Integrating CICS® and Lotus® Notes™

CZ Actief in Gezondheid

CZ Actief in Gezondheid (CZ) is one of the largest health insurance providers in the Netherlands – and has plans to keep growing. Recently merged with OZ, another provider, CZ now has about 2,500 employees serving more than 2.7 million customers. With another merger on the horizon, CZ expects to surpass 3 million customers soon. CZ’s strategic activity has had significant technology ramifications, particularly the need to manage disparate customer information systems. To integrate their mission-critical mainframe with a Lotus-based workflow system, CZ chose HostBridge Technology.

Challenge

Both CZ and OZ depended on legacy mainframes, so after the merger, CZ faced a difficult choice – determining which back-office would be the main customer information system. CZ opted for its own system, but that raised another problem. CZ now had to integrate their mainframe with OZ’s Lotus-based workflow system. For a real CICS integration solution, CZ turned to the integration team and technology of HostBridge.

Requirements

CZ went into its solution investigation with several critical requirements:

- **Performance.** CZ needed a high-performance solution to maximize process efficiency and workforce productivity.

- **API-Type Interface.** Integration had to be driven at a programming level rather than through a middle-tier software program.

- **XML Standards.** By delivering mainframe data via XML, the right solution could help CZ be ready for future integration challenges.

Real CICS Integration

CZ narrowed its choices to HostBridge and a second solution with a complete GUI component. CZ was able to get the workflow solution to talk to the GUI solution and the GUI to talk to the mainframe. But the GUI limited CZ’s ability to program dynamic real-life CICS interactions. Also, because the GUI solution employed screen scraping, it performed poorly.

HostBridge had a better way. Running under CICS on the mainframe, HostBridge interfaces with CICS at the command level and returns XML documents in response to
requests from distributed applications such as CZ's workflow system. “Integration at this programmable level,” says Roland Luijks, system developer at CZ, “allows us to write our own interactions that respond to what actually happens inside CICS.” And because it does not scrape screens, HostBridge also delivers high performance.

**Screen Definitions Library**

“A big plus for HostBridge is its ability to parse our screen definitions,” says Luijks. Unlike other mainframe integration solutions, HostBridge uses field names, not screen coordinates, to identify and navigate through sequences of mainframe screens – especially effective in dynamic environments. To accelerate this screen navigation, HostBridge includes a library of screen definitions and associated field names as well as a utility for automating library updates.

“Our CICS applications were written in CA Ideal,” says Bobby Tjassens Keiser, system programmer. “HostBridge was able to rapidly parse our Ideal screen definitions and record them in the database. Other solutions would have forced us to build our own library and program the definitions. Also, we frequently modify screen definitions. A HostBridge utility automates library updates, ensuring that screen definitions are always up-to-date.”

**Automation Plus Dynamic Exception Handling**

HostBridge also provides CZ with two significant workflow benefits. Thanks to HostBridge, most CICS interactions are now automated, and screen-to-screen navigation occurs behind the scenes. But when exceptions and errors do occur, HostBridge enables CZ to interrupt interactions with the workflow system and give control back to the employee-user, who can correct the exception and continue the workflow again.

When policy terms change, for example, thousands of customer records have to be updated. Perhaps 80 percent of system updates proceed smoothly, with the workflow system automatically executing the CICS transactions through HostBridge. But the other 20 percent might result in an exception – if some bit of customer data had changed. When the expected screen isn’t returned, the workflow system stops.

With HostBridge, CZ can now interrupt the workflow, grab the data from the screen where the error occurred, and direct it to a user’s desktop (to an emulator developed in-house), where a real user can correct the error and continue the workflow. As a result of its workflow automation and streamlined exception handling, CZ has seen significant improvements in productivity.

**Real Teamwork**

Getting HostBridge installed and running was straightforward, and as development progressed, says Tjassens Keiser, “HostBridge support was great. The HostBridge team
is thoroughly experienced with CICS and Ideal; they helped us solve very complex problems. We had a very good experience working with Scott Glenn.” Luijks adds, “HostBridge is open to new ideas and committed to finding the best solution. During prototyping, they sat right beside us helping with every step.”

**Real Benefits**

HostBridge helped CZ reach its goals of automating workflow processes involving the mainframe and improving staff productivity. “Most of the time, with most transaction processes, nothing special happens,” Luijks adds. “By automating the biggest part of a process, HostBridge makes everyone’s life easier. When exceptions do occur, we can now automate most of our error processing as well. We have become more efficient and more productive.”

HostBridge has also helped CZ reduce user training. In old legacy days, when users saw limited information on individual screens, they might have to navigate a dozen screens to complete a business service. Learning these detailed sequences took considerable time, and training costs were high. With HostBridge, employees find it much easier to navigate the system and training costs are down.

**Stay Tuned**

*CZ continues to use HostBridge to integrate its multiple legacy subsystems with its Lotus Notes solution. And because HostBridge adheres to the latest standards – XML, SOAP, and HTTP – CZ is ready for future integration challenges. “There is still lot of work to be done,” Luijks concludes, “and we have the technology to do it well.”*