

# Managing airport leases in real time

Apart from aiding smooth navigation, GIS is enabling an airport authority in managing its leases by providing real-time automated data and enabling data sharing

The Massachusetts Port Authority (Massport), which owns and operates three airports in Boston — Logan International Airport, Hanscom Field, and Worcester Regional Airport — started using GIS technology after recognising that paper drawings pieced together with data from various business systems failed to produce accurate location information for its property managers.

Often, the information that Boston Logan International Airport's property managers accessed was inaccurate or out of date. Generating a floor plan to reflect an increase in the size of a tenant's leasehold used to take hours. Further, when employees made the change to the relevant map file, they had to enter the new measurements manually into the billing system.

## CLMS for automatic updates

Massport set out to remedy this situation by issuing an RFP for acquisition of a Common Lease Management System (CLMS) to update its existing lease management. The specifications for the new system included the ability to interact and interface with computer-aided drafting and design (CADD) drawings. The selected system was one of the first breed of the new browser-based applications that utilised a Web browser to deliver information to desktops. Use of a Web

browser-based solution instead of a traditional desktop application provided an unprecedented flexibility to integrate the seemingly unrelated products into a single user interface. One of the cornerstones of the selected application was the ability to integrate and display floor plan drawings in the form of interactive maps beside tenant and agreement data. In essence, CLMS delivered a GIS-enabled application to users.

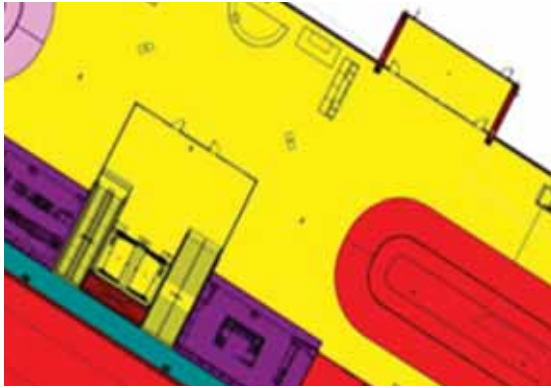
## Portal for real-time information

Subsequent to the implementation of CLMS, it became apparent that the GIS data available in CLMS would be extremely helpful for other users at Massport. An essential factor for making the GIS data available was the ability to restrict sensitive financial information to the appropriate users. The Massport Geographic Portal (MGP) was developed to provide real time spatial information to all authorised users.

CLMS has enabled a single employee to maintain lease plans and geospatial data for more than 10 million square feet of space, covering exterior areas and 39 buildings. All of the data is stored within an Oracle database and integrated with information from Massport's business systems. The GIS engine of CLMS drives information sharing by delivering real time maps that blend geospatial and financial data to authorised users.

The CLMS login screen of Massport





Terminal floor plan



2MGP user interface

### Increased productivity

When lease managers need to view a lease plan and contract information, they can find the information instantly on Massport's intranet. "Our GIS-enabled application has proved very valuable," explains Greg Zanni, Massport's manager, airport properties and leasing. "I use it every day to review vacancies and spaces that tenants occupy throughout the airport. Compared to our old system, it is a tremendous time-saver because we no longer require assistance from a CAD specialist to view electronic lease plans."

The system also ensures the continuous alignment of spatial and financial information. If an airline acquires new gates or maintenance space, the system automatically adjusts the billing based on the tenant's negotiated price per square foot. "Space planning is a breeze. Just set up a proposed contract; code the rooms you want into it; and run accurate reports and drawings right out of the system in minutes" says Kevin Gabel, CADD specialist, Massport Airport Business Office.

Moreover, access to information extends beyond lease managers. For example, grounds managers use the system to plan maintenance operations and measure landscaped areas.

Massport has witnessed a measurable improvement in the way it manages lease plans and shares spatial data. "Our system delivers real-time maps and business information, helping us to improve productivity and make better decisions. Our lease managers save hundreds of hours each year, and more than 200 employees access dynamic facility maps each day through

MGP," says Gabel.

"Building a strong GIS platform to provide a fast flexible system that accesses trustworthy information has become a vital aspect of the airports daily function," states John White, former head of the Geomatics Centre at Brussels Airport. According to White, GIS systems have become the cornerstone for decision-making at airports in the areas of:

- Airport construction, infrastructure management, safety and operations;
- Environmental issues and crisis scenarios, including 'what if' options;
- Space, cable and asset management;
- Security, including key and access management;
- Utilities, including electrical, water, communication, gas, and fire prevention.

Data acquisition and maintenance is the single most expensive and vital factor for a successful GIS, and as the usage of geospatial data increases, a generic and a centralised approach for data storage is critical. One of newest trends in GIS is the development of a data-centric model instead of an application-centric one, based on an open and non-proprietary database. In other words adopting and implementing a system/data architecture that enables full interoperability among all CADD/GIS software vendors.

As the role of GIS in support of all aspects of airport operations increases, a well-planned and executed approach to implementing such a system is the key to success. 🔄

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