



Foreword from PwC^{p2} / Messages from ASSOCHAM^{p3} / Digital: Transforming day-to-day lives^{p6} / Digital India: Connecting people with the government^{p8} / Key Digital India initiatives^{p10} / Roadblocks in implementing Digital India^{p18} / Enablers of Digital India^{p22} / Recommendations for the way forward^{p24}

Digital India

Targeting inclusive growth



Foreword



Rakesh Kaul
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Digital innovation is disrupting economies, sectors and industries across the globe and transforming the way we live, work and run businesses. Although India is ranked 107 out of 193 countries in the UN E-Government Development Index, given the size, scale and complexity of challenges, it is steadily catching up in this digital revolution. The launch of the Digital India programme in 2014 ushered the country into the league of nations that are transforming their economies and governance with the power of technology. Since then, Digital India has touched upon nearly all aspects of our lives, ranging from work, travel and communication to healthcare, education and shopping. The push for e-governance and Digital India comes from the booming telecom sector, increasing Internet penetration and proliferating mobile devices. As citizens become more and more tech savvy, their aspirations and needs are expected to surge in terms of the quality of services and the way cities are governed. Thus, a shift towards citizen-oriented governance is imminent and Digital India is a significant enabler in the journey towards this transition.

Digital technology is playing a vital role in helping our country leapfrog to the next stage of development. It is bridging the gaps in financial and social inclusion with initiatives such as Direct Benefit Transfer (DBT). Moreover, digital technology is plugging the gaps in physical infrastructure to some extent with projects such as Swayam online courses. Thus, technology is an enabler for our country to progress socially and economically. The thrust is now to take these benefits of technology from the block level to the district level. Also, the use of emerging technologies such as the blockchain and data analytics could help in rendering services to the masses. In the wake of the rising incidence of cyber security and data breaches, it is also imperative to enhance our security and spread awareness on good cyber security practices.

This knowledge paper has been prepared for the 13th National Summit on e-Governance & Digital India organised by the Associated Chambers of Commerce and Industry of India (ASSOCHAM). It aims to provide an overview of Digital India, selected initiatives, roadblocks, global case studies on how digital has transformed governance and people's lives, and recommendations for the way forward. Finally, it is hoped that this knowledge paper will drive conversations on taking Digital India forward to transform the landscape of India.

2.1.

Message from the President, ASSOCHAM



Sandeep Jajodia
President, ASSOCHAM

For many years now, through the National Summit on e-Governance & Digital India, ASSOCHAM has created a platform for the central ministries, state and industry to come together and deliberate on the way forward for Digital India.

The main focus of the National Summit is to help accelerate statewide inclusive growth through the effective implementation of the Digital India programme so that its benefits reach the grass-roots level in the remotest of areas. Creating a digital society will be key to the competitiveness of nations in the near future. A digital society is broader than a 'digital economy'. A digital society integrates all social spheres and lends a competitive edge to the overall economy. The post demonetisation scenario has further emphasised the importance of cashless digital transactions which are possible only if we have a digitally serviced society.

E-governance initiatives in India have traditionally been confronted with the dual challenges of automating government departments and taking online services to the common man. It has lately moved well beyond government departments just having a portal and streamlining and automating processes. It is now about empowering both the government and the citizen. Technology will be the enabler and provide a platform for interaction, promoting increased transparency and revolutionising public service delivery.

We sincerely hope that all the stakeholders will gain immensely from the deliberations at this national summit and achieve the objective of creating a digital India.

I convey my good wishes.

2.2.

Message from the Secretary General, ASSOCHAM



D S Rawat
Secretary General, ASSOCHAM

Effective implementation of e-governance is a key component of the Digital India programme. Digital connectivity is making sweeping changes to the socioeconomic and geopolitical map of the world. From entertainment to commerce, education to health, a digital society is at the heart of this worldwide transformation. The ICT industry is connecting billions of people by the transformative power of the Internet and mobilising every device we use in our daily lives. In fact, we are in the midst of a digital revolution that is being driven by the connectivity revolution.

Through the National Summit on e-Governance & Digital India, for more than a decade, ASSOCHAM has created a platform for the central ministries, state and industry to come together and deliberate on the way forward for Digital India.

The main focus of this national summit is promoting statewide inclusive growth through the effective implementation of the Digital India programme and allowing its benefits to reach the grass-roots level. Through this summit, ASSOCHAM wishes to take forward the Hon'ble Prime Minister's vision of a digitally connected India to the state level and bring about harmonious growth using digital technology as the great enabler.

The 13th e-Governance National Summit is another step in this direction, and we sincerely hope that all the stakeholders will gain immensely from the deliberations at the summit in achieving the objective of creating a digital India.

I convey my good wishes for the success of the summit.

2.3.

Message from the Chairman, ASSOCHAM

Aimed at creating a digitally converged society, the Digital India programme provides the greatest opportunity that we have ever had to make rapid and solid advances in social and economic development. Creating a digital society will be key in the competitiveness of nations in the upcoming years. A digital society is broader than a 'digital economy.' A digital society integrates all social spheres and lends a competitive edge to the overall economy.

We all recognise the vital importance of broadband as a social and economic development tool, and as a critical component of a smart society. The Digital India programme is aimed at further bridging the divide between digital haves and have-nots. It is an opportune time for both the industry and the government to form a synergistic partnership towards bolstering India's socioeconomic development through digital empowerment. The initiatives of e-health, e-education and a wide variety of citizen services can be delivered to rural citizens subject to conducive and progressive policy initiatives by the government and with the participation of the entire ecosystem. However, the need of the hour is to adopt a grass-roots approach starting from the state level, with key enablers being awareness building and imbibing the benefits of e-services especially for the underserved parts of the country.

The 13th National Summit on e-Governance & Digital India is aimed at providing a fillip to the Digital India campaign by tackling grass-roots issues. After all, Digital India can only be achieved when it reaches the states and its people to create multitudes of jobs and unleash untapped sectors such as rural BPOs and a wide variety of government-to-citizen services in the form of e-education, mobile finance and m-health, among others.

The wide spectrum of participants will provide a one-of-a-kind deliberation with the focus of creating a digital India. I wish 13th National Summit on e-Governance & Digital India a grand success.



Umang Das
Chairman
ASSOCHAM National Council on
e-Governance & Digital India

3. Digital: Transforming governance and day-to-day lives

Digital was another name for information technology (IT) a decade ago. Digital is no longer just about computers and the Internet but also about mobile phones, social networking, augmented and virtual reality, block chain, artificial intelligence (AI), mobile apps and much more. Over the years, there has been a tremendous shift in the way IT has been used. The focus of IT is now moving from simple productivity improvement and automation to making lives simpler and connected. Digital technology has transformed our life and work across various institutions, sectors and industries. Decades ago, it was hard to imagine mundane tasks such as grocery shopping and consultation with a doctor taking place over a video call from the comfort of home. Life is now unimaginable without smartphones or high-speed Internet. Digital has pervaded nearly all aspects of our lives, be it health and transport to shopping, education and work life.

The global population is forecast to increase by over a billion people in the next 13 years to reach 8.6 billion in 2030.¹ India's population is expected to reach 1.35 billion by 2020. Emerging economies are expected to contribute a majority of the increase in global population. By 2020, a full generation, Generation C (for connected), would have grown up in a digital world of texting, social networks, mobile devices and apps and the Internet.² Population explosion and increasing digital awareness call for significant changes in the way cities are run and governed and public services delivered to people. Citizens now anticipate more personalised, connected experiences with the government. This is where the role of digital becomes all the more vital.

The expectations of a modern-day connected citizen are manifold; some of the basic ones are listed below:

1. Availability of public services on demand
2. Awareness of services and government initiatives and consequent reduction in physical visits to government offices for processing of requests
3. Omnichannel delivery of services
4. Single point of access for all government services
5. Responsive government systems
6. Transparency in processes
7. Alerts and notifications
8. Engagement/feedback mechanism

The expectations of citizens are rising. These new aspirations are the driving force behind the transformation of public service delivery, primarily in high-impact areas such as health, education and social benefits. With many services such as booking a cab or ordering food made convenient and fluid with the advent of mobile apps, comparisons between these services and government services are inevitable. People expect more responsiveness, agility, and accountability from government services. The digital transformation in governance and public service delivery with information and communications technology (ICT) is not just enhancing productivity and efficiency but also improving the user experience and promoting connectedness with citizens.

Though governments are making efforts to enhance service delivery through portals, apps and help desks, last mile connectivity and personalisation remain a challenge with regard to citizen services. Governments need more capacity to comprehend and respond to intricate issues and seamlessly provide services aligned with national and citizens' aspirations. A start has been made in this direction and it needs to be taken forward with the next leap to fulfil the aspirations of people.



¹ United Nations. (2017). World Population Prospects – The 2017 Revision. Retrieved from https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf (last accessed on 6 October 2017)

² Strategy&. (2017). The Digitization megatrend. Retrieved from <https://www.strategyand.pwc.com/global/home/what-we-think/digitization/megatrend> (last accessed on 6 October 2017)



4. Digital India: Connecting people with the government

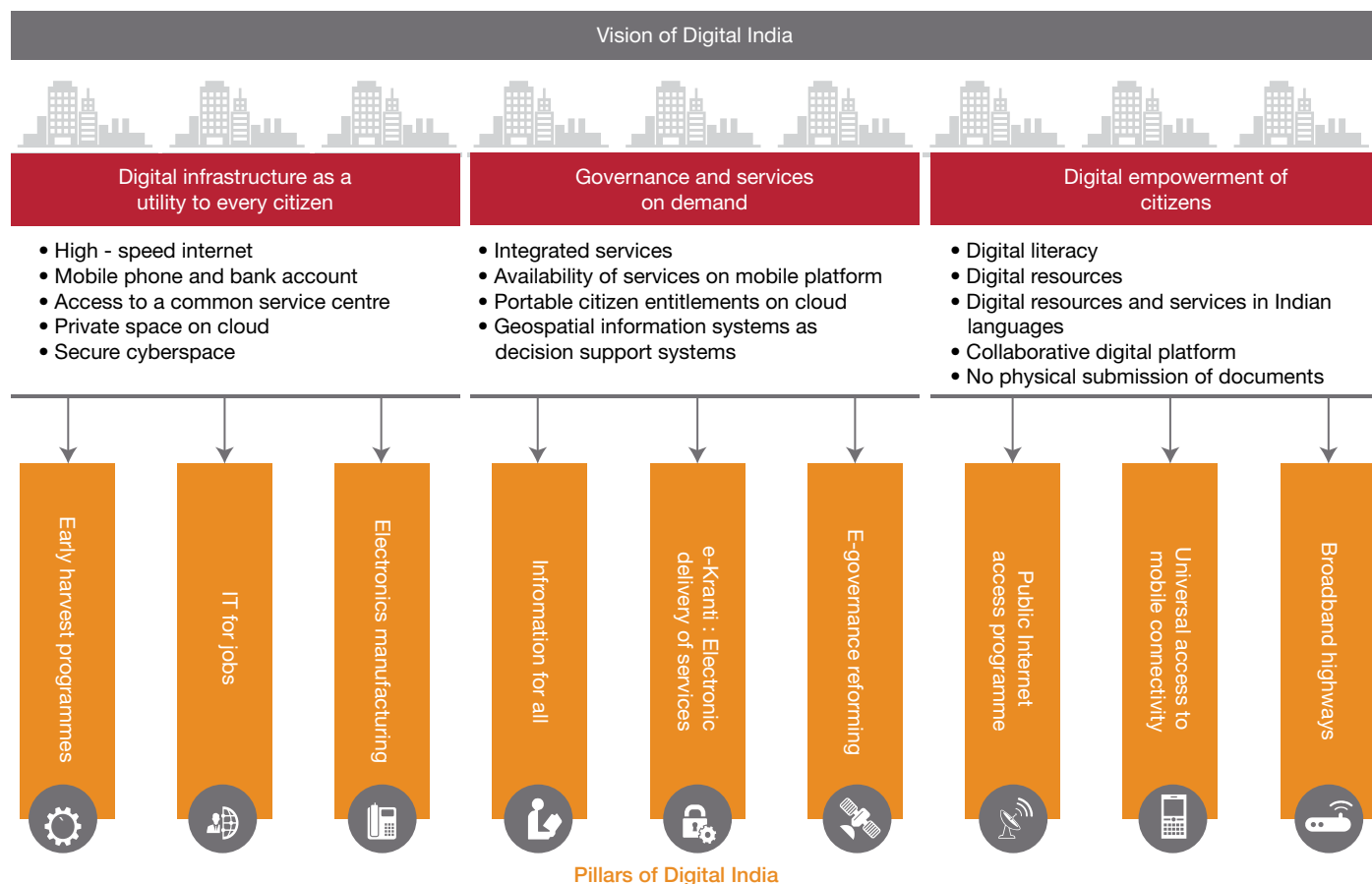
The upside to rapid globalisation and our technologically superior culture is the rise of empowered citizens who are exposed to the nuances of technology and adept at its usage. However, this also increases their expectations from the ecosystem of public services. The Indian government has continuously rolled out schemes and programmes with a vision to address this aspect. However, the rapidly changing expectations have broadened the scope of digitisation. Although we have covered a lot of ground thus far, there is much more scope to explore and transform.

The launch of the National e-Governance Plan in 2006 with 31 mission mode projects was one of the first few structured initiatives focused on making the government citizen centric.³ Since then, the programmes have transitioned from being focused on not only on service delivery but also the creation of a knowledge economy and a sustainable business ecosystem. The target group has widened and so have their expectations.



4.1. Understanding Digital India

The Digital India programme is a formalised initiative by the Government of India launched on 2 July 2015. The campaign envisages a complete digital transformation of society and the development of a knowledge economy. The programme has been structured into three vision areas and nine pillars. After restructuring and refocussing, existing schemes and initiatives have been brought under each of these pillars.



³ MeitY. (2017). National e-Governance Plan. Retrieved from <http://meity.gov.in/divisions/national-e-governance-plan> (last accessed on 6 October 2017)



4.2. Stakeholder perspective

4.2.1. Central Government

The ministries and departments play a critical role in conveying the objective of Digital India schemes to the implementation agencies. The schemes under the various pillars of Digital India require a massive amount of groundwork and coordination amongst different teams. Establishing best practices and making sure the projects fulfil the objectives envisioned under the umbrella of Digital India is one of the key responsibilities of the ministries. Gauging feasibility and understanding the implementation plan are another major area of work.

4.2.2. State governments

The government bodies understand citizens' requirements and map them to various initiatives. They are accountable for the programmes under their ambit. States also have a critical role to play. India has been on the path to digitisation since a long time. As states have better visibility into all such initiatives, they can act as a liaison and help scale all such initiatives to benefit the larger group. Also, these initiatives are tried and tested and can be used to formulate best practices for other initiatives. States can also help in getting the feedback of citizens for initiatives already in place. This way, the understanding of citizens' requirements will be strengthened.

4.2.3. Corporations

Public sector undertakings (PSUs) can also play a major role by digitising their services. Public sector banks, private players and insurance companies are assisting the government in realising the goals of financial inclusion and a cashless economy.

4.2.4. Citizens

The citizens also have a critical role to play in the successful implementation of Digital India initiatives. One of the key responsibilities is providing timely feedback to the government. Citizen engagement platforms like MyGov enable citizens to share their ideas and contribute to the Digital India campaign. People should come forward and contribute towards building a digital society.



5. Key Digital India initiatives

Digital India is a revolutionary initiative that has transformed our country into an empowered economy. The initiative has played a key role in improving the quality of life of citizens by providing access to services on mobile devices and digital identity. With Digital India, people can apply for licences online and receive updates on the status of their application. Moreover, citizens can apply online for appointments at premier government hospitals or obtain pension at their homes without having to visit the agency. Digital enables people to book their railway or airline tickets through mobile phones, thereby saving time and cutting down on the time spent in queues at ticket counters. Some of the initiatives of Digital India are discussed below.

5.1. Digital payments in India

Digital payments are witnessing a massive upswing. India's digital economy has come a long way, and today multichannel delivery has become imperative for every business. The shift from a cash-based economy to a card-based and mobile transaction economy has been dramatic.

According to NITI Aayog, the volume of digital transactions in 2016–17 touched 10.9 billion INR, registering a growth of about 55% over 2015–16. The corresponding growth rate in 2015–16 was 49.4%. There was an increase of 74% increase in digital payments acceptance infrastructure, with the number of point of sales (POS) devices jumping from 1.51 million in October 2016 to 2.62 million in April 2017. The payment protection insurance (PPI) segment registered a spectacular growth of 162.5% in volume of transactions during 2016–17 as compared to 137.8% in 2015–16. In value terms, total digital payments touched 21,41,071 billion INR, registering a growth of 24.2% in 2016–17. The Immediate Payment Service (IMPS) segment has exhibited robust growth of 153.5% in 2016–17 in value terms. All modes of transfer like Real Time Gross Settlement (RTGS), National Electronics Funds Transfer (NEFT), debit cards, digital wallets and Unified Payments Interface (UPI) have shown positive growth from October 2016 to April 2017.⁴

RBI has granted 11 payment bank licences,⁵ 10 small finance bank licences (in 2015) and licences to 71 scheduled commercial banks (SCBs)⁶ to operate as payment banks. Payment banks are meant to provide basic banking benefits to the financially excluded citizens of India.



⁴ NITI Aayog. (May 2017). Booklet on measurement of digital payments: Trends, issues and challenges. Retrieved from <http://niti.gov.in/writereaddata/files/Booklet%20on%20Measurement%20of%20Digital%20Payments.pdf> (last accessed on 6 October 2017)

⁵ Kerala Banking. (2015). List of payments banks in India. Retrieved from <http://www.keralabanking.com/list-of-payments-banks-in-india/> (last accessed on 6 October 2017)

⁶ BCSBI. (2015). Scheduled commercial banks. Retrieved from http://www.bcsbi.org.in/LOM_ScheduledCommercial.html (last accessed on 6 October 2017)

5.2. AADHAAR and DBT

The Jan Dhan, Aadhaar, Mobile (JAM) trinity encapsulates the government's strategy for inclusive growth. Aadhaar plays a pivotal role in this endeavour. Aadhaar's potential in benefit and service delivery is one such area, where it can be used effectively as a tool to foster inclusive growth.

Aadhaar-enabled Direct Benefit Transfer (DBT) is a major governance reform initiative to bring greater transparency and accountability in public service delivery. DBT, with Aadhaar at its core, encompasses subsidies and benefits that may be either in cash or kind as well as services. Through its authentication services (demographic/OTP based/biometric), Aadhaar provides for accurate and targeted beneficiary identification. Consequent benefits accrue both to citizens and government. A citizen who is at the receiving end benefits from inclusion, reduced rent-seeking, ease of availing services and a robust ecosystem that serves to empower. From a governance perspective, beyond the obvious gains of transparency, accountability, reduced leakages and fraud, Aadhaar-enabled DBT allows for efficiency gains in scheme delivery and real-time governance through connected systems.

Beyond effective targeting, authentication and deduplication, Aadhaar-enabled DBT also seeks to transform the Indian financial landscape from one that is cash reliant to one that nurtures financial inclusion. With individuals seeding their Aadhaar numbers with their bank accounts, Aadhaar has emerged as a financial address by allowing for transfer of

'cash benefits' directly to beneficiaries' bank accounts without requiring their bank account numbers and IFS Codes. Further, it has paved the way for Aadhaar Enabled Payment Systems (AEPS) that seek to provide doorstep cash-in/cash-out services and electronic transfers using individual Aadhaar numbers. It facilitates inclusive growth by improving last mile delivery. DBT-GIS is an initiative of the Department of Financial Services that seeks to map and provide real-time information on this ecosystem of last mile delivery enablers and identify un-serviced areas. Further, DBT has provided impetus to the private sector to develop financial products and services by leveraging this ecosystem. In its present form, DBT has laid the foundation for creating an ecosystem which is not only technology-enabled but also collaborative.

Under the aegis of the DBT Mission, DBT cells have been set up in all Central Ministries and state governments. This has led to the identification of over 500 schemes and services across over 60 Central Ministries and efforts are ongoing at the state and union territory (UT) level.

The number of schemes monitored under DBT was initially 27, which has increased up to 140 in March 2017. Till March 2017, 1,82,671.36 crore INR has been disbursed to 35.7 crore beneficiaries.⁷

As per latest government figures, savings due to Direct Benefit Transfer (DBT) over the last three years have touched 50,000 crore INR as on 31 December 2016.



⁷ DBT Government of India website: <https://dbtbharat.gov.in/> (last accessed on 6 October 2017)

5.3. E-education (SWAYAM)

The Study of Webs of Active – Learning for Young Aspiring Minds (SWAYAM) project is aimed at providing learning opportunities to students anytime, anywhere and at any place, but within a structured curriculum.

Thus, SWAYAM is unique because it consists of massive open online courses (MOOCs) in a controlled environment. Free of cost courses are available for all students from 9th standard to PhD. SWAYAM has been conceptualised as a comprehensive, multipronged, transformational project. Key aspects of this project include:

- Collaborative multi-stakeholder platform including students, educational institutions, universities, content developers, project Invigilators and national coordinators and other certification partners;
- Self-assisted pedagogy and learning methodologies;
- National framework for education credit exchange based on certified curricula;
- Industry demand driven availability of courses.

The multilingual MOOC platform and its associated apps will enable students/learners to access the portal and discover their courses of choice, sign up (one-time), enrol in courses, learn through self-paced pedagogy, complete their course and finally go through the assessment cycle to achieve their credits. On completing a course, the portal will also allow the students to pay for the examination and generate a hall ticket. The portal will allow educators to sign up, create and manage courses, and upload course credits which can subsequently be downloaded/printed by the student.





5.4. E-health: Transformation in the health industry

Technology can play a vital role in improving the way health services are delivered and how policy-related decisions are made. Globally, the healthcare sector is going through a fundamental shift with regard to how information is stored, shared and accessed, and in turn, how all these can change the way health services are rendered. Transformation initiatives are driven with the aim of accomplishing a subset or all of the following objectives:

- Comprehensive services across the continuum of care by integrating information of the patient across multiple health IT systems, sub-centres and centres to obtain a comprehensive record
- Offer data-driven and personalised consultation because of the presence of digital data
- Single-window online channel to offer care to a wide range of healthcare services
- Data-driven policymaking by the government because of the presence of adequate data in digital form

The following are some of the ICT initiatives in the healthcare domain:

- Electronic health records (EHRs)
- Personal health record
- Telemedicine
- Chronic disease management systems
- Clinical decision support
- Electronic transfer of prescription
- Radio-frequency identification (RFID) and barcoding
- Business intelligence (BI) in detecting disease patterns

5.4.1. Digital health with e-Hospital@NIC

Standing in queue for an appointment with the doctor at a major government hospital or physically visiting the hospital to check blood availability is now a thing of the past. e-Hospital is a one-stop solution for addressing these concerns and connecting patients, hospitals and doctors on the digital platform.

e-Hospital is an end-to-end application software for the management of key functional areas of hospitals such as clinical, administrative, billing and insurance operations. The software is a hospital management information system (HMIS) for facilitating the management of various processes and services in hospitals. The patient interface of e-Hospital is implemented through an online registration system (ORS), an application portal to help patients make online appointments at hospitals. e-Hospital and ORS eliminate the need to wait in queue for appointments or physically visit hospitals to collect laboratory reports. Since e-Hospital is cloud-based, it relieves hospitals of the burden of application and server management.

**e-Hospital⁸*

Number of connected hospitals: **139**

Total number of outpatient department (OPD) registrations on the portal: **5,38,4372**

Total number of follow-up registrations on the portal: **26,91,361**

ORS⁹

Number of connected hospitals: **123**

Total number of online appointments: **10,60,449**

**as of 28 September 2017*

5.5. Internet connectivity in rural areas

Broadband Internet plays a critical role in the economic growth of the country. A report by Ericsson and Imperial College suggests that a 10% increase in mobile broadband adoption may drive a 0.6–2.8% increase on average in economic growth.¹⁰ Given the critical role the Internet plays in the economy, it is imperative that developing countries plan for bridging the digital divide that exists between the haves and have-nots as far as broadband is considered. Many developing countries today suffer from a 'broadband gap', with Internet penetration significantly lagging behind mobile penetration.

The National Telecom Policy, 2012, envisages 'leveraging telecom infrastructure to enable all citizens and businesses, both in rural and urban areas, to participate in the Internet and web economy'.¹¹ As per a TRAI report, as on 31 April 2017, there are 276.52 million broadband subscribers in India, which is the second highest in the world.¹²

The key drivers behind this subscriber uptake are a growing young population with increasing digital skills, and decreasing smartphone prices, as well as continued deployments of 3G and 4G mobile broadband technologies in developing markets.¹³

5.6. Smart cities

With a view to improve quality of life and accelerate growth in the urban sector, the Government of India launched the Smart Cities Mission (SCM) on 25 June 2015. The SCM was formalised to digitally transform the gamut of public services offered to a citizen—from utilities like an LPG connection to surveillance and traffic control.

Various projects have been successfully launched across selected mission cities. These innovative and technology-driven projects have set benchmarks, a trend to be followed by other mission cities. Some of the successful projects are highlighted below:

1. Coimbatore – smart roads and smart services

An initiative aimed towards the development of better infrastructure for the convenience of citizens, smart roads are being developed in Coimbatore with facilities like streamlined junctions, organised parking and high-quality walking streets.

Also, various other projects like surveillance, street lighting, traffic management and solid waste management are also being implemented in parallel.



⁸ e-Hospital dashboard. Retrieved from <https://ehospital.gov.in/ehospital/ehospitaladmin/DashBoard.jsp> (last accessed on 6 October 2017)

⁹ ORS Patient Portal dashboard. Retrieved from <https://ors.gov.in/copp/dashboard.jsp?ln=0> (last accessed on 6 October 2017)

¹⁰ Edquist, H., Goodridge, P., Haskel, J., Li, X., & Lindquist, E. (June 2017). How important are mobile broadband networks for global economic development? Discussion paper. Ericsson and Imperial College. Retrieved from <https://spiral.imperial.ac.uk/bitstream/10044/1/46208/2/Goodridge%202017-05.pdf> (last accessed on 6 Oct 2017)

¹¹ National Telecom Policy, 2012. Retrieved from http://www.dot.gov.in/sites/default/files/NTP-06.06.2012-final_0.pdf (last accessed on 6 Oct 2017)

¹² Telecom Regulatory Authority of India. (2017). Press Release No. 43/2017. Retrieved from http://www.trai.gov.in/sites/default/files/PR_No_43_Eng_13_06_2017.pdf (last accessed on 6 Oct 2017)

¹³ Ericsson. (2017). Ericsson Mobility Report. Retrieved from <https://www.ericsson.com/assets/local/mobility-report/documents/2017/ericsson-mobility-report-june-2017.pdf> (last accessed on 6 Oct 2017)



2. Jabalpur 311 and PuneConnect mobile applications

The Jabalpur and Pune Municipal Corporations have launched mobile applications to facilitate m-governance and make all citizen services available through a mobile platform. These services include real-time information on traffic and parking, payment of utility bills and taxes, etc.

3. New Delhi – solar rooftops

As a part of the effort towards reducing dependency on non-renewable sources of energy, the New Delhi Municipal Corporation is installing grid connected solar rooftops on all municipal buildings.

4. Pune Transport Command and Control Centre

A special unit has been set up in Pune to monitor traffic in real time and assess driving quality. Other functions include vehicle health monitoring, public information systems and tracking public transport.

5.7. Digital democracy with MyGov ¹⁴

Citizens wanted to be a part of governance and share their inputs on matters related to policymaking. However, there was no medium for them to contribute to decision making as well as be a partner in governance. In the year 2014, MyGov, a unique citizen engagement and crowdsourcing platform, was launched to involve people in policy formulation and programme implementation.

MyGov is an innovative platform to foster citizen and government partnership for driving inclusive growth of India. It leverages various engagement methodologies for

soliciting citizens' opinion and deliberation on policy matters. The platform's engagement methodologies include tasks, discussions, quizzes, polls, surveys and blogs. MyGov enables ministries and departments to harness the knowledge and talent of citizens to not just refine policy documents but also seek creative inputs such as logos, mascots, videos and songs for upcoming projects or policies.



4836.35K

Registered members of MyGov



190.81K

Submissions in 669 tasks



3798.96K

Comments in 744 discussions

- as of 28 September 2017

Crowdsourcing success stories

- Digital India
- Swachh Bharat
- Pradhan Mantri Jan-Dhan Yojana

Major competitions hosted on MyGov

- PMO app, Innovate for Digital India Challenge, Innovate with India, Change the World, Innovate Challenge for Indian Railways, Smart India Hackathon

¹⁴ MeitY. (n.d.). New India Digital India. Retrieved from <http://digitalindia.gov.in/ebook/08-june/#p=6> (last accessed on 6 October 2017)

5.8. Digital farming

Agriculture is the primary source of livelihood for the majority of the population of India and ICT has ushered in another revolution in agriculture. The Central, state and private sector have undertaken several ICT initiatives for agricultural sector such as Karshaka Information Systems Services And Networking (KISSAN) Kerala, Village Resource Centre (VRC) – Indian Space Research Organisation (ISRO) and eKrishi.

KISSAN Kerala is a citizen-centric e-governance project for integrated and multi-modal delivery of information to the farming community of Kerala. The project leverages a combination of technologies such as web, television, telephone and SMS to provide timely agricultural information and assistance to farmers. The project provides online advisory services to farmers with its portal and has a video channel and weekly television programme in Malayalam to disseminate information on good agricultural practices.

ISRO launched the VRC programme to provide space-based services to rural areas in association with Central/state agencies and NGOs. The VRCs address areas such as weather updates, livestock development, fisheries development, water resources, and agriculture and horticulture development. Currently, 461 VRCs have been set up in 22 states/UTs and more than 6,500 programmes have been conducted thus far.¹⁵ eKrishi is a crop advisory app for Android. The app connects farmers with experts and scientists who can help them with advice and diagnostics. The app also includes knowledge on natural and organic farming practices.

5.9. Digital for police modernisation

With the advent of e-governance and rapid advancement in technology, it is only imperative that our forces progress on these fronts and go smart and digital for the safety of citizens. Recently, the Ministry of Home Affairs launched the Digital Police Portal for citizens to file criminal complaints online or initiate verification of tenants or antecedents. The portal also facilitates criminal investigation by giving access to a national database of crime records to authorised persons. Police personnel can also generate reports of crime incidence or do an advanced search and analytics through the portal.

Delhi Police is following suit with a slew of measures to make life simpler for citizens, improve accessibility and enhance the response time. Delhi Police introduced various new apps and web applications for improving the citizen-police connect. For the safety of women, Delhi Police launched the Himmat mobile app. The app allows women to connect with the police control room and relatives for immediate response during a crisis or an emergency situation. Moreover, Delhi Police's Shanti Sewa Nyaya opened a new chapter in digital policing with facilities like online registration of theft and motor vehicle theft. Character verification and police clearance certificates can also be obtained digitally without having to physically visit the police stations through the portal.



¹⁵ ISRO. (2017). Village resource centre. Retrieved from <http://www.isro.gov.in/applications/village-resource-centre> (last accessed on 6 October 2017)



5.10. Kerala – India's first digital state¹⁶

In February 2016, former President Pranab Mukherjee declared Kerala as the first digital state of India owing to its achievement of high e-literacy and mobile penetration. It was also the first state to complete the National Optical Fibre Network (NOFN) project, granting high-speed Internet access to all its gram panchayats.

This achievement is significant especially in the area of rural development. Kerala has been setting benchmarks in terms of achievement of digitisation targets.

Some of the marquee initiatives of Kerala are:

1. Aadhaar Enabled Citizen Services (AECS) by Kerala State IT Mission and the e-district project deliver all district-level services for citizens in a state-owned portal or through Common Service Centres (CSCs).
2. The Accelerating Change and Transformation in Organisation and Networking (ACTION) initiative has been developed to track high-priority projects, their status and areas needing the attention of senior authorities.
3. Computer Emergency Response Team-Kerala (CERT-K) is another important initiative which deals with cyber security threats and issues warnings to concerned departments as and when necessary. It works in coordination with the CERT-In application. The Kerala Spatial Data Infrastructure project has created centralised infrastructure and a repository of geospatial data across the state.

5.11. Andhra Pradesh: Setting up centres of excellence

To meet the Internet for all objective of Digital India, the Andhra Pradesh government is working on the fibre grid initiative. Also, with the e-Pragati initiative, Andhra Pradesh has embarked on a journey to become the first to have state-wide enterprise architecture.

5.12. Gujarat: The working model of India's first digital village

India's first digital village, Akodara, is located in Gujarat. The Government of Gujarat partnered with ICICI Bank, which adopted the village and converted it into a working model for Digital India. From setting up bank accounts and going cashless to installing CCTV cameras, the village is a perfect example of what a digital village would look like.

¹⁶ Kerala IT Mission website: <http://www.itmission.kerala.gov.in/achievements.php> (last accessed on 6 October 2017)

6. Roadblocks in implementing Digital India

The Digital India programme is facing a number of challenges.

6.1. Infrastructure development

An underlying factor of the Digital India initiative is the requirement of consistent high-quality telecom connectivity and expeditious roll-out of telecom infrastructure across India. A right of way (RoW) permission is required to build telecom infrastructure across all Indian states. However, state departments delay RoW permissions and also levy abnormally high RoW charges, including fees imposed by various authorities other than charges prescribed under telecom licences. Other than these charges, getting RoW permissions from various agencies such as the Ministry of Environment, Forest and Climate Change, Ministry of Railways and Border Roads Organisation has been a big challenge. The Government of India should standardise timelines and RoW charges across India and should develop a digital platform, with a provision for online payments, for requesting RoW from state authorities. This will help the Department of Telecommunications (DoT) and Ministry of Electronics and Information Technology (MeitY) track state departments' adherence to approval timelines and payment of prescribed charges.

Projects such as BharatNet, which aims to connect 2,50,000 gram panchayats, was started in the year 2011 and was intended to be complete in two years. As of 2016, under 40% of the target was achieved. The biggest challenge in its implementation was ensuring that the point of broadband in each panchayat was installed and functional. However, it was found that 67% of NOFN points were non-functional even at the pilot stage. Moreover, a field survey related to locating fibre and drawing up the map for laying out fibre from block to panchayat took one and a half years, while the development of electronics for NOFN took another year. Another issue was the lack of adequate electricity in rural areas. This meant that the electronics which were used had to be robust enough to work in that environment.

While BharatNet has tried to address the issue of backhaul to rural areas, last mile connectivity through various means still remains a challenge. The lack of viable business models in these areas is still a problem. Initiatives such as the Sanchar Kranti Yojana (SKY), undertaken by the Government of Chhattisgarh, is trying to address business viability issues.

The issue of electricity and its custodianship in rural areas goes hand in hand. Security, theft and first-line maintenance of equipment are making the network unusable for any meaningful service delivery.

Other challenges include low spectrum availability, which in Indian metros is about a tenth of that in cities in developed countries. This has resulted in major roadblocks in providing

high-speed data services to citizens. Moreover, public Wi-Fi penetration remains low. Globally, there is one Wi-Fi hotspot for every 150 citizens. For India to reach this level of penetration, over 8 million hotspots will be required, of which only about 31,000 hotspots are currently available.¹⁷



6.2. Data security

With the proliferation of cloud-based services such as DigiLocker and the recent spurt in cybercrime, data security has emerged as a major challenge. This calls for the implementation of an integrated cyber security related policy at the national level and strengthening of the capacity of the government at each level.

The government will have to provide a benchmark that specifies what kind of minimal measures in cyber security have to be taken by each and every entity. The entire architecture should be designed to ensure proper authentication is carried out for every document uploaded online by citizens. Additionally, there should be a mechanism to ensure that

¹⁷ ASSOCHAM. Retrieved from www.assochem.org/newsdetail.php?id=6139 (last accessed on 06 Oct 2017)

these documents are available to the right users at any time and with the right authentication. Citizens and government institutions also need to be educated in the cyber security domain so that they can understand the risks involved when undertaking electronic transactions and other cyber activities.



6.3. Partnerships

The Digital India programme has been hampered by contracting challenges. Challenges such as skill, experience and technical capabilities have been responsible for several delayed projects which were assigned to PSUs. Several requests for proposals (RFPs) are not taken up by competent private sector organisations as they are not commercially viable. These projects require high capital investments during the implementation phase and negative cash flows on and after the go-live of the projects. This leads to a negative cash flow business model, leading to the creation of a high-risk investment segment. In addition, corporations have to tackle long and complex regulatory processes of the Central and state governments on their own.

6.4. Digital literacy

Making citizens aware of the Digital India programme and its benefits is one of the biggest challenges. This is because 12 crore of the 16.8 crore rural households in India have no computers and are unlikely to have digitally literate persons. However, this is being offset with the exponential increase in the number of mobile phones. Most Indian consumers indicated that the lack of awareness about Internet services was the main reason for not using them. The non-availability of digital services in local languages is also a major concern. There should be adequate awareness building for people living in rural areas so that they can be a part of digital India and reap the benefits of the Internet.

The following digital initiatives present a set of unique challenges.

6.5. Digital payments in India

Digital payments are facing challenges on many fronts.

- Prohibiting transaction costs levied on the use of debit/credit cards, which include service charges and interchange fees, is a major concern which deters merchants from using digital payments.
- India lacks financial literacy (financial awareness along with money management and financial planning) and is ranked 15th on the Financial Literacy Index with a score of 59 by the International Journal of Management and Research.
- Digital literacy is also a concern as a large chunk of the rural population is not aware of the features and benefits of using digital payments, smartphones and credit/ debit cards.
- Trust and security in the usage of digital payments in both urban and rural areas is a matter of concern, with an increasing number of fraud and cyberattacks. According to a report by CERT-In, the number of security incidents increased from 49,455 in 2015 to 50,362 in 2016.
- The Internet is an essential tool for the growth of digital payments. India is currently at the 89th position in terms average Internet speed globally. While there are a total of 1,127 million telecom subscribers, only 392 million Internet users exist.
- The lack of regional languages on applications acts as an entry-level barrier for citizens of India. Bharat Interface for Money (BHIM) supports only 12 languages including English, whereas there are 22 national languages excluding English.

¹⁸ Kumar, S. & Anees, M. (2013). Financial literacy and education: Present scenario in India. International Journal of Engineering and Management Research, 3(6), 83–87.

¹⁹ APCERT. (2016). APCERT annual report 2016. Retrieved from https://www.apcert.org/documents/pdf/APCERT_Annual_Report_2016.pdf (last accessed on 6 October 2017)

²⁰ Thakran, S. (1 June 2017). India ranked 89th globally in terms of average Internet speed: Akamai. Gadgets 360. Retrieved from <http://gadgets.ndtv.com/telecom/news/average-internet-speed-india-q1-2017-akamai-state-of-connectivity-report-1706725> (last accessed on 6 October 2017)

²¹ Telecom Regulatory Authority of India. (2017). Indian telecom services performance indicator report for the quarter ending December 2016 [Press release]. Retrieved from http://tra.gov.in/sites/default/files/quarterly_press_release_Eng_07042017.pdf (last accessed on 6 October 2017)

6.6. Aadhaar and DBT

To realise the full potential of Aadhaar and DBT, both demand and supply side constraints need to be addressed.

- Aadhaar enrolment, particularly in remote areas, and Aadhaar seeding in bank accounts defines the strength of the Aadhaar initiative.
- Further, given their federal structure, state governments too need to embrace this governance reform; the passage of state Aadhaar Acts is a step in that direction.
- The challenges that may emerge post the judicial verdict on Aadhaar and privacy would need to be addressed.
- From a citizen's point of view, challenges of network connectivity and last mile delivery hinder active participation.
- Further, there need to be policies and laws that safeguard against potential risks and threat of loss and/or breach of this data.
- Lastly, an IT ecosystem that is interoperable across systems needs to be developed to provide for the intelligent use of Aadhaar and pave the way for beneficiary eligibility and entitlement.

6.7. E-education – SWAYAM

A number of challenges are being faced by the SWAYAM scheme.

- The quality and type of courses on SWAYAM must be maintained. This will help maintain the interest of learners and other educational institutions.
- The courses should be made mandatory for students. Students should also be rewarded with credits on successful course completion. The credits earned should be recognised by other educational institutions.
- There has been extensive promotion of SWAYAM on both mainstream media and social media platforms to on-board more learners.
- Other challenges include insufficient infrastructure, low digital literacy and slow Internet speed.

6.8. E-health: Transformation of the healthcare industry

Currently, India has a vast number of IT systems in the healthcare sector. Large hospitals and clinics have implemented their own IT systems, which are either custom-developed applications or implementations of packaged off-the-shelf health/hospital information systems. There are also several large government IT systems within the healthcare sector in India, including Mother and Child Tracking System (MCTS), HMIS, HIS, supply chain management for drugs and vaccines, Integrated Disease Surveillance Project (IDSP) and Revised National Tuberculosis Programme (RNTCP). However, these systems were designed at different points of time to address some very specific needs. Their designs were focused solely on meeting functional requirements, thus making them islands of information.





This has led to the following challenges:

- Absence of a national platform for storing EHRs of patients
- Healthcare information is in silos and is not shareable, leading to multiplication in cost of gathering and storing data
- Absence of an integrated mechanism for health-related reporting and decision making because of incorrect and incomplete data
- Duplication of healthcare expenses by patients and lack of a mechanism to track a beneficiary's life cycle health record

6.9. Smart Cities Mission

The development of smart cities requires the involvement of a number of stakeholders with specific expertise. The scope is so huge that the selection of vendors takes time. Also, while smart cities promote the usage of a number of cutting-edge technologies, not a lot of players present in the market have expertise in them. This poses problems during the selection of implementation agencies. Various technology players are developing their capabilities to support the government in achieving its Smart Cities Mission and meet its implementation deadlines.

The unique methodology of selection of smart cities has created an environment of change. However, due to the huge scope and magnitude of rework required, the projects are taking more time than estimated. Also, many cities lack basic infrastructure and the foundation on which smart cities' features will be added. Hence, a critical task at hand is to effectively monitor projects and their timelines.

Another constraint for the development of smart cities development is the budget required for large-scale transformational projects. The initial investment required, particularly for greenfield projects, is huge. The availability of funds and their utilisation is of vital significance. To ensure proper planning and a focused approach towards the Smart Cities Mission, the government has mandated the creation of special purpose vehicles (SPVs) which will drive this initiative for each city. Another important aspect is the development of scalable infrastructure models. Rapid urbanisation increases the pressure on infrastructure; hence, it is important to develop scalable infrastructure models for cities.

7. Enablers of Digital India

7.1. Technology enablers

Governments across the globe are experimenting with technologies such as the cloud, big data analytics, machine learning and AI. The adoption rate of these technologies in countries such as Estonia and Singapore is very high, with almost every government application using some cutting-edge technology.

7.1.1. Cloud

Cloud computing, one of the earliest technological breakthroughs, caught the eye of many private players. Despite many concerns about data security and integrity in the beginning, along with private players, governments are also embracing the cloud to transform their systems and make them efficient and responsive.

A major challenge when such a transformation occurs is that of data security. Technology majors have emphasised data integrity time and again, but a question still lingers – is migrating data to the cloud a safe bet, especially in case of sensitive information? Keeping this concern in mind, international companies have developed customised cloud offerings and dedicated data centres with enhanced security measures.

Moreover, the government has empanelled various companies in an effort to promote the usage of the cloud. However, ministries have no clear guidelines and are hesitant to use the public cloud. In this regard, the MeitY needs to lead efforts in the areas of policy formulation and technology adoption.

7.1.2. Blockchain

The blockchain is a distributed ledger which can record transactions between multiple parties in a verifiable and permanent manner.

Developers of the blockchain across the world have come up with innovative solutions and new use cases to push its adoption in the government sector. One of the major applications of the blockchain is in the banking sector. Maintenance of records is an important function of the blockchain system which can be leveraged across different sectors.

Case in point: Government of Estonia

The Government of Estonia is a perfect example of how the blockchain has been utilised to provide seamless service to citizens. One of the first initiatives was the movement of all health records to a blockchain-driven system.²² The Government of Estonia also pioneered a secure real-time authentication service called KSI Blockchain for digital assets.²³ The Estonian government started testing the blockchain in the year 2008. Since then, it has devised custom solutions for all its citizen services across domains such as judiciary and public health. Its secure technologies are even being used by the United States Department of Defense and European Union Information Systems.²⁴

7.1.3. Artificial intelligence

AI has paved its way into multiple domains such as smart cities, healthcare and various forms of service delivery. From automating manual labour to making informed decisions through machine learning, AI offers a gamut of benefits. The rapidly progressing smart cities project in India is a working model for AI. The AI revolution in India has gathered pace, with new initiatives being constantly devised. A study conducted by Capgemini between March and June 2017 places India way ahead of other countries in terms of implementing AI.²⁵ It mentions that India is rapidly moving ahead from pilots and test projects. The Digital India initiative has also created a suitable regulatory environment, which is one of the factors behind this feat.

²² Guest author. (7 March 2017). How Estonia brought blockchain closer to citizens: GovTech case studies. The Cointelegraph. Retrieved from <https://cointelegraph.com/news/how-estonia-brought-blockchain-closer-to-citizens-govtech-case-studies> (last accessed on 6 October 2017)

²³ Guardtime. (n.d.). eGovernment. Retrieved from <https://guardtime.com/solutions/egovernment> (last accessed on 6 October 2017)

²⁴ e-Estonia website: <https://e-estonia.com/> (last accessed on 6 October 2017)

²⁵ Bhattacharya, A. (12 Sept 2017). India leads the artificial intelligence race thanks to the local offices of US firms. Quartz India. Retrieved from <https://qz.com/1073903/india-leads-the-artificial-intelligence-race-thanks-to-the-local-offices-of-us-firms/> (last accessed on 6 Oct 2017)

7.2. Attacking the digital divide: Public Internet access programme

7.2.1. CSC 2.0

The Common Service Centres (CSCs) scheme, originally designed to deliver a range of G2C, B2C and social sector services to residents and businesses in rural areas at affordable costs through 1 lakh front-end delivery outlets, is being revamped through the launch of CSC 2.0 with the target of a CSC in each gram panchayat. The focus of CSC 2.0 is to have a CSC in each gram panchayat as well as one CSC within every 5 km of each other, with delivery of standardised services across the nation utilising the various services and back-end infrastructure already made available such as State Data Centres and State Wide Area Networks, as well as other infrastructure projects planned under the Digital India programme such as BharatNet/NOFN.

Based on CSC 1.0, there should be a consistent number and quality of services available at each state/UT, with the same branding used across the nation. CSCs should be viewed not as 'service delivery channels' but as 'residents' interaction channels'. As a new service delivery point, 'telecom towers' with sufficient infrastructure may be explored as well. CSCs can be used to eradicate poverty by offering financial inclusion services such as assisted micro finance application channels for MSMEs and financial literacy campaigns about financial products and services.

7.2.2. Post offices

India has the largest postal network in the world with over 1.5 lakh post offices, of which over 1.39 lakh are in the rural areas. This huge network in rural India presents a great opportunity to provide residents and institutions with services in cost- and time-effective ways. This has been taken cognisance of in the Digital India programme and a total of 1.5 lakh post offices are proposed to be converted into multi-service centres. The Department of Post is the nodal department that will be implementing this scheme. This department is already delivering services under the Digital India programme. The success of the Digital India programme depends on the awareness of the residents and institutions about different government services being delivered at points of digital presence. Post offices should be utilised for promotion, publicity and marketing of these government services.

7.2.3. Services through retail shops, fair price shops and telecom towers

India has about 14 million retail outlets.²⁶ Most of them are small in size and cater to people in their vicinity. With such unparalleled penetration, these retail shops present huge opportunities to deliver G2C and financial services with government support on capacity building of outlet representatives. Many of these retail shops have already been working as mobile, Internet and direct-to-home (DTH) recharge points for their respective service providers. These retail shops can be provided with a single integrated mobile-based platform to offer G2C/B2C services and other services based on the needs of residents and institutions.



²⁶ Export.gov. (July 2017). India – eCommerce. Retrieved from <https://www.export.gov/article?id=India-e-Commerce> (last accessed on 6 Oct 2017)

8. Recommendations for the way forward

In this digital era, it is imperative to meet the increasing aspirations and demands of tech savvy citizens, particularly the millennials. With significant strides already made in the Digital India programme, it is now time for the government to transform its approach and aspire to become fully digital. The success of Digital India will be a major factor in enhancing the country's economic growth by improving social and financial inclusiveness, citizen engagement, as well as efficiency and accountability in governance and delivery of services.

The focus must be on bridging the divide between citizens and fostering connections by way of providing tailor-made services in an efficient manner. The government must strive to fully embrace technology and re-invent the way it delivers services. Moreover, it is imperative for the government to bolster its capabilities and institutional capacities to optimise its return from ICT investments.

The government has recognised the potential of data, the cloud and social technologies for bringing about a transformation in governance. However, it is vital to diligently address privacy and security concerns in the wake of increasing reservations on data privacy and the growing incidence of cyber security attacks across the globe. Cultural change and digital awareness are other primary factors crucial to the success of Digital India.

Some of the key **recommendations for the Central and state governments** in terms of policy, implementation and technology are listed below:

8.1. Think digital

Citizens are increasingly using mobile devices to access various public sector services on the go. Integration of online services with governance will not only enhance citizen engagement but also foster connectivity and provide a seamless experience.

Digital infrastructure

Governments must increase the spread of digital infrastructure such as optic fibre cables, telecom towers, Internet and Wi-Fi hotspots. To enable this, adequate policy reforms, incentives for private players, utilisation of existing infrastructure and ease of doing business needs to be established.

Multi-channel support

Rendering services through not just mobile but other channels such as bank branches, websites, CSCs and post offices will help in providing better user experiences and accessibility. Moreover, providing retail shops with an integrated easy-to-use mobile-based platform for offering G2C, B2C and other services to citizens and institutions will also be helpful.



Low capital investment

There is a need to guide and support Central and state IT projects and help them become low capital investment projects. One approach that can be included as a guideline in the model RFP is refraining from the procurement of computing, storage and network infrastructure. This must be procured as infrastructure or platform as a service, with adherence to MeitY-defined cloud procurement and security guidelines.

Data security

Governments store critical data and information on their servers. With the rising incidence of cyberattacks, it is crucial for the government to protect the data of citizens and reassure them of data security. Also, the government must educate and inform citizens and institutions about the risks and good cyber security practices while conducting electronic transactions.



Big data and analytics

Machine learning and big data analytics could be adopted in vital areas such as health, education, fraud analysis, financial leakages, cybercrime and other domains to identify citizen/institution behaviours and service usage patterns to improve service delivery. Moreover, customer data could be used to pre-emptively provide the right set of services to citizens at the right place and the right time.

Location-based services

The next leap in digital will be capturing local coordinates and providing tailored services to people for an immersive experience—for instance, providing traffic updates in real time or helping someone who has newly migrated to a city with registration for power, gas or electricity connections.



8.2. Regulating regulations

Better cohesiveness between departments, ministers and regulatory agencies for pursuing the Digital India initiatives is the need of the hour.

Cyber security

Robust policies and laws for data protection and privacy will help in mitigating data leaks and cyberattacks. Policy-level changes are vital to subsidise digital transactions and allay concerns around data privacy. The policy framework governing digital payments must be closely aligned with the government's aim of mass adoption of digital payments.

Private sector participation

The government needs to provide a policy framework and incentives for the private sector to have a viable business model so that it can participate wholeheartedly in various projects and also consider becoming part of the application ecosystem of the government.

Project governance

To reduce the delay in e-governance projects from the government's side, the MeitY may include the clause of deemed acceptance of deliverables in case there is no response from government project heads within a stipulated time frame after the submission of deliverables by an implementation agency.

8.3. Development of human resources

Digital literacy

The adoption of digital services starts with digital literacy. We need to utilise the extensive network of post offices for the promotion, publicity and marketing of the Digital India initiative. The ‘train the trainer approach’ can be used to spread knowledge of digital services. Moreover, all stakeholders involved in this effort—that is, the Central and state governments, industry bodies, etc.—need to work in partnership to ensure smooth functioning.

Capacity building

Skill building is a critical factor for Digital India to succeed. This needs to start at the grass-roots level and needs to be included within the curriculum of all schools, colleges and universities. The curriculum should be monitored to keep it abreast with the latest advancements in the fields of modern technology. Conducting capacity building programmes for citizens from all walks of life, particularly for senior citizens and people residing in rural and semi-urban regions, will enhance their digital quotient and inclusiveness.



Notes

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About ASSOCHAM

ASSOCHAM

The knowledge architect of corporate India

Evolution of value creator



ASSOCHAM initiated its endeavour of value creation for Indian industry in 1920. Having in its fold more than 400 chambers and trade associations, and serving more than 4,50,000 members from all over India. It has witnessed the upswings as well as upheavals of the Indian economy, and has contributed significantly by playing a catalytic role in shaping up the trade, commerce and industrial environment of the country.

Today, ASSOCHAM has emerged as the fountainhead of knowledge for Indian industry, which is all set to redefine the dynamics of growth and development in the technology driven cyber age of a 'knowledge-based economy'.

ASSOCHAM is seen as a forceful, proactive, forward-looking institution equipping itself to meet the aspirations of corporate India in the new world of business. ASSOCHAM is working towards creating a conducive environment of India business to compete globally.

ASSOCHAM derives its strength from its promoter chambers and other industry/regional chambers/associations spread all over the country.

Vision



Empower Indian enterprise by inculcating knowledge that will be the catalyst of growth in the barrierless technology-driven global market and help them upscale, align and emerge as formidable players in their respective business segments.

Mission



As a representative organ of Corporate India, ASSOCHAM articulates the genuine, legitimate needs and interests of its members. Its mission is to impact the policy and legislative environment so as to foster balanced economic, industrial and social development. We believe education, IT, BT, health, corporate social responsibility and environment to be the critical success factors.

Members – our strength



ASSOCHAM represents the interests of more than 4,50,000 direct and indirect members across the country. Through its heterogeneous membership, ASSOCHAM combines the entrepreneurial spirit and business acumen of owners with management skills and expertise of professionals to set itself apart as a Chamber with a difference.

Currently, ASSOCHAM has more than 100 national councils covering the entire gamut of economic activities in India. It has been especially acknowledged as the significant voice of the Indian industry in the field of corporate social responsibility, environment and safety, HR and labour affairs, corporate governance, IT, biotechnology, telecom, banking and finance, company law, corporate finance, economic and international affairs, mergers and acquisitions, tourism, civil aviation, infrastructure, energy and power, education, legal reforms, real estate and rural development, and competency building and skill development to mention a few.

Insight into ‘new business models’



ASSOCHAM has been a significant contributory factor in the emergence of new-age Indian corporates, characterised by a new mindset and global ambition for dominating the international business. The Chamber has addressed itself to key areas like India as an investment destination, achieving international competitiveness, promoting international trade, corporate strategies for enhancing stakeholders' value, government policies in sustaining India's development, infrastructure development for enhancing India's competitiveness, building Indian MNCs, role of the financial sector – the catalyst for India's transformation.

ASSOCHAM derives its strengths from the following promoter chambers: Bombay Chamber of Commerce and Industry, Mumbai; Cochin Chambers of Commerce & Industry, Cochin; Indian Merchants' Chamber, Mumbai; The Madras Chamber of Commerce & Industry, Chennai; PHD Chamber of Commerce and Industry, New Delhi and has over 4 lakh direct/indirect members.

Together, we can make a significant difference to the burden that our nation carries and bring in a bright, new tomorrow for our nation.

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