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India SMART UTILITY Week 2025

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Name of Session: 25 SELECTED TECHNICAL PAPERS

Integrated Bespoke Outage Management System: Effective solution for Indian Power Utilities to address Customer Power Failure Grievances

Presented By

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- **Presentation Time**: The total time for presentation is 7 mins. You are requested to be present on-time as per your session slot.
- **Presentation Format**: All the presenting speakers are required to give a presentation as per the PPT Format. (Maximum 7 Slides). Please note that the additional presentation slides cannot be added in the shared PPT format.

Foundational Blocks for Smart Grids

Integrated Bespoke Outage Management System: Effective solution for Indian Power Utilities to address Customer Power Failure Grievances

||Project Start Date:Dec-2023 ||

||Project End Date:Oct-2024 ||

The Integrated Outage Management System (IOMS) is a real-time solution specifically developed for Noida Power Company Limited (NPCL), an Indian utility. IOMS serves as a centralized platform designed to enhance customer service in managing power outages by integrating various components, including CRM, GIS, SCADA, AMR, IVR, Crew Apps, the Shift Engineer App, the website, chatbots, WhatsApp, and AMI.

Outage Management System (OMS)





Real-time Outage Detection & Response



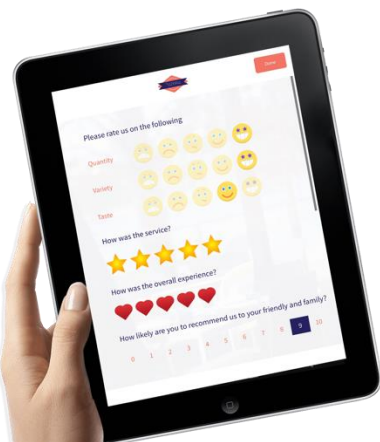
Proactive Customer Communication



AI & Chat-bot for 24/7 Support



GIS & SCADA Integration



Customer Feedback & Engagement



Workforce Optimization



Predictive Maintenance

By implementing these measures, we have enhanced the **customer trust, satisfaction, and operational efficiency**, ensuring a more resilient and reliable power supply system in our Licensee Area.

Why Customized IOMS at NPCL?

Minimize TCO

Integration with
existing system

Real-time Data
Analytics

Accommodation of
existing best practices

Local Network
Dynamics

Enhanced Customer Engagement

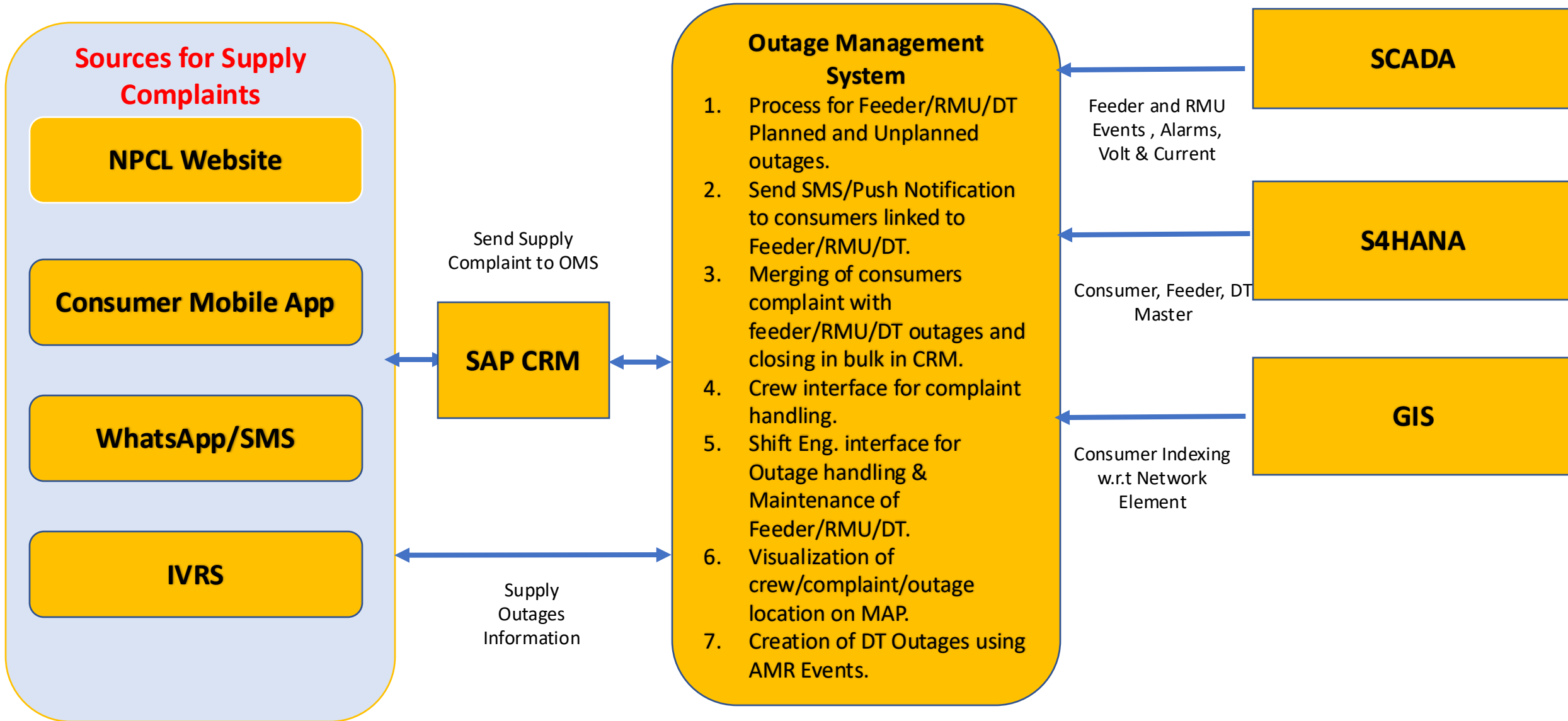
- We started with reiki for implementation from 2022-2023.
- It was decided to develop an in-house OMS using the inhouse talent.
- Also provide significant advantages over COTS market solution

PRESENTATION ON THE TOPIC (1/2) (1 Min)



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PRESENTATION ON THE TOPIC (2/2) (1 Min)



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BEFORE IMPLEMENTATION

CHALLENGES



Area Outage creation and Restoration

START

Creation of the area outages **manually** by the control room

Send SMS to the HT consumers **manually**

Restoration of the area outage on feedback **over phone** from the field engineers

Close the outage **manually**

STOP

Supply Complaints

START

Complaint creation in CRM from website, Mobile App, IVR etc

Complaints are **manually** assigned to crews to dispatchers

Complaints are restored at the site

Crew provide the feedback **over phone** and outage reason and causes to dispatchers

Status update in CRM

Dispatchers close the complaints **manually**

STOP

AFTER IMPLEMENTATION



Area Outage creation and Restoration

START

More than 70% outages are auto created through SCADA in OMS

Automatic SMS alerts to all the affected consumers

Outage restored based on alarms from SCADA

Control Room team update the reasons

Outage is Closed

STOP

Supply Complaints

START

Complaint creation in CRM from website, Mobile App, IVR etc

Is complaint part of the Area Outage?

NO

Complaints are automatically assigned to the respective Crew

Crew can view and take action in crew app on the assigned complaints

Complaints is closed by the Crew with providing reasons and causes in app itself

Reason and causes are updated automatically in CRM

STOP



**Control Room
Operator**

**Dispatch Centre
Operator**

**Outage
Notification**

**Average Supply
Restoration Time**

BEFORE

7

8

**1.5 K HT
Consumers**

1.34 hrs.

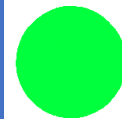
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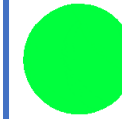
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2



**1.7 Lacs
consumers**



1.10 hrs.

Shift Operator at control room
for creation/restoration of
outages at feeder and RMU
Level

Dispatch centre Operator for
assigning and closure of
complaints

Outage SMS notifications to
all affected consumers

Average supply restoration time

KEY TAKEAWAYS / RECOMMENDATIONS



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**Prior Intimation of
Area Outages**

**Individual Supply
Complaint
Handling**

**Complaint
Feedback &
Reopening**

**Field Force
Management**

BEFORE

0

100%

0

**No Digital Records
Available**

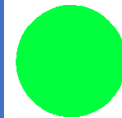
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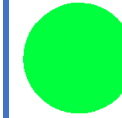
100%



Approx.80%



100%



**Digital Record's
Available**

Prior intimation of area outages
available to all the sources

Individual supply complaints
merged with area outage (if any)

Closed complaint can be
reopened by call centre
agent based on feedback or
by consumer through
whatsapp
Whatsapp feedback option
send to all consumers
whose supply has been
restored

Online Tracking of Complaints,
Network Maintenance & Follow-
Ups

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THANK YOU

For discussions/suggestions/queries email: isuw@isuw.in

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[Links/References \(If any\)](#)