

# **Technical Presentation for Development of a New Portal for SPoCS and MGA (Design, Development, Implementation with Maintenance)**



# Agenda

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**03.**

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**04.**

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Innovative ideas & Suggestions/Use of emergent technologies

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Proposed Cloud Hosting Solution Solution



# Introduction and Our Capabilities



# ESDS Software Development Profile and Global Clients



20+

**Years**

ESDS is a  
Leading Software  
Development  
Company



8+

**Industries**

Customer across Education,  
Healthcare, BFSI, Energy,  
Government, Media etc.



1000+

**Employees**

ESDS has over 200+  
employees onboard in  
Research & Development



1000+

**Customers**

ESDS Group is  
serving customers across  
5 continents.



Coal India

**Web Portal /  
Website**



NABARD Consultancy  
Services



Food Safety and Standard  
Authority Of India



**GOVERNMENT OF INDIA**  
MINISTRY OF STATISTICS AND  
PROGRAMME IMPLEMENTATION

Ministry of Statistics and  
Programme Implementation  
(MoSPI)

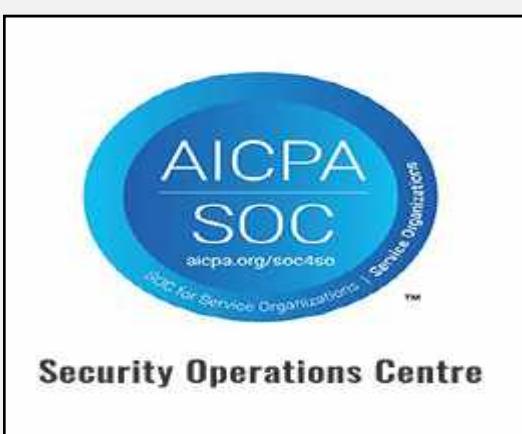


Power Finance Corporation



Industrial Finance  
Corporation of India Limited  
(IFCI)

# Compliances



# Requirement Understanding or Scope of Work



# Requirement Understanding or Scope of Work

## SCOPE FOR THE WEB PORTAL

The project involves design, development, implementation, certification, and maintenance of a new portal for SPoCS and MGA  
The core responsibilities include:

-  Developing a Software Requirements Specification (SRS) for the portal
-  User management  
Application submission, forwarding, review and approval
-  Monitoring of grants and progress
-  Notifications to stakeholders at each stage
-  Hosting the portal on a MEITY-approved India-based data center with capacity for large file uploads 
-  Ensuring responsiveness and compatibility with all browsers
-  Creating dashboards for different stakeholders (Applicants, MoC admin, NCSM admin, reviewers, PAC members)
-  Generating progress and statistical reports for stakeholders
-  Enabling API integrations and conducting a security audit before Go-Live
-  Procuring and maintaining SSL certificates 1+4 years

# Proposed Solution or Prototype



# Proposed Solution or Prototype



[POC Link](#)



The screenshot shows the homepage of the National Council of Science Museums (NCSM) Grant Management System. At the top, there are links for the Government of India and the Ministry of Culture in both English and Hindi. On the right side of the header are links for Screen Reader, Skip to Content, and Hindi. Below the header, the NCSM logo (a flask icon) and the text "National Council of Science Museums" and "Ministry of Culture, Government of India" are displayed. To the right of the logo are "Login" and "Register" buttons. A callout bubble in the center of the page says "Digital India Initiative". The main title "NCSM Grant Management Portal" is prominently displayed in large, bold, blue and orange text. Below the title, a description of the portal's purpose is provided: "Streamlined digital platform for SPoCS and MGS grant applications with transparent processing, role-based access control, and comprehensive monitoring - empowering scientific research across India." A small blue and purple circular icon with a white symbol is also visible on the right side of the main content area.

भारत सरकार • Government of India | संस्कृति मंत्रालय • Ministry of Culture

Screen Reader | Skip to Content | हिंदी

**National Council of Science Museums**  
Ministry of Culture, Government of India

**Grant Management System**

Login Register

Digital India Initiative

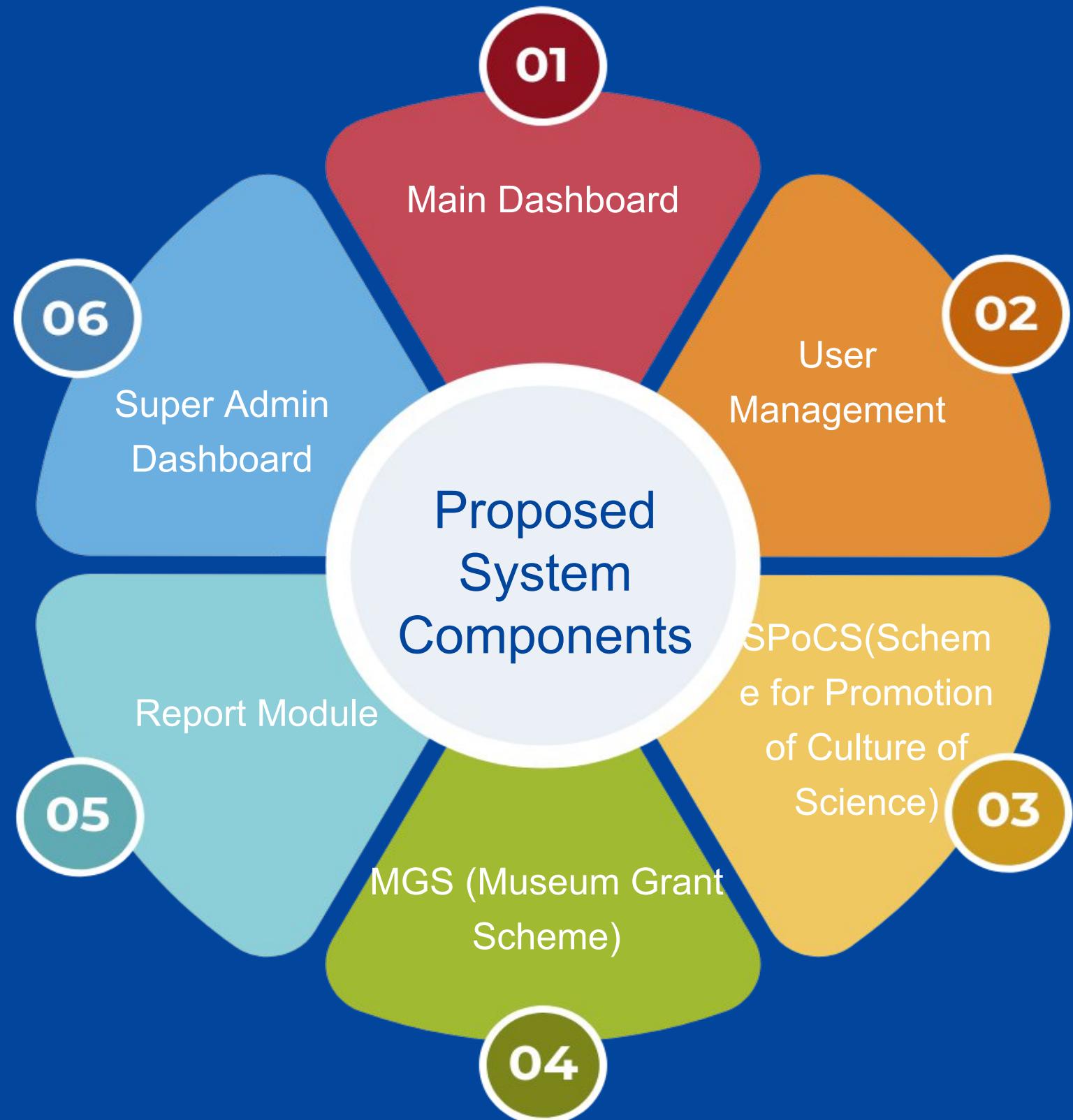
# NCSM Grant Management Portal

Streamlined digital platform for SPoCS and MGS grant applications with transparent processing, role-based access control, and comprehensive monitoring - empowering scientific research across India.

# Modules & Sub Modules



# Modules & Sub Modules

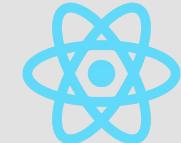


# Technologies Adopted



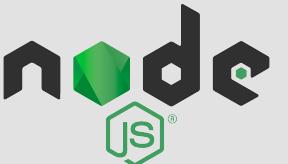
# Technologies Adopted

Frontend



React.js

Backend



Node.js

Backend



.NET Core

Microservices



REST API

LCNC



LCM



OutSystems

SQL  
Database



Postgres

NoSQL  
Database



MongoDB

Business  
Intelligence Tool



Power BI

MQ



Rabbit MQ



Apache Kafka

Directory  
Service



AD/LDAP

Single  
Sign-On



Keycloak

Report  
Builder



Jasper Reports

API  
Gateway



Nginx

Deployment

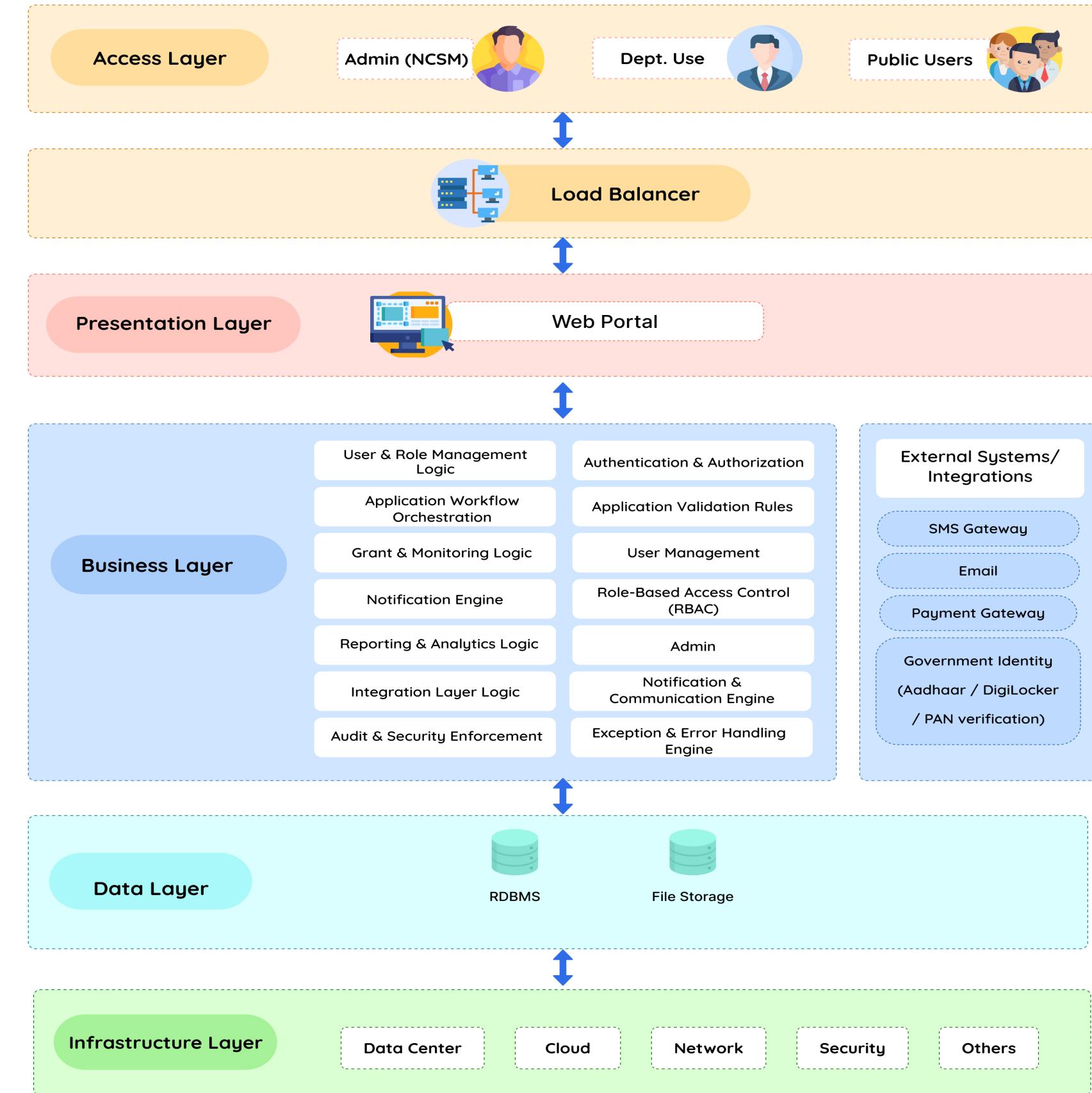


Kubernetes

# Proposed Application Architecture



# Proposed Application Architecture



# Project Approach



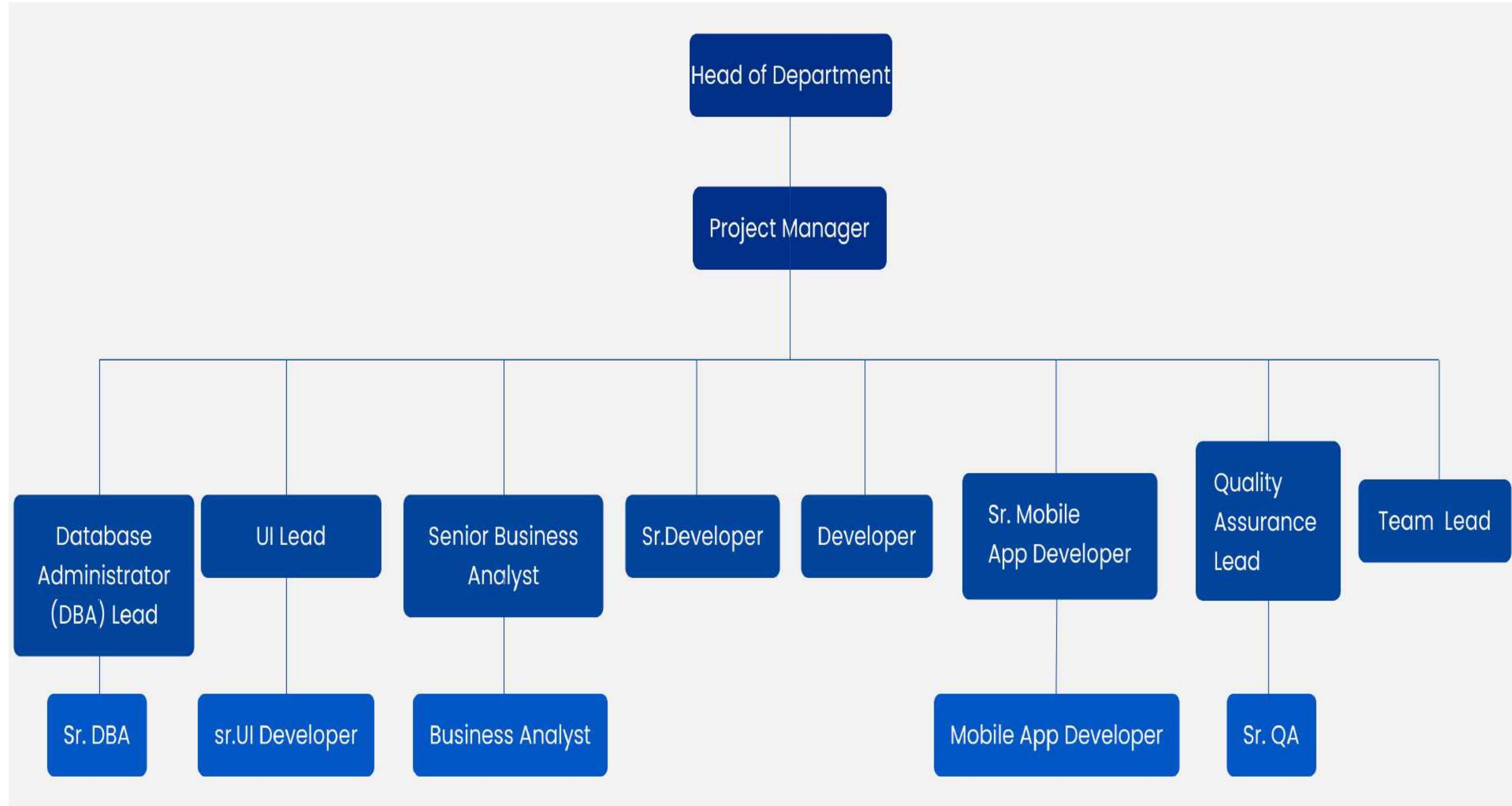
# Project Approach



# Team Composition



# Team Composition



# Project Management plan



# Project Management Approach & Governance

## PROJECT MANAGEMENT APPROACH

SOFTWARE PORTAL



PROJECT MANAGEMENT APPROACH

Project Management Approach

STEERING COMMITTEE

PROJECT MANAGEMENT OFFICE  
PMO

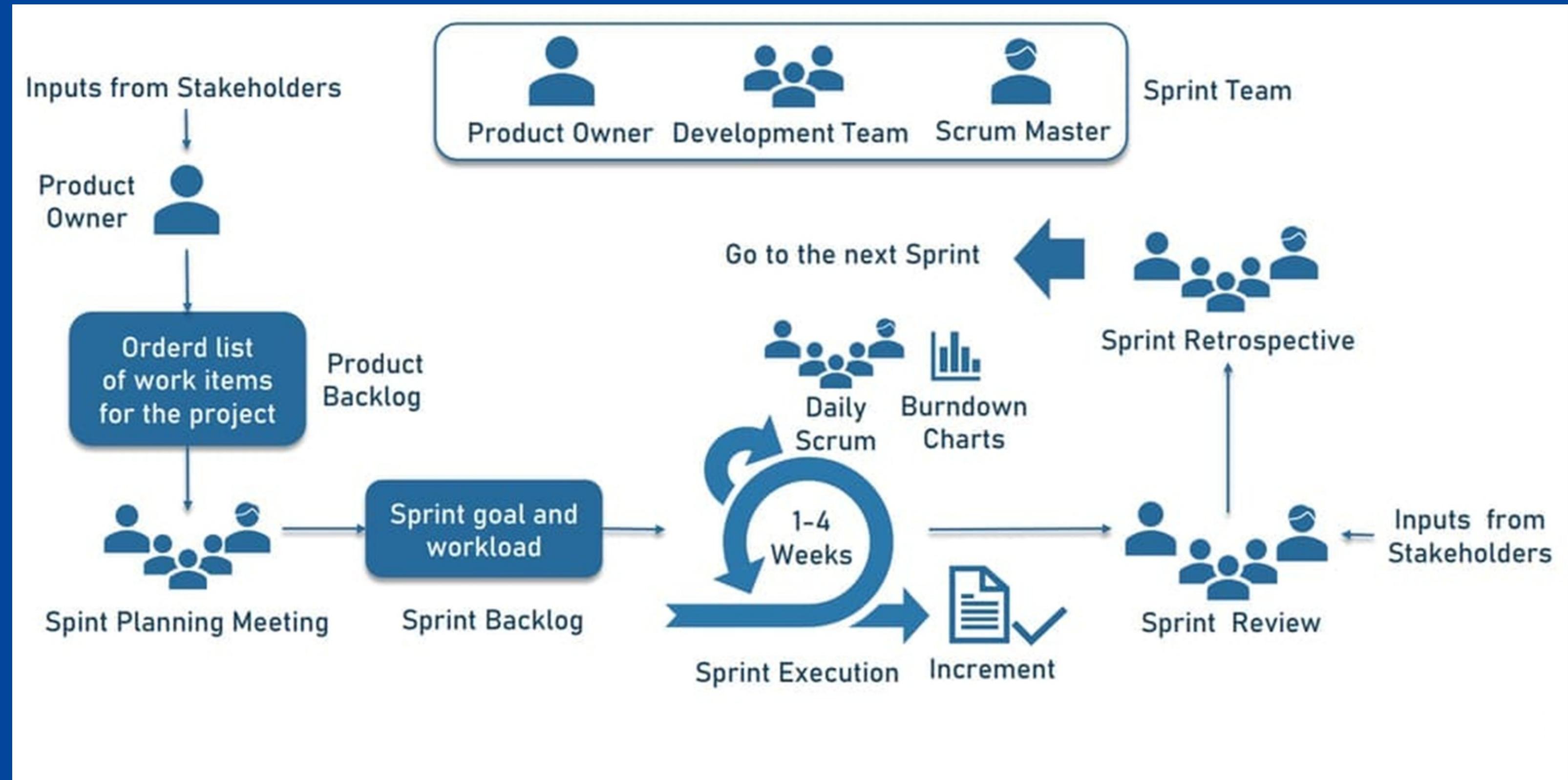
EXECUTION TEAM

RISK & MITIGATION

Risk	Mitigation

Project Governance Framework

# Agile Delivery Framework



# Timelines and Workplan



# Timelines and Workplan

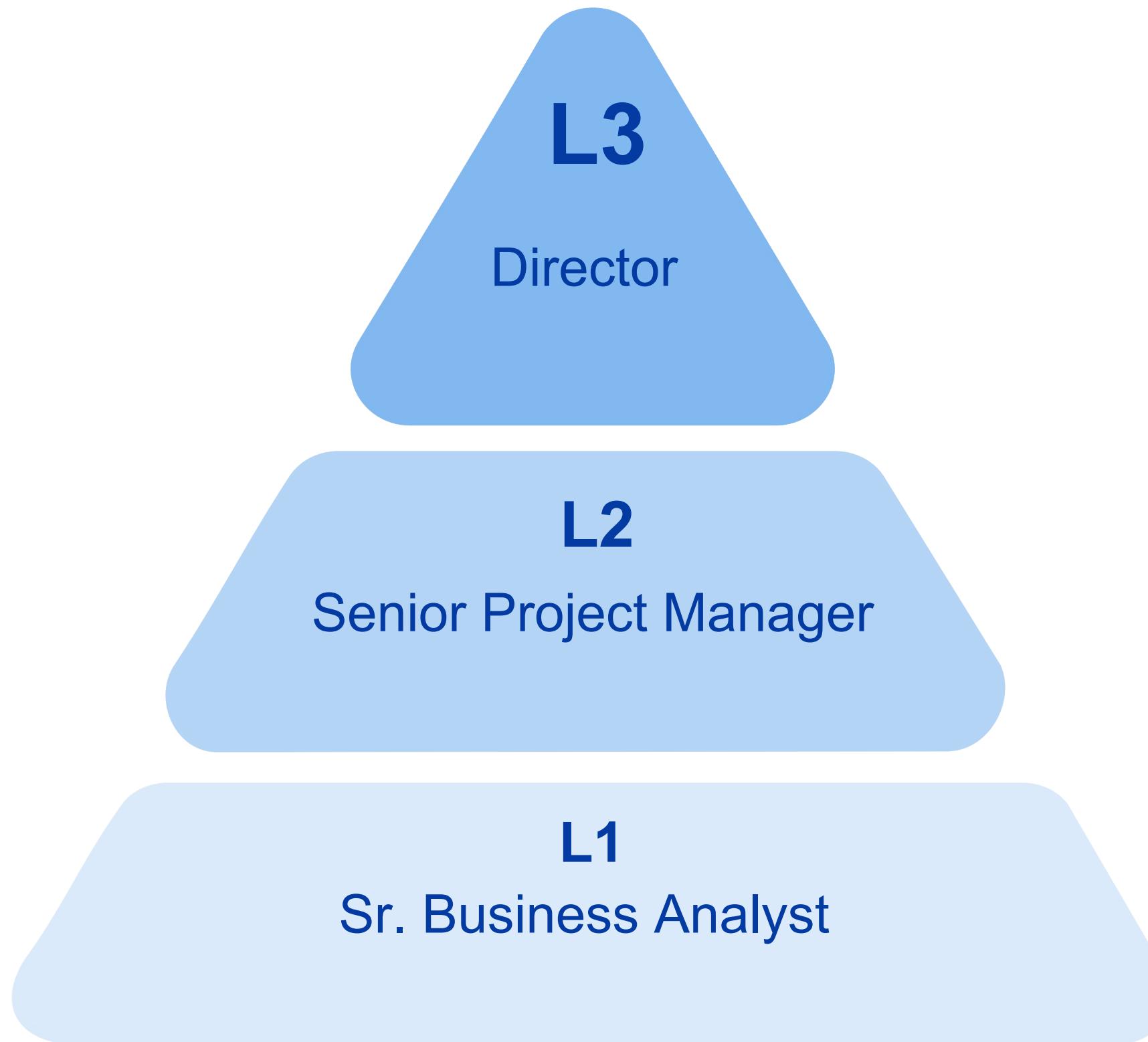
Sl. No.	Activites	Time Frame
1	SRS Preparation & Design Approval	½ Month
2	Development of the portal	2 Months
3	UAT from User department	½ Month
4	Security Audit & SSL + Go-live	½ Month
5	Deployment at Server at Go-Live	½ Month
6	Accessibility Audit and obtaining clearance Certificate by DEPwD empaneled accessibility auditor	½ Month
7	STQC Certification (Website)	1/2 Month
8	AMC of Portal: after Warranty Period of one Year is Over i.e Go Live Date of Website.	4 years beyond warranty period of 1 year

Milestone / Deliverables	M1	M2	M3	M4	M5
Requirement Study and Documentation	Weeks 1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 20 21				
SRS Preparation & Design Approval					
Development of the portal					
UAT from User department					
Security Audit & SSL + Go-live					
Deployment at Server at Go-Live					
Accessibility Audit and obtaining clearance Certificate by DEPwD empaneled accessibility auditor					
STQC Certification (Website)					
Activities					
AMC of Portal: after Warranty Period of one Year is Over i.e Go Live Date of Website					AMC for 4 years beyond warranty period of 1 year

# Risks and Mitigation



# Risk & Mitigation Plan



Escalation Matrix



Risk & Mitigation

# Training Methodology and Plan Time Frame



# Training Schedule

## What to Cover

- ✓ Portal features & navigation (SPoCS & MGS modules, dashboards, reporting).
- ✓ User management (enrollment, role assignment, authentication).
- ✓ Application processing workflows (submission, review, approval).
- ✓ Security protocols (MFA, data protection, audit logs).
- ✓ Basic troubleshooting and escalation procedures.

## How to Deliver

- ✓ Hands-on workshops with live demo and practice on the portal.
- ✓ User manuals & technical documentation for reference.
- ✓ Recorded video tutorials for refreshers and new joiners.
- ✓ Q&A sessions after each training block

## Whom to Train

- ✓ Admin users (NCSM and MoC staff handling configurations & monitoring).
- ✓ Reviewers & PAC members (on application evaluation workflows).
- ✓ Helpdesk/Support staff (for issue handling & user support).
- ✓ Applicants (optional orientation) via simple guide/video.

## Where to Conduct

- ✓ Primary: Online training (for core admin staff).
- ✓ Secondary: Online training sessions (for remote stakeholders and reviewers).
- ✓ Provide continuous remote support during warranty and AMC period.

# Operations and Maintenance Plan – Road Map



# Operations and Maintenance Plan – Road Map

**Objective:** To design, develop, implement, and maintain a new online portal for SPoCS (Scheme for Promotion of Culture of Science) and MGS (Museum Grant Scheme).

**Duration:** Development and certification must be completed within 5 months

1 Year Defect / Liability / Warranty Period

4 Years AMC (Comprehensive Annual Maintenance Contract )

Total engagement = 5 months (development) + 2 Month certification) + 1 year warranty + 4 years AMC.



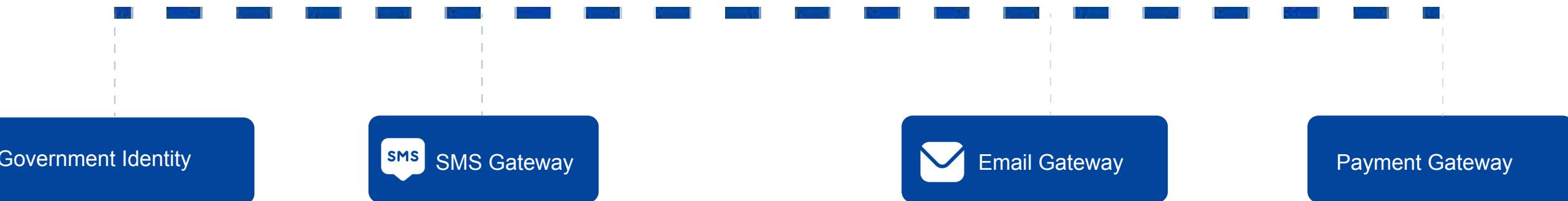
OPERATIONS & MAINTENANCE PLAN	
Government IT Portal	
SUPPORT MODEL	Maintenance Activities
L1	Patches
L2	Monitoring
L3	Backups
SLA TABLE	TEAM DEPLOYMENT
Critical	D&M Manager
Major	Developers
Minor	QA

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# 3rd Party Integrations



# 3rd Party Integrations



New Portal will Speed  
UP - Grant Application  
Process



# New Portal will Speed UP - Grant Application Process

## How the New Portal Will Speed Up the Grant Application Process

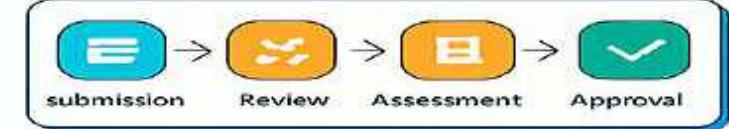
### 1. End-to-End Online Application



Applicants will be able to submit proposals online instead of manual/physical submission

→ This reduces delays caused by paperwork and postal

### 2. Automated Workflow & Approvals



submission → review → assessment → approval

Applications will move automatically through predefined stages:  
submission → review → assessment → approval

### 3. Real-Time Tracking & Transparency



Applicants and administrators can monitor live status of applications flow

Notifications & alerts (via SMS and email) at each stage prevent unnecessary delays

→ This minimizes repeated follow-ups and ensures accountability at every level.

### 4. Advanced Reporting & Monitoring



progress in real-time (Excel/PDF)

Data-driven insights save time by working with pre-compilable at every level.

→ Review committees save time by working with pre-compiled, accurate data.

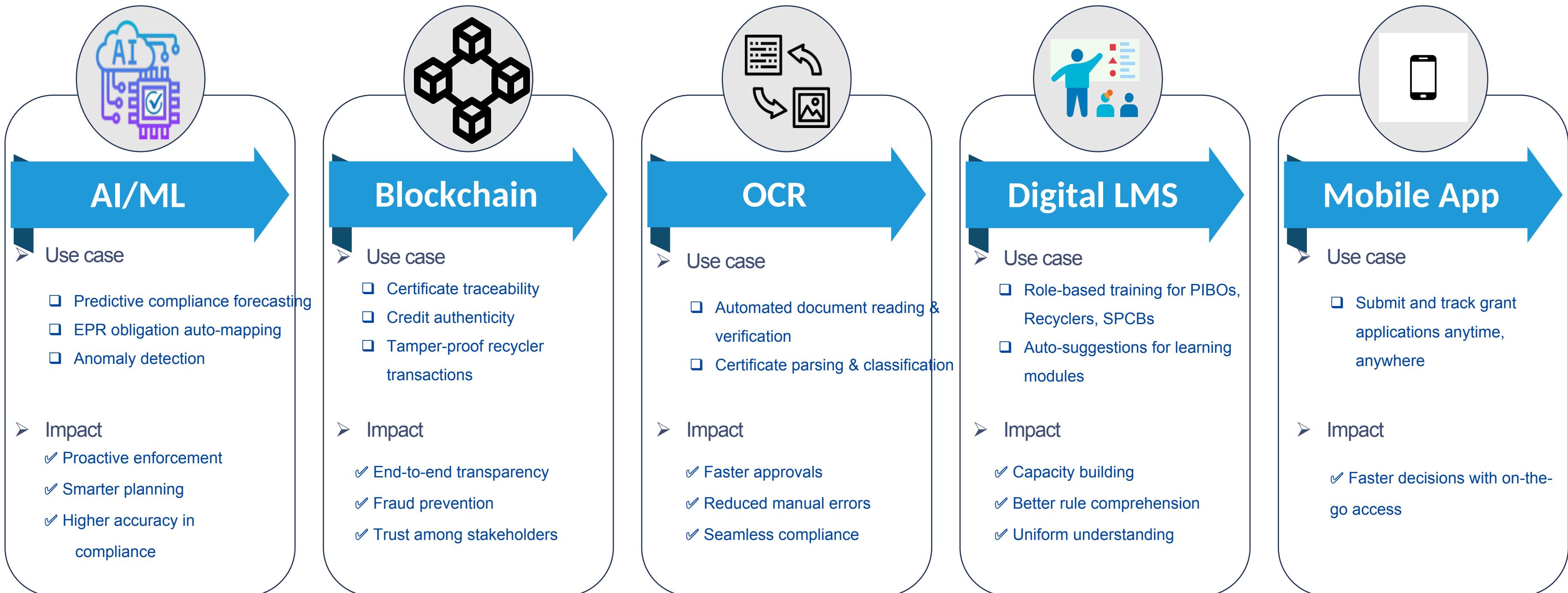


The proposed portal will reduce paperwork, automate real-time monitoring and ensure transparency, thus significantly accelerating the grant application, review, and approval process.

Innovative ideas &  
Suggestions/Use of  
emergent technologies



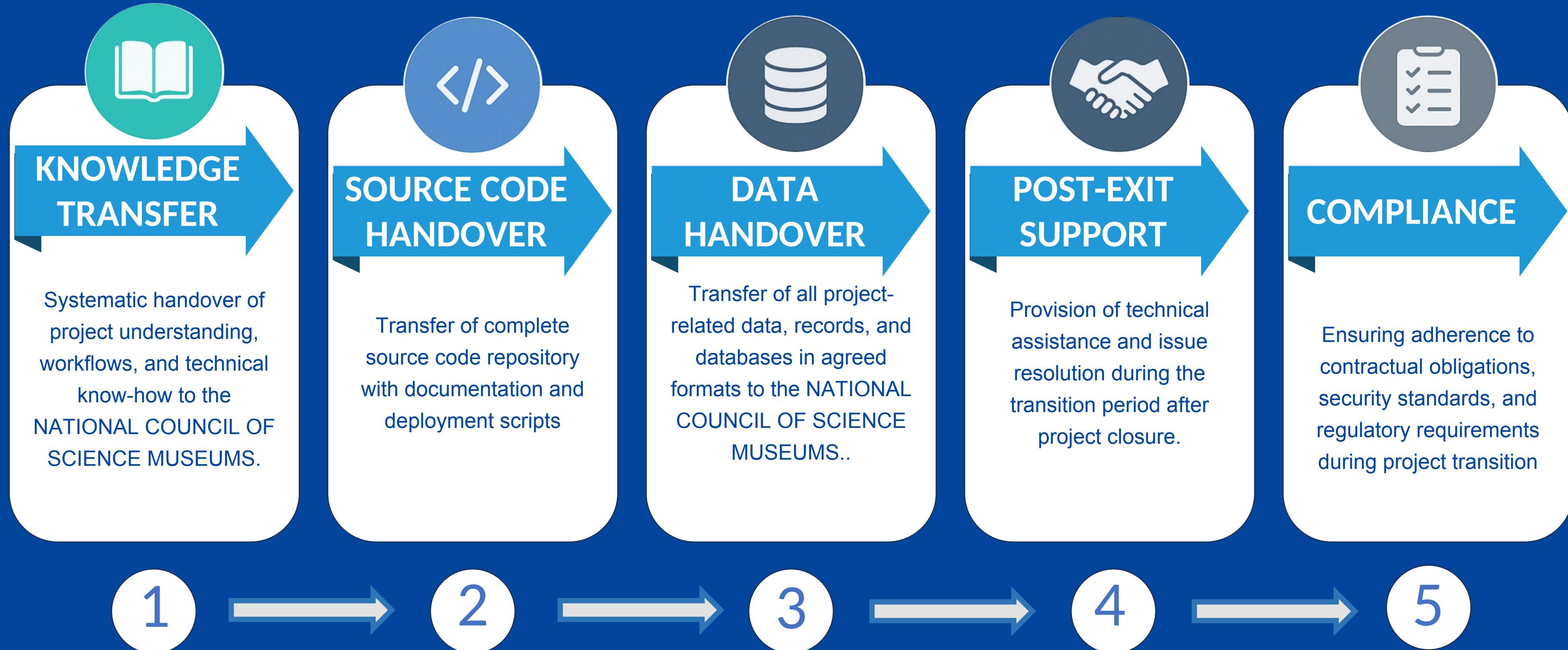
# Innovative ideas & Suggestions/Use of emergent technologies



# Exit Plan



# Components of a Seamless Project Exit Strategy





# Proposed Cloud Hosting solution



# Cloud Hosting – Key Features (SPoCS & MGS Portal)



## MeitY-empanelled GCC Hosting

India-based, MeitY-approved hosting (As per RFP)

## DC-DR

Ensures RPO & RTO as per meity Guidelines

## Auto-scaling & Optimization

Patented eNight auto-scaling technology

## Enterprise Uptime & SLA

99.95% SLA uptime (as required in RFP)

## Security & Compliance

Multi-layer security with Firewall, WAF. Compliant with ISO, PCI DSS; MeitY Empanelled

## Backup & Retention

Customizable retention period

## Monitoring & SLA Reporting

24x7 monitoring & eMagic portal

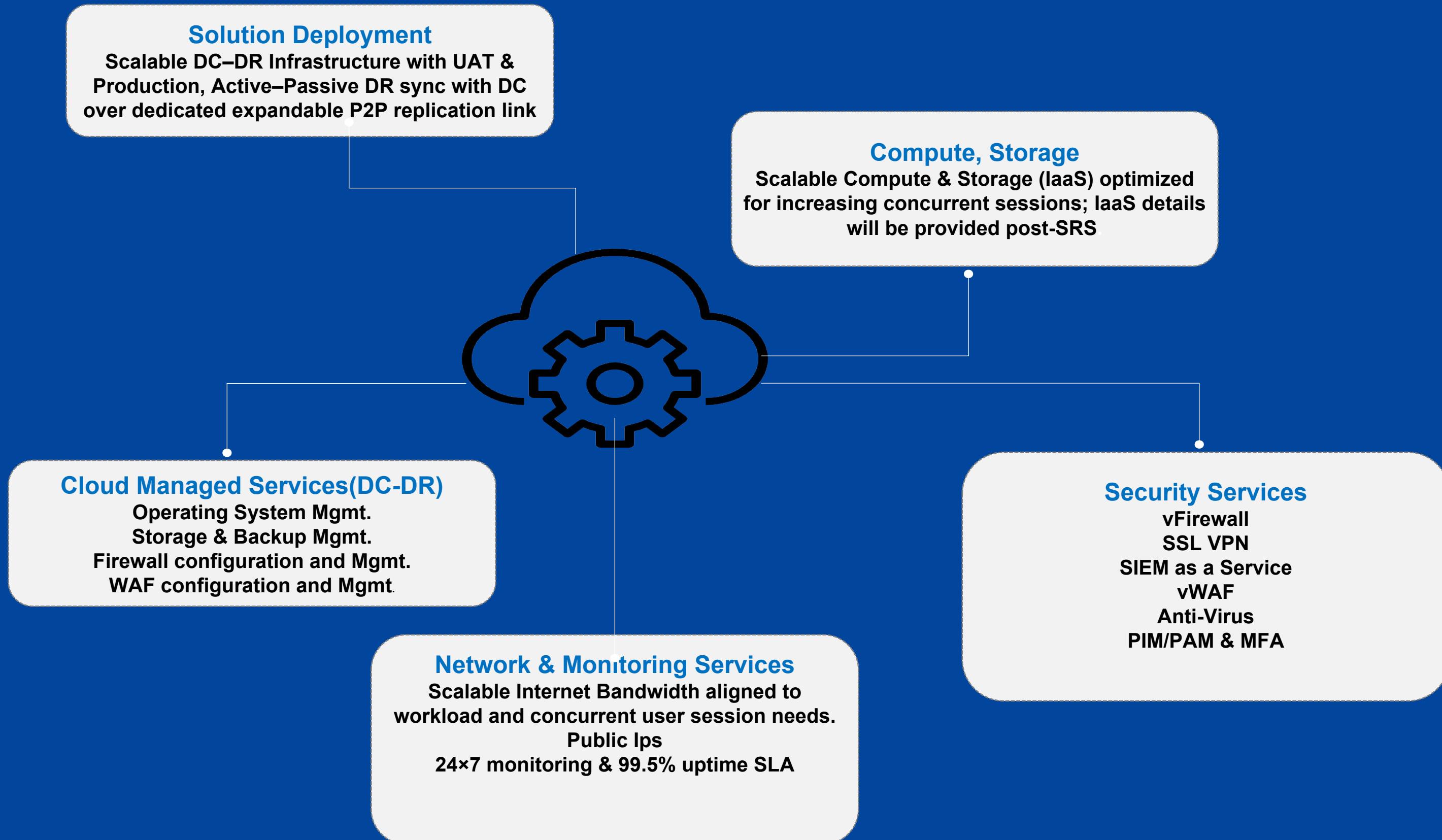
## Managed Services

24x7 support, patching, firewall, DB ,OS, Storage, backup

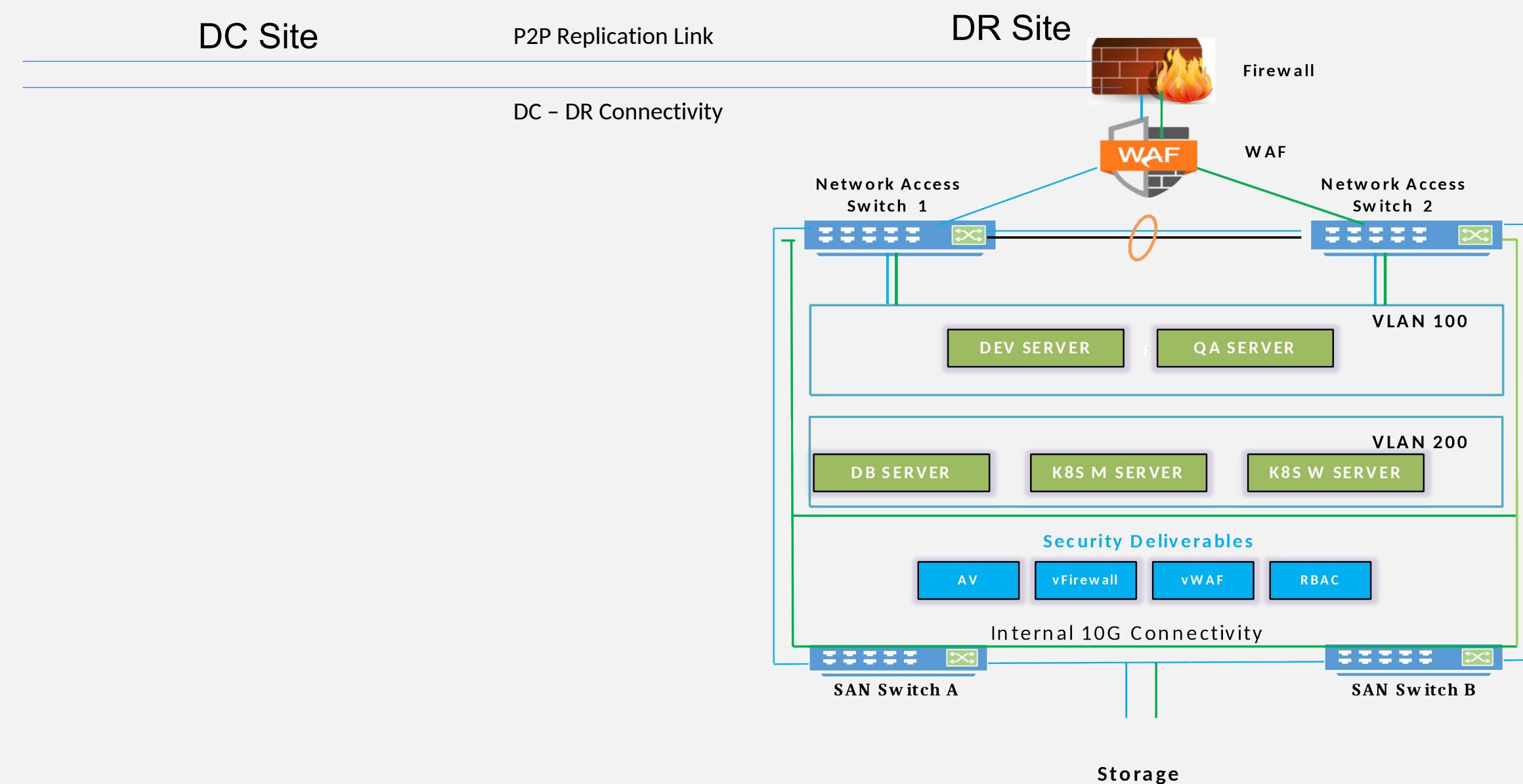
## Integrations & Services

SMS & Email Integration  
API Integration

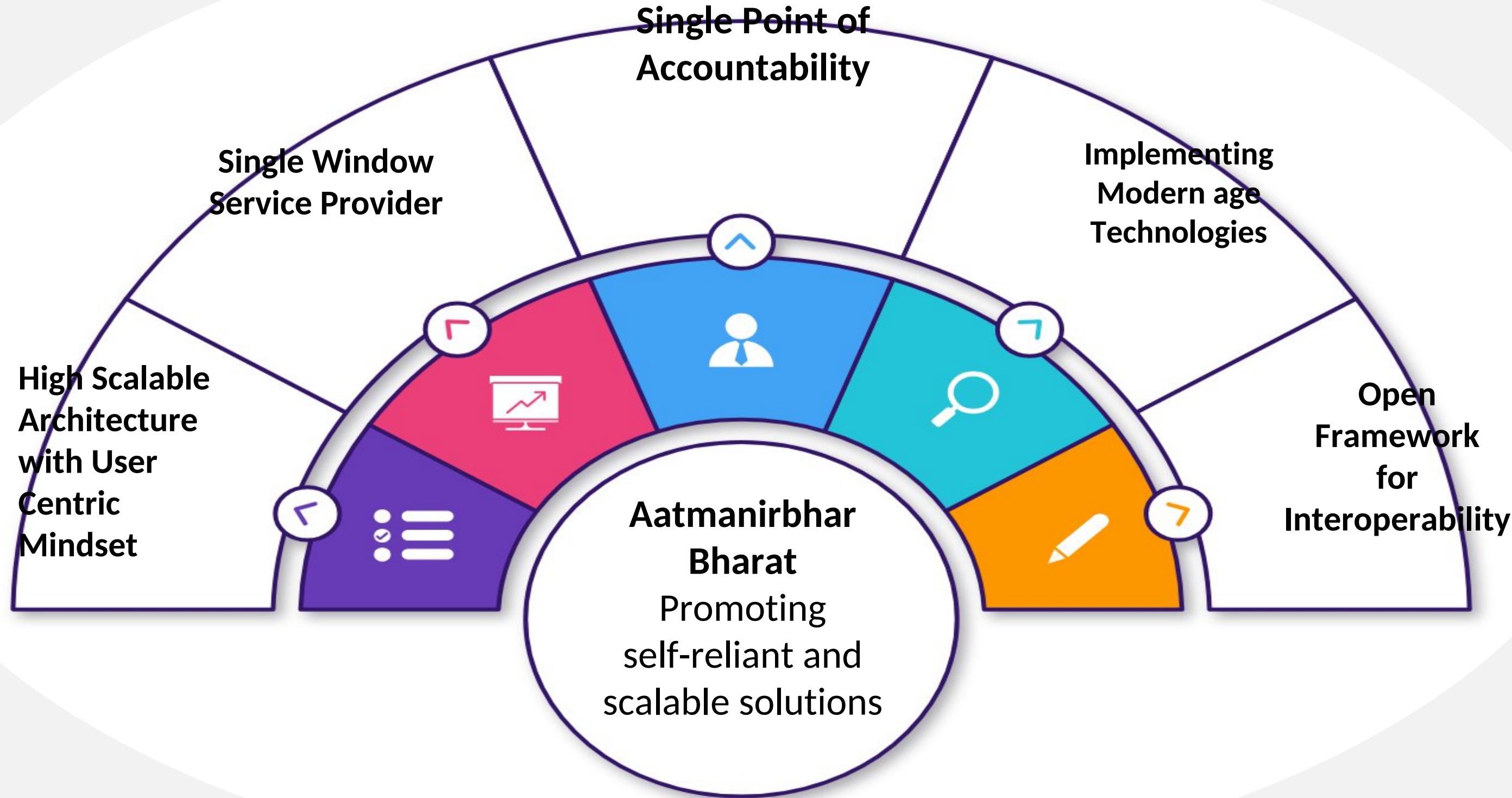
# Proposed Cloud Hosting Solution



# Proposed cloud infrastructure for DC and DR site



# Key Differentiator



# Thank You!

