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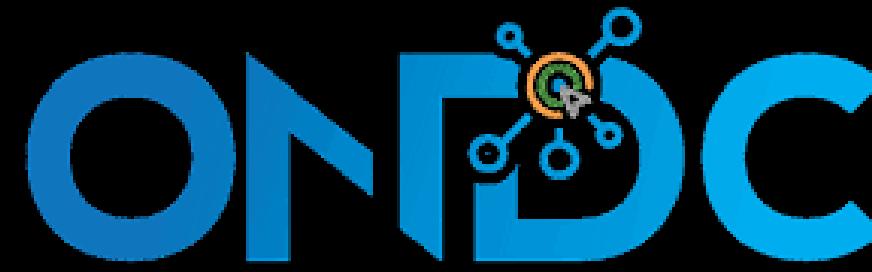
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# TITLE : ENHANCING CATALOG MANAGEMENT IN THE ONDC ECOSYSTEM



Open Network for Digital Commerce

## PROBLEM STATEMENT 1

Global Catalog Registry Background In a digital ecosystem like ONDC, catalogs are the foundation for suppliers to achieve digital visibility and transact effectively. ONDC's interoperable and unbundled framework emphasizes the need for a robust, unified approach to catalog creation and dissemination, as there is no single entity responsible for producing or consuming catalogs. However, various network participants face significant challenges that limit seamless catalog management and utilization.

**GLOBAL**

**CATALOG**

**REGISTRY**

**PROJECT VIDEO LINK (CLICK ME).**

# MARKET ANALYSIS

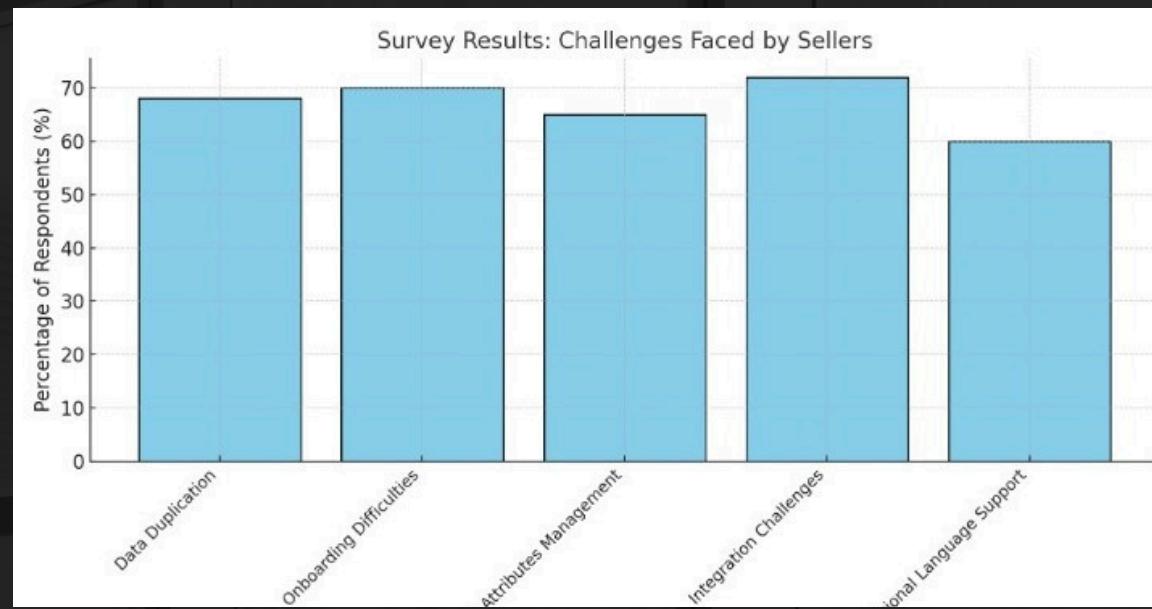
## 1. Market Need

- Sellers face difficulties in onboarding and managing catalogs (e.g., data duplication, inconsistent taxonomy).
- 68% of seller applications report redundancy issues in catalog entries.
- 70% of small sellers struggle to create catalogs due to lack of digital literacy.

## 2. Opportunity

Simplifying catalog management can:

- Enhance participation of rural and small-scale sellers.
- Improve buyer experience with consistent product representation.
- Reduce operational costs by addressing inefficiencies.



# PROPOSED SOLUTION OVERVIEW



## **1. Centralized Catalog Management System:**

- Provides predefined templates for sellers to organize and upload catalogs efficiently.
- Leverages AI for smarter categorization and organization.

## **2. Federated Hosting:**

- Implements a distributed hosting system that reduces redundancy.
- Uses hash-based deduplication to identify and remove duplicate data across catalogs.

## **3. Dynamic Attribute Management:**

- Supports real-time updates for attributes like pricing and stock availability.
- Ensures buyers and sellers access the latest information.

## **4. Regional Language Support:**

- Incorporates multilingual tools to make the system accessible to a diverse audience.
- Focuses on inclusivity for sellers in rural or non-English-speaking regions.

## **5. Accessibility Features:**

- Includes features like voice guidance to simplify catalog creation for users with limited digital literacy.

### Why These Features Are Critical

- They tackle the primary issues faced by sellers and buyers in catalog management, such as redundancy, lack of standardization, and inclusivity.
- By leveraging advanced technology (AI, multilingual tools), the system ensures that even non-tech-savvy users can participate effectively.
- Federated hosting and deduplication enhance system performance and reduce operational costs.

# TECHNICAL ARCHITECTURE & FEASIBILITY



PITCH DECK

## Architecture Overview

### **1. Backend Components:**

- Federated database with deduplication algorithms.
- AI modules for natural language processing and data verification.
- Real-time synchronization APIs.

### **2. Frontend Components:**

- User-friendly dashboards for sellers and admins.
- Mobile-friendly interface for easy access.

## Technology Stack

- Backend: Node.js
- Frontend: HTML,CSS,Javascript,Bootstrap,React.
- Database: MongoDB,MY SQL

## Feasibility

- Highly scalable cloud architecture.
- Cost-efficient due to open-source components.

# SCALABILITY



- **Scalability Features:**
  - Federated hosting for distributed load management.
  - AI tools reduce manual interventions, enabling faster scaling.
  - Cloud infrastructure supports millions of users.
  - Modular system design allows seamless integration of future ONDC initiatives.
- **Regional Adaptability:**
  - Multilingual and localized catalog caching.
  - Tailored support for urban and rural sellers near Delhi NCR and Greater Noida.
- **Future-Ready:**
  - Compatible with additional ONDC modules, such as analytics and recommendation engines.
  - Provision for integration with global e-commerce platforms.

# WIREFRAMES(DESIGN)

## Key Interface Seller Dashboard:

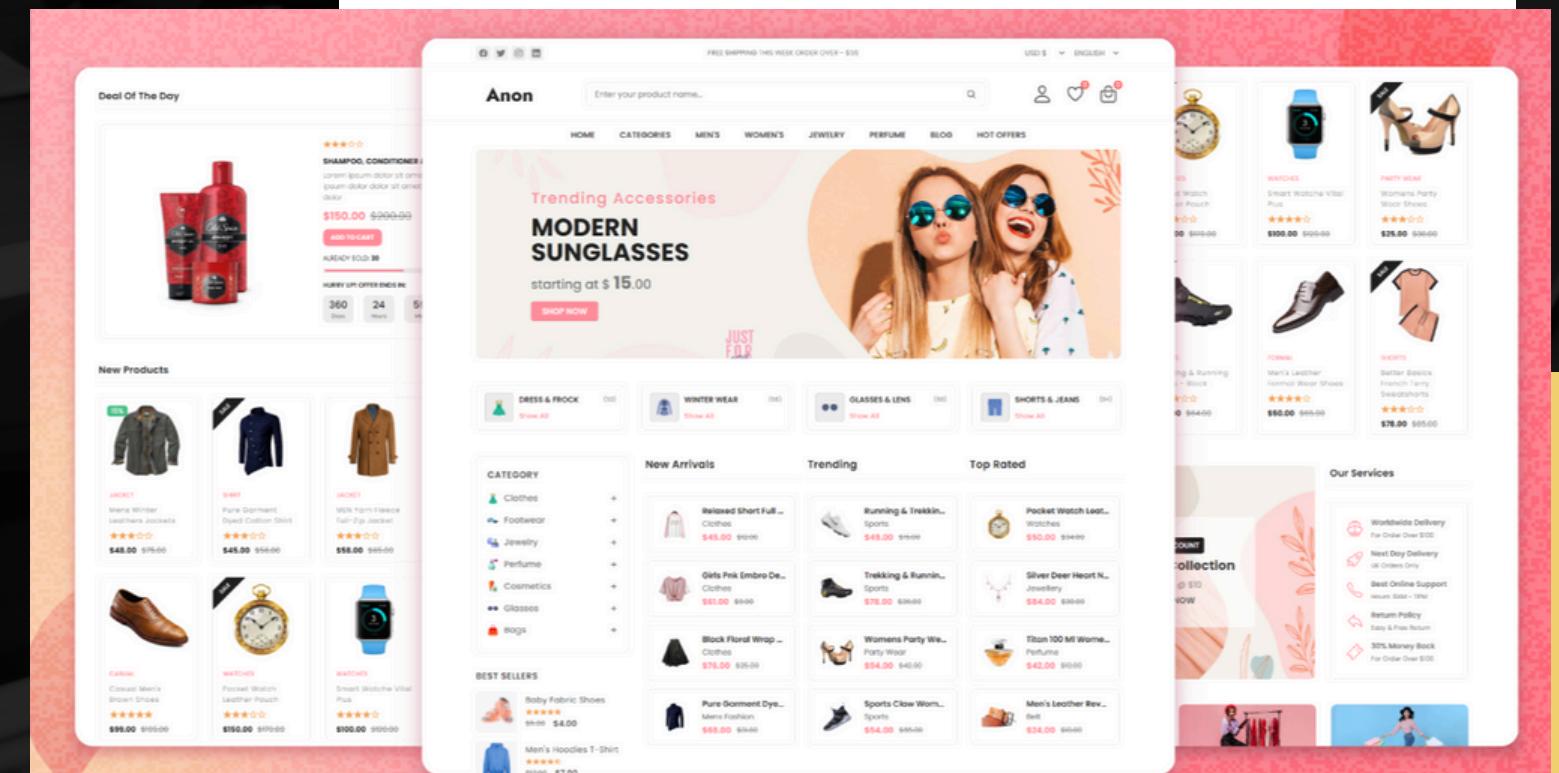
- Product upload section with templates.
- Catalog analytics (top-performing products, stock levels).
- Order and inventory tracking.

## Buyer App:

- Consistent catalog display.
- Advanced filters and search options.

## Admin Panel:

- Oversight of seller onboarding.
- Reporting tools for catalog and transaction analysis.



# ALIGNMENT WITH ONDC GOALS

## Inclusivity:

Democratizes access for rural and small-scale sellers, enabling wider participation in e-commerce.

## Interoperability:

Standardizes catalogs, enhancing cross-platform consistency and enabling seamless integrations across ONDC participants.

## Cost Efficiency:

Reduces operational costs with open-source tools, AI-driven catalog deduplication, and automation of repetitive tasks.

## Enhanced Experience:

Buyers benefit from seamless, error-free catalogs and a more reliable shopping experience.

## Sustainability:

Optimized resource use and scalable design support long-term ONDC goals of fostering a robust, inclusive digital marketplace.

## Data Security & Trust:

Employs hashing and encryption to secure catalog data and build trust with stakeholders.

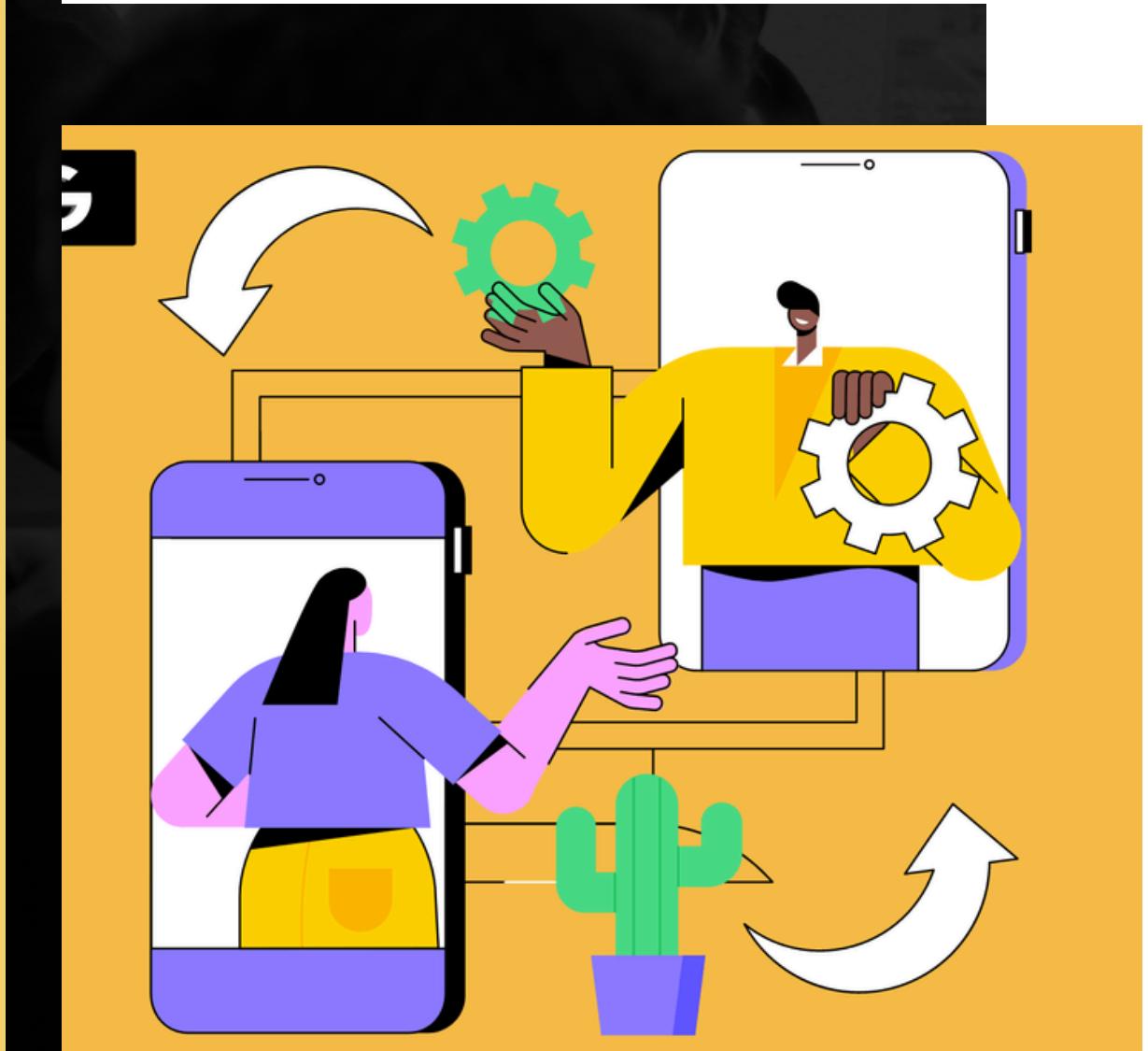
# CONCLUSION AND NEXT STEPS

## Recap:

- The solution addresses catalog management challenges effectively.
- Combines scalability, inclusivity, and cost efficiency.

## Next Steps:

1. Pilot Program: Rollout in Delhi NCR and Greater Noida.
2. Feedback Collection: Gather insights from stakeholders for refinement.
3. Phased Expansion: Gradual rollout to other regions.



# THANK YOU.

