

Macau Government (IACM) Improves Customer Service With Attunity's Real-time CDC/Data Replication Solution



At a Glance

About IACM

IACM consists of 30+ government departments working together to enable Macau citizens to conveniently take care of all their government needs under "one roof".

Objectives

IACM wanted to improve responsiveness to the people of Macau and streamline operational efficiencies by synchronizing data and making it available in real-time for customer service and other government departments, as well as reducing IT overhead by eliminating custom coding.

Solution

Attunity StreamFlow, an end-to-end operational data replication (ODR) solution with low-impact CDC technology which makes IACM's data available across departments and accessible in real-time through web applications.

"We are now able to provide a much faster response to civilians' needs and we can work more efficiently with the police department as well as other government agencies."

Mr. Kam Kong Lei
Senior IT Technician
IACM

Benefits of implementation include improved responsiveness, increased efficiencies & significant price performance

The Organization

The Macau Government's Civic and Municipal Affairs Bureau, known as IACM, is the epicenter for many civic departments that serve the Macau community. They encompass a wide range of services including management of streets and public areas, parks and trees, libraries, markets and laboratory for related hygiene matters, cemeteries, museums, pets and more.

The Objectives

IACM defined three major objectives they wanted to achieve: to work better and more efficiently with other government agencies, improve service to increase customer satisfaction, and cut IT operation costs by eliminating labor-intensive custom programming. In order to achieve these objectives, IACM needed to make **real-time information** available on a shared basis inter-departmentally as well as make it available to service representatives in a single view. This would enable the reps to provide the most up-to-date information in a timely manner to the people of Macau. In addition, having access to real-time information would also enable up-to-date reporting as well as make fresh and current information available in web applications.

The Challenge

One of the main technical challenges that IACM faced prior to implementing the Attunity operational data replication (ODR) solution was finding an efficient way to handle their mixed-language environment including multi-code Macau Chinese, Portuguese and English data (stored in legacy IBM® iSeries® systems) and migrating it into a common representation in an Oracle platform serving the data in real-time. Previously, IACM had to create a tailored program for each data table, with limited ability to handle updates. This highly-intensive workflow not only demanded extended use of hardware resources on a high percentage of redundant data transfers, but also used an unusually high amount of human resources to develop and manage the process. This also created significant overhead on the hardware, creating a truly costly scenario. As a result, replication requests needed on short notice were nearly impossible to fulfill.

Kam Kong Lei, Senior IT Technician at IACM explained, "Attunity was simply the only vendor able to deliver the type of unique customization we needed in our situation. In addition to the inherent complexities of our technical environment, we also had high volume throughput to consider. We're processing +60GB of data with hundreds of thousands of changes per day, involving thousands of tables."

Attunity Benefits

- Real-time data access
- Low latency/low overhead
- Supports heterogeneous environments
- Log-based CDC; batch windows no longer required
- Best price performance

“By implementing Attunity StreamFlow for operational data replication, we were able to avoid hundreds and hundreds of dedicated IACM man hours spent on programming for each table—saving us significant time and money.”

Mr. Kam Kong Lei
Senior IT Technician
IACM

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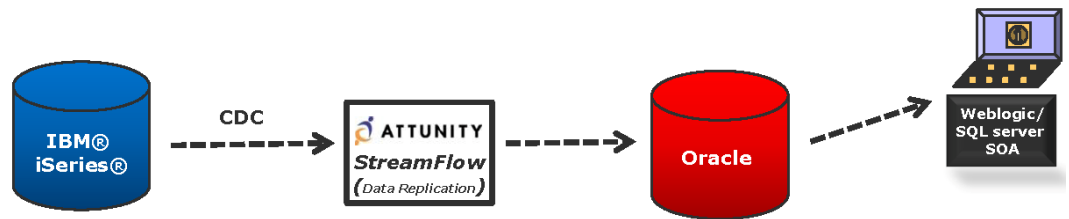
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The Solution

Attunity responded to IACM’s challenge with Attunity StreamFlow, an end-to-end operational data replication (ODR) solution that could be quickly configured and customized to address the complexity of IACM's mixed-language and heterogeneous environment. Leveraging Attunity's low-impact CDC technology, it synchronizes the data via configuration and without re-programming every table. Since the Attunity solution supports heterogeneous environments, it replicated and logged all the changes bi-directionally from the IBM® iSeries® and Oracle® systems, making the data accessible in real-time through the various IACM’s web applications used by the different departments.

IACM Architecture Configuration



Ultimately, the configuration enabled IACM’s business users to provide the people of Macau with more efficient and responsive service. Previous service problems, which included customers having to wait long periods before acquiring vehicle license plate numbers have since diminished because purchases are now reflected immediately, allowing the next available number to appear in the system in real-time. In another example of improved customer service, IACM’s system is now synchronized with the Macau Police Department’s (PSP) system, such that IACM is able to see right away when a person has paid the PSP for an illegal parking ticket, so that privileges such as license renewal can be re-permitted by IACM immediately.

Mr. Lei concluded, “Now our processes are streamlined, and all departments have the correct, most up-to-date information to do their jobs.”

The Benefits of Real-time Information for IACM

- Improved customer satisfaction by enabling availability of the most up-to-date information, helping to diminish wait times.
- Eliminated the need for custom programming, saving IACM significant time and money.
- Makes data accessibility easy and convenient through IACM’s web application.
- Provides real-time data for improved operational efficiencies and inter-departmental communications.