

## ***Atlanta Department of Watershed Management embraces the state-of-the-art document management system, OpenText Livelink, in an adjunct project of the \$3.9 Billion Clean Water Atlanta Program.***

### **Background**

The Atlanta Department of Watershed Management is committed to providing the highest quality drinking water and waste water services to the citizens of Atlanta at the lowest possible cost. Its mission encompasses protecting urban waterways, conserving natural resources and treatment to ensure safe, clean water for downstream users. The \$3.9 Billion Dollar Clean Water Atlanta Program is an overhaul of its water and sewage infrastructure. The program is currently underway to ensure quality affordable water service for decades to come.

In addition to managing documents created in support of the Clean Water Program, in response to both Federal and State Environmental Protection Agencies, the Department of Watershed Management must also manage the growing administrative demands of its existing paper-based document management system. The hard-copy system includes documents for the constituency as well as internal staff exceeding 1100 FTEs comprising 16 bureaus over 9 different locations. It is estimated that The Department of Watershed is responsible for managing more than 1.35 million paper documents annually, which exceeds 5 million sheets of paper per year.

### **Situation**

In July of 1998, to settle a lawsuit brought against the City by the United States Environmental Protection Agency (EPA), the Georgia Environmental Protection Division (EPD), the Upper Chattahoochee Riverkeeper and a citizen downstream, Mayor Bill Campbell signed a Federal Consent Decree committing the City of Atlanta to an accelerated program of activities designed to further improve water quality in metro Atlanta waterways including the Chattahoochee and South Rivers. The [Consent Decree](#) specifically directed the City of Atlanta to develop and implement, by 2007, a solution that would end water quality violations resulting from combined sewer overflows (CSOs).

The Consent Decree also required a document repository in which all documents resulting from this initiative would be stored and retained based on the State of Georgia's Records Retention Schedule. From the start there was an avalanche of additional paper of just about every format. Documentation included:

Correspondence, Plans, Studies, Drawings, Maps, Progress Reports, pre-design documents, Design Documents, Operations Documents, Maintenance Documents, Legal, Financial and Purchasing Documents.

The Consent Decree has since been amended for additional capital improvements with a deadline of July 1, 2014. It is anticipated that The Department of Watershed's documents will increase exponentially on an annual basis until that time.

### ***Internal Inefficiencies***

The Department of Watershed Management has recognized the challenge of other public sector agencies and departments; the ever-diminishing resources combined with ever increasing demand for services. This compounds critical issues such as:

- Soaring costs of physical storage
- Lack of adequate resources for digitizing active documents
- Expensive labor costs of discovery in defense against potential litigation
- Multiple document repositories resulting from disparate software systems
- Duplication of documents and records
- Loss of Knowledge transfer due to retiring employees
- Slow response during local emergencies
- Version control issues
- Slow collaboration between bureaus on document creation and review
- Lack of efficiency to due manual business processes
- Accountability and Transparency
- Slow approval processes due to manual signature requirements
- Implementing and executing manual retention policies
- Environmental Concerns (Going Green)

### ***Recognizing Limits to Departmental Productivity***

Recognizing that the Department of Watershed Management, (DWM) could no longer operate with a paper-based document management system was the first step to solving the problem. Although this problem was easy to recognize, as both staff and management were inundated with too many paper documents and few available resources, many organizational solutions with confusing claims and contentions were available on the market. Atlanta Watershed Management needed a comprehensive, integrated technology solution that could be modified and enhanced as operations change. As the department will evolve over time, the future technology solution would need to keep pace with changing demands. Most importantly, the proposed solution would need to provide significant ROI to cover investment and deployment costs.

By embracing an enterprise content management system (ECMS), the Department of Watershed Management has taken a giant leap forward to improving its fiscal, operational and long-term productivity. A digitized Enterprise Content Management System enables the Department to gain departmental efficiencies, enhance customer service, better comply with government regulations, manage risk and improve records management of its vital client documents.

## Solution

In order to deliver a state-of-the-art document management solution for the next ten years, Stellar Services and OpenText jointly proposed a comprehensive ECMS solution that meets the highest demand on both the software productivity – 1000+ users and the hardware performance – 30+ TB data volume for the Atlanta Department of Watershed Management. Thanks to the proven capabilities of Livelink, all 70,000+ inventory records and other documents will be filed, retrieved, shared and processed with ease.

## Software

OpenText Livelink offers the industry's most comprehensive Enterprise Document Management System (ECMS) solution on the market. Supervisors may re-route or send copies of documents to other users on an as-needed basis, ensuring rapid document transmission within Watershed Management. This is crucial as the ECMS repository size is expected to grow at an annual rate of ten (10) percent for the first five years. Production is estimated at 5M pages per year which translates to 1 TB of storage. LiveLink, a web-based system, provides full lifecycle document management through automated workflows, routing and version control of all document types. With Livelink, Atlanta Watershed Management is expected to enable more than 200 workflows annually and streamline its diverse business processes.

For the first time Atlanta has the capability of processing, scanning and storing daily work which it previously lacked. These are critical capabilities for the productive operation of Atlanta's public administration services. By implementing records management, risk liability has been mitigated. Furthermore, Livelink enables master planning of projects and rapid project completion. These benefits provide Atlanta not only the new capabilities to plan, but also the ability to control a wide range of business processes.

In addition, Stellar is tasked to integrate the LiveLink with various existing 3<sup>rd</sup> party products (I.E., Primavera *Contract Manager and P6*, Maximo, Hansen, Kronos, ArcView GIS, AutoCAD, Laboratory Information Management, Enquesta, Backflow Management, and Lynx Photo Client).

## Hardware

On the hardware side, Stellar Services adopts the LiveLink Cluster Architecture (LCA) for high availability, scalability and reliability. The

Oracle Real Application Cluster (Oracle 10g RAC) and a dual-homed fiber SAN technology provide a solid backbone to host the current 30+ TB storage demand.

**A dual homed fiber SAN fabric attaches Storage, Tape Library, and servers with Fiber Host Bus adapters in a high speed, fault tolerant design.** Brocade Fiber switches are duplicated for fault tolerant failover in case of single port or device switch failure. RAID configurations in servers and the SAN enhance drive fault tolerance, while SAN snapshot mirroring, and backup provide a layered disaster recovery.

**Parts are duplicated for instant availability in case of failure.** Redundant hardware configurations include fault tolerant power supplies, fans, NICs, processors, and drives.

**Drive arrays provide hardware failover for drive configurations.** Server drives are configured as RAID 1 for mirroring of O/S and utility applications. SAN drives are configured as RAID 10 or 50 for striping and mirroring of application data. RAID configurations can provide a hot spare for immediate failover in the event of single drive failure

**Server hardware can be duplicated as a whole for administratively initiated or hot standby failures.** Microsoft Windows Server 2003 Enterprise Edition provides clustering of servers for mirrored configurations. Failover clusters share or mirror storage, while load balanced clusters mirror data between synchronous active server nodes.

## Benefits

The newly implemented ECMS is already getting praises from Watershed employees. As of mid-2008, 1,100 users from the Department of Watershed have been trained by Stellar including, End-Users, Records Managers and System Administrators.

*One employee recently said: "It works great. I use it for everything I need." This training has saved the Department of Watershed Management thousands of dollars in LiveLink Training costs.*

The Atlanta Department of Watershed Management saves approximately \$14,000 per employee each year. This ROI eliminates 6.5 hours per week, per employee, by eliminating the search for documents or recreating lost or missing documents.

- Standardized technology delivers a common toolset for all employees and reduced complexity
- Continuous system improvements and performance monitoring alert any changes in the service level
- System accessibility and availability across many regions and disciplines greatly increase collaboration and knowledge transfer (online discussion groups and meetings)

## Fast Facts

**Customer:** The Atlanta Department Watershed Management  
**Web Site:** <http://www.atlantawatershed.org>  
**Industry:** Government

### Customer Profile

The Atlanta Department of Watershed Management is implementing the state-of-the-art document management system – OpenText Livelink to support its \$3.9 Billion Clean Water Atlanta Water Program used by more than 1,100 users.