



Other CAP-related Topics

presented

by Eliot Christian <Eliot.J.Christian@gmail.com>
in Riyadh, Saudi Arabia on 27 November 2019
at the "Regional Multi-stakeholder Workshop on
the Role of Telecommunication/ICTs for Disaster
Risk Reduction and Management for the Arab Region"



Presentation Outline

- 1 IFRC Alert Hub
- 2 Example CAP System: India
- 3 Example CAP System: China
- 4 Policy Discussions



CAP Alert Hubs

- A CAP Alert Hub is a online service that aggregates CAP alert feeds, thereby simplifying access to alerts
- International examples: AccuWeather, Global Disaster Alert and Coordination System, Google Alert Hub, HKO Severe Weather Information Center, IFRC Hazards App, MeteoAlarm, Weather.com, WMO Alert Hub ...
- The world needs a reliable, free, global-scale, CAP Alert Hub addressing all types of hazard threats, endorsed by a well-known and well-trusted organization

IFRC Alert Hub

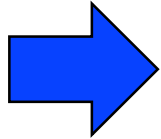
- The IFRC (International Federation of Red Cross and Red Crescent Societies) is well-known and well-trusted, and it deals with all manner of hazard threats
- IFRC is actively working on an "IFRC Alert Hub", a free online source for published emergency alerts from national, regional and local sources.
- It aims to enable CAP to be leveraged for all manner of emergency preparedness and response activities, at all scales: from city to country and up to global.

IFRC Alert Hub

- Users of the IFRC Alert Hub will include Red Cross and Red Crescent National Societies, news organizations, telecommunications providers, international and national emergency managers, and disaster relief organizations, among many others.
- The IFRC Alert Hub is in line with IFRC's ambitions to ensure early warning messages reach “last mile” communities so that communities everywhere receive emergency alerting to safeguard lives and livelihoods
- IFRC is seeking funding and technical partnership opportunities to include the [IFRC GO platform](#)

Presentation Outline

- 1 IFRC Alert Hub
- 2 Example CAP System: India
- 3 Example CAP System: China
- 4 Policy Discussions





Project Stakeholders



Forecasting/Early warning Agencies

IMD

CWC

GSI

INCOIS

NCS

SASE

AERB

MoEFCC

MoAFW

MoHFW



Dissemination Agencies

Telecom Service Provider

All India Radio

Television

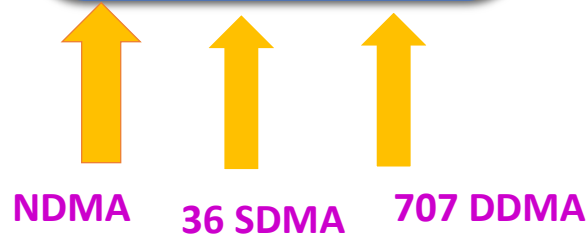
Public Addressing System

Electronic Siren

Electronic Road Signage

Railway Announcement System

Social Media



Authority /Controlling Agencies



India's Integrated Disaster Early Warning Platform (IDEWP)

Quick Facts



- India's **Common Alert Protocol compliant Integrated Disaster Platform** is in use by Disaster management authorities.
- **All Mobile Operators** of India has been integrated with the platform and are in use for warning dissemination via **SMS**.
- Most Mobile Operators of India has been integrated with the platform for **cell broadcasting**.
- Now, **Location based Social Media feeds** can also be generated to ensure more penetration.
- **All India Radio** is now on board. Successfully integration testing completed in this year, Country wide roll out is in process.
- **65 % of the population** has been covered in regional languages with **Hindi, Tamil, Malayalam** language support.
- CAP implementation **in Indian Meteorological Department (IMD)** centres located across the country is in process.
- Alert disseminations through **Television** is at advance stage.



India's IDEWP- Working Model



Typical Vertical Horizontal Integration

2
"Vertical"

1
"Horizontal"
info sharing



National



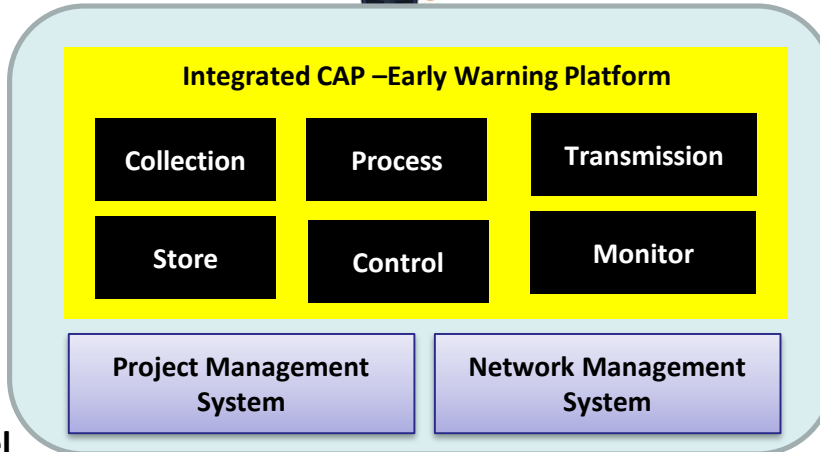
State level



District level



Block, City, Town, Village level



TV News



Radio



Social Media



SMS



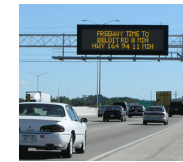
Pop Up on Internet



IVR Call



Electronic Siren / Railway Announcement System

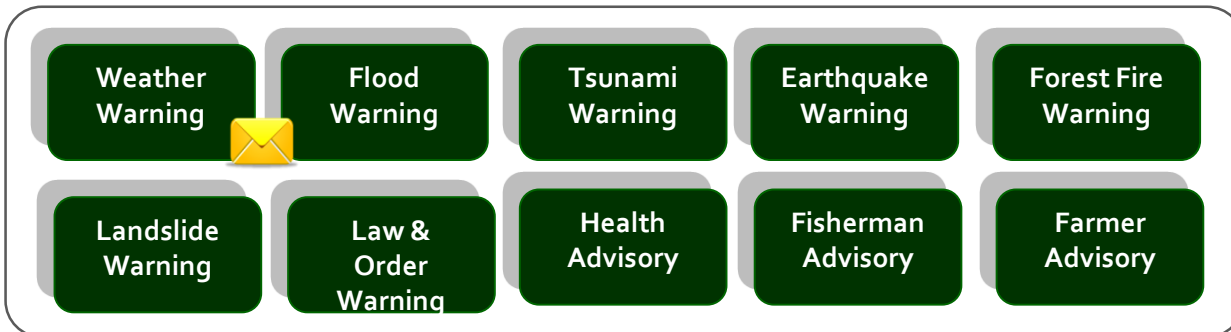


Electronic Road Signage

3
A Variety of Means to Public



India's IDEWP Working Model



SMS



Cell Broadcasting



Radio



Television



Internet



Mobile App



Facebook



Twitter



First Responders



India's Integrated Disaster Early Warning Platform



Integrated Disaster Early Warning Platform

Welcome sdma_delhi 18 Oct 2019, 4:04 PM

Forecast/Warning by D-DMA

SELECT TARGET AREA

Draw Polygon | chatarpur delhi | Save Area

Select Dissemination Media

Telecom Operator:
SMS Dissemination: BSNL

Radio:
Select Audio Source | Select Radio Stations

Social Media:
Facebook ✓ | Twitter ✓

Internet Users: Web Browsers ✓ | TV: Select TV Stations

Public Addressing System:
Select Sirens | Select Loudspeakers

EDIT TARGET AREA | CONFIRM

All Possible Dissemination Media. Provision to ADD more Media



India's Integrated Disaster Early Warning Platform



Welcome sdma_delhi
Integrated Disaster Early Warning Platform

Home

Send Alert

Forecast

Group SMS

Statistics

Templates

Help

Select Groups
+ Create New Group

	Group Name	Organization	Designation	Member Name	Select Member
<input type="checkbox"/>	Group1_Delhi +	C-DOT	SRE	Saurabh Basu	<input type="checkbox"/>
		C-DOT	SRE	Niraj Kushwaha	<input type="checkbox"/>
<input type="checkbox"/>		C-DOT	RE	Sandeep Sharma	<input type="checkbox"/>
		C-DOT	SRE	Sabyasachi	<input type="checkbox"/>
		C-DOT	RE	Suvam	<input type="checkbox"/>
		C-DOT	GI	Pankaj Kumar Dolela	<input type="checkbox"/>

Message to First Responders

Public alert sent by D-DMA for Event "Cold Day" with Severity "Alert" in chatarpur delhi.

Type here the message for firstresponders within 300 characters.

*Typed message will be appended with the above auto-generated message for sending it to first responders.

PREVIEW & DISSEMINATE

Provision to ADD 1st Responders at Runtime

CAP standered message format as wel as option to more options for 1st Responders





India's Integrated Disaster Early Warning Platform



Integrated Disaster Early Warning Platform

Welcome sdma_delhi

Mandatory Information

Event Details

Event	Warning Category	Certainty	Effective Date and Time	Expiry Date and Time
Select Event	Select Warning Category	Select Certainty	Select Effective Date & Time	Select Expiry Date & Time

CAP Mandatory Fields

Message Content for Public Dissemination

<p>Message Text(English)</p> <p>Heavy rainfall very likely at isolated places over Coastal Karnataka</p> <p>68/160</p>	<input type="checkbox"/> Use a Saved Message <input type="checkbox"/> Save this Message <input checked="" type="checkbox"/> Add Message in Regional Language	<p>Language</p> <p>Hindi</p>
<p>Message Text(Hindi)</p> <p>तटीय कर्नाटक में अलग-अलग स्थानों पर भारी वर्षा की संभावना</p> <p>57/160</p>	<input type="checkbox"/> Use a Saved Message <input type="checkbox"/> Save this Message	

Regional Language



India's Integrated Disaster Early Warning Platform



Integrated Disaster Early Warning Platform

Welcome sumit_cwc

Oct 18, 2019, 4:56 PM

Flood Forecast/Warning From Central Water Commission



Home



New Forecast



All Forecasts



Statistics



Templates



Help

Verify Message & Area

- 1. Extreme flood situation in Buridehing at Khwong >
- 2. Severe flood situation in Godavari at Bhadrachalam >
- 3. Severe flood situation in Godavari at Kunavaram >

Flood forecasting for East Godavari (Andhra Pradesh) disaster management authority

Message to be Forwarded to Andhra Pradesh SDMA : Severe flood situation recorded in Godavari at Kunavaram at 18-10-2019 11:00. Water level is expected to rise by 19-10-2019 23:00

EDIT

Alert Description : The water level of Godavari at Kunavaram was measured at 41.25 meters at 11:00 on 18-10-2019. This exceeds the danger level of 39.24 meters, but is below the previous highest flood level of 51.3 meters recorded on 16-08-1986. It is expected to rise to 42.25 meters by 23:00 on 19-10-2019

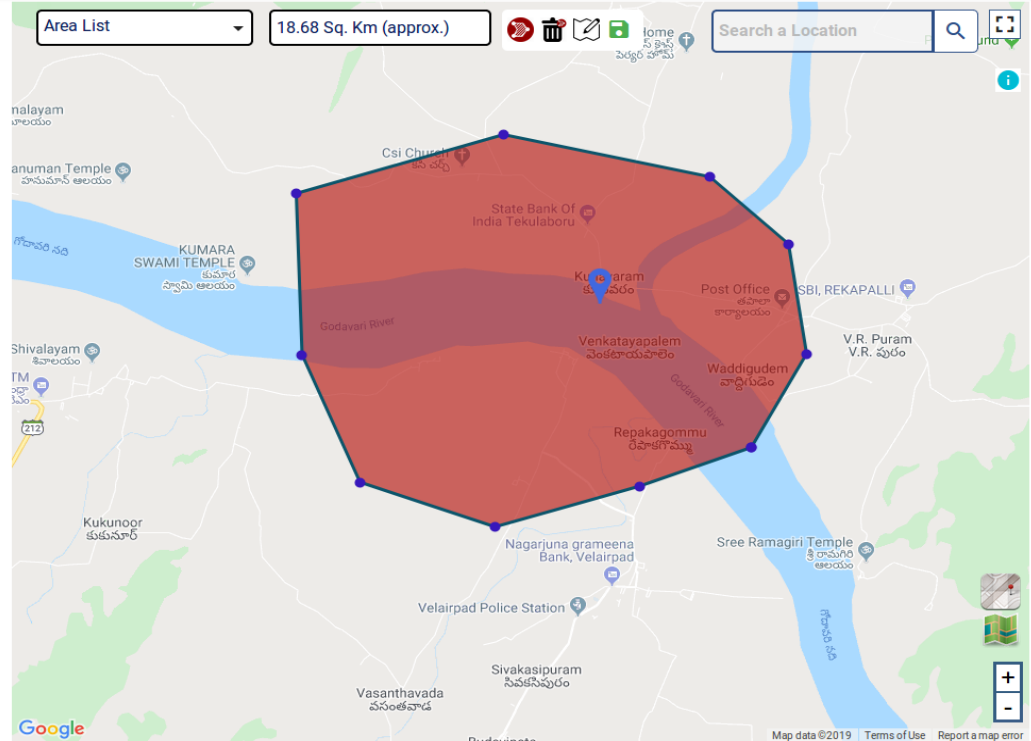
Web URL: <http://ffs.tamcnhp.com/ffs>

REJECT

ACCEPT

REUPLOAD

NEXT



Flood forecasting area as per CWC database



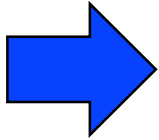
Real Time Feedback or Incident Reporting by the Community

Feedback
about given
Early Warning

- Through App/ intuitive reverse SMS technique people can give feedback for given Early Warning
- People can report about any disaster situation with location info and Image through mobile app.

Presentation Outline

- 1 IFRC Alert Hub
- 2 Example CAP System: India
- 3 Example CAP System: China
- 4 Policy Discussions



China's National Early Warning Release System (NEWRS)

<http://www.12379.cn/>

1 national center
31 provincial centers
343 municipal centers
2015 county centers
10126 specialty staff



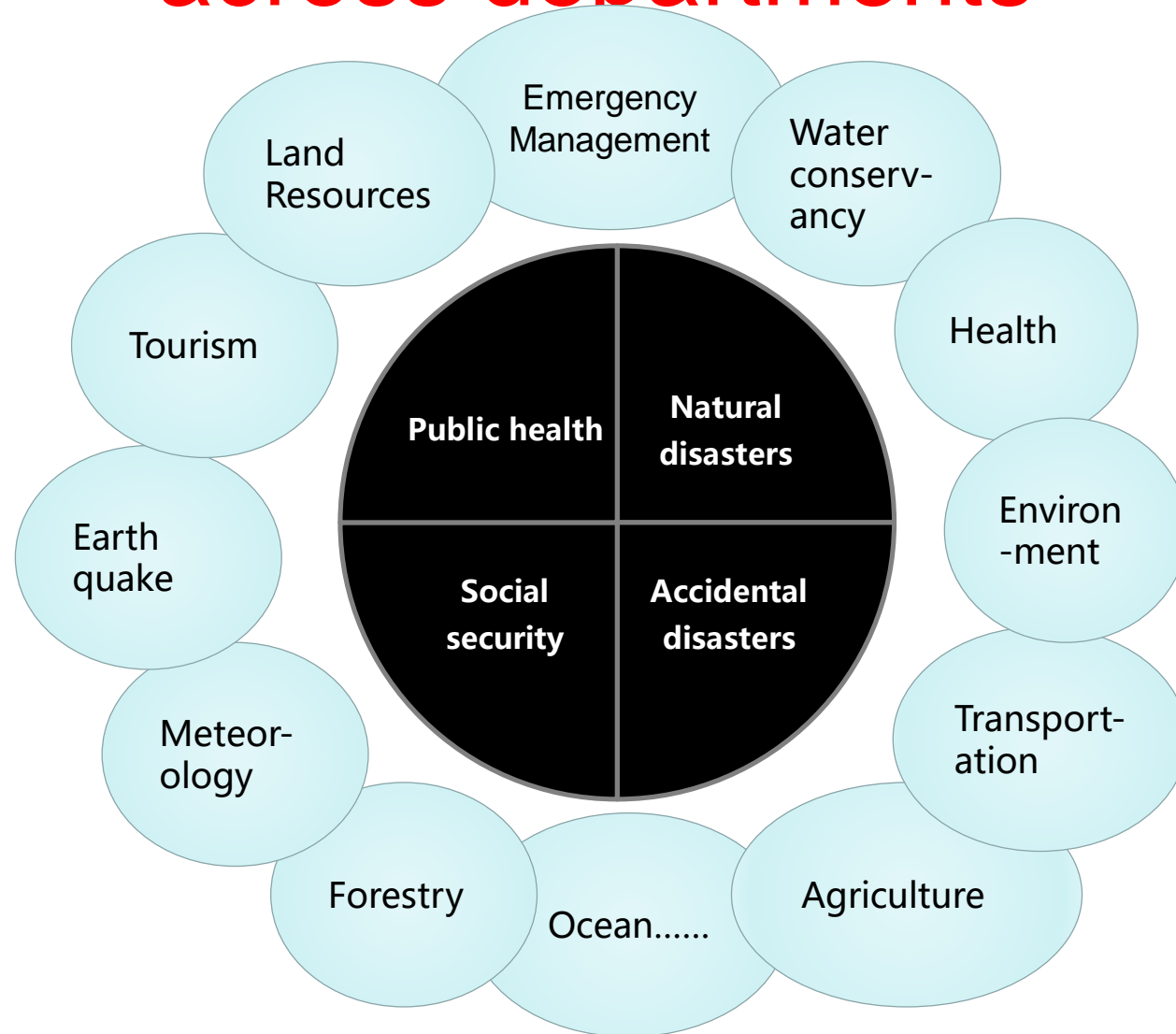
Example CAP System: China

Provide overall solutions and service

- 1** All-media release of early warning
- 2** Rapid release of the designated area via entire network
- 3** Barrier-free sharing of early warning across departments
- 4** Dedicated channel for local messengers
- 5** Real-time feedback of release effect
- 6** Warning release security assurance

Example CAP System: China

barrier-free sharing of early warning across departments



Warning Release Process

The login screen



Example CAP System: China

Warning Release Process

Early Warning Input Interface

The screenshot shows the 'Warning Input' form in the National Early Warning Releasing System (NEWRS). The interface includes a navigation menu on the left and a main form area with several sections. Red dashed boxes and arrows highlight key input areas, with red callout boxes providing instructions.

Annotations:

- Set up: msgType, severity, sendTime...**: Points to the 'Event Type', 'Severity', and 'SendTime' fields.
- Input: Warning description**: Points to the 'Description' text area.
- Select: methodName**: Points to the 'Release Method' checkboxes.
- Select: SMS ReleaseObject**: Points to the 'SMS ReleaseObject' dropdown menu.
- Submit Warning**: Points to the 'submit' button.

Form Fields and Content:

- BaseInfo(required)**:
 - Event Type: Nature Disaster - Meteorological Dis
 - Severity: Yellow
 - msgType: Alert
 - Sender: Organization
 - SendTime: 2018-07-30 11:27
 - Status: Actual Warning
 - Scope: southern Xinjiang basin
 - Description: The Central Meteorological Observatory continued to launch a typhoon blue warning at 18 o'clock p.m. this year, the center of typhoon amby (tropical storm level) of typhoon tenth was moved into Lingyuan, Liaoning, at 5 o'clock p.m. today (24 days). At 5 o'clock p.m., the center of "amby" was
- OtherInfo(optional)**: (Empty)
- ReleaseObject(required)**:
 - Geocode: Nation
 - StrategyName: matchStrategy / cancelStrategy
 - Release Method: Broadcast Email FAX LED Speaker TV SMS WEB
 - SMS WarningInfo Content: Entered 621 words. Content: this year, the center of Typhoon amby (tropical storm level) of typhoon tenth was moved into Lingyuan, Liaoning, at 5 o'clock p.m. today (24 days). At 5 o'clock p.m., the center of "amby" was located at 40.8 degrees north latitude, 119 degrees east, and the largest outside wind of 8 (18 m/s), the lowest central pressure is 990 hPa. It is expected that the "ABI" will move north-east at a speed of 40-45 kilometers per hour, and will change into a temperate cyclone in the southeast of Inner Mongolia tomorrow (25 days).
 - SMS ReleaseObject: Government emergency leadership
 - SMS Extra number: (Empty)
- ResourceInfo(optional)**:

No.	ScannerName	Type	Size	Release Approval	Operation
<input type="checkbox"/>					

Example CAP System: China

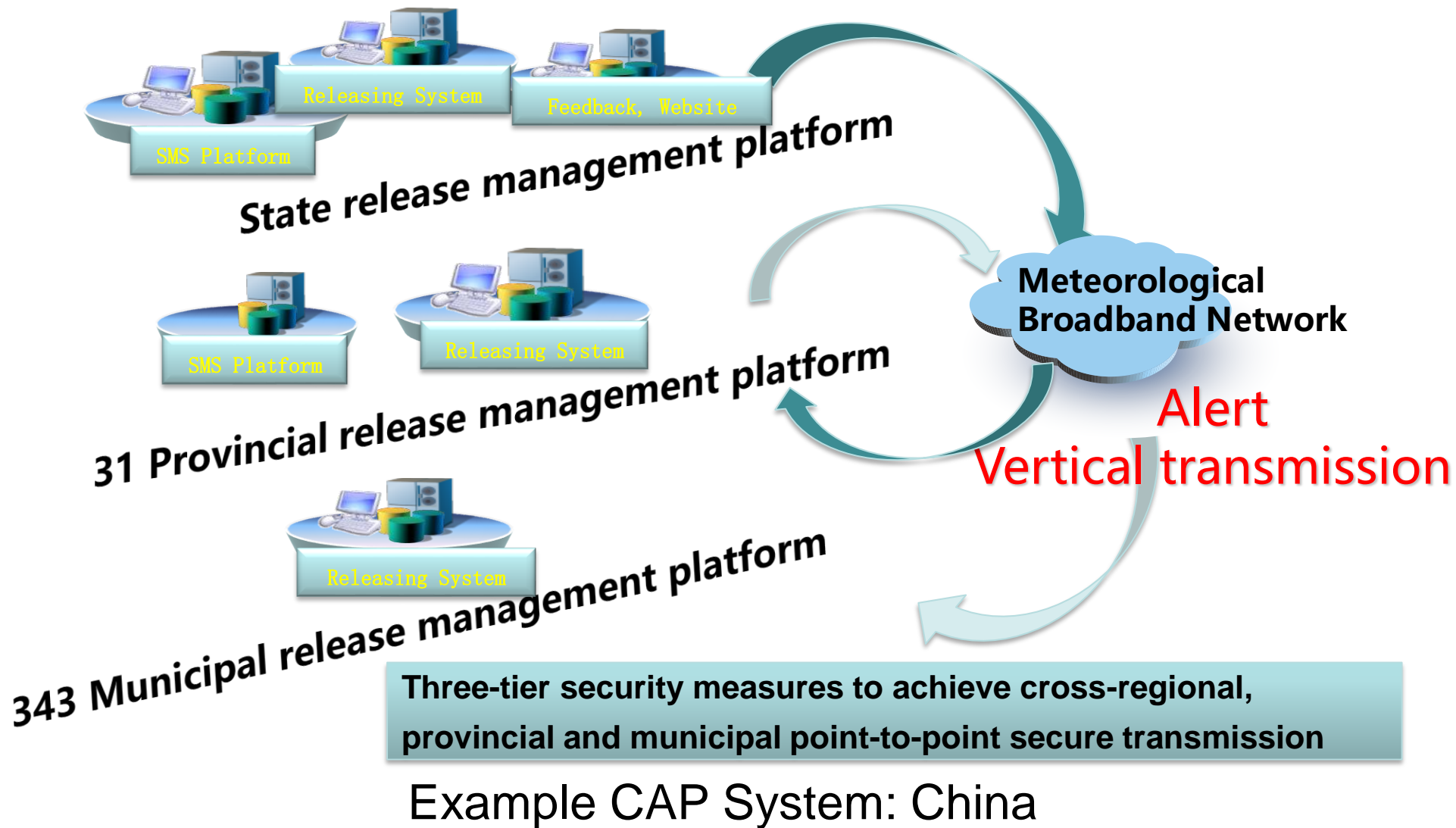
Vertical transmission between the three-level platform

Reliable transmission of information

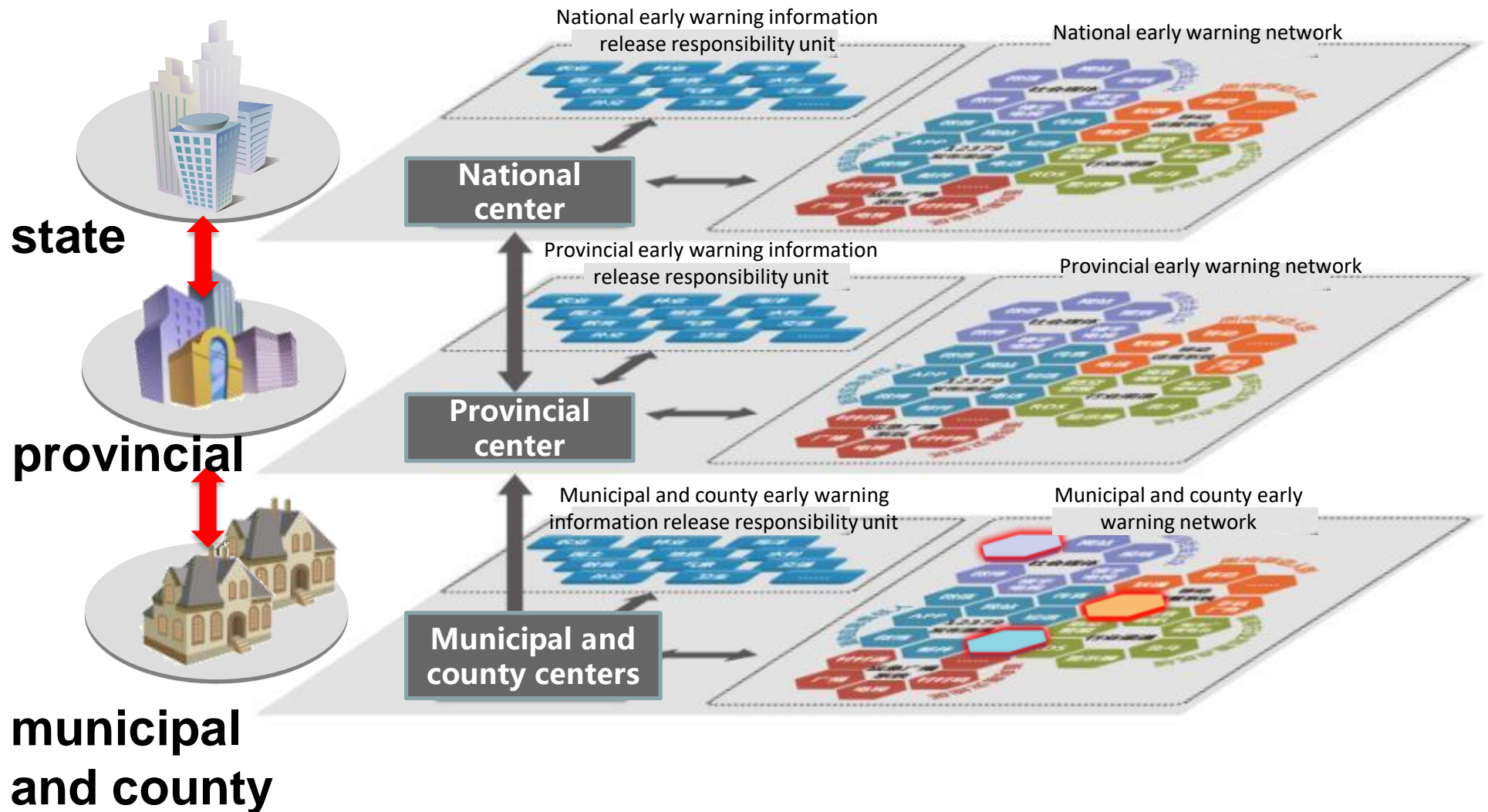
Trackable life cycle

Unified standard, flexible configuration

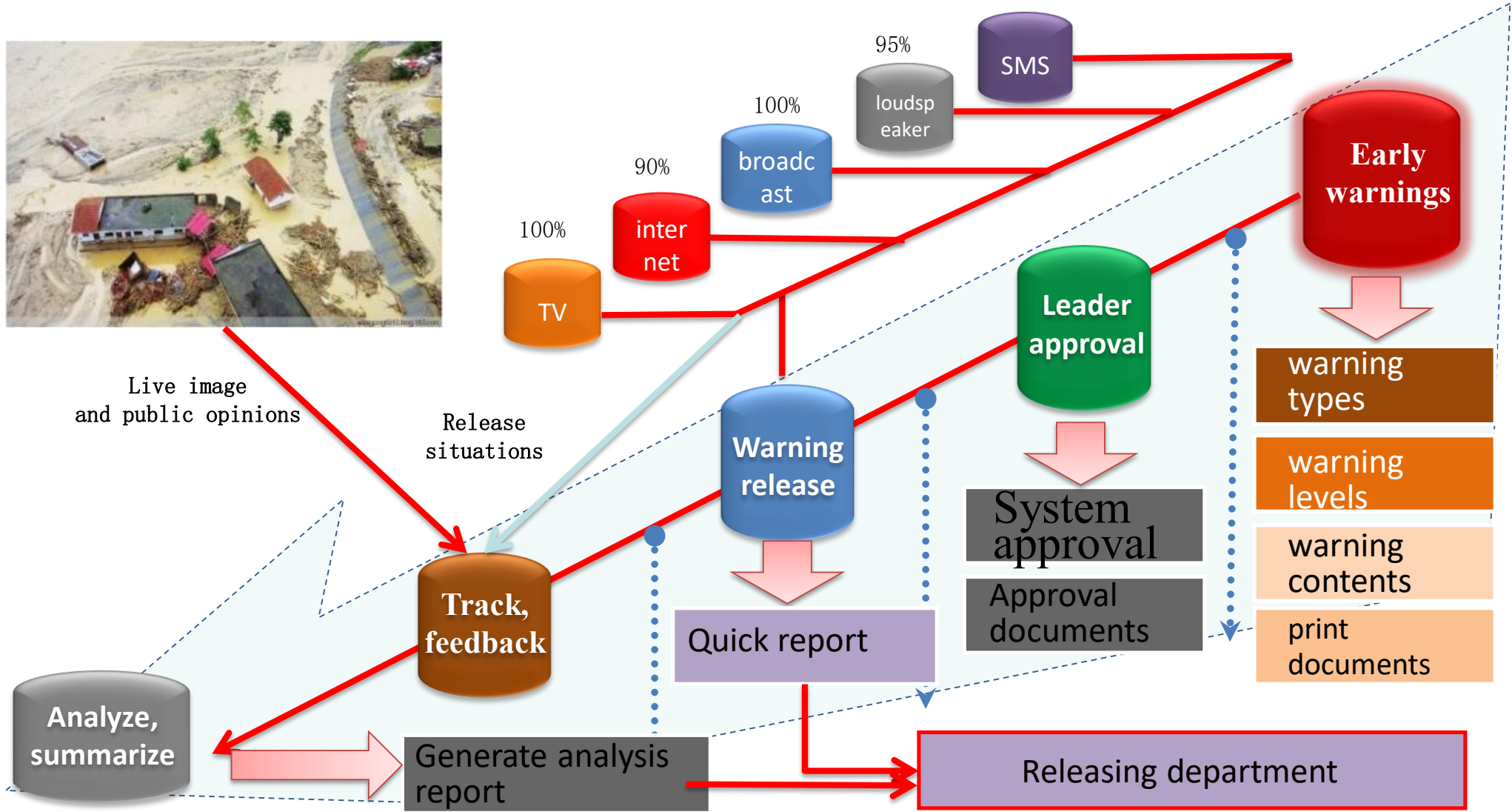
Release channel flexible configuration



Rapid release to the designated area via entire network



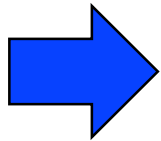
Overall process





Presentation Outline

- 1 IFRC Alert Hub
- 2 Example CAP System: India
- 3 Example CAP System: China
- 4 Policy Discussions





Ten Policy Topics: Open for Discussion

1. Authority issues an imprecise social media message and also issues a precise CAP alert
2. Roles: to describe a Hazard Threat vis-a-vis to direct people on how they must respond
3. Tension between national/local civic authority vis-a-vis international alerting authorities
4. In your country, which actors are often left out
5. Is your country's policy clear regarding efforts to alert all people affected



Ten Policy Topics: Open for Discussion

6. "Last mile" challenges and how a CAP-enabled backbone can help
7. Disaster management: "top-down" or "scale up"
8. Incorporate voluntary collaborators in alerting
9. Does your country leverage "cell broadcast"
10. Processes (e.g., education, outreach, testing and exercises) to identify and correct public trust issues



CAP Information Resources

<http://preparecenter.org/resources/cap>

- [CAP Implementations by Country](#)
- [CAP Introduction \(video, 15 minutes\)](#)
- [CAP Basics course \(online\)](#)

Contact me:

Eliot Christian <Eliot.J.Christian@gmail.com>

Other CAP-related Topics