



The RadResponder Network

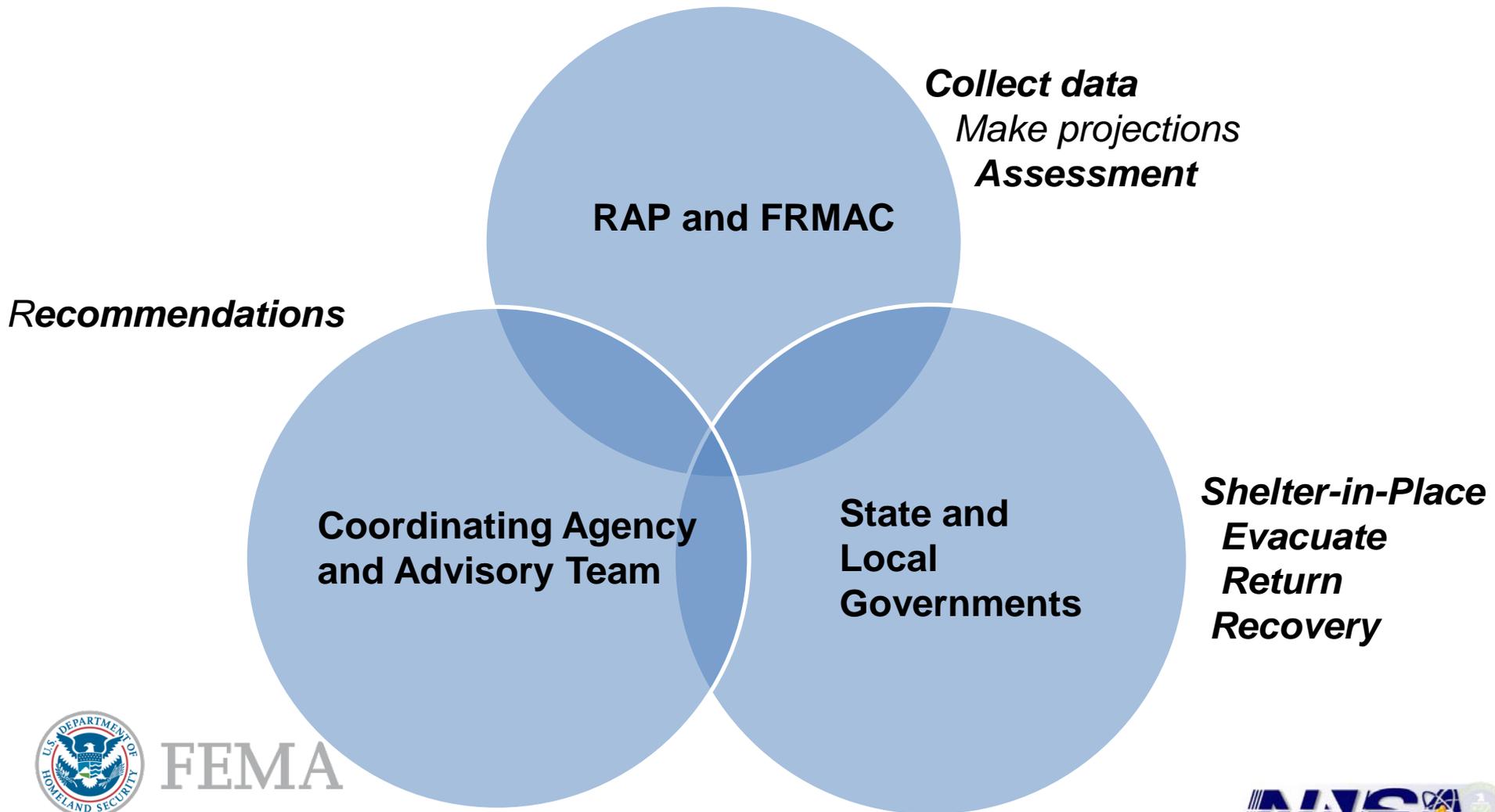
January 17th, 2013



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Coordinated Radiological Consequence Management



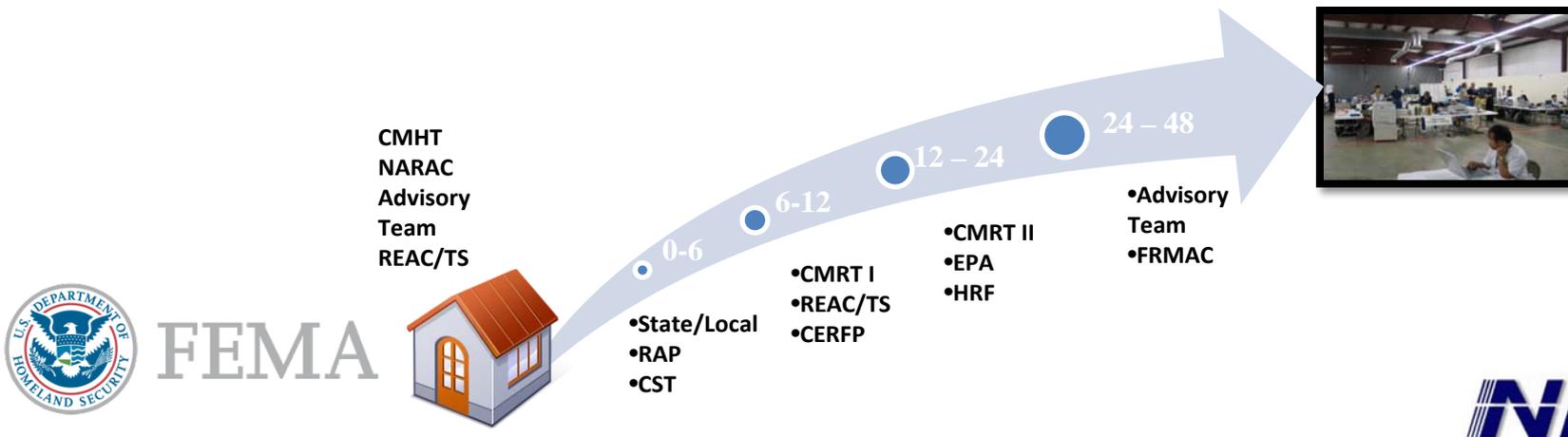
Why RadResponder

The Background

- Lessons learned from multiple NNSA exercises leading back to Southern Crossing in 2006.
- DHS IND Strategy + lessons learned from Fukushima.

The Need

- To support consequence management, rapid characterization of an incident must begin as soon as possible.
- Process must begin prior to arrival of specialized federal assets.



RadResponder Architecture



Core RAMS System

- Primary FRMAC System
- SQLServer Database
- Browser front end
- Hosted at RSL (Nellis)
- Semi-Private System
- Setup: Events, Personnel, Equipment
- Data: Measurements, Samples, Analysis Results
- Mapping
- Assessment and LIMS Tools
- NARAC, TurboFRMAC Integration



RadResponder Network

- Cloud based
- Hosted in MS Azure
- Primary focus is SLTT
- Direct integrations with 3rd Party Networks
- Open API



RAMS Field Deployable System

- Identical to RAMS
- Pre-configured flyaway hardware
- Used at mobile command posts by FRMAC
- Near real-time database replication over satellite



Mobile Device Software (apps)

- Android, iOS
- Freely available
- Limited functionality
- 3rd party hardware



RadResponderPro Field Data Collection

- Secure communication
- Ruggedized hardware
- Richer experience
- Enhanced COMS

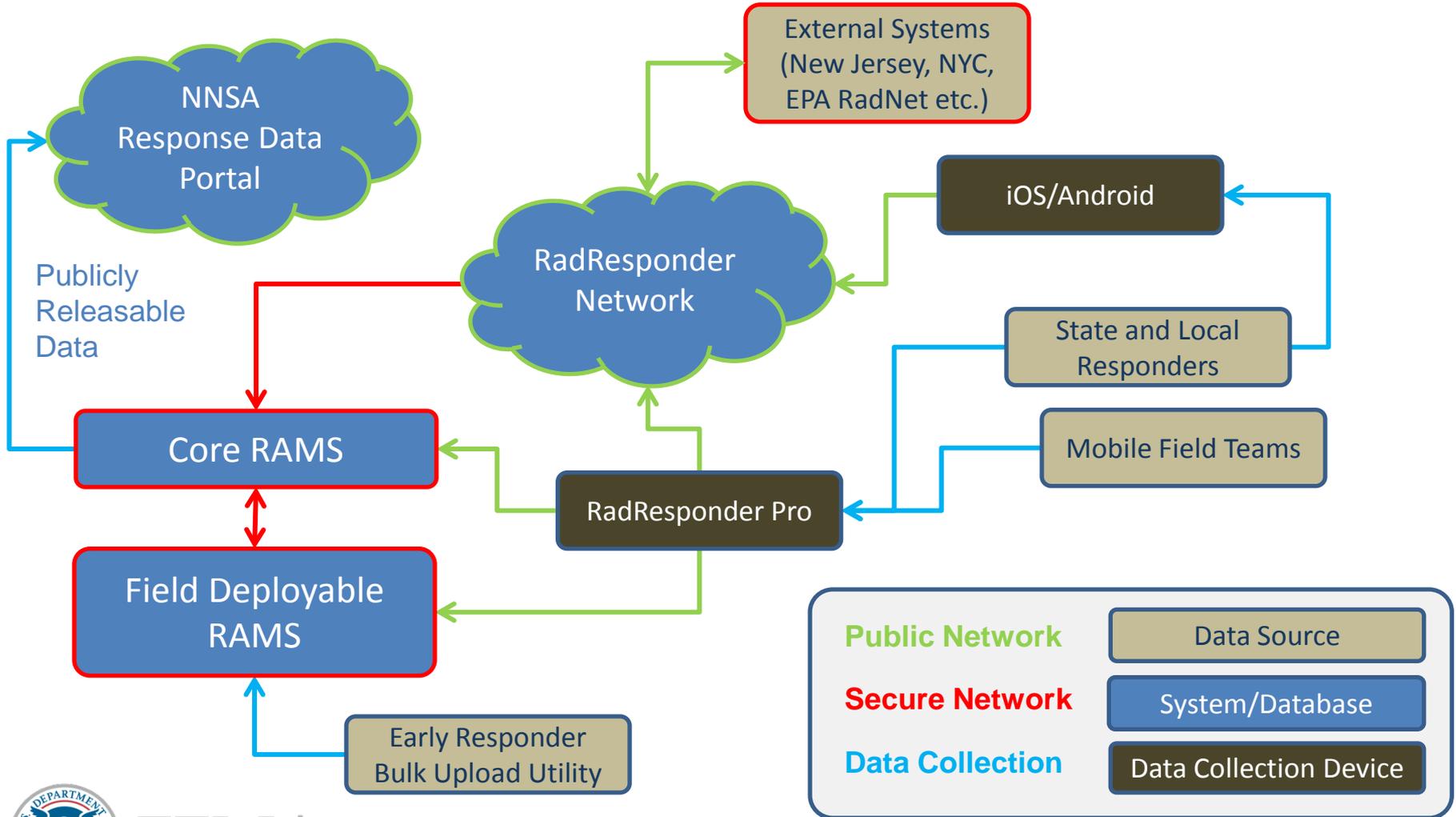


External Systems Integrations

- Public Webservice API
- NYC, New Jersey
- EPA RadNet, etc.



RadResponder Data Flows



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RadResponder Phase 2

- “One Stop Shop” Website
- New App Features
 - RadResponder Pro linked to the RadResponder cloud
 - Automated importing of data between the RadResponder cloud and RAMS
 - Situational Awareness – SitReps, Messaging, Photographs
 - Improved Mapping and tools to integrate with existing GIS tools
 - Managing Field Samples

RadResponder Network

Mike.Matsko@dep.state.nj.us NJDEP Demo

NJDEP Demo
New Jersey DEP
Inactive
Measurements: 27
Samples: 150

Alphas: 17
Betas: 5
Gammas: 5

38.9155, -77.2315
Kansas City, MO

Event Measurements Maps

article 1 (2 HOURS AGO)
article 2 (YESTERDAY)
article 3 (LAST WEEK)

Meeting with John Smith
Meeting with FEMA
Phone call with John Smith

ballen@chainbridgetech.com
orau.gov
fema.gov

News & Updates Calendar Support

RadResponder Team
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RadResponder Network

Mike.Matsko@dep.state.nj.us NJDEP Demo

Event Summary

View/Post Comment Assessment Samples

Field Measurements

SUMMARY:	24 HOURS	72 HOURS	1 WEEK	TOTAL
Alpha	0	0	3	17
Beta	0	0	3	5
Gamma	0	0	4	5
All	0	0	10	27

Summary

Entire Event

Measurement Types

- Alpha: 17
- Beta: 5
- Gamma: 5

Download (0) Clear Selection

RAMSDataDictionary.pdf

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SLTT Integration Case Study

Event DataProvider Edit + Create Export to Excel R/P (4 Records)

ID	EXTERNAL DATAPROVIDER	MAX DELTA	POLLING DURATION (MINUTES)	INITIAL REQUEST (UTC)	LAST REQUEST (UTC)	ACTIVE
➔	NJDEP Hour Data	5	10	10/9/2012 12:00:00 AM	12/4/2012 2:08:59 PM	Yes
➔	NJDEP Min Data	5	10	10/9/2012 12:00:00 AM	12/4/2012 1:58:37 PM	Yes
➔	NJDEP Min OYSTER Data	5	10	10/9/2012 12:00:00 AM	12/4/2012 1:39:56 PM	Yes
➔	NJDEP Min SALEM Data	5	10	10/9/2012 12:00:00 AM	12/4/2012 1:40:28 PM	Yes

• Primary Project Goals

- Integrate the NJDEP radiological monitoring data into the RadResponder Network
- Implement an automated import mechanism

• Secondary Project Goals

- Execute a Proof-of-Concept (POC) project utilizing a EPA's Exchange Network
- Identify common issues when integrating with RadResponder
- Develop best practices for similar integrations

RadResponder Network SQLDBI Default Administrator NJDEP Demo

System Home Organization Event Measurements Samples Map Admin Features Dashboard (temp)

External Measurement External Measurement Search Save Search Export To Excel Refresh

< Current Page: of 3677 > Records Per Page: (91915 Records)

EXTERNAL DATAPROVIDER	EVENT DATAPROVIDER LOG	FIXED LOCATION	START DATE	END DATE	UNIT	VALUE
NJDEP Hour Data	100	39.7965/-74.2452	10/8/2012 6:00:00 PM	10/8/2012 7:00:00 PM	mR/hr	0.0069
NJDEP Hour Data	100	39.7965/-74.2452	10/8/2012 7:00:00 PM	10/8/2012 8:00:00 PM	mR/hr	0.0069
NJDEP Hour Data	100	39.7965/-74.2452	10/8/2012 8:00:00 PM	10/8/2012 9:00:00 PM	mR/hr	0.0069
NJDEP Hour Data	100	39.7965/-74.2452	10/8/2012 9:00:00 PM	10/8/2012 10:00:00 PM	mR/hr	0.0069
NJDEP Hour Data	100	39.7965/-74.2452	10/8/2012 10:00:00 PM	10/8/2012 11:00:00 PM	mR/hr	0.0069
NJDEP Hour Data	100	39.7965/-74.2452	10/8/2012 11:00:00 PM	10/9/2012 12:00:00 AM	mR/hr	0.007
NJDEP Hour Data	100	39.7965/-74.2452	10/9/2012 12:00:00 AM	10/9/2012 1:00:00 AM	mR/hr	0.0069
NJDEP Hour Data	100	39.7965/-74.2452	10/9/2012 1:00:00 AM	10/9/2012 2:00:00 AM	mR/hr	0.0071

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SLTT Integration Case Study (2)

- **Project Summary**
 - Began discussions September, 2012; NJDEP and Enfotek
 - Joint development throughout September 2012
 - Proof of concept delivered October 2nd, 2012
 - Production ready: October 12th, 2012
- **Functional Details**
 - Accessing both hourly average and minute-by-minute actual
 - Implemented basic data compression
 - Automatic import every hours, or on demand



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2013 Inauguration Roll-Out

- Coordinated effort through NGB J3 to integrate RadResponder Pro with CSTs
- Initial efforts focused on 33rd CST in DC through engagement with their CO
- Software currently undergoing minor security updates to meet NavAir requirements for integration into the CST UCS
- Additional briefings provided to:
 - US Army G8
 - USMC CBIRF
 - FBI WFO and HMRT
 - MWCOCG Emergency Managers



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RadResponder Outreach Efforts

- Federal Stakeholders
- Professional society outreach
- SLTT capability
 - Pilot engagement from Florida, Georgia, Kansas, Maryland, New Jersey, New York State, Vermont.
 - Interest expressed by Arkansas, California, Delaware, Louisiana , Missouri.
 - Fixed sensor network integration efforts completed with New Jersey. Interest expressed by NYC and Charlotte.



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Summary

- Standardized flexible free toolset for multiple levels of responders to support rapid characterization of a rad/nuke incident
- Overhaul of current UI based on lessons learned and feedback from end user working group
- Efforts underway to support integration of third party radiation detection systems
- Continued SLTT and private sector engagement essential to developing a value added product



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