
**D**igital **I**nfrastructure for **G**overnance, **I**mpact & **T**ransformation

# DIGIT

## Functional, Architectural and Technology Overview

# Why DIGIT

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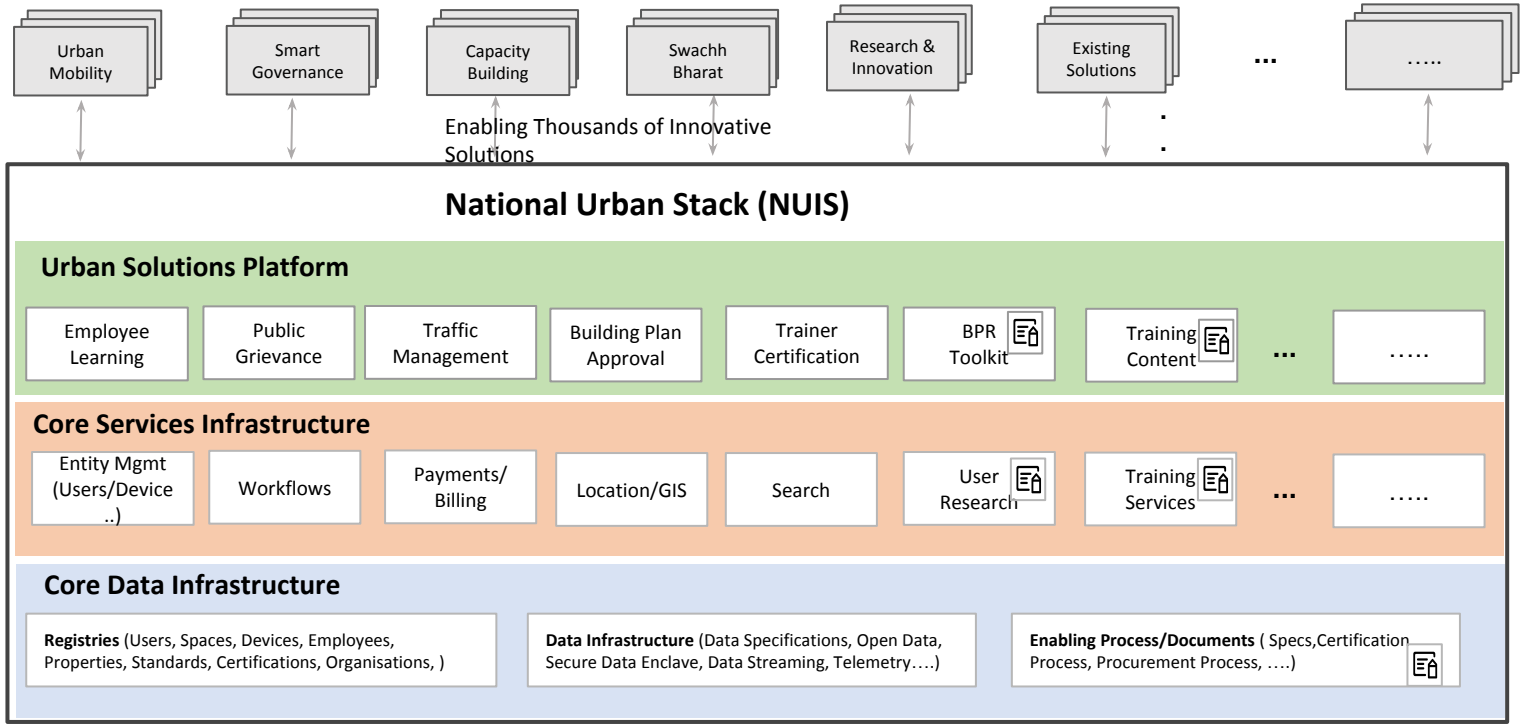
# Platform Thinking - Shared Digital Infrastructure




Non Software Elements - Process, Documents, Policies

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# Key Paradigms

# Key Paradigms

- Performance at Scale
- Easy Extensions
- Secure Data
- Data enablement
- Host Anywhere
- Mobile First

# Function

# Citizens - PAIR

- Pay - Taxes, Charges, Fees, Fines...
- Apply - Assessment, Connection, License, No Dues, No Objection...
- Inform - Services, Events, News, Polls, Opportunities, Entitlements...
- Resolve - Grievances, Questions...

# Employees - CARE

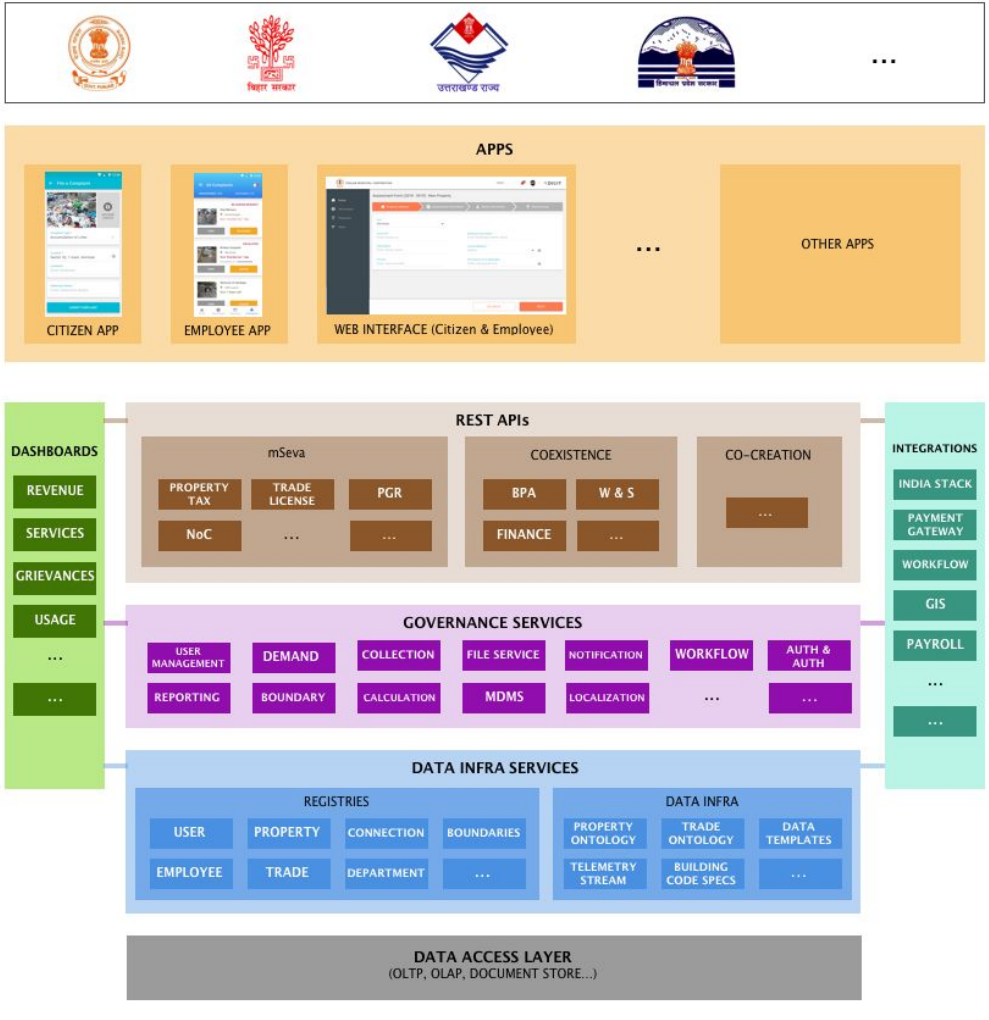
- Connect - with Citizens
- Assist - Citizens to fulfill their need
- Resolve - Grievances, Questions
- Educate - Citizen on Services, happenings, events...

# Administration - GEAR

- Govern - Easily roll out new initiatives
- Engage - Citizens with Government
- Assess - Performance
- Reward - Good Governance

# Architecture

# DIGIT Smart City Platform



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# Performance at Scale

- Micro service based design - Scale each service separately
- Designed for horizontal scaling - go from one to million requests in matter of minutes
- Asynchronous processing support - higher throughput, better customer responsiveness
- Scale managed through modern DevOps tech - Docker/Kubernetes - eases day to day management

# Easy Extensions

- Most basic needs are configurable
- Extend by API integrations - write your own API implementation or integrate with pre existing (API translation layer)
- Callbacks/Consumers - Add new connectors without impacting existing functionality
- Master Data Management service - manage configuration data easily

# Secure Data

- Data in motion secured through SSL
- Data at rest secured using Encryption/Hashing
- Supports per tenant encryption keys
- Perimeter security using API gateway
- Designed for fine grained access control policies

# Data Enablement

- Open Data APIs
- Virtual Data Rooms
- Data Fiduciary

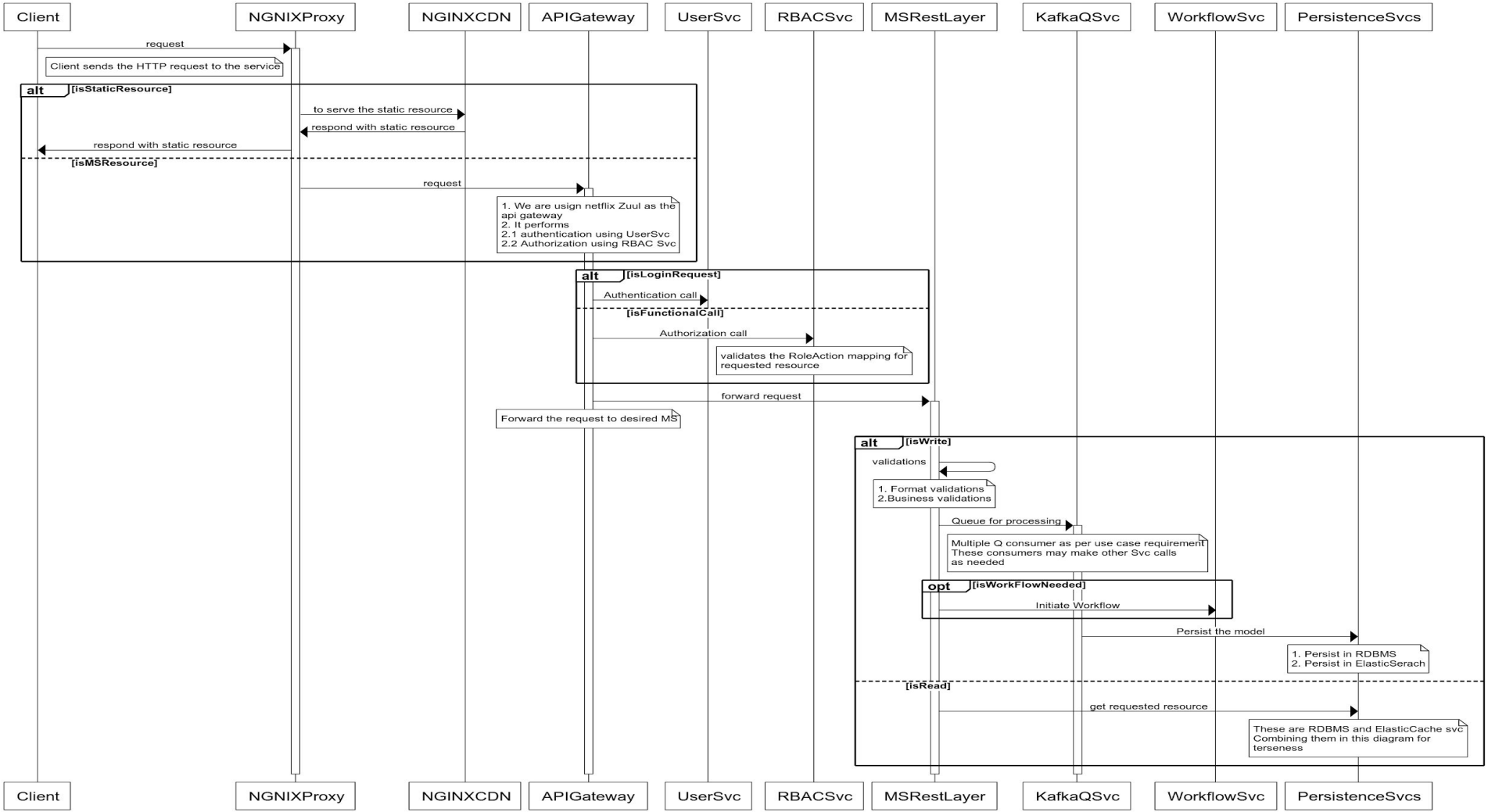
# Host Anywhere

- Cloud first - we do our development on cloud
- Cloud neutral - works on native and hybrid cloud

# Mobile First

- DIGIT reference apps designed for Mobile First
- Responsive Web Apps to support major form factors
- Allows custom UI development through APIs

# Micro Services setup



# Technology
## Infra, APIs, UI

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# Technology Infra

- Multi Cloud & Cloud Agnostic - AWS, Azure, Google Cloud & Private Data Centers.
- Containerized - Docker & Kubernetes - Allows Polyglot stack, Faster Deployment
- Orchestration - Kubernetes - Managing cluster, Spinnaker (Multi-Cloud deployment)
- Application packaging and Bootstrap - Helm charts
- Automation - Infra-as-code, Deploy-as-code, CI-as-code, Config-as-code (MDMS).
- Monitoring and Alerting - ElasticSearch/Kibana/Prometheus
- CI/CD pipeline - Jenkins, Spinnaker
- Repositories - Github Open Source Repositories with MIT License

# Technology APIs

- Defined in Open API Specifications - Swagger 2.0
- SpringBoot - REST layer
- Kafka - Asynch processing for scale and extensions
- TestNG/Postman - Tested with best tools
- ElasticSearch - Faster search
- Tech Agnostic - New APIs can be built on any stack

# Technology UI

- ReactJS - Mobile First UI
- HTML5/CSS3
- Designed to include modularized UI (Your UI within DIGIT app)


Digital Infrastructure for Governance, Impact & Transformation

Thank You