

Jail Diversion Instant Messaging (JDIM)

Real-time Internet Technologies Solve Problems by Creating Collaboration Between Government and other Public-Private Partnerships.

Unprecedented workflow efficiencies are achieved as systems of people and data interact across organizational boundaries.

Many of society's most pernicious problems can be solved when systems of people and technology are effectively connected across organizational boundaries. The Jail Diversion Instant Messaging System (JDIM) implemented in Dallas County is an example of this dynamic at work. JDIM applies emerging technology standards combined with federated data models that are consistent with Electronic Health Records standards, to provide an affordable and effective technical solution to jail diversion. Unprecedented workflow efficiencies are achieved as systems of people and data interact across organizational boundaries.

Individuals within organizations need a common interpretation of data to make it useful. HIPAA legislation and Electronic Health Record (EHR) definitions requested by the Department of Health and Human Services create an environment of change and standardization that is hungry for cost effective solutions.

Solutions such as JDIM quickly pay for themselves by solving problems that are both expensive and cause much human suffering.

Organizations such as ISO (International Standards Organization), CEN (Comité Européen de Normalisation - the European Standards Organization), and HL7 (Health Level 7) are collaborating to establish standard specifications for interpreting and transmitting data in consistent ways.

All of these dynamics converge to make it possible for governments to become more efficient and public-private partnerships more effective. Solutions such as JDIM quickly pay for themselves by solving problems that are both expensive and cause much human suffering.

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What is Jail Diversion?

One of society's most difficult problems to solve involves people with mental illness that enter jails often as a result of not taking medications to control their illness. This problem becomes increasingly inhumane, expensive, and dangerous, as an individual's illnesses remain unidentified and untreated within the jail system.

Many communities in the United States have efforts underway to divert non violent offenders with mental illness out of the Jail System and back into the care of Community Based Mental Healthcare Organizations. These programs can be quite effective but require complex workflows and information sharing.

Typically, jail diversion programs require days, weeks, or even months to accomplish a single diversion. Information must be shared by telephone, fax, or paper processes. The JDIM solution has accomplished jail diversion within as little as four hours by streamlining processes and connecting people using real-time internet technology.

What is JDIM?

The JDIM system was constructed as a pro-bono pilot and has become a public/private partnership between DANSA (Dallas Area NorthSTAR Authority), ValueOptions (BHO), the Dallas County Government, and HarrisLogic. The system uses data federation, instant messaging, and online awareness to achieve unprecedented efficiency in Jail Diversion at the Dallas County Jail.

DANSA coordinated the efforts necessary to align county government champions, the provider community, ValueOptions, and HarrisLogic to achieve the JDIM system. Several county officials drove the process by using their power and influence to move the concept forward. The provider community contributed ideas and feedback to make sure the resulting Jail Diversion

The National Gains TAPA Center for jail diversion reviewed the production JDIM system in May of 2005.

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workflow would best serve the needs of the NorthSTAR client population, and ValueOptions worked closely with HarrisLogic to make sure the data needed to support the workflow was available.

HarrisLogic designed the Jail Diversion Instant Messaging (JDIM) system as a demonstration project, to support expedited jail diversion for nonviolent mentally ill offenders from county jail to community services. The National Gains TAPA Center for jail diversion reviewed the JDIM system in May of 2005. HarrisLogic is currently working in partnership with ValueOptions to ensure data for this solution and other envisioned workflows flow seamlessly in near real-time between the state, the provider, and their own information systems.

HarrisLogic plans to elicit interest from communities across the country that want to incorporate real-time electronic communication into their jail diversion efforts. In June 2006, HarrisLogic will select the most promising community jail diversion program and provide partial funding to develop a new JDIM pilot program. The pilot will be announced and the JDIM solution will be presented at the 2006 National GAINS Conference in Boston, April 5-7 2006.

What are Real-time Internet Technologies?

Since it’s commercialization in the 1990’s most people have used the Internet to access information and other people via World Wide Web (Web Browsers) and e-mail. These tools and their associated open standards have made it possible for people to obtain and share information with scale and efficiencies never before available.

Emerging real-time Internet or “Web 2.0” standards promise to extend the success of static technologies to further accelerate access to data and people in real time. Internet chat technologies, voice over IP (VOIP), and

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online awareness make access to people and data in real time affordable and efficient. This makes it possible for them to collaborate in new and interesting ways, at the speed of the internet.

What is the Federated Data Model?

Federated data models combine information from existing data sources to provide a holistic view of specific data content and relationships without modifying existing systems for collecting and maintaining that data. In other words, there is no need to replace existing systems to create a more complete data picture in the federated model. Data is drawn from those existing systems to create new sets of data that is available to all approved parties. Existing security models, administrative processes, and workflows continue to function, while new ones can evolve to augment them.

Businesses use this approach, for instance, to combine information from several CRM (Customer Relationship Management) systems to gain valuable insight into their customer interactions and behaviors. Redundant data sources can be combined and cleansed in this way leading to a more accurate and complete representation of information.

The JDIM model combines information from existing government data warehouses with near real-time data describing the most recent healthcare services provided in the community. By clearly defining the source and authorities that provide data, access can be controlled and applied to workflows between those entities while remaining HIPAA compliant. Where data content overlaps, processes can be established to create accurate and complete information about individuals receiving services across organizational boundaries.

Participation in these workflows is low impact and easily learned due to the unique and elegant nature of the instant messaging workflow facilitation “Bots”.

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How Does it All Work?

HarrisLogic has named the technology that made JDIM successful as “Workflow Without Boundaries”. This means that individuals from different agencies can be assigned specific roles, protected by a unique username and password, to participate in highly structured and secure workflows based on the use of federated data. The technologies that comprise the Workflow Without Boundaries are based on open interoperable standards and are widely available and supported. This approach ensures that implementations are not vendor specific and can be economically maintained by public and private agencies.

Participation in these workflows is low impact and easily learned due to the unique and elegant nature of the instant messaging workflow facilitation “Bots”. The term “Bot” is internet speak for a program that interacts with people in a conversational manner through the widely understood internet chat paradigm. Agencies that participate in a workflow will benefit from real time online awareness. Individuals that connect to the bot can also connect directly to everyone else participating in the system.

Bots act like people in the context of the workflow and provide simple actions based on each defined workflow. The bot knows who should have access to particular pieces of information and only provides actions appropriate to that person’s role within the workflow. This eliminates the fear of “Big Brother” using sensitive information for purposes other than why it was provided. Such data is only available during the span of a given workflow and is protected by the federated data model.

The data available to individuals in these workflows is provided on a “need to know” basis. Access rights are based on policies that define each role and the information necessary to fill that role. Data is housed or made available from a secure remote location with encryption of all messages to and from individuals in the workflow.

Since its inception the program has diverted nearly 200 people back into the community.

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The JDIM system currently serves 23 professionals across 17 unique roles each with specific data elements and actions defined within the system. Experience with developing that system indicates that it will take around three months of effort to create a workflow of similar scope. Initial analysis for JDIM began May 2004 and the pilot was fully implemented in July 2004.

Since its inception the program has diverted more than 200 people, graduated 27%, terminated about 32% and currently retains about 43%. The graduated and retained persons are back in the community under the care of clinicians they know, avoiding untold expense and human suffering.

Where Can It Go From Here?

Ineligible mentally ill diversion candidates currently join the general jail population without receiving treatment critical to their functioning and safety. Typically, their behaviors become increasingly dangerous as they resist the direction and control of jail personnel. Rather than being lost in the system, the identified population needs to be monitored so that care can be provided until they are released from jail.

There are currently efforts underway to extend the JDIM system to monitor location and status of inmates that have special needs identified. This system extension would notify community providers when one of their consumers has a status change while they are incarcerated.

When the courts release an individual they are typically put back on the streets and within hours of that release they are less able to cope with their untreated condition. If that release event can initiate a workflow similar to the initial diversion workflow, these individuals could be discharged into the care of their community provider.

In addition to the above enhancements to JDIM, HLI is certain that there are many other problems that can be solved with this approach. We are currently working on similar systems to assist in emergency rooms and to facilitate a 24-hour crisis hotline. For more information about these and other initiatives please send your request to info@harrislogic.com.

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In Conclusion

The jail environment (without proper treatment and/or diversion opportunities) produces a tenuous situation for individuals with mental illness. Non-violent offenders can potentially become violent or become victims due to their vulnerability, as their conditions remain untreated in the jail. Diverting these individuals back into the care of their community-based provider is the best and most cost effective scenario for everyone involved.

This diversion process is not easy to accomplish. Many programs across the country have been successful but none have been able to divert as quickly and efficiently as the program in the Dallas County Jail. JDIM facilitates this efficiency, but it is not a silver bullet technology. The diversion program was designed by and is carried out by extremely dedicated judges, court personnel, mental health authority personnel, managed care personnel, and community-based providers. JDIM's ease of use and simple design make diversion a reality for these dedicated people to produce outstanding results.

As important as it is to solve these kinds of problems it is perhaps more important that they are solved in ways that can be effectively maintained over time. By using open technologies and widely accepted technical standards, solutions such as JDIM are as flexible and as tolerant of change as any solution can be. By utilizing existing data sources with established access policies, personal data is kept strictly confidential and is provided only on a need-to-know basis.

We are aware of similar solutions on the east and west coasts that combine federated data with open technologies and industry standards. While they are designed to solve different kinds of problems their excellent results and maintainable implementation reaffirm the approach. HLI believes that good analysis, elegant design, and utilization of open technologies provide the best dynamics to solve society's most difficult problems with effective and maintainable solutions.