

Security, Safety, Vigilance and Responses in a Smart City

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Introduction: The globalisation of the economies have made people migrate from their home and hearth to their new workplaces across the geographies specially metro cities of the world. This workforce migration has been rapid in last two decades compared to last half a century or so which in turn has created huge associated job opportunities of all types and forms viz. housing, schooling, transport, hotels, hospitals and so on. Coupled with these, changing socio-eco-cultural dynamics have made subtle changes in the family income scenario and no longer spouses are the only ‘home-makers’. Today, most of these young people are with working spouses, more often than not, without parental or extended family support. Thus, they need all kinds of support including monitoring of their children while being away in their work places even from abroad. There is a genuine need for services at their doorstep or at a click of a button for sustenance and on call 24x7, which gave the concept of ‘Smart Cities’ with all the organs managed through super highways and digital platforms.

Smart Cities and its Organic components: Smart cities are conceptually are the same modern cities with better information infrastructures. They are the same cities which have better roads, schools, hospitals, parks, stadiums, associated facilities including market places and entertainment kiosks like cinemas, eateries and fun zones etc but with a difference and that it has an overlay of everything is connected to each other through information network. That means every organisation which handles affairs of administration, roads and traffic, telecommunication, health services, schools and colleges power grids etc all are connected with digital super highways and expressways for running the affairs of the city and make the living a better experience. While security is a major component of modern day living, policing, surveillance, response mechanisms are also connected through these highways to meet the challenges. Since there are lot of products and services are connected and thus information exchange has to be very fast and instantaneous, so these hubs and small networks will have to be connected to the bigger information exchanges and data centres. So the real time data is processed and services are extended.

Vulnerabilities of a Smart City: Since all the services are connected through the cyber world, smart cities are also vulnerable to the vagaries of the Cyber world itself. There are people, individuals, groups and countries who can target the smart cities through the same network and bring it to a grinding halt. Just imagine, if a cyber junkie is able to break in the Data Centre or the power grid server through a back door Trojan or through malicious software, it can hold the entire city to ransom ...virtually nothing will work. Under those circumstances, administrators of the city will have a major challenge to bring the life to normal.

Safety, Vigilance and Response Mechanisms in a Smart City: We have seen the vulnerabilities of the smart cities and the damages that can be inflicted upon a smart city. The cost would be phenomenal in terms of money and resources. Thus ensuring safety would have to be thought through with all kinds of contingency planning. To prevent a catastrophic failure of the networks when under attack, system has to be robust and vigilance mechanisms and policing have to be developed accordingly to meet the challenges which will emanate from the cyber world. Surveillance systems and response machinery will have to match the speed and agility of the attacker and neutralise the threats in real time manner that it does not succeed in its mission. Should the attacker be able to outsmart the smart city, then it is the responsibility of the administration to ensure the response mechanisms are in place and succour is provided to the netizens of the smart city. These Response systems will have get activated immediately so that the citizen centric services remain unhampered and literally unaffected. Life should continue as they are/were. This will be a major challenge, nevertheless have to devised and implemented.

Conclusion: Globalisation and modern day living conditions, requirements of younger generation to remain connected on the word 'Go' (24x7) because of professional requirements. This can only be possible when all the services and products are connected through digital highways duly supported by secure systems. Simultaneously these cities need to have response mechanisms in place to address the vulnerabilities with latest tools for a real time response and serve the citizens of the smart cities.