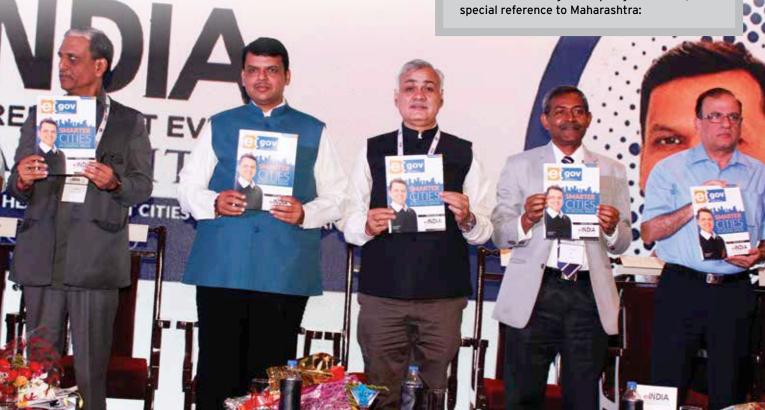


# Smart Living in Digital India

Having realised the fact that to achieve the goal of inclusive growth in a vast and diverse country like India, harnessing technology is a must. The government has launched a number of programmes running on technology, enabling it to transcend the geographical boundaries to take the benefits of governance to the last man. In this context, the Digital India programme of the Centre is serving well as the all-crucial hinge to support its technology-driven initiatives. Similarly, the Smart Cities Mission aims at well-rounded growth of the urban space in India.

The State of Maharashtra, among some other states, has made significant achievements with regard to technology-driven citizen centric initiatives. With an aim to showcase its achievements and elicit expert opinion on the way forward, the Government of Maharashtra, in association with Elets Technomedia, organised "11th elndia - Maharashtra" in Mumbai on 30th November 2015. We bring you here the gist of the key speakers' views on the India's journey towards becoming a fully digital nation, with special reference to Maharashtra:





### **Inaugural Session**

# Era of Digital India - Leveraging IT for a Smarter India

"11th eIndia-Maharashtra 2015" was off to a great start with none other than Devendra Fadnavis, Chief Minister of the State, addressing the gathering right in the first session. Appreciating the initiative, the Chief Minister said that given the strides the State has made in implementing IT interventions for better service delivery, the capital city of Mumbai is the right place to organise such an event. Talking about good governance, CM Fadnavis underlined the importance of transparency, efficiency and inclusiveness. Other dignitaries speaking in the session pointed out how technology is helping in grooming start-ups, apart from all-necessary financial assistance. They also spoke of the crucial role the Digital India programme will help shape up both rural as well urban landscape, be it about healthcare delivery, banking and financial services, and infrastructure development.



Maharashtra Chief Minister Devendra Fadnavis, along with other dignitaries on the dais at 11th eIndia Maharashtra 2015

#### Technology is Here



Devendra Fadnavis Hon'ble Chief Minister Maharashtra

I am happy that the elets eIndia conference is taking place in Mumbai — the financial capital of the country. I believe Maharashtra is the right place to hold such deliberations, because it has the highest IT penetration in the country. There are around 26 million IT users in the State, out of which, 10 million are in suburban areas. I am looking forward to the event to throw up a thorough a strategy, through which we would be able to take this penetration to three-fold in the next five years.

http://egov.eletsonline.com/devendrafadnavis

#### **Living Smart**



Durga Shankar Mishra Additional Secretary

Ministry of Urban Development Govt of India

Most of us think that a smart city means IT and other smart solutions, where smart city is a citizen-centric programme. It's a mission for the citizens and not for IT. It is meant to improve the living standards of the citizens in order to provide them a decent living. The way urban India is progressing, it is expected that we will mostly likely become all-urban after 2051. Currently, 63 per cent of the GDP comes from the urban India, which will reach 80-85 per cent.

http://egov.eletsonline.com/2016/01/durgashankarmishra/

#### **Atomic Interventions**



Vijay Kumar Gautam Principal Secretary-IT Government of Maharashtra

In the coming era, we can't do away with atomic interventions, as we have to deal with atomic structures in the form of flyovers, metros, buses, pavements, sewage system, gutters, etc. These are there to stay with us and the demanding need of the pollution will keep putting pressure to enhance atomic interventions. The challenge now is that earlier we thought human is the smartest species, but now we have started imparting intelligence to these atomic interventions, which were considered dull and dumb until a few years back.

http://egov.eletsonline.com/vijaykumargautam

#### **Rolling Out Smart Cities**



Sanjay Bhatia Managing Director, CIDCO Government of Maharashtra

CIDCO has prepared a smart city project for seven towns, which are under development. We were working on 14 towns in Navi Mumbai, out of which seven were developed and handed over to NMMC and the remaining seven are being developed into a city, called Navi Mumbai South city, and are being taken as the brown field project. You might be aware that the Government of India's Smart City project, which is yet to be launched. But, we have actually started implementing the projects. The expenditure is ₹24,734 crore. We have divided the cost on infrastructure and metros, which will cost about ₹22,000 crore, and the remaining ₹2,734 crore is for the additional smart cities IT projects we are taking up.

http://egov.eletsonline.com/sanjaybhatia



#### **Strengthening Ventures**



Dr Kshatrapati Shivaji Chairman & Managing Director

SIDBI

India has made a mark in the digital space, encompassing the spectrum of economic sector, and so we are here to sharpen our business strategies further. Our Hon'ble Prime Minister has started with a number of initiatives in the digital sector through Digital India, Make in India and an umbrella initiative, called Start-Ups India. The start-ups will change the entire landscape of our country as they are innovations-laid, knowledgeintensive and technology-centric. This will bring maximum disruptions and encourage job aspirations for the youth of our country. As we know the situation, if the impending job demands are not met, then it will turn out to be disastrous. To bring it up the initiatives are brought up, and the Hon'ble Chief Minister of Maharashtra has brought out this platform to bring out further strategies. Maharasthra has been on the front in digital advancement in the entire IT ambit. The State was the first one to declare IT as an industry and then IT policy was brought in. This led to the advent of many IT hubs like Pune and Nashik. For minimum government and maximum governance, technology is the answer.

http://egov.eletsonline.com/2015/12/drkshatrapatishivaji

#### Bridging the Gap



Pusrushottam Kaushik MD, Sales, Growth Verticals Cisco India & SAARC

Digital India theme practically has two stories. One is the rural side of things where 70 per cent of people live, but the problems there are very different: problems of teachers not being there, issues of hospitals where doctors are not there, lack of banking network and so on. Looking at some of these problems, technology can play a role and bridge the gap where doctors, teachers and banking experts are available digitally and can serve these 70 per cent people. On the other hand, even when 30 per cent of people live in cities, problems do exist, but cities contribute to almost like 60 per cent of the GDP. The problems there are quite different. Expectations of the people who move to the cities for better quality of life, better jobs, security, healthcare, etc., which our cities are not able to provide. Thus, certainly technology can play an amazing role in all these applications and work as a bridge for the gap.

http://egov.eletsonline.com/pusrushottamkaushik



#### **Doing It Differently**



Ajoy Mehta Commissioner Municipal Corporation of Greater Mumbai **Govt of Maharashtra** 

You do everything, but can you do it differently is the mantra for smart cities," said the Chief Minister. We have decided to take up three larger issues in Mumbai, issues which impact a large population and specially the weaker sections. For instance, buses carry a major portion of Mumbai, which is the first part. We are running buses, but can we tell the people waiting at the bus stop how soon your bus is coming? If this is done, people's lives will become easy. The second category involves keeping the pre-eminence of Mumbai established. We are the business city of this country and the engine of growth for this country. We are the employment generators and we generate it well for the country. Thirdly, environment is an issue which we said we must take up. Today, we put 50 per cent of our sewage into the sea untreated. You make the oceans and sea cleaner because the sea is actually an asset for Mumbai and also that much water comes back into the city to be reused. This is the larger vision that we have for Mumbai.

http://egov.eletsonline.com/ajoymehta

#### **Banking for People**



Rajiv Sabharwal Executive Director **ICICI Bank Ltd** 

#### ICT in Healthcare



Lokesh Prasad President **United Health Group** 

The United Health Group is probably the largest healthcare company in the world. We are here to bring all our expertise whether it is technology, analytics, population, health management, etc., and also participate in smart cities. This is what we have done in several parts of the world and we are now doing it in India, in the State of Haryana. We hope to continue our involvement with the passion that we bring across all these different dimensions of healthcare.

#### **Exporting Technology**



Dr Omkar Rai Director General Software Technology Parks of India (STPÍ)

The Software Technology Parks of India was created in 1991 with a vision to promote the export of software of the country and to promote entrepreneurship in the field of ICT and also to give all kinds of support to the software exporters. STPI has played its role to promote the export of software form the country, and looking at the figures, the exports from the country in the year 2014-15 has been to the tune of \$98.1 billion. Moreover, the sector has contributed more than nine per cent to India's GDP. In the IT sector, about three million engineers are directly employed and more jobs are being created for the countrymen. Every year, more than 2.5 lakh engineers are added to the workforce of the ICT sector across the country.

http://egov.eletsonline.com/dromkarrai

We, as a bank, have been committed to bring in more digital initiatives to the country. It is starting from top corporates to the individuals, SHGs and small farmers across the country. We believe digital has a capability of breaking all barriers and bringing all services much closer to the people. We have a large presence of over 600 branches and over two-and-a-half thousand ATMs across the country. As a bank, we are committed to work with the state in making these services more available in all forms to all the individuals across the state. We are working with the state governments on smart cities and would be happy to partner them in making all of these possible.

#### ICT Key Enabler



JK Dadoo
Additional Secretary &
Financial Advisor
Department of
Commerce, Ministry of
Commerce & Industries,
Govt of India

China is considered as the world's factory and India is considered as the world's office. From the perspective of commerce, we need to look at IT and its impact on all business transactions, especially sport transactions. Looking at the ICT, it is a key enabler of development today and is globally accepted as a major resource. E-readiness of India is possible through four new technologies, i.e. ubiqutous computing, perception engineering, high-performance computing and digital preservation. E-readiness is possible with these four new technologies in a huge manner. The Government of India and the various state governments have driven the adoption of IT and IT-based product services in a very big way. You are aware about citizen identification services citizen identification through Aadhaar. In the healthcare, there is telemedicine, remote consultation, mobile clinic, etc. In education, there are virtual classrooms. In financial services, there is mobile banking, payment gateways, etc.

http://egov.eletsonline.com/jkdadoo

#### **Infra Tech Tital**



Nikhil Gandhi Group President Navi Mumbai Smart Infrastructure Ltd Govt of Maharashtra

We are the infrastructure pioneers in this country. Our company started the first private sector infrastructure project in 1990, almost a year-and-a-half ahead of economic reforms introduced by then Finance Mnister Dr Manmohan Singh. We built India's first private sector sea port, today's largest railway line, first expressway, first rail logistics, and the first special economic zone. In 2001, there was a place in Korea called Songdo, which was such a scary and dark site. Jery Hynes, the Managing Director of Morgan Stanley, a real estate investment trust and the biggest billionaire in the real estate segment in the world, said they will turn this dark site into a smart city. Fourteen years later, it was a surprise to see how \$59 billion has gone into the development of Songdo. India has no dearth of visionaries or doers. So, even India could do something like this as some of the top corporates are controlled by the Indians and still we are far behind.

http://egov.eletsonline.com/nikhilgandhi

# **11th**Anniversary ISSUE

#### **Digitising Finances**



Ashish Saxena
Product Head
ICICI Bank

On a landscape, we are the bankers to the various central ministries, be it the Ministry of Finance, Ministry of Civil Aviation and Ministry of Rural Development, among others. In Maharashtra, we have 615 branches, out of which 45 per cent are in the rural areas. Out of 26 corporations, we are the bankers to 25 of them. We are also in the space of local body tax collection, National Rural Health Mission (NRHM), e-auction, e-tendering, etc. We have gone beyond the traditional banking and implemented something from the eGovernance point of view. One of these is e-toll, a RFID-based solution implemented to collect the toll in an electronic form. These are the prepaid cards with built-in the RFID chip, which automatically detects when the car comes and the whole process is performed. Another is the e-tendering space, where we are the bankers to more than 550 departments or divisions in the Government of Maharashtra. For paying other forms of taxes, like house tax or property tax, citizens are able to generate a challan and they can then go to any branch of the ICICI Bank where the tax would be paid using that challan. We have built a couple of solutions for the pollution control board also.

http://egov.eletsonline.com/ashishsaxena







#### Session

### **Smart Technologies for Smart Cities**

The session started with one of the speakers talking about various resources, methods, innovations and solutions required for developing smart cities in the country. Access to smart facilities for citizens and intelligent business strategies were given importance. Other key speakers laid emphasis upon the role of communication via technology and the responsibility telecom companies can take in order to make Digital India a successful initiative. Moreover, the session saw discussion on proper water distribution in each and every household with a smart metering system. Proper sewage treatment plans, smart lighting with the use of LED and other things for better living standards were also discussed. That apart, use of mobile-based apps came into limelight as well, which is expected to make the living easier for citizens.



Officer on Special Duty to Maharashtra Chief Minister Kaustubh Dhavse moderating the session

#### **Political Will Required**



Kaustubh Dhavse Officer on Special Duty to Chief Minister Government of Mahrashtra

Cities are all about creating efficiency. When you know that the rate of urbanisation is increasing significantly, there has to be methods, innovations, solutions to utilise the scarce resources to create a livable and functional environment. Obviously, it is easier said than done, as it requires political will and industry participation and belief in executing the anticipated plans. Our Chief Minister is a decisive, focused and a technologysavvy leader, who empowers his administration to a great extent, for achieving a common objective.

http://egov.eletsonline.com/kaustubhdhavse/

#### Technology as Enabler



Prashant Chaudhary Senior Director Government Sales CA Technologies

Technology is an enabler. I would like to add that even though it's an icing on the cake, it's an integral part of any project by the government. What is working at the backend is IT infrastructure. All that is required is to weave it around, so that the smart city functions properly. We must know how to take care of urgent situations. From an evolution perspective, it is said that everything must be made smart, which means we are saying that let businesses of a smart city run on technology.

http://egov.eletsonline.com/prashantchaudhary/

#### **Towards Smart Capital**



Nikhil Agarwal
CEO, Innovation Society,
Dept of IT, Electronics
& Communications
Government of Andhra
Pradesh

Initially, when the State of Andhra Pradesh was bifurcated and Telangana was formed, there was an air of animosity. The city of Hyderabad is now part of Andhra Pradesh. It is a new, young State, comprising 13 districts, and has the longest coastline of about 1,000 km, which is indeed an opportunity for us. The city will have six functional airports and by next year, we aim to have eight more. Like the State of Maharashtra, we too have a brilliant visionary Chief Minister. Let me brief you about Amravati, the new State capital of Andhra Pradesh, foundation stone for which was laid by the Hon'ble Prime Minster. The only State capital built was Chandigarh; it took 22 years for the city to be modeled into a smart city. So, here is an opportunity to develop Amravati from scratch into a smart city. The city is estimated to have 30,000 government servants and half a million population, who will move into it in the next two-three years. The land of about 30,000 acres has been pooled from the farmers, who are the stakeholders and have willingly given their lands for development.

http://egov.eletsonline.com/nikhilagarwal/

#### Partners in Technology



Harjinder Kohli Vice President & Head-Government Vertical Bharti Airtel Limited

We have been hearing a lot about app-based products and the concept of smart city. These technological initiatives are like a part of the human body. The app is like the brain and the others are like the heart. The role of communication is like an oxygen-providing mechanism. No matter how strong or sturdy a process is, if its communication channel doesn't help transmit it, then the value of the app becomes zero. The technology is like a highway or a strong road. People like us, who work with various players on V-Sat or optical fibre, or mobile connectivity, mostly communicate over mobile network. We have a number of customers. The industry perspective is that we have partnered in a lot of eGovernance initiatives, providing combinations of connectivity, like 3G and 4G. Communication is a crucial weapon and needs to be looked upon. We are the largest telco in India and the third largest in the world.

http://egov.eletsonline.com/harjinderkohli/



#### A Role Model



N V Patel
Chairman, Vadodara
Urban Development
Authority
Government
of Gujarat

As we deliberate upon technological integration in the smart cities, we need to see how Vadodara has come up. The city has engaged with three consultancies—Jones Lang LaSalle, TATA Consulting Engineers and Town Land Consultancy Services—through which we are taking all the activities for Vadodara on a smarter platform. This includes the water distribution system of 24x7 and 365 days a year in each household with smart metering. Mass metering system is also there so that leakages in pipeline could be identified. The drainages go through the gravity, so when the pipeline goes 390 ft deep, we provide auxiliary pumping. Automatic monitoring and pumping, sewage treatment plants and reuse of water is made to preserve the crucial natural resource. Smart lighting means LED, which is controlled with sensors, ensuring that the streets have optimum lighting and the sensors also retain visibility at night hours. The online portal has access to grievances of the people. Training in skill development is very important. It is also vital for the entire existing staff for changing mindsets, encouraging adoption of technology and involving people's participation in the new-age systems.

http://egov.eletsonline.com/nvpatel/







# **Smart Infrastructure for Smart Cities**

"The first and foremost thing to be done is that the planners need to understand the needs of the city and its community perspective", said one of the speakers from the panel. He talked about the role of government to engage eGovernance solutions for convenience of the people, particularly in the transport department and its related industry. It is obvious that a smart city would require appropriate transportation too. Wider decongested roads are something that almost everybody expects. To explain the aspect better, Shailesh Sawlani from Uber told how the app connects citizens in 360 countries around the world at just the push of a button. One of the speakers highlighted the need for smart mobility and said that the traffic congestion has affected the transportation in the city to a great extent and there is a need to tackle this issue.



Key speakers at 11th eIndia Maharashtra 2015. (Left to Right) Shailesh Sawlani, GM, Mumbai, Uber; Siddartha Gupta, Head Strategic Industries, SAP; Dr Chandra Shekhar Kumar, Transport Commissioner, Govt of Odisha and Ravikanth Deshpane, DGM, BEST, Govt of Maharashtra

#### **Smart Mobility**



Shailesh Sawlani General Manager-Mumbai Uber

Uber has a lot in store for the smart cities. Uber is an app and a technological platform that is evolving in the way the world moves. Uber seamlessly connects citizens in 360 cities around the world. It connects regular citizen with a reliable transport option, where there is a mobile app that allows you to leave your car home and functions as your private driver. It started six years ago in 2009 when its co-founders Travis Kalanick and Garrett Camp, sitting in a conference in Paris, wondered why it is so difficult to get a cab in the city or why is there a hassle to move from one point to another. The point to ponder is that we get a ride with just a push of the button. Uber has 66 centres in cities, that too in just two years since we started in Bangalore. All a customer has to do is to push a button, use the mobile app which shows you the nearest car available. You get all the details, from the vehicle number to tracking it in real time.

http://egov.eletsonline.com/shaileshsawlani/

#### **BEST Solutions**



Ravikanth Deshpande Deputy General Manager, BEST Government of Maharashtra

As we talk about smart infrastructure for smart cities, at BEST, we are operators for public transport and we have been a major feeder to suburban trains. We also have parallel routes, but they are in patches. In Mumbai, mobility has become a big issue. Smart infrastructure is ensuring smart mobility via transportation in cities. The suburban trains and metros have dedicated lines, so they won't be affected by mobility, but the public transport, which is the backbone of this city, is being affected. To improve this, we have 4,000 buses plying on 500 routes. We also operate in adjacent municipal corporation areas like Thane and many more, and have observed that people require fast movement, but due to congestion on the road, the mobility has become slow. When we think of smart city, we should think of a solution of fast mobility for citizens, like Uber. We cater to 3.8 million people. If we give them proper mobility, they will only use the public transport. What is required is a smart infrastructure like dedicated lanes for buses. BRTS is not an option, as it will not work in the congested lanes of Mumbai.

http://egov.eletsonline.com/ravikanthdeshpande/

#### Tech for Transparency



Dr Chandra Shekhar Kumar Transport Commissioner Government of Odisha

The Government is trying to engage eGovernance solutions for the convenience of the people, particularly in the Transport Department and its related industry. Three-four things which are vital include that the citizens do not want to be harassed while obtaining licences, or while paying taxes. A bus owner too wants to get permit in a transparent manner. That is why, enforcement of all eGgovernance solutions are being made. The three key points are vital components of a smart city: transparency, efficiency and inclusiveness. Firstly, like for registration of vehicle, we have many solutions for citizens, one being when you buy a vehicle, you get a registered number by the dealer nowadays easily. Moreover, for college students we are trying to ensure they get their driving or learning licence within the campus only. We want to reduce the interaction of the officials and citizens to avoid corruption or even the scope of it.

http://egov.eletsonline.com/drchandrashekharkumar/

#### **Competitive Cities**



Siddartha Gupta Head, Strategic Industries SAP

SAP is one of the largest enterprise application-based companies and has been in India for more than 17 years. Most of the largest companies in India and even around the world are on SAP. We deal with the best secrets and have about 300-plus government customers in India. We are globally ensuring ways to make cities smarter. Cities have always been built up for a competitive advantage. This being the strategic point or a bigger task to look at, the planners need to understand the needs of the city and its community perspective. It is also vital to exploit the infrastructure. The bigger picture is as to why a particular city is competitive or non-competitive and what commonality can be included like transportation and so on. The city administration ensuring this focus is vital. Smart people with smarter idea will come and exploit the ideas. The areas to focus and help the city become smarter are transport and logistics, less traffic on road, setting up more hospitals, etc. The city should look for solutions on health and education. There is a need for the private sector to expand. As everything is available on Cloud, we should utilise productive models of healthcare delivery for citizens.

http://egov.eletsonline.com/siddarthagupta/







#### Session

# **Best Practices of Building Smart Cities**

Brick and mortar are the essential elements of a smart city with IT being an icing on the cake. Storage of data is another important aspect for smart cities, believes Manoj Agarwal from NetApp. The speakers in this session talked about how technology is crucial for development of smart cities. Also, citizen participation via various social networking sites like Facebook, Twitter, Instagram, Google plus was also given attention as it is ultimately the citizens for whom these smart cities are being developed. A focus was given to the cost of these cities as well that will be spent to maintain these high-tech cities. CCTV surveillance, role of stakeholders, following of law and order for establishing buildings and much more grabbed the attention of the speakers in this session.



MoUD Additional Secretary Durga Shankar Mishra (in the Centre) chairs the session - Best Practices of Building Smart Cities

#### **Data Gathering Crucial**



Manoj Agarwal Business Development Manager-Public Sector, India & SAARC NetApp

When it comes to ICT, data is critical and it forms the core of any process. We believe that we have an important role to play in smart cities. Brick and mortar will play a very important role when it comes to smart cities, but at the top of it, IT is an icing on the cake. A critical success factor for the smart cities is collaboration between various departments. The police and the health department are also working in close connection to minimise the loss of life and property. However, it is ultimately the technology, which would enable the close collaboration between these departments, and what is helping the authorities to take smart decisions is essentially the data. Therefore, data architectures need a very close look while defining the IT architecture for these smart cities. We at NetApp essentially help customers store, manage and protect the data. As per a recent survey, we are among the best five multinational companies to work globally and in India, we are among the top 20 companies to work for.

http://egov.eletsonline.com/manojagarwal/

#### **Engaging Citizens**



Dinesh T Waghmare

Commissioner, Navi Mumbai Municipal Corporation Govt of Maharashtra

The Smart Cities challenge is an entirely different programme than the regular programmes of the government. Out of the 98 cities, perhaps only five or ten cities will be selected initially. This programme is basically based upon pubic consultation. The more public consultations we have, the more focus will be there. For this consultation, we have used a digital platform, where we had huge public participation. Moreover, social networking sites like Facebook, Twitter, Instagram and Google plus were also used. Out of a total population of 13 lakh, 2.75 lakh people participated in the discussions. IT should be one of the tools for creation of the smart cities. One of the priorities citizens have indicated is walkability, as in there must be lot of footpaths in the city. Another thing pointed out by the citizens is non-motorised transport. For instance, the city does not have bicycle track, so we will be putting this component in the smart city concept plan.

http://egov.eletsonline.com/dineshtwaghmare/

#### **Integrating Systems**



Lokesh Lohia
Business Development

Eusiness Developmen Lead- Smart and Safe Cities Cisco

Cisco is not new to smart cities. Globally, we have been working in this domain for quite a long time. In India, we started with point solutions and we were active in most of the safe city projects. We have kick-started a project in Vijayawada, and we are already towards completion of a project in Jaipur, where they are working towards making the city smart. When we travel across cities of the country, we are actually surprised to see that a lot of smart and intelligent solutions are already in place. However, the challenge is that systems in these cities work in silos and don't integrate or communicate with each other. The first step is that we need to design an architecture or framework for a smart city and then try to integrate those on a single platform, which not only helps optimising and delivering better services to the citizens, but also helps in bringing down the cost, which is one of the main criteria of making smart cities a success. When we create the framework of a smart city, we call it a digital platform, where the entire city is connected.

http://egov.eletsonline.com/lokeshlohiya/



#### **Thwarting Violation**



Gautam Goradia CEO ComSur

Surveillance by itself is only a starting point, not the end. We are a crime prevention technology provider that sits on top of a CCTV video feed, whether it comes from a company like Cisco or a small Chinese manufacturer. It will work with all your existing CCTV systems. If there is a technology that makes 24 hours of video in one hour, 10 minutes would perhaps be good enough to give sense of what happened. It is only when you review post-facto surveillance, you will begin to realise a lot of things. Along with the real-time surveillance, what you need to have is post-facto surveillance, and while video analytics are important, don't forget the power of human analytics. Further, public participation is an important aspect. The whole idea is to make all stakeholders accountable for the law and order of their buildings and establishments. Places of worship in our country are vulnerable targets and if something happens in a temple, we can have repercussions in the country. As a social initiative from our organisation, what we are doing is we are giving away technology for free to every place of worship in the world. Our technology is exceptional in terms of helping the police themselves in bringing efficiency, and helping them create more managed law and order and so on and so forth.

http://egov.eletsonline.com/gautamgoradia/





# **Ensuring Physical & Cyber Security for Safe Cities**

One should not forget that safety is one of the important aspects for a smart city which should be given much attention. It is because as the technology is progressing, threats are also increasing every day. So, keeping the cities safe is essential and technology can play a major role in doing so. With the rising number of hackers every now and then, one needs to be cautious and prepared to fight them. Keeping this in mind, Brijesh Singh from Maharashtra Police said, "Once smart cities are there, there might be a system which might not be under man's control and this might raise security concerns." It is expected that various aspects like transportation, health, water disposal would be controlled by smart system in a smart city, but a smart way of communication is required for their accountability. The two speakers spoke at length about the security issues and the ways to fight cyber crimes.



Karnataka Additional General Director of Police Sanjay Sahay (Left) and Special Inspector General of Maharashtra Police Brijesh Singh (Right) participate in session – Ensuring Physical and Cyber Security for Safe Cities

#### Security Concerns



Sanjay Sahay Additional Director General Karnataka Police

The concept of smart cities is something that has become much popular in the last two years, though it has been here for quite a while. Chandigarh is one example and Gurgaon too followed the suite. While doing the research on smart cities, I was forced to presume that it is primarily digital in nature. A major concern in smart cities is its safety and security. The 9/11 attack exposed the world to change and consolidation of activities, nature of organisations and greater usage of technology took place. After the recent Paris attacks, encrypted communication has come to the forefront, which is not difficult to decode. A state which doesn't have the capability to encrypt the communication in case of threat to national sovereignty and territorial integrity will not be able to deliver its prime duty of sovereignty, territorial integrity and liberty. These kind of breaches and attacks are created to generate fear in the minds of the people that everything is porous, hack-able and breach-able.

http://egov.eletsonline.com/sanjaysahay/

#### Cities on Sensors



Brijesh Singh Special Inspector General, CID Maharashtra Police

If we ask as to what is a smart city, it is network of intelligence sensors. Sensing various parameters, you can get some live examples as demo that is available on Internet that showcases methods on how to hack. All the doomsday scenarios shown in movies can actually happen. For example, maybe a single light moves with instructions or on a SCADA device. If it has an interface, it can be accessed and if it is accessed, then it can be hacked, too. Even the most expensive equipment like the CCTVs can be exploited easily. About 99 per cent of default devices are able to change. Once you have a smart city, you will have a system which might not be in your control. It will be like something is manning your system and tinkering your system. All things you use have an embedded operation system on all hardcore devices. Tomorrow, transportation, health, water disposal is going to be controlled by smart system, but a way of communication should be devised for accountability.

http://egov.eletsonline.com/brijeshsingh.









#### **Eradicating Forgery**



Dr Deepali Pant Joshi Executive Director Reserve Bank of India

The compound annual growth rate of notes continues to grow because there is no way you can trace a transaction. We are the third-largest consumers of currency notes. Electronically, you can simulate any note or any security feature. One of the features these currency notes have is called covert features, which are not shared with everyone. This is because when we print that note, we call it cylindrical watermark bank note paper and a feature is built into it which will pop out if you see it under a special machine. The image of Mahatma Gandhi on a note shows you your tradition and roots. Moreover, it is very difficult to replace the face of Gandhi, especially the wrinkles on his face. So, security is an important aspect for currency as well. I had the opportunity to design a brand new note, which is going to come shortly with many security features, and that cannot be replicated. Further, counterfeiting is something in the note, which is a primary and principal concern that RBI is obsessed with.

http://egov.eletsonline.com/drdeepalijoshi/



## **Smart Banking and Financial Ecosystem for Smart Cities**

As everything goes smart, how can banks be left behind? While discussing the use of technology for smart banking methods, special role of financial inclusion and mobile wallets was also talked about in the session. The speakers also mentioned about the contribution online payments make to simplify the payment process for the customers. As per one of the speakers, mobility, big data and payment are the three pillars of banking. Electronic payments platforms, payment gateways, CMS services were other elements from the banking sector that were discussed in detail by the key speakers during the session. Use of Aadhaar was also emphasised upon to easily open the bank accounts and get access to those so as to provide more benefits to the citizens.



SIDBI Chairman and Managing Director Dr Kshatrapati Shivaji moderates the session on Smart Banking and Financial Ecosystem for Smart Cities

#### Money on Mobile



Amarkant Jai Vice President-Consumer Connect My Mobile Payments Limited

There is a requirement of cashless transactions. We have two wallets — one is B2B, called Money On Mobile, and the other is B2C, called MoM wallet. In a short span of time, we have had two cashless campuses that is accessing money through swipe cards or through mobile phone. The mobile phone cuts across and is a big leveler today. Tele-density in India is increasing at a fast pace. The smart city and financial inclusion is about how mobile wallets can play a special role. We have done enough work in bill payments and utility payments, and education, transport, healthcare and insurance. My take for a smart city is that for a smart city, you yourself need to be smart first, be equipped with smart tools of technology. So, you need to be upgraded first and a change management has to be done. Moreover, it has to be an orbit-shifting technology.

http://egov.eletsonline.com/amarkantjai/

#### **Financial Connect**



V Swaminathan Vice President & Business Head Kotak Mahindra Bank

We at Kotak Mahindra really intend to cover smart banking and financial inclusion. We are the fourth largest in India and the bank has acquired a network of 11,261 branches in 27,700 towns in the country. We are 30th in position for the year in financial space. We have global footprint, in countries like Dubai, Mauritius, etc. We believe in the theory of 'Why not earn more?'. We are digitally very active. The three pillars of banking are mobility, big data and payment for banking. We would like to highlight that we provide services for government business solutions. We do a lot of work with the Government of Maharashtra and show how technology plays a critical role. As discussed in this event earlier, the three pillars of governance are transparency, efficiency and technology. What we offer at Kotak is really based on these three notions for the benefit of the customers. We work on four government banking solution facets: payment, collection, communication and technology. We have a significant expertise in electronic payments platform. Payment gateway is a key for government body for corporate CMS services, which is cash and collection, and for PSUs, we do trust banking. Our core is eGovernance projects and expertise for state banking. We really focus through banking system to provide last-mile connection, which even the government envisages across states.

http://egov.eletsonline.com/vswaminathan/

#### **Availing FI**



Shankar Jadhav Head-Strategy **Bombay Stock Exchange** 

When we talk about smart banking and financial inclusion, it is usually about a person, who had not even seen a smart phone and is able to operate it today. We want people to learn sophisticated technology nowadays, but it should be about how an uneducated person can avail smart services easily. For example, the advent of the Aadhaar card, even though it is a welcome initiative, there is a problem. We are asking the poor to come into Aadhaar fold, but why we are not asking the rich ones to have an Aadhaar? I will ask all of you to have Aadhaar, let them follow you and not the vice versa.

http://egov.eletsonline.com/shankarjadhav/

#### **Digital Identity**



**Prashant Singh** Assist Director General UIDAI, Maharashtra

While all aspects have been covered by the speakers, I feel one important component is left out. When online is the key in all areas, it is imperative that we have an online identity as well. UIDAI has also sought solutions to generate an ID which can be available anywhere and anytime for the citizens. To realise the dream of smart cities, digital cities or in larger context a digital India, you need a digital ID, which differentiates the unique ID from the digital one. How does one achieve uniqueness? It is through biometric technology: Aadhaar number that helps match biometric numbers. One individual gets only one identity. By this feature itself, Aadhaar can be used not only in financial but also in the non-financial sectors. Aadhaar could be used in many ways, but all these things are subject to the Supreme Court decision of allowing Aadhaar use in certain services. The mandate of UIDAI is to give every resident a unique online 12-digit identity, through which we generate a basic demographic name, address, date-ofbirth, 10 fingers' print. We have the largest biometric system in the world. We have attained about 94 crore IDs multiplied by 12. We are the world's first country having highest online identity platform.

http://egov.eletsonline.com/prashantsingh/





# Government Service Delivery through eGovernance and mGovernance in Urban and Rural Landscape and Importance of Capacity Building

Earlier, the services were delivered to the citizens by the electronic processes known as eGovernance. Sometime later, the process became much easier as the same was started to be delivered via mobile as well. The journey progressed and it went from eGovernance to mGovernance. In this session, the speakers talked about the ways technology is easing itself and also the lives of people. Solutions for promoting tourism and development were discussed. The transferring of eGovernance services to mobile enables smart and flexible working and obviously makes most of the tasks easier for people as well.



Government officials and industry experts participate in a panel discussion on Government Service Delivery through eGovernance and mGovernance in Urban and Rural Landscape and Importance of Capacity Building

#### Technical Void



Rahul Rekhawar

Commissioner Parbhani City Municipal Corporation

Parbhani is a very small district in Maharashtra. It is a drought-prone area with very low income level of the people there and does not have much industrial scope because of scarcity of water. The challenges in providing basic services that anybody expects from a corporation are drinking water, sanitation and solid waste management. As it was a municipal council since 2011, all these facilities lacked good standards, primarily because of the low attention and low income levels of the Corporation itself. When we think about the municipal councils and small corporations of Maharashtra, the primary problem that we face is that of technical guidance. There is a difference in the service availability at bigger corporations like Navi Mumbai and Pune, and small corporations like Parbhani. Coming to drinking water, sanitation and solid waste management, what we need primarily is a solution that is based on ground realities analysed through a technical eye.

http://egov.eletsonline.com/rahulrekhawar/

#### Plethora of Options



Prasad Kolte
Chief Operating
Officer, MahaOnline,
Government of
Maharashtra

When we talk about the landscape of the eGovernance and mGovernance, there is definitely something to look at. At MahaOnline, eGovernance is something on the government's side and mGovernance is something at the citizen' entry point. So, citizens are getting more and more options to avail the government services through implementation of technology. Another thing is G2G communication, which is going to play a vital role within the government departments.

http://egov.eletsonline.com/prasadkolte/

#### Initiating mGov



Ramesh Ramanathan Business Unit Head-GRP ABM Knowledgeware

We are perhaps the only company to be involved in the implementation of eGovernance in around five states, which has benefitted more than 8.3 crore of urban population, as our services deliver 2.4 crore citizen services annually. Not just urban local bodies, we are also into implementing solutions for tourism and development. We also take this eGovernance in digitising the back-end processes and interacting within the inter-government framework. Today, the mobile phones, especially the smartphones, have made so many technologies obsolete. The key aspects of mGovernance include transforming eGovernance services directly to mobile platform, providing access to mobile technologies and enabling smart and flexible working.

http://egov.eletsonline.com/rameshramanathan/

# Anniversary issue

#### Linking the Hills



Deepak Kumar Secretary, Department of Information Technology, Government of Uttarakhand

Our focus is mainly on connectivity and the citizen services. Like most of the states, Uttarakhand also has State Wide Area Network (SWAN). The first thing we did to remove the bottlenecks between the districts and the state was to increase the bandwidth by 2.5 times. These days we are working to integrate the districts with the National Knowledge Network (NKN), so that the district to state connectivity increases by 100 mbps or 1gbps, wherever it is available. On the ground, we are connecting all the offices of the Government of Uttarakhand through horizontal connectivity, as we have vertical pops very less in number. We have 13 districts and 95 blocks. Further, each and every treasury office in Uttarakhand is online. We have approached the Government of India and requested them to connect every district up to the village level through optical fibre network under the NOFN Project (now BharatNet). The main focus of a state like Uttarakhand, where geographically it is very difficult to go ahead, is to get connectivity among all the offices of the government. Through that connectivity, we are providing citizen services, which are being offered not only by the government centres, but under the PPP mode and CSCs as well.

http://egov.eletsonline.com/deepakkumar/

#### **Connecting Lingual Dots**



Daljeet Singh
Head-Government
Business
MeritTrac

Today, there are close to 190 million people who are accessing Internet across the country. We are the third-largest technology-accessing population after the US and China. There is a huge shift that took place in the profile of the people, who are accessing technology. Earlier, it was the urban population that was quite comfortable with the use of technology, and now the shift is towards rural India, which is important for an inclusive growth. And, the moment we talk about the inclusive growth, we have to move to tier III or hinterland of the country, where people are not that technology-savvy or well-conversed with English language. They are comfortable accessing their daily needs and services in vernacular languages. As a country, there is huge investment committed by the state and the central governments in terms of 100 smart cities to be taken up.

http://egov.eletsonline.com/daljeetsingh/



### Session

### **PSUs for Make in India**

Public Sector Undertakings have a major role to play under the Make in India programme. It is one of the flagship projects by the Prime Minister Narendra Modi which has been receiving much limelight since its launch. Representative of Maharashtra State Electricity Distribution Company R R Bhalekar spoke about IT implementation in Mahavitaran and also the implementation of other consumer-centric applications. Moreover, internal reforms within PSUs are also necessary before these could step ahead and participate in the 100 smart cities project. Deepak Srivastava from Mahanadi Coalfields Limited told about data transmission, GPRS vehicle tracking system and other methods to save time and energy.



Maharashtra State Electricity Distribution Corporation GM-IT RR Bhalekar presents his views on PSUs for Make in India

#### IT in Power



R R Bhalekar GM-IT, Maharashtra State Electricity Distribution Co Govt of Maharashtra

Regarding implementation of IT in Mahavitaran, utility has to play a major role. On the utility side, we are majorly implementing consumer-centric applications. These should be online payments, which are quite important. Similarly, for smart cities, we are definitely going on smart metering side. Regarding consumer facilities, Mahavitaran has around 100 Consumer Facilitation Centres (CFCs), which are catering to nearly 2.8 crore consumers in the State. We are trying hard to cater to the consumers by providing proper services to these consumers. Being a PSU and a utility company, we are participating in smart cities and going for smart technologies.

http://egov.eletsonline.com/rrbhaleka/

#### **Changing Mindset**



Deepak Srivastava Chief Vigilance Officer Mahanadi Coalfields Limited

When we talk of coal sector, many eyebrows are raised because coal is black. Therefore, people automatically start thinking that transactions and operations are also black in the sector. However, this mindset of the general public is changing following introduction of these technologies. The challenges faced in mitigating these vulnerable areas were also there. Also, most of the things that we plan remain on the paper only. Unless and until it is translated into action, we can't get the desired results.

http://egov.eletsonline.com/deepaksrivastava/





# IT Works for Health Sector

With technological interventions becoming order of the day, more and more organisations are embracing IT to improve their operations and making service delivery efficient. Healthcare delivery in India has been a challenge, like rest of the developing world, where infrastructure falls short of the requirement. In this backdrop, leveraging innovations and technology to transform healthcare delivery is the right way to go.

With an aim to discuss the present state of healthcare, past initiatives and their outcome, likely future trends and what needs to be done to bridge the gap, a separate "elets Maharashtra Healthcare Summit" was organised as part of the "11th eIndia - Maharashtra". We present here the views of key speakers in a nutshell here.



# Leveraging Technology for Healthcare Transformation

Technology has been a game changer in the healthcare sector. The session saw various health sector stakeholders, including hospitals and other medical institutions, sharing their experiences, showcasing their achievements and highlighting the issues they have come across, in the delivery of healthcare. The aspects discussed at the session included interface tools for handicapped, RCTS and telemedicine, among others. Also, the use of technology for better healthcare delivery was deservedly under focus in this session. Several initiatives, like eAushadhi, Blood on Call and MCTS, undertaken by the Government of Maharashtra were also the topics for discussion. ASHA and Janani Suraksha Yojana under the National Health Mission were given major attention, along with other projects, such as eHealth, HIS project, telemedicine and eMamta hogging the limelight.



Principal Secretary - IT, Government of Maharashtra, Vijay Kumar Gautam address the audience during the session





#### Dr Prakash Wakode

Joint Director, Department of Medical Education & Drugs Government of Maharashtra

There are a number of common things between the Health Department and us, like human machine interface tools for handicapped, RCTS, and in particular, telemedicine. We have also formed a group that will help the physicians to be placed in the remote areas to communicate with our experts. Being a teaching institution, we also started using eLibrary for students, and eClass, where people sitting in smaller towns can communicate with large centres and even abroad for various dialogues or seminars.

http://ehealth.eletsonline.com/2015/12/drprakashwakode/

#### **Integrating Sectors**



V K Gautam

Principal Secretary
Department of IT
Government of
Maharashtra

It is needless to emphasise that if the overall healthcare ecosystem is brought to a digital platform, both public and private sector will have to be integrated at some levels. For this, we need to work out on strategic interventions at the policy and regulation levels without tinkering much with the professional autonomy of these institutions or individuals. We can also get a set of critical data which can provide critical information for an overall statewide management of emergencies in the healthcare system.

http://ehealth.eletsonline.com/2015/12/vkgautam/



#### **Towards Digitisation**



Dr Tarun Chaudhary Project Director, Maternal Health, National Health Government of Rajasthan

ASHA and Janani Suraksha Yojana (JSY) were the key interventions when the NHM started. However, nobody unfortunately knows what ASHAs are doing in the field. In Rajasthan, there are 48,000 ASHA workers and we have created a structure keeping a detailed record of them. We built this by assembling the existing resources and converted them all into digital. We designed a claim form which made the ASHAs aware of the paid 26 activities that they are entitled to. This helps monitor the work done by ASHAs in every district and the CMO concerned releases the payment with a digital signature after verification. This helps us closely monitor ASHAs, as it's linked with PCTCS. ASHA Soft is evidence-based and we have created a dedicated ASHA helpline to deal with their queries. For this, we have also paid more than ₹80 crore to ASHAs this year.

http://ehealth.eletsonline.com/2015/12/drtarunchaudhary/

#### **Enabling Connectivity**



Sandeep Khurana Vice President **United Health Group** 

#### Game Changer



Dr Vinod R Rao Mission Director National Health Mission Government of Gujarat

Healthcare is one of the sectors that has implications for a common man more than any other sector. There is no other sector that has so much scope of application of technology relevant to a common man than on the health sector. Over the decades, we have experimented with the application of technology and have seen remarkable outcomes. In health mission, the Mother and Child Tracking System (MCTS) has turned out to be a game changer.

http://ehealth.eletsonline.com/2015/12/drvinodrrao/

#### **Impacting Well-being**



I A Kundan Mission Director National Health Mission Government of Maharashtra

Maharashtra is one of the leading states in terms of healthcare. We have more than 10,500 sub-centres, 1,811 primary health centres, more than 483 hospitals and delivery points up to 1,590 at sub-centre levels. Maharashtra, in all aspects, is going forward and this is an indicator for the same. There has been an exceptional reduction in IMR and MMR, around 87 per cent. We are using information technology solutions in monitoring across offices. For instance, we have got a health management information system. The Government of Maharashtra has its own software eOffice, eTendering, court case management system, eAushadhi, Blood on Call, MCTS and many more. MCTS is one good software to track IMR and MMR. It also creates a unique ID number when a woman first gets pregnant, and accordingly, the flow up plan is generated.

http://ehealth.eletsonline.com/2015/12/iakundan/

The way we see healthcare technology and how the percolation of technology can happen at state and population level has two layers - foundational and advanced building blocks on top of that foundation. From foundational standpoint, eHealth and HIS projects, and telemedicine and eMamta are enabling last-mile connectivity for the poorest of the poor. What we have experienced while working in Haryana is that the data we start collecting becomes increasingly important with time. You begin to create disease registries. You are able to plot incidents of communicable diseases and non-communicable diseases on the state's map and you are able to direct your programmes at district, taluka and block levels. We have done similar work across the world and it is heartening to see that India has left behind many of the advanced countries in deploying these initiatives. Once we have this basic layer ready, we are able to run various programmes and design clinical pathways for patients with advanced morbidities.

http://ehealth.eletsonline.com/2015/12/sandeepkhurana/



## **Building Infrastructure for Making Healthcare Accessible** and Affordable to all - State Perspectives

Better technology infrastructure is the first and foremost thing to be kept in mind before talking about providing better healthcare services in remote areas. It's only after that technology-driven healthcare initiatives, like teleopthalmology for treatment of eyes and telemedicine, can be thought of. And, the session lay due emphasis on the infrastructure aspect. Mobile-based monitoring of mother and child in Chhattisgarh was talked about by Dr Ayyaj Fakirbhai Tamboli, Director, National Health Mission, Government of Chhattisgarh. Facilities like GIS mapping to locate the nearest health facility were listened to by the audience with rapt attention. Apart from that, Dr Akun Sabharwal from the Drugs Control Administration shed light on online licensing, which points to the efficient use of technology.



Dr Akun Sabharwal, Director, Drugs Control Administration, Govt of Telangana, speaks on Building Infrastructure for Making Healthcare Accessible and Affordable to All - State Perspectives

#### An Eye-opener



Dr Sandeep Namdeo Mahatme Mission Director, National Health Mission

and prescribe medicines online. The patients take the printout of the prescription and purchase the medicines from the chemist.

**Government of Tripura** 

Tripura holds a population of almost 37 lakh, predominantly in rural and tribal areas. However, the state faces the challenge of availability of specialised doctors (eye specialists). With 75 per cent rural population, we have only 20 doctors out of which 10 will be retiring in 2016. We also have two medical colleges with limited capacity and sudden increase in the number of eye surgeons is not possible. Therefore, making use of appropriate technology, we opted for teleophthalmology six years ago. Initially, we started with teleophthalmology services in the blocks, as they had the advantage of the dual connectivity of the blocks — traditional and mobile towers, which were specially erected for the purpose of connectivity. The patients were being screened in the BDO office and the same data was transferred to the referral hospital - IGM Hospital, the only hospital at the state level where ophthalmologists view the records

http://ehealth.eletsonline.com/2015/12/drsandeepnamdeomahatme/

# Maharashtra









#### Healthcare on Mobile



Dr Ayyaj Fakirbhai Tamboli

Director, National Health Mission Government of Chhattisgarh

Chhattisgarh started with mobile-based monitoring of mother and child in 2012. Earlier, it was a Java-based platform in mobile phones. But now, we are shifting towards Android-based tablet system. We have distributed these to 275 ANMs. It has already been implemented in urban areas and now we are implementing it in rural areas as well. We also created an application to make people aware. It is a GIS mapping-based thing, which captures the photograph of a location and its latitude and longitude. It is pushed into the system and based on that all the public health facilities have been mapped. With this map, people can locate the nearest health facility. Another mobile application provides drug availability information in public health facility, generic name of the drug. Thus, the pharmacists know about the status of the drugs available in the warehouse through a transparent ecosystem.

http://ehealth.eletsonline.com/2015/12/drayyajfakirbhaitamboli/

#### **Tech Efficiency**



Dr Akun Sabharwal

Director, Drugs Control Administration Government of Telangana

Telangana has 490 big manufactures and around 28,000 pharmaceutical shops. We have shifted to online licensing. It might appear strange to the IT world, but most of the pharmaceutical regulations still happen on paper and pen. We have also done flow charting and time-lining. In Telangana, now we assure that if you want to set up an industry, we will give you the licence in 30 days. There is also a penalty clause - if the file is stuck at any level, there is a penalty of ₹1,250 per day beyond 30 days, so the employee concerned has to pay from his pocket. We achieve it through barcoding and file tracking system. The entire process is on website now for manufacturers and pharmacy shops. Across the country, regulations happen in terms of areas and we have shifted from that approach to something called the verticals. We have specialised teams looking after cosmetics, vaccines, etc. The US is the only other country that does it.

http://ehealth.eletsonline.com/2015/12/drakunsabharwal/

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Mumbai, 30 November 2015

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