



#### Citizen Redressal cell -PRAJAVANI

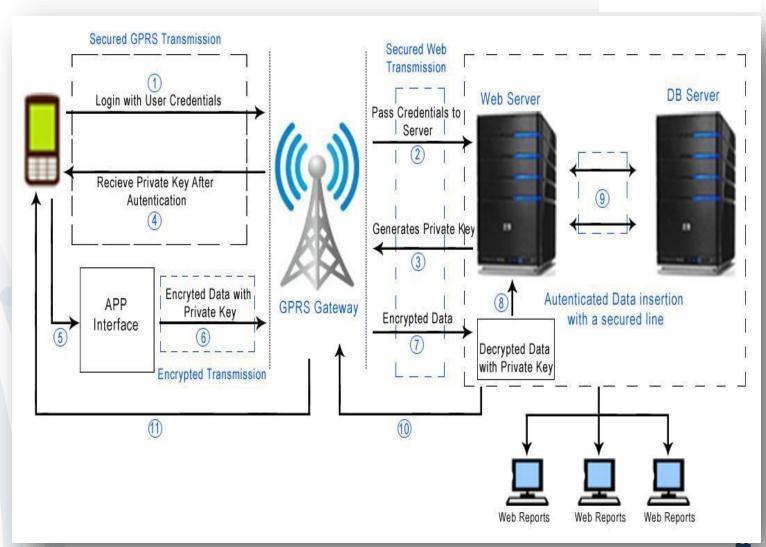


#### Mobile Governance Solutions & Security architecture





For the security of the solutions, we uses https servers to protect the data from various vulnerabilities on the internet. Further, the following diagram demonstrates the security of the data transferred in the air using mobile security architecture.



#### **Loyal Telesystems for Smart Governance**





People of Telangana- 40 million connected



Place 33 Districts



Governance for the people







#### Similar Good Governance projects in Karnataka

- POC for fair price shops
- PDS project in pipeline

#### Introduction

This proposal aims to introduce an advanced and secure Smart Prajavani/Ration Card system in Telangana. The proposed system will leverage encryption technology to protect sensitive data and ensure the confidentiality and integrity of information exchanged within the Public Distribution System (PDS). By incorporating a Virtual Encryption Keyless and robust encryption protocols, this system will enhance the security and efficiency of Prajavani/ration card management in Telangana.

Along with that, We provide an automated blockchain enabled supply chain system for PDS using QR Code & GSM module to prevent food adulteration, inaccurate weight transparency, traceability and irregularities. This automated system will replace the conventional ration system.



#### Reference





We are Executing POC at Civil Supplies Department in Karnataka Bangalore. Loyal is keen to execute similar project civil supplies PDS (Public Distribution Systems) in government of Telangana.

HOME / NEWS / INDIA / KARNATAKA

### Karnataka | Separate sets of BPL cards to be issued to those seeking ration and those seeking only medical facilities

July 26, 2023 09:04 pm | Updated 09:04 pm IST - BENGALURU

THE HINDU BUREAU







Food and Civil Supplies Minister K.H. Muniyappa on Wednesday announced that the government had decided to issue separate categories of BPL cards for those seeking subsidised ration and those who want cards only for the purpose of availing of medical facilities.

#### **Primary goals**

- Streamline Prajavani/Ration Card Management: Leverage encryption technology to automate processes, reduce paperwork, and improve the overall efficiency of prajavani/ration card management in .
- Have a centralized system with dashboard to monitor overall process, efficiency and control.
- Single card having capability of integration with multi divisions like health, education etc.
- Enhance Data Security: Implement robust encryption measures to safeguard sensitive data, prevent unauthorized access, and protect the privacy of beneficiaries
- Ensure Confidentiality: Utilize Virtual Encryption Key (VEK) to encrypt and decrypt data transmitted between smart cards, authentication devices, and the centralized database, ensuring confidentiality throughout the system.
- Maintain Data Integrity: Employ secure encryption protocols to maintain the integrity of data during transmission and prevent tampering or unauthorized modifications.
- Enable Secure Communication: Establish end-to-end encryption channels to secure the communication between different system endpoints, including smart cards, biometric devices, and the central database.
- Procurements to end beneficiaries
- Digitize & automation the Supply chain with Blockchain in order to meet the need of addressing the protection, trackability of origin, Food safety, smooth multi-party transaction etc.





#### **Solution Overview**

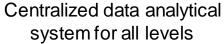


Blockchain Based Supply chain System with smart contract



Meta computing Layer - with virtual keyless encryption Layer



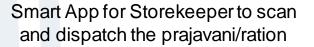




- With out internet connection works
- Validation works offline
- Easy to dispatch the ration as like supper market shop
- Smart App will have
  - Beneficiary validation
  - Ration dispatch confirmation
  - Track & Trace
  - Selling products
  - Print receipt
  - View history
- Data push to centralized system
- Inventory visibility
- End to end procurement to entire supply-chain with blockchain



QR Code based Smart Prajavani/Ration Card for Beneficiaries





- Requirements Analysis: Conduct a detailed analysis of the existing Prajavani/ ration card management system in Telangana and identify the necessary modifications and enhancements required to implement the encrypted QR Code smart card system with VEK.
- **VEK Generation and Distribution:** Develop a secure process for generating unique VEKs for each smart card and securely distribute to beneficiaries. Implement mechanisms to ensure the confidentiality and integrity of VEKs during the distribution process.
- Encryption Integration & Centralized System: Integrate encryption protocols and mechanisms into the smart card system, biometric devices, and the centralized database.
- Enabling Traceability of Goods Blockchain solution for goods movement with interconnected system for procurement and supply chain management
- Training and User Awareness: Conduct comprehensive training programs for government officials, fair price shop owners, and beneficiaries to educate them about the encrypted smart card system, VEK usage, and security protocols. Emphasize the importance of data security, confidentiality, and responsible handling of encryption.
- **Pilot Phase and Testing:** Conduct a pilot phase in selected districts of Telangana to test the functionality, security, and usability of the encrypted smart card system with VEK. Gather feedback from beneficiaries, government officials, and fair price shop owners to refine the system.
- Full-Scale Deployment: Roll out the encrypted smart card system with VEK across Telangana, gradually expanding to cover all districts. Ensure the availability of necessary infrastructure, including encryption-enabled smart cards, biometric devices, and a secure centralized database.



#### **Advantages of Implementing our System**

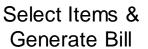
- Faster delivery without waiting in queue
- This system avoids irregularities in Prajavani/ration shops
- No Human Errors
- New Electronic Inventory Management System
- Single Dashboard view and manager
- One card which can be enabled for multi-purpose
- Eco-friendly card
- Data protected through latest key-less encryption
- Centralized system
- Offline capabilities
- Traceability of goods
- Single system for complete supply chain management with blockchain



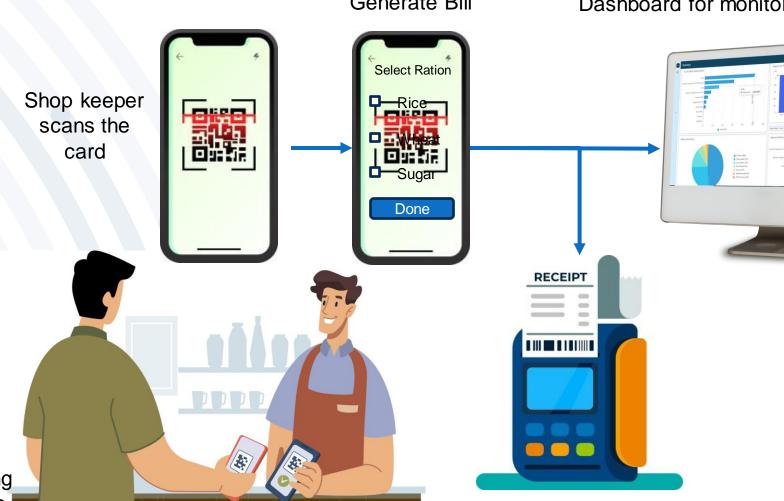


## **Use case Flow for end beneficiaries**





Centralized system & Dashboard for monitoring



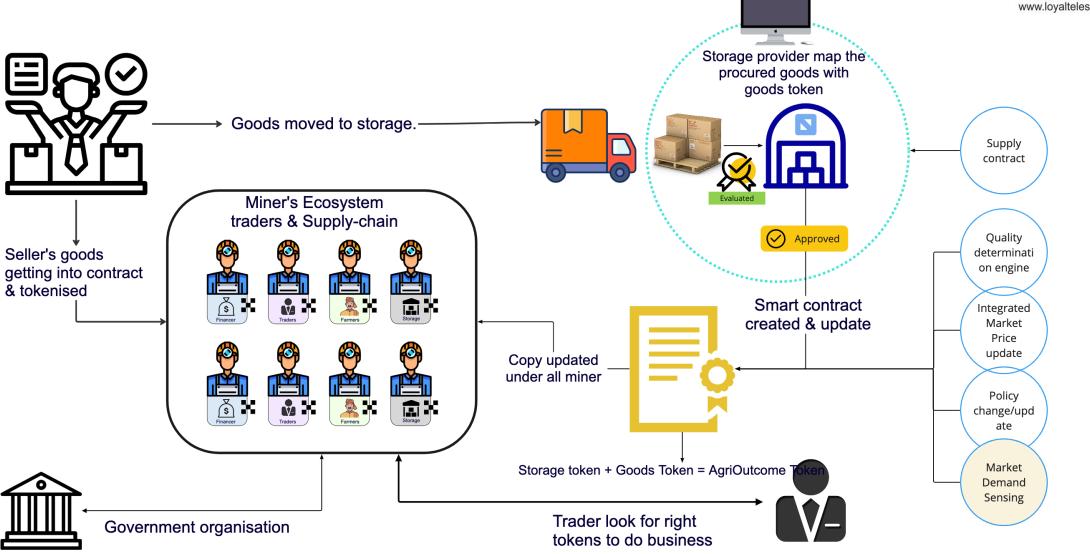
Beneficiaries having Prajavani/e-Ration Card

Print the receipt





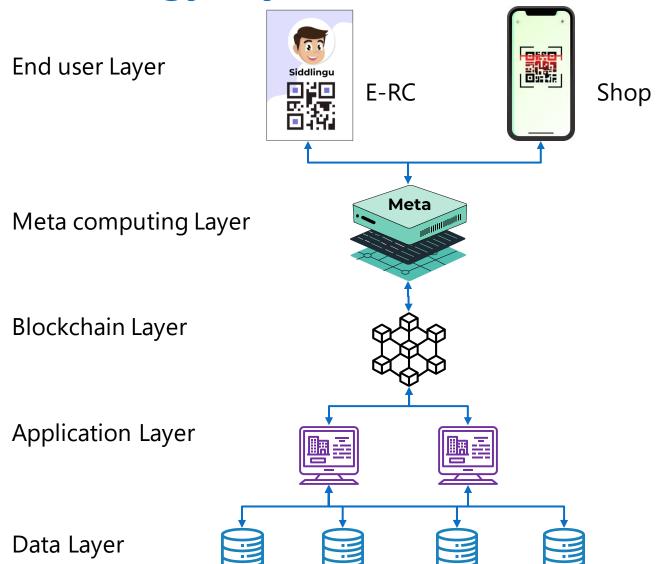
Blockchain based Supply-chain eco system







### **Technology Layers**



#### The implementation of Smart Prajavani/Ration Card system

#### LOYAL TELESYSTEMS PVT. LTD. www.loyaltelesystems.in

#### Virtual Encryption Key in Telangana offers numerous benefits, including

- Improved Efficiency: The smart Prajavani/ ration card system will streamline the process of eliminating the need for paper card and manual verification.
- **Enhanced Data Security:** Encryption technology ensures the confidentiality and integrity of sensitive data, reducing the risk of unauthorized access and fraud.
- Improved Privacy: Encryption protects beneficiary information, ensuring the privacy and confidentiality of personal data.
- Secure Communication: End-to-end encryption establishes secure communication channels, safeguarding data during transmission and preventing interception or tampering.
- Streamlined Operations: Automation and digitalization of Prajavani/ration card management processes result in increased efficiency, reduced paperwork, and improved service delivery.
- Compliance and Trust: Adherence to encryption standards and data protection regulations builds trust among beneficiaries and stakeholders, ensuring compliance with relevant legal requirements.
- By implementing an encrypted Telangana Ration Smart Card system with Virtual Encryption Key, Telangana can significantly enhance the security, efficiency, and trustworthiness of its Public Distribution System. This proposal provides a solid framework to ensure the confidentiality and integrity of data, enabling a streamlined and secure Prajavani/ration card management process.
- End User don't have to wait for in long hours for take the benefit
- Easy assess to dashboard will be updated automatically, Which can be viewed by at the top official / Top level.





Source: https://ahara.kar.nic.in/Home/EServices

#### Volume

Description	Details
Districts	33
FPS	20,399
AAY RCs	10,88,835
STATE NPHH RCs	24,95,662
PHH RCs	1,16,99,467
Total Ration Cards	1,52,83,964

#### Items distributed

Rice	
Coarse Grains	
Fortified Rice	
Wheat	
Sugar Oil	
Oil	







- The implementation of a smart Prajavani/ration card system for Telangana we will offer an efficient, secure, faster and user-friendly solution for providing benefits.
- The outlined technical proposal provides a comprehensive plan for the successful implementation and operation of the system.
- In this system, we will construct a Smart Prajavani/Ration Card with the help of GSM & QR Code technology or using QR Code.
- Using this system, we save time & irregularities of old ration system.
- This unique solution will become Model for others
- Centralized System
- Traceability of goods even till the beneficiaries level







50 government websites hacked, 8 data breaches in 2022, says IT minister...

At a time when institutions are seeing an increased cyber attacks globally, IT minister Ashwini Vaishnaw has said that around 50 government websites have been hacked and there were eight data breaches in 2022-23.



Union minister of communication, electronics and information technology Ashwini Vaishnaw told Rajya Sabha that in comparison with 2022-23, there were 59 government sites that were compromised in 2020 and 42 were targeted in 2021. Both years saw six and seven events of data breach, respectively.

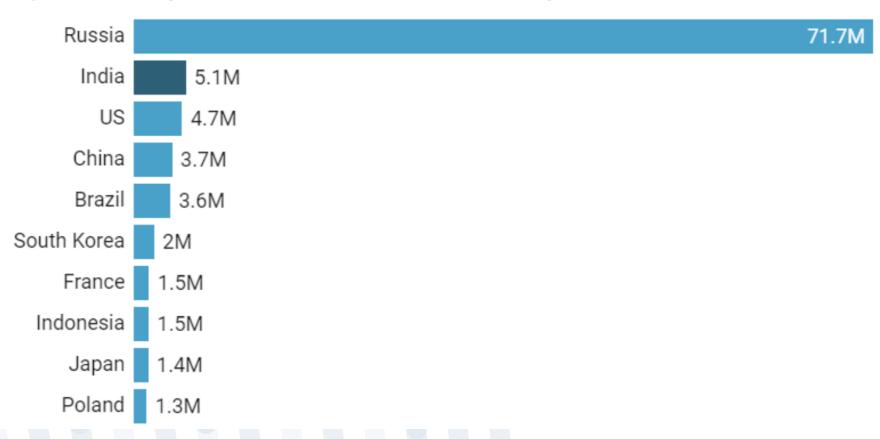
"Indian Computer Emergency Response Team (CERT-In) has further informed it has detected and prevented 2,83,581, 4,32,057, 3,24,620 malicious scams during the years 2020, 2021 and 2022 respectively," the minister said.





# India second worst-hit country in terms of data breaches

Top countries by number of data breaches\*, January to June 2022



# The following data breaches have been occurred India recently.



- Air India data breach highlights third-party risk Date: May 2021 Impact: personal data of 4.5 million passengers worldwide
- CAT burglar strikes again: 190,000 applicants' details leaked to dark web Date: May 2021 Impact: 190,000
   CAT applicants' personal details
- Hacker delivers 180 million Domino's India pizza orders to dark web Date: April 2021 Impact: 1 million credit card records and 180 million pizza preferences
- Trading platform Upstox resets passwords after breach report Date: April 2021 Impact: All Upstox customers had their passwords reset
- Police exam database with information on 500,000 candidates goes up for sale Date: February 2021 Impact:
   500,000 Indian police personnel
- COVID-19 test results of Indian patients leaked online Date: January 2021 Impact: At least 1500 Indian citizens (real-time number estimated to be higher)
- User data from Juspay for sale on dark web Date: January 2021 Impact: 35 million user accounts
- BigBasket user data for sale online Date: **October 2020 Impact:** 20 million user accounts
- Unacademy learns lesson about security Date: May 2020 Impact: 22 million user accounts
- Hackers steal healthcare records of 6.8 million Indian citizens Date: August 2019 Impact: 68 lakh patient and doctor records
- Local search provider JustDial exposes data of 10 crore users Date: April 2019 Impact: personal data of 10 crore users released
- SBI data breach leaks account details of millions of customers **Date: January 2019 Imp**act: three million text messages sent to customers divulged



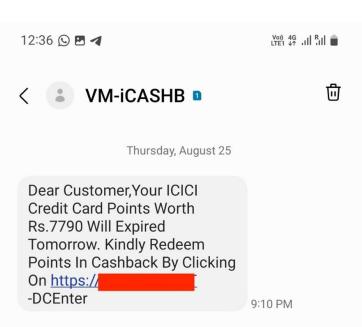


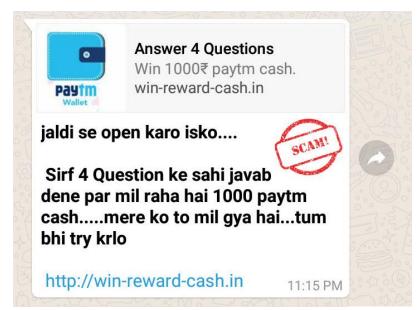




Text Message Today, 11:32 AM

Your K.Y.C has been updated successfully, you will get 1205 cashback in your wallet, To get cashback click here Link <a href="http://8629a7f1.ngrok.io">http://8629a7f1.ngrok.io</a>





## **Top Customers**



















indegene.

TESTAMATIC SYSTEMS





P/XI/













#### **POC Telangana Government**

#### GOVERNMENT OF TELANGANA INFORMATION TECHNOLOGY, ELECTRONICS & COMMUNICATIONS DEPARTMENT

#### Lr.No.ITEC-11/eGov/17/2021

dt:26.03.2021

From,
The Prl.Secretary to Government,
ITE&C Dept,
D-Block, 5th floor,
BRKR Bhavan,
Telangana Secretariat,
Hyderabad.

Testenium Limited, 177 Robin Hood Way, London SW15 3QG, United Kingdom.

Sir.

- Sub: ITE&C Dept Testing and Integration of Testenium Encryption and Decryption Software as a POC Reg.
- Ref: 1. Lr. of Testenium, dt:24.12.2020 addressed to the Prl.Secretary, ITE&C
  - 2. Virtual meeting between Testenium and ITEC Dept. on 03.03.2021
  - 3. Testenium's report basing on the discussion held on 03.03.2021
  - 4. Virtual meeting between Testenium and ITEC Dept.on 23.03.2021
  - 5. Discussion with Jt. Director and Asst. Director of eGov dt:24.03.2021

\*\*\*\*

With reference to the subject and references cited above, after scrutiny of the proposal of M/s Testenium Limited, it was decided that the encryption and decryption software be primarily deployed on Government Servers and integrated with Internal web application for testing it as a POC.

- 2. Further, upon successfully implementation of the POC, the aforementioned software may be considered to other govt. departments.
- 3.  $\,$  M/s Testenium Limited is therefore requested to take further necessary action accordingly.

Yours faithfully,

or Principal Secretary to Government









# THANKYOU

RSN Murthy- CEO

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