



# Workshop on Common Alerting Protocol (CAP) and SACHET System

**7<sup>th</sup> February 2025**  
**10:00 – 13:00**



**National Institute of Disaster Management**  
**Ministry of Home Affairs, Government of India**

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# BROCHURE

**Introduction** – In 2023, natural disaster events caused 95,000 fatalities worldwide, the highest since 2010. This underscores the urgent need for a reliable, comprehensive emergency communication system that ensures last-mile connectivity and the real-time dissemination of vital information across diverse audiences. The **Common Alerting Protocol (CAP)**, standardized by the International Telecommunication Union (ITU), serves as a global standard for issuing emergency alerts across all media platforms, reinforcing the dissemination of critical alerts in crisis situations in the least possible time. **C-DOT** has customized the CAP protocol as per India's needs. As a pioneer in the Indian telecommunications industry, C-DOT has been instrumental in connecting even the most remote areas of the country through 3G, 4G, and satellite technologies. The CAP-Integrated Alert System bridges communication gaps, employing multiple technologies to enable effective communication, ensuring last-mile connectivity, and aligning with the 7<sup>th</sup> agenda of Prime Minister's 10-point agenda on Disaster Risk Reduction.

A cutting-edge geo-intelligent platform, CAP-based Integrated Alert System '**SACHET**' has been developed, and furthermore, mobile app, SACHET, is freely available for Android and iOS users to get alerts and notification of the natural events. This system bridges communication gaps by ensuring last-mile connectivity. SACHET is designed, developed, and maintained by C-DOT under the aegis of **NDMA**, a step towards ensuring a disaster-resilient India which enables citizens to prepare for impending disasters in time and ensuring that SDMAs can take swift actions.

**NIDM**, with its mandate to build capacity for disaster resilience in India, plays a vital role in training across various phases of disaster management to the government officials and stakeholders. However, many participants in these training programs, including government officials, have limited knowledge of CAP, and SACHET including their applications. By organizing a workshop, we aim to introduce NIDM and its academic staff to the benefits and functionalities of CAP, and its integration in SACHET system. This workshop will not only enhance NIDM's understanding but will also increase awareness of SACHET's role in effective disaster management, empowering officials to respond more efficiently during disasters. The sessions will provide detailed technicalities of the developed technology to the academic staff, and the insights gained will be shared to raise awareness and importance of CAP and SACHET with the officials to respond more effectively during crisis situations in future training programmes.

## Objectives –

- To sensitize academic staff of NIDM about CAP and SACHET System
- To discuss the areas where NIDM can contribute such as developing IEC material for the cutting-edge technology for creating mass awareness up to the grass root level
- Getting technical assistance and expertise from NDMA and C-DOT for developing training module to conduct further trainings on the developed state-of-the-art technology

**Conclusion** – The workshop sessions will raise awareness among NIDM staff about SACHET, an advanced geo-intelligent platform developed with the integration of CAP to enhance preparedness efforts with the ambition of include all and exclude none. The developed technology streamlines DRR to minimise losses and save lives and property. By becoming familiar with this technology, participants will be equipped to not only safeguard themselves but also protect their loved ones.

# SUMMARY

The workshop on the **Common Alerting Protocol (CAP) and SACHET System**, organized by **NIDM**, focused on enhancing early warning communication systems for disaster risk reduction. Esteemed dignitaries and experts, including **Col. A D Mathur (retd.)**, **Sr. Consultant, NDMA** and **Mr. Sumit Kumar Jha**, **Project Lead, C-DOT**, provided insights into the **SACHET System, CAP framework**, and **Emergency Response Support System (ERSS)** for disaster emergencies.

Key discussions included:

- **Col. A D Mathur's** presented details on **ERSS and SACHET System**, its operational framework, and integration with emergency response systems.
- **Mr. Sumit Kumar Jha's** detailed presentation on the **Common Alerting Protocol (CAP)** and its role in disaster communication.
- The significance of **geo-targeted alerts**, regional language communication, and subscriber-based notifications for effective disaster management.
- Contributions from **Shri Rajendra Ratnoo**, IAS, Executive Director, NIDM, **Shri Randeep Kumar Rana**, Senior Advisor, NIDM and **Dr. Sushma Guleria**, Assistant Professor, NIDM emphasizes on the importance of these state-of-the-art technologies useful in sending warnings during disasters, collaboration, innovation, and policy integration for disaster preparedness.

The event concluded with an interactive **Q&A session** and a vote of thanks, reaffirming **India's commitment to strengthening disaster resilience** through technology and coordinated efforts.

## WELCOME ADDRESS



Shri. Randeep Kumar Rana, Sr. Advisor discussed the confusion between natural events and disasters, emphasizing that natural occurrences are not inherently disasters. He highlighted the role of technology and early warning systems in preventing natural events from turning into disasters. Advances in technology have significantly improved disaster prevention and management.

## INAUGURAL SESSION



Shri Rajendra Ratnoo, ED, NIDM felicitated our esteemed guests, Col. Anuj Dayal Mathur (retd.), Senior Consultant (Communications) at NDMA, and Mr. Sumit Kumar Jha, Team Lead at C-DOT. The speaker welcomed and praised the newly launched technology, emphasizing its mandate and role in early warning systems for disaster management. He highlighted the need to build national capacity, ensuring the technology reaches every citizen and is effectively used by stakeholders, including SDMAs and policymakers. He discussed user perceptions and the importance of research to develop a standardized module for all states to integrate this technology.

He stressed the necessity of collaboration between NDMA, C-DOT, and NIDM to enhance disaster response, minimize false alarms, and improve the confusion matrix for better understanding among academics and policymakers. Lastly, he assured full support for future collaborations to advance this mission.

## TECHNICAL PRESENTATION - 1



Col. Anuj Dayal Mathur (retd.), Senior Consultant (Communications) at NDMA, discussed the implementation of C-DOT by Sumit Jha and the audit conducted during its deployment. He explained the early warning system, its adherence to international standards, and the process of sending SMS alerts. He highlighted how messages can be prepared and delivered in regional languages and through voice messages for those unable to read. He also mentioned that SDMs could access and modify the app for localized use. Additionally, he introduced the upcoming emergency dial number 112, which will enhance emergency response capabilities. At last he conclude through various questionnaire and answer asked by NIDM Staff.

## TECHNICAL PRESENTATION - 2



Mr. Sumit Jha explained the technical aspects of the **SACHET** and **C-DOT's** early warning system through diagrams, graphs, and an interactive session with NIDM staff. He discussed how disasters impact human lives and property and highlighted the importance of emergency communication for public safety in regional languages and traditional formats. He shared that the system, which is **geo-targeted**, will soon be made live by the respective ministry.

He detailed the **Subscriber Management System**, which allows users to subscribe to district-specific alerts and receive browser-based notifications. The system also integrates **satellite-based communications** with **OEM technology** for efficient network access. The session concluded with a Q&A segment, where NIDM members asked questions about the implementation and functionality of the system.

## CONCLUDING SESSION



Dr. Sushma Guleria, Assistant Professor, NIDM delivered the vote of thanks and closing remarks, acknowledging the discussions on the early warning system alert and the application implemented by the experts. She expressed gratitude to all participants for their engagement and contributions to the session.



Dr. Pankaj Kumar, Assistant Professor, concluded the workshop, emphasizing its insightful and impactful discussions on strengthening India's disaster preparedness and response. On behalf of NIDM, he expressed gratitude to the esteemed speakers, including Shri Rajendra Ratnoo, Executive Director of NIDM, and all participants for their active engagement. He looked forward to C-DOT and NDMA for continued collaborations in building a disaster-resilient India.

# PROGRAM AGENDA

## Workshop on Common Alerting Protocol (CAP) and SACHET System

7<sup>th</sup> February 2025

10:00 - 13:00

Venue: Dronacharya Hall Ground Floor,  
Rohini Campus, NIDM

Time	Schedule	Dignitaries
10:00 – 10:05	Introduction	Dr. Pankaj Kumar, Asstt. Professor, NIDM
10:05 – 10:15	Welcome Address	Shri. Randeep Kumar Rana, Senior Advisor, NIDM
10:15 – 10:30	Inaugural Address	Shri Rajendra Ratnoo, IAS, ED, NIDM
10:30 – 11:30	SACHET System	Col. A D Mathur (retd.) Sr. Consultant (Comn.), NDMA
11:30 – 12:30	Common Alerting Protocol	Mr. Sumit Kumar Jha, Team Lead, C-DOT
12:30 – 12:55		Q & A
12:55 – 01:00	Vote of thanks	Dr. Sushma Guleria, Asstt. Professor, NIDM

# Glimpse of the Workshop



# POSTER OF THE WORKSHOP



सत्यमेव जयते



## WORKSHOP ON COMMON ALERT PROTOCOL (CAP) AND SACHET SYSTEM

Friday, 07<sup>th</sup> February 2025

10:00 AM - 01:00 PM

NIDM Campus, Delhi



**SACHET  
APP**



CAP



### PATRON



**Shri Rajendra Ratnoo, IAS**  
Executive Director,  
NIDM, MHA, GoI

### SPEAKERS



**Col. Anuj Dayal Mathur (Retd)**  
Senior Consultant (Communications)  
NDMA, GoI



**Mr. Sumit Kumar Jha**  
Team Leader  
C-DOT

### CONVENOR



**Dr. Panjak Kumar**  
Assistant Professor,  
NIDM, MHA, GoI

Organised by

**National Institute of Disaster Management**  
Ministry of Home Affairs, Government of India

*Participation by Invitation only*



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## **Workshop Programme Team**

### **Patron**

Shri Rajendra Ratnoo, IAS, Executive Director, NIDM

### **Programme Coordinator**

Dr. Pankaj Kumar, Assistant Professor, NIDM

### **Mentor/ Guidance**

Dr. Sushma Guleria, Assistant Professor, NIDM

### **Supporting Team**

Ms. Gulshan Hira, Young Professional, NIDM

Ms. Srishti Sinha, Project Assistant, NIDM

## Key Points

- **Common Alerting Protocol (CAP):** A standardized format for disseminating alerts across multiple warning systems, ensuring uniformity, accuracy, and efficiency in emergency communication.
- **SACHET System:** A regional early warning system designed to provide timely alerts, particularly in vulnerable areas, enabling communities and authorities to take proactive measures.
- **Integration & Implementation:** Emphasis on how CAP and SACHET can work together to strengthen multi-hazard early warning frameworks.
- **Case Studies & Best Practices:** Real-world applications showcasing successful deployments of CAP and SACHET in disaster-prone regions.

The session highlighted the need for **collaboration, technological advancements, and community engagement** to enhance early warning effectiveness. Participants gained insights into leveraging these systems for better preparedness and response strategies.

# Workshop on Common Alerting Protocol (CAP) and SACHET System

7<sup>th</sup> Feb 2025

## Attendance List

S.no	Name & Designation	Signature
1.	SHOBHIT SHARMA, CONSULTANT (WD)	
2.	DHARMENDRA YADAV, DEVELOPER (EDRM)	
3.	Rajkumar (Trg) MTS	
4.	BRIS BHUSHAN SHARMA	
5.	Vidhi Anjali Suroyapke	
6.	Ritesh Sood, Admin Officer	
7.	Pooja Chauhan, JC (Trg)	
8.	Amar Singh M.O.	
9.	VISHU	
10.	Karampreet Kaur, JC (Publication)	
11.	Jaya, Useren SU	
12.	S. K. TIWARI	
13.	Megha Kohli, Trg. Asst.	
14.	Sankhi Rawal, JC (Coord)	
15.	Kaushima, YP (GMRD)	
16.	Manzini Isela, YP (CBRN)	
17.	Sandeep Singh YP (CBRN)	
18.	GULSHAN HIRA (YOUNG PROFESSIONAL)	
19.	Smriti Sinha (Project Assistant)	
20.	Atisha Sood (Consultant PH)	
21.	Avnish Verma (Intern)	

22.	Aditi Minhas (Intern)	Aditi
23.	Aditya K. Anand (Project Scientist)	Aditya
24.	Gouram Pathare (SPA)	Gouram
25.	Sushil Singh Bhat AD	Sushil
26.	J.N. Jha	J.N. Jha
27.	Birju Aggarwal (Project Manager)	Birju
28.	Priyanka Sharma (Tr. Consultant, SMO)	Priyanka
29.	Shweta Rani (Consultant)	Shweta
30.	Morin Choudhary, Tr. Consultant - Library	Morin
31.	Ajinder Kalia, NIDM	Ajinder
32.		
33.	Dr. Lushma Guleria	Lushma
34.	Breeti Sani	Breeti
35.	SN Singh	SN Singh
36.	SNEKHER CHATURVEDI	Snekher
37.	Gagandeep Singh	Gagandeep
38.	ARKAPRABHA SARKAR	Arkaprabha Sarkar
39.	NAZIA KHAN	Nazia
40.	Pankaj Kumar	Pankaj
41.	Amandeep Singh	Amandeep
42.	S.C. Mishra (JC Admin)	S.C. Mishra
43.	LEHWAR SINGH - JC	Lehwar Singh
44.	Dr. Ganesh Alarayan, Consultant (Acad coord.)	Dr. Ganesh
45.	Dr. Ravinder Singh	Dr. Ravinder
46.	Nauwan	Nauwan
47.	Sanchita Biswas, YP, GIDRR	Sanchita
48.	Ashad Asmi	Ashad
49.	Laxman Singh	Laxman
50.	Ashish MTS	Ashish

(51)	Ajay (M.T.S)	Ajay
(52)	Sauwajini (Intern)	Sauwajini
(53)	Arun Kumar	Arun
(54)	Ms. Koyal, J.C. JUINDRR	Koyal
55.	Ms. Ritu, J.C. JUINDRR	Ritu
56	C S Anand	C S Anand
57	Bhum. M.T.S	Bhum
58	Annyesha Purkait, Y.P	A. Purkait
59	Poojati Mishra, Y.P	Poojati
60	Ceta	Ceta
61.	Adi Ram	Adi Ram
62.	Sh. Jatin (IT Engineer)	Jatin
63.	Pantosh Kumar (IT Engineer)	Pantosh