



# KAWAIPUNA

*News from the Board of Water Supply*

**Vol. 58 No. 2**

**February - March 2009**

# New Tools Enhance GIS Use and Reliability

Enterprise Geographic Information System (GIS) monitoring and rapid GIS search capabilities are the benefits of the Information Technology (IT) Division's work with contractor geoXMF. The Board of Water Supply



(BWS) now has helpful state-of-the-art software tools to enhance GIS reliability and use.

## *Continuous Monitoring of Enterprise GIS Systems*

Reliability is key to the steady use of the BWS GIS program. Applications sometimes have issues that affect users who need to access data to do their jobs.

“When the system goes down, it affects our planners’ ability to create new work orders and to plan and schedule work for our field crews,” said Civil Engineer VI **Ellen Hirayama** who oversees the BWS GIS staff.

The new XMF Alerter program monitors the HONU or GISMO system every minute, making sure the application works properly, maps display correctly and performance is satisfactory.

HONU is the Department’s web-based mapping program for GIS data and GISMO provides the map for MAXIMO, the Department’s Comput-

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## HONU Tools

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erized Maintenance Management System.

If a problem occurs with any GIS application component, the Alerter sends an e-mail to GIS administrators **Lyann Okada, Leo Ikehara, and Thomas Otaguro**, as well as to Branch Heads **Ellen Hirayama and Tim Anderson**. Alerts are also sent as cell phone text messages in case the GIS administrators are away from their desks.

unavailable only when they tried to access it or when a user notified them.

“The user would wait until later to access the application or say anything to us,” Hirayama said. “So, we remained unaware of a problem until someone mentioned it.”

“The Alerter has enhanced the reliability of service and, as a result, raised user confidence in HONU,” she said. “HONU use boosts our employees’ productivity, their ability to complete work on time, and the quality of service to our customers.”

### Rapid GIS Search Capability

Users who conduct searches in the GIS will appreciate the time savings with the XMF Accelerator. It is a “Google-like” search tool that retrieves GIS data with a couple of key-

strokes and a mouse click or two.

“The XMF Accelerator is extremely user-friendly,” said Hirayama.

A special link opens the program. A user types in a string of letters or numbers identifying the search object,



A screenshot of the XMF Accelerator alert interface. The top navigation bar is blue with "Contact Us | Home" on the right. Below the navigation bar is a blue header area with "Alert Details: GISMO - Production" and "Modify" on the right. The main content area has a white background with a red border. It displays "Time: Tue Mar 17 14:14:44 GMT-10:00 2009" and "Current Alert" with the message "Unable to retrieve map image." Below that is a "Recommended Action" section with the message "3 ArcIMS Services are automatically being Stopped and Restarted...". On the left side of the interface, there are navigation links: "Home", "Configure", "Display Server Settings", and "Reload Configuration".

Home

Configure

Display Server Settings  
Reload Configuration

Alert Details: GISMO - Production

Modify

Time: Tue Mar 17 14:14:44 GMT-10:00 2009

#### Current Alert

Unable to retrieve map image.

#### Recommended Action

3 ArcIMS Services are automatically being Stopped and Restarted...

**Alert.** Messages like the one above promptly notify GIS administrators of any glitch in the system so it can be resolved.

Each can use work and home computers to access the system, investigate the issue, and promptly restore GIS availability to BWS users.

Before the Alerter, the team would discover the GIS application was

such as a hydrant number, premise ID number, or street intersection. The XMF Accelerator searches the GIS database for every match to that character string and brings up links for each one to the HONU screen containing the information.

“You want to be as specific as possible in your search, or you can expect a huge number of results,” said Hirayama.

For example, typing in “M05166” in the Accelerator search box produces a single link that opens a HONU screen of a map featuring a fire hydrant across the Public Service Building.

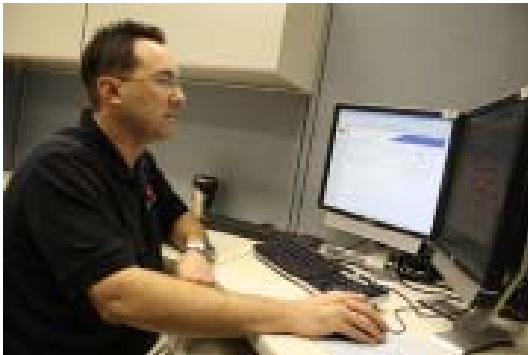
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Typing in “5166” produces 536 links, many of which are components of street addresses, valve numbers, premise or customer IDs, etc.

The XMF Accelerator also improves quality control of the GIS data by allowing the user to check for



**System status.** *Data Systems Processing Analyst V Timothy Anderson uses the Alerter to see if the BWS- GIS system is working properly.*

duplication of data to the system. For example, if there are two valves with the same number, a user would see two links pop up in the search screen.

Also, since links open maps to a pre-set extent, users of the same link will see the same map. This is especially helpful when two users are discussing a work order or searching concurrently for similar data.

So far, IT has conducted a soft rollout of the XMF Accelerator, introducing it to a handful of frequent HONU users, including the GIS Team, Water Resources Division’s Water Systems Planning Section, Capital Projects Division’s Engineering Administration Section, and a smattering of other users.

“So far, we’ve received only positive comments and feedback,” Hirayama said. “Our users seem to really like it.”

Eventually, Hirayama and her

staff will roll the program out to the rest of the Department.

The BWS is one of only three current users worldwide of the XMF Accelerator. The others are Providence Water Department and another user in Canada.

Increasing use of available technology through practical tools such as XMF's Alerter and Accelerator programs saves time for BWS employees and money for the Department, bolstering efforts to remain financially sustainable. 💧