

NYC Department of Health and Mental Hygiene

Health Alert Network

Greater New York Hospital Association Briefing



August 5, 2002



Session Objectives

- Understand Health Alert Network
 - Purpose
 - Funding/support
 - Functionalities
 - Importance/vision
- Place in context
 - **Case study: suspected smallpox in Brooklyn hospital**
- Elicit interest

NYC Health Alert Network (HAN) Goal

- Create a new, on-line community in NYC that links the users (providers, hospitals, departments and agencies) in new and productive ways for emergency and routine communication

HAN Objectives

- Secure, bi-directional, web-based application built to solidify, support, and (when necessary) mobilize communities of interest within the health care, public health, and emergency response sectors
- Accomplish above through the following high-level functionalities:
 - **View/post health alerts**
 - **Document library**
 - **Multi-channel broadcast of urgent and routine messages**
 - **On-line conference center**
 - **Secure bulletin board**

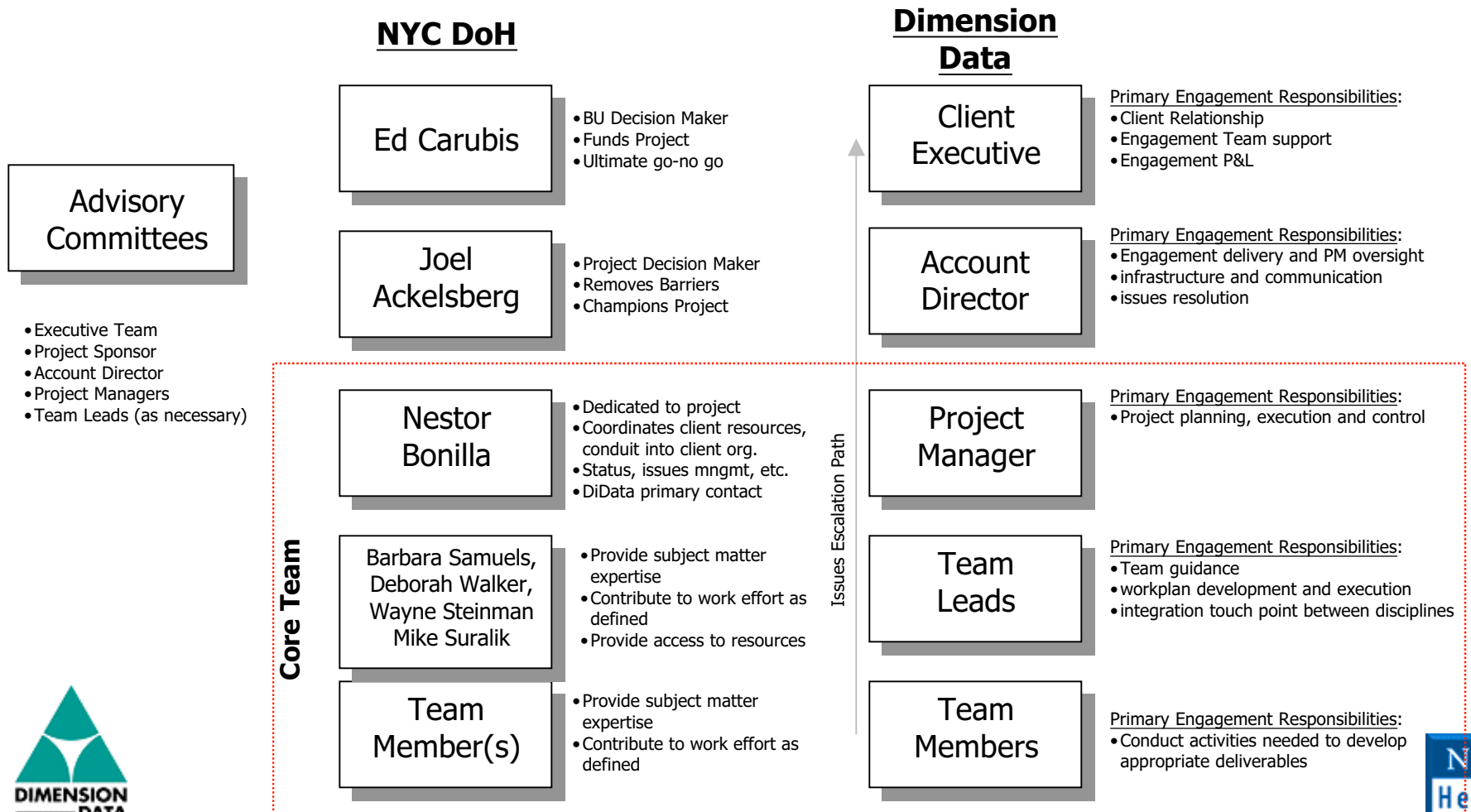
Background

- CDC-funded
- Nationwide strengthening of public health infrastructure
- All state health departments funded (plus NYC, Chicago, Los Angeles, Washington, DC)
- Aim:
 - Link state HD with local HDs
 - Link local HD with hospitals

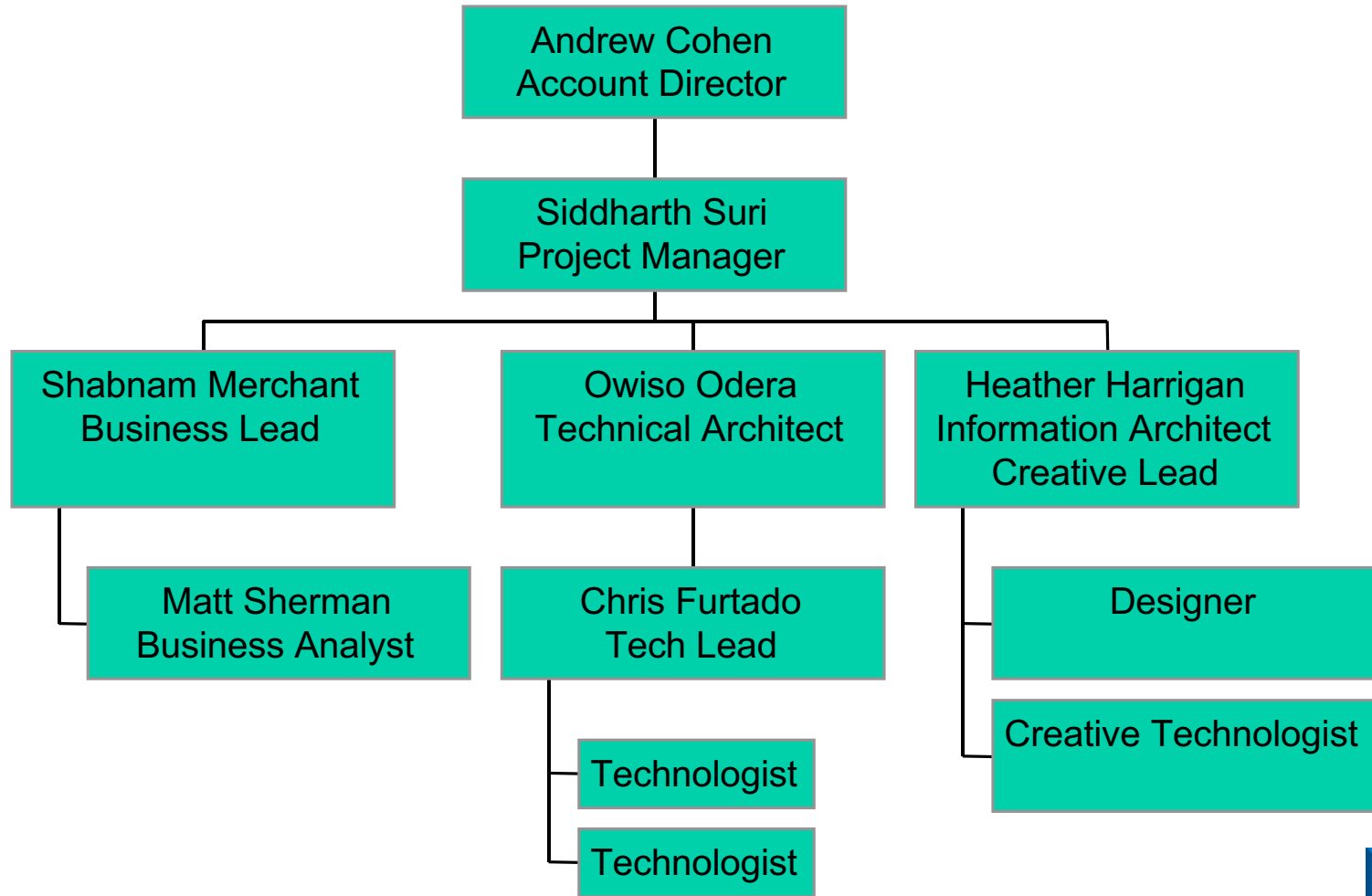
Milestones

- Conceptual Development
 - Focus groups with hospitals
- RFP released July 2, 2001
- Vendor selection delayed by Sept 11 / Anthrax
- Dimension Data selected as vendor early 2002
- Phase 1 began May 24, 2002

Organizational Structure



DiData Team



Project Approach

- High-level requirements
 - Finalizing high-level business requirements of HAN
 - Defining use cases (system response scenarios)
 - Web-site layout and design
 - Technical specifications document
- Drill down from above
 - User groups
- Phase 1 of HAN - completion November 2002

HAN Users

- Overall NYC medical and health care community
 - Tens of thousands
 - Access to general and personalized information
- Key NYC health care, public health, and emergency response personnel
 - Less than one thousand
 - Automatically alerted during emergencies
 - Access to more secure conferences and bulletin boards

Functional Overview – Phase 1

NYC DOH Public Website

Health Alert Network



**View/Post
Public Health
Alerts**



**Secure
Bulletin
Board**



**Document
Library**



**Multi-Channel
Broadcast**



**Online
Conference
Center**

Functions: View/Post Health Alerts

- Alerting function uses various communication modalities to notify user base
 - E-mail
 - Fax
 - Cell Phone
 - Pager
- Varying levels of alerts from general to specific user groups (*Dialogic Communicator*)
 - **General: routine public health alerts**
 - **Specific: emergency alert to key personnel**

Subject: Public Health Alert - OpSail 2000 in NYC

Date: Mon, 19 Feb 2001 10:04:03 -0500

From: [Health Alert Network <arzt@hln.com>](mailto:arzt@hln.com)

Organization: NYC Department of Health



* PUBLIC HEALTH ALERT *

Please go to

<http://www.ci.nyc.ny.us/html/doh/html/cd/opsail.html>

to view an important public health alert about the Operation Sail 2000 and other related events that are scheduled to occur in New York City from July 1-9, 2000. The NYCDOH has also posted draft medical fact sheets on 6 potential bioterrorist agents (including anthrax, botulism, plague, Q fever, smallpox and tularemia) on that Communicable Disease Web site.

Please share this alert with colleagues in Internal Medicine, Pediatrics, Family Practice, Intensive Care and Emergency Medicine.

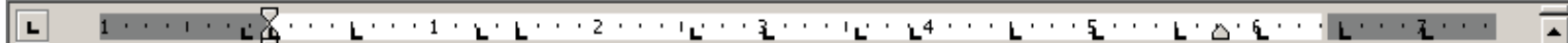
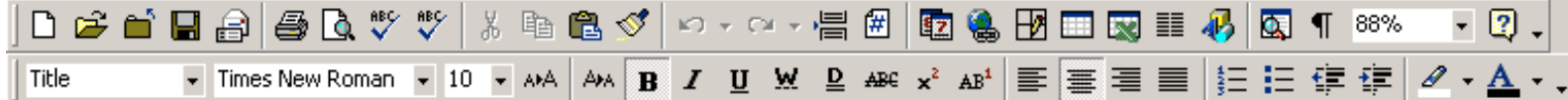
Thank you.

New York City Health Alert Network
han-report@health.nyc.gov
888/555-1212 (Voice)
888/555-1213 (FAX)



Functions: Document Library

- Internal and external links to documents (fully searchable)
 - Fact Sheets/FAQs
 - Protocols
 - Guidelines
 - PowerPoint Presentations
 - Photo Gallery
 - Downloadable documents (pdf)



THE CITY OF NEW YORK DEPARTMENT OF HEALTH

Michael R. Bloomberg
Mayor

Thomas R. Frieden, M.D., M.P.H.
Commissioner

nyc.gov/health

June 21, 2002

Update to Measles Broadcast Alert sent on April 12, 2002

**Please Distribute to All Primary Care Staff, Including Infectious Disease,
Emergency Medicine, Internal Medicine, Pediatrics, Family Medicine, and
Laboratory Medicine and All Infection Control Personnel**

Dear Colleagues,

On April 9, 2002 the New York City Department of Health (NYCDOH) was notified of two confirmed measles cases in Pakistani-American infants who reside in Queens and Brooklyn, respectively. Since that date, three additional cases have been confirmed. There was a total of three outbreaks, which resulted in five cases.



Functions: Multi-Channel Broadcast Capability

- Mass fax distribution
- Integration with voice, e-mail, and alphanumeric pagers
- “Find me” and “Follow me” capabilities

Functions: Bulletin Board

- Participation in threaded message boards
 - Users view/contribute to threads
 - Monitored and moderated by NYCDOHMH (some unmoderated functionality)
 - Organized around communities of interest
 - > By occupation: emergency department/ID physicians; hospital administrators; educational groups (e.g., residency programs)
 - > By subject: pathogens, emergency preparedness
 - Chat

Functions: Online Conferencing

- Conduct on-line meetings and forums
- Multiple concurrent conferences with varying security levels
- Web-based application that allows:
 - **Registration**
 - **Agenda creation**
 - **Moderated discussions**
 - **Shared viewing of documents or data**
 - **Underlying chat**

Features: Personalization

- High-level unchangeable banner and buckets
- Allows a “customized” view of the HAN website at lower levels
- Users see the information they *want* to see first (e.g., anthrax or West Nile)

Features: Security

- Most users: 1-factor authentication
 - **User name/password, linked with professional license number or other identifier**
 - **3rd party certifying authority**
- Key health care, public health, and emergency response personnel: 2-factor authentication
 - **User name/password**
 - **Token (physical) or digital certificate (sits in computer)**
 - **Administered by DOHMH**
 - **Will enable temporary authentication by system administrator**
- Communication between user's web browser and the HAN application will be encrypted

Project Analysis

■ Strengths

- **Strong Team (DOHMH, DiData, HLN)**
- **System Engineering Process (Audits & Reviews)**
- **Methodology (Plan, Define, Design, Develop, and Deploy)**
- **Risk Mitigation Plan**

■ Weaknesses

- **Initial Project Definitions (RFP, or PD)**

Technology

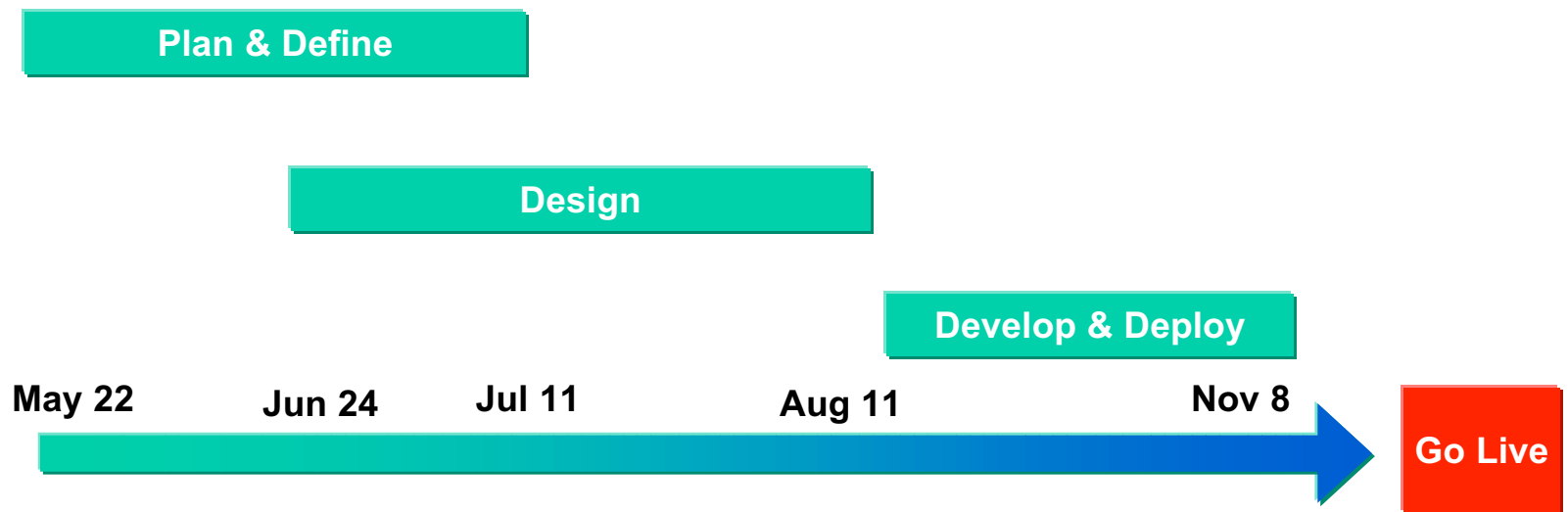
- Technology
 - Microsoft Standard
- Standards being looked at
 - HIPPA, HL7, NEDSS

Team/Resources

- Assumptions about resources allocated to this project
 - Resources are adequate at this phase
 - Multi-level user input is critical in next phase (Time required)
 - > DOHMH
 - > Other health departments
 - > Hospital sector

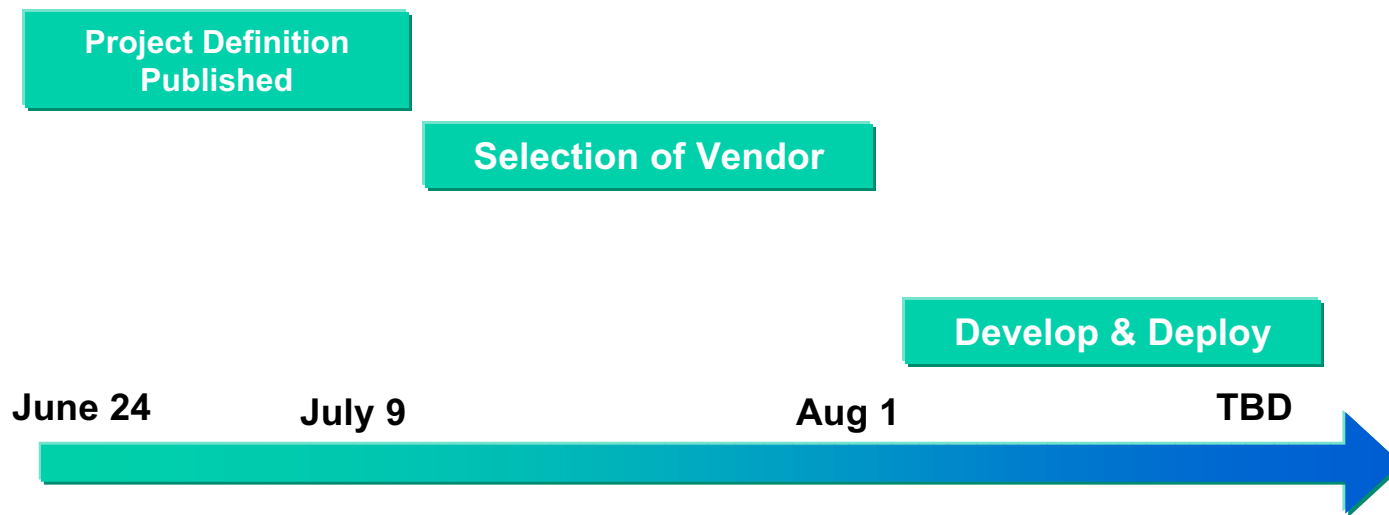
Schedule – HAN

- Review schedule milestones



Schedule – MPP

- Review schedule milestones

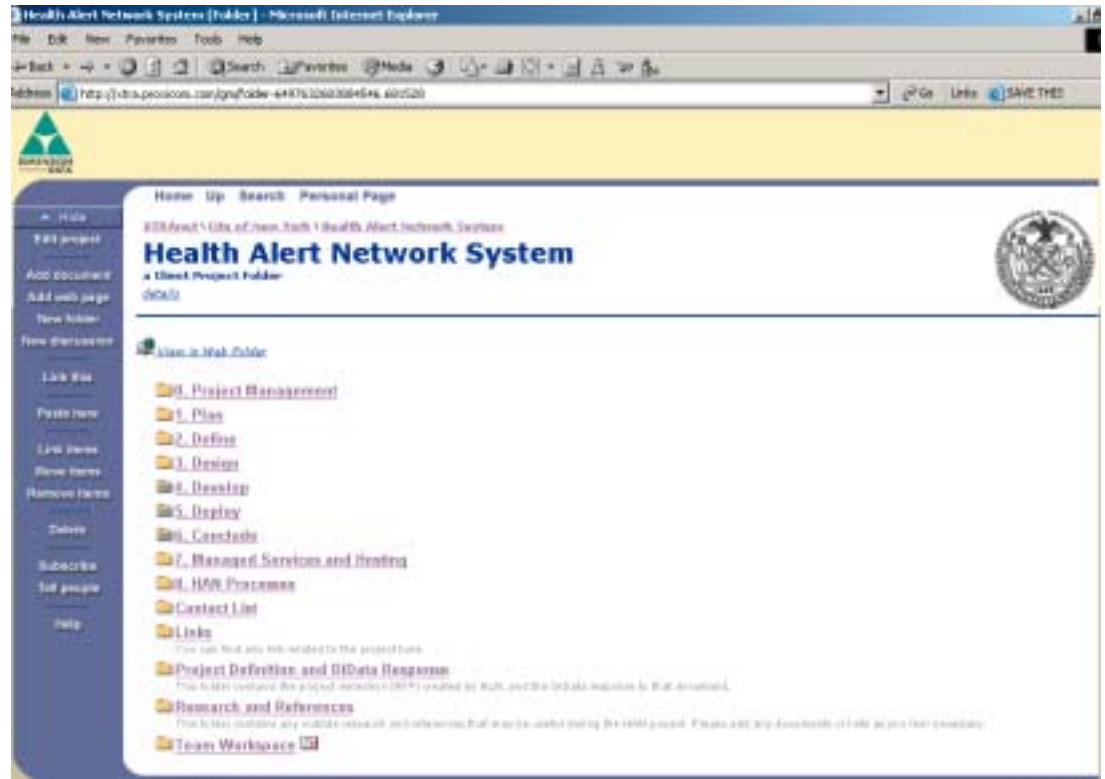


Current Status

- High-level overview of progress against schedule
 - On-track
- Unexpected delays or issues
 - Procedures in place provide program structure

Documents

- Dimension Data Extranet



Risks to the project

- Integration with external systems
 - **MPP – Security, Authentication**
 - **Dialogic – Alerting**
- Processes around the system
 - **Registration**
 - **Maintenance**
- Acceptance by the end users

Emergency Uses

- Detection
- Bulletin boards
 - **Chat rooms**
- Notification
 - **Automatic emergency page, call, and fax**
- Rapid epidemiologic response
 - **Downloading of questionnaires, fact sheets, databases, and protocols**

Emergency Uses

- Supports communication and coordination
 - **Monitoring outbreak and coordinating response**
 - **On-line conferencing with hospitals and agencies in multiple jurisdictions**
 - > **Secure**
 - > **Web-based**
 - > **Bi-directional**
 - > **Streaming audio with data presentation, including clinical photographs, etc. (depending on end-user capabilities)**

Routine Uses

- Bulletin board/Conference rooms
 - **Weekly conferences**
 - **Project management**
 - **Training**
 - **Discussions**
- Document Library
 - **Access to printed and pictorial information**

Some Hospital Concerns

- Firewall security
- Patient confidentiality
- FOILable documents and records

Scenario: suspected smallpox case in NYC hospital

- Outbreak detection
 - **Sharing of information (including digital photograph) on secure emergency medicine/infectious disease/dermatology or smallpox-related bulletin board**
- Initial response
 - **Focused alert: mobilize rapid response teams with *Dialogics Communicator*, including dermatologists from hospital sector**
- Intermediate response
 - **General alert: update, in light of heightened press coverage**
- Coordination of response
 - **On-line conference with key parties**

How hospitals can participate now: Use Cases

- Usecases capture the functional requirements and define the complex business logic for each business function identified in the business requirements
 - **Provides solution owners with a clear understanding of detailed flow of each business requirement**
 - **Creative team able to verify site structure against process flow**
 - **Development team able to verify whether solutions are feasible from development and technical perspectives**
- Usecases are developed iteratively with the solution owners

Content Usecase

- This usecase will describe how content will be placed on the site, how it will should look, Ask DOH functionality, search, personalization, etc.

Registration Usecase

- Defines how the user will sign up for access to the site. This also includes admin tools necessary to facilitate registration.
- User Impact
 - **All end users who will register on the HAN**

Conference Center Usecase

- The conference center is also a forum to discuss topics, but these will be discussions based on agendas and specific topics at hand. The software used will allow collaboration of documents, data transmittal, real-time surveys, etc.
- User Impact
 - **Conference presenters**
 - **Conference attendees**

Bulletin Board Usecase

- The bulletin board is a forum for users to discuss openly a topic of choice. These conversations can be moderated or unmoderated, allowing both confidential and secure information to be shared. The bulletin board will also have built-in chat functionality. Chat will allow you to have large groups collaborating at once as well as an individual level instant message type conversation.
- User Impact
 - **Bulletin Board users**
 - **Bulletin Board moderators**

The Usecase Creation Process

- We are going through a five-step usecase creation process
 1. Discussion of the usecase
 2. Firming up of the usecase
 3. Feedback period
 4. Finalizing the usecase
 5. Signoff
- Your assistance as users of the system will be valuable in exploring how the system will be designed and ultimately implemented

Usecase Schedule

Usecase	Week Of
Bulletin Board	July 29
Conference Center	July 29 (tentative)
Content	August 19 (Two sessions)
Registration	August 5

Time Commitment – 2 to 3 hours per usecase

If Interested

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