



City of Seattle Justice Information System (SeaJIS) Seattle Police Department (SPIDER)

The Client

The City of Seattle is the Pacific Northwest's largest city with a population of nearly 600,000 City and 4 million urban area residents. The task of maintaining order and safety for this population falls to the City's justice and public safety (J&PS) community, including the Seattle Police and Fire Departments, Seattle Law Department, and Seattle Municipal Court.

Since October of 2003, Online's J&PS practice has been working in partnership with these agencies and their partners to provide a regional J&PS information-sharing network, through two core projects: The Seattle Justice Information System, and the Seattle Police Message Switch project.

The Challenge - Justice Information System (SeaJIS)

For Police Officers on the street, for jails taking in potentially dangerous criminals, or for courts making legal decisions, quick access to accurate and complete information is critical for protecting both the public safety defenders and the citizens they serve.

The City of Seattle also needed to deal with the larger scale efforts to increase security across the country. Backlogs of local, state and federal initiatives, including those from US Homeland Security, were demanding the timely transfer of criminal justice information across agencies at all levels of government.

The City recognized that the state of information sharing across its agencies was not up to handling the new levels of security required.

With each agency maintaining its own records and databases, the duplication of both information and efforts was high and the potential for the loss of information always existed. Turning information into knowledge usable on the front lines was an uphill battle. Efforts to integrate information required manual compilations and cross-referencing, slowing down a process that relies on quick response.

In the few cases where capabilities existed to share information across agencies, they involved point-to-point connections that were difficult to maintain and reuse. In most cases, transferring

information involved manually collecting data and sharing it in batches using slow processes with little security.

While internal inefficiencies were the most obvious result of these issues, they were also hindering the quality of service that the agencies could provide - inevitably translating into reduced safety for the people of Seattle.

The Solution

The Seattle Justice Information System (SeaJIS) program was established to facilitate interoperation and information integration amongst the City's J&PS agency community as well as with these agencies' municipal, county, state, and federal level partners. Online Business Systems was engaged by SeaJIS to implement an advanced information sharing system that provides standardized and secured integrated data exchange across the agencies served by SeaJIS.

By providing an enterprise-scale integration solution based on the principles of Service Oriented Architecture (SOA) and using Enterprise Service Bus (ESB) technology, SeaJIS seamlessly integrates the agencies' disparate applications. The applications and systems used by the various agencies are now linked together with a reliable, secure, and high performance infrastructure that facilitates agency interoperation through real-time information sharing.

National Information Exchange Model (NIEM) and/or Global Justice XML Data Model (GJXDM) standards-compliant message exchanges flow smoothly across the agencies, improving their ability to coordinate their public service. For example, the SeaJIS ESB connects Seattle's Municipal Court and Law Department systems with a suite of message exchanges supporting the operational workflow related to out-of-custody case initiation, court order, and court case information. The SeaJIS ESB also connects the City with King County to share electronic booking (eBooking) information between the County jail systems, Seattle Police Department, Municipal Court, and Law Department.

SeaJIS provides real-time data exchanges that eliminate redundant data entry, errors, and reduces report and technical interface development, maintenance, and redundant databases. This enables Seattle public safety organizations to more easily participate in and benefit from integration programs of other

municipalities, counties, states and federal agencies. Other City departments will also benefit from SeaJIS's standard infrastructure when they explore designing their own SOAs. SeaJIS is a perfect working example of how integration solutions can scale horizontally to embrace new partner agencies and information exchanges.

SeaJIS was implemented using a proven integration implementation methodology that made deployment quick and clean and that enables SeaJIS staff to easily manage future integrations. The rollout of SeaJIS was supported by a City employee knowledge transfer plan for future maintenance. Armed with this knowledge, SeaJIS staff are now positioned to maximize the effectiveness of SeaJIS and ensure that its benefits can be extended into the future.

The benefits of SeaJIS are ultimately not just measured in costs and time. SeaJIS has revolutionized Seattle's entire criminal justice system, improving overall speed, quality and reliability. Seattle is now a working model for other cities looking to effectively integrate internal and external public safety agencies - and for organizations of all types looking for a secure and reliable way to share information across departments.

The Challenge - Seattle Police Department (SPIDER)

The Seattle Police Department (SPD) acquired a law enforcement technology solution from Versaterm comprised of four integrated applications: Computer Aided Dispatch (CAD), Mobile CAD, Records Management System (RMS), and Mobile RMS or Automated Field Reporting (AFR). The SPD recognized the need to replace the existing interfaces of its current legacy system and had the foresight to seek an interoperable, scalable, extensible, and highly reliable information exchange/message brokering capability independent from the CAD/RMS system. The SPD dubbed the umbrella program (encompassing both the CAD/RMS system and the interface/integration effort) SPIDER. The SPD's objectives for the integration component of the SPIDER project were to:

- > Advance the overall mission, goals, objectives and strategies of SPD by making personnel more effective in responding to, fighting, and preventing crime. This should also enhance the development of relationships in the community.
- > Position SPD to take advantage of technology to improve departmental performance and efficiency.

- > Enhance the quality, accuracy and retrieve-ability of data and operate on the principles of "single point of data entry" and "single point of data query."
- > Facilitate bi-directional integration with other applications/ switches to improve the timeliness and accuracy of information in the information exchange process.
- > Increase authorized recipients' access to appropriate information, regardless of the system in which the information resides through real-time data exchanges.
- > Provide a high level of availability, security, and reliability.
- > Implement an infrastructure that is scalable and can be built upon for future data exchanges, allowing SPD to meet current and future needs without extensive customization.
- > Develop and execute a City Employee Knowledge Transfer Plan, including utilization of a proven integration implementation methodology that can be learned by department staff in any integration effort.

The Solution

The SPD turned to Online Business Systems to implement an integration solution capable of supporting their municipal, county, state, and federal level information sharing initiatives and commitments. Online worked collaboratively with the SPD to develop an enterprise scale integration solution based on the available standards of the public safety community and the principles of service-oriented architecture, and built upon a scalable and highly reliable Enterprise Service Bus technology platform.

Online designed an ESB enabled integration platform that provides a highly-available, fault-tolerant, standards-based messaging architecture to enable SPD to not only exchange data, but to create message exchanges with centrally hosted business rules that can be re-used by current and future SPD systems. One example of such re-usability is the vision for a Common Query Services.

The same services that are being developed to support the municipal, county, and federal level queries issued by officers from their mobile units will also be used to support the needs of SPD staff and management- multiple physical locations, multiple applications, one suite of integration services, and a single integration platform.



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About Online Business Systems

Online is a digital transformation and cybersecurity consultancy. Since 1986 we have been using technology to deliver dramatic business results for companies throughout Canada, USA and EMEA. Our capabilities across the transformation cycle enable our Clients to move confidently into their secure digital future.