

Today, four different engineering firms in seven different cities around the world are using Globalscape WAFS to collaborate on the massive locks being built for the Panama Canal expansion. Without Globalscape WAFS, this level of collaboration would not be possible.



Globalscape® WAFS™ Expands the Panama Canal

Instantly Access and Share Files Across Multiple Offices Worldwide

The Panama Canal is in Need of Expansion

It had started down a path towards becoming obsolete, primarily due to the increasing size of both dry bulk carriers and liquid bulk carriers. The first container ship that was too large to transit the Panama Canal was delivered in 1988, and nearly half of all container ships in service are too large to transit the canal now. This poses an obviously difficult question of what to do about fitting a 220,000 tonne peg in an 80,000 tonne hole. The most obvious way is to build a bigger hole and that means making the canal bigger. The original canal was built by governments in a time when labor was the most important component in the success of the canal. Today an engineering project this size is only achievable by the top engineering companies around the world working together to lend their specialized expertise and internal organizational strengths to one of the largest public works project in the history of the world.

Some problems of note involved with this massive engineering collaboration, which present many business-specific challenges are:

- > Multiple languages in use by the different design teams
- > Wildly dispersed geographical locations of the various offices housing the design engineers
- > Advanced architectural computer automated design software
- > Inter-corporational trust and security concerns
- > Multi-corporational change control issues

Enter Globalscape

Enter Globalscape and their award winning Wide Area File Services™ product as a key component in alleviating many of these collaboration challenges. Globalscape's WAFS is multi-directional flexible replication and collaboration software that allows organizations to share their files between multiple offices and leverage Windows native file locking to provide a LAN experience over the WAN. By adding a feature set that includes byte-level differencing, Unicode support, encryption, and compression, WAFS is able to allow different offices who speak different languages to collaborate on complex file types of extreme size.

WAFS' unique value is the ability to allow sharing and collaboration of Autodesk's AutoCAD and Revit across multiple locations spread throughout the world. There is no other software product on the market that can provide this functionality for both of these software packages within the same solution. AutoCAD is an industry-standard, two-dimensional design tool, while Revit is the leader in the three-dimensional design world. Revit also allows design engineers to design not just buildings, but entire locations collaboratively. Revit brings Building Information Modeling (BIM) effortlessly into the equation. BIM is a process involving the generation and management of digital representations of the physical and functional characteristics of a facility. The resulting building information models become shared knowledge resources to support decision making about a facility from earliest conceptual stages, through design and construction, and on through its operational life and eventual demolition. Keep in mind each of the new locks on the canal have about 20 sub-buildings and structures, each all connected with interconnected plumbing and electrical systems. The coordination involved is truly on a large scale.



For This Project, There Was Only One Option: Globalscape WAFS

Another often-overlooked challenge in this type of multi-corporational collaboration is trust. There is a very real reluctance to connect networks of different companies together. An IT department is almost always unwilling to allow users over which they do not have complete control to connect to "their" network. Most solutions for replication require that all the users of the system are either in the same domain or connected with a very complicated and fragile domain trust established. No CIO worth his or her title would ever allow this level of trust to occur between their and another organization's network. Today's collaboration partner on one project could be tomorrow's competitor on the next project. WAFS is a Windows-based application, but it is domain agnostic.

Two different domains or ten, it does not matter. Permissions (via Access Control Lists or ACLs) can be configured independently at each location or replicated where desired. This is a necessity anytime you have two different companies wanting to work together. Imagine trying to have several hundred engineers working on models that have to be uploaded via web or FTP anytime a change needs to be committed, then everyone else has to download those models to verify they are working on the latest version, especially with an industry mindset of saving ones work, anywhere from every ten to every sixty minutes.

Continuous Data Protection

An uncommonly used feature of WAFS—used by less than 10% of WAFS customers, but an absolute requirement in the Panama Canal project—is the ability to have some data replicated multi-directionally while other data is replicated uni-directionally. When many different engineering companies work together, one company takes the lead on some elements of the project, and their work is always the final work on the elements of the project for which they are legally responsible. In these cases, they have to ensure that only those in their organization are modifying the drawings and models that are delivered to the builders. Globalscape's Continuous Data Protection is a uni-directional version of the WAFS software. CDP is used not only for offsite and centralized backup (its traditional use), but also is often used as it is here, as Content Delivery.

Today, four different engineering firms in seven different cities around the world—Bellevue, Chicago, Denver, Panama City, Buenos Aires, Pune, and Amsterdam—are using Globalscape WAFS to collaborate on the massive locks being built for the Panama Canal expansion. Without Globalscape WAFS, this level of collaboration would not be possible.

About Globalscape

Globalscape ensures the reliability of mission-critical operations by securing sensitive data and intellectual property. Globalscape's suite of solutions features Enhanced File Transfer™, the industry-leading enterprise file transfer platform that delivers military-grade security and a customizable solution for achieving best-in-class control and visibility of data in motion or at rest, across multiple locations. Founded in 1996, Globalscape is a leading enterprise solution provider of secure information exchange software and services to thousands of customers, including global enterprises, governments, and small businesses.