

India urban data exchange (IUDX)

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In News: MoHUA said that the open data platform for the 100 cities would be expanded to cover 500 cities by 2022 and all urban centres in the country by 2024.

India Urban Data Exchange (IUDX)

- IUDX is a research project under smart cities mission being implemented by Union Ministry of Housing and Urban Affairs (MoHUA) in collaboration with Indian Institute of Science (IISc), Bengaluru.
- It will facilitate secure, authenticated and managed exchange of data amongst various data platforms, third-party authenticated and authorized applications and other data sources, data producers and consumers, both within a city to begin with and scaled up across cities eventually at a national level, in a uniform and seamless way.
- The India Urban Data Exchange set up by the MoHUA for its Smart Cities would be expanded, eventually leading to a “marketplace”.
- IUDX will be an open source software platform for cities, industry and researchers to share Smart City data with each other that could be monetised in the future, similar to the UPI for bank accounts and digital payments.

The two main enablement services working as IUDX

- Authentication, Authorization, Accounting & Security (AAAS) Enablement Services: These services would provide for identity, security, privacy, authorization, metering, payment support and other management related activities.

- **Data Exchange Enablement Services:** These will host the meta data catalog (data about the data) like schemas, information models, ontologies etc., and will be searchable.

These services will provide holistic view across all the data platforms. IUDX enabled platforms can seamlessly inter-work not only across the various city departments, but also across cities at a national level.

IUDX platform will consist of:

- Definitions of the APIs for the consumer, producer and enablement interfaces.
- Definitions of the schema templates (where needed) for both IoT data as well as context data³
- Open source libraries that implement the APIs and other exchange related functions to help the application and device developer community to easily work with IUDX.
- Open source implementation of the enablement and orchestration services.

In IUDX, There shall be clear definition of data ownership and sharing mechanism, under the control of the data owner. The platform itself is only a vehicle for the data owners to more effectively manage and share the data as per their discretion/policies.