Ministry of Housing and Urban Affairs
Government of India

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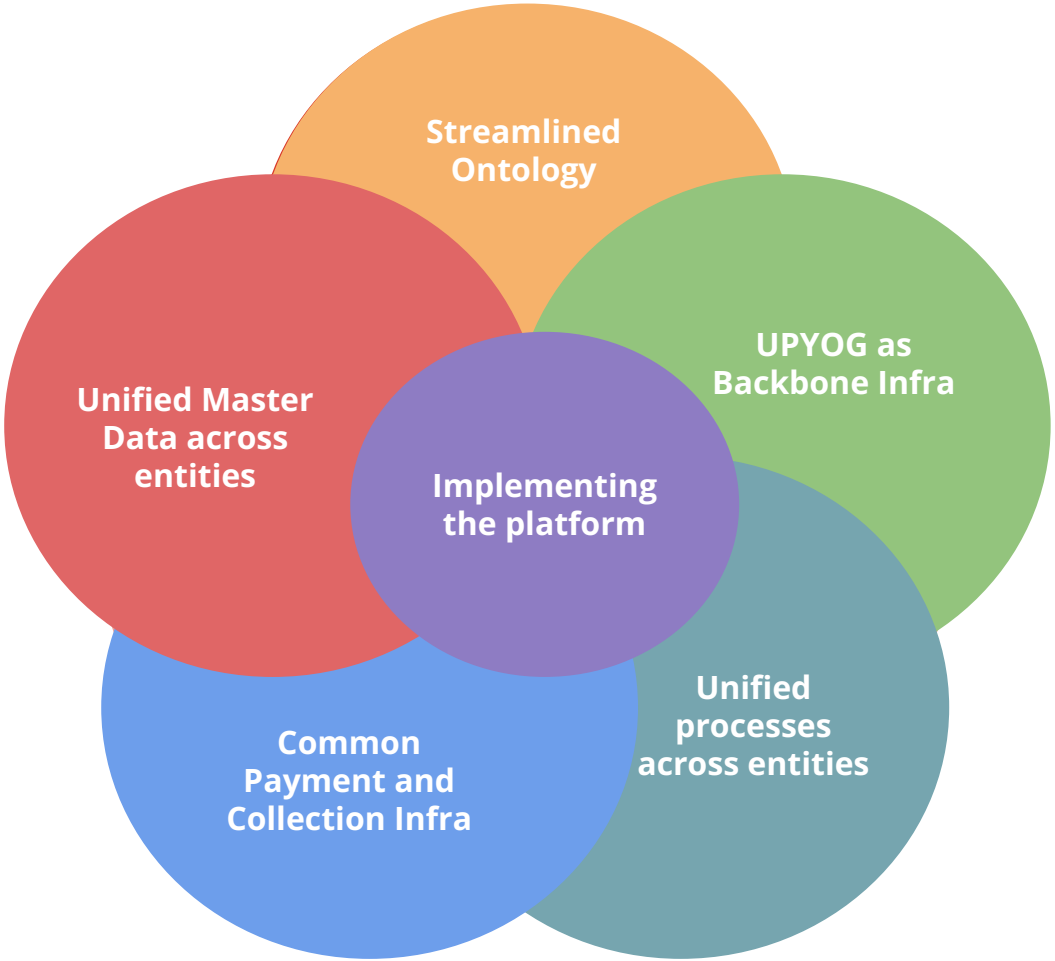
Government of India

National Urban Digital Mission

Building cities that work for people

Best Practices for Platform Implementation

Best Practices For Successfully Implementing UPYOG



UPYOG as a BackBone Infrastructure

Advantages of UPYOG:

- Built with microservices thinking, such that all the critical core functionality and data infrastructure are kept in the lower layer Ensures reusability and lowered efforts for innovation & development of new solutions

- All the different modules, services and data registries are designed and integrated to work together seamlessly easy to generate all the performance reports & dashboards and make then accessible instantly from a single source

Recommendation:

- States to deploy and use the modules which are available on the platform and reap the benefits that UPYOG has to offer.

- In case state plans to use any additional system which is not available on the UPYOG, those systems must be integrated with UPYOG.

Streamlined Ontology

Challenge:

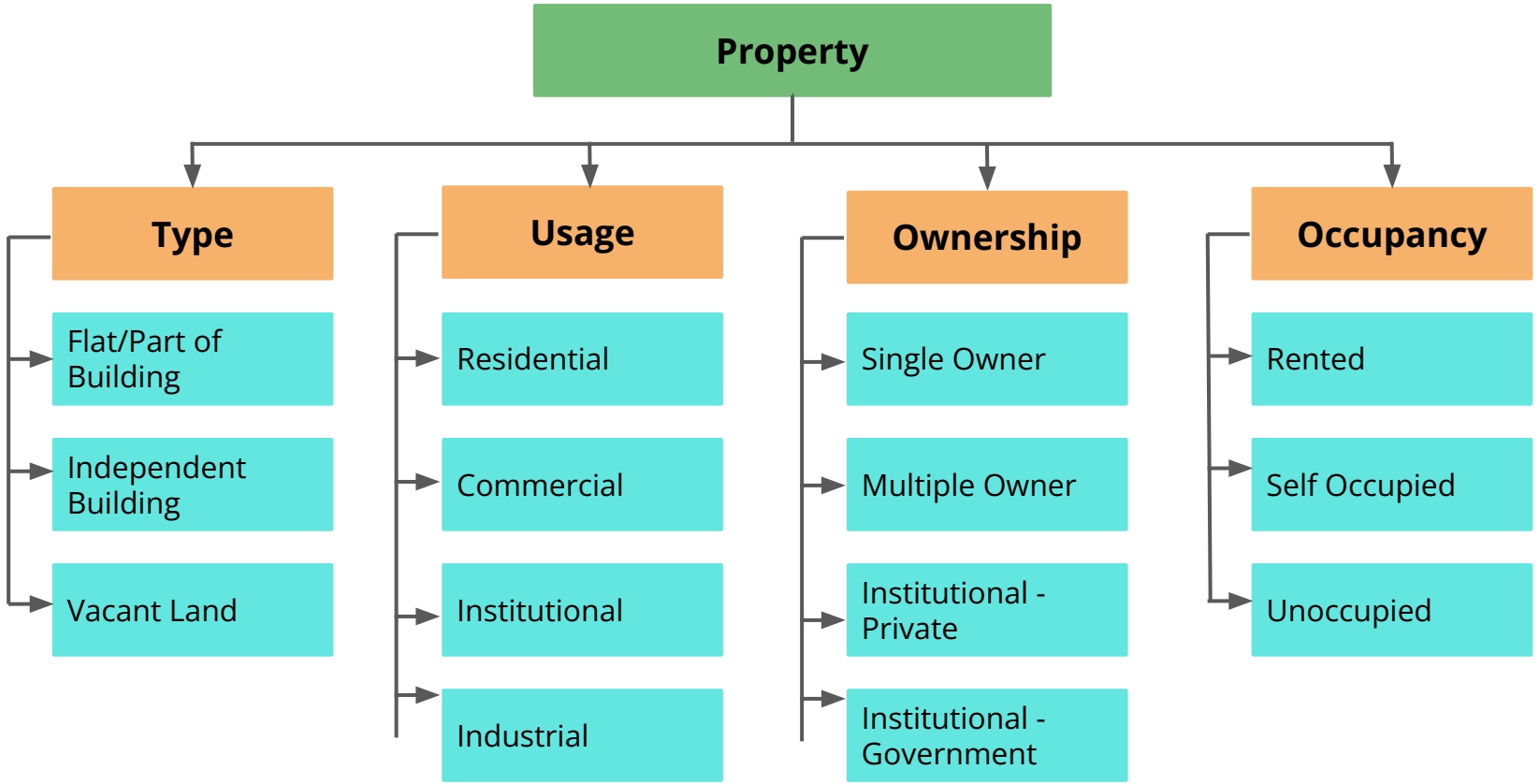
- One of the central problems of data integration is Ability to identify information from the data sets across the applications running on the platform.

Proposed Implementation Approach: This can easily be solved by using well defined and streamlined ontologies.

- Collating our experiences from multiple state engagements and various central guidelines, we have established common ontologies for all the modules built on UPYOG for a common understanding of the structure of information among all the key stakeholders

- Adherence to streamlined ontology while implementing the platform across all ULBs will ensure a consistent analysis of the data and better cross-channel reporting and tracking

Illustration: Defined Ontology for Property



Unified Master Data across entities

Challenge:

- Data mismatch can hamper the government's decision-making abilities and impact the overall revenue collections and efficient delivery of services

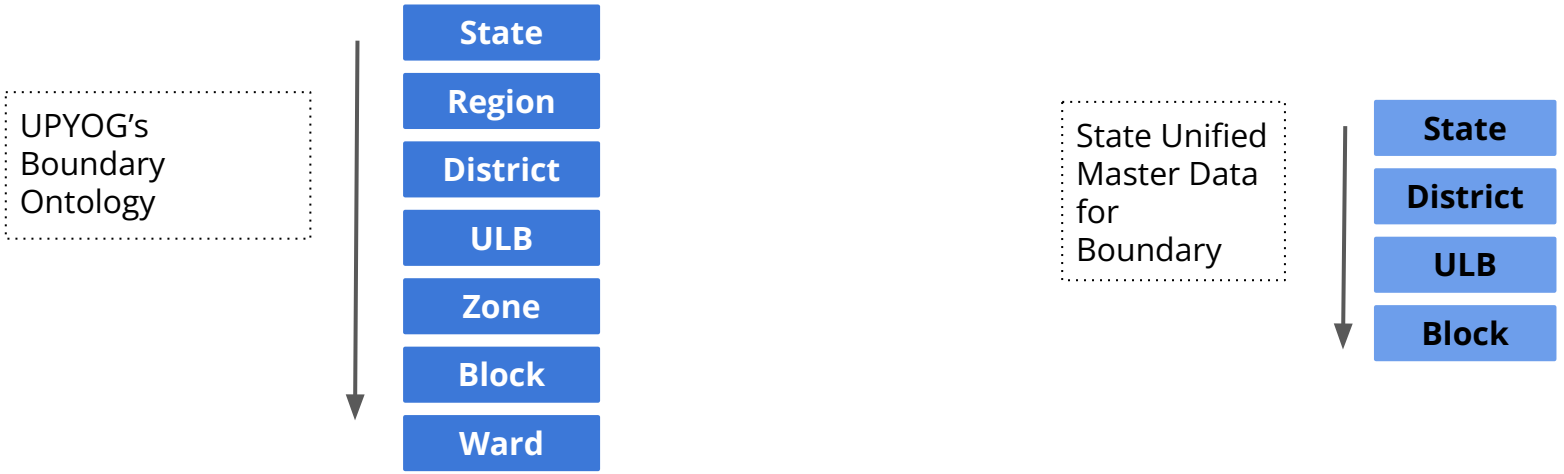
Proposed Implementation Approach:

- With different versions of master data available across departments and ULBs, it is important to create a unified master list at state level adhering to the defined ontologies to be used by all the applications running on the platform

- This ensures that a common data registry infrastructure is created on the platform leading to high-quality, symmetric and accurate data collection, analysis and reporting after the platform has been implemented

Illustration: Unified Master Data

- Creating a unified master data will involve standardizing, consolidating and quality-controlling key elements of the data, according to the defined ontology. For example, the states can prepare its customized but unified master data for boundary hierarchy from UPYOG's boundary ontology.



- States creates its unified master data, the same data set should be used across the ULBs and across all the modules.

Common Payment and Collection Infra

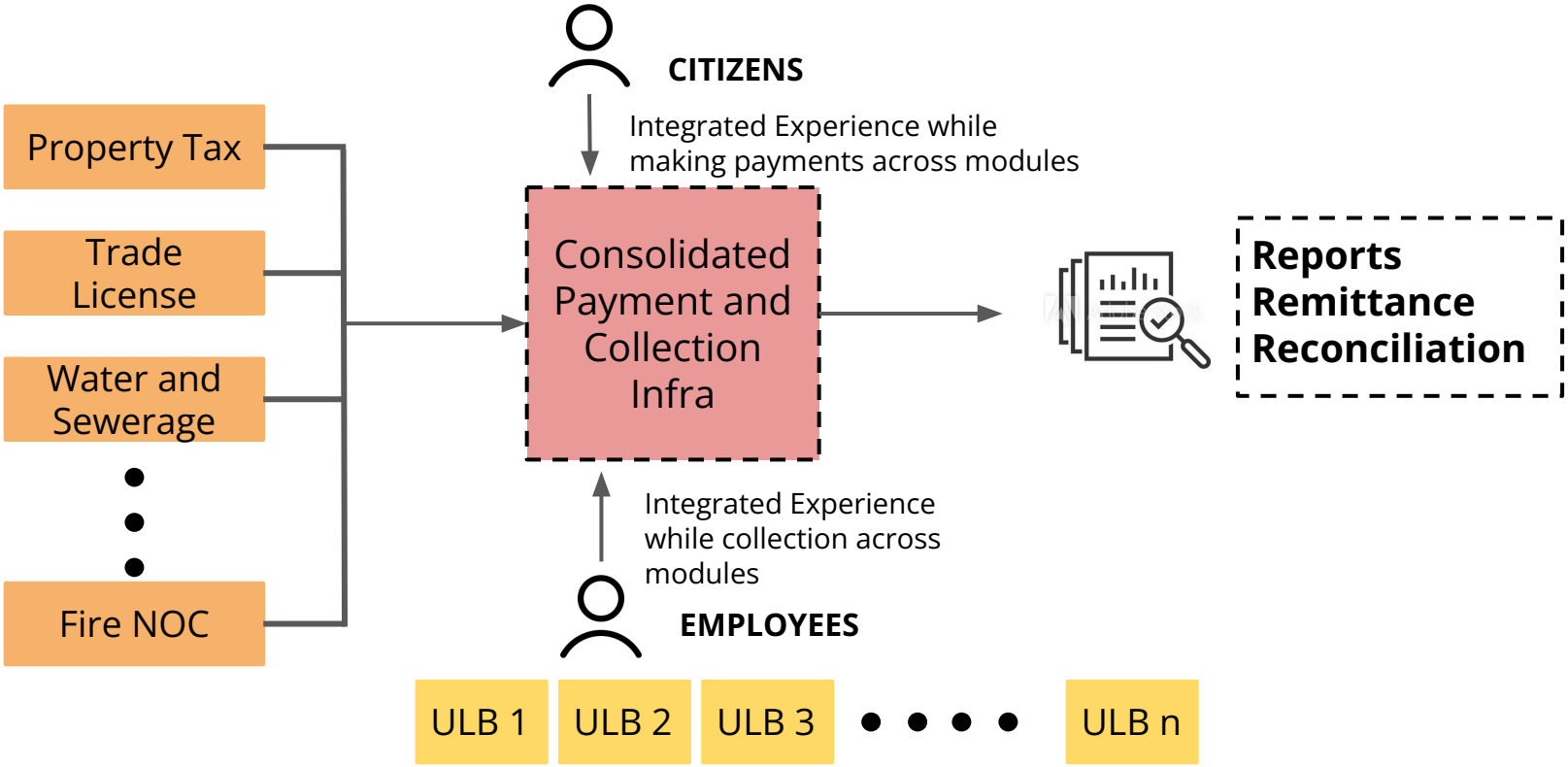
Challenge:

How can integrated experience be ensured for citizens across different services that they access

Proposed Implementation Approach:

- A unified infrastructure for payments and collections encapsulating core services like billing, collection, payment and notification to be used by all the modules.
- There should be a single payment and collection entry point across all the services, so that the citizens and employees are familiar with the interface no matter which service they are consuming and all the payment-related information is being captured in a similar format across all entities.
- Further, instead of configuring multiple payment gateways it is advisable to use a payment aggregator to simplify accountability for maintenance and support required post implementation & ensure smooth remittance, reconciliation and reporting process.

Illustration: Common Payment and Collection Infra



Unified Processes Across Entities

Challenge:

- Often different ULBs may follow different processes to achieve similar objective, and such irregularities unknowingly may result in problems like inconsistent experience for citizens/businesses, difficulty in tracking the processes at central administration level, etc.

- At the same time, ULBs function as autonomous bodies and it is important that the platform is flexible enough to cater to cantonment specific asks to make the operations easy, yet standardized.

Proposed Implementation Approach:

- On UPYOG, an abstraction can be done for standardizing the process across ULBs and still provide flexibility to individual boards to carry out cant. specific changes as well

- Hence slight redesigns in the processes to ensure maximum standardisation across entities will help in quick implementation of the platform, integrated experience for all the citizens & employees and easy support & maintenance post implementation.

Value Created

- **Easy to Maintain**: With UPYOG as a backbone structure containing all the critical core functionality and data infrastructure, maintenance of all the systems becomes an easy task.
- **Quick innovations**: Creating new modules on the platform becomes an easy task as that the components from the core data and service layer can be reused easily, thus lowering the the efforts for innovation and development.
- **Faster reporting and tracking:** As all the data that is being collected across entities will be stored in common registries, analysing it and creating reports and dashboards to present the information becomes faster.
- **Possibility of customizations:** The platform provides flexibility to incorporate ULB specific customisations.
- **Standardized experience:** By following these best practises we can ensure maximum standardization across all the cantts. which will lead to faster and easier implementation.

Thank You

"UPYOGal Transformation is more about humans than UPYOGal"