Appendix A

Communication Technology Enhancement Discovery Report

DPH and Coordinated Training/Communication Partners

January 21, 2004

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1 Authorizations

The sponsors listed in the table below are members of the Oversight Committee for the Public Health Communication Technology Enhancement . They have reviewed and authorized this Discovery Report. Authorization constitutes agreement with the contents of this document and signifies approval for the project to move to the initiation/definition phase.

Title	Signature	Date
Tom Alt, DPH Interim Administrator		
Diane Christen, DPH IT Liaison		
Jean Doeringsfeld, IT Business Consultant		
Linda Heisler, DMT, Director of Training DHFS		
Sharon Gehl, Dir.Office of OperationsPreparedness Program		

2 Reviewers

The individuals and groups listed in the table below have reviewed and contributed to this project as outlined in this Initiation Report.

Name and/or Organization
Jean Doeringsfeld, DMT
Diane Christen, DPH
Sherry Gehl, DPH
Moira Lafayette, DPH
Brian Wagner, DMT
Bioterrorism Steering Committee, DPH

3 Background

Over the past year, the Division of Public Health (DPH) has been required to upgrade its realtime communication system to meet specific federal public health preparedness grant requirements. DPH has had to communicate with, and provide information to, local public health partners, media, and the general public regarding emerging public health threats including Monkey Pox, West Nile Virus and SARS.

Programs within DPH have needed the ability to communicate in realtime with statewide partners to provide updates on emerging public health threats and have set up conference calls, live webcasts, streaming video presentations, and webconferences through external vendors as a means to achieve this communication. The cost of these various training and communication activites with the local

health departments and other statewide partners last year was approximately $60,000. In addition, DPH has downlinked a number of satellite programs around the state at a cost of approximately $60 per site and $35 for a high quality recording of the program. Due to demand, some of these events were placed in a streaming file format and linked to the Health Alert Network (HAN) for a cost of $7,100 in 2003.

The DPH has engaged in technology plannign for education and communications consistent with the DHFS goal to prepare and respond to potential public healht threats such as disease outbreaks or potential bioterrorism in addition to the goal to ensure a sufficient and competent workforce to provide public services that are effective and cost efficient. The DPH in the first phase of a three-phase communications and education technology upgrade, is investing in an integrated satellite communication system in partnership with the Division of Management and Technology (DMT) that will enhance our capability to use interactive video and audio conferencing, satellite program downlinking and recording for the purposes of real-time communication, training and education. The purpose of this proposal is to identify the need for additional technology in phase two to capture and store blended media to view live or archived that is intended to leverage the soon to be installed satellite communicatuion system. Phase three of this communication upgrade is also addressed in this proposal which is to purchase a dedicated DHFS digital recording and duplication device for the purposes of recording satellite and internet programming and disseminating it in a timely, cost efficient manner to local health departments and public health partners.

4 Problem Identification

The demand for satellite broadcast programming and statewide real-time communication for information sharing and education has been increasing due to the following influences:

- Increased use of distance education by public health:

  Due to travel and training restrictions, many public health professionals are asking that the professional conferences and statewide outreach education events be captured and offered in a variety of electronic formats including live Internet, and available post-event in an electronic format or archived Internet format. These events must be recorded so that they can be made available in multiple formats such as VHS, CD, DVD, or webcast for asynchronous viewing.

- The need for the Department and the Division to use integrated media techology for communication on national security, bioterrorism issues, and emerging public health threats:

  The Division of Public Health is required to communicate with and provide training to local health departments, public health partners and the general public using a variety of media channels including live, video, audio, and blended media based upon the content of the message and the objectives of the communication.

- The 2003-2004 Public Health Preparedness Grant identified multiple technology formats to assist in the delivery of training and communication to local and statewide partners in real time modalities.

To meet this demand, DPH has relied on outside vendors to provide live press conferences for the media, to capture video presentations for education and training purposes, and to provide webcasted video and audio conferences to reach a larger statewide audience than those that could attend in person. In all of these cases, the technology did not exist at DHFS and had to be obtained from outsides sources. With the increase in demand, economical and technically feasible solutions are necessary to meet the education and communication business needs of the Division of Public Helath. Technology must be readily available at DHFS, stand alone and portable, yet also able to interface with the existing IT, communication and training technology of DHFS. This purpose of this proposal is to obtain this technology so that it is readily available at DHFS, interfaces with the existing IT, communication and training technology of DHFS, and eliminate the need to go to outside sources which results in increased costs and time to deliver communication and education.

5 Business Justification

The Division of Public Health has a clear business need to capture video and audio and distribute it in a live Internet format, and to have it available in web cast archived format for future broadcast as indicated in the following program areas.

In the DPH Bioterrorism/Public Health Preparedeness Grant, the Focus Areas have identified the need for technology to enhance communication and training, including:

- The expansion of the notification capabilities of the Health Alert Network and integration of those capabilities with other notification systems that are in place (Focus Areas A - Emergency Preparedness).
- Communication capabilities at the scene of an event are being evaluated for interoperability across responding agencies and for redundancy in case of a telecommunications outage (Focus Areas A - Emergency Preparedness).
- Mechanisms to communicate accurate and timely public information about the identification and investigation of a public health emergency in order to quell confusion and panic, and to direct public behaviors into the actions which best promote the containment and cessation of the emergency (Focus Area B - Epidemiology and Surveillance).

In public health program areas the business need for communication technology that allows DPH to reach stakeholders, the media and the public in multiple ways is increasing.

- Communication technologies that allow Public Health to reach stakeholders, the media and the public in multiple ways (Focus Area F - Risk Communication).
- Statewide broadcast training on SPHERE or other Web-PAMs and applications.

Although DPH has identified the need for this technology, it is believed that the technology would be useful by other Divisions within DHFS. The Division of Management and Technology state that regular access to a MediaSite Live unit by the Department-wide Training Office (the Office of Employee Development and Training, or OEDT) would provide exceptional outreach capabilities not yet realized. Such a system would provide a powerful, easy-to-use, extremely inexpensive, and flexible training distribution venue in which select OEDT training programs could be distributed throughout statewide DHFS locations. Because system programming is Internet-based, there would

be extremely few DHFS staff that would not have access to programming provided via this media. The system could permit distribution of live and pre-recorded HR/ER programming to staff around the state on a view-as-needed basis. In addition to general professional development programming, additional training could include just-in-time training on important issues pertaining to payroll, benefits, safety, and other staff critical subjects. Utilization of the MediaSite Live system would be in strong alignment with OEDT's mission for increasing its capabilities to distribute training materials via distance education. Incurred usage costs would be minimal. Such a system's implementation would continue to significantly lower Department travel costs associated with staff training. Furthermore, having a DHFS MediaSite Live unit would decrease dependence on DOA's MediaSite Live system, which is seeing increased use and will only become less available over time as DOA serves more centralized IT roles throughout various state agencies.

6 Communication Technology Proposal

6.1 Vision

The Division of Public Health is looking for an enterprise solution that would leverage the Department's existing satellite technology by enhancing it to include the capture of video and audio for live Internet distribution, or for later broadcast

6.2 High-level Business Requirements

The following section describes the primary feature requirements for the Communication Technology Proposal.

Requirement	Summary
Interface with existing DHFS technology.	The technology must allow for interface with existing DHFS technology in rooms 751 and B370, including the pending satellite system to be installed in late 2003.
Support for multiple media formats.	The technology must be able to combine the multimedia formats. The ability to record presentations in sharable formats is critical.
Support for live webcasts and recorded viewing.	The technology must make presentations available in a live webcast and in a format for future web viewing.
Connectivity to existing satellite system at DHFS.	Allows connectivity to the integrated satellite system through the mini EOC in DHFS 3B.
No connection or user fees.	The technology must not require individual user or connection fees.
Portable technology	The technology must be easily accessable and portable so that it can be used to capture events around the state if necessary.

6.3 Scope

The technology acquired must meet all high-level business requirements listed above.

The issue of server capacity to accommodate storage of the multimedia format and streaming of the content to internet users is out of scope for this current phase. To meet future demand for this technology in the future, this issue may need to be addressed.

6.4 Priorities and Constraints

1. Functionality.
2. The techology solution must be available and in place for use before the end of the year due to DPH program/grant requirements.
3. Budget/Resources for the capture and storage technology is no more than $24,500.
4. Budget for the digital recording and duplication equipment, including installation and satellite system integration is $7,600.