CGMS XXVI
Prepared by: M. Perkins
USA WP-09
Agenda Item: F.4

Dissemination of DCS Messages (GTS or other means)

Summary and Purpose of Document

to provide a status report on the assessment of DCP data transmitted on DAPS (GTS or other means)

Action Requested: None

CGMS XXVI
USA WP-09
Agenda Item: F.4

DISSEMINATION OF DCS DATA ON THE INTERNET

The GOES Data Collection System (DCS) is comprised of several elements that are pertinent in the collection, storage, and dissemination of environmental data. This data is collected from a variety of field locations that are positioned throughout the Western Hemisphere. The collection of this very pertinent environmental data, results in the need to return the data to the owner or "customer". Once the data is collected, there are several methods to disseminate it back to the user. In fact, the system allows sharing of data between users. This allows for an overall cost savings and better coverage.

The dissemination of DCS data is accomplished through a variety of methods. These include dedicated tele-communications lines, dial-in telephone lines, a satellite relay system and connectivity through the Internet.

This discussion will center on distribution of DCS data through Internet access. How it came about, its current status and future plans.

The basic concept of Internet connectivity has been through a normal evolution of current technology. The current system was designed to provide a user interface through the use of asynchronous dial-in telephone lines. Ten of these lines were provided so that the users (or customers) could per form two functions. First, they needed the capability to collect their data from off site, remote locations. Second, the system concept required that they be authorized to update the system data bases which are used for the real-time processing of DCS data. Incidentally, many users have been concerned with the expense of the continual phone calls to the system. With the advent of technology it seemed reasonable that the functions associated with the dial-in processes could be shared through an Internet interface.

To meet these goals an independent effort was initiated to provide an Internet interface that would provide an analogous interface as the dial-in interface. The first action was to present the general concept to the DCS users who were enthusiastic and offered many suggestions. Second an effort was initiated to build a test system using ADP equipment that was readily available.

The test system was built and selected users were contacted in order to conduct a Beta test. After a few months of testing, the system was opened to the general population. The service provided was primary a Telnet connection. After some effort FTP capability was added.

The advances were an immediate hit with the user community. The next step was to provided the service in a more permanent manner. To meet this need an NT system with the associated software was purchased and established as the Internet server. The original test configuration was replaced with this new hardware and software.

Security is provided through a second NT system which acts as the firewall. This computer houses Check Point firewall software. Each user is validated through either an IP check or a log-on to the firewall via a unique user name and password. The firewall logs all user access. Each user must obtain firewall on an individual basis.

The thoughts being that the locally developed Internet interface would serve as an interim between the current DCS and the planned replacement system. As a result of the effort there has been a dramatic increase in the DCS user activity. We have found that the dial-in traffic has decreased while the Internet traffic has shown a substantial increase.

This is all leading to the requirements for the future generation system. These requirements will include: push, pull, FTP and form technology. The DCS users want their data to be delivered in the most direct real-time method possible. While some users can collect their data through a secondary satellite link, the smaller users do not always have this advantage. Therefore, the future system will be capable of sending (or "pushing") the appropriate data to the users in near real-time when it arrives and is processed.

As is the case today, the future system will provide "pull" technology. This means that users can log on to the system and select a block of data that will be downloaded to their site. As a secondary means of receiving their data, the users will be provided with a FTP tool. Through FTP the user can download a file which contains their data that has been collected over time. All of these features will be accessible through the use of forms which will be located on web specific web pages.