



# **DISASTER MANAGEMENT**

Open Platform for Emergency Networks

**Disaster Management -  
Open Platform for Emergency Networks (DM OPEN)**

**Introduction to the Interoperability Environment**



## DM OPEN – The Interop Environment

- OPEN provides a vetted SOAP and HTTP server connections for interoperability between clients of multiple “flavors.”
- As a network of networks it also provides a vetted non-proprietary SOAP connection to other networks which may retransmit messages in any of the other transport profiles listed above
- **Examples:**
  - Connection to NOAA All Hazards Radio
  - Connection to Dept of Interior Earthquake Notifications
  - .....



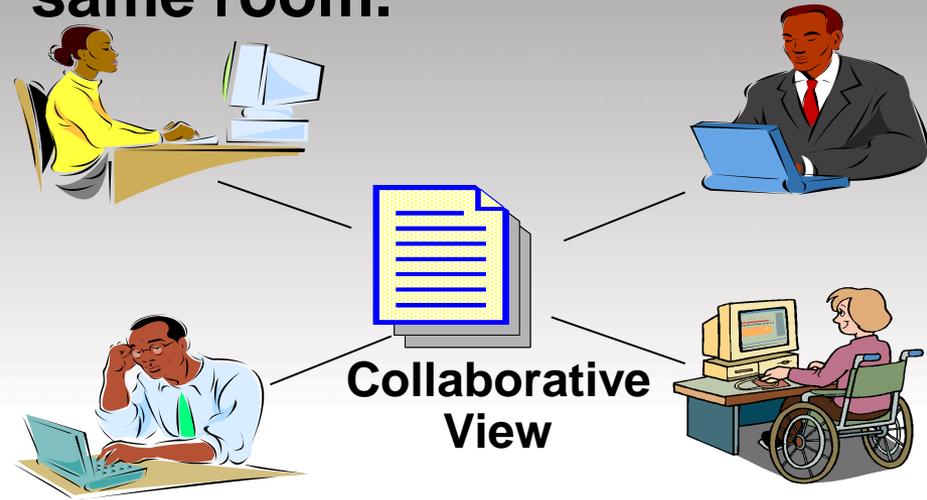
## The DM OPEN “Trust Network”

- **So, How does OPEN handle inter-network trust issues?**
- **It treats each other network interface as a user within a DM Collaborative Operations Group (COG).**
  - OPEN uses the same credentialing system as a DMIS Tools user or (in the future) a HazCollect input provider.
  - Messages are sent to the network interface as though it were any other DM COG based on the specifically expressed desire of a DM user to send a message to the receiving network for use and redistribution according the receiving network’s capabilities and policies.
- **Ultimately, “trust” is in the hands of the authorized DM user who chooses to send information to another network acting as an authorized DM user in a receiving COG.**

## The DM Collaborative Operations Group (COG) What is a COG?

A group of people  
working together, . . .

. . . on the same information,  
even if they are not in the  
same room.





## What is a COG?

- **A group of DM Users who need to:**
  - Coordinate actions
  - Communicate quickly
  - Exchange consequence management information in a collaborative environment
    - situational awareness
  - Enhance incident reporting
- **Local SOPs define your local COG configuration and policies**
- **A local COG Administrator implements and maintains the COG(s)**
- **Owning a COG does NOT require Using the DMIS Tool Set**

## How do COGs Work?



You

Collaborate internally

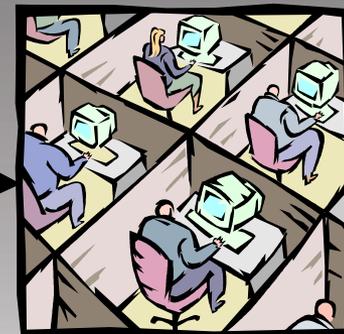
- **Internal COG Collaboration**

- Create, update information collaboratively
- Members with appropriate privileges:
  - Have updates as information is saved
  - Can edit the information

- **External COG Information Sharing**

- Directed to selected COGs
- Recipients can view information and comment using on-line chat (toolset only)
- Recipients can forward information if originator grants permissions

Share externally



Members of another COG



Members of your COG

## DM OPEN – Obtaining a COG for Interoperability

- **Web site for registration - <http://dmi-services.org>**
- **Identify in text of registration as requesting to be a "member of the interoperability COG"**
  - Will get a commercial or government system the appropriate passwords, etc. to build, test, and demonstrate interoperability capabilities
- **On installation at customer site:**
  - The CUSTOMER (government or responder agency that uses the software) registers as a responder COG.
  - The customer (through his newly purchased commercial system or GOTS installation) gets interoperability access to all other DM responder COG's (including access to the to-be-developed NOAA interface, if authorized) under normal DM protocols.

**We will soon be putting up a separated registration point for OPEN -  
Along with an expanded web site.**



## DM OPEN – Administering a COG

- **Interop Coordinator Can arrange ids needed for simple connectons**
- **DMIS Tools is another option**
  - Set up one instance of the tools for your COG Administrator
    - Add operators, change passwords, etc. without depending on DMIS help desk.
- **OR ---- Build to the Admin Service (we can schedule an Admin service presentation)**



## DM OPEN – Modes of Interoperability

- **Test and Development Mode**
  - Used for test, demonstration, and system development
- **COG member Mode (organization to organization connectivity)**
  - Used for operation by a responder organization using its own software to connect to other DM COGS regardless of software brand.
- **Operational Broker Mode (Network to network connectivity)**
  - Used to create network to network information sharing capabilities.



## Test and Development Mode

- **Used for test, demonstration, and system development**
- **Potential Interop partners share a COG with limited ability to post to other COGS.**
- **Once capabilities are hardened and operational scenarios are well understood, instances of interoperable systems will choose one of two operational modes.**
- **Each will require sponsorship by a responder organization of some sort.**



## COG Member Mode

- **Used for operation by a responder organization using its own software to connect to other DM COGS regardless of software brand.**
- **Posting is done COG to COG within the DM network.**
- **COG's may or may not have users of the DMIS tool set.**
- **COG's may employ commercial tools that emulate a DM user for the purpose of accessing the interoperability interfaces.**

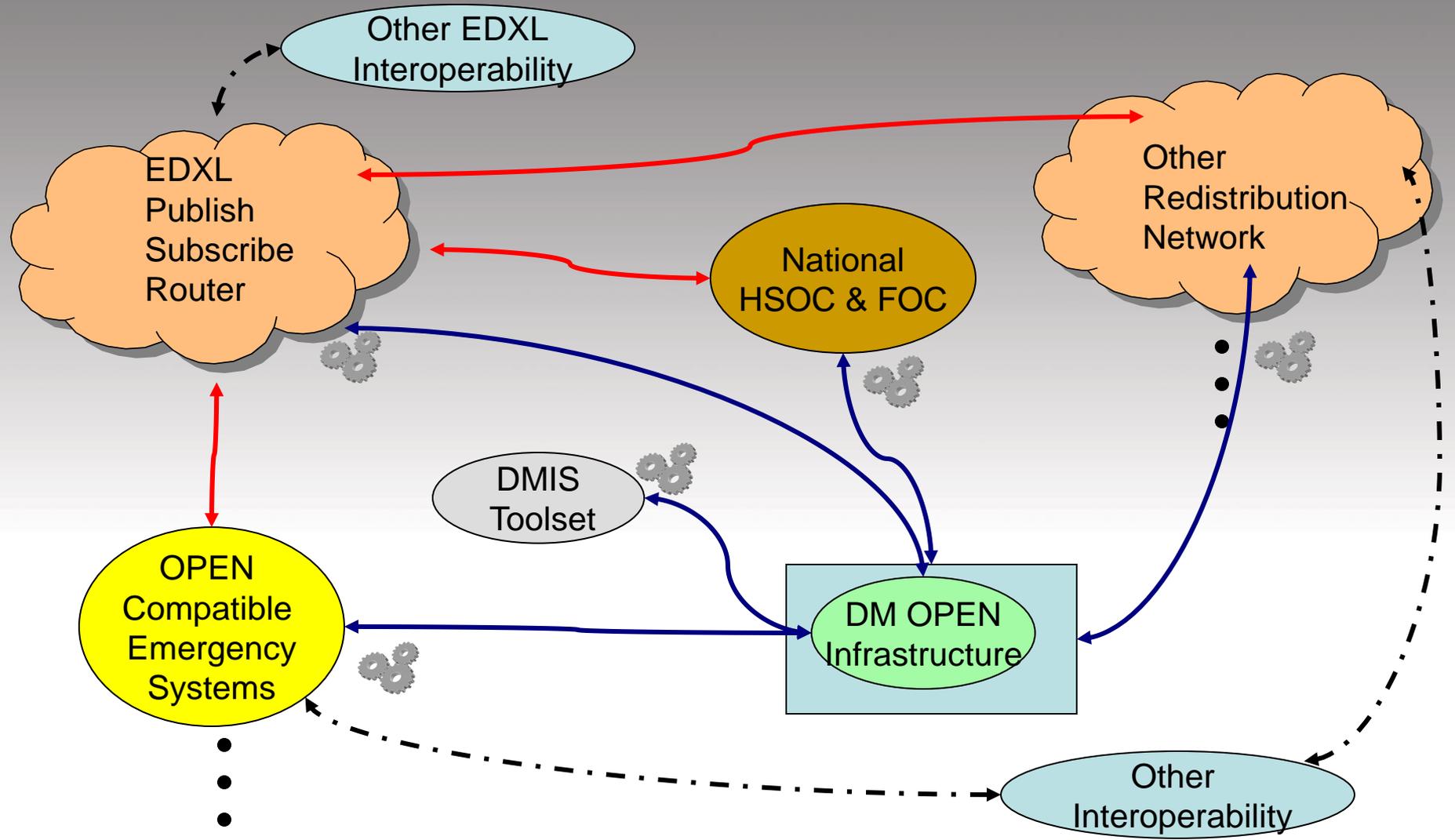


## Operational Broker Mode

- A operational broker is a special case COG representing a network to network boundary.
- DM users that post to the “network” COG choose to trust the network to redistribute any messages using that network’s business rules.
- Posts received from that network are identified as such for DM users, letting them know the “environment of origin.”
- Posting to DM COG 0 (zero) has the effect of posting to the entire network.



## The Network of Networks Architecture





## DMIS Interoperability Topics

- **Common Alerting Protocol (CAP) interfaces**
- **HazCollect interface**
- **Admin SOAP Service**
- **EDXL Distribution Service**
- **Tactical Information Exchange (TIE) Service**
- **Live Demos Between Systems**

**Next Meeting Topic?**



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Questions?



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