

Approaching Infrastructure For Planning Of Cities Digitalization - SMART CITIES

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Abstract: This study aimed on upcoming infrastructure which are planning for development of cities towards their digitalization. The smart city concept holds an array of opportunities for future of cities and city-making in India. Today more than ever, cities require strategic planning. Only then can they consider pathways to innovation and prioritize what is most important for their future. However, It is critical that urban planners in India acknowledge technology as merely a tool and engage with it in a way that affirms values and addresses the most pressing goals. The increasing economic strength of Asia and growing integration of the global economy present great opportunities for India - Karnataka. Even though digitization and online resources are absolutely commonplace in our daily lives, this is a new world in the industrial space and we are just getting started

I. INTRODUCTION

Across the world, governments and citizens are working together to build smarter cities. The program for Smart Cities envisages the improvement of 100 satellite towns and mid-sized cities through effective planning, financial management and the widespread use of new communication technologies. "The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanisation." – David Harvey. In that way, India's smart cities can be 'lighthouses' – not just for Indian cities but also for cities around the world," says London school of economics initiative by Smart city Mission dated June, 2017 Key points for Smart cities The Government aims to achieve four overarching ambitions:

- # a lower cost, business friendly environment with less regulation, lower taxes and more
- # competitive markets;
- # a more skilled labour force;
- # better economic infrastructure; and
- # industry policy that fosters innovation and entrepreneurship.

"Smart cities" are a buzzword of the moment. Exponential digitalization seen doubling of the Internet of things year on year about 100000 new objects connected and linked every hour. It is about 204% growth manufacturing year on year Past 24 months about internet traffic from 47 Exabyte to 72 Exabyte. From 10b to 54b sensors shipped. We have IOT developers from 191K to 814K. It's about machine to machine communications. Research project about our need and understand the requirement of our cities in next 10 years with its implications and advances.

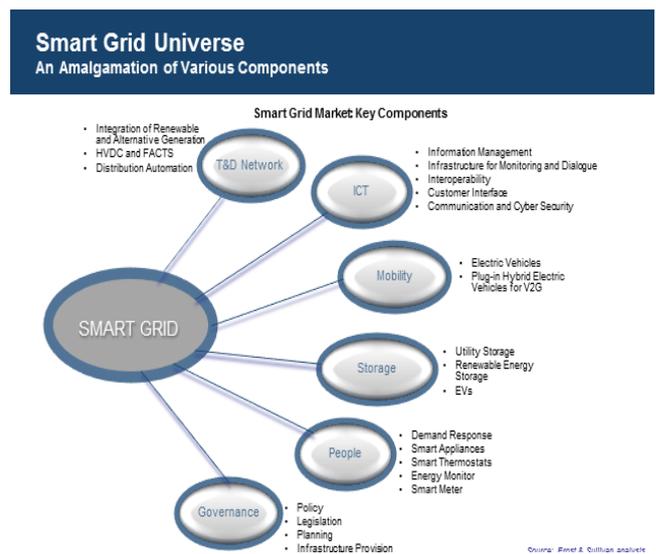


Fig. 1. Smart grid key components

II. OPPURTUNITIES AND CHALLENGES

A. Business Environment

The Government will make it easier and cheaper to do business by:

- # reducing the burden of regulation;
- # reducing the burden of taxation; and
- # improving access to international markets and opening up the economy to greater domestic and international competition.

B. Labour force

Government is committed to increasing the skills of our workforce to better prepare for the jobs and industries of the future by:

- # improving India's education and training system;
- # attracting the best and brightest to Australia;
- # returning our workplace relations system to the sensible centre; and
- # helping parents stay in the workforce.

C. Infrastructure

To meet our country's economic infrastructure needs for the 21st century, the Government is increasing public investment and encouraging greater private investment in

infrastructure, and improving infrastructure project selection, funding, financing, delivery and use.



Roads, rail, ports, airports, energy, water and communications networks are key to a country's competitiveness, but India's current economic infrastructure will not be able to meet our future needs. Our businesses rank infrastructure as one of the highest reform priorities. Population growth and expected increases in international trade mean we must invest more in economic infrastructure and better utilise our existing assets. The Government is committed to world's best practice in infrastructure policy.

D. Industry policy

The Government is refocusing industry policy to drive innovation and entrepreneurship, not dependence on government handouts and protection. Industry policies will be re-targeted to capitalise on India's strengths and accelerate the growth prospects of our high-potential small and medium sized enterprises and most promising sectors. We will consult with industry and researchers on a plan to focus the Government's \$9.2 billion per year investment in research to get a better commercial return.

E. Lower cost, business friendly environment

The Government will make it easier and cheaper to do business by:

- # reducing the burden of regulation;
- # reducing the burden of taxation; and
- # Improving access to international markets and opening up the economy to greater domestic and international competition.

III. UNITS

By 2020, Gartner predicts that every business /company will be an IT – Information technology organization

1. Creating new opportunities
2. Lowering operating costs
3. Increasing business agility

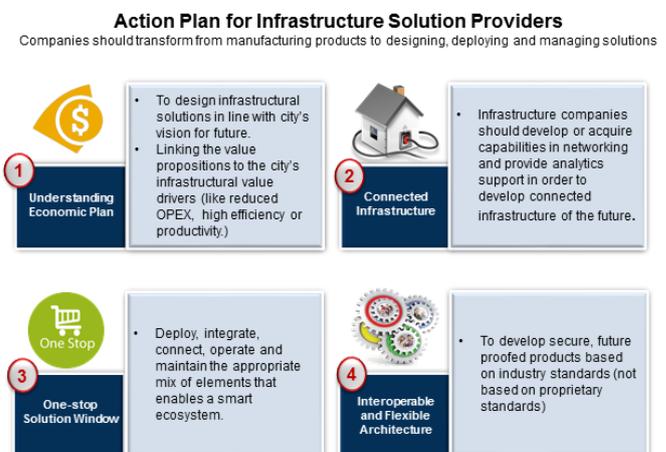
The enabling technology for internet of things (IOT) is preparing major changes

- # Transform core processes, services
- # Require different skill sets
- # Anticipate tomorrow's competition
- # New partnerships
- # Big data and analytics
- # Address humanity's fundamentals with new models to deliver services

Smart cities need to be agile in conversation structure. Clean water, safe public spaces, delivering opportunity to create jobs, delivering housing and shelter, delivering food it is

designed to address the technology. Fundamental technology requires new model to deliver the study. We have digitalisation across all domains to deliver as below

1. Healthcare
2. Mobility
3. Work
4. Citizen services
5. Logistics
6. Environment
7. Energy
8. Learning
9. aging well



IV. DIGITALIZATION

A city can be defined as beingsmart when it uses digital tools to substantially enhance efficiency for public services, utilize innovative and disruptive technology for creating and delivering services to citizens and in the process makes dramatic positive economic and social impact to the society as a whole. The context in the Middle East is however different since they are not starting the adoption process for existing infrastructure, instead building them smart from the very beginning. We have been working on such projects in Riyadh, Saudi Arabia and Dubai and find the scale to be phenomenal. We also find adoption in China to be quite interesting , like new Pudong area in Shanghai. In the U.S., San Francisco and New York city are really moving ahead and trying to improve the relationship with citizens through technology. From the Indian Context, the aim is to bring a balanced approach in the expansion of the urban areas while addressing challenges of urban living. We have been using small components of "Smart spaces" in different public services over the last few years.



Smarter devices, faster networks and cloud becoming global will all contribute to this digitization of society. Internet of Things (IoT) will also play a key role in smart city development. The sheer weight of Big Data generated by the IoT will impact everything, for example, traffic flow information - town planners will be able to gather the data, analyze it and use it to tailor future policy and projects. The future will witness integrated services, based on gathering data through sensors and delivering it to smart devices to make life easier for both citizens and administrations all of which will be enabled through the smart adoption of technology. Eight years ago, in *The Open City*, Richard Sennett wrote that “we need to imagine just what a clean, safe, efficient, dynamic, stimulating, just city would look like concretely – we need those images to confront critically our masters with what they should be doing – and it is exactly this critical examination of the city which is weak.” Apt words for the contemporary Indian condition, especially because the smart city has no visual corollary and is recognised only in its manifestations. While discussions about the smart city in India must undergo urgent examination, ‘smartness’ is a necessary condition for the future. The use of ICT can expedite critical reforms in government, and create a platform for public engagement of a scale and complexity that presently confounds our policy-makers and technocrats alike. It is more likely than any other intervention to transform our cities.

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