

Information Portals in K-12 Education

Why a unified web information portal is becoming a requirement for educators who desire to keep parents connected, informed and involved in the education of their children

The internet has fundamentally altered the way we as a society receive, organize, and consume information. News, banking, shopping, research, and correspondence are now available for instantaneous access and action through the web. This ability to stay completely current using laptop computers, smart phones and other devices, frees up the worry of deadlines and the time lag of older forms of information dissemination. School districts and universities are now beginning to tap into the communication potential of the internet. Email blasts and district websites are able to provide basic news feeds to students, parents, and teachers. But some enterprising school systems and universities have a much broader vision of what the internet can provide such as online classes, web hosted testing services, grade disbursements, and accounting functionality are becoming available to more students with each passing term. While these tools are an excellent path for greater student involvement, they are becoming a huge draw on the IT resources that are managing them. In most environments each system stands alone, each will require provisioning operations and credentials separate from every other system. Users are forced to maintain a complicated list of user-names and passwords for each system, and when unable to access these tools, they add to the workload of the help desk. As a school district incorporates more online tools they must hire additional administrators to manage them and they must retrain their help desk to assist the students, faculty, and parents in accessing the system. With each new hire, and each additional training session, money is spent maintaining procedure at the cost of efficiency.

The solution to the problem of over complication is two-fold: first, deploy an effective Identity Management Solu-

tion (IDM) to provide efficient access to all users across all systems. The second phase is the development and implementation of a secure web portal to provide a single-sign-on point to users that authenticates them to all of the applications and news feeds required to fulfill their role, from any internet accessible computer, on any web browser.

Cypress-Fairbanks Independent School District (ISD), located in the Greater Houston Metropolitan Area, has just completed the implementation of an IDM and web portal solution, and is looking forward to its launch in the Fall of 2010. Cypress-Fairbanks has made it a priority to remain in the forefront of leveraging technology and using it to provide a constant stream of information to staff, parents and students. Beginning in 2006, Cypress-Fairbanks began making student progress information available to parents within the district via the internet. The system in place did a good job doing what it was designed to do: provide secure access to parents who wanted to view their students' grades online. However, Cypress-Fairbanks had a larger vision of what they could do with a portal. The district contacted Identity Automation, who had recently completed the district's IDM implementation, to provide some insight on what could be placed out on the web, and how to support an expanded user-base. Identity Automation has partnered with Stoneware, Inc. to provide an education portal, built on a webNetworks cloud computing framework and implemented with Identity Automation's RADPiD Education methodology and its own Identity and Data Management solution.

WebNetworks, developed by Stoneware, Inc., creates a private cloud environment that provides secure access



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to data that resides inside the client's network through the web portal and then out on to the internet. Because webNetworks is in place acting as a brokering agent, there is zero penetration into the client's actual network, this is accomplished by placing a firewall on both the internet and internal network sides of the cloud. The security is further enhanced by 128bit SSL encryption at all authentication points, denying potential intrusions into the cloud, and keeping the data stored on the network safe. Users have access to cloud resources dependent on their role within the organization, these roles are defined during the provisioning and add tighter controls on information security. The provisioning of users can be linked to the directory service already in place to eliminate the possibility need for duplicate identity stores.

Cypress-Fairbanks took the additional step of leveraging Identity Automation to connect their parent portal into the newly implemented IDM system. Identity Automation had already created a central data warehouse to link the authoritative systems, including the HRMS and Student Information System (SIS) to downstream applications. The parent portal was added to the system as a downstream resource, and then configured to the specification that Cypress-Fairbanks needed. By tying the portal to the preexisting identity management infrastructure single-sign-on functionality can truly be realized. Parents can now register themselves in the system, be provisioned automatically, and then go through the process to associate the account to their student(s). Another outstanding aspect of this system is the password reset functionality that Identity Automation has built into the system. Like the systems used by banking sites, during the registration process the parents are asked to answer a number of security questions, if the account owner ever forgets their password or wishes to reset it they are presented with a number of the questions that they have answered which proves their identity.

The portal is not only a secure service, it also provides a stable environment, with enough scalability and application supportability to allow a vast number of programs to be hosted. With proper hardware support and webNetwork's use of load balancing technology support for up to 100,000 concurrent connections is possible. This level of scalability allows even the largest organizations to benefit from a portal. Cypress-Fairbanks is the third largest school district in Texas with 104,000 students enrolled and with the addition of staff and faculty had over 115,000 users in their previous system. The district wanted the new portal to be able to handle all of the parents and guardians who wished to participate, a number that could reach as high 250,000 additional users. With Identity Automation's assurance, Cypress-Fairbanks ISD is confident that their new portal will get the job done now and into the future. Beyond robustness and reliability the portal can host a vast array of applications and services, from email and productivity suites, to news feeds, announcements, and it is even preconfigured to handle JDBC and ODBC databases. The portal also serves as a single point to view and use web hosted applications. The depth of customization available to organizations within this tool pushes it to the forefront of new information broadcasting technology, that every IT manager should be pushing to implement.

This information available can vary according to the desires of the organization, in the case of Cypress-Fairbanks ISD they wanted to allow parents to view grades, standardized test scores, district news, food and transportation information, demographic comparisons of their students versus the rest of the student body, and eventually a digital report card. In the future, if parents opt to receive their child's report card digitally, a printed version will no longer be mailed, this will save the district on materials, printing, and mailing costs. Having



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the district news available through the portal to all users ensures that everyone involved has the opportunity to view the same information and is on the same page. Providing daily grade updates gives parents the information they need to assist their students when they need help well before they have fallen behind. The previous list of applications is by no means the limit to the functionality of the portal; future implementations could include many other services. Attendance tracking, field trip participation, online assignment indexes, and a document library are examples of other services that might be integrated in the future. The online document library provides another possibility for school districts to leverage the portal concept. Registration forms and trip release/participation forms would no longer be misplaced, could be centrally stored and accessed and would significantly reduce paper consumption.

The benefit of a successful RAPID Education Portal implementation goes far beyond the administrative savings of a few reams of copy paper. The self-registration and automatic provisioning of parents significantly reduces manual touch points required by IT staff to get the users integrated. The secure, automated password reset functionality allows for a massive expansion in the services available to users, without needing to expand the help desk staff, because the work load remains stable. Productivity gains are accrued as time is saved by providing all services from a central location, no longer will users lose time searching through multiple systems, each requiring their own credentials. Security is improved by quarantining remote access behind firewalls, ending the need for users to log into the actual network. This vastly reduces the number of open connections into the system, improving process load, and denying points of entry to unauthorized users. Most importantly, Identity Automation's RAPID methodology can deliver each of these benefits months ahead of other vendors.

The RAPID Education Portal is the complete solution for

providing next generation connectivity between parents, students, and teachers. Identity Automation has developed this tool by matching a best-of-breed solution, with best practice knowledge in Identity and Data Management, and delivering that solution with unmatched speed and flexibility.

