



**Manageability &
Scalability**

Overarching Concerns

- MOSIP has to live on an oversized timeline of a country (Not a business or an individual).
- As critical national infrastructure, can not afford downtime
- Continuously & consistently upgrade in an era of rapid ID tech evolution
- Control cost: Hardware, ABIS and other peer systems
- Evolving Security / Privacy landscape
- Deliver the promise of Open Source
- DIY - Not just for cost, do it for ownership
- Local ecosystem is key, MOSIP supports the local ecosystem

Scale Imperative

- Must provide continuation as tech evolves
- Microservices Architecture, stateless design
- Intelligent Autoscale of services
- Infrastructure as code principles
 - Infra backup
 - Near and far availability zones
- Data system scale
 - Sharding
 - Replication
- Manage sizing with infra utilization / projection / load report

Foundational Imperative

- Support build out beyond simple Authentication
 - eCommerce ecosystem - onboarding, payments, banking
 - eKYC - Point of Auth, regulatory bodies and service providers
 - Gain trust of end users & organizations
- High scalability & availability
- Fault tolerant design
- Loosely coupled, tightly integrated for eventual consistency
- MOSIP will work for your legal framework: does not impose any governance style
- Aim for minimalism in future, if not possible right away



Acquire / Upgrade / Evolve

- Open standards Integration with existing systems for a smooth start
- Directory services support to independently manage the foundational ID organization
- Recommendation: Overtime, replace existing ID system and become a true foundational ID
- MOSIP foundations role:
 - System Integrator ecosystem seeding, training, certification
 - Advise / handhold on config / customization
 - Provide new interfaces for new technologies
 - Ensure an upgrade path for all releases

Manage Cost

- Unbundled ABIS interface allowing separate unimodal identification
- Evaluation, reporting & grading of ABIS - Continuous improvement
- Auth spec to allow more players in devices space
- Continuous reporting of Auth efficacy by device model
- Infrastructure efficiency monitoring for commodity hardware

Analytics and reporting

- Analytics stream originating at every major mutation
- Analytics is separate stack, independent of transactional system
- Immutable data warehouse based on a columnar DB
- Audit DB is available for continuous monitoring
- A pipeline based approach to real time analytics - configurable metrics capture

MOSIP Foundation - Architectural Role

- Protect mutation of interfaces, backward compatibility
- Protect architectural principles: separation of concerns, interface - implementation separation, computational efficiency, statelessness, security & privacy, commoditization
- Change management: Release planning for upgrade and bug fix.
- Change management: In consultation with SI ecosystem
- Open Source contributions review and code promotion
- Manage / upgrade the test rig and other test code
- “Manage Code Forks”!

MOSIP Foundation - Ecosystem Role

- Evangelize Open Source
- Build and provide training and certification for all players of the ecosystem
- Build & Provide the play book - how to do it right
- Facilitate cross pollination
- Encourage contribute back
- Promote total local ownership
- Handhold local technology communities