

## CorpsConnect: A Quantum Leap Forward for Jacksonville District Corps of Engineers

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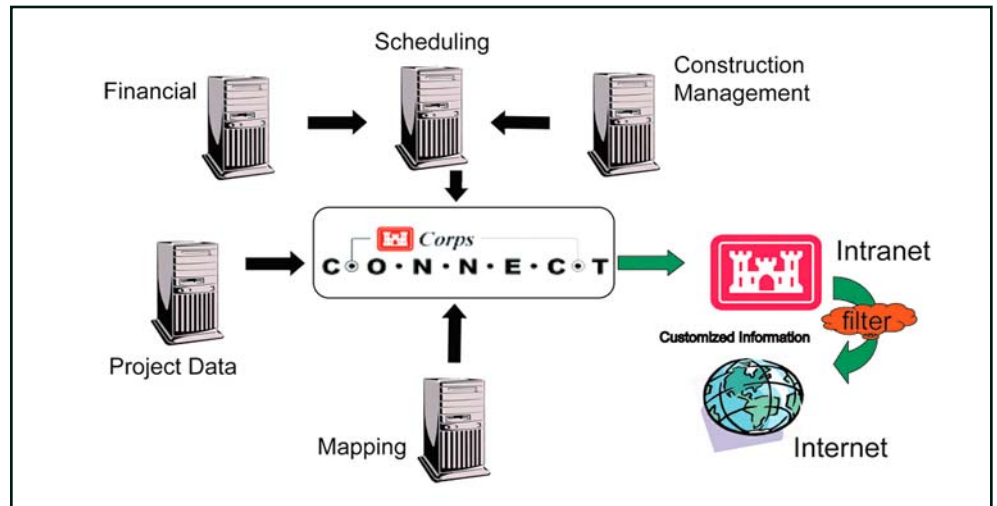
On Feb. 19, 2004 the Jacksonville District of U.S. Army Corps of Engineers (USACE) made a quantum leap forward in the way it conducts its executive-level monthly board meetings by using Web-based technology to display live schedule and budget data. A meeting that often lasted nine to 10 hours was three hours shorter using the new tool, and preparation time for the presenters was reduced by one to two days. The organization projects a savings of \$450,000 annually due to reduced labor and reproduction costs.

The tool that made all of this possible is CorpsConnect, a Web-based program management system. CorpsConnect uses the latest in thin client technology (which places an application on a server, allowing access to multiple users) to sort, query and display data from multiple sources associated with the Jacksonville District's operation in an easy to use Web browser environment. CorpsConnect uses queries based in Structured Query Language (SQL) to ask questions of multiple databases, then displays the answers in a single environment.

CorpsConnect was created to support the implementation of an integrated program management philosophy that focuses on improving operational execution of projects at the local level. Another key factor in its development was the increased demand for data spawned by adding the Comprehensive Everglades Restoration Plan to the Jacksonville District's list of duties. This new responsibility created unprecedented staffing growth and the pressure to create a more efficient organization.

### Development Process

CorpsConnect was developed in a partnership among the Programs and Project Management and Information Management divisions of the Jacksonville District and HDR. It is not simply an "off-the-shelf" product, but rather the result of a well-planned approach that included interviewing a cross section of the Jacksonville District staff. Participants were asked what types of information



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both internal and external users wanted to see; how they wanted to view it; and what types of data were available.

Information from those interviews, along with snapshots of actual Jacksonville District project and program data (e.g., schedule, financial and GIS), was used to construct an initial prototype of CorpsConnect. The prototype was previewed to key Jacksonville District personnel in a series of workshops to obtain feedback and further refine the application.

In the second phase of the project, programmers connected the prototype to live Jacksonville District project information. After testing, the CorpsConnect team slowly expanded the user community and further enhanced CorpsConnect in a spiral development process.

In January 2004, CorpsConnect was presented to the Jacksonville District's Project Review Board (PRB) for consideration. The district commander for the Jacksonville District was so pleased with CorpsConnect that he directed the development team to create a module that would allow the February PRB meeting to be run in a paperless environment. The team accepted this challenging task and, despite a tight schedule, delivered the PRB on

CorpsConnect module to the district commander in 20 days.

PRB on CorpsConnect has served as a catalyst to help the Jacksonville District's PRB better focus on the obstacles of operational execution by providing real-time live schedule and budget data in a consistent format. This new way of looking at information allows problem areas of projects to be more easily recognized, providing enhanced decision support by the Jacksonville District's PRB.

However, PRB on CorpsConnect is just one of five modules that will make up the entire CorpsConnect tool. The remaining modules are:

- An internal customer portal
- A public data portal
- A GIS portal
- A wireless portal

The internal customer portal and PRB on CorpsConnect are the most complete modules at this time. The navigation buttons currently available on the site are Projects, Programs, Sponsors, GIS, PDT and Reports. These modules are a direct reflection of the information that was obtained during the interviews and needs assessment phases of the project.

CorpsConnect's other capabilities include transforming query information into Microsoft Excel or Word format to allow external processing of the data without affecting the integrity of the data source. Additionally, all of the data views in CorpsConnect can be sorted by any column header. CorpsConnect also has the flexibility to allow new columns of data to be shown or new data views to be created with minor programming that does not disrupt online access. This allows the tool to be easily adapted to the Jacksonville District's changing needs. Future plans for CorpsConnect include:

- Enhance the GIS module with aerial photograph layers and the ability to display project locations based on criteria such as funding sources, sponsors, etc.
- Deliver portions of CorpsConnect to wireless devices such as a Blackberry
- Connect to additional Jacksonville District databases such as the ORM regulatory database and the RMS construction database
- Connect to P2, an integrated financial and schedule database that is being deployed throughout the USACE

Another key benefit of CorpsConnect is the empowerment it creates by providing all levels of the Jacksonville District access to the same information at the same time. This effectively links the entire organization, from top to bottom. In doing so, CorpsConnect lays the groundwork for enhanced customer confidence by facilitating better responses to sponsor and stakeholder questions.

Schedule data quality and completeness also were improved by giving more Jacksonville District personnel the opportunity to see schedule data and work collectively to improve it. Beyond providing better access, CorpsConnect contains custom queries that allow the users to quickly determine projects that are missing important milestones or have the milestones coded incorrectly.

Several circumstances have contributed to CorpsConnect's success. One key factor was a shift in business thinking within the Jacksonville District. This was exemplified by the creation of a new Program Controls Branch, which focused on an integrated program management philosophy. Combined with its move to a new office, the Jacksonville District has established a clear opportunity for its staff to make a fresh start.

Finally, the adaptability of the project team had a significant effect on the outcome. Entering the project, the one surety was that the team would need to evolve as work progressed. In the end, it was the gathering of a diverse body of individuals – ranging from Web developers to forestry and geology experts – into a single, cohesive unit that provided the necessary resources to complete the CorpsConnect project.

### Summary

Knowledge management solutions such as CorpsConnect have broad reaching applications for many private and government entities. In today's digital age, it is not a lack of data but an

inability to sort and use the data in a meaningful way that hurts overall organizational effectiveness. Tools such as CorpsConnect provide a mechanism to link vast data from divergent sources and transform it into usable knowledge. In this case, it also provided immediate cost savings of \$450,000 annually with just the first of five planned modules.

However, the magic of CorpsConnect is not software or technology, but rather the implementation of sound management consulting principles that promote development of systems that will enhance overall organizational effectiveness. In the end, the process the Jacksonville District used allowed it to determine what types of data were important and how they should be viewed – and from there it was able to identify the best possible solution.

With the implementation of CorpsConnect, the Jacksonville District has taken an important step toward a totally integrated program management philosophy and practice. With this approach, the Jacksonville District moves closer to the goals of the USACE's 2012 Plan of continued success in the future.

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## A Closer Look

### The CorpsConnect Interface



Figure 1



Figure 2

Figure 1 is a screen capture of the CorpsConnect home page. The Projects button displays summary level and detailed project schedule, budget and status information that can be sorted in numerous ways. This button will serve all modules of CorpsConnect. The GIS button generates maps showing project locations and the maps are linked back to detailed project information (Figure 2). The Sponsors button displays detailed project information sorted by sponsor names so that the external Jacksonville District customers can see their suite of projects and drill down to schedule, budget and status information. The Sponsors button is part of the public data portal. The Reports button of CorpsConnect contains features such as schedule performance graphs that compare scheduled vs. actual milestones so that the overall progress of the District can be monitored. This button serves the internal customer data portal.