

For Immediate Release

Telecom Regulatory Authority of India

TRAI releases a White Paper on “Smart Cities in India: Framework for ICT Infrastructure”

New Delhi, 22nd September 2020 – The Telecom Regulatory Authority of India (TRAI) has today released a White Paper on “Smart Cities in India: Framework for ICT Infrastructure”.

2. The objective of smart city is to enhance quality of life of people and provide a clean and sustainable environment by establishing a common core infrastructure and deploying ‘Smart Solutions’ using digital infrastructure.

3. In order to manage the ever-increasing population in the cities, it is important that infrastructure in the cities are upgraded and managed by using Information and Communication Technologies (ICT) to make them sustainable in the long run.

4. While studying the ICT infrastructure being planned and deployed in various smart cities in India, it has been observed that each smart city is planning and deploying ICT solutions in its own way and there is no common framework for ICT infrastructure for smart cities.

5. In absence of any regulation or standards, non-standardized proprietary devices and solutions have come up in the market. Such proprietary or non-standardized solutions have been created in silos and pose problems of interoperability and prevent sharing of data amongst divergent applications.

6. Non-standardized and non-interoperable ICT solutions will pose a risk as it will suffer from the following constraints:

- Proprietary solutions will have proprietary maintenance and vendor lock-in
- Upgradation and Scalability will also be proprietary and hence costly
- Replicability in other areas will be a challenge
- Integration of various applications and information sharing will be a challenge
- In disaster situation, it will be difficult to have integrated relief operations



7. Keeping this in view, TRAI has brought out this White Paper discussing the relevant aspects related to ICT infrastructure used in Smart Cities. The following topics have been covered in the White Paper:


- ❖ Elements of a Smart City- Ecosystem
- ❖ ICT Requirement for different Elements of Smart City
- ❖ Gaps and Challenges
- ❖ Standardized ICT technology to make system interoperable
- ❖ Common Framework for ICT Infrastructure for a Smart City
- ❖ Integrated efforts of various Stakeholders in developing and deploying standardized, inter-operable, resilient, secure ICT Infrastructure

8. The White Paper highlights the Role of digital technologies for smart cities, discusses the key smart solutions, deliberates the need of Global Standardization and connectivity related aspects specific to smart cities, and tries to identify the framework for ICT Infrastructure for the success of Smart Cities Mission in India.

9. As a way forward, the White Paper has laid emphasis to achieve Standardization, Inter-operability, Scalability, Sustainability, Resiliency in the ICT infrastructure for Smart Cities which can be achieved through Harmonized Standards, Compliance Testing, Cloud Strategy, National Trust Centre (for Device testing), Cyber Security Strategy and Data Analytics.

10. The White Paper will open the gates for the industry and the technocrats to kindle their thought process and bring about transformation through identification of key enablers in order to accelerate the development of Smart Cities in India.

11. For any clarification / information, Shri S.T. Abbas, Advisor (Networks, Spectrum & Licensing), TRAI may be contacted at Telephone Number +91-11-23210481 and email ID: advmn@traigov.in


(S.K. Gupta)
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