and making them 5G ready. Once commercially deployed, 5G will fuel and transform many other emerging technologies such as IoT, AI, and Virtual Reality, which will, in turn, bring multiple benefits to consumers and enterprises. Once the 5G ecosystem, including enabling hardware develops and India-specific use cases are successfully piloted, the need for more quality spectrum will arise, which is likely to be accomplished by 2020.

The High Level Forum for 5G India 2020, headed by Professor Arogyaswami Paulraj, has given its recommendations on spectrum and regulatory policies, international standards, awareness promotion programs, applications, use cases and pilot trials for 5G in India. Industry stakeholders, government and the academia is working together to make this a reality.

In the interim, a focused and timely implementation of NDCP 2018 will help alleviate the sector from its acute financial distress. Going forward, spectrum must be made affordable such that it empowers the Indian telecom sector to fulfil its designated role of making broadband accessible to one and all for achieving the larger

vision of Digital India. The policy clearly articulates that Telecom should not be treated as a revenue-generating sector but as a core enabler of socio economic progress of the country.

The industry is committed to enable digital communication contribute 8% of India's GDP and propel the country towards being one of the top 50 nations in the ICT Development Index, from the current 134. The next few years will be crucial to turn the dream of Digital India into a reality and therefore it is imperative that the Government, the telecom operators, and all other stakeholders work together and support each other towards achieving the common goal for the development of the nation.

In conclusion:

To translate the vision of the Digital Future into reality, the need now, more than ever, is for all stakeholders to better collaborate, co-create and accelerate execution with a singular focused, consistent approach towards the larger objective of Digital India. By swiftly and diligently implementing NDCP 2018, we must set the course right, progress full steam ahead and create a new legacy. The existing digital divide between rural Bharat and urban India needs to bridge fast. This is Bharat's time to embrace the Digital world just like India is doing and we must make the most of it to deliver the Digital Future to All!

I am hopeful that as the apex industry body, the Cellular Operators Association of India will remain at the forefront of this dialogue and engagement amongst industry stakeholders and lead India's growth story.

Mr. Sunil Sood
Chairman
COAI

Key Highlights

- Telecom service providers have remained steadfastly focused on delivering value to customers, expanding coverage and capacity and introducing new age technologies.
- Immediate steps should be taken to restore the financial health of the sector for it to play its due role in Industry 4.0
- More than 32 million TB of data consumption in 2018
- More than INR 10.4 Lakh Crore of Investment done by Telecom Operators
- Industry Commitment: 8% contribution to India's GDP

Vice Chairman's Message



The Indian telecom industry is finally beginning see some early signs of stabilization after a phase of brutal competition that led to deep financial distress and unprecedented consolidation. This phase of hyper-competition altered the market landscape from 8-10 operators to what is now a 3+1 operator market.

The massive damage to the balance sheets of operators will still take some time to repair and the industry continues to carry the burden of large debt on account of spectrum purchases and pan-India network rollouts. Telecom is the backbone of Government's Digital India vision and there is a need for urgent intervention from the Government to ensure the industry is financially sustainable and continues to support this vision.

The Telecom sector has one of highest tax rates in India and given that it provides connectivity to every Indian at the lowest rates globally, the Government needs to rationalize the high levies

on the industry that is already under a lot of stress. The industry has also been making a fair demand for adjustment of blocked GST credits against spectrum payments and licence fee to ease the financial burden. We hope the Government will take note of these long standing demands which will help in ensuring the long term viability of the sector.

A 3+1 operator market with each player having a healthy market share and the opportunity to serve a Billion+ people is good news for the industry from a long term perspective. This is an ideal market structure that will allow every operator to be able to invest and innovate for the customer in a digitally connected India.

India becoming an ocean of smartphones:

India is transforming into a smartphone nation, with over 400 million smartphone users already out there. And as operators expand their high speed 4G networks deeper into every corner of the country, the number of smartphone users is expected to cross 700 million by 2022. The average monthly data consumption on a smartphone in India has crossed 10 GB and this is ahead of even some of the most developed nations. Video has become the most used service on data networks and this appetite for high speed data is expected to grow further as customer get a taste of digital services and content.

As more and more Indians jump on to the 4G smartphone bandwagon, one of the biggest ecosystems of digital services globally ranging from music, video, gaming, e-commerce, social media, mobile banking, e-health, e-education is set to shape up and grow rapidly on the back of strong data networks across the nation. Telecom services providers will truly enable and digitise India and multiple services, including digitising the Government sector, citizen services and records.



Roadmap for 5G:

The operators are continuously investing in newer network technologies such as pre-5G Massive MIMO, Carrier Aggregation, LAA and optical networks to serve this massive surge in data consumption and move towards what we describe as 4.5G standards. With this, the industry has started building a robust foundation for moving towards the most awaited network standard - 5G, which will truly transform the world from connected individuals to connected things and throw up some very exciting use cases.

Smart Homes, connected appliances and cars will not just be fancy experiments in labs but become a part of our daily lives. Industrial IoT - from Smart Cities & Grids, Smart Factories and Robotics - could become even bigger than customer facing use cases. All of this will be driven by cutting edge telecom networks, so one can imagine the vast opportunity ahead of us. We are already beginning to see some early IoT use cases on 4G coming into play.

Need for collaboration to build a 5G ready India:

India is second to none when it comes to telecom. We are the second largest telecom market globally with one of the largest 4G footprints in the

world and a massive smartphone and content ecosystem. But 5G will require the telecom industry to more than double down on its efforts and investments. While the Government of India has taken some noteworthy initiatives to ensure India is in step with the rest of the world when it comes to 5G, there is certainly much more that needs to be done to make 5G happen.

5G rollouts would mean tens of millions of sites and millions of Kms of fiber to be deployed in every corner to ensure very low latency and high speed-high capacity connectivity. The telecom industry is more than willing to invest in this digital future but the government needs to create an enabling environment in the form of rational spectrum prices, lower taxes and levies that provide headroom for the large capex needed. We need to make telecom an essential service and enable deployment of telecom infrastructure such as sites and fiber on priority. Remember, no site means no network and there is an urgent need for a clear policy framework that accelerates telecom infrastructure deployment. In brief, for 5G investments to happen, we need to ensure viable business case for commercialisation of services at large scale.

More importantly, the industry needs to change its mindset and rethink business models to share and collaborate. No one operator will be able to do it alone and we need to think shared networks and

infrastructure such as fiber. Telcos will need to build partnerships with multiple industry verticals to jointly develop use cases and solutions and this would mean common R&D labs and design centres. The bottom line is that partnerships and an open architecture approach that allows all stakeholders to plug and play will work better than isolated initiatives.

Last but not the least, India must have 5G spectrum and standards that are aligned to global norms. This will allow India to easily absorb latest technology and also build use case for the rest of the world. We will also need to reshape our education and skill ecosystem to support this journey.

I would like to summarize by saying that 4G and 5G will shape the telecommunications industry over the next decade and we should be very excited about the opportunities ahead.

I congratulate the COAI team for having done a stellar job of taking forward the industry's agenda and wish them the very best for the year ahead.

Mr. Ajai Puri
Vice Chairman
COAI

Key Highlights

- India: Second largest telecom market globally
- 400+ Million Smartphone Users expected to reach 700 Million by 2022
- 10 GB Data consumption per user per month
- Need to recognize telecom as an essential service
- Align the 5G spectrum and standards with global norms

From Director General's Desk



2018 was a transformational year for the telecom industry, paving the way for continued change and innovation in the upcoming year.

The past year saw the industry face hyper-competition, severe financial challenges, consolidation to a three-player private plus one PSU operator, an unsustainable debt load and the write-off of billions of dollars of value as several operators went into insolvency. In the face of these challenges, there were a few bright spots, such as the adoption of the National Digital Communications Policy 2018 (NDCP-2018), preparation for the adoption of 5G through the institution of the 5G High Level Forum, improvements in the Ease of Doing Business, continuing connection of rural India, rapid deployment of 4G networks and data consumption and tariffs that were the envy of the world! In the year ahead, we see the industry emerge to a more stable competitive environment, continued investments in 4G networks, a renewed focus on network coverage and quality, healthier balance sheets as operators raise Capital for investments and debt repayment and a focus from government on implementation of key aspects of NDCP 2018.

Globally, as witnessed in India, rapid innovation in technology and competitive pressure has led companies to merge operations and drive efficiencies in order to maintain viability and profitability. Companies are now looking to tap into new revenue streams emerging from new technology adoption. 5G promises significant opportunities, but emerging business models appear to be nebulous as operators scan the technology horizon for opportunities they can monetize. Partnerships and emerging network players providing service delivery platforms closer to the consumer, aggregators, cloud computing, all ensure competition will continue to be vibrant. Raising the needed investments to keep pace with the rapidly changing technology and customer demand will continue to test the financial mettle of incumbent operators.

As in the past year, the year 2019-20 continues to see an unprecedented surge in mobile data consumption and voice traffic, as consumers benefit from low tariff rates and expanded services. Though the country boasts of the world's second largest internet user base, actual penetration is still at a meagre 46%. This provides operators an opportunity to continue to drive penetration for broadband connections. Rural penetration affords another opportunity for expansion as the efforts of operators continue to focus on meeting Governments' ambitions of a fully connected "Digital India". We believe that the Government and the operators have every reason to continue to forge an active partnership, given that, every 10% increase in Internet penetration, gives rise to an increase in 2018 was a transformational year for the telecom industry, paving the way for continued change and innovation in the upcoming year. The past year saw the industry face hyper-competition, severe financial challenges, consolidation to a three-player private plus one PSU operator, an unsustainable debt load and the write-off of billions of dollars of value as several operators went into insolvency. In the face of these challenges, there were a few bright spots, such as

the adoption of the National Digital Communications Policy 2018 (NDCP 2018), preparation for the adoption of 5G through the institution of the 5G High Level Forum, improvements in the Ease of Doing Business, continuing connection of rural India, rapid deployment of 4G networks and data consumption and tariffs that were the envy of the world! In the year ahead, we see the industry emerge to a more stable competitive environment, continued investments in 4G networks, a renewed focus on network coverage and quality, healthier balance sheets as operators raise Capital for investments and debt repayment and a focus from government on implementation of key aspects of NDCP 2018.

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Government and the operators have every reason to continue to forge an active partnership, given that, every 10% increase in Internet penetration, gives rise to an increase in GDP of the country by more than 3%. This fact itself should be a great impetus towards bringing the next billion online.

Riding strongly on the back of the Government's ambitious Digital India program, telcos have been taking several steps in deploying a robust infrastructural blue-print, ready to deliver connectivity and digital services to the last mile. Till date, telcos have already invested INR 13.6 lakh crore in establishing a formidable infrastructural footprint. The last few years have seen significant 4G infrastructure being installed with 75% of overall base stations being 3G/4G. The industry recently witnessed the deployment of over 5 lakh mobile towers with over 21 lakh BTSs. In the wake of increasing global roll out of 5G networks and emerging use cases, it is expected that Government will be keen to keep India at the forefront of 5G adoption. Operators will be looking to work with the Government on 5G spectrum pricing, test cases, test beds and adoption of use cases suitable to India in the coming year.

NDCP 2018, anticipates the need for investments of US\$ 100 billion over the next 3 to 4 years to achieve its objectives. To achieve this, the stressed financial condition of the telecom industry has to be addressed. Given the importance and speed with which there is a need to enable digital citizenship and stimulate economic growth, it is important for the Government to prioritize between the short term benefits of immediate revenue generation and the long term dividends that a robust connected economy can create and start acting on them on a priority basis. We hope the new Government will address it in the first 100 days of its tenure.

Amidst these challenges and opportunities and with optimism for the improvement of the industry's fortunes in the future, I present the Annual Report for the year 2018-19.

STATUS ON POLICY AND REGULATORY ISSUES:

One of the most crucial milestones of the Government last year was the release of the NDCP 2018 (National Digital Communications Policy). NDCP 2018, apart from focusing on telecom and digitization, aims to create 40 lakh new jobs through relevant skill improvement. NDCP 2018, has taken into account several long standing concerns the sector was facing and addressed each of those comprehensively. Rationalization of multiple taxes and levies on the industry and treatment of spectrum as a natural resource to ensure overall development of the country, are some of the many recommendations which truly deserve to be highlighted. The ability to raise the proposed investment of USD 100 billion on favorable financial terms, will not only make access to communication services easy and affordable but will also breathe in a new lease of life into the already debt ridden and financially distressed telecom sector. The proper execution of the policy will not only ensure the sector's long-term sustainability but will also prepare the sector for widespread adaptations needed for welcoming futuristic technologies.

Efforts undertaken by the Government to facilitate roll out of 5G network services commercially by early 2020, is truly laudable by all measures. The High Level Forum for 5G India 2020, was constituted by Department of Telecommunications to position India as a globally synchronized participant in the Design, Development and Manufacturing of 5G based technology, products and applications. The coming few months are likely to witness many trials of advanced radio technologies for 5G and their relevant use cases as the 5G standardization process gathers momentum in India. We expect 5G deployments in India in the medium term and this leap forward in connectivity will enable the TSPs to significantly scale up their IoT and M2M offerings. 5G will be the key to the success of the Smart Cities initiative of the Govt. which is primarily aimed at the aspirational middle class which is looking for facilities like connected living, smart meters, smart traffic management

and waste management. However, the success factor of 5G in India lies in the pricing of the spectrum for auction. The current price recommended by the regulator is significantly high if compared globally and needs to be reviewed and rationalized looking at the financial distress that the sector is reeling under.

Under the aegis of the Government's BharatNet program, 1 lakh Gram Panchayats were connected through high speed OFC network by December '17, and the idea was to take this number to 2.5 lakh, by March 2019. BharatNet aims to deliver communication and connectivity till the last mile and to the last person. The telecom industry is also working towards the installation of one million Wi-Fi hotspots. As of now, they have deployed about 3.5 lakh Wi-Fi hotspots and the remaining is expected to be deployed by September 2019. The operators have worked towards state-of-the-art Wi-Fi networks, which provide seamless roaming, ease of access, high levels of security, intercompany bill settlements, etc., thereby enabling smooth experience for subscribers, as he or she will be able to use the data plan taken from any TSP and use it for all the Wi-Fi Hotspots deployed across India. Besides offering consumer delight, this industry initiative will create an additional 3 lakh jobs. We believe this is a first of a kind, anywhere in the world.

The Right of Way policy is also playing an instrumental role in ensuring efficient connectivity and optimum distribution of digital services in several regions. The industry is working closely with the State and Local Governments for the efficient implementation of the RoW Gazette Notification. Sixteen states have already adopted the RoW Gazette Notification of 2016, and many other states are following suit, reaping the benefits of India's journey towards becoming a global, digital knowledge economy. COAI is constantly working with the remaining states for early adoption of RoW policies that comport with the RoW Gazette Notification.

Another important development was the apex court's judgement on Aadhaar, where it mandated that individuals do not need to link their Aadhaar details while applying for new mobile connections



from operators. However, the same has been later allowed by the cabinet as a voluntary measure. The industry worked with the Government on an OTP based Digital KYC solution as the earlier paper based method of getting a new mobile connection was cumbersome for the telecom operators as well as, for the customers. This was done keeping customer convenience in mind.

The implementation of GST by the Government is truly commendable. It will go a long way in fostering economic growth and sustainable development in the country. GST did not only widen the tax base but also created a unified national market, eliminated state level tax barriers by bringing in much needed transparency and simplicity while automating the myriad compliance matrices. The telecom sector has been a significant contributor to the Government treasury and accounts for 3-4% of total GST payments. The GST council had held several meetings over the year, announcing specific reliefs from time to time. The council upholds ease of doing business and have made several amendments to promote the idea. We hope that amendments in the law will address issues that the telecom sector is facing, such as the significant amount of refunds due operators, the levy of GST on Government payments (under reverse charge), Centralized Registration & Centralized Assessments for service companies etc. We remain confident that the Government will deal with this on a priority basis.

The expansion of 4G network coupled with the availability of cheaper data and smartphones has led to a surge in the usage of data in India. The usage of apps, social media, and consumption of video has sharply increased. While the high data usage has pushed India towards becoming a leading Digital Economy, it has also posed many challenges in terms of Data Privacy and Security. Social media, Apps and TSPs have access to personal information of consumers who use their services. Hence a pressing need has been felt across the world on appropriate safeguards to the privacy of the personal information of consumers.

GDPR is one such example which was brought by the EU to address the concern around data privacy. India has also felt the need to address the concerns of Data Privacy and has drafted a Personal Data Protection Bill, which is expected to be adopted as law by the new government. The National e-commerce Policy and modifications to the Intermediary Guidelines under the IT Act have also been drafted for stakeholder comments and inputs. These proposed rules will pose new challenges for the telecom service providers as they will have to make several technical changes for possession, processing and storage of subscriber data records in compliance with the new laws of the land.

We expect the year 2019-20, will usher in possible disruptions, hitherto inconceivable. Technology innovations, new revenue streams, new applications, new network configurations, new

competitors will all require significant investments to propel India to newer heights of economic growth and prosperity. The Indian telecom sector will have to look at adopting technologies like Blockchain, 5G, among others, to create new revenue streams and lower existing operational costs. With progress in Machine Learning and intense interest in smart technologies, Artificial Intelligence is also coming into the mainstream. This will bring many opportunities for operators in the form of AI based solutions for applications, services and underlying infrastructure. This may also be adopted to improve customer service and reduce customer churn.

COAI and its member operators will continue their focus on providing value to their customers, advocating for a stable, long term, sustainable, policy and regulatory environment which will promote innovation and orderly growth for a fully connected and digitally empowered India, delivered through a financially strong and viable industry. We also look forward to continuing our partnership with the Government and Regulator to achieve the above vision.

OTHER ACTIVITIES OF THE ASSOCIATION:

Taking forward the momentum from last year, COAI organized the second edition of the country's largest iconic Mobile, Internet, and Technology event in India – India Mobile Congress 2018. The event took place under the active support, guidance, and leadership of Shri Manoj Sinha, Minister of Communications (Independent Charge) and Minister of State for Railways and actively supported by Smt. Aruna Sundararajan, Secretary, DoT and Chairperson of the Digital Communication Commission as well as with the support of several other Government Ministries (MEITY, DST, Skill Development & Entrepreneurship, Housing & Urban Affairs). With discussions pivoting on emerging technologies offering a glimpse into Virtual Reality, Connected Cars, m-Health, Smart Wearables, Smart Home, Artificial Intelligence, Drones, Robotics, Smart Energy, Internet of Things, Blockchain, Machine Vision, Cloud Computing, etc., policy and

regulatory guidelines, the event drew luminaries from industry, Government – both domestic and international as well as many other speakers of international repute. The event also witnessed technology showcases, use cases and also provided a platform for budding entrepreneurs to gain exposure and build connections.

COAI, in coordination with the DoT and the GSMA, helped in the coordination and facilitation of the visit of the Indian Government Delegation comprising of Chairman, TRAI Mr. R.S. Sharma, Member of TDSAT, Mr. Bhargava, Mr. Anshu Prakash, Additional Secretary, Telecom, DoT along with senior officials from their respective organizations, to Mobile World Congress 2019, held in the month of February-March in Barcelona, Spain. The delegation successfully represented the Indian Telecom Industry and highlighted the immense opportunities present in the country.

COAI being the Market Representation Partner (MRP) of 3GPP from India, we have been constantly engaging with 3GPP on requirements for the Indian market, as COAI members have a sustained business developed using 3GPP technologies and standards. To fulfil these activities, COAI formed the "Indian Friends of 3GPP" (IF3) to facilitate collective activity to host 3GPP meetings of relevance to India, within India and to do so in a manner that is cost effective, efficient, and which meets with the expectations of the 3GPP community. Further, COAI along with IF3, hosted six group meetings of 3GPP namely SA5#121, RAN5#3-5G-NR Adhoc, SA4#100, SA2#130, SA3#94 and SA6#28 in Kochi and Jaipur in the months of October 2018, January 2019, and February 2019. Around 500 delegates from across the globe participated in these meetings.

COAI has participated and partnered with other entities in the co-organization and co-creation of various seminars and workshops on issues of common interest and benefit to its members and for generating subject matter awareness amongst consumers. COAI and its members also continued active participation in Organizations such as CII, FICCI, ASSOCHAM, NASSCOM,

GSMA, TSDSI, TCOE, TSSC, amongst others, as well as activities of many telecom events in India.

To keep pace with the growing ecosystem and to represent the whole gamut of the communications industry, COAI continued to expand its Associate Membership by inducting new members such as ECI Telecom India Pvt. Ltd. and Juniper Networks Solutions Pvt. Ltd.

The **COAI Executive Council** headed by Chairman, Mr. Sunil Sood, Vice Chairman & Mr. Ajai Puri and comprising senior representatives from all member operators, met several times over the last year to deliberate on a variety of issues impacting the telecom industry. They were ably assisted by proficient advice from the various **Working Committees** that have been set up in COAI.

I would also like to thank all the **Committees and Working Groups** and their **Chairmen and Vice Chairmen** for their proficient leadership and sincere contribution towards various industry issues. We are grateful for their contributions towards various industry issues and for helping the Association in representing these issues in an expert and timely manner.

I would like to thank the **Chairman, Mr. Sunil Sood** and the **Vice Chairman, Mr. Ajai Puri**, for their personal involvement and support in all the activities and initiatives of the association in the last year, especially in the face of many challenges faced by their respective companies and the entire industry, during the course of the year. Both of them have given generously, their time and resources to provide personal support and guidance to the Association. We request their continued support and guidance in the future as well.

With the merger of Vodafone and Idea this year into a single entity, we are sorry to see the departure of two stalwarts of the Telecom industry from COAI – Mr. Sunil Sood and Mr. Himanshu Kapania. They have provided exemplary leadership to the industry as heads of their respective companies and COAI in particular, as Chair and Vice Chair. We owe them immense

gratitude and thankfulness for their unstinting support and encouragement over the years.

I would especially like to record my deep appreciation for the sustained efforts and support of the **COAI Secretariat** team who have always been fully committed to the task before us and have always been ready to take up new challenges for the Association and execute them smoothly, efficiently and with excellence. I deeply appreciate all of their efforts in contributing significantly to all the achievements of COAI.

Mr. Rajan S. Mathews
Director General
COAI

Key Highlights

- The year 2019-20, continues to see an unprecedented surge in mobile data consumption. The country boasts the world's second largest internet user base.
- The last few years have seen significant 4G infrastructure being installed with 75% of overall base stations being 3G/4G. The industry recently witnessed the deployment of over 5 lakh mobile towers with over 21 lakh BTSs.
- One of the biggest milestones of the Government last year was the release of the NDCP 2018. NDCP, apart from focusing on telecom & digitization, aims to create 40 lakh new jobs.
- NDCP 2018, anticipates the need for investment of US \$100 billion over the next 3 to 4 years.
- 5G will be the key to the success of the Smart Cities initiative of the Government which is primarily focusing on facilities like connected living, smart meters, smart traffic management and waste management.
- The implementation of GST by the Government is truly commendable. The telecom sector has been a significant contributor to the Government treasury and accounts for 3-4% of total GST payments.

5G In India: When and How?

In less than three decades, India has gone from an era of landline phones, trunk call dialling and STD booths to a vibrant and evolving ecosystem of mobile connectivity, digitization and emerging technologies that is both affordable and available even in far flung areas. Yet, the pace of transformation refuses to ebb as technology gallops ahead. Close on the heels of 3G and 4G, the sector is gearing-up for the 5G ecosystem, which will also encompass new age technologies

like Artificial Intelligence, Internet of Things (IoT), and “smart things” that will be interconnected. 5G networks have been dubbed as catalyst for next generation change as India aspires to be a 5G ready nation by 2020.

The Indian telecom sector today is the one of the fastest growing and second largest in the world. India today has the world's second largest internet user base, despite an average-seeming 46% penetration.



With the advent of 4G, robust infrastructure and record low data tariff, data consumption on mobile devices has exploded from 6678 Million GB in September 2017, to 14626 Million GB in September 2018, thus, recording an increase of 120% in just one year. The voracious appetite for data consumption also holds a huge opportunity for the future, as with every 10% increase in Internet penetration, the GDP of the country rises approximately by 3%. This is a great incentive to connect the unconnected and get the next millions online.

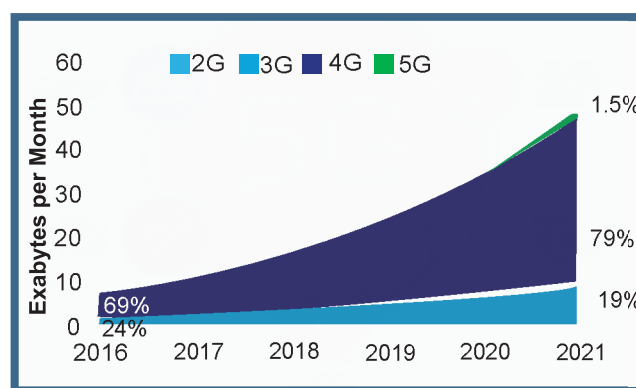
Adoption of 4G in India was quicker than the previous generations of mobile networks and the

roll-out and adoption of 5G is expected to be much faster, thanks to India's fast economic growth, remarkable technological advancements and unique steps that the Government and the industry are taking towards this end.

5G will naturally evolve from existing 4G networks, but will mark an inflection point in the future of communications, bringing instantaneous high-powered connectivity to billions of devices. It will be designed specifically for the way we want to live and provide a platform on which new digital services and business models can thrive. It will enable machines to communicate without human intervention in an Internet of Things capable of

driving a near-endless array of services. It will facilitate safer, more efficient and cost-effective transport networks. It will offer improved access to medical treatment, reliably connecting patients and doctors all over the globe. From low-power, sensor-driven smart parking to holographic conference calls, 5G will enable richer, smarter and more convenient living and working. It is a giant step forward in the global race to digitise economies and societies.

5G connectivity with its very high bandwidth (100 Mbps) and ultra low latency (1 millisecond) is expected to drive very high traffic volumes. By 2021, 5G will account for 1.5% of global mobile traffic.



5G network is envisaged to accommodate Apps & Services with different latency, reliability & bandwidth. Across the sectors the 5G technology will improve issues that centre around data security, connectivity issues and automating processes.



Source: Nokia

Making India 5G ready:

India is already taking massive strides towards commercialisation of 5G and the technology is critical for further digitisation and inclusive economic growth. To ensure truly inclusive economic development, deployment of 5G is not a matter of choice, but a matter of indispensability since all futuristic networks and technologies will ride on it.

India's Digital journey towards 5G has been proactively undertaken both by the Government and the industry in making India 5G ready by late 2019, and early 2020. The Indian Government is very bullish on implementation of 5G and plans to play a crucial role towards proliferating 5G across the country. To do so, a 5G High Level Forum (5G HLF) was set up by the Government in September 2017, to articulate the Vision for 5G in India and to recommend policy initiatives and action plans to realize this vision. The 5G HLF, in its report, has made recommendations on various aspects including spectrum, trials, regulatory measures,

standardizations, etc. for timely implementation of 5G in India and unleashing new economic opportunities, giving 5G the potential for being a transformational force for Indian society.

The Government is also keen to harness 5G technology to ensure last mile connectivity in even remote areas and ensure that benefits from wide range of social schemes accrue to the beneficiary at their doorstep. Further, 5G will help the government formalise large parts of the economy.

To ensure commercial deployment of 5G in the given timeline, an industry led high level 5G India Forum has been constituted where global telecom industry experts are collaborating and discussing challenges and opportunities in order to make India a true 5G powered nation.

Indian telcos have already invested INR 10.4 lakh crore in building a world class infrastructure. With the commercial rollout of 5G round the corner, more such investments are in the pipeline. Over the coming years, over \$100 billion worth of



Source: www.3gltinfo.com

investments will be required to deploy 5G infrastructure. These funds will help access to easy and affordable communication services and also help the already debt ridden and financially distressed telecom sector.

Telecom technology on 5G is not just about faster data speeds and faster connectivity. The 5G network, inevitably revolves around its unique

use cases, especially in the Indian context as technologies such as autonomous driverless cars, smart transportation and logistics, smart farming, drone patrolling for road safety, holograms and remote robotic healthcare and such would eventually enter into our ecosystem and become more and more pervasive by the day.



Smart Traffic



Smart Grid



Smart Healthcare



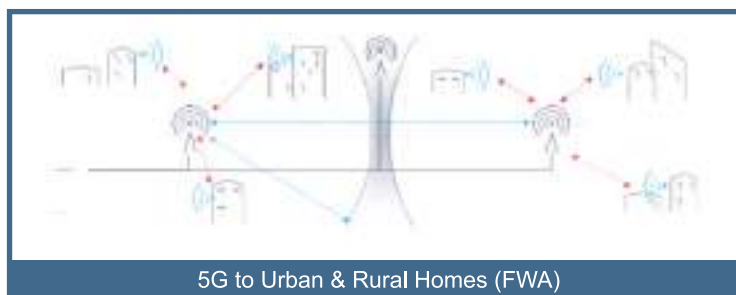
Smart Car

Apart from the above use cases, the ones that would be most important in the India context, especially rural India would be crop management, disaster management, education for all, etc.



5G, once commercialised will have a positive impact on the rural sector greatly. Not only will it will disrupt agriculture but will also democratise many utility services, making way for a truly inclusive society from which each and every one can benefit. Enhanced connectivity and increased digitalisation of services will also contribute significantly toward woman empowerment. Many rural women with no prior business or entrepreneurship skill are becoming successful micro-business owners in their community. This is possible because there is basic availability and initiative for their empowerment and development. With the advent of 5G many of such women will get easy access to vocational skills training or business idea expansion opportunities. Once the basic tools to start, operate and build a business is made available to them, their livelihood will witness a marked improvement. e-commerce and e-Banking that allows banking availability of micro-loans, insurance, etc, are features that promise to empower women. Telecom and connectivity holds a promise that is highly liberating and powerful.

Some of the use cases for India were also showcased at the India Mobile Congress 2018, (South Asia's biggest TMT and ICT event), held in New Delhi in late October last year. It drew hundreds of global telecom players, who participated in the event. The event unfolded with major discussions and deliberations happening around 5G, replete with opportunities that 5G will bring with it, live demonstrations, unique India-specific use cases and much more. Technologies such as driverless autonomous cars, drone patrolling for road safety, and robotic healthcare diagnostics, showed potential in the Indian context, hitherto unthinkable and unimaginable. Indian telecom companies are fast gearing-up to meet the technological challenges for upgrading



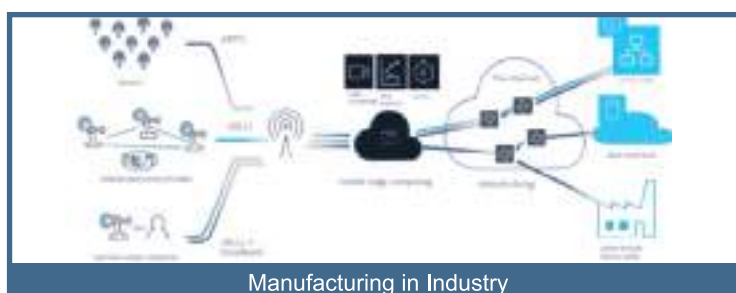
5G to Urban & Rural Homes (FWA)



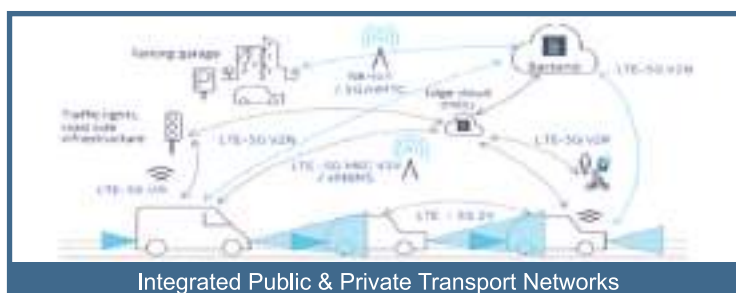
Education for all



Public Safety and Disaster Management



Manufacturing in Industry



Integrated Public & Private Transport Networks



Smart Crop Management

Source: Nokia

their networks, switch centres from 3G/4G to 5G and aligning it with their various stakeholders.

With so much excitement about 5G all around and the preparations that are going on in the country, we also have to work hard on enabling provisions that would be key milestones in the launch of 5G services in India. The telcos with huge debts, declining ARPUs and an abysmal return on capital are not in a position to make the huge investments in spectrum, license fees, universal service fees, infrastructure, and equipment that are the hallmark of a legacy and burdensome licensing regime.

The 2017-18 Economic Survey noted, "It is important to note that the telecom sector is going through a stress period with growing losses, debt piles, price wars, reduced revenues and irrational spectrum costs." Rationalisation of costs and other infrastructure subsidies may be necessary for operators in India to fast track roll-out of 5G.

One of the core requirements of 5G technology is extensive optical fibre connectivity. Reducing high costs and addressing delays in accessing cell sites or fiber ducts is also critical for successful roll out of 5G. Since 5G will require access to existing and new street infrastructure, lowering cost to access and subsidizing cost for new infrastructure would be important. Alignment of state and local government policies with the Right of Way Gazette notification will be a critical criteria of success. To this end, the government has approved the development of an index- the Broadband Readiness Index (BRI), as a tool to rank states on enabling policies and practices that enable speedy adoption of broadband infrastructure and connectivity.

Spectrum allocation is critical for deployment of 5G. A timely deployment plan for the band identified for 5G in India (3.3-3.6 GHz) is necessary. 28 GHz is seen globally as "a frontier 5G band" and considered essential for early 5G deployments. Many countries like US, Korea, Japan, Hong Kong, etc. have already auctioned

5G Spectrum and network deployments have taken place. Early adoption of this band will give opportunity to Indian manufacturers for Make in India. The issue of international harmonisation of spectrum, and collaborations between telcos and network vendors/app developers to ensure optimal use of existing network elements must also be addressed.

High cost of spectrum is another concern in India and spectrum pricing needs to be rationalized. Traditionally, while spectrum had always been expensive, the cost to procure these 5G airwaves is even higher than the previously auctioned airwaves in India on which 4G, 3G or 2G technologies operate. If we draw a parallel, 20MHz blocks in the 3,300-3,600MHz band for 5G services was priced at INR 492 crore per MHz during auctions in India. On the other hand, the same band in Korea was priced at INR131 crore per MHz in auction. Spectrum pricing in India being amongst the highest in the world, any step towards rationalization of spectrum costs would help mobilize industry investments in upgradation of technology.

5G is the technology with evolutionary and revolutionary services that can have a deep impact on India. 5G can unleash new economic opportunities and societal benefits giving it the potential for being a transformational force especially for Indian society. Making 5G affordable and inclusive should be the priority of the government as well as the industry. India has a big opportunity for innovation and to lead the world in 'Inclusive 5G' technology.

Indian Wireless Industry - An Overview

I. Telecom Industry – Contribution to India

Over 500,000 villages covered

Lowest voice and data rates in the world (ARPU INR 81)

Contributes directly to 2.2 million employment & indirectly to 1.8 million jobs

Among the highest contributors in FDI in the last two decades: INR 1,307.29 billions

Contributes 6.5% to India's GDP

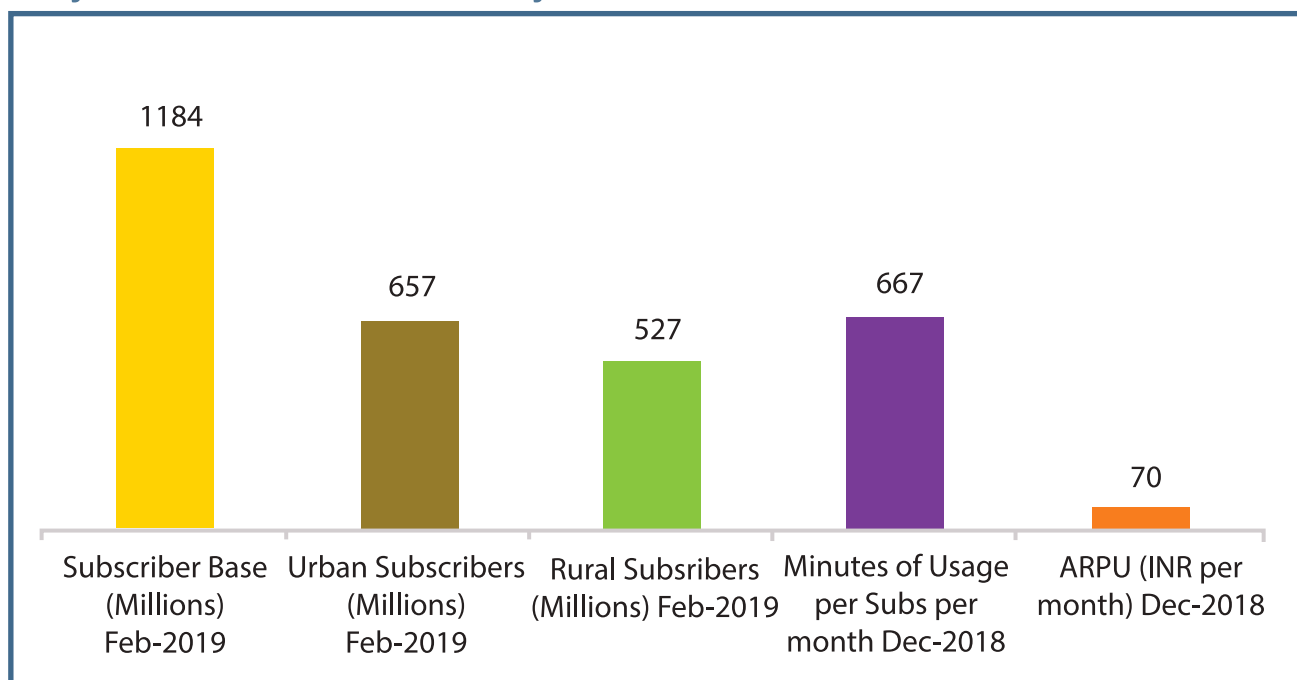
Among the highest contributors to the Government: nearly INR 700 billions p.a.

Investment in spectrum auctions since 2010: INR 3,480 billion

Second largest private sector investment in infrastructure: INR 10,440 billion

Source: GSMA - The Mobile Economy India Report 2016, DoT, TRAI, COAI estimates

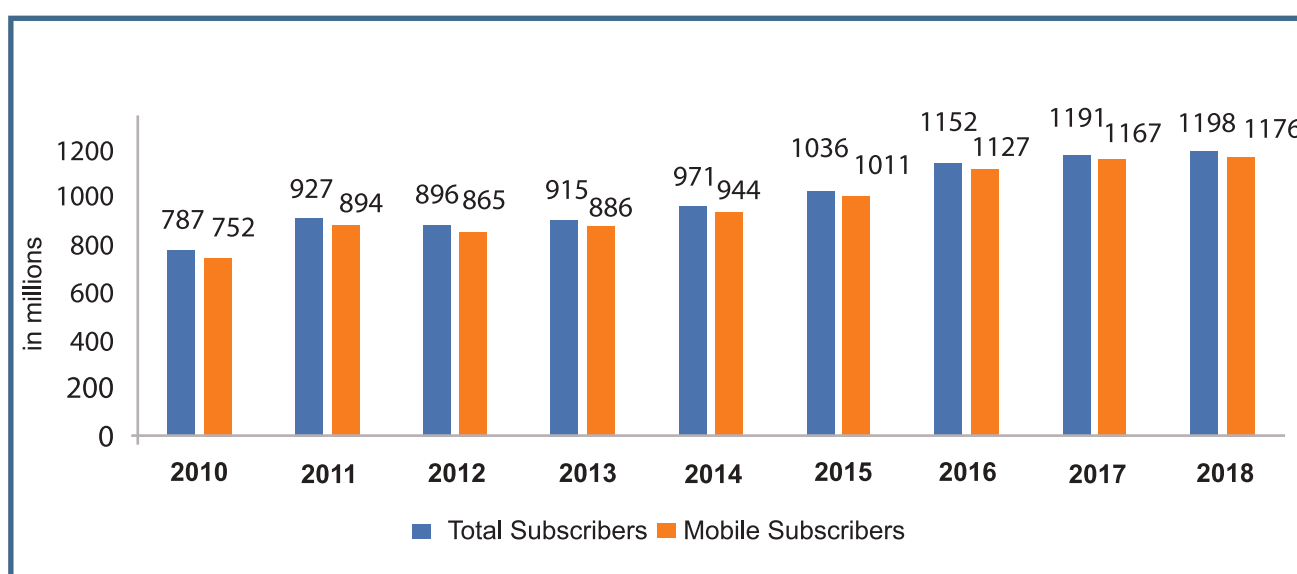
II. Key Statistics of Telecom Industry in India



Source: TRAI Subscription Report Feb 2019 & PMR Dec 2018

III. Industry Subscriber Figures

A. PAN India Total and Mobile Subscribers



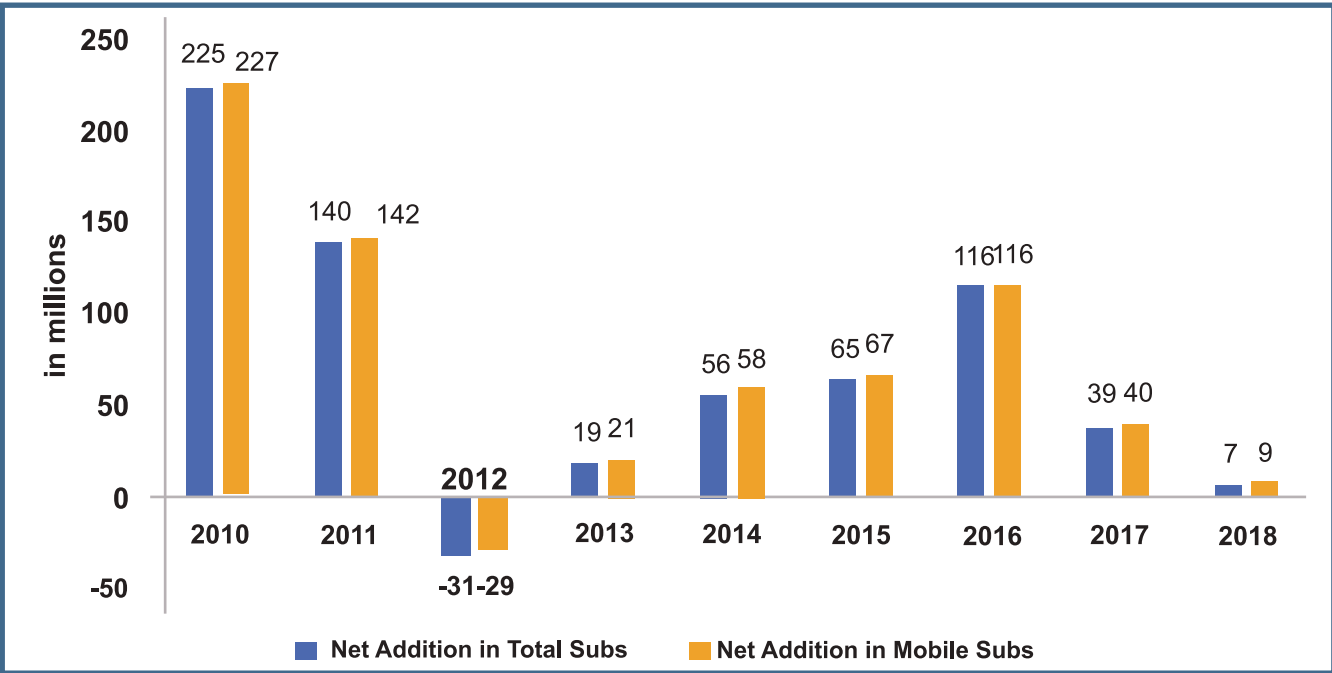
Source: TRAI Subscription Data, COAI (Year ending - December)



Key observation

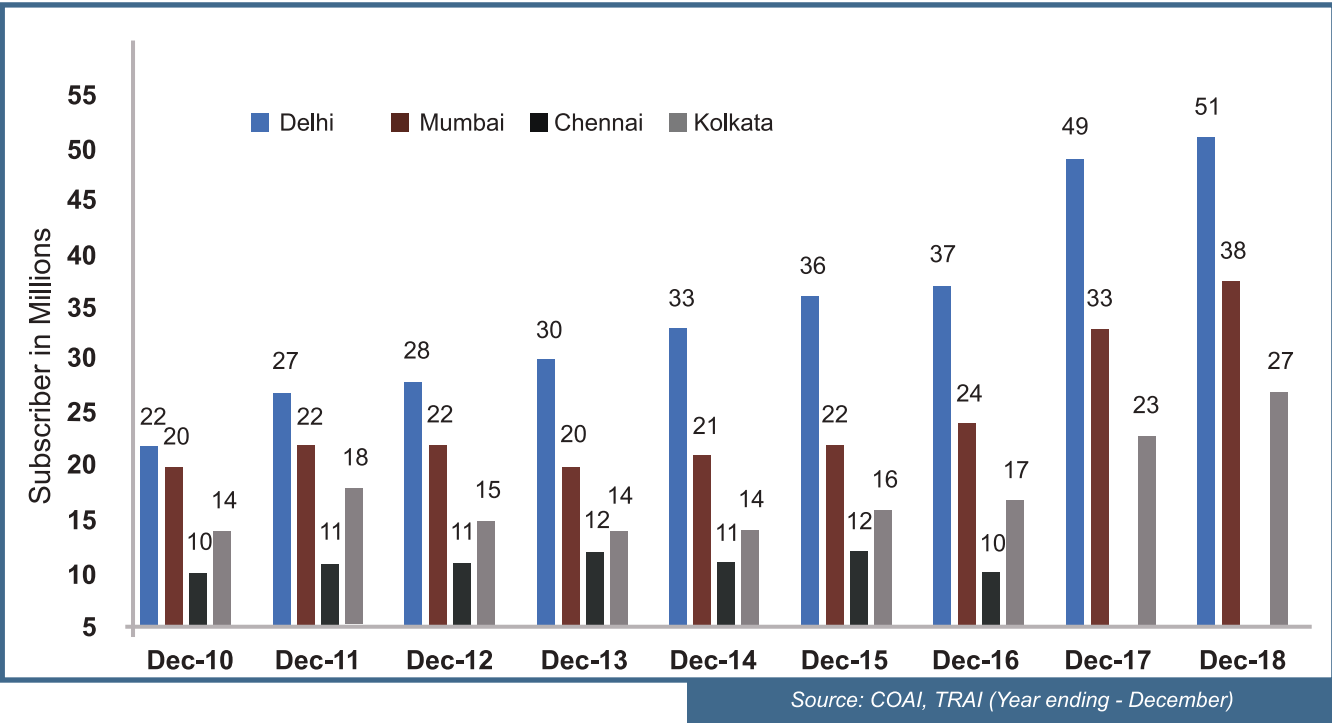
52% increase in the total subscribers between Dec. 2010 & Dec. 2018

B. Net Additions - Total Subscribers & Mobile Subscribers



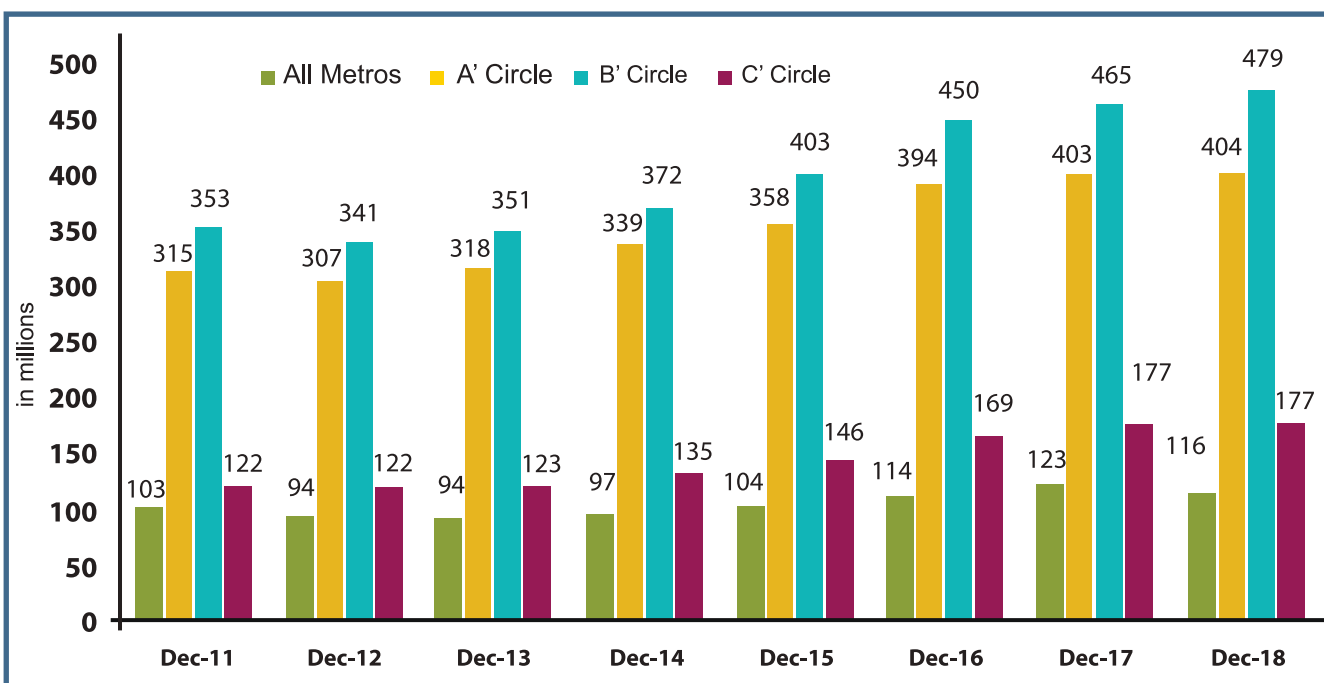
Net addition in subscriber base has significantly dropped in 2017 & 2018

C. Mobile Subscribers - Metros



Kolkata records highest % growth of **17%** in mobile subscribers between 2017-2018

D. Mobile Subscribers-Circle-Wise



Source: TRAI (Year ending - December)



% increase in mobile subscribers (Dec. 2011-2018)

13%

All Metro

28%

A' Circle

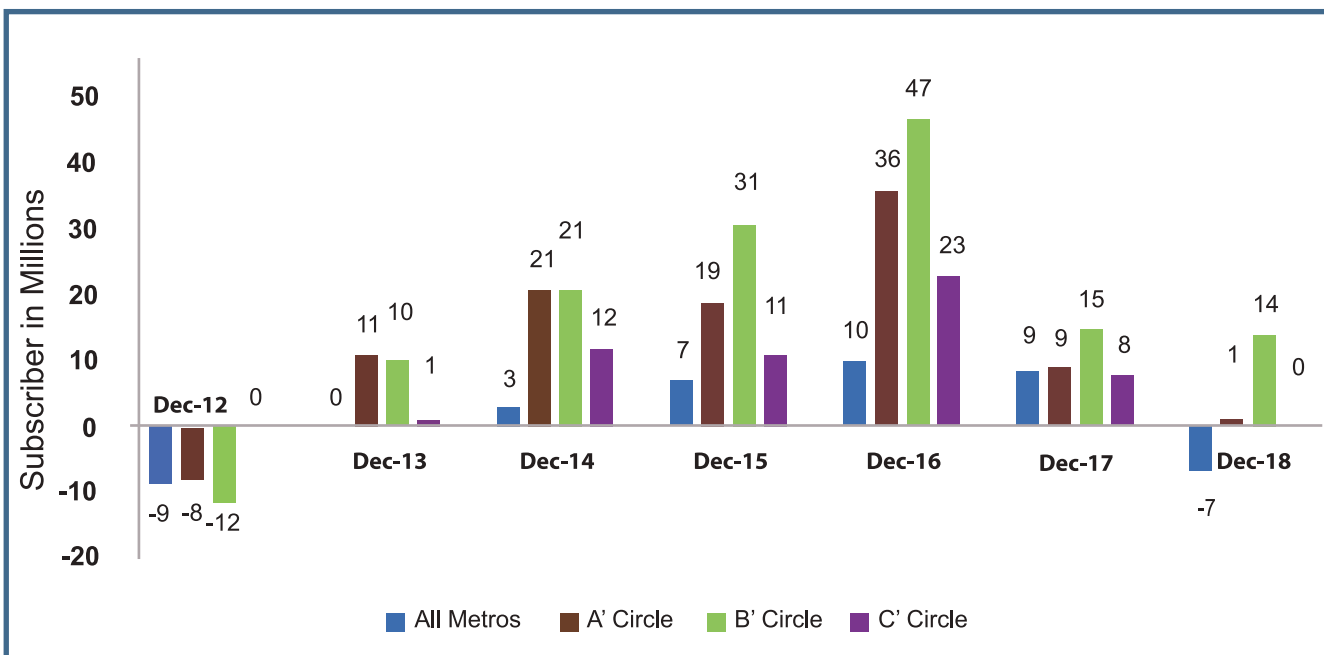
36%

B' Circle

45%

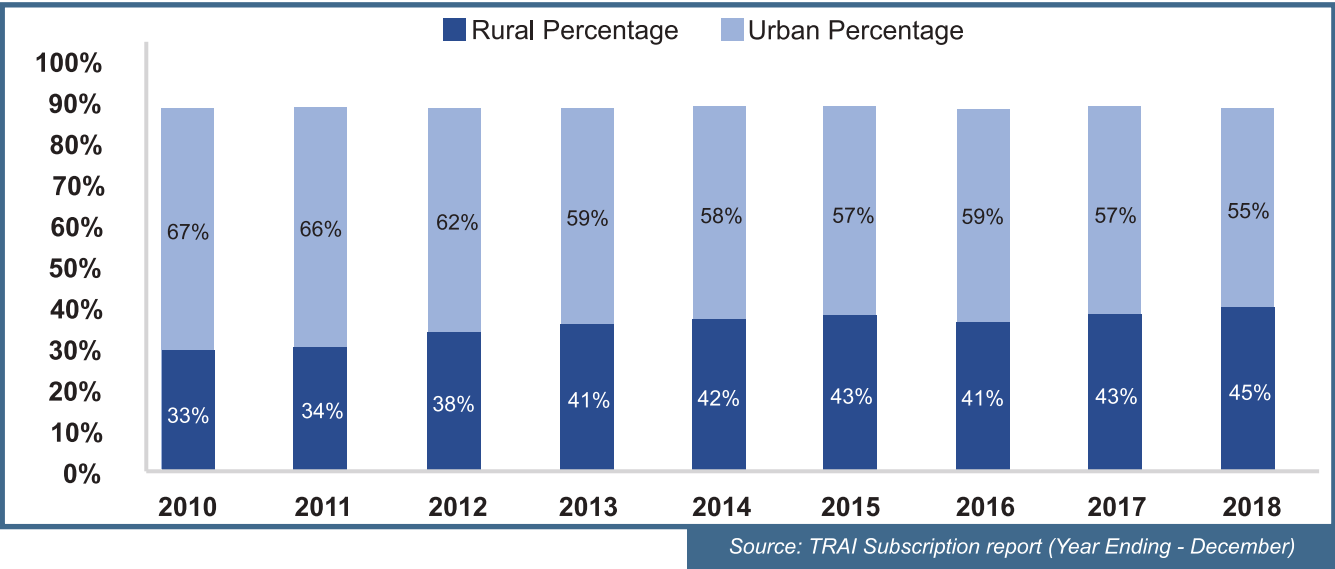
C' Circle

E. Mobile Subscribers – Annual Net Additions



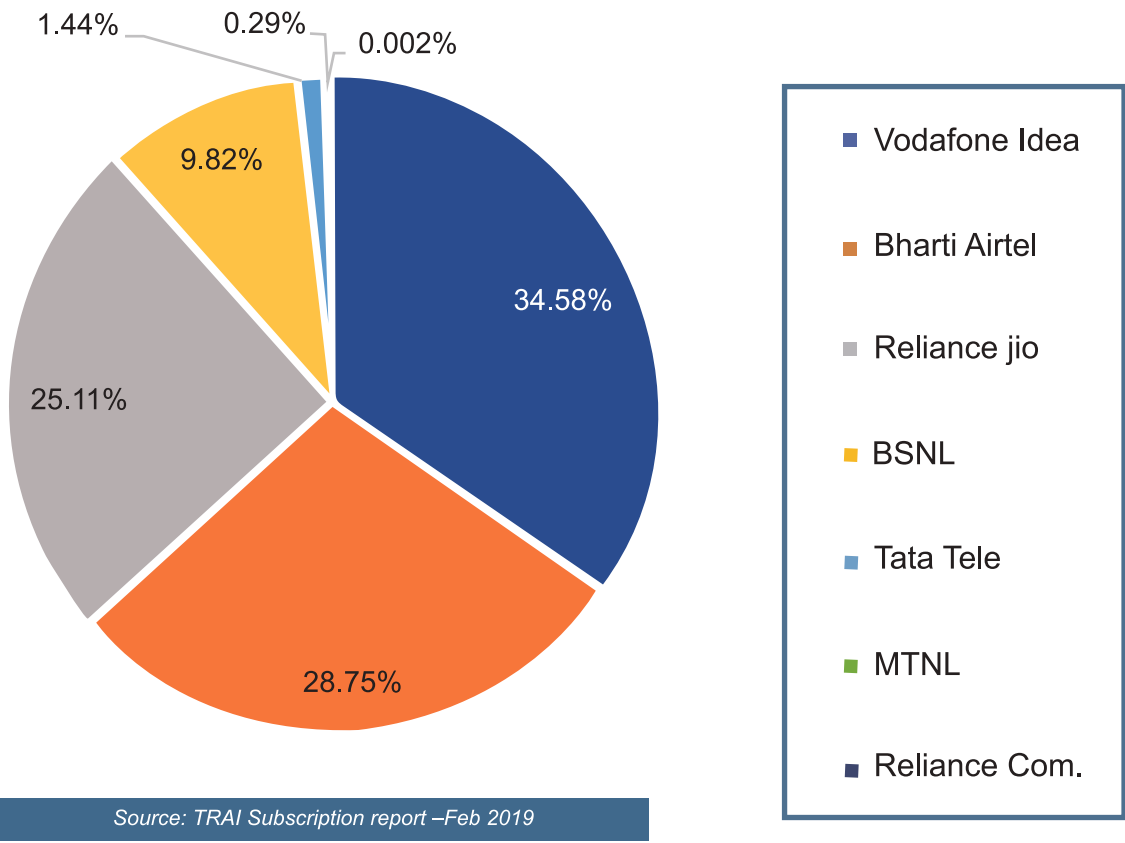
Source: TRAI (Year ending - December)

F. Wireless Rural Subs. as % of Total Wireless Subs.



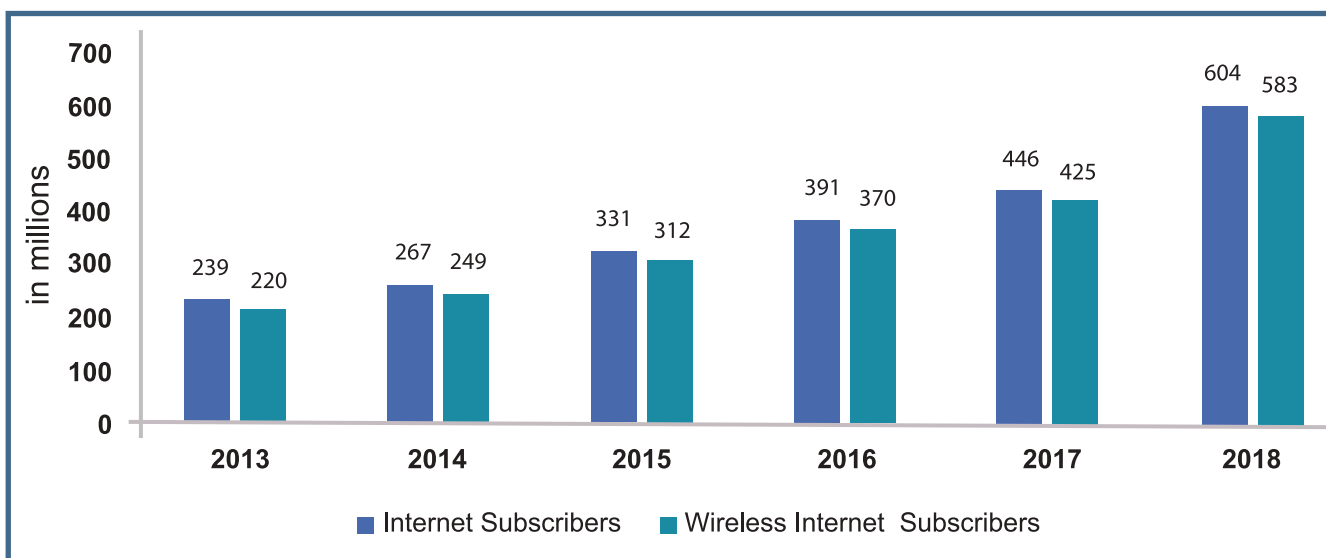
12% points increase in the share of Wireless rural Subscribers from Dec. 2010 to Dec.2018

G. Market Share of Wireless Operators in terms of Subscribers



Private operators hold **90%** of market share

H. Total Internet Subscribers & Wireless Internet Subscribers

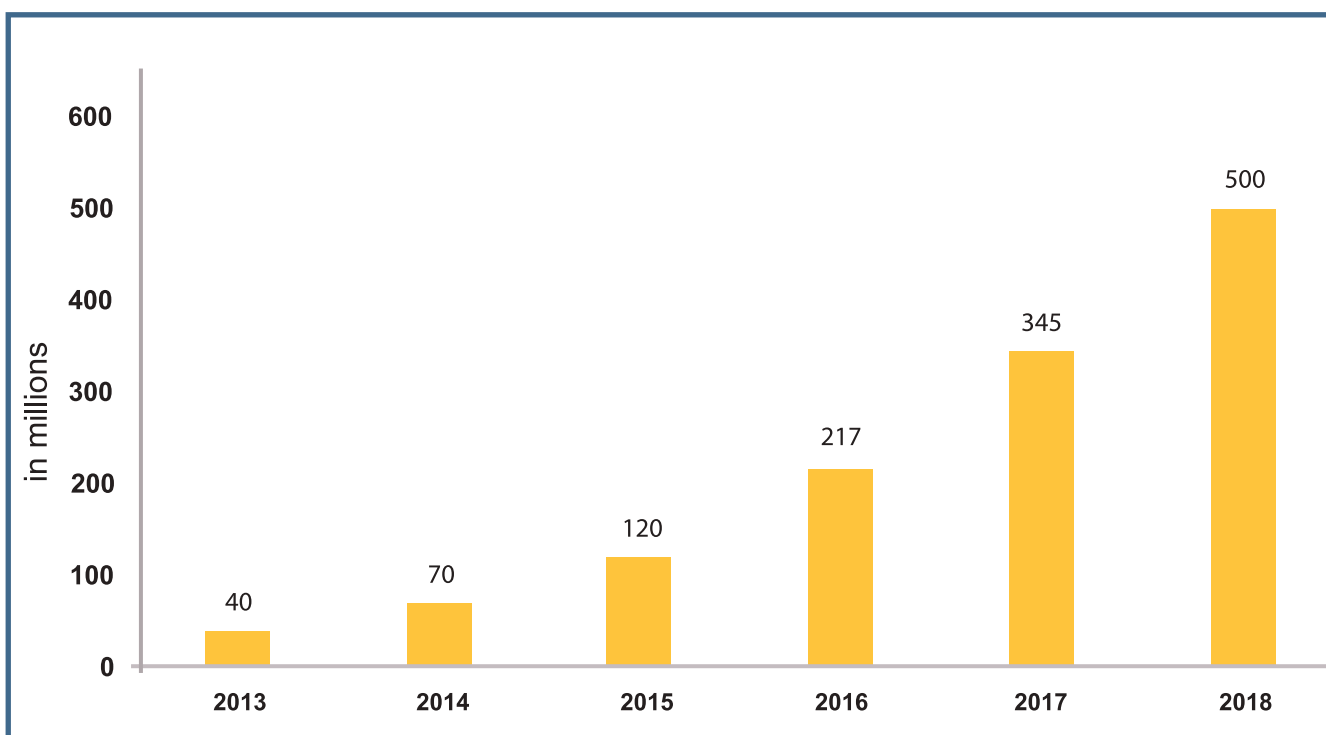


Source: TRAI PMR (Year ending - December)



165% increase in the wireless internet subscribers between Dec. 2013 to Dec. 2018

I. Mobile Broadband Subscribers

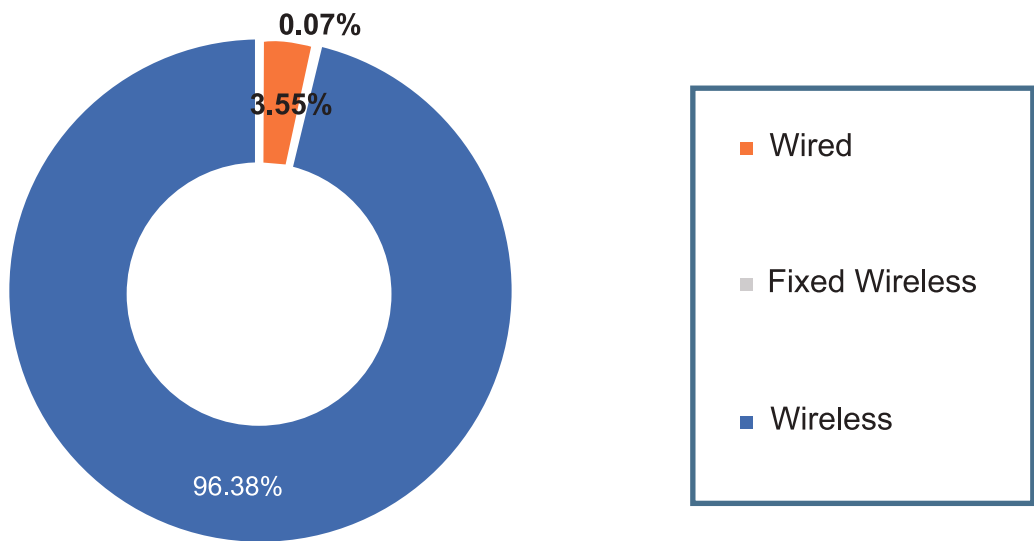


Source: TRAI Subscription report (Year ending - December)



1150% Increase in mobile broadband subscribers between Dec. 2013 to Dec. 2018

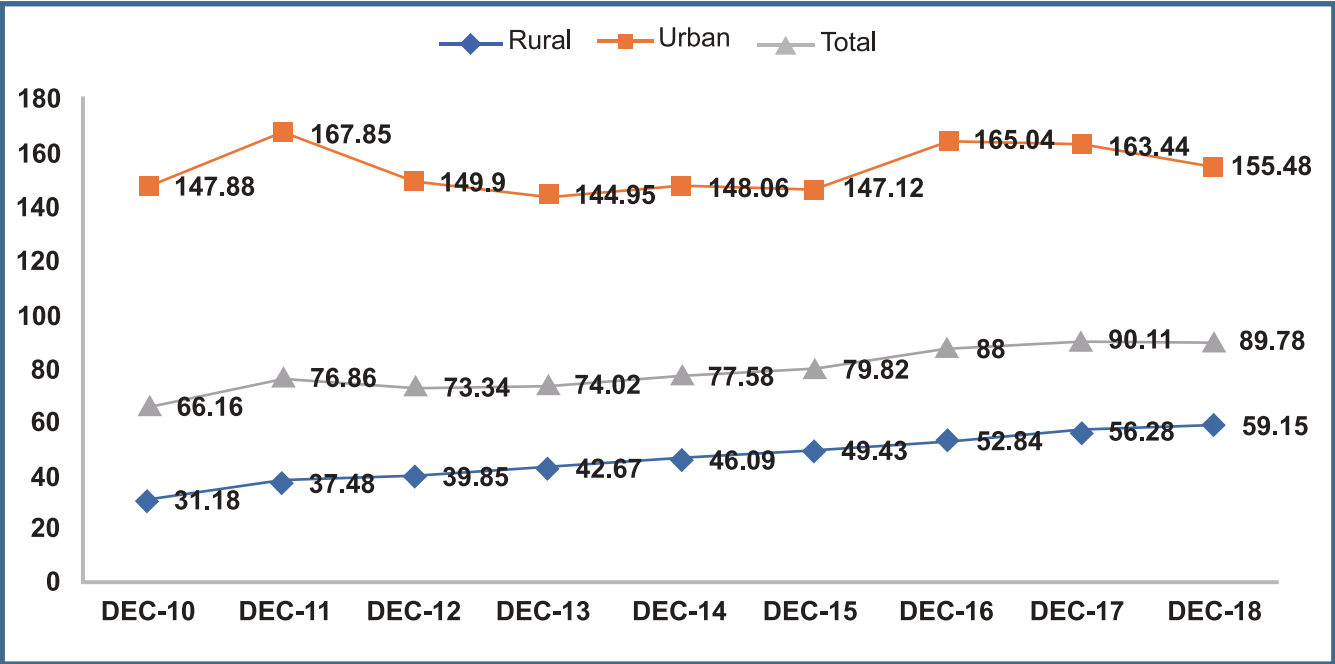
J. Broadband access: Share of different Technologies



Source: TRAI PMR Dec 2018

IV. Wireless Tele-density

A. Total Wireless Tele-density (%)

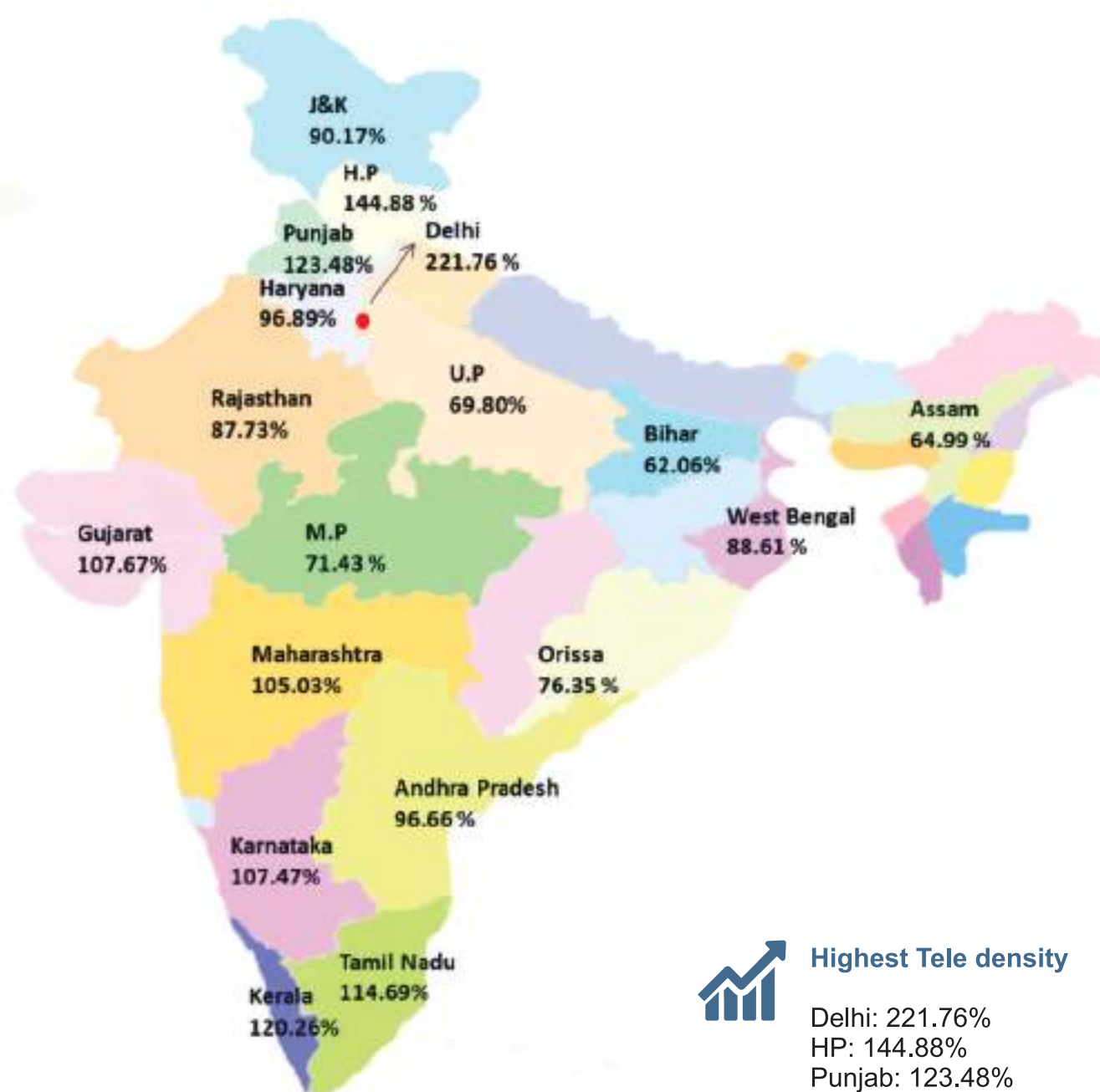


Source: TRAI PMR (Year ending - December)



Robust increase in rural Tele-density from Dec 10 to Dec 18.

B. Wireless Tele-Density Across Telecom Circles – Dec 2018



Highest Tele density

Delhi: 221.76%
 HP: 144.88%
 Punjab: 123.48%

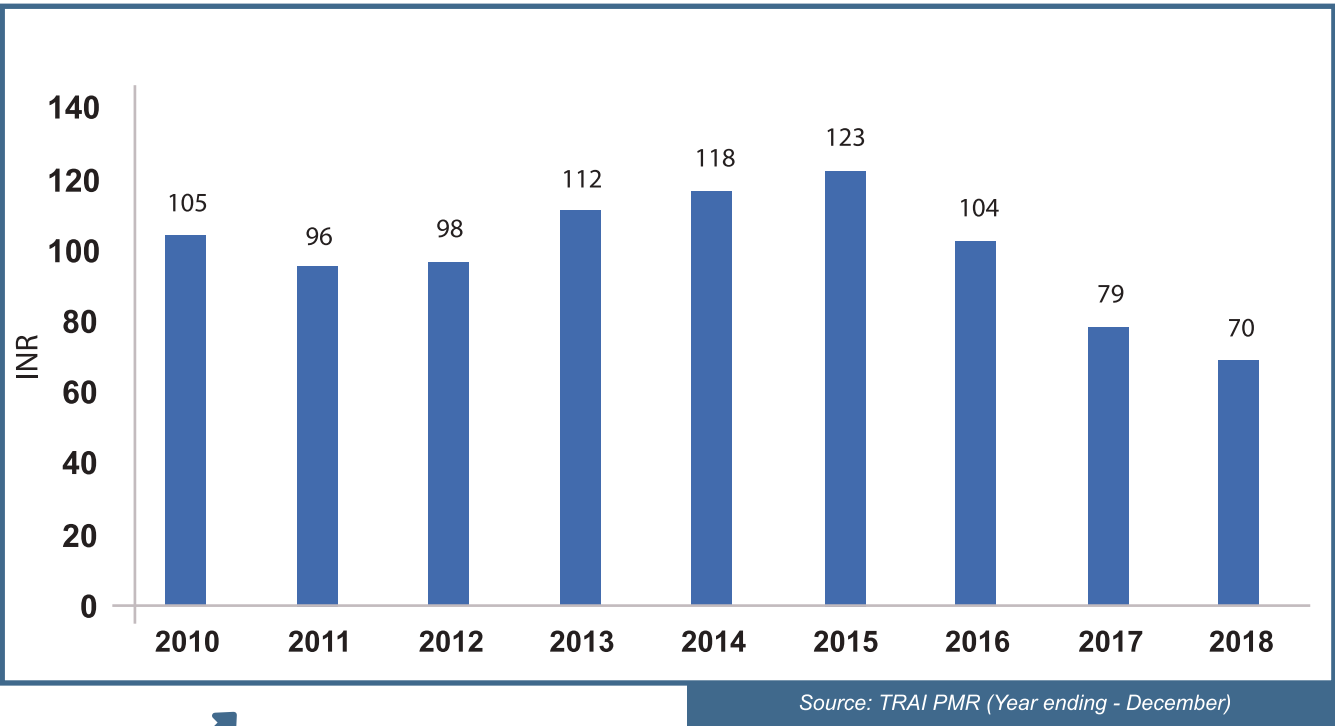
Lowest Tele density

Bihar: 62.06%
 Assam: 64.99%
 UP: 69.80%

Source: TRAI PMR

V. Revenue & Usage Parameters

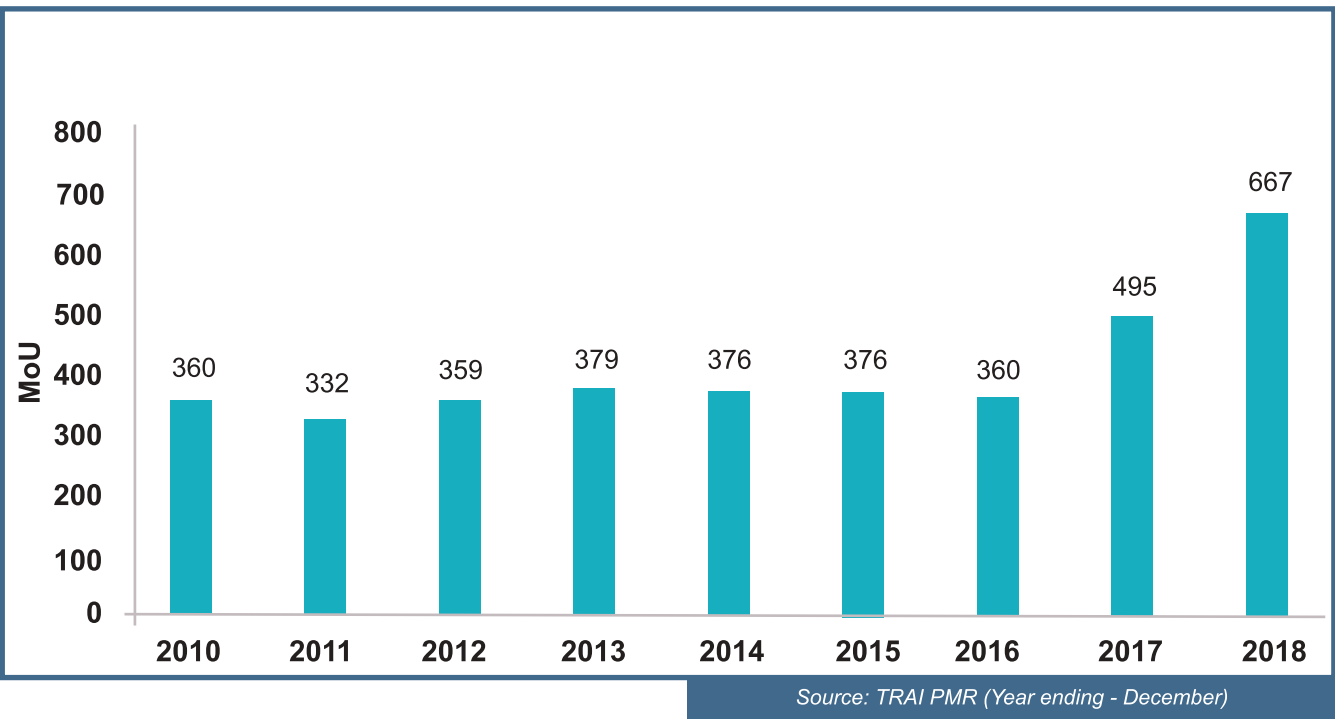
A.Monthly Mobile Subscribers ARPU



11% decline in the ARPU in 2018.

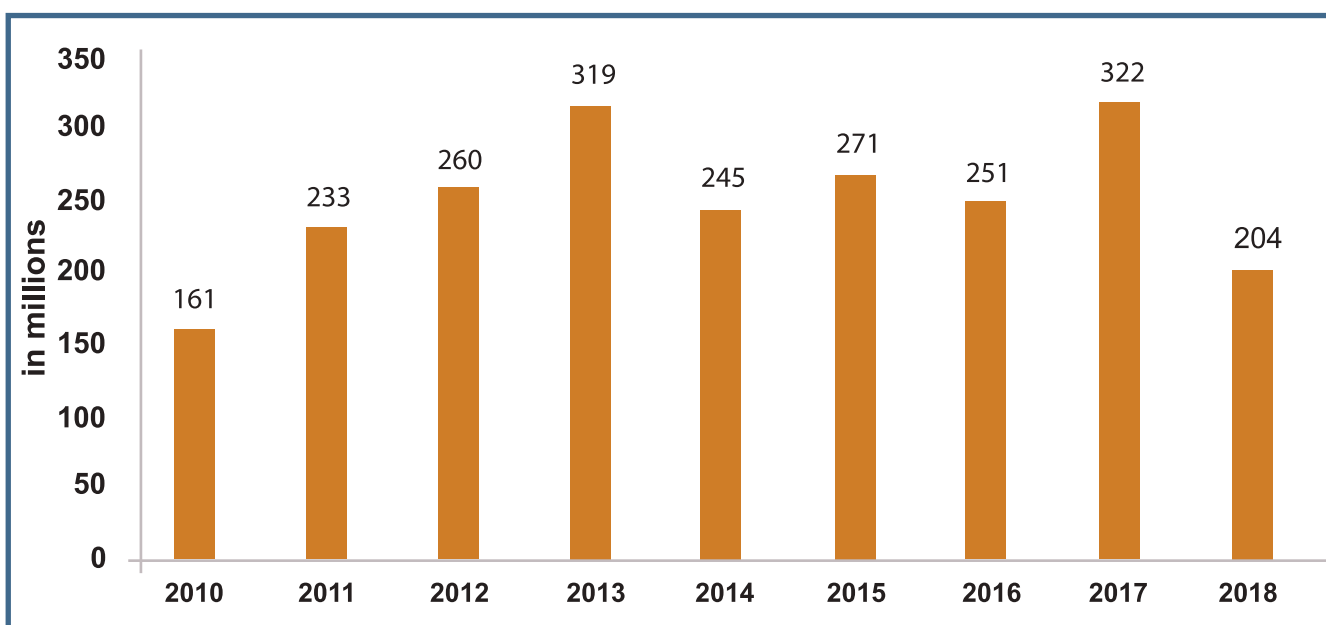
This was the third successive decline in ARPU in the last three years.

B. MoU per Subs/Month-Mobile Subscribers



35% rise in MoU per subs per month in 2018

C. Total Outgoing MOU for Internet Telephony



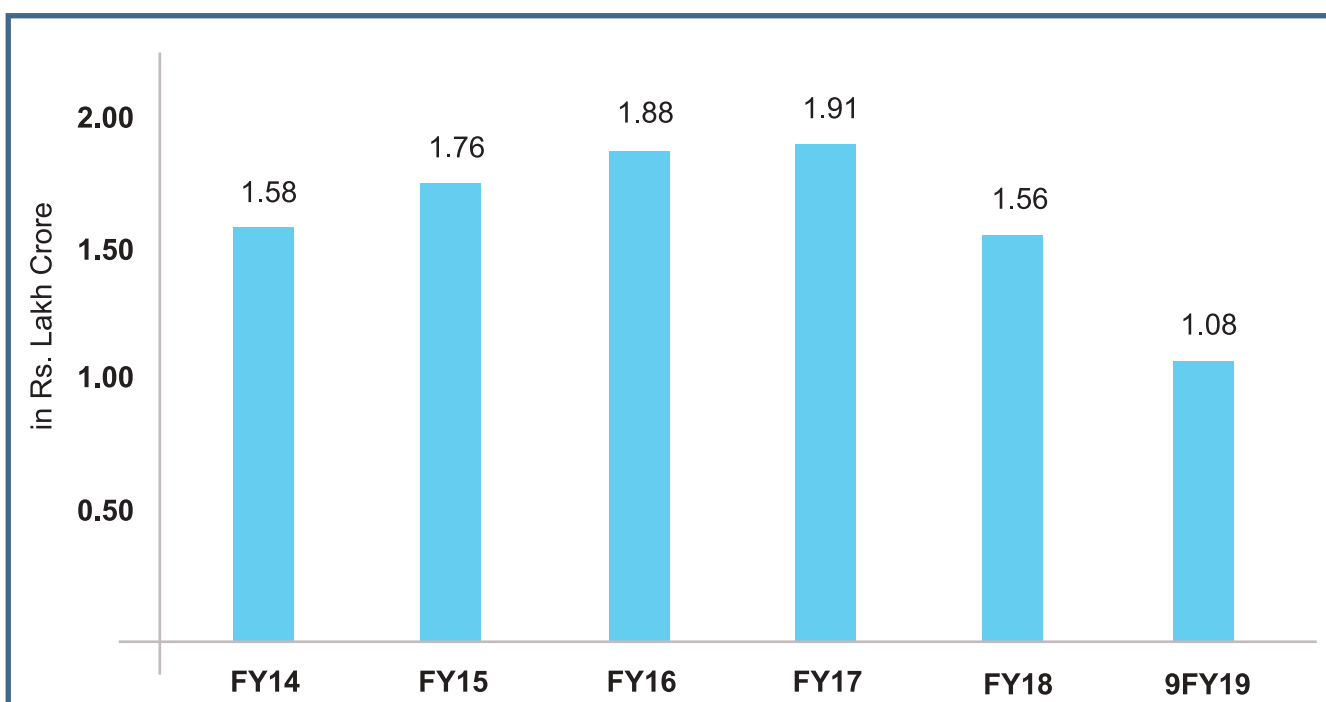
Source: TRAI PMR (Year ending - December)



37% drop in Total Outgoing MOU for Internet Telephony in 2018

VI. Telecom Financial Data

A. Industry Adjusted Gross Revenue (AGR)

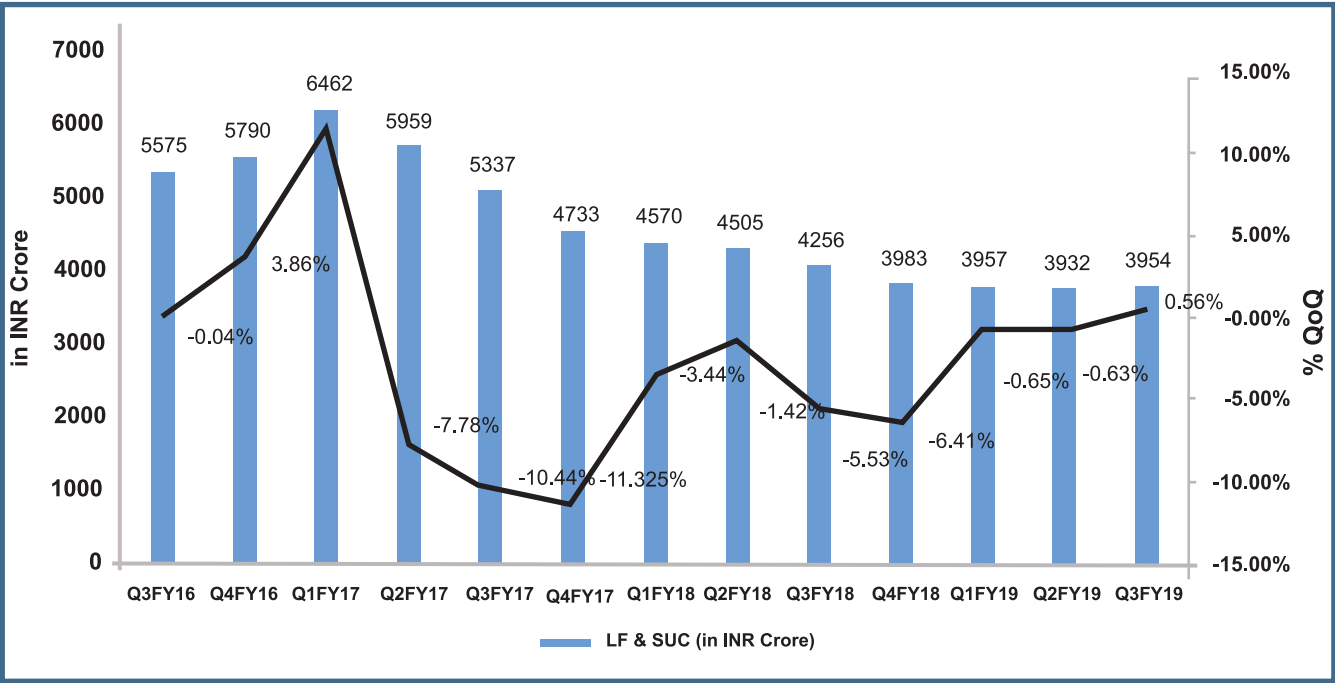


Source: TRAI PMR (Financial Year)



Industry AGR continues to decline in FY19

B. Revenue to the Exchequer



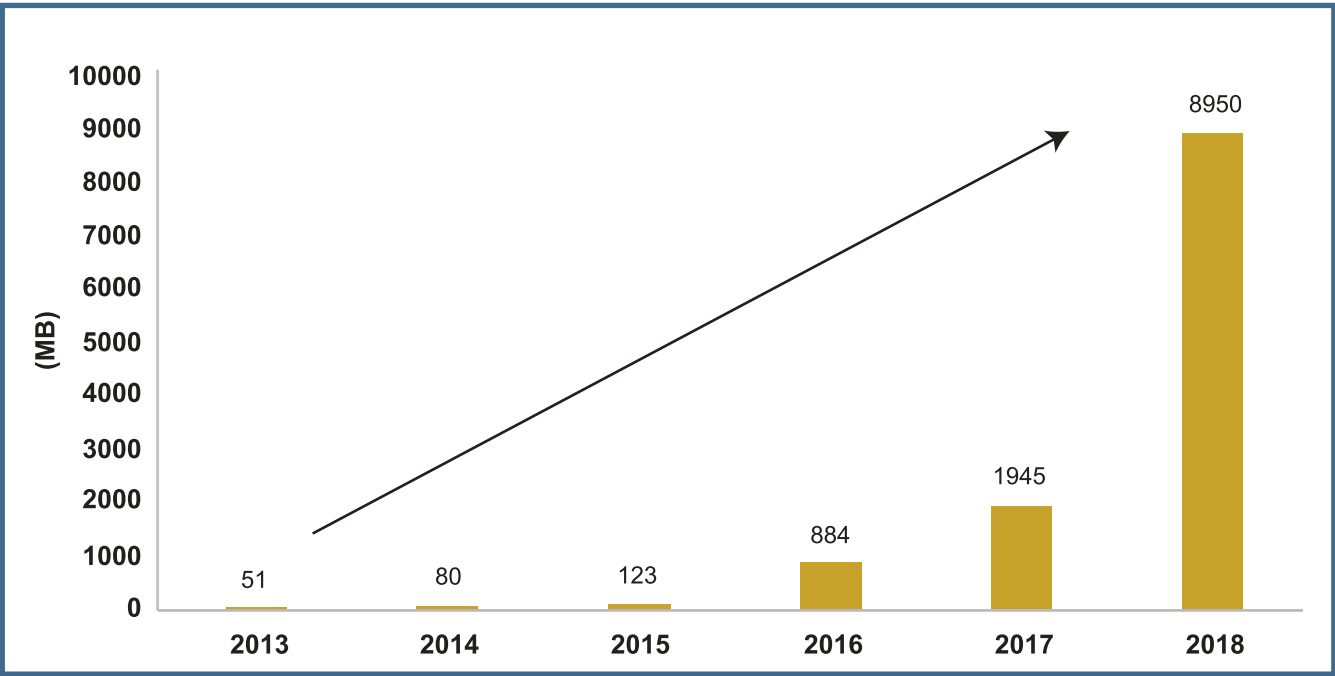
Source: TRAI; (Access Services only)



Fall in revenue resulted in a decline in contribution to the exchequer.

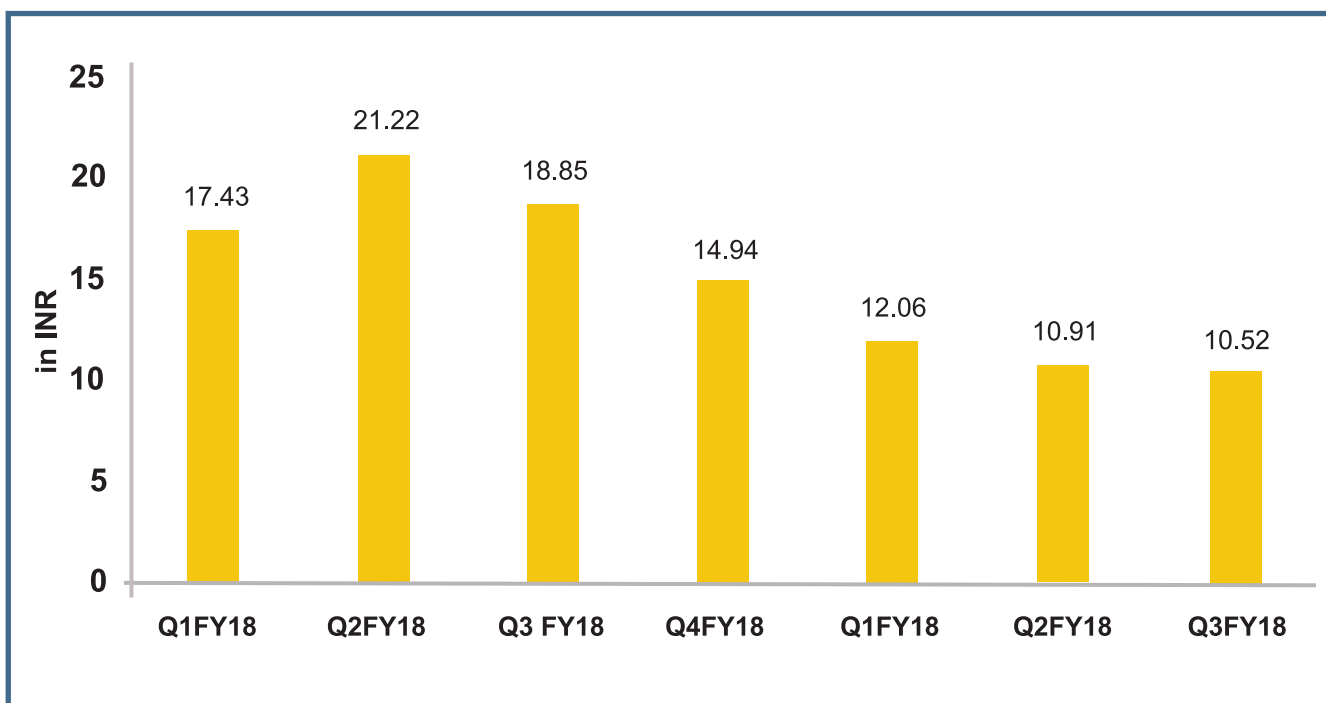
VII. Data Usage of Mobile Users

A. Data Usage/ subscriber per month-Mobile Subscribers



Source: TRAI PMR (Year ending - December)

B. Average Data Realisation per GB for Mobile Subscribers

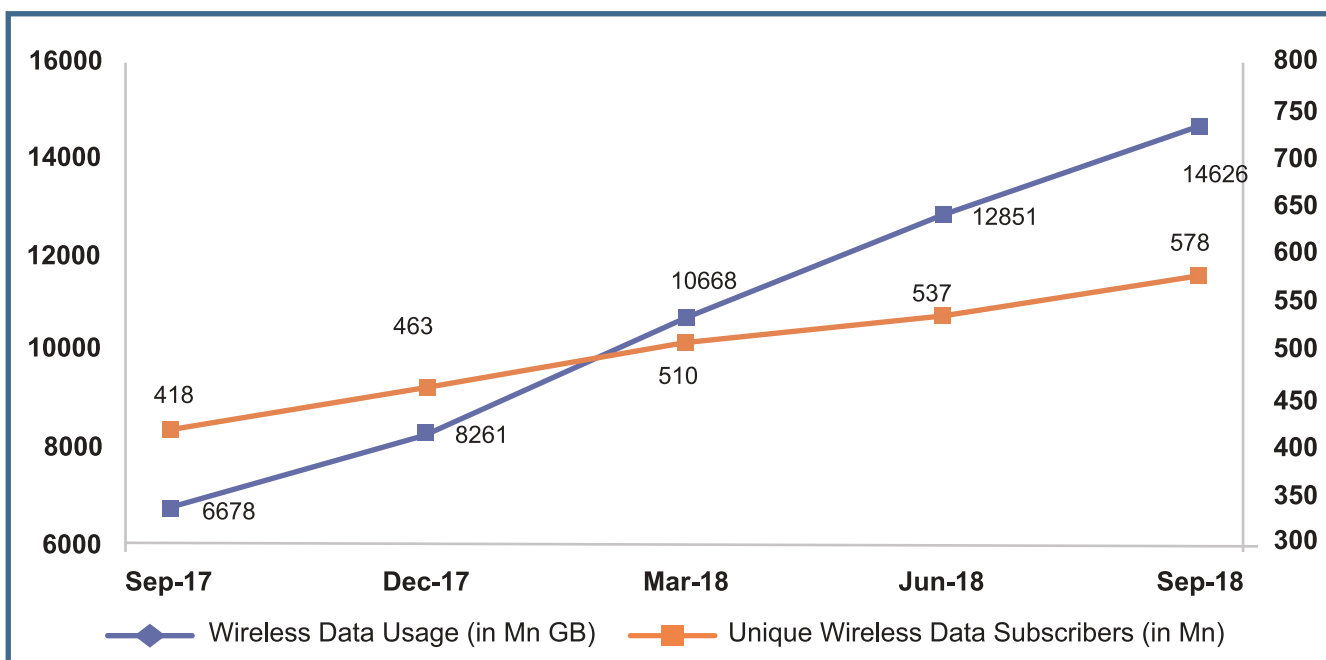


Source: TRAI PMR



Avg Data realisation has declined to **INR10** in Q3FY19 from **INR21** in Q2FY18

C. Data Subscribers and Data Consumption

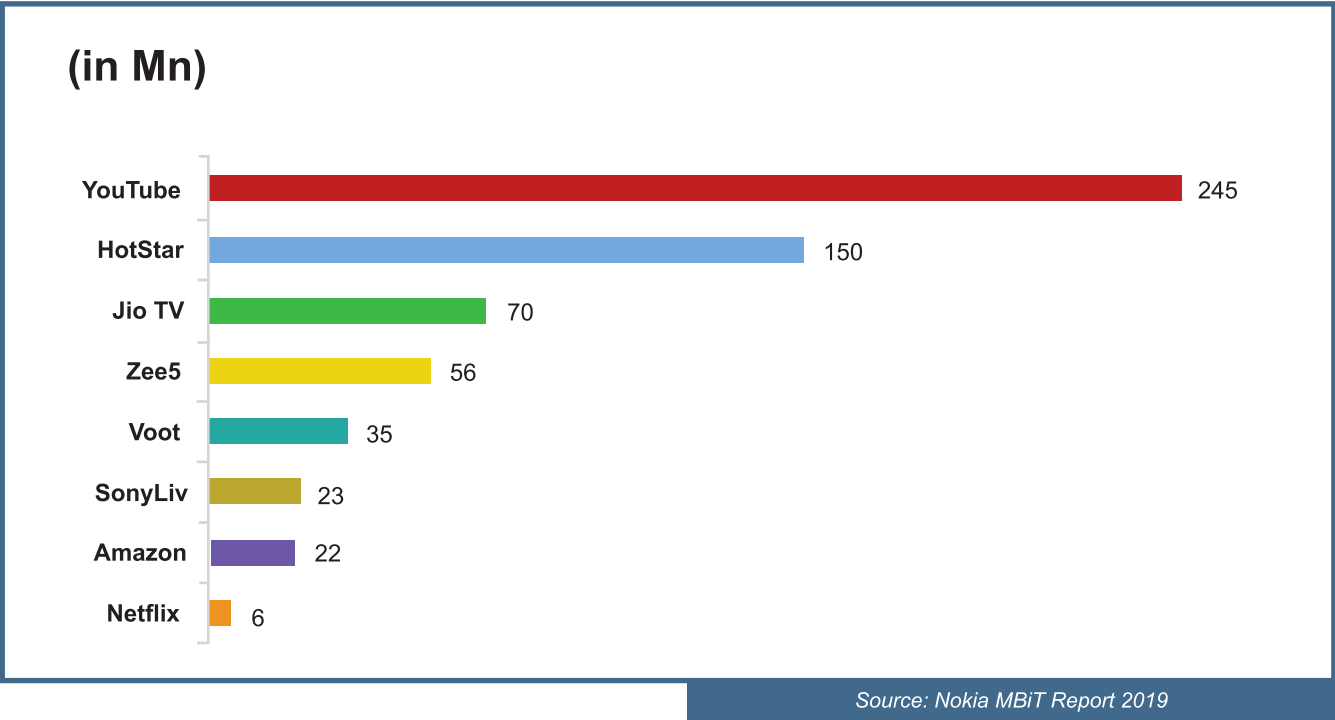


Source: TRAI PMR December 2018



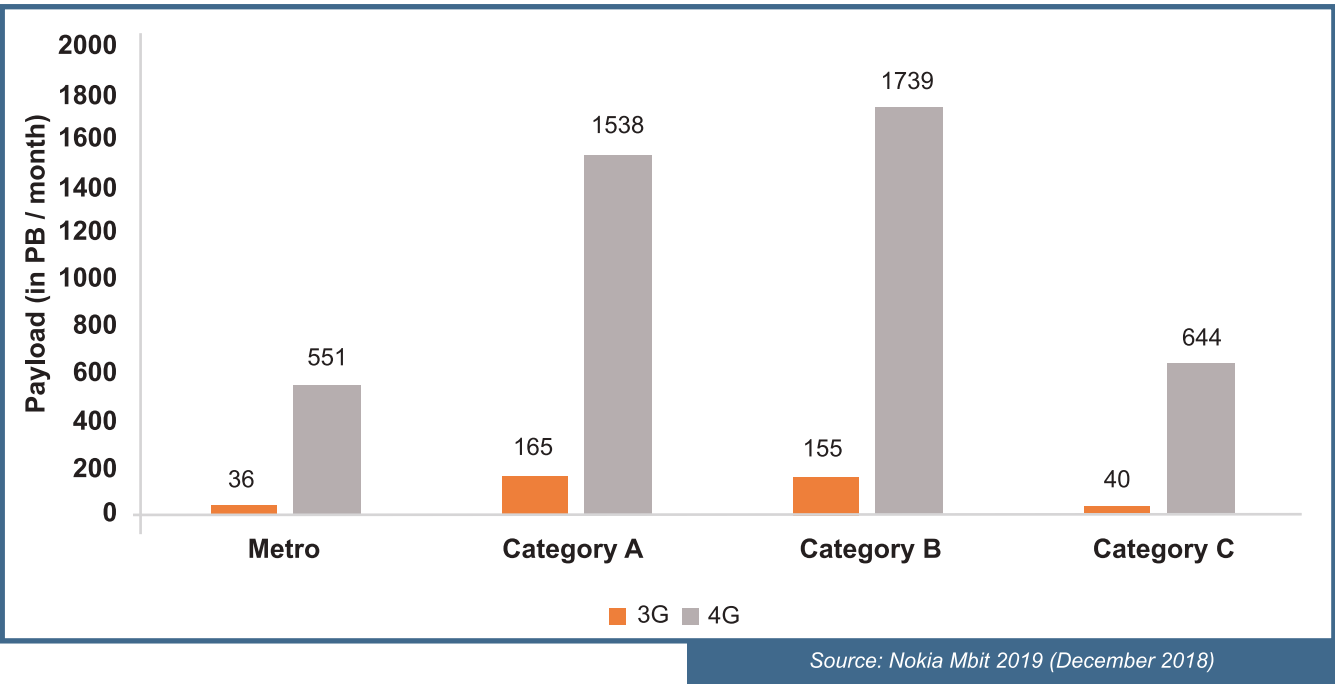
119% increase in wireless data usage between Sept. 17 to Sept. 18

D. Monthly Active Users of OTT Content Platforms



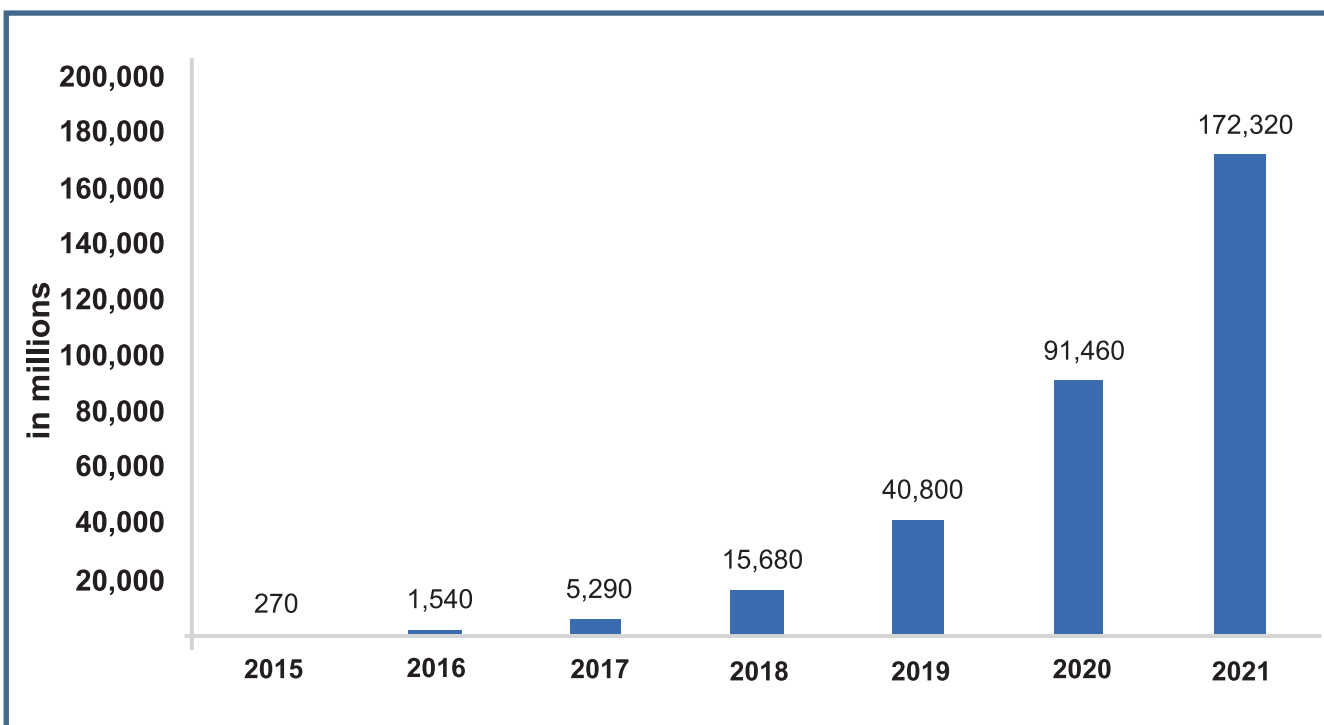
Content based platforms have grown significantly, resulted in higher data consumption

E. Data Traffic in Circles



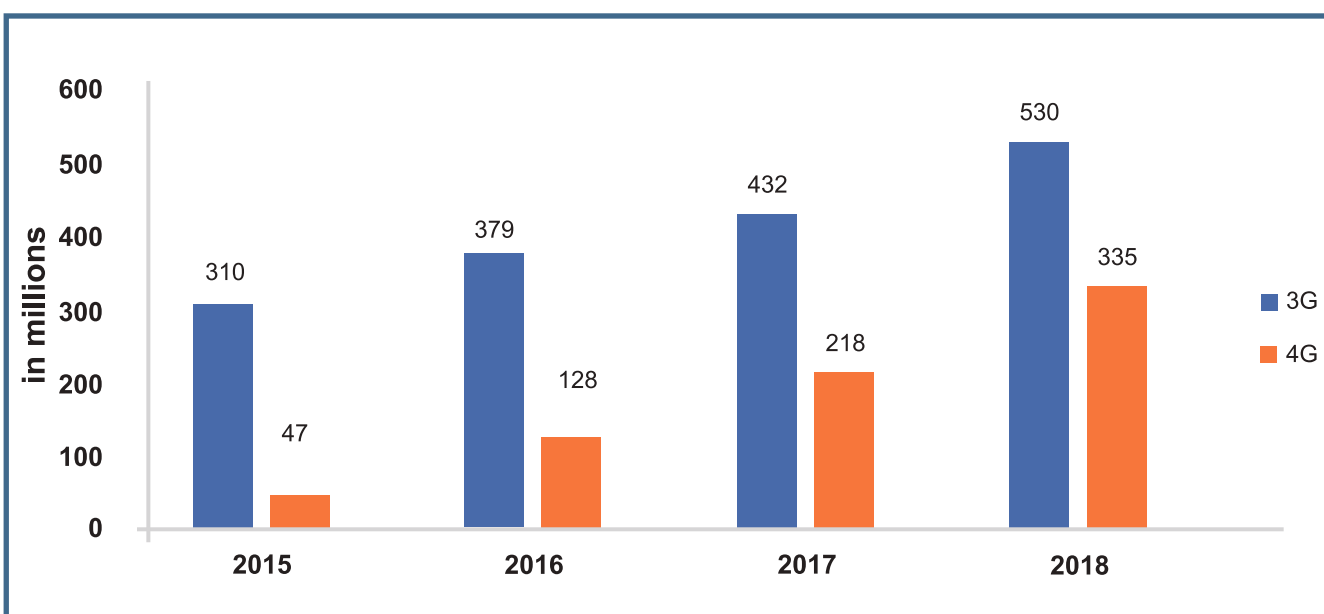
4G payload has significantly increased in comparison to 3G

VIII. Mobile Payment Forecast in India



Source: E & Y, Statista (Year ending- December)

IX. Smartphone devices in India (3G/4G Capable)



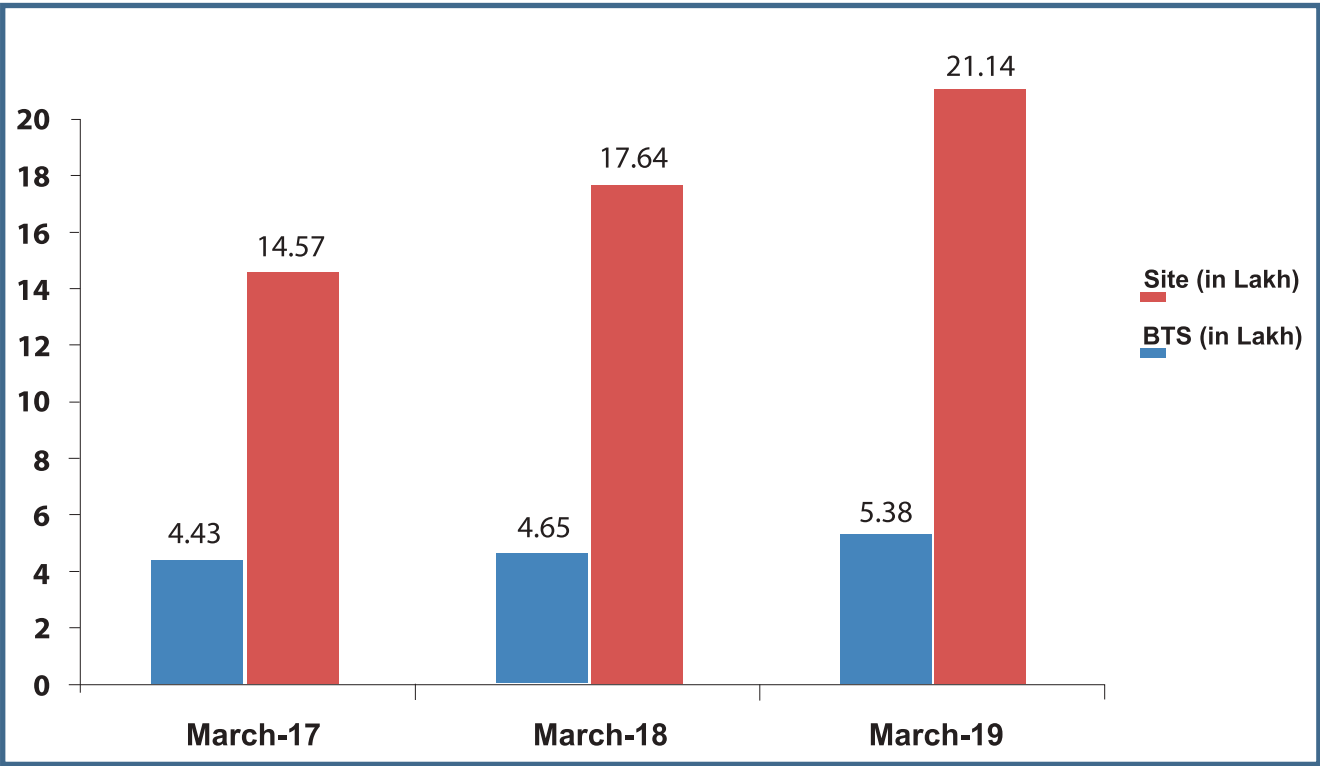
Source: Nokia MbiT Reports



54% increase in number of 4G Smart devices in 2018

X. Telecom Infrastructure

A. Number of Base Transceiver Stations (BTs) and Sites



Key observation

45% increase in the number of BTs from March 17-March 19

States With the Highest Number of Base Transceiver Stations



Maharashtra



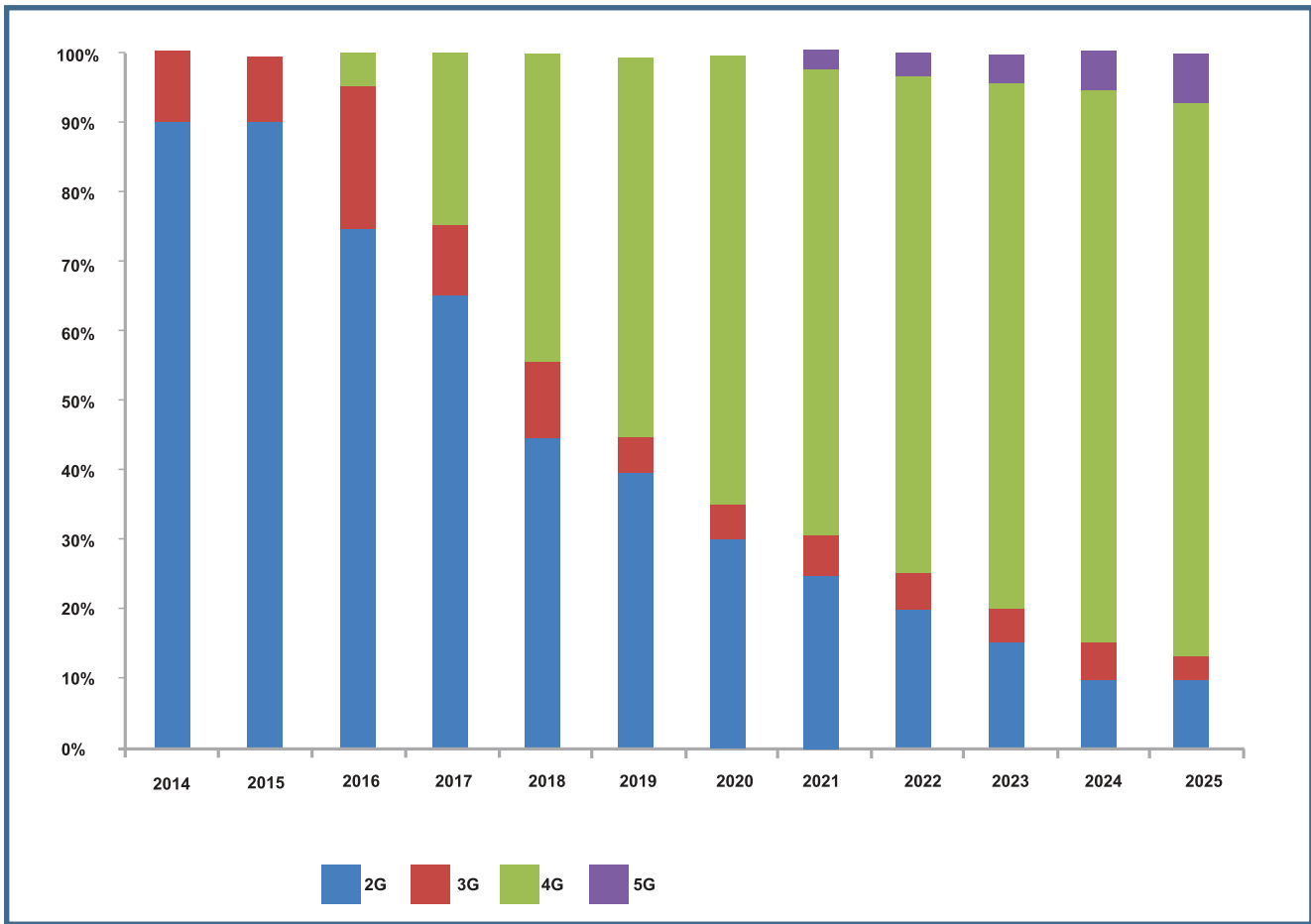
Andhra Pradesh



Karnataka

Source: Tarang Sanchar

XI. India Moving to 4G



Source: GSMA Report-'India: becoming 5G-ready'

International Trends

1

Subscriber Base

India has the second largest subscriber base in the world, second only to China and followed by the United States of America. India has **15%** of total subscribers on the world.

2

Broadband Penetration

Mobile Broadband Penetration of India is **47%** of the population, which is **27%** lower than the world average

3

Internet Usage

Indians spent **3.43 hours** on internet per day in comparison to the world average

4

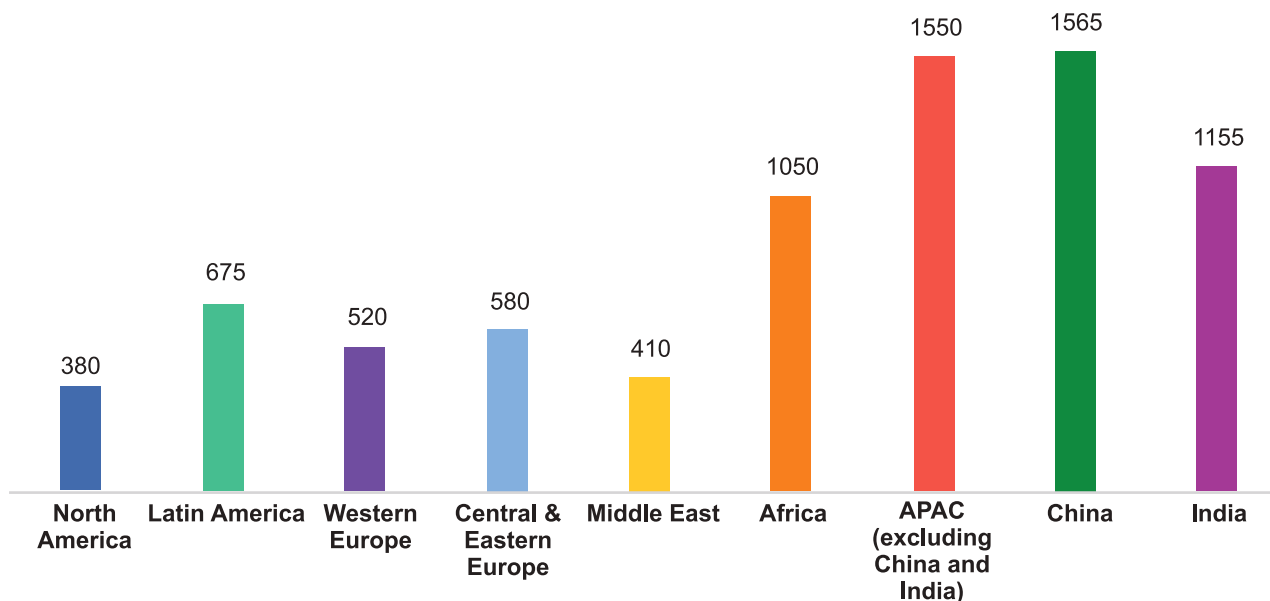
Global Mobile Traffic

India contributes highest in Global Mobile Data Traffic; **5 Billion GB** per month



A. Mobile Subscription

in Mn

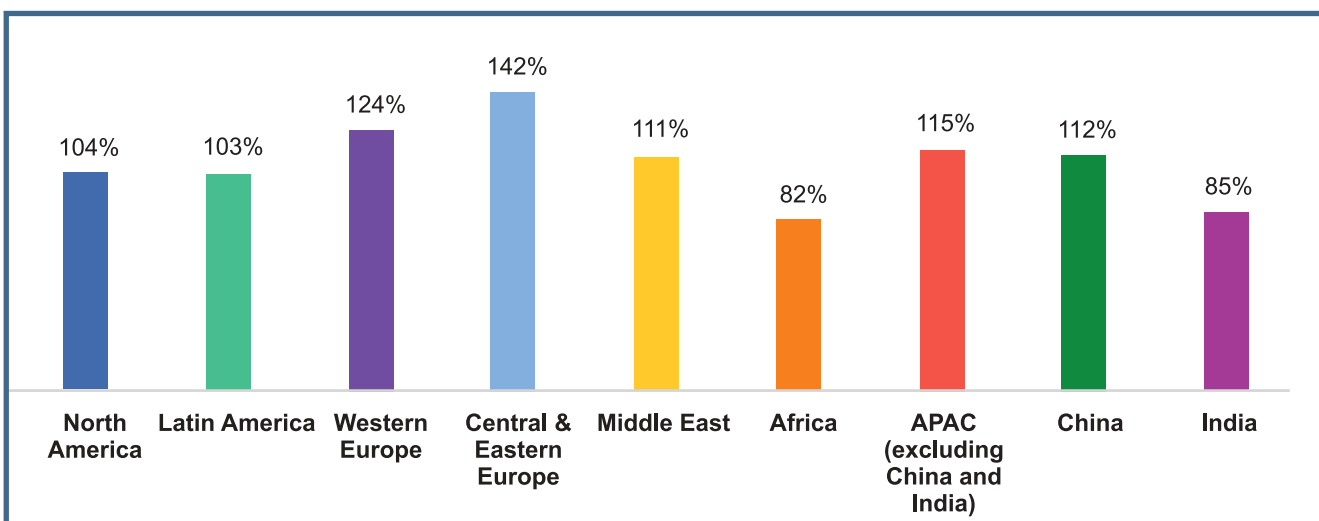


Source: Ericsson Mobility Report Q4 2018



15% India's share of total subscribers in the world

B. Subscription Penetration

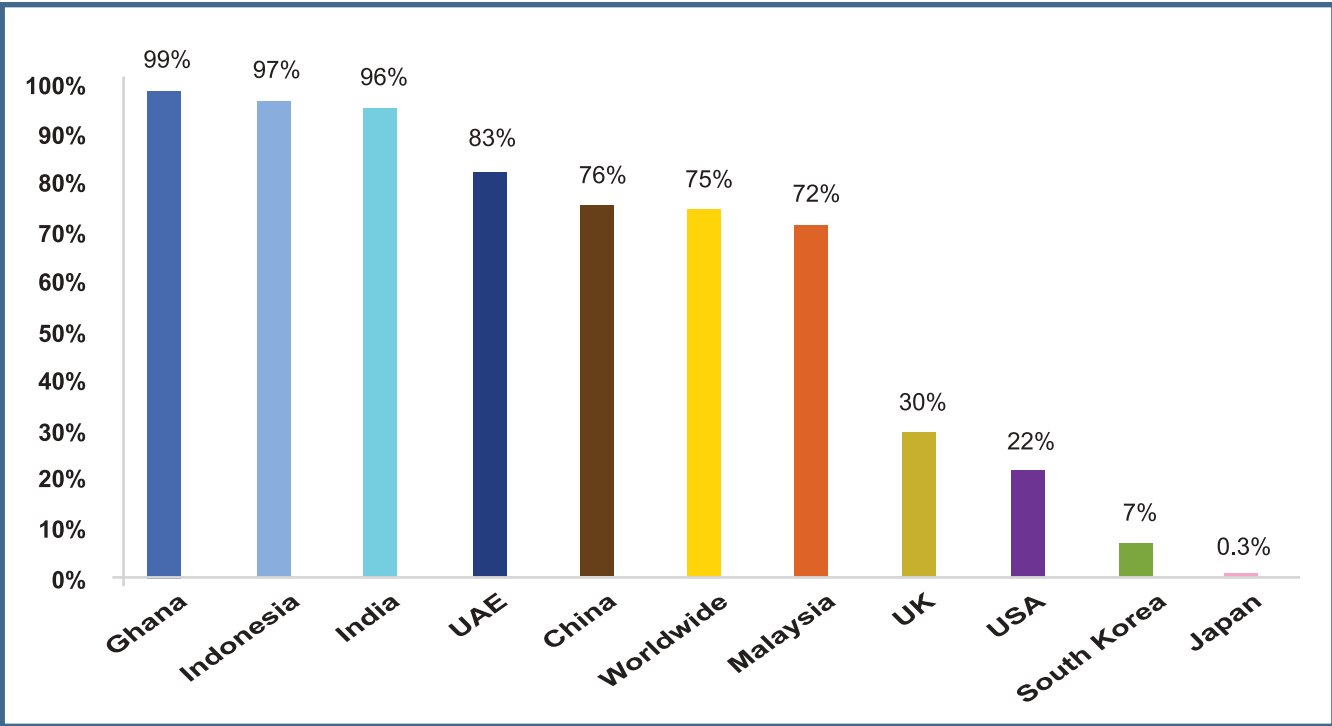


Source: Ericsson Mobility Report Q4 2018



There is headroom for growth. India's subscriber penetration is **24%** points lower than the world average

C. Share of Prepaid Connections

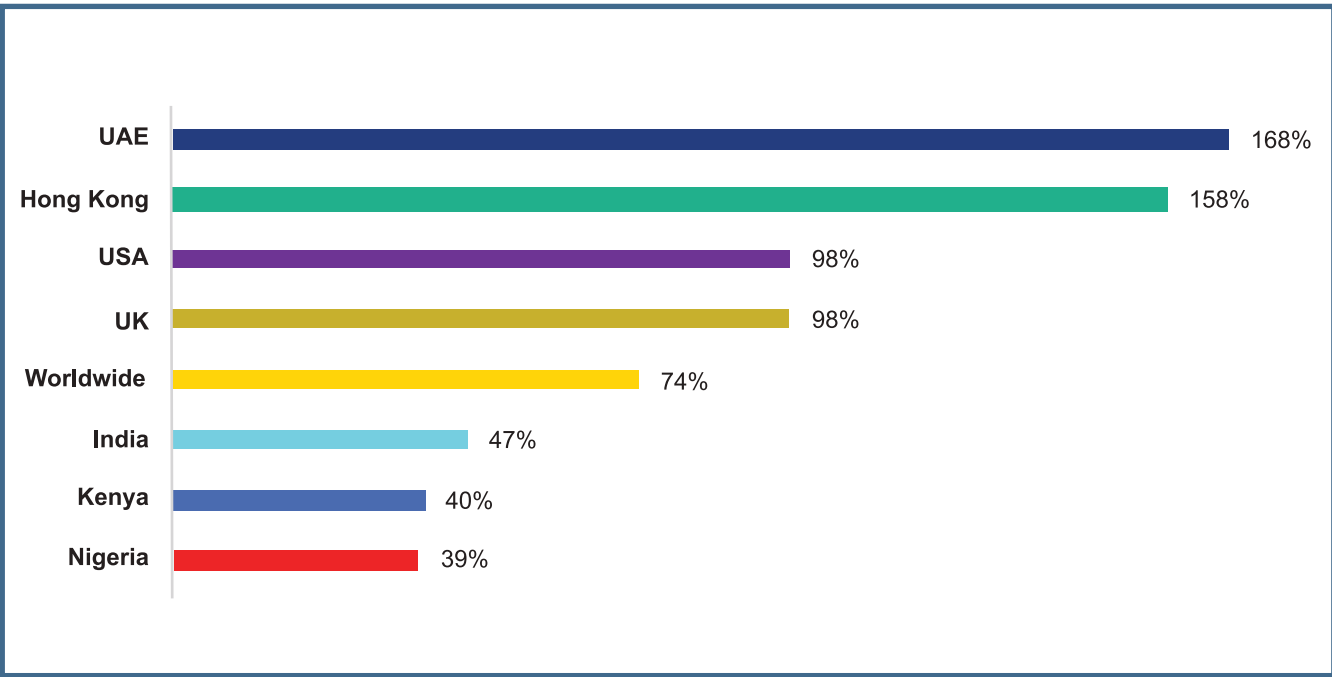


Source: Hootsuite report 2019, TRAI PMR Dec 2018



India's prepaid share is one of the highest in the world;
21% points higher than the world average

D. Mobile Broadband Connectivity



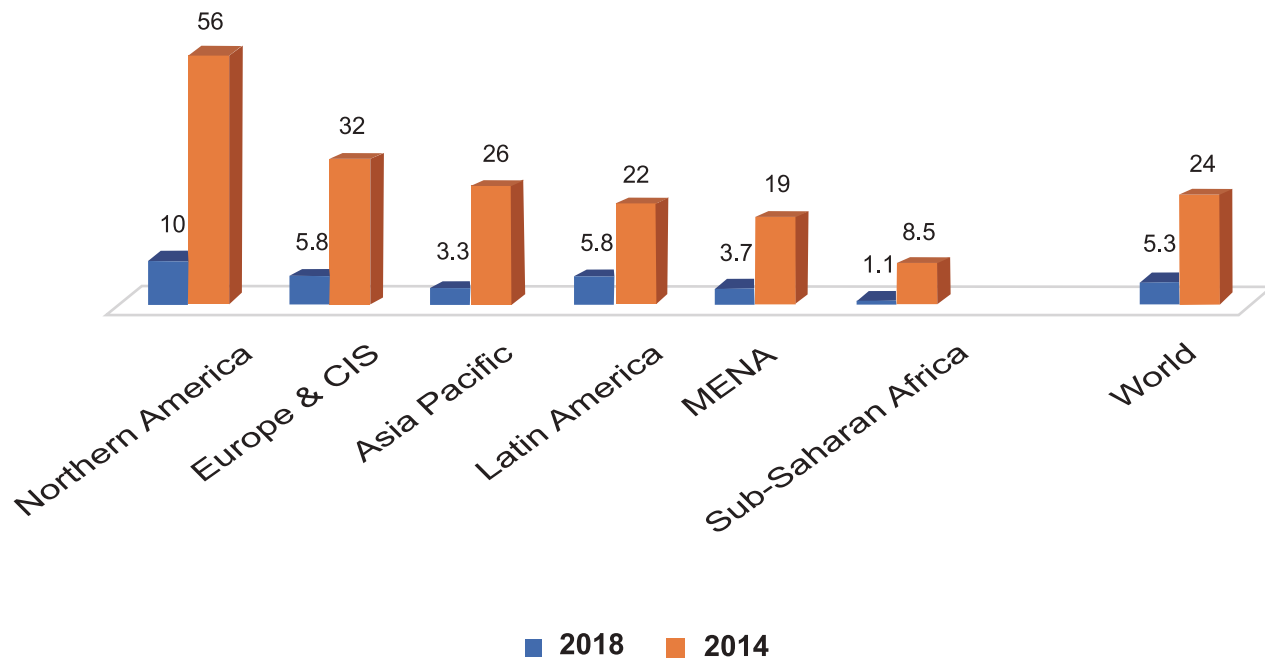
Source: Hootsuite report 2019



Mobile Broadband penetration of India is **47%** of the population,
which is **27%** points lower than the world average.
Low penetration level, provide significant business opportunity to the Telcos.

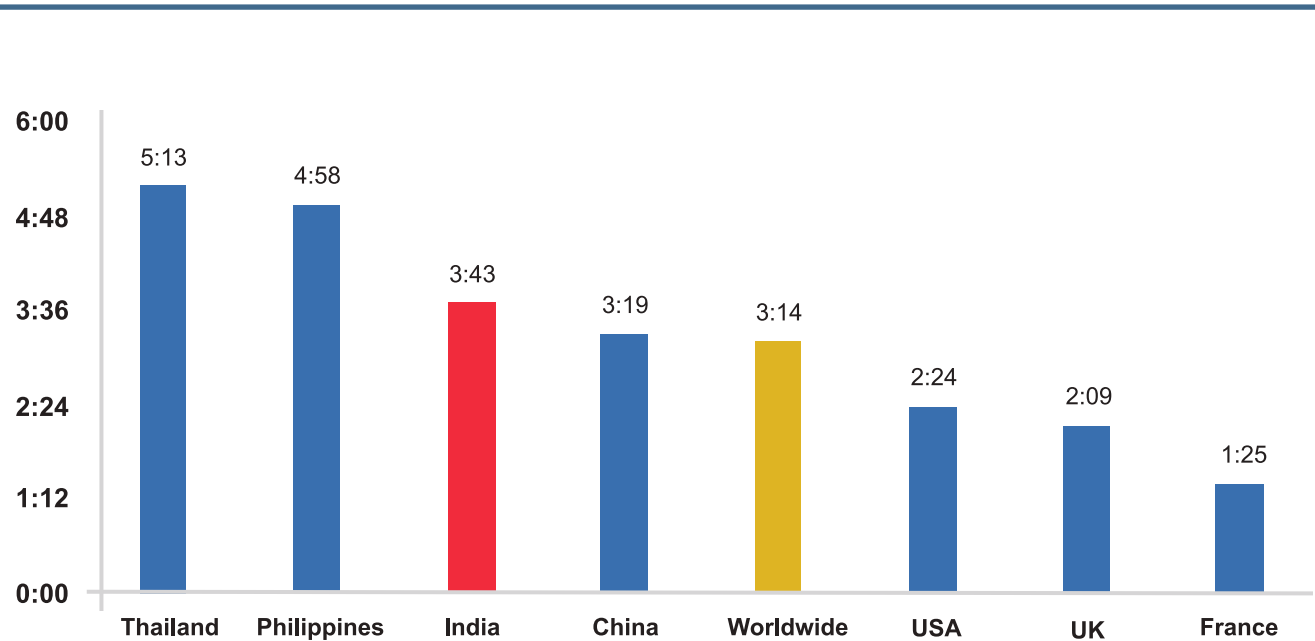
E. Global Mobile Data Usage

in GB per Subscriber per Month



Source: GSM Intelligence Report 2019

F. Time spent per day using Mobile Internet

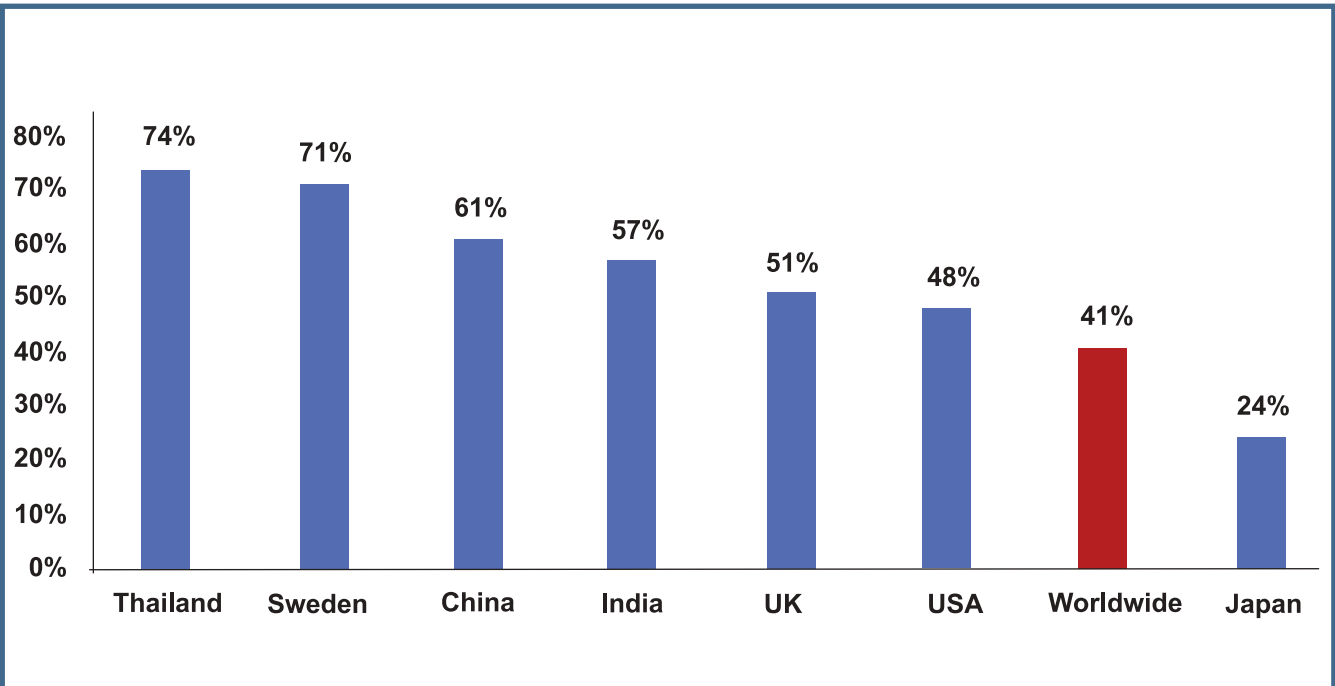


Source: HootSuite report 2019 (as of Jan 2019)



Indians spent more hours on internet in comparison to the World Average.

G. Mobile Banking Penetration

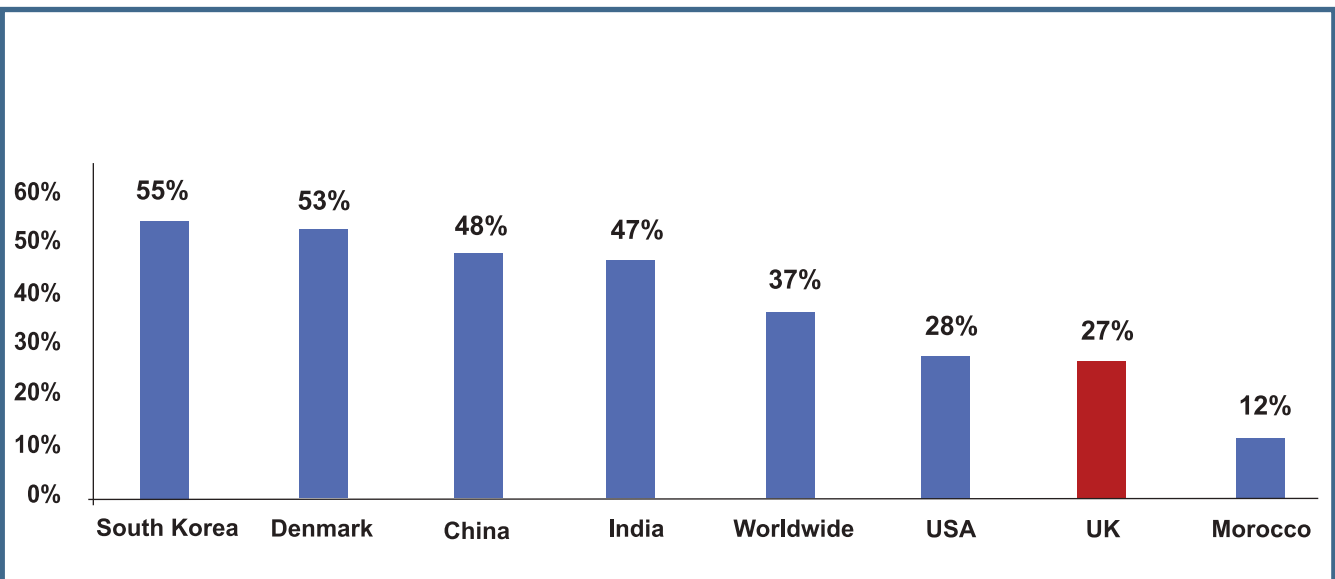


Source: HootSuite report 2019 (as of Jan 2019) The graph shows % of Internet users that accesses banking services via a mobile device



While India's mobile banking penetration is **16%** points higher than the world average, there is a vital scope of further rise in mobile banking as the Mobile Banking penetration in India is just **57%**.

H. Mobile Wallet penetration

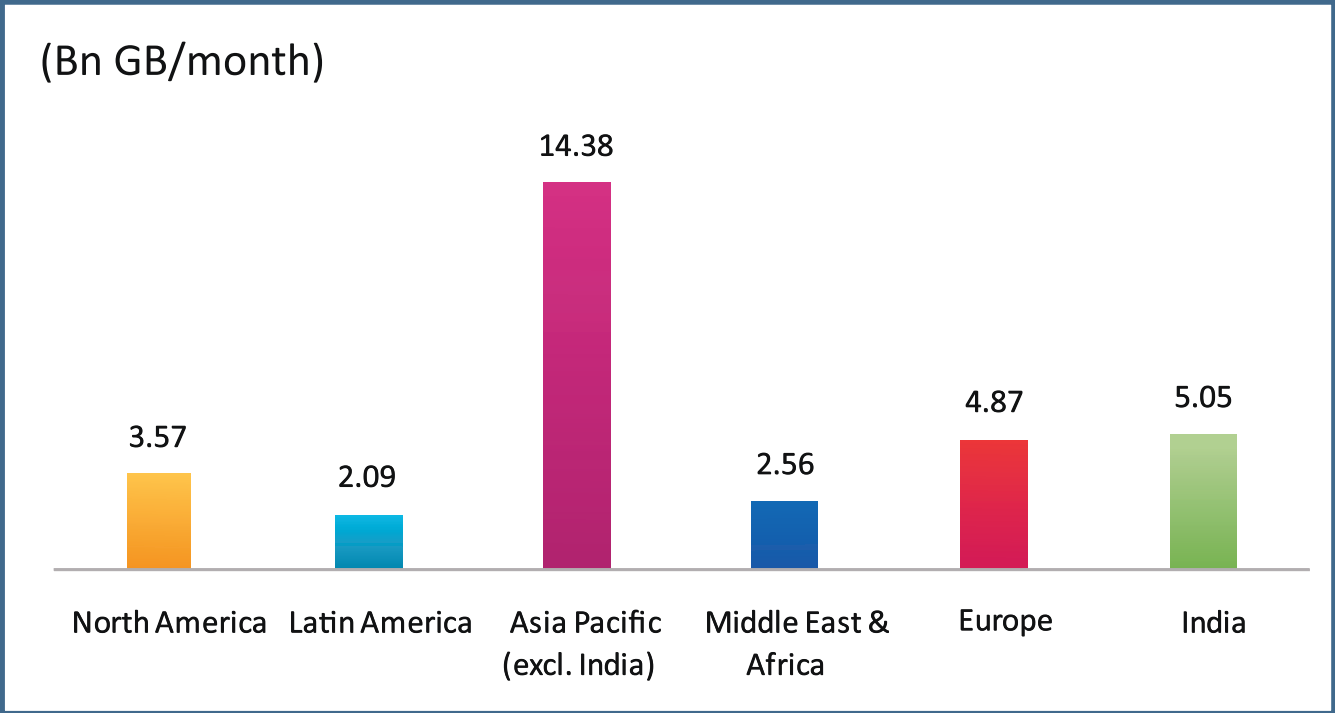


Source: Hootsuite report 2019 (as of Jan 2019) The graph shows % of Internet Users who use their phone to pay for goods or services each month [survey based]



47% Indian Internet users have adopted mobile wallet based payment mechanism, much higher than USA, UK & World average.

I. Global Mobile Data Traffic

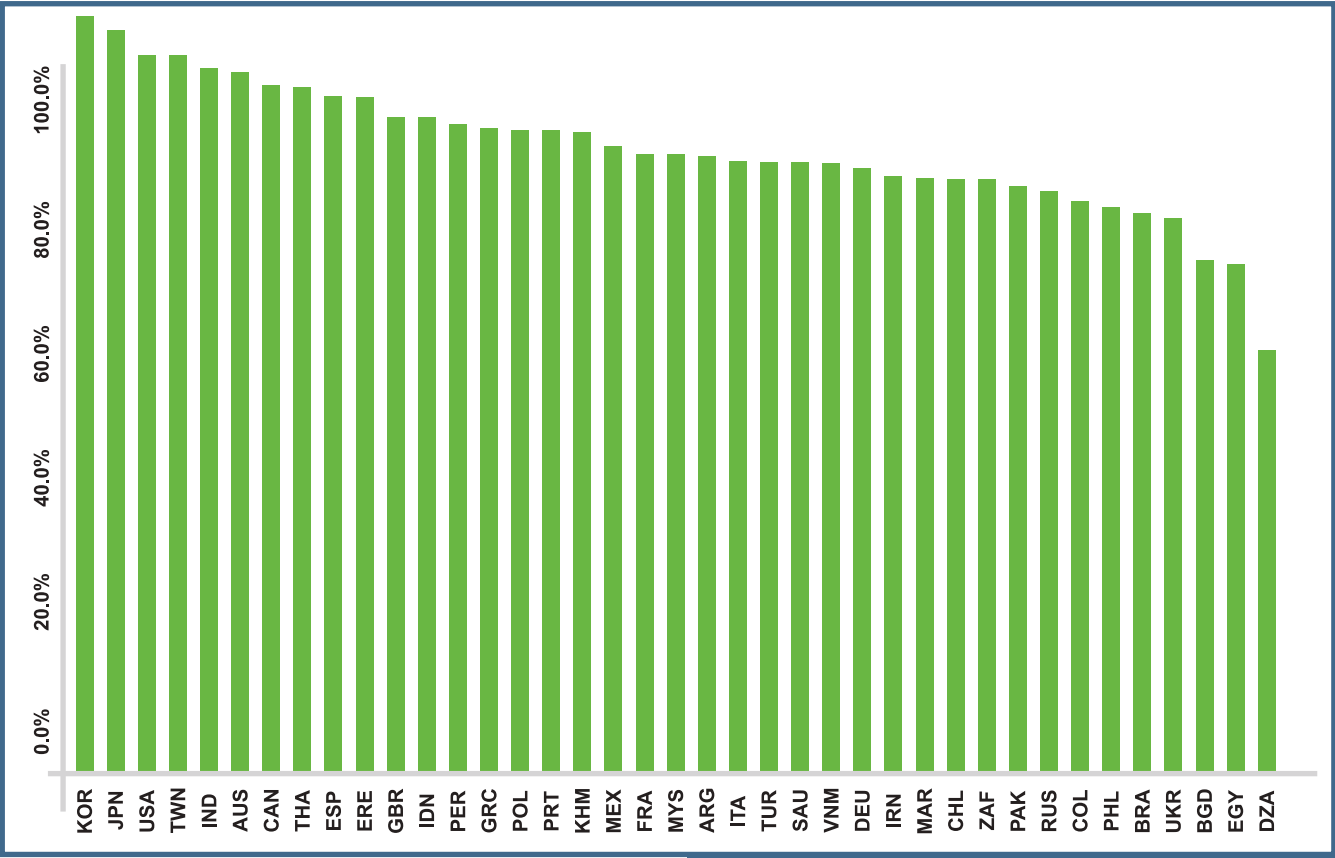


Source: Ericsson Mobility Calculator (Jan 2019),
TRAI PMR (Dec 2018)



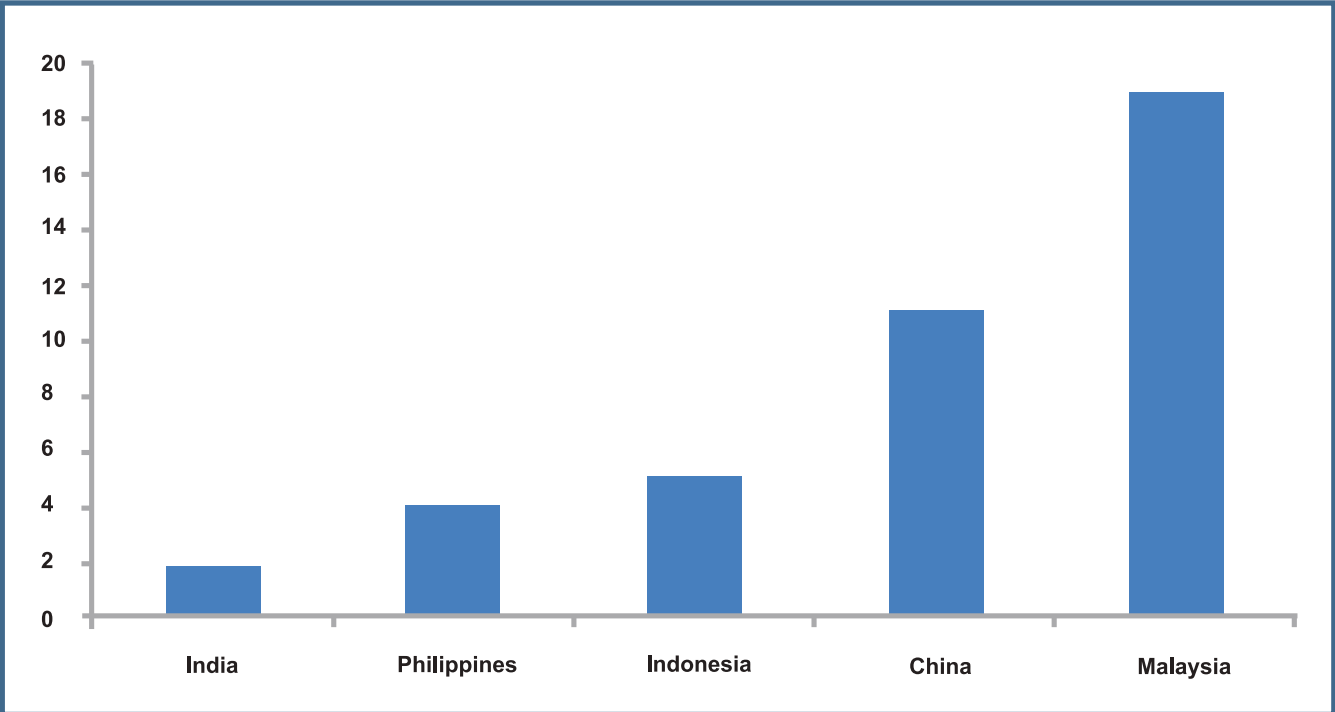
India contributes highest in Global mobile data traffic;
5 Billion GB per month

J. 4G Availability – International Comparison



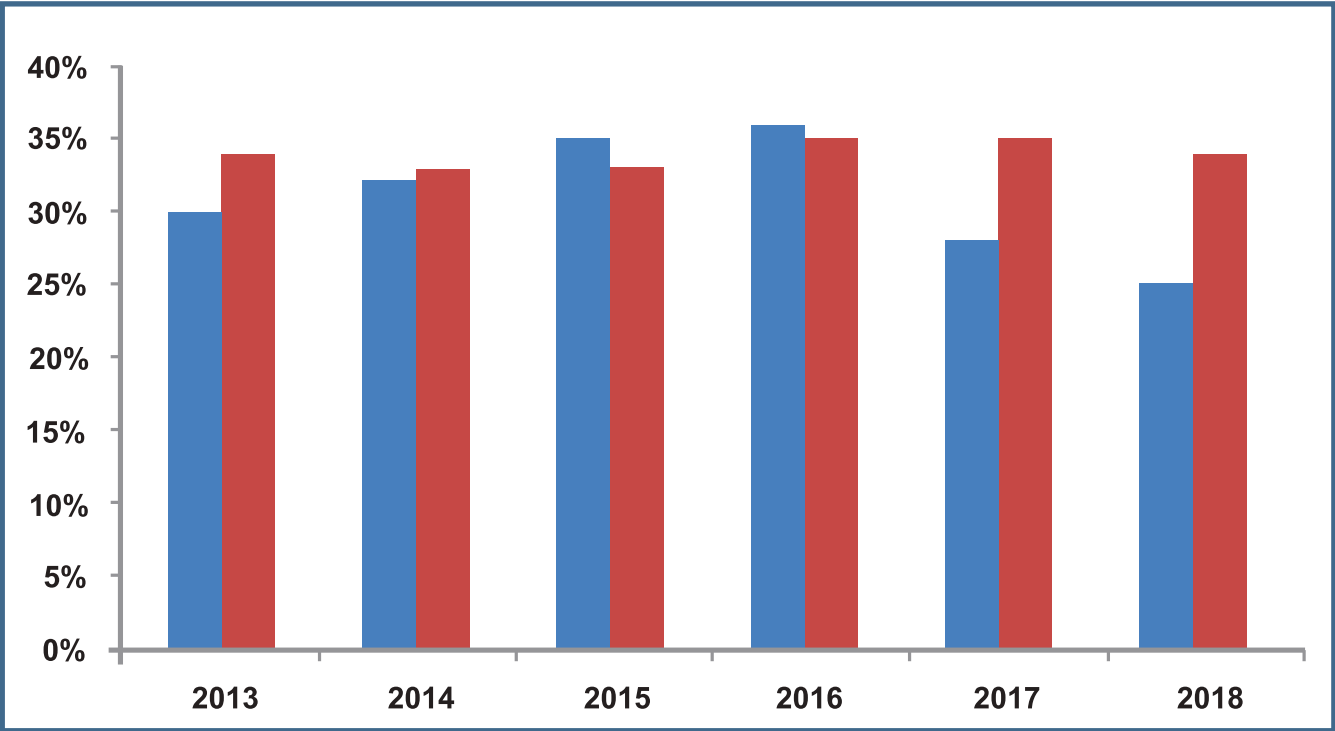
Source: Opensignal

K. ARPU per subscriber (in U\$D as of 2018)



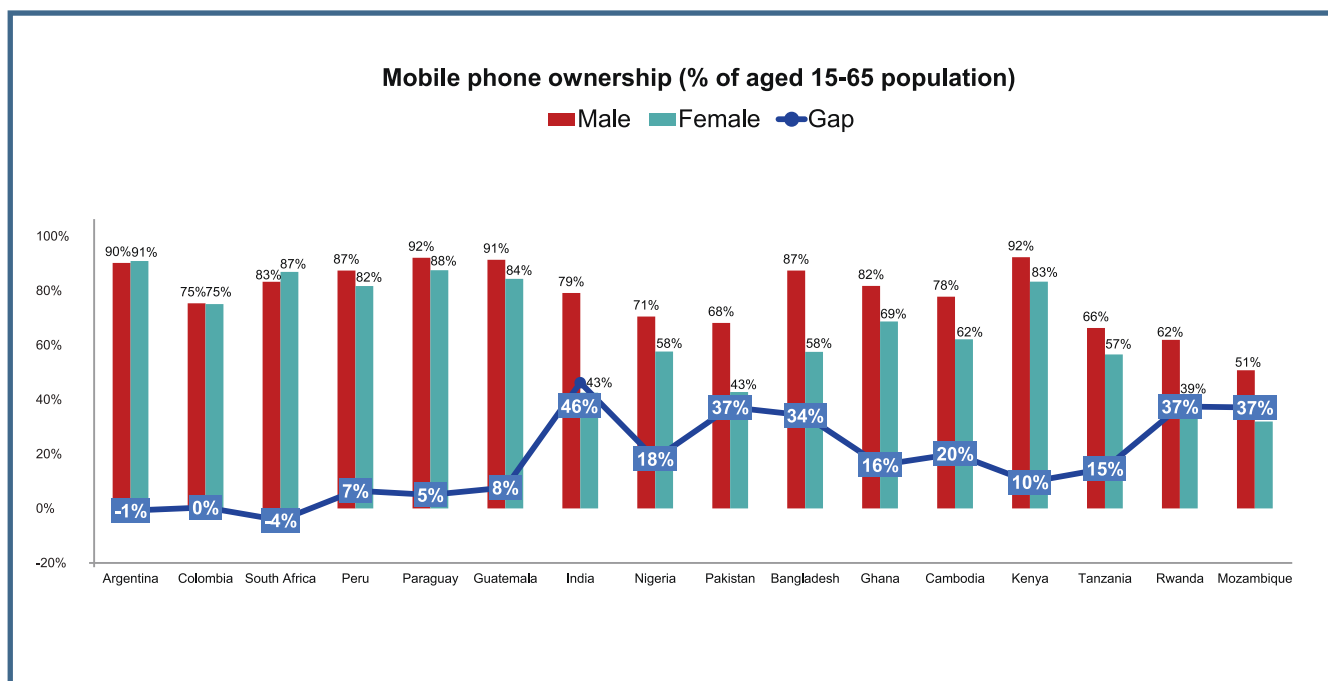
Source: GSMA Report- 'India: becoming 5G-ready'

L. India and Asia Pacific Mobile EBITDA margin



Source: GSMA Report- 'India: becoming 5G-ready'

M. Gender Gap in Ownership of Mobiles



Source: LIRNEasia

Significant Achievements for the Year 2018-2019

5G

5G India 2020 High Level Forum

DoT constituted 5G India High Level Forum with an aim to position India as a globally synchronised participant in the Design, Development and Manufacturing of 5G based technology.



NDCP 2018

COAI was engaged with various working groups for the formulation of the NDCP which was notified by the Government on September 26, 2018. Many of the recommendations of COAI, which were part of the draft NDCP, have been included in the final NDCP 2018.



Mandatory Testing & Certification of Telecom Equipment

Basis COAI's submissions, various changes have been facilitated by the authorities on the testing & certification procedures and guidelines as well as in the functionality and design of the MTCTE portal.



Telecom Infrastructure & RoW

Telecom Infrastructure Policies of Tamil Nadu, Uttar Pradesh & Uttarakhand were notified in alignment with RoW Rules, 2016.

IMC

India Mobile Congress

COAI organised India's biggest Mobile, Telecom & Technology Conclave in October, 2018 that brought together industry Stalwarts, the policy makers and all others under one roof.



1. National Digital Communication Policy 2018:

- DoT issued the draft National Digital Communication Policy (NDCP) 2018 on May 01, 2018 and invited comments from stakeholders.
- COAI was already engaged with various working groups formed by the DoT for the formulation of the NDCP. Many of COAI submissions were part of this draft NDCP document.
- COAI submitted its response to the draft NDCP 2018 on June 01, 2018. The final NDCP 2018 was notified by the Government on September 26, 2018. Many of the recommendations of COAI, which were part of the draft NDCP, have been included in the final NDCP 2018.
- COAI has been engaged with the DoT for implementation of the NDCP 2018 and had also requested for the formation of various committees to drive the implementation of the strategies outlined in the NDCP, so as to achieve the 2022 goals. DoT has created the implementation committees and meeting of the committees have started taking place.
- One of the major recommendations of COAI is related to the creation of Network Readiness Index of the States for creating a competitive environment amongst States. This will help in the growth of the telecom infrastructure. This recommendation was made part of the NDCP-2018 and termed as Broadband Readiness Index.

DoT has initiated the process of creating the Broadband Readiness Index and COAI is actively involved in the process.

2. Proliferation of Broadband Services through Public Wi-Fi Networks:

- TRAI in its recommendations dated March 09, 2017 had recommended that the internet services provided through public Wi-Fi networks can be sold and provided under a

registration instead of a license. TRAI had suggested the Public Data Office (PDO)/Public Data Office Aggregators (PDOAs) model for Wi-Fi services. These entities would have provided internet services through Wi-Fi without taking the license and liability to pay statutory charges, license fee and comply with any security conditions.

- COAI has strongly opposed this recommendation of TRAI and wrote various letters to DoT and other Government offices e.g. NITI Aayog, Ministry of Finance, including the Prime Minister Office. COAI led the Industry and submitted joint Industry proposal along with ISPAI and VNOAI, suggesting alternate model of implementing Wi-Fi networks within the existing licensing regime.
- DoT accepted COAI's submissions and had kept the TRAI recommendations in abeyance. COAI is coordinating the implementation of Public W-Fi networks (Bharat Wi-Fi) and working along with other industry players.



3. Implementation of Telecom Commercial Communications Customer Preference Regulations, 2018:

- TRAI had issued the Telecom Commercial Communications Customer Preference Regulations (TCCCPR), 2018 on July 19, 2018. TRAI has overhauled the entire process of commercial communications and have prescribed stringent regulations to curb the Unsolicited Commercial Communications (UCC).

- For implementation of the regulations, COAI formed an Industry Group including members of COAI and other TSPs e.g. BSNL, MTNL, RCOM, TTSL and QTL.
- The key requirement of the regulation was the formulation of Code of Practices (COPs) for different functionalities. COAI has conducted several meetings of the working group and was able to achieve consensus on most of the issues pertaining to the COPs.
- Vendor Selection: COAI conducted Pitch meetings with seven vendors, namely, IBM, Blockcube, Techie Amigos, SimplyFI, Phimetrics, TechM-Microsoft and TCS. These pitch meetings have helped the operators to understand and analyze DLT solutions of different vendors and thereafter, finalization of the vendors to implement the DLT solution.
- COAI has also engaged with other industry bodies e.g. FICCI, IBA to discuss the issues pertaining to Senders/Principal Entities involved in the commercial communications. This has helped our TSPs and the e-commerce companies, banks to understand each other's requirements emanating from the provisions of the TCCCPR, 2018.
- COAI has also made presentation to TRAI on the progress of the Industry regarding the implementation of the regulation and issues faced by the operators during the course of the

implementation. COAI was also engaged with TRAI for extension of the timeline to implement the regulations. TRAI extended the timeline to implement the regulations by two and a half months.

4. Purging of the infructuous Regulations:

- TRAI had constituted a committee to purge the infructuous Regulations. The Committee further constituted three sub-committees on Tariff; QoS & Licensing related issues to provide inputs to the main Committee.
- COAI was part of the Tariff sub-committee. COAI provided its inputs to the sub-Committee after having detailed discussion with its member operators.
- Subsequently, TRAI considered some of the recommendations of COAI and issued 64th amendment to Telecommunication Tariff Order (TTO) on September 24, 2018, withdrawing certain provisions of the TTO which had become infructuous.

5. M2M Communication Guidelines:

- COAI has made submissions to DoT on the issue of M2M services. DoT has considered the submissions of COAI and issued instructions on M2M services and the KYC of M2M subscribers on May 16, 2018.
- Thereafter, COAI has engaged with the DoT to discuss the provisions of the said instructions and the timeline to implement the same. Various submissions have been made to DoT to extend the implementation timeline and COAI was successful to get the extensions required for implementation.
- Also, on the issue of implementation of 13-digit numbering for M2M services, and migration of existing customers to 13-digit numbering, COAI through its constant engagement with DoT was able to get the extension to implement the 13 digit numbering scheme.
- COAI has also succeeded to convince the DoT to give some relaxation on the restrictive features prescribed in the M2M guidelines.



6. Simplification of Equipment Type Approvals and Other WPC Approvals:

The Wireless Planning & Coordination (WPC) wing of Department of Telecommunications, vide its notifications dated 26th February 2019 has simplified the Equipment Type Approval (ETA) and issuance of import license for certain categories of wireless equipment operating in license exempt bands. As per one of the notifications, the WPC has exempted the requirement for obtaining Equipment Type Approval for tests, prototype, samples, pre-launch units of wireless equipment operating in the license exempted band in India. A simple self-declaration from importer or any authorised Indian representative will suffice as evidence to process such clearances by the Customs and Central Excise Authorities, permitting one thousand number of units per model. The other notification states that Equipment Type Approval (ETA) can be availed of, simply through a self-declaration. This would be permitted for all commercial and finished products such as mobile phones or computing devices operating in license exempt bands, as allowed in India. Import license requirements are as per standards set by the Export and Import (EXIM) Policy of DGFT (Directorate General of Foreign Trade). These WPC notifications which have been issued pursuant to several representations and deliberations by COAI with DoT & WPC are noteworthy and major steps towards strengthening Ease of Doing Business (EoDB) in the country. This decision of DoT and WPC will definitely facilitate a timely and hassle-free import process of sample devices for various testing and R&D purposes and will also help equipment manufacturers in launching of their new products in India, in time.

7. 5G India 2020 High Level Forum:

The High Level Forum for 5G India 2020 was constituted by the Department of Telecommunications in September 2017, with an aim to position India as a globally synchronised participant in the Design, Development and Manufacturing of 5G based technology, products and applications. Thereafter, various Task Forces were constituted under the Steering Committee of

the High Level Forum. These Task Forces were assigned to prepare Advisory Reports and Action Plans leading to the framing of the Roadmap for 5G in India by 2020. COAI prepared the report on Regulatory and Licensing Support for Efficient 5G Deployment, as DG, COAI was the Chairperson of the Regulatory Task Force. The Report on Regulatory and Licensing Support was produced by the Task Force, a group of government, industry and academic telecommunications experts, with the aim to offer help to policy makers, so that they can focus on the key policy challenges that need to be addressed to get early deployment of 5G. Later, the inputs of all the Task Forces were collated and the 5G High Level Forum Report was issued on 23rd August 2018. The final Report incorporates all of the inputs provided by COAI on the Regulatory and Licensing aspects and also on the Spectrum issues. The final Report is very comprehensive and forward looking from the perspective of implementation of 5G in India.

In pursuance of the Recommendations of the 5G High Level Forum Report, various Committees like Oversight Committee, Spectrum Committee, Education and Awareness of 5G Committee, Use Case Labs Committee, Standards Development Committee, 5G Trials Committee etc. were set up in October 2018. These Committees are responsible for taking actions related to the implementation of "Making India 5G Ready". COAI represents Industry point of view at these various Committee Meetings.

8. National Frequency Allocation Plan:

The DoT issued the National Frequency Allocation Plan – 2018, in October 2018, which is formulated in line with the Radio Regulations of the ITU in order to cater to newly emerging technologies as well as to ensure equitable and optimum utilization of the scarce and limited natural resource of radio frequency spectrum. It also stated that interference issues are to be resolved. COAI was aggressively involved in all the deliberations and was able to get more bands earmarked for IMT services in the NFAP. COAI believes that identification of new bands for IMT and 5G will be beneficial to the delivery of 'mobile broadband for all'. The NFAP has enabled provisions for the

much needed roadmap, for the development of digital communications industry in the country. It is crucial for countries to harmonise spectrum use across the nation, in order to ensure economies of scale, with regards to manufacturing of equipment and seamless roaming services.

9. Test Procedure for the Measurement of EMF from Base Station Antenna:

DoT had issued the Revised Test Procedure for measurement of EMF from Base Station Antenna – T E C T e s t P r o c e d u r e N o . TEC/TP/EMF/001/04.JUN 2018. Most of the submissions made by COAI were accepted by DoT. Main points are as follows:

- Placing of New Single Safety Signage of smaller size (200mm X 150mm) at Sites/Towers. Earlier three type of Signages (Danger, Warning and Caution) were required to be put at the Site. The requirement has been simplified to just single Safety Sign. The rules for placement of signage are as follows:
- The signage is to be fixed at an appropriate point on the roof of the building of base station in case of RTT/RTP or on the tower structure, in case of GBT.
- For base stations installed on self-supporting towers/GBM, the safety signage may be pasted around / installed on the tower structure at a distance of 2 to 4 meters above the ground level.

Timeline to implement the new signage on field is extended till June 2019.

- Other Tenant Self-Certificate: There is a requirement of Self-Certificate submission for other TSPs in case of Upgrade by one of the TSP on that site. This leads to enormous number of submissions of multiple Self-Certificates by each sharing TSP, containing the same information about the Upgrade. The existing practice of submission of self-certificates by all sharing operators separately, for an upgrade, serves no additional benefit since the advent of the EMF Portal. The portal itself takes care of the reporting requirements to TERM Cells. Therefore, it was submitted to remove this Other Tenant Self-Certificate

requirement and submit such upgrade details in a summary to be submitted on monthly basis. Self-Certificate submission is now required only for new tenant and Upgrading TSP at a Site/Tower according to the Revised Procedure. Other sharing TSPs present on that Site will submit details in the monthly summary. This will significantly reduce the number of Other Tenant Certificate Submission (OTS) which were actually duplication of the certificates submitted by new tenant and upgrading TSP.

- The salient features of Tarang Sanchar Portal are included in the Revised Test Procedure.

DoT has introduced new detailed process for Frequency Selective Measurement Method (Narrow band measurement) in the Test Procedure.

These modifications are being implemented in the Tarang Sanchar Portal for the purpose of Self-Certificate submission.

10. Extension of Timeline for EMF Biennial Certificate Submission:

COAI had highlighted to DoT that online Biennial Self-Certificate generation and submission using the Tarang Sanchar Portal for the current biennial cycle can begin only when all the modifications (like Calculation & Broad band Self-Certificate Compliance Requirement Changes, Simplified Assessment Procedure, BTS Power Enhancement etc.) to be done in the Portal basis Revised Test Procedure and Implementation of Signage on field are completed, in order to generate Self-Certificates complying with the new Test Procedure requirements. Moreover, the recent mergers in the industry have led to massive exercise of reconfiguration in the existing networks on new frequencies. COAI submitted that the EMF certification process laid down by the Government did not envisage such situation of mergers on a live network and hence needs to be relooked at, to cater for such exigencies.

Basis submissions made by COAI, DoT granted the extension of timeline for current EMF certification biennial cycle (March 31, 2019) by

one year i.e. March 31, 2020 vide DoT's notification of File No. 800-15/2010-VAS dated January 31, 2019.

11. Rationalization of permissible Maximum RF Transmitted EIRP (Equivalent Isotropically Radiated Power) for WCDMA and LTE Base Stations:

COAI made various submissions to DoT on the matter, that a limitation of 20W in the case of 3G/LTE leads to limited coverage and capacity and, hence, an unsatisfactory user experience. It was the need of the hour that the norms of transmit power per sector be revised, which will provide operators with the capability to optimize the network for better experience with lower congestion as well as mitigate the problems currently being faced regarding call drops.

COAI submitted that the radiated power from BTSs is already being governed via the EMF guidelines to ensure that radiation is kept well within the permissible limits. DoT deliberated and took into consideration to rationalize the permissible maximum RF Transmitted Power Output/ EIRP of the Base Stations. The Revised Permissible RF Power Limits were issued on June 19, 2018 by WPC Wing of DoT and are as below:

Sl. No.	Technology	Bandwidth	Maximum radiated power (EIRP)
1.	WCDMA	5 MHz	63 dBm per carrier
2.	LTE/LTE - Advanced	Up to 5 MHz	63 dBm
		10 MHz/ 20 MHz	63 dBm

12. Mandatory Testing & Certification of Telecom Equipment (MTCTE):

The Government had mandated the testing & certification of all telecom and ICT equipment from Indian labs vide its Gazette notification issued on 5th September 2017. As per the initial notification, the MTCTE scheme was to be implemented w.e.f. 1st October 2018, however considering the industry concerns pertaining to the non-availability of the desired testing & certification ecosystem and other procedural & technical challenges, the Government has now extended the timelines for implementation till 1st August 2019. Vide its various submissions to Department of

Telecommunications and Telecommunication Engineering Center, COAI had highlighted various challenges and concerns with respect to the implementation of MTCTE. COAI had requested the authorities that MTCTE should not be implemented until sufficient test labs are established in India and all related technical and procedural challenges are addressed. The MTCTE guidelines should be implemented in a Phase-wise manner instead of implementing as a whole at any given time. A considerable time-gap should be maintained between the phases of implementation so that all the challenges/shortcoming observed during the respective phase can be addressed before implementation of subsequent phase(s). COAI had also requested that a detailed assessment report on the capacities and capabilities of testing and certification ecosystem need to be released by TEC prior to the implementation of MTCTE. Basis COAI's submissions, various changes have been facilitated by the authorities on the testing & certification procedures and guidelines as well as in the functionality and design of the MTCTE portal.

13. Harmonization of Spectrum:

COAI had been taking up the exercise of harmonization of spectrum for its members with DoT on a continuous basis. COAI submitted to the Government that harmonized spectrum facilitates provision of advanced technologies on spectrum. The exercise on harmonization of 1800 MHz band was conducted two years back, however, it was important to conduct this exercise for all bands available in India so as to reap the benefits of harmonization. COAI submitted that the current attempt at harmonization must be a comprehensive exercise and all allocations, whether administrative or acquired through auctions, should be made contiguous. Subsequently, Department of Telecommunications issued instructions on changeover frequencies for all bands including 900, 1800, 2100 and 2300 MHz bands. Detailed discussions were held at DoT to come to a consensus on changeover frequency spots. The exercise has been successfully completed by all the operators.

14. Additional Frequency Ranges for Use of Inductive Applications (Wireless Charging etc.):

With the evolution of new technologies, wireless chargers are now being used for the charging of cellular devices i.e. Handsets, Smart Watches etc. With the growth of Smartphones, tablets, health wearables, the use of the Wireless Chargers has also exponentially increased in India. Pursuant to several submissions and representations by COAI on allocation of additional frequency ranges for inductive applications, on 5th October 2018, WPC issued the notification with respect to the Inclusion of Additional Frequency Ranges for the Use of Very Low Power Radio Frequency Devices or Equipment for Inductive Applications e.g. Wireless Charging etc. As per the WPC notification, no licence shall be required by any person to establish, maintain, work, possess or deal in any wireless equipment for the purpose of usage of Very Low Power Radio Frequency Devices or Equipment for Inductive Applications (wireless charging etc.) in the 302 to 435 KHz, 855 to 1050 KHz and 1.89 to 2.31 MHz frequency bands on non-interference, non-protection and shared (non-exclusive) basis, with the maximum Field Strength Limits of '15 dBµA/m (H-Field Strength) at 10 metres'. The inclusion of additional frequency ranges for inductive applications will facilitate the device manufactures to make the highly advanced and globally accepted products available to their Indian consumers.

15. National Policy on Electronics 2019:

The Ministry of Electronics and Information Technology (MeitY) issued the Draft National Policy on Electronics 2018 on 10th October 2018 for stakeholders' inputs. COAI submitted its inputs on the draft policy highlighting various aspects in line with the vision to make India a global hub for "Electronics System Design and Manufacturing (ESDM)", and create an enabling ecosystem for a globally competitive Industry, including R&D. COAI requested immediate policy support in the form of tax holidays for electronics manufacturing, to smoothen and streamline M-SIPs processes, to

promote ease of doing business, exempt import duties on components and sub-assemblies for production capacity. COAI also emphasized on the incentives and benefits for global companies setting-up and expanding R&D facilities in India. MeitY has released the National Policy on Electronics 2019 on 25th February 2019. The released policy focuses on creating an eco-system for globally competitive ESDM sector by promoting domestic manufacturing and export in the entire value-chain of ESDM. It also includes incentives and support for manufacturing of core electronic components and special package of incentives for mega projects which are extremely high-tech and entail huge investments, such as semiconductor facilities display fabrication, etc. It also aims to promote Industry-led R&D and innovation in all sub-sectors of electronics such as 5G, IoT/ Sensors, Artificial Intelligence (AI), Machine Learning, Virtual Reality (VR), Drones, Robotics, Additive Manufacturing, Photonics, Nano-based devices, etc.

16. Digital KYC:

Post the judgment of the Hon'ble Supreme Court on Aadhaar, COAI and its members approached the DoT proposing minor modifications to the DoT guidelines dated August 24, 2015, allowing the CAF to be embedded with photograph and scanned images and thereby digitize the end to end process for on-boarding of new subscribers by making it completely paperless. COAI submitted that the return to paper based processes should not be an option as that will reverse the steps taken by the industry towards Digital India and would result in wastage of existing investments and infrastructure.



The proposed Digital KYC process is an app-based customer enrolment method in which live photograph of customer will be clicked by the PoS and embedded in the form along with Pol/PoA. The PoC of the same was conducted by all the TSPs. COAI also submitted to DoT that the stabilization of the Digital Process is likely to take time considering that the process will have to be implemented across millions of retailer points and company stores across the country and the same, being a new process, is likely to encounter challenges and certain fixes will be required for the process to work perfectly.

Post this, DoT has issued the final guidelines on April 3, 2019 for implementation of the alternate digital KYC process for verification of subscribers, which is mostly based on the submissions made by COAI.

17. IF3/3GPP:

COAI being the Market Representation Partner (MRP) of 3GPP from India had been constantly engaging with 3GPP on requirements coming from the Indian market, as COAI members have a sustained business developed using 3GPP technologies and standards. To fulfil these activities, COAI formed the Indian Friends of 3GPP (IF3) to facilitate collective activity to host 3GPP meetings of relevance to India, within India and to do so in a manner that is cost effective, efficient, and which meets with the expectations of the 3GPP community. Further, COAI along IF3 hosted six group meetings of 3GPP namely SA5#121, RAN5#3-5G-NR Adhoc, SA4#100, SA2#130, SA3#94 and SA6#28 in Kochi and Jaipur in the months of October 2018, January 2019 and February 2019. Around 500 delegates from across the globe participated in these meetings.

18. COAI Appeal Challenging TRAI Direction on Wangiri Calls before Telecom Disputes Settlement and Appellate Tribunal (TDSAT):

COAI had filed an appeal challenging the TRAI direction dated September 07, 2012 on missed calls (Wangiri calls) originating from outside the

country. TRAI vide its said direction asked all the service providers to inter alia ensure that no ISD facility is activated without the explicit consent of the subscriber. On November 2, 2012, the appeal was allowed as per the judgment of the Hon'ble Chairman of TDSAT. However, the Hon'ble Member pronounced a dissenting judgment on November 08, 2012.

In May 2017, Hon'ble TDSAT stated that the matter will be heard afresh on merits. In view of the drastic changes in the market of ISD calling and the fact that consumer behaviour had undergone a tremendous change in the recent years and also to avoid the second round of litigation on the issue, COAI submitted a new proposal to TRAI to address the menace of Wangiri calls. COAI vide its submission stated that its member operators will identify the premium charging codes pertaining to Wangiri calls and take steps to inform the customer about premium charging through pre-call announcement (PCA) and also take measures for barring the calls on these codes. Member operators will regularly check the traffic behaviour to detect wangiri calls and take the said measures.

COAI continued its engagement with TRAI to resolve the issues involved in the matter. On October 10, 2018, Hon'ble TDSAT directed TRAI to reconsider its earlier direction and pass fresh direction on the basis of the proposal made by COAI.

On March 15, 2019, COAI revised its proposal on the basis of TRAI's inputs pursuant to meeting held between the parties. COAI submitted that our members have implemented pre-call announcement (PCA) on the identified codes/countries to inform the subscribers regarding the higher charging. COAI also highlighted that the implementation of PCA and informing customers about the possible Wangiri Calls has also helped in reducing the number of Wangiri Calls drastically. COAI submitted a revised proposal to TRAI to resolve the issue:

- COAI agreed to block the incoming calls at ILD gateway level from the identified long codes and requested TRAI to issue notifications / direction to all ILD operators so that such long

codes can be blocked across all ILD gateways uniformly, so as to eliminate the occurrence of Wangiri Calls from these codes.

- COAI also agreed to implement TRAI's proposal to create a separate category of these probable Wangiri long codes, i.e., restricted ISD category.
- The proposed solution is more effective in addressing the Wangiri issue in comparison to the provision of ISD service only, by explicit consent as per TRAI's earlier Direction.

On **April 22, 2019**, TRAI issued a direction which notes the submissions and proposals made by COAI and withdraws its earlier direction dated 07.09.2012 which mandated that no ISD facility can be activated on prepaid sim without the explicit consent of the subscriber.

On **April 30, 2019**, in view of TRAI Direction dated 22.04.2019, the Hon'ble Tribunal disposed off the Appeal as withdrawn.

19. States/Union Territories Policies Notified And In Line With DoT RoW Rules:

- **Tamil Nadu Government has issued a Government Order:** The Information Technology Department of Tamil Nadu Government had issued a Government Order G.O.(Ms).No.1 dated 21st February 2018 to implement the RoW Rules, 2016 in the state. The District Collector for respective Districts and Commissioner for Greater Chennai have been designated as the Nodal Officers and the Principal Secretary-IT is nominated as the Dispute Resolution Officer. The detailed guidelines will be issued for public/private areas/buildings after consultation with the concerned Departments.
- **Uttar Pradesh Telecom Infrastructure & RoW Guidelines, 2018:** Department of Information Technology & Electronics, Government of Uttar Pradesh had notified Telecom infrastructure & RoW Guidelines, 2018 on 15th June 2018. UP Government has adopted the RoW rules, 2016 and made Uniform Guidelines for UP State by directing all the authorities in UP to adopt these guidelines throughout the state.

This policy covers Underground & Overground Telecom Infrastructure, Single Window Clearance mechanism, Time bound clearance, Implementable on urban & rural areas, Online Portal, etc.

- **Uttarakhand Telecom Infrastructure Policy:** The Department of Information Technology of Uttarakhand Government had notified the state telecom infrastructure services policy in sync with the Centre's RoW policy on 13th September 2018. The policy will help in creating and maintaining telecom infrastructure for its citizen-centric digital initiatives.



20. Policies Likely to Be Notified shortly in Line with DoT RoW Rules:

- **Arunachal Pradesh Infrastructure Policy:** The Department of Information Technology & Communication, Government of Arunachal Pradesh has shared the final Guidelines of Arunachal Pradesh Infrastructure Policy which was approved from their cabinet and is under process of notification. The policy is aligned with the RoW rules, 2016 and with the Assam Policy, 2018. COAI has shared their feedback on the policy with the department for minor amendments to be done for faster growth of Telecom Infrastructure across the state, before the notification.

- **Meghalaya Government Order:** The Information Technology & Communications Department, Government of Meghalaya announced the Meghalaya Telecom Infrastructure Policy, 2018 that was approved by the Cabinet on 10th December 2018 and is effective from 15th January 2019. The policy is aligned with RoW Rules, 2016.
- **Himachal Pradesh Infrastructure Policy:** The Information Technology & Communications Department, Government of Himachal Pradesh, issued the Policy for setting up of Mobile Communication Towers on 21st June 2017. Department of Information Technology & Communications has considered inputs from the industry for alignment of the policy as per RoW Rules, 2016 and notification was provided for an industry friendly policy. The policy is expected to be notified soon.
- **Madhya Pradesh Telecom Infrastructure Policy - 2019:** The Information Technology & Communications Department, Government of Madhya Pradesh issued the Madhya Telecom infrastructure Policy- 2019 that was approved by the cabinet on February 2019. The Department of Information Technology & Communications has considered inputs from the industry for amendment and notification of an industry friendly policy. The policy is very progressive and expected to be notified soon.
- **Jammu and Kashmir Telecom infrastructure Policy:** Information Technology Department, Government of Jammu and Kashmir have shared the draft Communication and Connectivity Infrastructure Policy (JKCCIP-19) for inputs. The industry has provided inputs for amendments to be done for notification of an industry friendly policy.

21. Policies under Discussion for Review:

Industry is working towards policy alignment in following states (i) West Bengal (ii) Karnataka (iii) Gujarat (iv) Goa (v) Delhi (vi) Nagaland (vii)

Telangana (viii) Punjab (ix) Chandigarh (x) Chhattisgarh (xi) Kerala (xii) Andhra Pradesh (xiii) Pondicherry (xiv) Bihar (xv) Mizoram

S.No	State	Policy Notified Date	Status of Online RoW Portal
1.	Jharkhand	4 th December 2015	Operational
2.	Haryana	6 th October 2017	Operational
3.	Assam	16 th February 2018	Under Process
4.	Odisha	14 th September 2017	Under Process
5.	Uttar Pradesh	15 th June 2018	Under Process
6.	Rajasthan	6 th February 2017	Under discussion
7.	Maharashtra	17 th February 2018	Under discussion
8.	Uttarakhand	13 th September 2018	Under discussion

22. Implementation of the Telecom Infrastructure Policy:

COAI is working closely with the government to expedite the implementation of the State Telecom Infrastructure Policy at the ground level. After rigorous follow-ups, progressive states like Haryana, Rajasthan, Uttar Pradesh, Assam & Odisha have taken the initiative for issuing the directives to all their State departments regarding down the line implementation of respective State notified policies.

23. Development of States Online RoW Portal:

The industry is actively involved and supporting the States for developing their Online Single Window Portal. Online RoW Portal has been made for Haryana and Jharkhand. Creation of RoW portals are under discussion with States such as Assam, Odisha, Uttar Pradesh, Rajasthan, Maharashtra and Uttarakhand.

PUBLIC FACING ADVOCACY ON EMF ISSUES ACROSS IDENTIFIED CIRCLES

Awareness Campaign regarding EMF Emissions and Telecom Towers (April 2018 – March 2019)	
Spreading Awareness	Direct Engagement with approx. 370 citizens
DoT and experts joined hands to lead Public EMF Awareness Campaign	Approx. 50 Government officials and approx. 300 medical & technical experts joined the Public Awareness campaign
Maintained connectivity and Quality of Services (QoS)	Saved many telecom towers and facilitated installation of thousands of BTS across the country to improve connectivity

Figure: EMF Advocacy done across India from April 2018 to March 2019

1. DoT led EMF awareness workshop at NDMC Convention Centre, Delhi on 21st July 2018:

DoT led Awareness Workshop on EMF Emissions and Telecom Towers was organized on July 21, 2018 at the Auditorium, Sansad Marg, Connaught Place New Delhi to



dispel the myths on Electromagnetic Field (EMF) Emissions of Telecom Towers. Approximately 250 people attended the workshop including Residents of NDMC Area, RWA Office Bearers, MWA Office Bearers, DoT officials, NDMC officials, Officials of North, South and East (including Senior Town Planner), Industry Representatives, Media and Doctors from AIIMS, Safdarjung, Lady Hardinge Medical College etc. Participants acknowledged the efforts of NDMC and DoT for organizing this awareness session. The address by Dr. Anusheel Munshi and Dr. Vivek Tandon was well appreciated by the audience. The Q&A session was very interactive and many queries were asked around the health concerns, prevailing myths related to EMF, permission process, documentation and legality of the towers, etc. All the queries were satisfactorily answered by the panelist. The news was covered in leading mainline dailies and regional newspapers such as The Times of India, The Statesman, The Pioneer, Dainik Jagran, Rashtriya Sahara, Virat Vaibhav, Aaj Samaj, Jansatta, etc.

2. DoT led EMF awareness workshop in Bhopal on 9th January 2019:

A DoT led Awareness Workshop on EMF

Emissions and Telecom Towers was organized on Wednesday, 9th January 2019 at Hotel Palash Residency, Bhopal to dispel the



myths on Electromagnetic Field (EMF) Emissions and Telecom Towers. The general sentiment of the attendees was positive towards these workshops. A presentation on Tarang Sanchar portal was also given during these workshops which were highly appreciated by the participants. Approximately, 120 people attended the workshop including Residents of various RWA's in Bhopal, RWA Office Bearers, DoT officials, Municipal Officials, Sub-Divisional Magistrates (SDMs), Industry Representatives, Media, etc. Being one of the first awareness workshops in Bhopal, this was one of the most engaging DoT led sessions where RWA representatives, DoT officials and all the other stakeholders were involved in a healthy discussion to address the myths and misconceptions regarding EMF. The activity was well appreciated as the majority of the audience participants expressed their satisfaction over the clarification they received regarding EMF and myths surrounding it. Participants acknowledged the efforts of DoT for organizing this awareness session and all the queries were satisfactorily answered by the panelist. The news was covered in leading mainline dailies and regional newspapers such as Rajasthan Patrika, Dainik Jagran, The Pioneer, Navbharat, etc.

FINANCE & COMMERCIAL RELATED ISSUES

1. Taxability of Right of Way (RoW) charges by State & Local Governments:

- For laying of the optical fibre, TSPs need permission from the local authorities i.e. Municipal Committees, Gram Panchayats etc. These bodies charge certain fees by way of raising demand note as per the agreed/approved rates, for granting the RoW.
- No service tax was being discharged by these local bodies. DGGSTI from MoF initiated investigations against a few municipal corporations across States and started raising demand of service tax with interest and penalty on such charges. Local bodies / municipal corporations passed such liability onto the TSPs and instructed them to pay the same along with interest and penalty for the entire period. Input tax credit of the same was also not available.
- Post filing various representations / meetings held during the last couple of years with the concerned officials at various levels including in MoF, DoT, various State Governments, GST council etc., the Central Government has directed that the service tax payable during the period from July 01, 2012 to June 30, 2017 on the amount charged by the local authorities for granting permission of "Right of Way" shall not be required to be paid.

Key Takeaway/s:

- On November 30, 2018, the Central Board of Indirect Taxes and Customs, Ministry of Finance issued Notifications, mentioning that levy of service tax on the services by way of granting of "Right of Way" provided during the period from July 01, 2012 to June 30, 2017 by local authorities has been exempted from the retrospective effect.
- This notification helped the industry in reducing not only significant costs but also eased situations with respect to funds which otherwise would have been blocked - thereby enhancing ease of doing business.
- The Central Government has also issued Notification to cover renting services by the Government Department under the reverse

charge mechanism. Accordingly, the industry has started paying GST on all such charges.

2. Uniformity in LF and SUC Payout:

License Fees (LF) was paid at the end of the quarter, on the basis of actual revenue earned during the quarter. Whereas Spectrum Usage Charges (SUC) was paid in advance at the beginning of the quarter on the basis of estimated revenue for the forthcoming quarter.

Representations were made to make the uniformity in the payout of LF and SUC.

Key Takeaway/s:

- Effective from Q1 FY 2018-19, DoT has issued circulars to make the payment schedule of SUC, in line with LF after the end of the relevant quarter.
- It will also address various operational hassles and related issues like different payment schedules for payment of LF and SUC.

3. Reduction in interest rates :

The rate of interest for delayed payment of LF & SUC previously used to be at PLR + 2%. This issue was taken up with DoT as PLR was no longer considered to be a benchmark for borrowing, as banks have long back moved to the concept of MCLR.

Key Takeaway/s:

- On October 24, 2018, DoT issued circular no. 20-271/2010-AS-I and amended this PLR + 2% of interest on delayed payment of LF & SUC to MCLR + 4%. The same was done only for Access Licenses (UL/UASL/VNO).
- On February 28, 2019, DoT has extended the same benefit for NLD and ILD licenses also.
- This is a key step which helped the industry in reducing not only costs but also eased situations with respect to funds which otherwise would have been blocked. This was instrumental in enhancing the ease of doing business

Submissions for the year 2018-19

1. TRAI Consultation Paper on Review of Mobile Number Portability (MNP) process, issued on 6th April 2018:

COAI in its response to TRAI made the following submissions:

- The existing process should be continued, and any changes should be done after conducting cost benefit analysis.
- Generation of the UPC should remain with the operators and any aberration occurred on non-generation should be dealt with, on case to case basis.
- COAI do not agree with the proposal to transfer the pre-paid balance to the subscriber's account at the time of porting from one operator to another operator.
- To continue with the 24-hour timeline for the customers to withdraw the MNP request and mandate the implementation of SMS based withdrawal process.
- No separate charges should be applicable for the ancillary services such as number return and bulk database download by TSPs.

2. Draft Telecom Interconnection (Amendment) Regulations, 2018 issued by TRAI on 8th May 2018:

The key submissions made by COAI on the draft Regulation are as below:

- Additional POI requirements should be raised when traffic utilization reaches to 85%/90%. This is to be done to bring it down to 75%/80%.
- On the issue of timeline, we submitted that ideally the 90 days period should be adopted, however, if the same cannot be adopted by TRAI, TRAI may consider prescribing the timeline of at least 60 working days.
- Principle of equality & reciprocity is fundamental for fair interconnection arrangements and therefore must be explicitly included in the Regulation. (BSNL related issues). participated in these meetings.

3. Draft Telecom Commercial Communications Customer Preference Regulations, 2018 issued by TRAI on 29th May 2018:

Following are the key submissions made by COAI on the draft regulation:

- Authority should undertake and provide Cost Benefit analysis in consultation with all the stakeholders, before finalising the draft Regulation on Unsolicited Commercial Communications (UCC).
- Draft Regulation does not address existing problems such as:
 - Voice UCC from unregistered telemarketer
 - Promotional content mixed with transactional content
 - Large scale migration to OTT caused by the complexity of this Regulation, will render this solution redundant
 - There is complexity in customer preference as prescribed in the Regulation
 - There should not be any financial disincentive imposed on the TSPs due to UCC made by customers not registered as telemarketers.
- Implementation and timelines:
 - Finalization of Code of Practice (CoP): at least 3 months
 - System architecture designing and solutioning: at least 9 months' time
 - Migration: at least 6 months' time from the date of completion of system designing and solutioning.

4. TRAI draft 'Telecommunication Consumers Education and Protection Fund (Fourth Amendment) Regulations, 2018 issued on 26th June 2018:

The key submissions made by COAI on the draft regulation are as below:

- Consumer Education Workshops programs should include topics related to improvement

of Network Coverage and towards RoW approvals by local bodies.

- TRAI may consider creating a separate fund for broadcasting services.
- Statement of Account of the CUTCEF may be shared with the TSPs.

5. TRAI draft TTO (64th Amendment) issued on 9th July 2018:

Following are the key submissions made by COAI on the draft Tariff Order.

- Minimum tariff protection of six months should be changed to three months
- Quarterly tariff compliance w.r.t bulk customers should be done away with/or should be made as a part of yearly TRAI compliances.
- Tariff Ceilings specified for National Roaming tariffs should be abolished and should be left to market forces.
- In case a particular plan is mandated by TRAI, the same will not be counted in the tariff capping of 25.
- Publication of tariff information in national and vernacular language newspapers after every six months should be removed.
- Flexibility should be there for using denominations of ten and multiples of ten for STVs and Combo vouchers, in addition to talk time vouchers.

- Currently the processing fee on talk time voucher is 10% of MRP or INR 3 whatever is lower. Such restrictions should be removed to ensure free play in the market
- M-bill or E- bill can be considered as default option for post-paid billing, replacing hard copy.
- DLC tariffs ceiling should be removed and market forces to decide the tariffs

6. TRAI draft Mobile Number Portability (7th amendment) Regulations, 2018 issued on 25th September 2018:

Following are the key submissions made by COAI on the draft Regulation:

- Generation of the UPC should remain with the TSPs and any aberration can be dealt on case to case basis.
- Respective checks of rejection reasons/acceptance of the MNP requests should remain with the operators.
- SMS based withdrawal mechanism for MNP requests should be adopted.
- In the changed business scenario and technological advancements that are allowing instant billing, the donor operator should be allowed to collect all unpaid dues from the customer before the porting itself.



7. TRAI consultation paper on the Review of extent provision for sending the Printed Bills to consumers of landline and postpaid Mobile Subscribers:

Following are the key submissions made by COAI on the consultation paper:

- The extant provision relating to printing of postpaid bills for wireline and wireless subscribers should be amended and the electronic format (e-bill/m-bill) should be made a default option, along with the opt-in choice for the subscribers to receive printed copy of the Bill.
- TSPs have the mechanism to ensure that all the necessary details of the postpaid and fixed line bill can be provided/ accessed to/by the subscribers in the form of e-bill/m-bill.
- Adoption of e-bill will also be in line with these digital initiatives and we are hopeful that TRAI will soon amend the provisions and pave the path towards widespread adoption of electronic bills.

8. TRAI consultation paper on Regulatory Framework for Over-the-Top (OTT) Communication Services:

Following are the key submissions made by COAI on the consultation paper:

- TRAI should adopt the definition of OTT, as suggested by EU. Further, tests like the ones being followed by EU (draft electronic communication code), as also highlighted in the Consultation Paper, may be applied to determine whether the functionality forms a 'substantial' or 'ancillary' part of the service/platform.
- TSPs are on an unequal footing with unregulated Over the Top (OTTs) players who are offering similar voice, video and data services without incurring any Regulatory cost, in the form of License fee or Spectrum charge. Hence, it is vital to review the taxes/ levies on the operators to ensure that the telecom industry remains financially stable.
- No exception should be made for any service

provider, including the OTT communication service providers, while subjecting them to the rules to meet the national security and privacy norms.

- The existing regulatory and licensing conditions imposed on TSPs should be reviewed and minimised, keeping in view light touch licensing approach – thereby minimising the imbalance.

9. Financial disincentives imposed on TSPs:

COAI, vide its letter dated 3rd May 2018 had submitted a representation to TRAI on the issue of imposition of financial disincentives on TSPs on account of non-compliance to the benchmarks of QoS parameters. Below are the key points of the representation:

- Compliance with QoS parameters is the most important factor for operators, in order to ensure customer's satisfaction, apart from the regulatory requirements.
- Achieving the prescribed 100% as the benchmark for certain parameters is practically not possible in this hugely transactional and complex IT / NW ecosystem.
- TRAI should take a pragmatic and considerate view on the few marginal deviations & force majeure events, with the reasons thereto while imposing the financial disincentives on the operators.

10. The Telecom Commercial Communication Customer Preference Regulations, 2018:

COAI had made various representations to TRAI highlighting the issues pertaining to the implementation of the regulations. Below are the key points of these representations:

- The regulation doesn't effectively address the issue of voice UCC faced by the consumers from unregistered telemarketers. Also, the regulation is lenient in its timelines and actions are to be taken for such complaints, by involving more pre-checks and usage caps with notices.

- While TSPs will incur substantial cost to implement the regulation, there will be no significant benefit accruing to the subscribers, as they will continue to receive voice calls from unregistered telemarketers.
- The regulation has prescribed ambiguous, consumer unfriendly and non-implementable requirements and it is not possible for TSPs to validate certain prerequisites.
- Provisions contained in Regulation 34, which mandate the TSPs to ensure compliance of the provision by the smart phone devices, are flawed, contrary to license and hence should be withdrawn or modified.
- Holding the TSPs accountable for the actions done by the subscribers/registered tele marketers would be unjust and unfair.
- The timeline provided for the implementation of the regulations are too short and TSPs may be unable to meet these timelines, hence there is a need for extending the timelines.

11. MEITY order for blocking online Child Sexual Abuse Material (CSAM):

On this issue COAI made representation to DoT on June 22, 2018 highlighting that:

- Blocking of sites should continue as per INTERPOL list provided by DoT.
- MEITY instructions dated 18.04.17 mandating use of IWF list should be withdrawn.
- List of URLs to be blocked should be procured by DoT and provided to TSPs/ISPs.
- Further, COAI wrote to MeitY on September 2018 demonstrating effectiveness of other lists/ solutions provided by their respective vendors.

12. DoT Standing Committee to examine issues related to the revenue base of the licensee for Charging the L.F & SUC:

COAI made representation to the DoT Standing Committee on 20th February 2018 on the following Regulatory Finance Issues:

- Reforms in AGR finalization and other measures
- Allow deductions of lease line /bandwidth

charges and the charges paid by one TSP to the other TSP as Pass through charges.

- Principle of Input Line credit to be adopted
- Lower of Accrual and Paid being considered to derive the AGR
- Payment of L.F. in Q4 to be delinked from the payment made in Q3
- Review of the provisions of penalties levied @ 50%
- Realized vs Unrealized Forex
- ICR minimum commitment
- Levy of SUC on Wireline Revenue
- Alignment of the FBG with the LF and SUC payouts of telecom operators
- Rejection of Pass through claims related to operators, which have shut down their operations.

13. Enabling Ease of Doing Business:

COAI vide its representation made on 31st August 2018 and 31st October 2018 made following request to DoT w.r.t enabling Ease of Doing Business in telecom sector:

- Accept and implement the TRAI Recommendations on AGR dated 06.01.2015.
- Introduce a system of LFDS; DoT should develop an e-portal for the submission of LF and SUC, Electronic/online filing of licensees' returns as per the TRAI Recommendation dated 06.01.2015.
- Automate LF /SUC verification like TDS TRACES can be adopted to simplify the process of verification.
- Give direction to Controller of Communication Accounts (CCAs) to consider the documents being submitted by TSPs for the past assessments/deduction verification.
- Establish a centralized appellate mechanism for the review of disputed deductions within the mandated timelines.
- Simplify, automate and make SACFA process completely paperless.
- No fresh approval is required for any additional antenna, within approved height, once the height of the tower & distance from the airport is approved
- Speed up Digitization of WPC processes.
- Assess GR/AGR for License fee at the centre

rather than the circle-level.

- Avoid multiple Audits of the book of accounts of the operators and thus facilitate Ease of Doing Business in the Telecom sector.
- Allow export of redundant active equipment without any objection from WPC.
- Allow free movement of equipment from one LSA to the other.
- Establish a suitable appellate process at the DoT HQ to independently review the imposition of penalties, to hear licensees, to independently review and draw conclusions on the matter.

14. BBNL Tender for provisioning of Last Mile Access and Broadband Services through Public Wi-Fi Access Point or through any other suitable broadband technology at the Gram Panchayat level:

COAI, vide its various representations to DoT highlighted the following key points on the said BBNL tender:

- There should be Technology Neutral Network Access specified in the tender
- Include LTE customers along with Wi-Fi customers while calculating the Active User Count
- There should be no penalty related to the condition of acquiring minimum number of active users (specified in the tender)
- Include power backup for Wi-Fi CPE/APs in case of operator providing LTE based solution
- SLA calculations to be done on the basis of uptime of mobile broadband base station (in LTE option) in case Implementing agency decides to provide services, using alternate technology.
- The implementing agencies using the alternate technologies, such as LTE, should not be mandated to maintain the SLA of both LTE as well as Wi-Fi
- Provision of electricity and space should be the responsibility of BBNL/respective Government Authorities
- BBNL should extend/drop the Fiber to the nearby LTE base station of service provider
- BBNL should consider waiver of RoW Charges

for last mile fiber deployment, extension of BBNL Fiber till Service Provider's POP at block level, discounted electricity/Energy expenses and rentals related to BTS Sites.

- Exclude clauses pertaining to termination or foreclosure of contract or a portion of work in case cumulative penalties exceed 10% of the total project cost.

15. Reduction on Regulatory Levies:

COAI made various representations to DoT & the Finance Ministry, suggesting the following:

- DoT may keep USOF contribution in abeyance till the entire amount of this corpus gets fully disbursed or USO contribution should be immediately brought down to 3%, with an ultimate objective of doing away with the levy in next 2-3 years, in line with the TRAI recommendations.
- Reduce remaining License Fee from 3% to 1% of AGR. (at present total LF is 8% of which USOF levy is 5% and LF is 3%). This will bring total License Fees down to 4% from the present 8%.
- There should not be any Spectrum Usage Charge (SUC) for the spectrum acquired through auction, in the long run.
- At most, a nominal fixed fee should be charged as SUC, to recover administrative costs.
- In the short term, the SUC charge should be reduced to a uniform 1% of AGR across all spectrum bands.

16. DoT M2M Guidelines:

COAI had submitted a letter to DoT on June 27, 2018 highlighting the following issues:

- Implementation of 13-digit numbering scheme
- Migration of existing M2M customers
- Allocation of numbering series for Commercial use
- Implementing restrictive features for M2M SIMs
- Compliance to the KYC Guidelines for new M2M users
- Instructions for e-SIMs

- Web-based Interface to record the details of end customers by M2M customers:
- Intimation to Licensee in case of sale or transfer of device having M2M SIM
- Instruction on e-SIM

Further, a letter was submitted to DoT on October 4, 2018 requesting for extension in timeline for making the existing M2M connections compliant to DoT's M2M guidelines.

Also, various representations were made to DoT requesting DoT to relax the restrictive features of the M2M Guidelines w.r.t :

- Outgoing/Incoming calls to/from predefined set of more than one number
- Outgoing/Incoming SMSs to/from predefined set of more than two numbers
- Data communication with more than two numbers of predefined IP addresses with fixed APNs or equivalent technology options by licensee.

17. Allow deductions of lease line /bandwidth charges and other charges paid by one TSP to another TSP as Pass-through:

DoT had requested COAI to prepare a Contribution Paper on their behalf for the ITU study period (2017-2020) on this issue. The key points of our submissions are as below:

- There is a need to rationalise existing treatment for the pass-through charges in the form of inter-operator payments, to avoid any kind of 'double taxation' and address the cascading impact of Government levies.
- The license provisions of the telecom service providers should ensure that the incidence of 'double taxation' or double charging of license fee on the same revenue from different operators should not occur.
- The principle of allowing the deduction of any payment made by one telecom service provider to another while calculating the eligible revenue, should be adopted.
- Any charges paid by one operator to another should be considered as pass-through

charges and should be deducted from the revenue, while computing the license fee. The charges for lease line/bandwidth should be considered as pass-through charges.

18. Draft “The Personal Data Protection Bill, 2018”:

The Group of experts chaired by Justice (Retd) BN Srikrishna submitted a detailed report along with a Draft of “The Personal Data Protection Bill, 2018” to the Government on 27th July 2018. The major highlights of the draft bill are:

- Personal Data shall be processed only for purposes that are clear, specific and lawful.
- All agencies and firms will have to appoint Data Protection officers.
- Individuals will have the right to withdraw consent.
- Copy of all personal data to be stored in India. Critical personal data shall only be processed in a server or data centre located in India.
- Sensitive Personal Data includes passwords, sexual orientation, financial data etc. and can only be processed, only with explicit consent.
- Penalties range from 2-4% of a company's worldwide turnover, or fines between INR 5 crore to INR 15 crore, whichever is higher.
- A data protection fund and a data protection awareness fund to be set up through the proceeds gathered from the penalties and fines.
- Recommended setting up a Data Protection Authority which is supposed to “protect the interests of data principals”, prevent misuse of personal data and ensure compliance with the safeguards and obligations laid under the data protection framework, put out by corporations, governments or anyone else processing the personal data in question.

The Ministry of Electronics and Information Technology (MeitY), vide its notification dated 14th August 2018 sought comments from stakeholders on the draft bill. COAI submitted that it will be critical for the Draft Bill to resolve the ambiguities in interpretation of what constitutes personal data, sensitive personal data etc. Bill should contain

clear bases for processing personal data that would be considered “reasonable purposes”. There should not be separate categories of data fiduciaries. COAI added that the law should be uniformly applicable on all data fiduciaries without any categorization/sub-classification. COAI also highlighted that although it is important to have a robust enforcement framework, it is critical that this framework does not penalise beyond the actual harm done and stifle business and innovation for fear of penal sanctions. COAI supported the provisions in the draft data protection bill that provides for one copy of personal data be stored on a server or data centre located in India and more stringent safeguards for critical personal data to be processed only in a server or data centre located in India. In its response, COAI also advocated to provide financial autonomy to the Data Protection Authority (DPA).



19. E&V Bands:

COAI has been constantly making submissions regarding early allocation of E-band and V-band to the Access Service providers (ASPs). Since microwave technology is connecting more than 80% of physical sites for almost all of ASPs network, with present network scenarios of 2G, 3G, 4G and fixed broadband backhaul, it is required that some alternative resource is made available to deliver high capacity backhaul and meet the market requirement to deliver best quality of experience for their end subscribers using E&V Band spectrum. E&V bands (80GHz

and 60GHz) are increasingly being adopted by operators globally to cost effectively meet mobile broadband backhaul requirements. TRAI has also recommended releasing both E band & V band in its recommendations dated 29th August 2014, on the Allocation and Pricing of Microwave Access (MWA) and Microwave Backbone (MWB) RF carriers for mobile broadband. COAI has been submitting to DoT that Spectrum in E-Band should not be de-licensed and there is an immediate need for backhaul to improve the 4G experience for customers; hence E-Band should be immediately allocated to ASPs. NFAP released in October 2018 has earmarked E(71-76 GHz and 81-86 GHz) Band for high capacity backhaul applications.

20. Local Telecom Equipment Manufacturing and Preferential Market Access (PMA):

TRAI issued its recommendations on 3rd August 2018, pertaining to promoting Local Telecom Equipment Manufacturing in India. The recommendations issued by TRAI regarding creation of Telecom Research and Development Fund (TRDF) and other related funds, Telecommunications Equipment Development Board (TEDB) etc. are highly encouraging for the stakeholders. Further, the recommendations with respect to ensuring availability of skilled manpower, to set-up Telecommunications Technology and System Design Labs and incentivizing the setting up of incubation centres will facilitate in developing a dynamic ecosystem, which in turn will boost local equipment manufacturing in the country. Although some of the recommendations issued by TRAI are highly appreciable, however there are several other aspects and challenges which need to be addressed by the concerned authorities while formulating the roadmap to promote local manufacturing in India. COAI submitted its representations to DoT and TRAI, highlighting certain concerns and suggestions on the authority's recommendations. In its submission, COAI emphasized that global equipment manufacturers, who have invested huge capital to set up and operate manufacturing facilities in India

for domestic consumption as well as exports should be considered as domestic manufacturers with respect to Preferential Market Access (PMA) and their efforts towards domestic manufacturing in India should be recognized and incentivized by government. It has also been requested that providers of communication services should be given flexibility to procure equipment from manufacturers from across the world, in order to ensure that Indian telecom operators and their networks remain competitive inter-operable and leverage innovation happening around world - irrespective of the fact as to whether they purchase domestically manufactured equipment or import equipment from overseas. COAI also requested that more focus is to be laid on Ease-of-doing business as well as on removal/reduction of Basic Custom Duties on telecom equipment.

21. Draft of “The Information Technology [Intermediary Guidelines (Amendment) Rules] 2018”:

The Ministry of Electronics and Information Technology issued the Draft of “The Information Technology [Intermediary Guidelines (Amendment) Rules] 2018” for stakeholders' inputs on 24th December 2018. These draft rules seek to amend the Information Technology (Intermediary Guidelines) Rules, 2011 under the Information Technology Act, 2000. The proposed amendments put several additional liabilities on the intermediaries e.g. Traceability of information originator and provide information to government authorities within 72 hours, to pull down unlawful content within 24 hours, to deploy tools to proactively identify, remove and disable public access to unlawful information or content, mandatory registration of intermediary platform with more than 50 Lakhs users in India etc. In its response, COAI opposed the Government's proposed amendments to the intermediary guidelines and recommended the regulation of internet platforms in order to curb fake news, terming them “vague” and those that can violate the privacy of users. It was submitted that the vagueness of these guidelines could also drive several intermediaries out of business in India and

preclude the possibility of new intermediaries developing in the future. COAI submitted that the draft recommendations undermine security and privacy of communications, are ambiguous on which agencies are allowed to demand information, those that pose technical challenges and are inconsistent. COAI also highlighted that provision for information requests already exists and the new set of amendments need to be in sync with existing regulations of the telecom department.

22. Draft National E-commerce Policy:

The Department for Promotion of Industry and Internal Trade (DPIIT) issued the 'Draft National e-commerce Policy' on 23rd February 2019 for stakeholders' inputs. This draft policy aims to create a framework for achieving holistic growth of the e-commerce sector along with existing policies of Make in India and Digital India. The draft policy has been divided into 6 categories – Data, Infrastructure Development, e-commerce marketplaces, Regulatory issues, Stimulating the domestic digital economy and Export promotion through e-commerce. In its response to DPIIT on 29th March 2019, COAI submitted that, with respect to issues pertaining to data ownerships, sharing, cross-border data flows etc., related to all segments and industries in India, the provisions of the Personal Data Protection Bill; whenever finalized should prevail and therefore, there is no additional need to specify similar and separate provisions in this draft policy. COAI also submitted that requiring intermediaries to put in place measures to block any content or to identify 'trusted entities' as envisaged in the Draft Policy goes squarely against the very definition of intermediary and the very basis/provisions on which safe harbour is granted. COAI emphasized that there should be no regulatory overlap among the various sector regulators, and the sector specific regulators should deal with the e-commerce aspects of their respective sectors. Also, the determination of advertising charges should be left to market forces.

23. Automation of SACFA:

COAI submitted various representations to the Government regarding simplification of SACFA Application and Clearance Processes. It was submitted that although WPC has taken several initiatives in the past for streamlining processes, however, we are still facing constraints on account of current SACFA applications and clearance procedures which are causing significant delays in the issuance of SACFA clearances of our telecom sites which subsequently hamper the timely operationalization of our telecom network.

COAI submitted that there is a need to review and automate the entire SACFA clearance process and make it completely paperless. Only those documents should be asked for, that are relevant to the requirement of according approval. All the documents should be submitted online, along with digital signatures. The current SACFA portal needs to be upgraded. There should be a facility for online editing with requisite intelligence to facilitate the processing of the application. TRAI has also made recommendations under Ease of Doing Business pertaining to WPC processes, which needs to be accepted.

24. Aadhaar based e-KYC:

The industry was implementing Aadhaar based e-KYC process as per the DoT issued guidelines and was also carrying out re-verification of all the existing subscribers through the Aadhaar based e-KYC process. The TSPs started the process, however, there were many issues faced with Unique Identification Authority of India (UIDAI) changing the process mid-way and introducing various features to make the system more robust. TSPs had to continuously work on updating their IT systems to meet the requirements. The Supreme Court issued an Order on September 26, 2018 to discontinue Aadhaar based e-KYC for new as well as re-verification of telecom subscribers. The Cabinet in February again allowed Aadhaar based e-KYC on a voluntary basis. Further, UIDAI issued a Gazette notification on March 06, 2019 regarding charging INR 20

(including taxes) for each e-KYC transaction and INR 0.50 (including taxes) for each Yes/No authentication transaction.

25. Spectrum Interference Issue through Sale of Illegal Repeaters/ Boosters on e-commerce platforms/websites:

As per the license condition, for providing the Service, the licensee shall utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the licensor, from time to time. Thus, as per established norms, telecom service providers (TSPs) shall install repeaters after thorough inspections, only after a request is raised or there is a requirement. TSPs need to make sure that installing a repeater doesn't hamper the network coverage for people outside the distribution area. Such devices manage available signal's input-output mechanism and provide adequate network connectivity to a targeted (and its surrounding) area, thereby covering the entire low-network zone.

However, these repeaters were being illegally sold online. COAI wrote to the e-commerce websites/platform regarding the sale of mobile signal boosters/ repeaters used for enhancement of signals in 800 MHz/ 900 MHz/ 1800 MHz/ 2100 MHz/ 2300 MHz bands, which are licensed telecom spectrum bands assigned to the Service Providers, who are licensed by the Central Government under Section 4 of the Indian Telegraph Act to provide mobile telephony services. The Act prohibits possession of such apparatus without a licence and possession and sale of such equipment, without obtaining requisite permissions under the Act and Rules framed thereunder, constitutes violation of the provisions of the Act. Most of them immediately acknowledged COAI's submissions and ceased and discontinued selling mobile signal boosters/ repeaters on their website/ platform.

26. Central Equipment Identity Register (CEIR):

PoC on implementation of CEIR was undertaken in Maharashtra LSA with major TSPs of MH LSA, i.e., BSNL, Reliance Jio, Airtel, Vodafone and Idea. DoT issued instructions on PAN India implementation of CEIR on November 30, 2018. Basis the PoC, DoT has decided to go ahead for integration of CEIR with TSPs for PAN India implementation. TSPs were requested to actively coordinate with CDOT and facilitate establishment of connectivity, sharing data and implementation of necessary changes in network and complete testing, on PAN India basis, by December 31, 2018. Post this, COAI made a submission to DoT stating the following ground level challenges which are required to be overcome and replicating the implementation across all circles will not be straightforward due to huge scope of work and uniqueness of each network:

- Multi-vendor scenario
- IT Network Integration
- Automation and System Dimensioning for Robustness
- Commercial Negotiations with Vendors
- Testing
- Impact on Subscriber Life cycle

A meeting was held at DoT on the same and post that, members had individual meeting with C-DOT. COAI is constantly coordinating with DoT and the industry to get this implemented suitably.

27. Submissions to International Telecommunications Union:

COAI in its efforts to work with global bodies for the advancement of telecom technologies, works closely with the Government to submit inputs to ITU-R, in order to identify additional spectrum for IMT technologies. As part of the same, COAI worked with the Government to submit Inputs to ITU-R Working Document on Proposal for Harmonization of 3300-3600 MHz Band. India proposed that WP5D considers a revision to the unpaired frequency arrangement covering the frequency band 3300-3600 MHz so that complete

3300-3600 MHz band is considered as unpaired frequency arrangement for TDD. This would avoid fragmentation of the band and would be very useful in the deployment of 5G technologies.

COAI has also been taking the issue of earmarking of spectrum in 617 – 698 MHz band for IMT Applications, both with DoT and at the ITU level. Considering the spectrum requirements for IMT, the spectrum below 1 GHz is exceptionally suited for wide coverage mobile broadband. In particular, the unique propagation characteristics of the bands below 1 GHz in allowing for wide area coverage, requires less infrastructure and facilitates cost effective service delivery to rural or sparsely populated areas and suits India's requirement to effectively implement government's "Digital India" project. It is important that this band is used in the most optimal and efficient manner as per globally harmonized band plans, which will ensure economies of scale and hence, will be best placed to deliver on National broadband objectives of broadband for every citizen at affordable tariffs.

India being the second largest telecommunication market in the world also provided details of its mobile deployment in the country through a Working Document on National [approaches, best practices and/or] Experience of some countries in which certain frequency band(s) are allocated to mobile services and identified for IMT systems related to technical, operational and regulatory/procedural aspects. India National Experience on IMT deployment is submitted as part of the document, mentioning that the spectrum bands for IMT services namely 700 MHz; 800 MHz; 900 MHz, 1800 MHz; 2100 MHz; 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz are available for telecom services in India.

28. Exempt GST on payments to Government, e.g. Spectrum payment, license fees, Spectrum usage charge, Right of Way charges:

- Applicability of GST on regulatory levies is leading to tax cascading, since telecom

operators are unable to fully utilize input tax credit paid on such regulatory levies. This first involves a cash payment of tax with corresponding credit against output liability. It is revenue neutral for the Government but involves large blocked working capital for the industry, given that a high credit pool that already exists. Given the precarious fiscal state of the industry, the telecom service providers are not in a position to carry this heavy burden of such cash blockage, nor can they bear the avoidable cost of funds for this blockage.

- Internationally VAT/ GST are not applicable on government services since they are regarded as a non-economic activity or sovereign functions that are outside the ambit of tax. For instance, in the European Union, as per the VAT Directive, bodies governed by public law are not taxable persons in respect of activities/ transactions in which they engage as public authorities.
- In line with the international practice, we requested that payment of regulatory levies made by telecom operators should be exempted from tax under GST. Regulatory levies were made liable to indirect tax, effective 1 April 2016 only, prior to which no tax was applied on such payments/charges.
- Exemption of telecom regulatory levies from payment of GST would ease overall working capital burden on telecom operators and would also ease cases of accumulated credits. The said activity will also be revenue neutral from the perspective of the Government. GST under reverse charge is payable on all regulatory payments to the Government.

29. Refund of accumulated credits:

Under erstwhile Value Added Tax (VAT) regime, refund of accumulated unutilized tax credits was permissible, subsequent to assessment of returns for the said financial year. There is no such provision in GST.

Refund of accumulated input tax credit in European Union. Additionally, refund of unutilized

input tax credit is available internationally and the same is evident from Sixth VAT Directive in the European Union.

This substantiates that refund of unutilized credit is widely accepted and is a prevalent concept in other jurisdictions, and the same has been quite prevalent in India under the erstwhile VAT regime. Singapore GST also provides for refund if the GST paid on purchases and expenses during a return period exceeds the GST collected. This refund is granted immediately on filing of the periodic return.

Recommendation: Refund should be allowed for accumulated credit to avoid cascading of taxes, which is a fundamental principle of any value added tax prevalent in the VAT regime and in most of the developed international jurisdictions.

30. Inter-state and Intra-state transaction between the telecom circles:

- For telecom licensing purposes, India is divided into 22 Service Areas/ Circles for providing cellular mobile service and out of those 22 Circles, 12 of such service area/circles cover more than one state. Also, there are PAN India licenses such National Long Distance (NLD) and International Long Distance (ILD), which do not have any specific presence in a State.
- Non-alignment between Service area/circle/licenses and States results in maintaining multiple set of financial records parallelly which add to the complexities in compliance, audit reconciliation challenges and heightened risk of disputes.
- Further, there are certain charges specified and mandated by the Department of Telecom (DoT) for the purpose of license fee between different Telecom circles and licenses. Given that there is non-alignment between Telecom licenses and States, there are situations where for payment of License fee, Spectrum usage charges, etc, the revenues are split basis different licenses. Identifying and further splitting these transactions State-wise,

especially when the entire network architecture is inseparable, poses severe challenges. These kinds of instances are numerous which could potentially lead to avoidable litigation.

- To avoid potential litigation, inter-operator services within the same legal entity of Telecom operator should be notified under Rule 32(7) of the CGST Rules 2017 so that the value of transaction between two states of the same legal entities are deemed to be NIL.

31. Centralized Registrations & Centralized Assessments for service companies:

- GST regime necessitates registration, compliance, audits and assessments in all 36 States, instead of centralized registration, under Service tax. The telecom service providers have registrations in multiple States and hence are required to adhere to these requirements in respect to seamless service, across multiple States.
- State wise assessment/audit under GST implies facing 36 sets of tax authorities, each requiring a good understanding of the complexities involved in Place and Time of Supply aspects. This leads to duplicity of efforts and also hampers ease of doing business.
- For any telecom call to mature, all India infrastructure is used. Further, TSPs record the sale of recharge voucher as advance and the revenue is recognised based on the utilisation of the talk/data time by the final subscribers in the state in which the subscribers belong. In view of this, though the tax would have been paid in the state where voucher is sold, the actual revenue related to this sale of voucher will reflect in the state to which the subscriber belongs.
- We requested the government to permit centralized registration and centralized audit procedure for 'regulated' service entities,

providing seamless service across States e.g. Telecom, Banking, Insurance. This would limit this facility to less than 1% of all Corporates and help dramatically in ensuring ease of doing business.

32. Levy of Entertainment Tax on Value-Added Services provided by the Telecom Service providers:

- The State of Madhya Pradesh has made changes in the Local Municipal Corporation Act to provide right to the local bodies to levy Entertainment Tax. The value-added services provided by the telecom service providers were added in the definition of Entertainment. With this change, the Telecom operators are required to obtain registration with each of the Municipal Corporation in the state of Madhya Pradesh.

Following are the challenges in compliance with this law:

- There are about 375 Municipal Corporation bodies in MP, hence practically it is not possible to get registrations, pay tax, file returns and get assessments completed separately in each of the Municipal Corporations. If it spreads across India, then we may have to undertake monthly compliances for more than 13,000 jurisdictions. This would significantly compromise ease of doing business in India.
- Levying LBT as entertainment tax is dual taxation, which should not be the case, as GST is levied as "One Nation One Tax". No other State is levying such tax except Tamil Nadu, wherein it is restricted to on screens only. Telecom services are also not taxable under such Entertainment Tax Act in any other State.
- The law provides for taxability of the VAS downloaded by the subscribers in the jurisdiction of a Municipal Corporation. In view of this; the determination of place of supply and also the value which is subjected to the Entertainment Tax in a Municipal Corporation shall not be possible given the nature of

services that are provided through the telecommunication network.

- This will burden the Telecom operator with huge compliances of multiple registrations and return filing even when very insignificant revenue are expected to accrue to the respective local bodies. This is against the basic premises of GST where only single tax was proposed to be levied. Considering this, even if the levy is to be retained, only entry-based entertainment services should be subjected to the levy of Entertainment Tax by the local bodies.
- We requested the government that Telecom services should be kept outside the ambit of Entertainment tax.

33. Right of Way (RoW):

- For laying of the optical fibre, TSPs need permission from the government departments such as CPWD, railways and local bodies' including municipal committees, gram panchayats etc. These bodies charge certain cess by way of raising demand note as per the agreed/approved rates, for granting the RoW.
- Service Tax regime: No tax was being discharged by local bodies from the beginning as they considered that this tax is related to land and buildings on which they have exclusive taxation powers and that income of state government/ local bodies cannot be subject to union taxes. These local bodies/ authorities are approaching TSPs for reimbursing service tax payable over the last five years along with interest and penalty.
- We requested the Government that a clarification be issued that Right of Way charges collected by municipalities / panchayats are exempt from tax. This will also ensure that the tax is realized by the government in a timely and organised manner, without heaping any additional compliance burden on municipalities, panchayats etc.

- On November 30, 2018, the Central Government issued a notification exempting the service tax payable during the period from July 01, 2012 to June 30, 2017 on the amount charged by the local authorities for granting permission of "Right of Way". However, this exemption does not cover RoW services provided by the Government/Development authorities. We have requested the government to issue a suitable clarification / amendment in the said notification for the same.
- Under the GST regime, operators are making payment of GST under reverse charge on the amount charged by the local authorities/Government Department for granting permission of "Right of Way". However, in most of the cases these authorities are not issuing tax invoice while indicating thereon that the tax is payable under reverse charge and not uploading such details in the GSTR1 being filed by all the registered entities. Failure of this compliances on the part of the authorities may result into the denial of input tax credit of the GST paid under reverse charge by the operators.

We have requested the Government to issue a clarification as to coverage of such services within the ambit of article 243W/243G so that exemption from GST may be claimed on such supplies.

34. Customs Duty for 4G /5G Related Network Products and other telecom Equipment:

- The telcos are preparing to roll-out 5G technology-based communications services and need an easier business environment to encourage investment apart from reduced pressure on the balance sheets. One of the most important requests we have made is that the Government re-introduce the customs duty exemption on 4G LTE network equipment import.
- Basic customs duty on various 4G/5G related network products has been doubled to 20%.

- Additional duty will result in more financial challenges in the long run. Till the time good quality equipment is available in India at affordable prices, BCD should not be increased. Higher Import Duties resulting in increase in costs and inefficient after sales service.
- We informed the Government that the telecom sector is the biggest supporter of indigenous manufacturing. However, till quality products at a competitive price are available, we requested the government to re-introduce the customs duty exemption on imports of 4G LTE network equipment and other telecom equipment.
- We requested that the Customs Duties for 4G/5G related network products should be brought down to NIL. This is critical because of the essential nature of these imports to meet the national vision of a Digital India.

35. Amendments in the GST Law:

Detailed representation sent to the GST Council and to Commissioner GST, MoF highlighting the proposed amendments in the GST Law for the sector.

36. Imposition of calamity cess in Kerala:

It was informed that GST Council had allowed the State of Kerala to levy such calamity cess up to the rate of 1 percent on value of goods and services. Detailed representations were sent to State Finance Minister and to the concerned commissioners instructing them to not levy calamity cess on supplies made by the telecom sector (including distribution chain). In January 2019, representations were made to not levy calamity cess on supplies made by the telecom sector (including distribution chain). At present, Government has postponed the same.

37. A Standing Committee was constituted under the chairmanship of DDG (LFP) to examine issues related to the revenue base of the licensee company for the

purpose of charging of LF and SUC. Presentation was made to the Committee:

Few key points covered in the presentation are:

- Reforms in AGR finalization and other measures
- Allow deductions of lease line /bandwidth charges and the charges paid by one TSP to the other TSP as Pass through charges.
- Principle of Input Line credit to be adopted
- Review of the provisions of penalties levied @ 50%
- Realized vs Unrealized Forex
- Levy of SUC on Wireline Revenue

38. Representation to DoT verification of deductions on Accrual/Paid basis:

TSPs have been providing the complete information on the deductions claimed by them to facilitate the verification process i.e. both on the basis of accrual methodology as well as paid methodology. While calculating the admissible deductions, CCAs considered should be lower than the accrual and paid figures.

We requested the DoT that accrual numbers as disclosed in the Audited AGR Statement provided by the TSPs should be followed by DoT for verification of deductions, consistently, for all the quarters/years, but not both of them.

Requested DoT for automation of deduction and verification process and for on line submission of documents.

39. Reduction in PBG and FBG:

We made representation to the DoT for Reduction in Performance Bank Guarantee (PBG) and Financial Bank Guarantee (FBG) and requested that:

- Discontinue the requirement of FBGs towards the securitization of Annual Instalment Payment
- Discontinue the requirement of FBGs to secure the payment of LF and SUC dues.
- Release all PBGs which DoT submitted against the rollout obligations.

40. Automation of deduction and verification process of LF and SUC:

We had various interactions with the DoT at various levels. Such interactions helped in the standardization and simplification in the assessment process. These interactions have allowed the various stakeholders involved in the deduction verification process to share views, brainstorm, in an open and transparent manner, which has led to possible solutions which addresses the common concerns of both the parties. These interactions have facilitated the issuance of various important clarifications by DoT HQ which have helped in standardizing the assessment process to a very large extent. This standardization in the assessment process has allowed the TSPs to align themselves to the requirements of DoT and ensure due compliance. At the same time, it has also provided a framework to the DoT field offices within which they can function while also allowing them the desired flexibility to function.

We have requested DoT to move towards further automation, including online submission of documents, LfDS etc. We made representation and had various interactions with DoT to discuss the following:

- Online submission of documents with regard to deduction and verification
- Eliminate the duplication of efforts at both the ends i.e. the DoT / CCAs and TSPs.
- Improved quality of work and reduction of paper work.
- Reduction in the overall turnaround time taken in the completion of audit/verification process.

DoT is under process of developing a software “SARAS” mainly for online submission of documents, various reconciliations, verifications etc.

DoT is in the process of implementing a Revenue Management Software (RMS)-**SARAS** (System

for Assessment of LF Revenue and SUC), which would digitize the assessments, payment and accounting of license fees, spectrum usage charges etc.

The RMS would be a web based application, and would enable the Licensee to make online payments, digitally file and verify deduction claims, AGR statements, bank guarantee details along with enabling the Department to conduct online assessment of LF and SUC, manage bank guarantees, handle representations etc.

For testing / training purpose, DoT is also expected to conduct a workshop for 7-8 days. Details of venue and dates for the workshop would be communicated in due course of time.

This would help in :

- Assessment of License Fees and simplification of the related access verification process.
- Improved quality of work and reduce paper work.
- Reduction in the overall turnaround time taken in the completion of the audit/verification.



41. Pre Budget-Recommendations 2019-20:

Detailed representations with regard to key issues related to Direct and Indirect Taxes were sent to the Ministry of Finance, Ministry of Telecom, CII, FICCI, ASSOCHAM, etc. Summary of key issues included in the representation is as follows.

Indirect Taxes:

Sr. No	Subject	Recommendation
1.	Exemption from GST on Spectrum payment, license fees, Spectrum usage charge,	Given the huge burden of taxes and regulatory levies on telecom operators and considering the fragile state of their finances, special benefit should be provided to telecom operators in GST by way of exemption on reverse charge for regulatory payments of LF, SUC and spectrum assigned under auction.
2.	Exemption in respect of levy of Service Tax on Right of Way permission granted by the Central Government/State Government and the development authorities	Scope of Exemption Notification No 1/2018 – Service Tax dated 30 th November 2018 be extended to cover similar services by the Central/State Government Department and the other Development authority
3.	Transactions between the Distinct Persons	Considering the different regulatory requirement, the transactions between two distinct persons for the telecom service providers should be deemed to be NIL.
4.	Multiplicity of compliance, scrutiny, Audits, Investigations and Litigation for large Pan India service providers	Permit centralized registration and centralized audit procedure for 'PAN India' service providers.
5.	Legal and compliance Issues in treatment of business transfer	Necessary provisions should be made under the GST law to allow the transferee company to issue and report credit/debit notes with respect to invoices issued by the transferor company, vendors, etc. and corresponding changes be made at GSTN accordingly.
6.	Credit on telecommunication towers and shelters	The exclusion of telecom towers from the definition of 'plant and machinery' in section 17(5) should be removed.
7.	Reversal of input tax credit on removal/loss/destruction of capital goods after being used.	When the capital goods are lost/destroyed after use, provision for reversal of only proportionate reversal of input tax credit should be inserted.
8.	Loss of credit to service recipient of Lease circuit and internet lease circuit	Place of supply for Lease circuit and internet lease circuit be brought under the general rule i.e. basis the location of service recipient. This would prevent loss of credit and thus cascading of taxes
9.	Reversal of ITC with interest on account of non-payment to suppliers within 180 days from the invoice date	The requirement of compulsory levy of interest is absolute burden on the recipient and should therefore be withdrawn.
10.	Levy of IGST on the value of vessels entering into India temporarily for repairing of undersea cable	Similar to the exemption granted from the levy of BCD, exemption from IGST may also be granted for hassle free importation of such vessels
11.	Job work compliance under section 143	Clarification may be issued that repair activity is not covered under the definition of Job Work and accordingly the movement can be done on the delivery challan.
12.	Higher duty of Customs on the telecom equipment disrupting the cost effectiveness of the Telco's	Exemption from the levy of BCD should be granted on the Telecom equipment.

Direct Taxes:

Sr. No	Subject	Recommendation
1.	Section 115JAA - Removing limitation on time period of utilization of MAT credit	Limitation of 15 years period should be removed to provide respite to companies to utilize their accumulated MAT credit.
2.	Section 115JB - Rationalisation of MAT Rate	Rate under MAT should be reduced at a comparatively reasonable rate of 10% in line with the reduction in corporate tax rate under the regular provisions of the Act.
3.	Section 10(38)/ 115JB – Level playing on MAT on sale of listed equity shares	MAT rate on LTCG on listed equity shares may be lowered to a rate not exceeding 10%, being the maximum rate of tax on long term capital gains on STT-paid equity shares under regular provisions.
4.	Section 72A - Amendment in conditions of amalgamating companies	It is recommended to bring down the threshold of keeping 75% of book value of fixed assets to 25% for maximum 2 to 3 years' time period. The relaxation of this condition would also facilitate conducive environment supporting the digital India initiative of the Government.
5.	Section 197 – Certificate for deduction at lower rate	Amendment to rule 28AA to provide that AO will not consider tax liabilities which have either been stayed by AO / appellate forums or for which, adequate security is provided by the tax payer. This is for the purpose of processing LDC application.
6.	Section 279 – Prosecution for TDS defaults	To bring out the amendment to section 279, in order to provide immunity from prosecution in genuine cases of default in terms of depositing tax with the Government by the due date.
7.	Interest expenditure incurred towards 'right to use spectrum', is allowable as revenue	An appropriate clarification should be issued to ensure that the interest expenditure incurred towards 'right to use spectrum', is allowable as revenue u/s 36(1)(iii) read with Section 37(1).

Direct & Indirect Taxes in India



Legal Updates: 2018 - 19

1. COAI Appeal Challenging TRAI Direction on Wangiri Calls – TDSAT:

Background:

COAI had filed an appeal challenging the TRAI's direction dated September 07, 2012 on missed calls (Wangiri calls) originating from outside the country. TRAI, vide its said direction asked all the service providers to inter alia ensure that no ISD facility is activated without the explicit consent of the subscriber. On November 2, 2012, the appeal was allowed as per the judgment of the Hon'ble Chairman of TDSAT. However, the Hon'ble Member pronounced a dissenting judgment on November 08, 2012.

Key Takeaway/s:

The industry has proactively taken steps to resolve the issue involved in the matter. COAI submitted to TRAI that the market of ISD calling and the consumer behaviour has undergone a tremendous change in the recent years and submitted a new proposal to TRAI and highlighted that the same will be more effective in addressing the relevant issue of Wangiri in comparison to the provision of ISD service only by explicit consent.

On **April 22, 2019**, TRAI issued a direction which notes the submissions and proposals made by COAI and withdraws its earlier direction dated 07.09.2012 which mandated that no ISD facility can be activated on prepaid sim without the explicit consent of the subscriber.

On **April 30, 2019**, in view of TRAI direction dated 22.04.2019, the Hon'ble Tribunal disposed off the Appeal as withdrawn.

2. COAI Petition on Penalty on account of exceeding the EMF limits on shared sites - TDSAT:

Background:

A petition was filed challenging the levy of penalty

upon each and every TSP sharing a BTS site even though the emission from the BTS Antenna of a particular TSP is within the limits for general public exposure to EMF radiation as prescribed by DoT and DoT, through measurements, is able to determine the TSP whose BTS Antenna emission is making the site non-compliant to the exposure norms.

Key Takeaway/s:

On November 15, 2018, Hon'ble TDSAT pronounced its judgment in the matter and allowed the Petition filed by COAI while stating the following:

- In case of a shared site, penalty shall be imposed on a per 'site' and 'per incidence' basis for non-compliance of EMF radiation norms.
- Apportioning of such penalty on participating BTSs may be done in a manner that is rational, just and proportionate, especially in cases where source of non-compliance is identifiable through proper testing and due diligence.
- DoT shall revise the scheme of penalty within twelve weeks from the date of judgment. The revised scheme of penalty will be applicable from the date of its publication.

3. COAI Petition on Penalty on EMF Testing – TDSAT:

Background:

A petition was filed on the issue of EMF testing fee imposed @INR 10,000 by TERM Cell retrospectively and for testing more than 10% of the total BTS sites of the service provider.

Key Takeaway/s:

On October 30, 2018, Hon'ble TDSAT pronounced



its judgment in the matter partly allowing the Petition and stating the following:

- DoT is entitled to demand by way of cost / fee for EMF radiation test, only @ INR 4,000/- per test even at a shared site, till the fee is revised in future on any rational basis.
- Ordinarily one testing fee shall be charged, unless for good reasons further testing is required of the whole site or of any particular BTS for which fee may be charged at the rate already indicated.
- Ordinarily, the ceiling of 10% for random testing of BTS sites on annual basis shall be observed.

4. COAI Petition challenging Chandigarh Tower Policy dated March 09, 2015 – Punjab & Haryana High Court:

Background:

A writ Petition was filed before the Hon'ble High Court of Punjab and Haryana at Chandigarh

challenging the Chandigarh Policy dated March 09, 2015 on installation of towers for Mobile Telephone and Data Services and notices issued thereunder directing the TSPs to remove/relocate their towers from certain areas specified in the notices, including residential areas.

Key Takeaway/s:

On September 19, 2018, Hon'ble High Court adjourned the matter to await the outcome of similar matters pending before Supreme Court.

New Digital Horizons
Connect. Create. Innovate

INDIA MOBILE CONGRESS 2018

Mr. Ravi Shankar Prasad

Hon'ble Minister for Law and
Justice and Electronics and
Information Technology, Govt. of India

Mr. Kumar Mangalam Birla

Chairman, Aditya Birla Group
and Vodafone Idea Limited



Mr. Sunil Bharti Mittal

Chairman & Founder,
Bharti Enterprises



Mr. Manoj Sinha

Hon'ble Minister of State for
Communications and Minister of
State for Railways, Govt. of India

Mr. Mukesh Ambani

Chairman, Reliance Industries



Featured Speakers at IMC 2018



R. S. Sharma
Chairman, TRAI



Hon'ble Andrus Ansip
European Commissioner of Digital Single Market & VP
European Commission



Ajit Pai
Chairman, U.S. FCC



Aruna Sundararajan
Chairman & Secretary (T), Digital Communications
Commission, Dept. of Telecommunications, Govt. of India



Mathew Oommen
President, Reliance Jio



Balesh Sharma
CEO, Vodafone Idea Ltd.



Mats Granryd
DG, GSMA



Dr. Yougky Kim
President & Head,
Samsung Networks



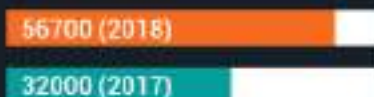
Nunzio Mirtillo
Sr. VP & Head, Market Area,
SE Asia, Oceania & India,
Ericsson



James A. Jefferies
President & CEO, IEEE

2018 Highlights

Total Attendance



CXO Delegates



Media



700
Media Persons

1924 Total Coverages

188 Live Demos,
Product Launches
& Tech Displays

256
Start-Ups

30
Countries

Social Media



Social Media Reach of IMC Handles



Technology Showcase



IMC Exhibition





IMC Conference & Awards



Industry Stalwarts



High-level Awards



Policy Makers



Networking Meets





The Knowledge Hub Award

India Mobile Congress 2018
Recognized at Exhibition Excellence Awards 2019

India Mobile Congress 2018 was awarded "The Knowledge Hub" accolade at the Exhibition Excellence Awards held at India Expo Mart, Greater Noida (NCR).

This was the outcome of a remarkable effort by IMC team to organize an international conference that was attended by industry experts from more than 20 countries, business leaders, policy makers, young professionals and students. India Mobile Congress has fast become the gold standard of events and conferences in the 'digital technologies' space.

We would like to thank you for making IMC memorable and one of the biggest events of 2018.

exhibition
showcase



**EXHIBITION
EXCELLENCE
AWARDS
2019**

Media Advocacy and Stakeholder Outreach Desk

Treading on its vision to establish India as global pioneer of innovative foundation, products and services and accomplishing a national tele-density of 100% including, broadband, COAI has been committed to developing modern communication and relentlessly working towards a ubiquitous and affordable mobile communication ecosystem.

Its intuitive outlook on all key regulatory and policy matters reinstated its thought leadership position amongst all relevant influencers and stakeholders. Through its detailed media mapping and outreach programs, COAI has very well represented the Indian Telecom Industry amongst the media, government and other stakeholders, which has in-turn yielded positive results.

Complying by the Executive Council's mandates, COAI has effectively collaborated with ministries, policy legislatures, regulators, financial institutions and technical bodies. COAI's consistent efforts aimed towards fortifying the industry's overarching significance has led it to create a ground for discussions, deliberations and exchange of ideas between operators, the government and the consumers. Raising issue specific concerns, making timely interventions and building third party advocates.

Bringing the Telecom Industry's financial distress to the fore, COAI has been able to consolidate its reputation of being an approachable organization that has the requisite expertise in all things telecom. Building on its reputation further, COAI in collaboration with the Government passed the NDCP 2018. The draft suggested reformatory measures pertaining to the financial distress experienced in the industry. The draft also emphasized that if implemented properly, by 2020 the Indian Telecom sector would be on an upward trajectory.

COAI is also giving major impetus to emerging technologies such as 5G, IoT, M2M, AI, AR etc. Developments in these emerging tech trends will not only open up newer income avenues for TSPs, but will also help India realize the Government's ambitious 'Digital India' dream.

COAI and the Government have worked in tandem to deploy robust telecom infrastructure to convey its services and advantages in every corner, ensuring last mile connectivity. The idea is to promote inclusivity in the true sense of the term.

COAI carried out well-orchestrated engagement programs to negate myths surrounding EMF radiation from mobile towers and addressed citizen's queries. Collaborating with relevant authorities, COAI reached out to people at the ground level and engaged with relevant government departments, media, RWAs, medical professionals, academia and consumer representatives, in order to impart knowledge on facts associated with the issue.

COAI is bullish on making India a world leader in next-gen technologies and setting up of the 5G India Forum is a confident step towards this goal. The forum has been extensively collaborating with experts from around the globe and discussing challenges and opportunities to make India 5G ready well in time.

The key objectives of these deliberations would be to emphasize on the next steps and formulate a cohesive call to action to make 5G a resounding reality. The technology proposes to have a collective economic impact of \$1 trillion by 2035 and holds the promise of transforming India into a dynamic global manufacturing supply chain.

Significant activities wherein COAI achieved widespread media advocacy

Union Budget:

Union Budget 2019-20 was an imperative development for the telecom sector due to its deteriorating financial health.

Telecom industry body, COAI, lauded the government's vision and commitment towards Digital India and Digital economy. Amongst many welcome steps, Interim Finance Minister, Piyush Goyal expressed the Government's intent to create 1 lakh digital villages over the next 5 years, under the ambitious Digital India initiative.

Media Outreach - COAI's statement was covered in major publications like *PTI*, *PTI Bhasha*, *The Hindu Business Line*, among others.



No respite for telecom sector on licence fee reduction

DOH BUREAU
New Delhi, February 1

Telecom operators expecting a reduction in licence and spectrum fees were left disappointed as the interim Budget did not offer any respite. The new telecom policy unveiled recently had promised that licence imposed on telecom industry would be rationalised.

Telecom operators pay nearly 30 per cent of their revenue in the form of licence fees, spectrum charges and other taxes.

The government expects a 58 per cent increase in revenue at Rs.3,50,000 crore in 2019-20 from the stressed telecom sector, against the revised revenue estimate of Rs.2,25,000 crore for the current fiscal ending March 31.

stress due to heightened competition and high payout for acquiring spectrum. The telecom operators have reported drastic decline in revenues.

This has also brought down the revenue they share with the Centre. The Revised Estimate (RE) of non-tax revenue from communication services for FY2019 stands at Rs.2,25,000 crore, which is 18 per cent lower than the Budget Estimate (BE) of Rs.2,75,000 crore.

"The reduction in RE is primarily an account of lower-than-expected revenues generated by telecom sector resulting in lower share to government," said Harish Agarwal, Vice-President & Sector Head, Corporate Affairs, NTA.

"While the Interim Finance Minister spoke extensively about investing in infrastructure such as roads, railways, highways, electricity amongst others, geared to target a \$400-billion economy, the telecom sector, which is the backbone of the country's economy, did not receive significant support," said Rajen Mathur, Director General, Cellular Operators Association of India.

5G in India:

The country is joining global technology leaders who are already preparing to roll out 5G technology-based services. For establishing thought-leadership and for sharing the industry's perspective on 5G, an authored article was placed in *The Financial Express*.

There has been considerable movement on India's goal to deploy 5G networks commercially by 2020 which was captured in *The Hindu Business Line*.

Media Outreach - In an attempt to capture the regional space, an authored article on 'Laying foundation for 5G technology in India by 2020' was placed in the second largest circulated daily newspaper in India, *Dainik Bhaskar*.

Get rolling on 5G

its economic impact on India can be huge

RAJAN AGARWAL

Recently, there has been considerable movement on India's goal to deploy 5G networks commercially by 2020. Budget 2019-20's first announcement that the government is committed to launch a research to commercialise 5G technology in India is a landmark move. The importance of 5G adoption can be gauged from the fact that 5G's economic impact on India can reach to trillion by 2030. However, the country would need an investment of about \$100 billion to deploy 5G networks by 2020.

The 5G India High Level Forum (HLF) has been set up. The HLF will be the first of its kind in India. It will be a platform for the Department of Information and Public Relations (DIPR) to take forward and coordinate all the efforts to lay the foundation for 5G in India. The HLF will also be a platform for the industry to share its views and suggestions with the government.

Spectrum will be the key ingredient to realise the vision of 5G services. Different use cases of 5G will require different frequency bands. The early use cases that are emerging which India can adopt are enhanced mobile broadband (eMBB) and ultra-reliable low-latency communication (URLLC).

The requirements for 5G are high. The frequency bands, such as those above 24GHz, will be needed for applications that require very high data rates. Such high frequency bands can also accommodate wider channel bandwidth. There is also considerable interest in the 4G-LTE band, which is also being called the "fringe band" internationally. This band has been allocated for early 5G deployment in some countries like South Korea and Japan, which are among the leading 5G countries in the world.

India still has the issue of multi-spectrum allocation compared to other countries. The country's total licensed mobile spectrum is about 120 MHz as compared to 100 MHz in the US and 100 MHz in the UK. Further, the cost of spectrum, relative to per-capita income is much higher in India than in other countries. These factors also impact the infrastructure cost. In the recent past, the government of India has created a large pool of spectrum. It is important for India to correct these anomalies in the spectrum allocation.

The 5G HLF has recommended that the release of 5G spectrum be done in three lots. For the first lot, the government has allocated 100 MHz of spectrum. The second lot will be 100 MHz and the third lot will be 100 MHz.

5G, which can be deployed in three lots, will also have other advantages. It will be a platform for the industry to share its views and suggestions with the government.

Frequency bands are in the public domain and are not taken into consideration once they are put into public domain.

In the telecom sector, the 5G spectrum allocation will be a big step. The 5G HLF will be a platform for the industry to share its views and suggestions with the government. The 5G HLF will also be a platform for the industry to share its views and suggestions with the government.

Year Ending Stories:

As the year was ending, it was necessary to highlight the overall changes in the policy ecosystem and how the year had been in-toto, for the telecom sector. Notable steps have been taken towards the commercial roll-out of 5G and other emerging technologies such as M2M, IoT, AI, AR and VR. Also, the National Digital Communications Policy 2018; Supreme Court's verdict with respect to Aadhaar based KYC and EMF testing of Telecom Towers at specific sites; and mergers, acquisitions and consolidations in the industry.

Media Outreach- Through opinion pieces, media interactions and standalone stories, we were able to bring forth the current financial health of the sector and the policies that directly impact it, or can mitigate/manage it. Coverage was garnered in the *ET Telecom*, *BusinessWorld*, *Financial Chronicle*, *Dainik Bhaskar*, *Voice and Data*.



UIDAI helpline no. pops up in phones, sparks privacy row

Turns Out To Be 'Inadvertent Error' By Google

Prakash Desai@thehindu.com

New Delhi: Nobody knew where the trouble was, but there it was. Millions of mobile phone users found an unexpected number in their phone's contact list on Friday — 02 UIDAI Toll-free Identification Authority of India (UIDAI) toll-free number.

Caught off guard, Google issued a statement saying that as soon as the review (that revealed that the number, 0800001947, and the toll-free helpline number 112, were "inadvertent")

GOOGLE THE ANSWER

UIDAI: "UIDAI has not asked any manufacturer or service provider for providing such facility. 0800001947 is not a valid UIDAI toll-free number."

Cellular operators: The inclusion of number in the phonebooks... it is not from any telecom service provider.

Google: The internet review has revealed that in 2014, the then UIDAI helpline number... (was) inadvertently coded into the SetUp wizard for Android in India... and has remained there since. Users can manually delete the number.

It was coded into the SetUp wizard of the Android release assigned to UIDAI's mobile app in the 2014 release. There is no manual delete option for the number.

Google's statement (per its



for a third statement that has urged Android users with Android phone users wondering how a number could enter their phone book without their consent.

for the controversy raised.

UIDAI and telecom operators would say only in the matter. Since in Apple and Google, the companies that own Android and iOS — the two most widely used mobile operating systems — Android-related personnel a probe, after the accidental Google review solved the mystery.

The issue first came to light on Friday when several mobile phone users reported images of UIDAI's default helpline number 0800001947 in their contact list on social media. Amidst privacy concerns, the government issued an action with IT minister Arun Jaitley. Privacy concerns were also raised.

Continued on P 11

Vested interests trying to create confusion: UIDAI

Continued from P 1

As outrage and criticism built up on Friday, UIDAI denied reports that it had issued any instructions to add this number to mobile phones. It termed the number appearing on the contact list as "invalid", saying its toll-free number is '1947' and not the one on their phone book.

"UIDAI has not asked or communicated to any manufacturer or service provider for providing any such facility. Some vested interests are trying to create unwarranted confusion in the public," it said.

"UIDAI has reiterated that it has not asked or advised

anyone, including any telecom service providers or mobile manufacturers or Android, to include 0800001947 or 1947 in the default list of public service numbers," the statement added.

Aadhaar CEO Ajay Bhushan Pandey told TOI that the Indian Computer Emergency Response Team (CERT-In) had started an investigation into the issue.

This is the second row involving Aadhaar in just over a week. Last week, TnI chairman RS Sharma was criticised for making his Aadhaar number public, and throwing a challenge to hackers to "cause harm".

The Cellular Operators

Association of India (COAI), the body representing top mobile companies such as Airtel, Vodafone, Idea Cellular and Reliance Jio, too washed its hands off the controversy. "The inclusion of a certain unknown number in the phonebooks of various mobile handsets is not from any telecom service provider," COAI said in a statement.

An unverified official release issued by the telecom department in 2013 also surfaced on social media. It informed all mobile operators to "map short code '1947' to UIDAI's toll-free number 0800-000-1947 with immediate effect and send compliance to UIDAI directly."

Google Responsible for Appearance of Outdated Aadhaar Helpline Number

Sanish Khan
@thesanishkhan

New Delhi: Google has admitted that it is to blame for the mysterious appearance of an outdated Aadhaar helpline number in the contact lists of phones, and clarified that it wasn't an authorised branch of the Android device. The US Internet major added that the issue would be fixed over the next few weeks.

"Our internal review has revealed that in 2014, the then UIDAI helpline number and the 112 distress helpline number were inadvertently coded into the SetUp wizard of the Android release given to OEMs for use in India and has remained there since. Since the numbers got listed on a user's contact list, they got transferred accordingly to the contacts on any new device," a Google spokesperson said in a statement late Friday.

"We are sorry for any concern that this might have caused, and would like to assure everyone that this is not a situation of an unauthorised access of their Android devices," the company added.

It said that users can manually delete the number from their devices. "We will work towards fixing this in an upcoming release of SetUp wizard which will be made available to OEMs over the next few weeks," Google said.

Earlier this Friday, the Unique Identification Authority of India, telecom operators and handset vendors said they had no role in the mysterious appearance of the Aadhaar helpline number.

They were responding to a social media storm on Friday



over the appearance of default UIDAI helpline number 0800 000 1947 on Android and some iOS devices, with many citizens fearing a breach of privacy amid the ongoing debate around the security of the Aadhaar system.

UIDAI, which manages the country's Aadhaar project, said in a statement that it has not asked handset makers and telecom service providers to include its toll-free number on mobile phones. It clarified that the number 0800-000-1947 that showed up in the contact lists of some phones was an outdated and invalid helpline number.

Some vested interests are trying to create unwarranted confusion, UIDAI had said.

Telecom operators denied any role in the matter. The inclusion of a certain unknown number in the phonebooks of various mobile handsets "is not from any telecom service provider," the Cellular Operators Association of India said in a statement.

EMF Emission:

With the growing concerns over health hazards from telecom towers, there was a need to direct efforts towards mitigating the growing fear by dispelling myths around the concern. Editorial meetings helped in ensuring that the influencers are aware of the facts of the matter. Additionally, advocacy through a credible third party was necessary for dispelling myths.

An advocacy workshop was organized in Bhopal. Leading regional publications such as *Dainik Jagran*, *The Pioneer*, *Navbharat Times*, *Rajasthan Patrika*, including few local news channels carried stories.

The makers of Movie 2.0 released the teaser which showcased the harmful effects of mobile phones and cell phone towers. COAI issued a statement to the media highlighting that the movie will present anti-scientific attitude. Post COAI's statement, CBFC issued a statement saying that the movie carries a disclaimer stating that it is purely a work of fiction.

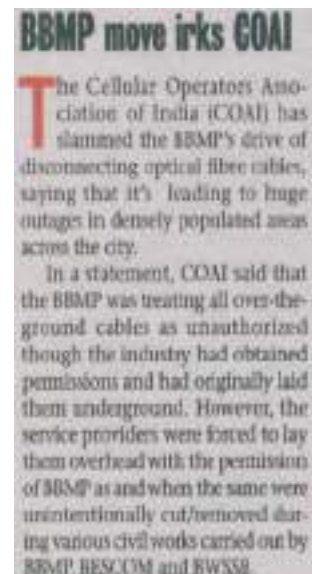
Media Outreach - The coverage appeared in *The Hindu*, *The New Indian Express*, and *Sunday Guardian* etc.

BBMP Drive in Bengaluru:

Bruhat Bengaluru Mahanagara Palike (BBMP) pulled down optical fiber cables dangling from trees and poles in three zones in Bengaluru, claiming that it interferes with the city's beauty and landscape. While the move was supported by some citizen groups and environmentalists, others suffered due to the sudden outages.

A 360 degree communication approach was adopted for highlighting this issue to the media. A media statement and a press release were issued at the initial phase of the crisis to provide the industry's opinion. The media statement & press release got more than 40 coverage in all leading mainlines and regionals.

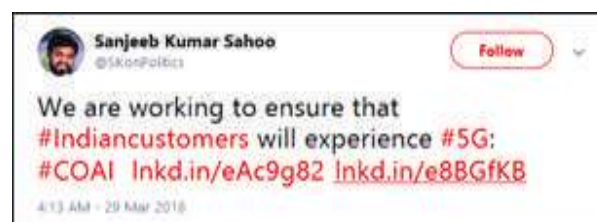
A digital campaign *#FiberIsBeautiful* was undertaken which generated over 5 lakh impressions on Twitter. A creative depicting the situation in Bengaluru and its impact was developed for the social media networks. A video message from Shri. N Sivasailam was disseminated in the Digital media to spread the positive word.



Bloggers Meet:

In the digital space, bloggers contribute heavily towards shaping perception amongst the online audience. For prominent presence in the digital ecosystem, COAI connected with the bloggers through an interactive session on Telecom, Technology and Internet.

The Blogger Meets were conducted covering topics such as call drops, emerging technologies and India Mobile Congress 2018.



COAI
cordially invites you to an interactive session with
Mr. Rajan S Mathews
Director General, COAI
on
**Telecom,
Technology and
Internet**

FLYP@
cafe

N57, First floor,
Rajiv Chowk, Connaught Place,
New Delhi - 110001

Wednesday, March 28, 2018
at 3:30 PM



Knowledge Series:

The objective of the Knowledge Series is to update the media on issues pertaining to the telecom sector. Three rounds of Knowledge Series were conducted by COAI over the last one year and the initiative was well received by the media. The various topics that were covered were- Call Drops, NDCP 2018, Telecom Infrastructure, Right of Way, UCC and Future of 5G.

On the basis of the information and data shared during these Knowledge Series, stories were done by the media encapsulating COAI's key messages.

The regular Knowledge Series established COAI as the thought leader in the telecom industry.

Norms to curb pesky calls will cost operators up to ₹400 crore: COAI

ENR ECONOMIC BUREAU | New Delhi

BERLIN: The telecom sector wants Telecom Regulatory Authority of India (TRAI) to be easy on them in its effort to curb pesky calls and messages. Industry lobby body Cellular Operators Association of India (COAI) on Friday said that tailoring a new system in accordance with TRAI's new rules will cost the sector ₹200-400 crore investment and 18 months for rollout.

"This system has not been implemented elsewhere in the world, it is difficult to quantify the exact investment or the time involved. But roughly it will be in excess of ₹200-400 crore investments for tailoring of the system," COAI Director-General Rajan S Mathews said.

TRAI, in May had issued a draft bill in which it had recommended putting in place Blockchain technology by December to solve the menace of unwanted calls and messages. COAI feels that the existing timeline is extremely unrealistic. Besides, working on the new technology will give

service providers no substantial benefits. COAI has asked TRAI to consult stakeholders before finalising on anything.

"The telecom sector is reeling under a ₹7.6 lakh crore debt burden, and obligations contained in the draft rules would require operators to incur huge additional costs to completely change their existing internal systems without generating substantial benefits. Which is why TRAI should undertake a cost-benefit analysis in consultation with all stakeholders before finalising the UCC regulation," COAI said.

TRAI, in its draft rules, has also raised the penalty cap on telecom operators by ten-fold to ₹50 lakh a month from ₹5 lakh in the previous regulations, for violation of norms.

When asked if the increased cost of compliance will be passed on by operators to the consumers in the form of higher tariffs, Mathews said that generally costs tend to get passed on, but in this case, it would depend entirely on market dynamics.



It is difficult to quantify the exact investment or the time involved. But roughly, it will be in excess of ₹200-400 crore investments for tailoring of the system.

Rajan S Mathews, COAI Dir-Gen

COAI expects new govt to reduce levies

WIR-SATYU
New Delhi, April 2

THE TELECOM INDUSTRY is hoping that post-election, when the government assumes power, it will focus on reducing levies. The industry has been protesting the new telecom policy document passed by the Department of Telecommunications.

Reflecting its ire, the industry has, in the past, staged protests, including a call to boycott services. The industry has also been protesting the new telecom policy document passed by the Department of Telecommunications.

Industry body Cellular Operators Association of India (COAI) on Tuesday said the new government post elections should set out a clear roadmap to ease the burden of levies on the telecom sector.



According to COAI, the new government should set out a roadmap for reducing levies, starting with a cut in licence fee and spectrum charges within 6-8 months of coming to power. The industry also wants the definition of adjusted gross revenue (AGR) to be reviewed and the recommended norm to be adopted.

According to COAI, the new government should set out a clear roadmap to ease the burden of levies on the telecom sector.

levies on telecom operators. Based on the new policy, the industry expects a 17% reduction in FY 19.

Telecom India continues to protest the new policy, saying it is a step back for the industry. In FY 18, the industry reported a 17% increase in revenue.

As per the industry, COAI, in Q2 of FY 18, the industry stood at ₹1,385 crore, while the government reported ₹1,375 crore.

Regarding the definition of AGR, the industry wants to be included in the revised telecom operators.

COAI seeks clear roadmap for telecom sector, post polls

PRESS TRUST OF INDIA
New Delhi, April 2

The Cellular Operators Association of India (COAI) on Tuesday said the new government post elections should set out a clear roadmap to ease the burden of levies on the telecom sector.

Issues such as cut in licence fee and spectrum charges should also be taken up at the earliest.

The COAI said revenue continues to remain under pressure for the industry saddled with high debt. For most players, EBITDA generated is not enough to meet the interest expenses.

"The definition of adjusted gross revenue (AGR) should be reviewed to include revenue from licensed activities only. The telecom department should adopt the recommendations by the regulator for determination of the AGR," said Rajan S Mathews, COAI's Director General.

The COAI said that income from interest, dividend, or capital gain from sale of fixed assets, and income from rent, insurance claims and distributors' margin should not be included in revenue for computation of licence fee and spectrum usage charges.

"Once you address the AGR definition issue, it has cascading benefits, that is the first thing they (the new government) should look at. Second, the issue of double taxation, if payment for spectrum is given upfront, why should the industry be taxed for spectrum usage charge and licence fee?" he asked.

He added that if these outstanding issues are dealt with in the first 6-8 months by the new government, it would yield "sizeable benefits" for the industry.

"It would also send a clear signal to both industry and investors that the government is serious about getting the sector back on its feet," Mathews said.



Rajan S Mathews, Director General, COAI

COAI 5G India Forum 2018

COAI CORDIALLY INVITES YOU TO AN

INTERACTIVE SESSION

WITH

RAJAN S. MATHWEES AMIT MARWAH

Director General, COAI Head, Cellular Operators Association of India

ON

FUTURE OF 5G IN INDIA

Tuesday, 20th August 2018 | 11:30AM onwards

at

COAI, 14, BHUVIYAR SINGH MARG, NEW DELHI

India to be Among Fastest Adopters of AI Services: COAI

Press Trust of India

New Delhi: Telecom industry body COAI said on Thursday that India will be one of the early adopters of artificial intelligence (AI) based services. AI is a crucial enabler for achieving the national goals in the areas of healthcare, education and capacity building, COAI Director General Rajan S Mathews said in a statement. "With a positive ecosystem, driven by better connectivity and a financially robust sectoral health, AI will unveil possibilities hitherto unparalleled," he said on the World Telecom and Information Society Day.

UNtelecom body ITU, in its message, said: "Enabling the positive use of Artificial Intelligence for AI is the theme of WTISD-18 and will focus on the potential of AI to accelerate the United Nations' Sustainable Development Goals." The recently released draft of the new telecom policy, branded as National Digital Communications Policy (NDCP) 2018, has also proposed provisions to encourage AI.

It lists "creating a roadmap for emerging technologies and its use in the communications sector; such as 5G, Artificial Intelligence, Robotics, Internet of Things, Cloud Computing and M2M" as the strategy to achieve goals set under the proposed policy.

Mathews said the draft NDCP 2018 will be the forerunner for next generation technologies, which will provide the country a roadmap for socio-economic progress.

He said: "The NDCP 2018 recognises spectrum as a natural resource and therefore will ensure adequate availability, efficient usage and putting together a fair and transparent allocation method for service providers. Having taken cognizance of the steep cost of spectrum, the policy has also suggested for adopting optimal pricing to ensure sustainable and affordable access to digital communication."

He said that over ₹10.4 lakh crore has been invested so far by telecom operators in building infrastructure in the country.

National Digital Communications Policy 2018:

National Digital Communications Policy 2018, was released on May 01, 2018. Given the impact that this policy will have on the telecom sector, it was imperative that COAI emerge as a thought-leader and decode the policy for all stakeholders. To facilitate this, media interactions were conducted with financial and mainline newspapers, as well as with electronic channels and online portals.

Media Outreach- Additionally, an authored article attributed to Mr. Rajan S Mathews, Director General, COAI appeared in the Editorial Page of *The Economic Times*, successfully communicating an overall industry perspective on the National Digital Communications Policy.

Apart from that, COAI's perspective was also carried by *The Economic Times*, *Mint*, and *The Hindu Business Line*.

COAI congratulated DoT and TRAI on a well-crafted and comprehensive policy document that had wide industry and stakeholder input and support. The statement was carried by PTI and further covered in leading publications such as *The Economic Times*, *Mint* and *Hindustan Times*. Additionally, it was picked by *ET Telecom*, *Business Standard*, *The Times of India*, etc.

New telecom policy aims to provide broadband access to all citizens by 2022

Proposes to attract \$100 bn investment in digital communications sector

TUTHIKA BHARGAVA
NEW DELHI

The Union Cabinet on Wednesday approved the new telecom policy that aims to provide broadband access to every citizen at 50 Mbps speed by the year 2022.

The National Digital Communications Policy 2018, which envisions attracting \$100 billion investments into the country's digital communications sector, aims at creating at least 40 lakh new jobs in the sector in the next four years.

Evolving at rapid pace

"The last telecom policy was announced in 2012. The communication sector has been evolving at a rapid pace



Manoj Sinha

globally, especially with technologies such as 5G and Internet of Things. There was a need for a new consumer-centric and application-centric policy," Minister for Communications Manoj Sinha told the media.

The policy aims at expanding the IoT ecosystem to five billion connected devices, create globally recognised IPRs in India and create a fund for R&D in new technologies. It also pitches for leveraging Artificial Intelligence and Big Data to enhance the quality of services offered, spectrum management and network security while also establishing India as a global hub for cloud computing. Welcoming the much-awaited policy, the industry called for a close monitoring of its timely implementation "so that the industry can recuperate from the deepening financial stress." "Thus, the most important and urgent require-

ment is to restore the financial health of the sector for which the policy document envisages the reduction in levies and ease of doing business. This will help the industry in achieving the goals of and fulfilling the objectives outlined in the policy," said Rajan S Mathews, DG at industry body COAI.

The policy has called for a review of levies and fees - including licence fee, universal service obligation fund levy and spectrum usage charges, on the sector. This is expected to help the debt-laden telecom sector. However, the government may take up to a year to decide on these issues the Minister said in response to a query.

NATIONAL DIGITAL COMMUNICATIONS POLICY 2018

Taking Broadband to All is Focus of New Policy: Telecom Secretary

Colleen Aulakh & Devika Sengupta

New Delhi | Mumbai: The new telecom policy will focus on taking broadband to all, creating a level playing field and facilitating investments, telecom secretary Arun Sundarajan said, adding that spectrum should not be sold as a revenue source but more as an enabler of digitalisation.

In his first remarks to the media since the National Digital Communications Policy 2018 was unveiled late Tuesday, Sundarajan told ET the Department of Telecom maintains plans to focus on reducing licence and spectrum usage charges and the Universal Service Obligations Fund and highlighted that fibre connectivity was

critical to the sector's growth.

"We're a growth market. We have to ensure that the telecom sector doesn't end here - rather it starts here," Sundarajan said when ET asked whether initiatives under the new policy would be enough to help the industry recover from the price wars that have eroded margins and spurred consolidation.

"The current phase of consolidation has to be done by industry - they have to upgrade and move to more tech services and each one has to figure out their business strategy. Our mandate is to provide a level playing field and an enabling environment for growth - which is our duty - along that we're still at 30% broadband penetration. We have to go all the way to 100%," the secretary added.

The ET team Wednesday unveiled the broad outlines of the new telecom policy which will aim to attract investments worth \$100 billion by 2020 in the digital communications sector, create 40 lakh jobs and enhance the sector's contribution to India's GDP from about 6% in 2017, while adhering to the principle of not restricting.

Under the new policy, the government plans to price spectrum optimally, review levies such as licence fee and spectrum usage charges as well as UoSF rules to ease costs, while taking a fresh look at spectrum sharing, leasing and trading guidelines. The telecom industry has always argued that the sector is among the most taxed, with almost a third of every rupee earned going to the government.

"Spectrum is a hard for socio-economic growth and therefore research and innovation, including spectrum, need to be viewed in that perspective. So, we need to optimize the entire spectrum can deliver, rather than looking at input prices of spectrum," Sundarajan said. "The paramount need of the hour is to get investments in and get broadband to the people." He said that since 6% of Indians get their connectivity from satellites, dependency on spectrum has been reduced.

"All the critical elements that the industry wants such as affordability of spectrum, trading, sharing and leasing, right of way, creating jobs etc., have been highlighted in the policy and if we march forward on this, we will be in great shape," said Rajan Mathews, director general of COAI.

Reducing levies seen as key to success of new telecom policy

Addressing financial stress in the sector is vital for attracting investments and creating jobs, say analysts

Policy proposals

- Provide universal broadband access to all citizens at 50 Mbps by 2022
- Create 40 lakh new jobs in digital communications
- Establish a digital communications fund to support research and innovation
- Establish a comprehensive data protection regime

After reviewing the policy, the industry will focus on the most critical elements called in the document.

"The policy is just what we need to ensure that the telecom sector will be in a position to attract investments and create jobs in the long run. We will continue to work with the government to ensure that the policy is implemented in a timely manner," said a senior industry official.

The policy also calls for a review of levies and fees, including licence fee and spectrum usage charges, on the sector. This is expected to help the debt-laden telecom sector. However, the government may take up to a year to decide on these issues the Minister said in response to a query.

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Press Releases and Statements:

a. COAI's statement on In-flight Connectivity and Telecom Ombudsman:

COAI's statement on In-flight Connectivity and Telecom Ombudsman was covered by the news agency, IANS and print publications, *The Economic Times*. Additionally, the news was covered in leading news portals such as *ETTelecom.com*, *Business Standard* and *The Quint*, etc.



b. Monthly Subscription Report:

COAI shares the monthly subscriber base on a regular basis with the media and updates the same on the web portal for the audience to access it easily.

Idea Cellular adds 6.3 m users in June

OUR BUREAU
New Delhi, July 11

Idea Cellular, which has received the Department of Telecommunications' approval for a merger with Vodafone India, has added the most number of users in June with the addition of 6.3 million users on its network. This takes its total subscriber base to 220.59 million.

However, Bharti Airtel continued to remain at the leading telecom operator in the country with a total user base of 344.56 million. The New Delhi-based operator added 10,689 subscribers in June, according to data released by industry body Cellular Operators' Association of India (COAI).

Airtel was followed by Voda-

dafone India, with a total user base of 222.73 million subscribers. With the merger expected to be completed this month, this will put Idea-Vodafone combine at the top of the table with a subscriber base of 443.32 million.

Reliance Jio Infocomm had a total user base of 25.4 million, while all the private telecom service providers in the country together had a total of 993.41 million mobile subscribers as of June-end, COAI data showed.

"We are glad to see the constant growth of the subscribers' base and expansion of connectivity in the rural areas. With this increasing reach, people are also shifting to 4G technology. As the Draft National Digital Communica-

tions Policy 2018 proposes extending exemptions for the construction of telecom towers and provide accelerated Rights of Way permissions for telecom tower, the telecom connectivity will soon reach to the last person of the country," Rajan S Mathews, Director General at COAI said.

The COAI data did not include subscriber figures of BSNL, MTNL, Tata and BCom.

"The growth seen in mobile subscribers this month is encouraging," he added.

Among the telecom circles, UP (East) remained on the top with a total of 86.88 million subscribers, while Maharashtra remained at second position with a total of 81.73 million subscribers.

Telecom subscribers try a new Idea

If the total customer acquisitions for the first four months in 2018 are considered, Idea emerges as the winner among the top three incumbents. The company added 20.2 million subscribers against Bharti's 18.6 million and Vodafone's 9.5 million. COAI does not provide subscriber data for Reliance Jio, which has been ruling the subscriber addition charts for the past 12 months.

As per Trai data, Jio added 8.3 million subscribers in January 2018, 8.7 million (February) and 9.4 million (March). Its subscriber addition numbers for April are yet to be announced.

Overall during April, Bharti continued to hold the top position with total subscribers reaching 308.6 million, followed by Vodafone at 222.03 million and Idea at 216.76 million. As of April 2018, Bharti has a market share of 29.41%, Vodafone (21.15%) and Idea (20.65%). Idea and Vodafone are in the final stages of merging their operations, post which the combined entity will be the country's largest telecom services provider, beating Bharti.

In terms of circles, UP (East)

continued at the top with a total of 91.07 million subscribers, while Maharashtra remained second with a total addition of 84.26 million mobile subscribers in April.

TC Okays Telecom Ombudsman

By Anand Singh

The Telecom Commission (TC) has approved the Telecom Ombudsman (TO) for better redressal of consumer complaints. The TO will be a part of the Telecom Regulatory Authority of India (TRAI) and will be responsible for addressing the grievances of consumers. The TO will be a part of the Telecom Regulatory Authority of India (TRAI) and will be responsible for addressing the grievances of consumers. The TO will be a part of the Telecom Regulatory Authority of India (TRAI) and will be responsible for addressing the grievances of consumers.

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Telecom subscribers try a new Idea

RISHI RANJAN KALA
New Delhi, June 2

IDEA CELLULAR SEEMS to be giving stiff competition to rivals in the current calendar year in terms of customer acquisition, with the country's third-largest telecom operator topping the subscriber addition charts for three months in a row till April, Cellular Operators' Association of India (COAI) data shows.

As per COAI, Idea topped the charts by adding 4.4 million, 9.1 million and 5.6 million subscribers during February, March and April this year, respectively. The additions are the highest among the top three incumbents. In comparison, Bharti Airtel added 4.2 million, 8.4 million and 4.5 million subscribers during the same three months. Vodafone India added 4.2 million and 8.4 million during Feb-

ruary and March, respectively, but lost 0.7 million subscribers during April.

Although the Aditya Birla Group company trailed Bharti and Vodafone in subscriber addition in January, the gap was marginal. Bharti added 3.5 million during the month, while Vodafone added 1.7 million and Idea 1.1 million.

Continued on Page 12

c. COAI statement on Public Wi-Fi:

Telecom companies have asked the government to reject the regulator's proposal to allow unlicensed entities to establish affordable Wi-Fi networks in public places, saying such a move would be illegal. COAI gave a statement on the same and it was covered by *PTI*, *The Economic Times*, *The Hindu Business Line* and *The Financial Express* etc. Additionally, the news was also covered in *ET Telecom*, *Money Control*, etc.

TRAI's broadband-via-public Wi-Fi network initiative panned by operators' association

RAJESH KURUP

Mumbai, June 13

The Department of Telecommunications (DoT) plan to increase broadband accessibility through public Wi-Fi hotspots is being met with resistance, with the Cellular Operators' Association of India (COAI) stating it was "illegal" and impacting the "level playing field".

"Public Wi-Fi networks or for that matter any network on any access technology (ies) is only permitted under a license. As per the provisions of the Indian Telegraph Act, 1885, the activity of establishing, maintaining and working of telegraphs requires a license from the government," COAI said in a letter to DoT.

"Contrary to the well-established licensing structure, TRAI

in its recommendation has suggested that Public Data Office Aggregators (PDOAs) and Public Data Offices (PDOs) be allowed to provide Internet access through Wi-Fi technology without taking a license. Any such service will be in conflict with the existing licensing framework. More importantly, establishing public Wi-Fi networks without license will be illegal, being in violation of the Indian Telegraph Act," it added.

The letter, dated June 8, a copy of which has been reviewed by *BusinessLine*, also stated that the under the existing licensing structure, Internet access is provided under the Unified License (UL).

"COAI is of the view that Public Wi-Fi should be allowed only through UL (VNO)," Rajan S

Mathews, Director-General at COAI told *BusinessLine*.

The Telecom Regulatory Authority of India, in its recommendations in March on 'Proliferation of Broadband through public Wi-Fi Networks' supported new unlicensed entities with a mere registration with DoT to offer public Wi-Fi services. Under a new framework, PDOs and PDOAs would be allowed to provide public Wi-Fi services to increase the number of public hotspots and make Internet services affordable.

'Uneven playing field'

COAI said that this will adversely affect the level playing field as licensed operators have to pay levies such as license fees and spectrum usage charges and ensure adherence to vari-

ous regulatory and security related requirements. Allowing the same to be performed by an unlicensed entity would tilt the playing ground and give an unfair advantage to unlicensed entities. Further, it would result in revenue losses to licensed operators, and have national security implications, it said.

COAI also said it understands from media reports that DoT is planning to delicense V-brand spectrum (57 GHz to 64 GHz), which will further impact telecom service providers (TSPs).

"...delicensing of spectrum such as V-brand for access would be a double hit to existing TSPs as not only the license but also the spectrum will be provided free to entities such as PDO/PDO to provide internet services," it added.

Public Wi-Fi networks without licence violate law, says COAI



d. COAI statement on DoT's notification on the implementation of Virtual ID:

The government has instructed telecom operators to tweak their systems and networks to enable use of virtual IDs in lieu of Aadhaar number and migrate to the 'limited KYC (know your customer)' mechanism for mobile subscribers. COAI issued a statement on the same which was covered by *PTI*, *The Hindu Business Line*, etc. Additionally, the news was covered online on *Mint*, *The Financial Express*, and *Telecom Lead* etc.

KYC norms: Telcos told to replace Aadhaar with VID

OUR BUREAU

New Delhi, June 13

In a relief to mobile users, the Centre has instructed telecom service providers to tweak their systems and networks to enable the use of Virtual IDs (VIDs) instead of Aadhaar, and migrate to the 'limited KYC' mechanism.

This means users can choose to give the telco either their Aadhaar number or the VID generated by the UIDAI, which authenticates their name and address details from the back-end.

July 1 rollout

The latest circular from the Department of Telecommunications (DoT) comes ahead of the July 1 rollout of the VID system. The DoT said that once it is im-

Quick definitions

- **VID:** It's a random, temporary 16-digit number that is mapped to your Aadhaar number. You can generate it for KYC authentication
- **UID Token:** It's a 72-digit alphanumeric token generated by the UIDAI, which an enterprise/organisation can use to identify its customers without asking for storing the Aadhaar number

plemented, telcos should give subscribers the option of submitting either their Aadhaar number or VID.

"The licensee shall display the Aadhaar number or Virtual ID in masked form at the POS terminal and shall ensure that... (these are) not be stored anywhere in its systems/ applications/ database," said the circular.

The licensee should then follow the e-KYC process using the

UID token to ascertain the uniqueness of the subscriber and store it along with the other fields in the subscriber's database, it added.

The DoT further said that in the case of existing subscribers, only replacement of Aadhaar number with UID tokens is permitted, that too as a one-time measure. The telco cannot alter the other data in the subscriber's database.

"If any incident of alteration/ manipulation of any other field of subscriber database comes to the notice of this Department, such connection shall be treated as pre-activated and penal action shall be taken," the circular said.

The telcos will also be required to make changes in their systems to replace the Aadhaar numbers of existing subscribers in their databases with UID tokens. Further, it has removed Aadhaar number from the list of parameters required in the subscriber database, and introduced the 72-character UID token in its stead.

The Cellular Operators Association of India praised the DoT decision, calling it another step to ensure the privacy of customers.

COAI signs MoU with World Trade Center India Services Council to establish "ESDM Center of Excellence" in WTC Noida

COAI, the apex industry association representing leading telecom, IT, and engineering services companies, has signed a Memorandum of Understanding (MoU) with the World Trade Center India Services Council (WTCIS) to establish a Centre of Excellence at WTC-1A, World Trade Centre Noida.

The proposed Centre of Excellence will focus towards the development of human capital in India, with deep focus on skills, training, design, research, entrepreneurship and to strengthen the knowledge ecosystem pertaining to mobile, telecom, electronics and allied network industries.

The Electronic System Design Manufacturing (ESDM) is one of the fastest growing manufacturing industries in India and poised to be a \$400 billion industry by 2025. The ESDM sector serves a wide range of products of 1 billion mobile networks by 2025, valued at \$100 billion, comprising 100 million units, including 100 million mobile handsets valued at \$110 billion (100 per cent of the total value), the report.

Driven by the dynamic data infrastructure design, manufacturing capabilities and embedded value to value chain, COAI is not just for those in India, but also for those in the world. As the ESDM industry evolves and adopts further forms of value addition and value proposition across the complete value chain segments, it is imperative to generate domestic manufacturing, with specific emphasis on research and development of the ESDM sector.

Commenting on the collaboration, Rajat S. Mathur, Director General, COAI, said, "We are excited to partner with the World Trade Center India Services Council, an international consortium of global business connectivity, service providers,

and integration service providers across several cities and countries. Our partnership expertise in telecom, mobile and ESDM industries will go a long way in helping the industry, while and the quality of output. Providing a holistic ecosystem for human capital development through this Center of Excellence will catapult indigenous manufacturing to greater heights in National Capital Region."

The Government of Uttar Pradesh is looking to start a new unit when it comes to promoting the ESDM industry in the state and is essentially looking to be the hub for ESDM with conducive policy environment, support to the industry and concerted strategy with the objective to make the state globally competitive. As an industry representative, COAI is looking to be the hub for ESDM with conducive policy environment, support to the industry and concerted strategy with the objective to make the state globally competitive.

Earlier this year, Hon'ble Prime Minister Narendra Modi had the foundation stone of India's first Mobile Open Campus (MOOC) at WTC Noida. Uttar Pradesh Government signed MoU with WTC India to develop a mobile open campus at MOOC as an attempt to enable growth in mobile & allied sectors in UP.

Kumar U. Singh, Director, Director, World Trade Center India Services Council, Noida, said, "We are excited to partner with COAI in setting up this ESDM Center of Excellence at WTC Noida. Center of Excellence is a hub for ESDM industry and research & development. COAI is the official voice for the Indian telecom industry and research & development. We are looking to be the hub for ESDM with conducive policy environment, support to the industry and concerted strategy with the objective to make the state globally competitive. We are looking to be the hub for ESDM with conducive policy environment, support to the industry and concerted strategy with the objective to make the state globally competitive."

h. COAI signs MoU with World Trade Center India Services Council:

Telecom industry body, COAI, has collaborated with World Trade Center India Services Council (WTCIS) to establish an ESDM Center of Excellence at the WTC-1A, World Trade Centre Noida. The news was extensively covered in major publications like *PTI*, *IANS*, *Dainik Jagran*, and *ET Telecom* among others.

i. COAI Statement on Vodafone Idea approves rights issue:

After Bharti Airtel, Vodafone Idea has also announced a rights issue to raise some Rs 25,000 crore to take on the stiff competition. The board of India's largest telecom operator by subscriber base, Vodafone Idea, approved the rights issue plan. It said the fund raising is aimed at strengthening the company's countrywide 4G coverage and fighting competition from Bharti Airtel and Reliance Jio Infocomm.

Vodafone Idea rights issue at 60% discount

"It is not a deeper discount than other rights issues in the past, and hence it is not a sign of weakness. It is the largest investment announced in a rights issue by promoters. It reflects a deep belief in what the company is doing rather than a sign of weakness," said a source close to the development.

In 2017, VIL rights issue was at the highest discount of 33 per cent.

Rajat Mathur, director general of Cellular Operators Association of India (COAI), noted that it was a strong statement from the promoters to the market to show that they were bullish about the sector and its growth.

"The pricing premium depends strongly on the market sentiment which are poor at present. It's heartening to see that incumbents like Vodafone Idea and Bharti Airtel are being bullish with rights issues signalling that they won't back down to competition," said Mathur.

In a fiercely price competitive market, Vodafone Idea's final pricing is the second attempt by a telco to raise its Rs 25,000 crore and fund capex plans.

Besides the rights issue, it aims to raise about Rs 10,000 crore from the sale of its 11.5 per cent stake in Indus Towers and monetise fibre assets to the tune of Rs 5,000 crore. After the issue and the sale, it will have Rs 40,000 crore of available cash.

Analysts said the hefty discount was an attempt to ensure that the rights issue was at least fully subscribed, if not over-subscribed, given the market's apprehensions over the telecom sector.

As part of the fund-raising plan, promoters of the company Vodafone Idea and Aditya Birla Group intend to contribute up to Rs 10,000 crore and Rs 2,250 crore, respectively, as part of the rights issue.

The company has plans to build more capacity and 4G coverage by raising the existing capital. While tariff increase is one possibility for growth, Vodafone Idea believes that the funds raised will give it the opportunity to bring in more subscribers under 4G coverage and data.

Rating agency India Ratings has downgraded Vodafone Idea's long-term issuer rating to 'IND A+' from 'IND AA-' and placed it on rating watch negative.

Its capex of Rs 1,170 crore for the December quarter continues to worry sector analysts as its rival telco reported higher capex numbers. Bharti Airtel India reported a capex of Rs 3,309 crore, while Jio reported Rs 4,000 crore in Q3 of 2018-19.

Vodafone Idea rights issue at 60% discount

At post-issue adjusted price, the discount comes down to 33%

ROHITA MAHINDRA & SOMNATH
Mumbai, 28 March

Shares of the country's largest telecom player in terms of subscribers, Vodafone Idea (VIL), tumbled after its board approved a Rs 25,000-crore rights issue, one of the largest in Indian markets.

The stock recovered after falling as much as 7.6 per cent to Rs 29.6 a piece, close to a 52-week low of Rs 28.8, ending at Rs 33.1 a piece, up 8 per cent from the previous close.

VIL shareholders would be able to buy 87 shares for every an bid for an issue price of Rs 12.50 a share, or a 60 per cent discount to the current stock price. However, in terms of the adjusted share price for the rights issue, which is Rs 18.7, the discount is 33 per cent.

RIGHTS ISSUE SINCE JAN 2017

	Ratio	Issue price*	Adjusted price†	Discount after issue
Canara Bank	1:10	297	309.3	31.1
Mahindra Life	1:5	292	358.0	18.4
Induct Design	5:22	86	129.4	33.6
Indian Hotels	1:5	75	106.0	29.2
Lakshmi Bank	1:3	122	165.5	26.3
Piramal	1:25	2380	2777.3	14.3
Tata Steel	4:25	510	718.3	29.0
Indiabulls	3:15	240	344.4	31.8
Nature's AgePro	1:10	555	734.4	24.4
Bharti Airtel	19:67	210	266.3	25.8
Vodafone Idea	38:67	12.5	18.7	33.3

*Ratio of the number of rights shares to shares held. †Adjusted price of post-issue adjusted price after right issue is calculated as the sum of pre-issue capitalisation before rights and the rights issue amount divided by the total post-issue capitalisation.

*Source: BSE India, Market for India's companies.



In comparison, competitor Bharti Airtel's rights issue is at a 26 per cent discount.

j. COAI's letter to e-tailers:

In the letter to e-commerce companies, COAI whose members include Bharti Airtel, Vodafone Idea and Reliance Jio, mentioned mobile signal boosters and repeaters that require license are being sold on their platforms. The letter was covered by major publications like *PTI*, *The Economic Times*, and *Business Standard* among others.

Stop selling mobile signal boosters, COAI tells online retailers

MEGHA MANCHANDA

New Delhi, 13 March

The Cellular Operators' Association of India (COAI) has asked online retailers, including Flipkart and Rediff, to stop selling mobile signal boosters on their platforms. This is because sale of such devices are illegal and may attract fine and imprisonment. Moreover, these instruments interfere with mobile signals leading to call drops and sluggish data speeds.

The association has said these boosters fall under

the category of wireless devices under the Indian Wireless Telegraph Act 1933, which prohibits possession of such apparatus without a licence. It said that illegal possession or sale of such equipment is a punishable offence under the Act. The penalty for a first time offender is a petty amount of ₹100, while a repeat offender invites a fine of ₹250.

Possession of a wireless transmitter, which is in contravention with the provisions of Section 3 of the Act, will be punished

with imprisonment, which may extend to three years or fine which may extend to ₹1,000, or both.

"Possession and sale of such equipment, without obtaining requisite permission under the Act and Rules framed there under, constitutes violation of the provisions of the Act and is a punishable offence," the COAI letter said. The Department of Telecommunications, in a May 2015 letter to e-commerce companies, had said that no person/entity can sell these instruments

without a valid dealer possession licence, to which the online retailers had said they were intermediaries and did not require such a licence.

COAI has said that despite DoT's order, the companies continue to sell these mobile signal boosters on their platform. It said that such instruments create severe interference in the frequency bands and disturb the overall quality of services. The telecom operators' lobby asked online retail portals to "immediately" stop sale of such devices.



Telcos Ask Etailers to Stop Sale of Signal Boosters

Say it's illegal and impacts overall quality of mobile phone services

Rajyan.Parbat@timesgroup.com

Kolkata: Telecom companies have asked the country's big online marketplaces Amazon, Flipkart, Snapdeal, ShopClues and Rediff.com to stop

the sale of mobile signal boosters and repeaters on their websites/platforms, saying possession and sale of such wireless gear is illegal and a punishable offence under the Indian Wireless Telegraph Act of 1933.

The Cellular Operators Association of India (COAI), in identical letters to these digital majors, has also said "usage of such wireless telegraphy apparatus by end-customers creates severe interference in the licensed frequency bands assigned to telcos, impacting the overall quality of mobile services".

ET has seen these letters that are marked to GK Agarwal, wireless advisor in the Department of Telecommunications (DoT).

COAI has noted that the specifications of boosters and repeaters sold online claim that these devices enhance signals across the 800 MHz, 900 MHz, 1800 MHz, 2100 MHz and 2300 MHz licensed spectrum bands, which are assigned to telecom carriers.

Accordingly, the COAI, which represents Vodafone Idea, Bharti Airtel and



Reliance Jio, has called on these big online retailers "to immediately cease and desist" from selling mobile signal boosters and repeaters that fall under the definition of 'wireless telegraphy apparatus' and 'wireless transmitter' under the Indian Wireless Telegraph Act.

"It is pertinent to note that possession and sale of such equipment, without obtaining requisite permissions under the Wireless Telegraph Act and rules framed there under, constitutes violation of the provisions and is a punishable offence under Section 5 of the Act," Rajan Mathews, director general of COAI, said in letters to the online marketplaces.

Mathews has also cited a DoT let-

ter of May 30, 2015 that had conveyed to the online e-commerce companies that under Indian Wireless Telegraphy (Possession) Rules, 1967, "no person/dealer shall sell or hire a wireless set/equipment to any person, unless they hold a valid dealer possession licence (DPL)".

Further, the DPL holder, according to DoT's letter, "can sell (such) wireless sets/equipment only to such person/entity that holds an authorisation issued by the communications ministry to establish a wireless telegraph under the Indian Telegraph Act, 1905".

Further, DoT's communication of May 2016, cited by COAI, had noted that in case there is any licensing/statutory requirement on telecom gear being sold or purchased, "it would be the responsibility of those selling it or purchasing it, as well as of the online intermediaries facilitating such sale and purchase, that the relevant statutes of the government are not violated".

In response to ET's queries, an Amazon spokesperson said sellers selling their products through the amazon.in marketplace are "solely responsible for all necessary product compliance and are required to sell products which are legally allowed to be sold in India".

Event Participation

- 1. 5G India Leadership Summit:** 5G India Leadership Summit delivered a diverse programme for expert speakers, senior operators, leading service providers and OEM's to discuss making 5G a reality in India by 2020. 5G will be the key driver for digital India initiatives.
- 2. 5G India Leadership Summit:** 5G India Leadership Summit delivered a diverse programme for expert speakers, senior operators, leading service providers and OEM's to discuss making 5G a reality in India by 2020. 5G will be the key driver for digital India initiatives.



- 3. My India WiFi India Summit 2018:** The focus was to create a meaningful and collaborative platform by bringing all the key stakeholders together and chart out a mission for achieving 10 million WiFi hotspots by 2022. The idea was to ensure that the entire country gets to reap the fruits of digitalization.



4. Voice and Data India 5G

Evolution: The Voice & Data 'India 5G Evolution conference' in collaboration with Cellular Operators Association of India (COAI), Nokia, Indus Towers, Jio Digital Life, Ericsson, BSNL and Panasonic, took a deep dive in the 5G adoption dynamics and its impact for both the operators and the consumers. Ibrahim Ahmad, Group Editor, Cybermedia, set the tone and context in his opening remarks stated that 5G has multifold ramifications for the telecom industry in India and how operators will ink an aggressive 5G play in the days ahead.



5. 11th Telecom Summit-Propelling India to a trillion dollar digital economy – “Roadmap to NDCP Implementation”:

It was the first initiative that brought all stakeholders on a common platform to lay down the implementation roadmap for this visionary policy. The mission of this summit is to Connect India toward a Gigabit society and propel India to lead in a digital era.



6. CII Rural Telecom Summit:

Confederation of Indian Industry (CII) organized the 7th edition of Digital India Telecom Convergence Summit with the theme “5G Ecosystem” on 6 September 2019 in New Delhi. The Summit aimed to bring together telecom service providers, digital & internet service Providers, technology suppliers & users, infrastructure players, financial institutions, equipment manufacturers etc. It focused on how 5G can be the right catalyst in spearheading India's digital transformation.



7. AI and IoT India 2018: AI & IoT India event highlighted the innovative advancements in technologies. It covered key addresses, panel discussions, dedicated tracks covering the entire Internet of Things ecosystem including smart energies & cities developing for the IoT, Connected Industry, Connected Enterprise, Connected Transportation, Data Analytics, Robotics, and Blockchain for AI & IoT, Privacy & Security and IoT Innovations & Technology.

8. India m2m + IoT Forum: It is a cohesive and shared platform which validates united and collective vision of the global m2m and IoT ecosystem. It was the most awaited annual congregation of m2m + IoT stakeholders representing the entire ecosystem comprising of academics, analysts and researchers, enterprises and industry, governments – policy makers and regulators, industry associations and organizations, media organizations, standards organizations, the student's community and above all the end users from businesses, citizen services and government.





- 9. Times Network - Digital India Summit:** Times Network, India's leading broadcast network, hosted the 5th edition of its landmark event, 'Digital India Summit 2019'. 'Unveiling India's \$ 1 Trillion Digital Dream', the summit created conversations with the torch bearers of the digital universe to share their vision and insights to empower and transform India as the complete digital economy.



10. Voice and Data - Telecom Leadership

Forum: The conference theme this year was 'Digital Disruption and Consolidation', and the various sessions in the form of keynote speeches, panel discussions and case study presentations were addressed the issues faced by telecom sector such as what does the Indian telecom ecosystem (operators, equipment and solution vendors, apps players, policy makers and regulator) need to focus on in the next 12 months in the wake of the data wave, the consolidation, and the user's changing profile and requirements.



11. Mint Digital Innovation Summit 2019: It is a place where technology meets business. It has been designed for C-level and senior executives responsible for information, technology, strategy, and marketing, who are in-charged of driving innovation and new product development across industries and sectors.

12. India Mobile Conclave: The annual forum is held to bring together top officials from the government and the regulatory authority along with the heads of industry to discuss the paradigm shift and the challenges confronting the sector. This year the focus was on the NDCP 2018, tax structure, emerging technologies, manufacturing, etc, which could facilitate new revenue opportunities and ensure a more consistent and soft touch regulatory framework.



Media Visibility Snapshot 2018-19

COVER STORY

THE DAWN OF DIGITAL TELECOM

Next-generation digital technologies offer a plethora of viable opportunities to streamline business functions, catalyse transformation and improve efficiencies across industries



On the health, education and agriculture fronts, digitalisation will open up possibilities of advancement by bridging the digital divide and driving reach and connectivity to the most remote and inaccessible areas.

— Rajan S Mathews, DG, COAI

Digital expansion in India

The Indian telecom industry has witnessed rapid expansion in the recent years. The Government and the industry have worked in tandem to make the Indian telecom sector the second largest in the world. The Government's ambitious Digital India vision and its roadmap in providing universal access and inclusion, giving digital literacy to everyone and delivering next-generation goods and services to all citizens. The Government has been a pivotal force behind India's digital makeover with series

of pro-growth reforms like Make in India, Smart City projects, FDI inflows, Start-up India and other progressive policies that have laid the right foundation for growth. Further, the introduction of National Digital Communications Policy 2018 is another key milestone. The policy targets propelling India towards becoming a \$500 billion digital economy by 2025. It intends to enhance the contribution of the Digital Communications sector to 8% of India's GDP from 6% in 2017.

Apart from this, the commercial deployment of 5G by 2020 will facilitate the digital transformation of the telecom sector, open up new business models, opportunities and policies will

be increasingly using technologies such as Blockchain, SDN & NFV, AI, machine learning and cloud computing in their operational processes. This would not only enhance efficiency, but would also go a long way in enriching the ecosystem & substance in the digital world.

The telecom industry is at the very crux of India's digital revolution and it is also the harbinger of disruptive technologies that will catalyse the country's transformation. Adopting digital drivers such as infusion of digital payments, emergence of alternate modes of commerce such as social and content-based commerce, increase in consumption of media, gaming and

entertainment, generating significant avenues for consumer outreach and engagement, an ecosystem had been created by internet players for greater innovation. Data connectivity to the India's population with wide deployment of broadband will be at the core of the 'Digital India' scheme.

New Challenges

At the same time, in order to achieve digital connectivity, it is imperative to generate sufficient cash flow that can be ploughed back into the business. It needs to be attractive enough to draw in funds, both in the form of equity and debt. Hence, it is vital to ensure that the telecom

industry remains financially strong. The financial health of the telecom industry has to be safeguarded and there is a need to boost the financial viability of the industry in order to meet this investment expectations.

By targeting a \$300 billion worth of investments while addressing the issue of rationalisation of taxes and levies, the NDCP 2018 focuses on the sector's long-term sustainability and ability to invest in new technologies. Currently, India's telecoms pay around 20% of their revenues in taxes and levies such as spectrum usage charges and licences.

Next-generation digital technologies offer a plethora of viable opportunities to streamline business functions, catalyse transformation and improve efficiencies across industries. On the health, education and agriculture fronts, digitalisation will open up possibilities of advancement by bridging the digital divide and driving reach and connectivity to the most remote and inaccessible areas. At the most basic level, telcos are leveraging their network capabilities and offering connectivity, video conferencing and collaboration solutions to all and sundry.

On the customer support front, providing digital customer service can significantly reduce costs and deliver faster and more satisfying customer experiences. Apart from this, telecom has many characteristics that make it a viable home for Blockchain. They will drive transparency, security and ease of

operator in the telecom sector. Also, telcos' infrastructure must evolve from the expensive and difficult-to-manage set of discrete network elements, to a virtualised communications and cloud infrastructure, which has to be managed in a highly autonomous fashion at extremely low cost. Other key areas of digital telecom include artificial intelligence (AI) and Machine Learning (ML), AR/VR and cloud computing.

Given the quantum of data being transmitted over the networks and the burgeoning generation and consumption of digital data, some of the key best practices that we need to adopt include those pertaining to data security and privacy. Next should be data localisation, smooth transition to 4V and SD-WAN and efficient management of virtual processes. Further, use of more business analytics tools and increasing the number of customer touchpoints are also crucial for telcos, keeping in perspective the rapid digitalisation that is happening all around us.

Further, telecom infrastructure should be strengthened as a critical service rather than essential service. This implies that state authorities should be responsible to protect critical infrastructure against vandalism and thefts, by providing necessary support to the industry. States such as Karnataka have included clauses regarding security of telecom infrastructure.

Rajan S Mathews
(Director & DG, COAI)

“Bringing down total taxes and levies will be important

COAI director-general **Rajan Mathews** on factors key to attracting investment in telecom



QUOTE OF THE DAY

“After elections, the new govt should set out a clear roadmap to ease the burden of levies such as licence fee and spectrum charges on telecom companies.”

— **RAJAN MATHEWS, COAI, DIRECTOR GENERAL**



[illegible]

Following several federal investigations into allegations of fraud in the 2002-2003 FIM T&E program, the DoD has taken steps to improve the oversight of the program. DoD has implemented a number of measures to ensure the integrity of the program, including the implementation of a new contract management system, the implementation of a new financial management system, and the implementation of a new performance management system. The DoD has also implemented a number of measures to ensure the integrity of the program, including the implementation of a new contract management system, the implementation of a new financial management system, and the implementation of a new performance management system.

LIVE WEBINAR
TELECOM TUESDAY

Telecom industry's views on National Digital Communications Policy 2018

8th MAY, 2018
@ 03:00 PM

**RAJAN
MATHEWS**
DIRECTOR GENERAL

DoT considering specialised bank for telecom infrastructure

Plan involves moving \$30 b from 'service obligation fund'

EXPERIENCE
March 1999 to Present
The Department of Telecommunications is considering a reorganization made earlier by the industry to set up specialized units for the telecom sector. To begin with, the Govt will have a corpus of about Rs. 1 billion that will be transferred to the Universal Service Obligation Fund (USOF).

"At the time when I was formulating the National Reliance Policy itself, we had made a recommendation that the money amount in the USOF be put in a special fund bank that lends specifically to the telecommunications," says Mathew, Director General of the



Boris S. Matheny

Critical 'top-down' Association of India, 1986 Business-line on the sidelines of the Middle World Congress, 1986, June.

"I think DuPont has taken it up, and it's very much a support of it. Now, it should be covered by DuPont's finance department," he added. Apparently, DuPont is also considering the development.

The plan is to launch a special purpose vehicle (SPV) and cover all infrastructure

shape such as three, spectrum and towers so is The band (37%) does create will lend at a rate that will be comparatively lower than what is being charged by other lenders.

"The idea is to fund the IPV that leads many construction companies. The infrastructure bank will provide loans — like an infrastructure problem (IPV) bank — to IPV acting as infrastructure," said Mathews.

Woodco companies are looking at shading infrastructure in an attempt to bring down reflect and operational cost, as well as time taken for it.

On Tuesday, Stuart Aron, Chairman of the United Steel, he had reached out to the company's biggest rival, Volcom Inc. for a possible partnership for an independent official fiber com-

party the format is setting
up.

"This is a good move, because nobody is competing on the fiber front. If a company has excess capacity then it's wise to shut it, which will put you in a weaker position. A company has to move its assets," Matthews said.

Spectrum requirements
Talking about the Indian telecom industry's recommendations to the regulator to allocate sub-6 GHz spectrum for 5G rollout, Mathews said the spectrum is widely available.

"It's a rapidly emerging ecosystem and bandwidth are available. However, now the bands are becoming less available, and will become multi-use and multi-technology compliant," Matthews adds.

COAI seeks clear roadmap for telecom sector, post polls

PRESS TRUST OF INDIA
New Delhi, April 2

The Cellular Operators Association of India (COAI) on Tuesday said the new government post elections should set out a clear roadmap to ease the burden of levies on the telecom sector.

Issues such as cut in licence fee and spectrum charges should also be taken up at the earliest.

The COAI said revenue continues to remain under pressure for the industry saddled with high debt. For most players, EBITDA generated "is not enough to meet the interest expenses".

*The definition of adjusted gross revenue (AGR) should be reviewed to include revenue from licensed activities only. The telecom department should adopt the recommendations by the regulator.

for determination of the AGR," said Rajan S Mathews, COAL's Director General.

The COAI said that income from interest, dividend, or

capital gains from sale of fixed assets; gains from forex fluctuation; and income from rent, insurance claims and distributors' margin should not be included in revenues for computation of licence fee and spectrum usage charges.

"Once you address the AGR definition issue, it has cascading benefits... that is the first thing they (the new government) should look at. Second, the issue of double taxation. If payment for spectrum is given upfront, why should the industry be taxed for spectrum usage charge and license?" he asked.



Mathews,

"It would also send a clear signal to both industry and investors that the government is serious about getting the sector back on its feet," Mathews said.



Rajan S Mathews,
Director General, COAI

Telcos' earnings to remain under pressure for 3-4 quarters: COAI

PRESS TRUST OF INDIA
New Delhi, April 8

Industry body COAI expects earnings of mobile operators to remain "depressed" for another 3-4 quarters, hurt by the sheer intensity of competition in the telecom market.

Major operators are slated to announce their January-March quarter results in the coming weeks, in a market defined by cut-throat competition and falling tariffs that benefit consumers but erode telcos' profitability.

A recent report by the Telecom Regulatory Authority of India (Trai) has noted that the gross revenue of telecom ser-

vices providers fell 8.1% while the licence fee collected by the government dropped by 16% year-on-year in the quarter ended December 31, 2017.

The adjusted gross revenue (AGR) earned by companies from sale of telecom services declined 16.05% to Rs 38,536 crore in the said quarter on year-on-year basis, reveals Trai's quarterly performance indicator report.

The Cellular Operators' Association of India (COAI) director general Rajan Mathews sees no let up in pressure in coming months. "The intensity of competition will ensure that earnings will be depressed for 3-4 quarters. This is something that is going to be the new normal

and I don't see how it will materially change," Mathews said.

Mathews said that the players are facing two types of challenges - difficulty in raising prices after offering large discounts and increased commoditisation of various services. "So, we have to look for augmented revenue streams and we are hoping that the operators will be rational enough not to commoditise the new opportunities coming through like Internet of Things (IoT), 5G etc," he said.

In a recent earnings preview for the sector, Kotak estimated that Jio's aggressive pricing moves in January, combined with the impact of interna-

tional termination rate cut and continued pressure on average revenue per user are likely to result in "another quarter of sharp sequential revenue decline for the incumbents".

It has also cautioned that Bharti Airtel may see net loss, its first in many years.

NTP-18 TO ADDRESS PENDING AND FUTURE ISSUES

■ How do you read the policy taking into account all relevant issues and an attempt to address them?

The policy can get close to 5 out of 5 in addressing the key issues and the overall sector - a very well put together and a focussed document. The new policy will pave the way for development of telecom and digital services in the country. It will also help create 40 lakh new jobs, which in turn will improve skill sets among the people employed in the telecom sector.

The policy has addressed the long pending concerns of the telecom industry by proposing to review and rationalize various taxes and levies including license fees, spectrum usage charges, the universal service obligation fund, GST etc.

The proposed investment of \$100 billion in the communication industry will help increase the contribution of telecom sector in the overall GDP from 6 to 8 per cent.

■ Do you feel all the issues that COAI has been raising over the last few years have been addressed?

We were given ample opportunity to offer our views on NTP-18. We also gave it to Trai and the regulator has also included our suggestions in their input. Overall, the critical issues like financial health of the industry, global telecom services tax structure vis-a-vis ours, milking of the telecom sector for revenue purpose, highlighting issues of spectrum, right of way for tower installations, data privacy, creating employment and in fact all the significant areas are all in the document.

■ The policy has taken an attempt to rationalise the taxes. Do you think this will be part of the NTP 18 when the actual policy comes out?

When the IMG was set up for addressing the financial health of the sector, government had said the longer term policies would be addressed by the draft policy. Now the draft has highlighted the need to address the issues. That's appropriate.

■ What is your feedback on the draft?

The draft incorporates all the necessary items of urgency and we support it.

■ The draft talks about pushing the broadband into the deeper part of the country. Do you think the methods chosen for achieving the targets are suitable enough?

They have talked about fibreisation, right of way to be able to put towers, BharatNet being rolled out and all other critical issues. The measure of success of this policy will be on how much investment money could be raised by the operators to be able to invest. Because the government is not going to invest much of required investment and major part of it will have to come from the private sector. Clearly, the first order of business is to ensure that the financial health is restored so that these telcos can raise this money.

■ There is also a talk of making available new spectrum bands both access as well as backhaul, as 5G will depend on both. They have also discussed the contiguous and harmonised spectrum required for the next generation technologies. Do you feel these are well on time as India is to set on the path of new technological order?

Some of these things have to wait for international harmonization, which takes time. We can't decide on our own that we will use these spectrum bands for our 4G, 5G services. The International Telecom Union or ITU and other working groups have been working for many years to align all the countries to make sure that certain amount for spectrum is reserved for 5G, IMT and others. And now that the work of harmonisation is going on at the global ITU level, it is fair to include it in NTP. Other countries are also doing the same.

In the NTP-18, the government has tried to bring "light touch" or deregulation approach in a bid to do away with heavy governance in the sector, at least in the scope of broadband proliferation. A welcome move, you

The GSM operators association - COAI has been very vocal about its demands for improving the financial health of its members facing the wrath of Reliance Jio's cheap and free data and voice services. The industry is saddled with a debt of Rs 5 lakh crore due to heavy spectrum acquisition cost through auctions and adding to it are the abysmally low tariffs, which have only worsened the situation for the incumbents. The association has been stressing on lower levies on the sector through low spectrum, licence fee and USO charges and also lowering the prices of spectrum for broader use, besides its efficient utilisation. As the government seeks comments from the industry and experts on the draft New Telecom Policy 2018, COAI director general **Rajan Mathews** tells **Anjana Das** how the draft is comprehensive, focused, lucid, by setting clear strategic goals and is clearly what is required to propel India's growth as a key player in the global knowledge revolution



could say.

We have always said if you are going for light touch approach, make sure that it is done with an equal hand. People who are providing similar services should be treated similarly. Don't tilt the level playing field by giving benefits to some entities that is not given to others who are already paying high fees to the government.

■ Are you referring here to OTT (WhatsApp, Skype, Google or Hangouts) vs access providers?

Yeah, if we are to work with them and you want to make sure that both are necessary for a balanced eco system, then please treat us both equally and fairly.

■ The draft has stated an under-utilised and substitutable spectrum, auctioning and assignment along with unutilised spectrum for efficient use. While further liberalising the spectrum in trading and releasing, how does this unutilised spectrum ease the situation?

If an operator, for example, holds 2.5 Mhz of 900Mhz band spectrum, which helps only in 2G and with 2G being phased out, to move on to 5G, one has to get at least 5 Mhz of contiguous spectrum. The operator now has to look at some other telcos who has also got 2.5 Mhz idle spectrum.

There is also plenty of spectrum lying unutilised with the space department and information and broadcasting ministry, which could be well used for commercial purpose. We should be pooling the idle spectrum out and use it for telecom industry.

■ Is the direction of the policy progressive on this?

Absolutely. Spectrum, globally, is both a scarce and variable resource. Allowing it to sit idle is such a waste of this valuable product. It is absolutely right focus.

■ The draft is focussing on optimal pricing of spectrum for sustainable and affordable access to digital communication. What is the implication of this on future spectrum pricing?

The reference is this that when we are looking at a new technology like 5G, for example, which is expected to come on line, a single operator needs 100Mhz of spectrum and if the government tries to use the existing pricing methodology, nobody will be able to afford that. When the government tried the price of 700Mhz spectrum, which only 25 Mhz per operator, nobody could buy it. So for 5G if you follow old methodology, then the country will suffer and people will not benefit.

anjana.das@mydigitallife.com

'New telecom policy's \$100 billion investment estimate conservative'

Bharti, Jio committed to investing ₹74,000 cr: COAI's Mathews

PRESS TRUST OF INDIA
NEW DELHI

The government's plan to attract \$100 billion (about ₹65 lakh crore) investment in the telecom sector by 2022 is conservative, industry body COAI has said.

Just two telecom operators, Bharti Airtel and Reliance Jio, have committed to invest ₹74,000 crore this year alone, which is more than 10% of the total government estimate, COAI director general Rajan S Mathews said.

The government draft of the new telecom policy - "National Digital Communications Policy



Rajan S. Mathews

2018 - aims to create 40 lakh jobs by 2022, attract \$100 billion investment in the sector and ensure broadband coverage at 50 mhz for every citizen, it also proposes to address the woes of debt-ridden telecom sector by reviewing licence fees, spectrum usage charges, universal service obligation fund levy - all of which add to cost of telecom services.

Attracting FDI "if the policy gets implemented as proposed in the draft, the sector will be able to attract huge amount of foreign direct investments," he said.

The policy draft proposes adopting "optimal pricing of spectrum" to ensure sustainable and affordable access to digital communications.

A good relationship between an association and member is difficult when one of the member sues the association

— **Rajan S. Mathews, DG, COAI**



About COAI

COAI was constituted in 1995 as a registered, non-governmental society. The Association is dedicated to the advancement of modern communication through the establishment of world-class mobile infrastructure, products and services and to delivering the benefits of innovative and affordable mobile communication services to the people of India.



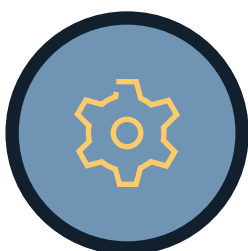
Industry Policy

COAI has emerged as the official voice of the Indian telecom industry that interacts directly with ministries, policy makers, regulators, financial institutions and technical bodies. It provides a forum for discussion and exchange of ideas between these bodies and the service providers, who share a common interest in the development of mobile telephony in the country.



Telecom Issues

COAI collaborates with other industry associations such as CII, FICCI, ASSOCHAM, GSMA, ISPAI, ICA, etc., with the objective of presenting an industry consensus to the Government on crucial issues related to the growth and development of the Indian telecom industry.



New Technologies

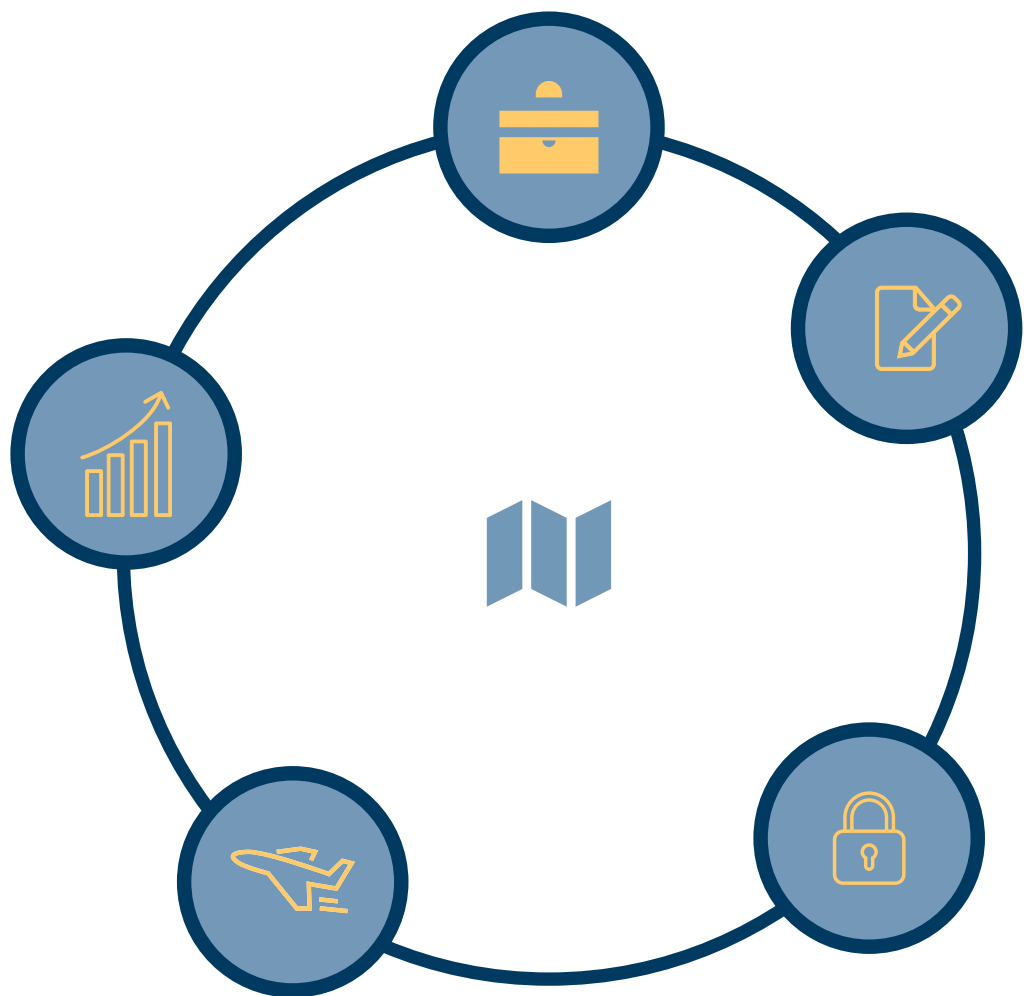
COAI is determined to encourage the confluence of technologies to facilitate the move towards complete convergence in communications as this could greatly help India mitigate the problems of low fixed line penetration and help realize country's vision of becoming an Information Society.



Thought Leadership

COAI aims to dispense information and spread awareness among the national and international entities and consumers on issues pertaining to service quality and other value-added services provided by the operators to their subscribers.

Area of Work - Key Focus



Policy Advocacy

COAI has emerged as the official voice for the Indian telecom industry



Industry Issues

Provides a forum for discussion & exchange of ideas for members



Regulatory Inputs

Interacts directly with ministries, regulators, and financial institutions for enabling conducive regulations for the sector



Skill Development

Design and development of skills specific to the sector to boost employability & job creation



International Standards

Works with embassies and interacts with GSMA, ITU, APT, ITIC, etc. for promoting mutual understanding of sectoral issues

Management

The COAI secretariat comprises of a Director General at the helm with two Deputy Director Generals to support him. There are 6 departments or teams in the association that ensure that COAI is one of the most credible and reputed Industry bodies, solely dedicated towards advancement of mobile communication.

There are currently 25 people working on the COAI secretariat bringing talent and skills from various areas of work, such as finance, legal, regulatory, public affairs, technology and infrastructure.



SUNIL SOOD
Chairman

Sunil Sood is the Group Commercial Director, AMAP and Group M-Pesa Director, Vodafone Group. Prior to this new role, he was Managing Director and CEO of Vodafone India.



AJAI PURI
Vice Chairman

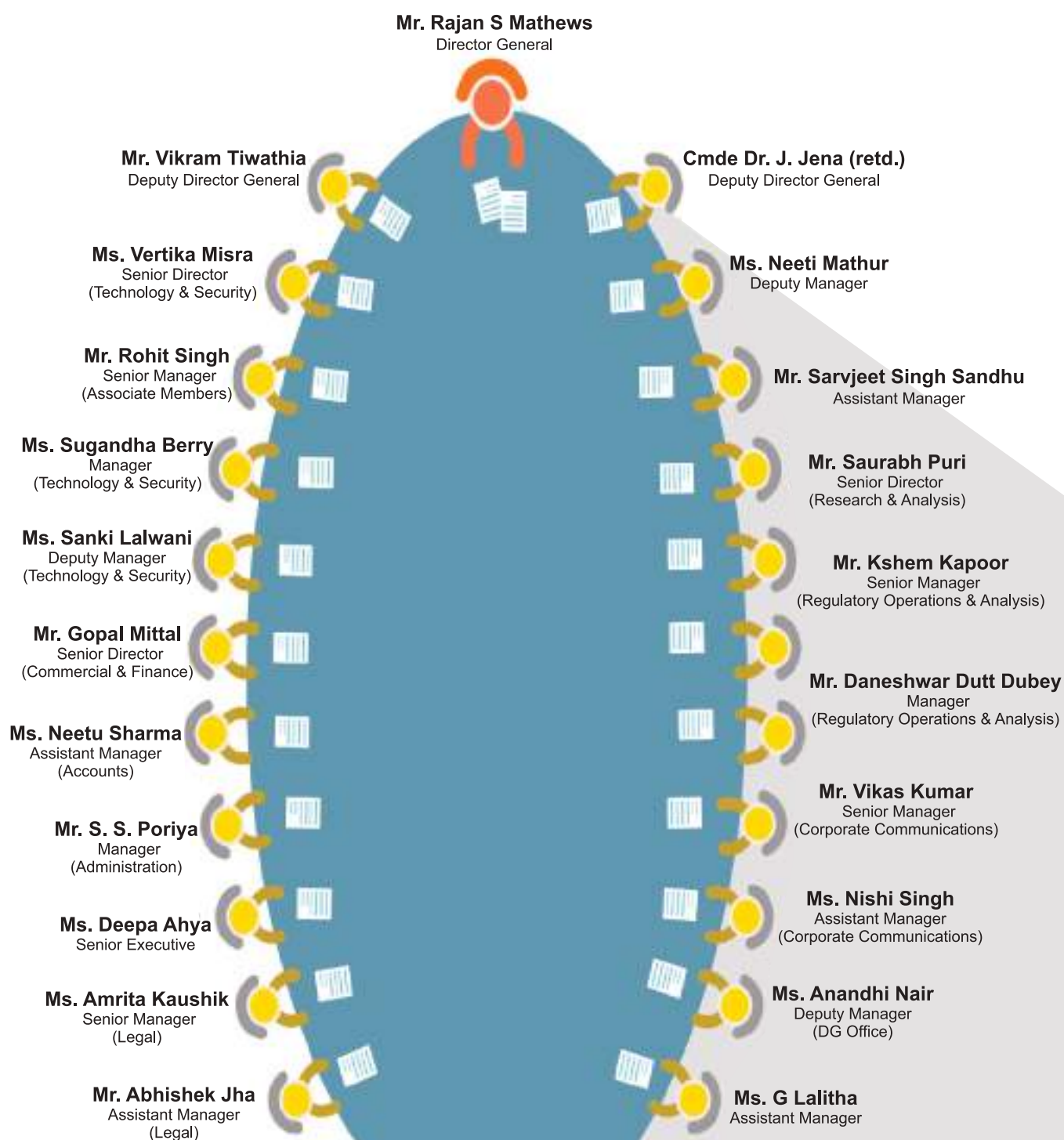
Ajai Puri is the Chief Operating Officer (India and South Asia) at Bharti Airtel Limited. He has been with Bharti Airtel since 2004 and has held several senior leadership positions including Director – Market Operations, Director and CEO – DTH, and CEO – Kolkata & West Bengal, Odisha. Prior to joining Bharti Airtel, Mr. Puri served as the Business Head - Foods at Cargill Foods India. He began his career with VST India Ltd, an associate company of British American Tobacco (UK).



RAJAN S. MATHEWS
Director General

Prior to joining COAI as DG, Rajan served as COO of US Operations and Corp. CFO and VP of Telargo Inc. (a Joint Venture of NTT DoCoMo), overseeing all of the company's Strategic Planning, Business Development, Financial, Treasury, Accounting, Tax, Administrative and Human Resource functions.

COAI Secretariat



Team COAI



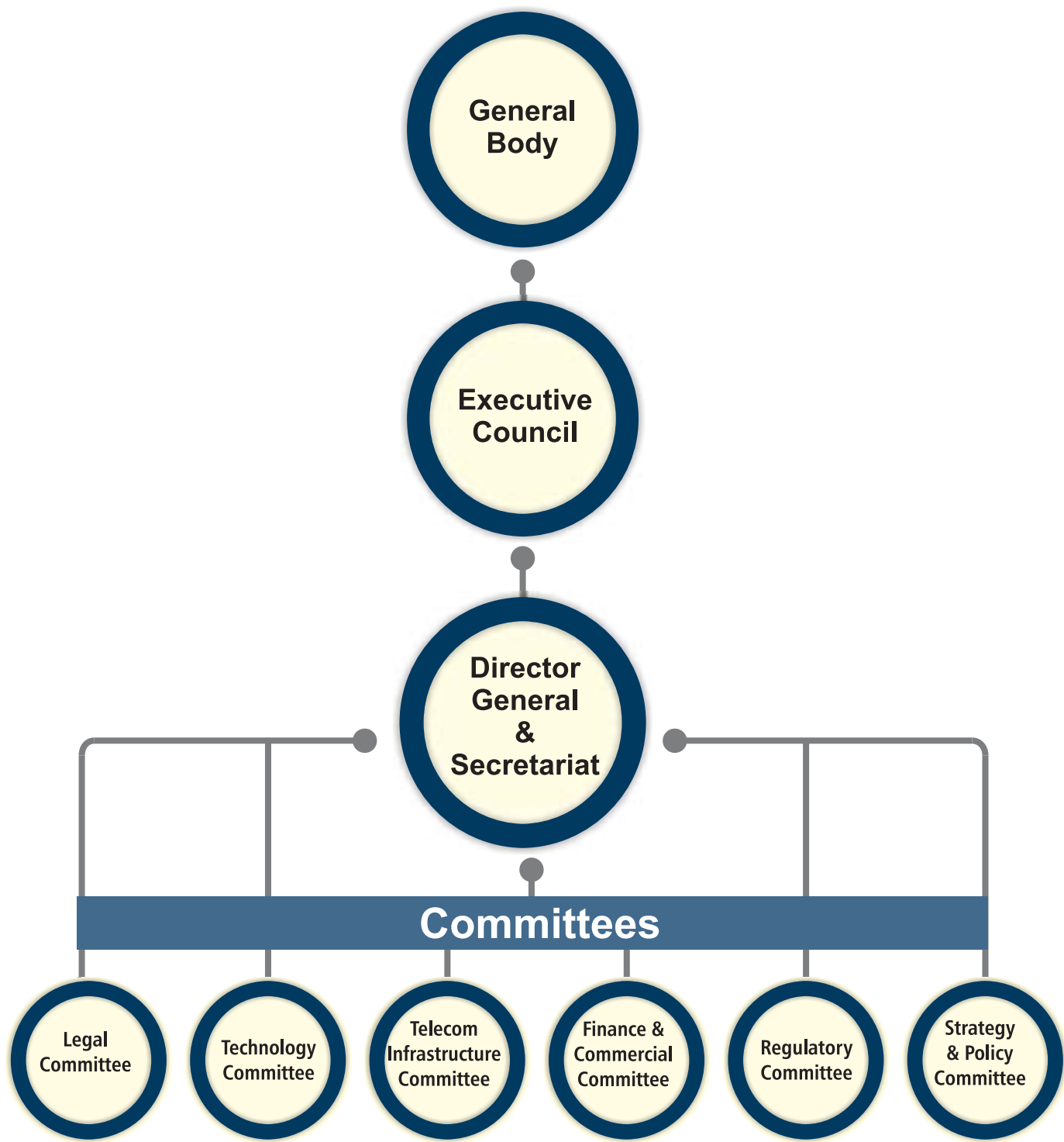
The COAI team includes dynamic, experienced and highly skilled professionals with a must-do attitude and remarkable proficiency in their respective verticals. Lean and yet highly competent, the Secretariat is committed towards the successful implementation of every activity undertaken towards the cause of the industry.

Regular coordination with the Government, the Regulator, relevant state Government departments, and other stakeholders, have established appreciation and recognition of the Secretariat's efficiency and professional prowess, both within, and outside the industry.

This year Ms. Nishi Singh, Assistant Manager – Corporate Communications and Mr. Sarvjeet Singh Sandhu, Assistant Manager joined COAI adding to the Secretariat's strength.

The Secretariat is thankful to all its members and highly appreciates their valuable guidance, mentoring and constant support towards its efficient functioning and productivity.

COAI Structure



Working Groups



COAI Members 2018-19

COAI CORE MEMBERS



Vodafone Idea Limited



COAI ASSOCIATE MEMBERS





COAI

INDIA
MOBILE
CONGRESS 2019
14-15-16 OCTOBER
Aerocity, New Delhi

IMAGINE

a new **CONNECTED** world
Intelligent. Immersive. Inventive

14-15-16 October, 2019
Aerocity, New Delhi

What's New at IMC 2019?



150 Buyers
sellers meet



Grand Innovation
Challenge by AGNI



Technical Deep Dive
Sessions by IEEE-TSDSI



B2C Experience
Zones



Dedicated
mHealth Track



Connected Cars
Show



Confederation of
Indian Industry

Future Logistics
Program



Ministerial
Program



IMC
Awards



Smart City CEOs
Conclave



Global CEOs
Conclave



Enterprise CIO
Conclave

+91-8860649831, +91-9600264868
+91-1123440236

info@indiamobilecongress.com
www.indiamobilecongress.com



COAI

14, Bhai Veer Singh Marg, New Delhi-110001
Tel: +91 11 2334 9275, Fax: +91 11 2334 9276/77
Website: www.coai.com | Email: contact@coai.in



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