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Shri Akhilesh Kumar Trivedi,
Advisor (Networks, Spectrum and Licensing),
Telecom Regulatory Authority of India   September 1, 2023
New Delhi

Dear Shri Trivedi,

Subject: GSMA Response to TRAI Consultation Paper on Regulatory Mechanism for Over-The-Top (OTT) Communication Services, and Selective Banning of OTT Services

The GSMA would like to thank the Telecom Regulatory Authority of India (TRAI) for issuing this Consultation Paper on Regulatory Mechanism for Over-The-Top (OTT) Communication Services, and Selective Banning of OTT Services. and offering the opportunity to provide recommendations on an issue that has occupied a prominent position in the global policy debate.

In this high -level response, the GSMA would like to take the opportunity to offer recommendations on some of the issues raised in the Consultation Paper. With regards to regulation of OTT Communication Services, the GSMA recommends the TRAI to consider the need for regulatory parity between OTT communication services and services offered by Telecom Service Providers (TSPs) , and for large traffic originators (LTOs) to make a fair contribution towards network investments through an appropriate contributory mechanism. With regards to selective blocking of internet, this is a welcome step away from complete internet shutdown. The GSMA recommends that such selective blocking be carried out in a narrow manner allowing essential and basic services to continue, and blocking to be implemented at the source level of the relevant intermediary.

Please find enclosed the GSMA's recommendations. We remain available for further engagements on these pertinent policy issues.

Yours sincerely,

Jeanette Whyte

Head, Public Policy, APAC

GSMA

PART A: REGULATORY MECHANISM FOR OTT COMMUNICATION SERVICES

The GSMA would like to thank the TRAI for this initiative and the opportunity to provide recommendations on this important area of discussion.

TRAI and DoT have previously issued consultation papers on the issue of regulation of Over - the- Top services (2015-2018). The consultations did not lead to a regulatory framework for OTT services as the policy makers did not find that the OTT landscape at the time warranted a regulatory intervention.

However, TRAI's consultation now rightly captures the developments in this regard happening globally and this issue has become a widely discussed topic among global telecom regulators.

In this high -level response, the GSMA would like to take the opportunity to offer recommendations on some of the issues raised in the Consultation Paper. Mainly, the GSMA recommends the TRAI to consider the following:

1. The need for regulatory parity between OTT communication services and services offered by TSPs, that would provide a level playing field by ensuring a regulatory regime that is technologically neutral.
2. Large traffic originators (LTOs) to make a fair contribution towards network investments through an appropriate contributory mechanism.

OTT services are of various types. They include the provision of content and applications such as voice services provided over the internet, web-based content (news sites, social media etc.), search engines, hosting services, email services, instant messaging, video and multimedia content, etc. OTT communication services in particular may be classified as the voice, video and messaging services. Their functional substitutability with services provided by TSPs .i.e. calling and SMS has long been an area of discussion. In the Indian Telecom Draft Bill which seeks to replace the current Telegraph Act, one of the major changes that the Draft Bill has brought in is expanding the definition of "telecommunication services" given under clause 2(21) to include OTT communication services due to the similarity in these services. As a consequence of this, OTT services would also be subject to the same licensing conditions as TSPs. The final version of the Bill is yet to be passed.

From a customer's point of view, SMS/MMS and instant messaging over the internet are substitutes because they deliver the same functionality: sending short messages to users. The reasons to choose one or another may depend on many parameters.

Over recent years, India's rapid digital transformation has been a significant catalyst for the growth of OTT services. The COVID 19 pandemic has further accelerated this shift with digital habits becoming more permanently induced consumer behaviours.

A 2022 GSMA report[1] finds that since 2015 the internet has continued to grow at pace-there were over 4.6 billion users in 2020, representing 59% of the world population. A study of the economics of the subsegments of the internet value chain by the GSMA, shows that the returns are not equally distributed, however, since each subsegment has different underlying economics (e.g., capital intensity, scale factors, market concentration) and operates within different competition and regulatory frameworks. The online services and user interface segments are benefiting most from value-chain growth and generating the largest shareholder returns, whereas the internet access connectivity segment has generated relatively low and even single-digit returns on capital. Over the past six years, average total shareholder returns have been almost flat across the internet access connectivity segment, while other segments have at least doubled investors' stakes and some user interface players have delivered almost sixfold returns over the same period.

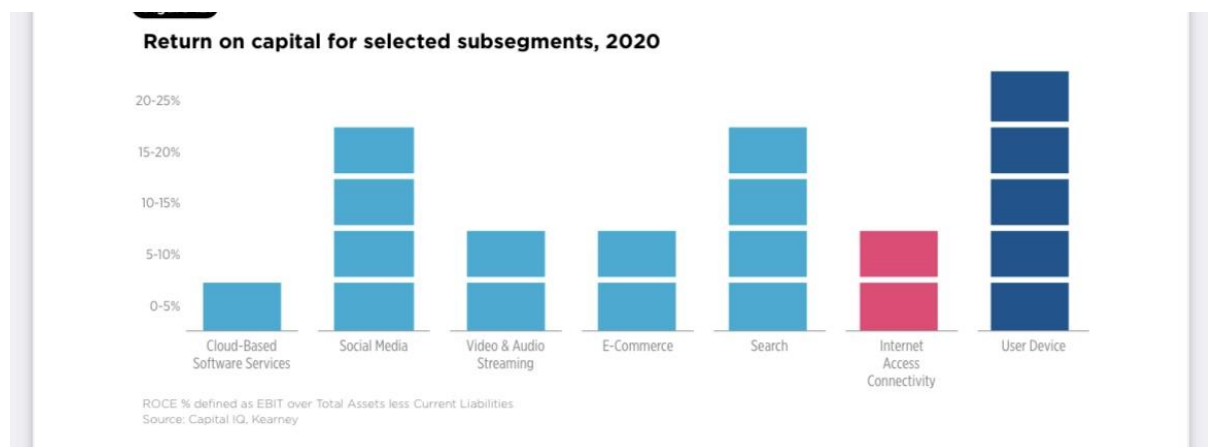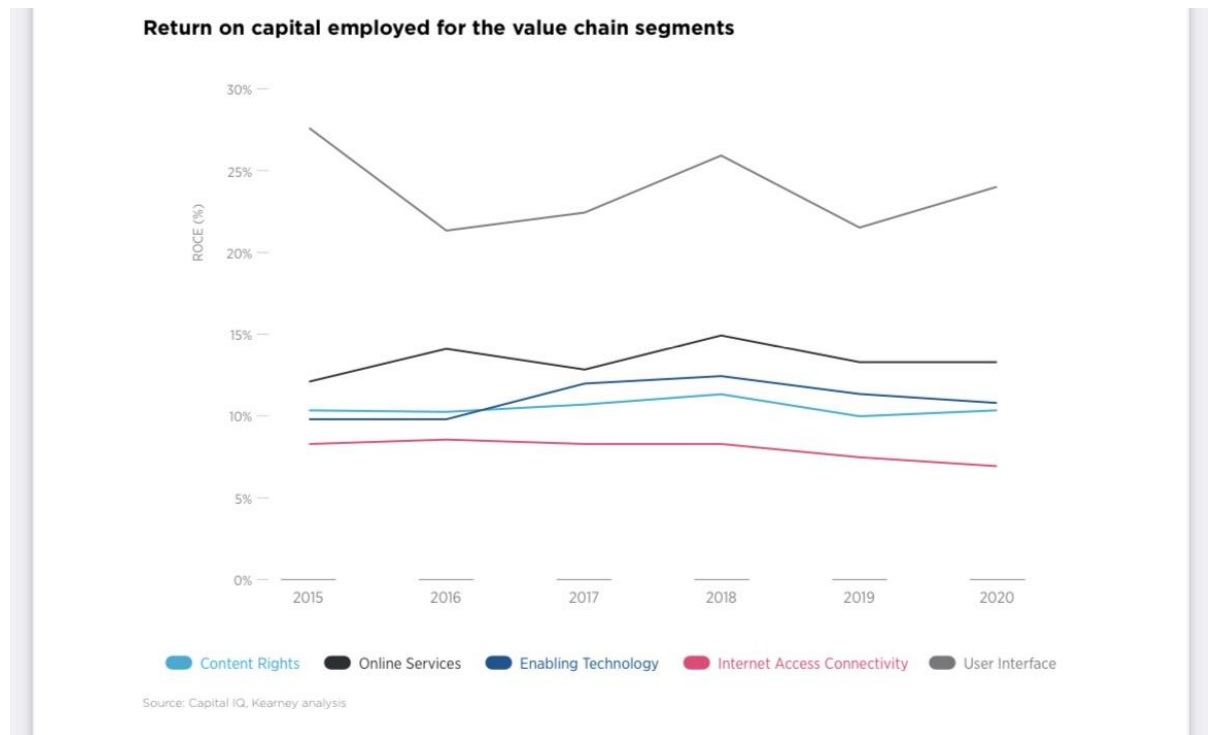Internet traffic growing rapidly, investment in new technologies rising, while ARPUs remain subdued.

- India's data usage is amongst the highest in the world; with CAGR of 53% in MBB data traffic during 2017-22. Data traffic in India jumped 3.2x in last five years, reaching over 14 exabytes per month.
- Indians consume nearly 20GB data per month, and this is expected to reach 46GB by 2027.
- As a result, TSPs are forced to continuously expand & upgrade their capacity to meet traffic demand.
- Increase in mobile data consumption coincides with the launch of 5G in the country in. Indian operators have spent over INR 1.5 lakh crore in the recent spectrum auctions alone and significant investment is being in network and services rollout.
- India's 5G rollout is among the fastest in the world. Within a short timeframe India has deployed over 3,24,192 5G BTSs[2], without any financial support from government.
- India has amongst the lowest data rates in the world. Although the data traffic is growing rapidly, operators' revenues have remained low in global comparison. This decoupled trend shows the telecom industry's difficulty in monetizing new investments required to address increasing traffic demand, which is critical to maintain the sustainability of the sector.
- Low average revenue per user (ARPU) levels and high regulatory costs have limited operators' ability to invest in upgrading their networks.

Although the internet value chain is growing strongly, the benefits and returns are flowing principally to players in the online services segment, while the telecom operators building and running the connectivity infrastructure which underpins these services are not benefitting as strongly as one might expect. Although the operators continue to invest in extraordinarily complex networks that enable the entire ecosystem, the low returns raise questions about the

[1] GSMA | The Internet Value Chain 2022 | Public Policy
[2] https://dot.gov.in/5g-bts-deployed

robustness of continued investment in capacity, coverage and speed of the networks to connect internet users with services.

Return on capital employed for the value chain segments

Source: Capital IQ, Kearney analysis

Return on capital for selected subsegments, 2020

ROCE % defined as EBIT over Total Assets less Current Liabilities
Source: Capital IQ, Kearney

Business leaders and policymakers need to consider the interdependence of the many services making up the internet to ensure that market distortions, regulatory requirements or other factors do not limit the ability of participants across the internet ecosystem to make sufficient returns and that the right incentives are in place to promote the long-term growth of the value chain and to realise the full potential of technology and service innovation.

Regulatory intervention

The current situation is not balanced: the large traffic originators are a small number of large digital platforms which are responsible for most of the traffic growth on the telecoms network.

They enjoy a competitive advantage due to their bargaining power. They generate enormous revenues for themselves through digital access to citizens, whilst creating significant costs for telecom operators. This was the basis for the joint call made by 13 telcos in EU for large content platforms to contribute to the cost of the European digital infrastructure that carries their services in 2021.[3] In 2022, US based telcos AT&T and Verizon put out their own statement, urging the Federal Communications Commission to use money from the "broader Internet economy" to prop up the flailing Universal Service Fund.[4]

After holding consultations[5] on this subject earlier this year, the European Parliament recently proposed that the economic sustainability of telecom networks is essential to achieving the 2030 Digital Compass connectivity targets and high-performance connectivity for all citizens within the EU without jeopardising competition rules. It urged the Commission to address and mitigate persistent asymmetries in bargaining power as set out by the European Declaration on Digital Rights and Principles for the Digital Decade and called for the establishment of a policy framework where large traffic generators contribute fairly to the adequate funding of telecom networks without prejudice to net neutrality.

Similarly in March 2023, Brazil's National Telecom Agency (ANATEL) initiated comments to address a future regulation of digital platforms and the need for fair share. The Request for Comments includes 28 questions, which address, among others, the following topics[6]:

- The impact of new business models and players on the digital ecosystem of telecommunication networks and services, as well as any evidence that networks are struggling to process consumers' data demand.

- The contribution of OTT platforms to the improvement, expansion and maintenance of the network infrastructure that supports their services and needs, as well as the pros and cons of implementing a regulation that establishes the remuneration for the use of telecommunication networks ("network fee"/"fair share").

ANATEL president has stated that the entire telecom ecosystem needs to focus on financial sustainability, including digital platforms, operators and end-users. With the big techs in mind, ANATEL has opened a public comments period for the issue of remuneration of telecom networks. A subsidy survey is underway which aims at debating the duties of large users of telecommunications services. ANATEL officials have also noted that the discussion about fair share is not distributive, but market efficiency, and what must be taken into account is the coordination of actors to obtain the greatest possible efficiency in the market.

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[3] 16 European telcos call on big tech to cough up capex cash | TelecomTV
[4] Many telecom stakeholders want the Universal Service Fund 'paused' for now (fiercetelecom.com)
[5] The future of the electronic communications sector and its infrastructure | Shaping Europe's digital future (europa.eu)
[6] ANATEL initiates Request for Comments to address a future regulation of digital platforms and the need for "fair share" - Demarest

The debate on fair share began first in South Korea and the trial for Netflix's lawsuit with South Korean broadband service provider SK Broadband over fees for using the latter's network has started in the appeals court where Netflix filed an appeal after losing to SK Broadband in the lower court. The outcome of the case is much awaited.

The GSMA recommends a regulatory intervention for OTT communication services, based on key principles that are necessary to strike a fair balance:

- A **contribution mechanism** enshrined in a framework that obliges the parties to act in good faith and based on common principles of fairness and reasonableness.

- A clear threshold to ensure that only large traffic generators who impact substantially on operators' networks, fall within the scope. In Europe, for example, they may be companies that account for more than 5% of an operator's yearly average busy hour traffic measured at the individual network level. Other criteria may also be considered to assess the impact on networks.

- We also recommend traffic on network as the parameter. The objectives of such framework should be to ensure that only the large traffic originators, those exceeding a 5% bandwidth occupation at peak hours[7] measured at individual operator network level, who impact substantially on operators' networks, fall within its scope and make a fair share to the costs of network infrastructure, thus protecting innovation and allowing smaller OTTs to thrive and compete.

- Regulatory parity: Same service same rules: It has often been said that OTT communication services provide the same services as TSPs do, without being subject to the same regulatory obligations – which include licensing, interconnection, rollout obligations, consumer protection, quality of service compliances and other requirements. Unlike the traditional licensed Telcos, OTT communication service providers are being allowed to offer these services even though they do not hold a telecom license in India. Additionally, they contribute to the USOF (5%). TSPs should not be required to contribute towards the Fund as they already make substantial investments in creating network infrastructure. The heavily regulated telecom industry which has incurred significant costs in terms of licence fees, spectrum charges, telecom equipment and security apparatus is on unequal footing with OTTs which offer similar services without incurring similar regulatory cost. Due to the global nature of the internet, and because they have not been considered as equivalent to traditional communication services, many OTT communications services sit outside the scope of sector-specific national or regional regulatory and fiscal obligations (e.g., e-privacy, legal interception, emergency calls, universal service contribution, national specific taxes, consumer rights and quality of service) that have been put in place to protect consumers and ensure that all providers make a fair and proportionate contribution to local economic growth through investment, employment and tax. Regulatory asymmetries must be eliminated by applying the same rules to the same services,

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[7] Busy/Peak hour is defined as 60 minute period of highest bandwidth usage within a week. Provided data average of one year (52 weeks).

regardless of the technology used or the geographical origin of the provider. This will make user experience consistent with regard to quality of service, security, transparency and privacy. The revised European Electronic Communications Code differentiates between "number-based interpersonal communications services" (NB-ICS), such as those interconnected with the public telephone network, and "number-independent interpersonal communications services" (NIICS), which includes OTT communications apps that ride over the network. The EU has created separate regulatory regimes for NB-ICS and NI-ICS, subjecting NI-ICS to regulation as well.[8]

- Light touch and horizontal regulation for all: In general, prescriptive, ex ante regulatory regimes like those traditionally governing communications markets are no longer effective in the face of rapid innovation. In many cases, as competition increases, the need for such regulation has disappeared altogether. The persistence of outdated rules not only harms competition and slows innovation, but also fails to achieve regulatory objectives. Regulation should be functionality-based rather than based on structure or technology. That is, regulation should be designed to achieve its objective in the most efficient way (i.e., to be 'cost effective'), without regard to technologies, industry structures, or legacy regulatory regimes. Secondly, because digital ecosystem markets are dynamic and complex, regulation also needs to be flexible. It needs to accommodate rapidly changing markets and technologies and create enough regulatory confidence for companies to take risks. Thirdly, the profound and sweeping changes in the digital ecosystem imply that regulatory polices need to be rethought from the ground up. In many cases, intense competition in the digital ecosystem means that regulation is no longer needed, or can be significantly scaled back. In other areas, such as privacy and cyber security, new regulatory challenges are emerging. Regulatory reform discussions should follow a bottom-up approach that takes entirely new approaches into consideration - and is willing, where appropriate, to jettison old ones

To make the telecom network sustainable, there is a need to reduce the regulatory and fiscal burden faced by telecom operators. These include reforming the complex spectrum pricing structures which continue to be much higher than the global trends. While the big bang reforms implemented in September 2021[9] were a positive step towards lessening the fiscal burden, and contributed to the success of the subsequent 5G auctions, more such policy initiatives are needed. There is need to adopt a collaborative approach by including all relevant stakeholders, more dialogues and consultations in order to ensure the issues of telecom operators are addressed without imposing an additional burden on OTT service providers. The importance of less regulation for all parts of the digital ecosystem in current times cannot be stressed enough.

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[8] | BEREC (europa.eu)
[9] Press Information Bureau (pib.gov.in)

Net neutrality

The mobile industry supports the principle of open internet so that users can access the contents, apps and services of their choice with the best possible experience and without discrimination. Unlike fixed networks, however, the performance and quality of experience of mobile networks are more sensitive to variation in traffic and variations in environmental conditions. For mobile operators to be able to offer an efficient user experience, they must have the flexibility to manage traffic transparently and protect users from major internet threats (spam, malware etc).

We do not foresee any potential challenges that may arise out of a collaborative framework. Rather, we believe that a legislative / regulatory framework that allows fair contribution towards creation of digital connectivity infrastructure, will help address the sustainable investment challenges that the industry faces.

Mobile operators face unique operational and technical challenges in providing fast, reliable internet access to their customers, due to the shared use of network resources and limited available spectrum. Unlike fixed broadband networks where a known number of subscribers share capacity, the capacity demand at any given cell site is much more variable, as the number and mix of subscribers constantly changes. The available bandwidth can also fluctuate due to variations in radio frequency signal strength and quality, which can be affected by weather, traffic, speed and the presence of interfering devices, such as wireless microphones.

Consumers are demanding a growing amount and variety of content on their mobile phones. Given limited network capacity, mobile network operators need the flexibility to differentiate between types of traffic to provide an optimal consumer experience. Driverless cars, telemedicine and smart homes will depend on managed delivery of data. Regulations should not hinder the development of innovative services by imposing a blanket prohibition of prioritised service delivery models. Regulation that limits operators' flexibility to manage networks and offer a variety of service models is counterproductive and hinders innovation and consumer choice.

The principle of the open internet and allowing operators to offer their customers a variety of service options are not mutually exclusive. As the net neutrality debate has evolved, policymakers in various countries have come to accept that network management plays an important role in service quality. In 2015, the DoT Committee on net neutrality has recommended that legitimate traffic management practices may be allowed subject to the core principles of net neutrality.[10] Following which TRAI has recommended in 2017 that it may, from time to time, frame appropriate regulations to specify further details regarding the scope and assessment of reasonable traffic management practices and that reasonable traffic management practices and certain other legitimate purposes must be regarded as exceptions to the requirements of non-discriminatory treatment in the provision of Internet Access Services.[11]

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[10] Microsoft Word - Draft_Recommendations_NN_2017_11_28-FINAL.docx (trai.gov.in)
[11] Id.

The GSMA would recommend the Indian policymakers to consider the following when framing policies on fair share:

    i.   The fair share proposal is fully compliant with net neutrality obligations.

    ii.   Any collaborative framework for fair contribution between OTT and licensed TSPs will not affect access to an open and free Internet.

    iii.   Need for systemic traffic generators to contribute fairly to network deployment has nothing to do with the net neutrality debate. It does not involve anyhow a differentiated traffic management or unequal treatment of LTGs traffic.

    iv.   Net Neutrality does not prohibit charging LTGs for the service they receive, provided that such agreements and commercial practices do not limit the exercise of the rights provided for in the Regulation.

    v.   Content and services will remain fully accessible with no traffic management/ differentiation implemented. There will be no throttling, no blocking, and no paid prioritization.

    vi.   There is no violation of net neutrality if a peering charge is applied at an interconnection point between two networks to compensate for an imbalance of data traffic. This charge is applied in relation to the volume of the traffic and not for certain data from certain OTT.

    vii.   Such interconnection peering charge has no influence on the access of end customers to any content. Thus, network neutrality would not be at stake in this situation.

    viii.   The price for the traffic paid by end users will not change depending on whether the traffic originator is subject to fair share payments or not.

    ix.   By defining a threshold to be subject to the obligation, only largest traffic originators will have to pay for the service of delivering their traffic to end users.

PART B: SELECTIVE BLOCKING

From time to time, mobile operators receive orders from government authorities to restrict services on their networks. These service restriction orders (SROs) require operators to shut down or restrict access to their mobile network, network service or OTT service. Orders include blocking particular apps or content, restricting data bandwidth and degrading the quality of SMS or voice services.

SROs can have serious consequences. For example, national security can be undermined if powers are misused, and public safety can be endangered if emergency services and citizens are unable to communicate with one another. Freedom of expression, freedom of assembly, freedom to conduct business and other human rights can also be affected.

UNESCO has highlighted the key role played by information and communications technologies for culture and development and in its work to build Knowledge Societies rooted

in the need for all to have the opportunity to access information and to express ideas and interests in an open and inclusive environment that fosters and benefits from diversity of opinion.

Individuals and businesses can also be affected by an SRO, unable to pay friends, suppliers or salaries. This can have a knock-on effect on credit and investment plans, ultimately damaging a country's reputation for managing the economy and foreign investment and discouraging donor countries from providing funds or other resources. MNOs also suffer. Not only do they sustain financial losses from the suspension of services, and damage to their reputation, but their local staff can also face pressure from authorities and possibly even public retaliation.

The GSMA discourages the use of SROs. Governments should only resort to SROs in exceptional and pre-defined circumstances, and only if absolutely necessary and proportionate to achieve a specified and legitimate aim that is consistent with internationally recognised human rights and relevant laws.

Selective blocking shows a move away from complete internet shut down and is a welcome step. In order to implement selective blocking, the GSMA recommends the following:

1. Narrow restrictions where required with basic and essential services to continue. The consequences of a not so narrow selective blocking mechanism could be adhocism, leaving users with little to no recourse, an increase in the compliance burden on MNOs, and an overall negative impact on user experience as well as choice. In India, it is recommended that only the competent personnel as authorised by the Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rules, 2017 shall issue orders to suspend telecommunication services and no blanket delegation of authority should be permissible and such issue orders prescribe a time frame for suspension and be published publicly.

2. Blocking is done at the source level for it to be effective. Content takedown orders are issued directly to entities hosting the content. Similarly, the OTT services and the entities hosting the websites purported to be blocked should directly be involved in the blocking as the appropriate stakeholders, instead of relying on TSPs/ISPs. GSMA recommends that if the approach of blocking of OTT services/websites through Telcos/ ISPs is continued with, several technical challenges will continue to persist.

The Telcos have no control over the systems of OTT services/websites and, hence, such blocking may not be completely effective/possible if it is done through the TSPs/ISPs. Instead, if the specific OTT service/websites are directly involved in the process, they would be better equipped to devise a procedure for effective blocking as it would be better aware of how its systems work and how they can be controlled. Direct involvement of the concerned OTT services and websites in the process will also ensure that the normal data continues to run without having any negative impact on the economy or other digital services.

International experience

In a Joint Statement[12], Global Network Initiative and Telecommunications Industry Dialogue, stated that Government-ordered disruptions of communications networks and services are on the rise. The consequences of such orders can be as dire as the security threats they ostensibly target. They cut off citizens from essential information and contact with loved ones, impede the work of emergency and security services, and undermine economic activity.

The Freedom Online Coalition, a Coalition established in 2011 at the Hague and now has 37 members spanning across Asia, Africa, Middle East and Europe encourages governments to adopt the accompanying good practices proposed to refrain from these types of network disruptions while bolstering multi-stakeholder, participatory and inclusive Internet governance, strengthening Internet infrastructure, and improving transparency.

The Australian Government has released whole of government guidelines for the use of section 313(3) of the Telecommunications Act 1997. Section 313(3) provides government agencies with the ability to seek assistance from telecommunications providers to disrupt access to illegal online services through the blocking of websites. The Good Practice principles are:

1. Obtain authority from the agency head as a minimum to be able to make use of section 313(3) to disrupt access to online services
   - Ensure each request to an internet service provider is approved by an Senior Executive Service officer or equivalent
2. Develop, maintain and publish internal policies and procedures for disruption requests
   - Specify how long a disruption is to remain in place
   - Monitor and evaluate disruptions

3. Limit disruptions to serious criminal or civil offences, or threats to national security

   - Make requests as targeted as possible
   - Consult internet service providers prior to making a request

4. Provide information to the public through media releases, online posts, 'stop pages' and annual reporting

5. Have procedures in place to support complaints and reviews

6. Have access to the appropriate technical expertise

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[12] GNI Welcomes Freedom Online Coalition Joint Statement on State-Sponsored Network Disruptions – Global Network Initiative
Global Network Initiative and Telecommunications Industry Dialogue Joint Statement on Network and Service Shutdowns – Global Network Initiative

Information and communications technology are key to the growth and prosperity of digital nations. India has witnessed the largest number of complete internet shutdowns in the world in recent years. The step to implement selective blocking is a welcome one. In order to realise its Digital India ambitions, policy makers need to take active steps to ensure that such blocking is adopted in exceptional circumstances and implemented in a narrow manner that has the least disruptive impact on the country as a whole.