

Rudolph F. Crew, Superintendent of Schools

SUBJECT: AUTHORIZATION TO PURCHASE SOFTWARE AND HARDWARE; AND ENTER INTO CONTRACTUAL SERVICES AGREEMENTS BETWEEN THE SCHOOL BOARD OF MIAMI-DADE COUNTY, FLORIDA, AND MICROSOFT CORPORATION, AND VERSION 3, INC., TO PROVIDE AN ENTERPRISE PORTAL SOLUTION FOR THE DISTRICT

COMMITTEE: INNOVATION, EFFICIENCY & GOVERNMENTAL RELATIONS

The goal of an Enterprise District Portal is to provide an enhanced, collaborative workspace between students, parents, educators and the community to maximize learning potential for all Miami-Dade children while also improving operational efficiency for all District staff. This project will provide the following outcomes:

- Realize the vision of becoming a connected learning community
- Provide teachers, students, administrators and parents with relevant, personalized information to better the classroom experience
- Save teacher time with easy to use productivity tools
- Showcase the District's technology investments
- Enhance communication and collaboration, including teamwork among students, parent-teacher interaction, and student-teacher relationships

This project is part of the District's Comprehensive Information Technology Blueprint, approved by the School Board at the December 14, 2005, meeting.

What is a Portal

A Portal is defined as a unified place that connects people to contextually relevant information, services and applications. A Portal is a gateway to information and interaction based upon a single, secure sign-on and it is role-based for students, teachers, parents, and employees. A Portal is entirely web-based and independent of the computer the individual is using and where that computer is located. Components of a Portal include the following:

- **Content Aggregation:** The gathering of data and information from multiple sources and presenting a unified, context driven view to the individual user within their Portal page. For example, a parent can view his/her children's academic grades, attendance, test scores, transportation information, lunch information and look at documents his/her children are working on in school all from a single page.
- **Application Integration:** Connects separate systems through data sharing and automated transactions. An example is when a parent updates his/her telephone number in the Portal, it is immediately updated on the District's mainframe Student Information System and available to the District out-calling system for attendance and announcements.

- **User Authentication:** Provides content and functionality tailored to an individual user. Users sign on only once through a secure single sign-on. Once a teacher or student signs on to the Portal, they can access their instructional systems with a single mouse click without having to remember and enter multiple credentials and passwords. This single sign-on allows District staff to access application and systems with a single mouse click.
- **Personalization:** Individuals can customize the appearance and functionality of their Portal and bring additional content into their Portal based upon rule-based user profiles. For example, teachers can bring into their Portal, links to video or text used in their lessons. Students can add content from Internet sources used in their research or homework assignments.
- **Collaboration:** Enables staff, educators, students, the community, and business partners to work together. Key collaboration features include meeting spaces, team sites, document posting and versioning, discussion groups, real-time communication, subscriptions and customizable alerts. This is a very important function that permits teachers to post assignments to students, students to collaborate and post back completed assignments, teachers and parents to share information, parents and educators to be alerted to performance drops or missed assignments.
- **Search:** An essential element of all Portals, search helps users find the right content, regardless of whether the resource is intuitively categorized within the navigational structure.
- **Workflow:** Includes approval and review routing based upon business rules, alerts and notices of assignments or waiting approvals. Workflow supports many processes and group work, and is a major paper reduction function. This will allow parents to approve field trips and provide other consent electronically. In addition, it will permit staff to route documents for approval and review.
- **Web Content Management:** The capability to create, store, manage and publish content to the Web. This is most beneficial to school sites maintaining their web sites and announcements to students, parents and the community.

Where we are today

As users needed a simple method to access the applications they are mandated to use, Information Technology Services (ITS) developed a solution to test the proposed Portal strategy. This solution leveraged existing technologies previously put in place to support Grade Book, Cognos, Email and Weekly Briefings to deploy a "Lite" version of Portal technology for principals, teachers, students and parents. However, the functions deployed are limited as the District does not have a robust and scalable Portal or secure single sign-on software. By the end of the second week of school, there were over 55,235 teacher visits, 108,550 student visits, 8,548 parent visits and 3,215 principal visits to the Portal. This is prior to any announcement of the Portal's existence to the community or to staff. A survey is attached to each Portal and the results have been overwhelmingly positive from all Portal user groups. The Portal is already helping to bridge the "Digital Divide" within the District by providing parents and the community with information from the Parent Academy, the Title-1 Office, and Dade Partners/Volunteers. Organizations are being encouraged to make computers available to their staff, so that they can readily access the Portal.

Microsoft Portal Proposal

ITS looked at Portal solutions and requested that Microsoft submit a proposal, since Microsoft already had a technology presence within the District with applications such as Active Directory Services (ADS), MS Word, MS Excel, MS PowerPoint and E-mail. The proposal was evaluated based upon *Functionality, Initial Cost, Total Cost of Ownership, Time to Delivery* and *Leveragability of Technology Assets* already deployed and determined to meet District needs.

It should also be noted that Microsoft has provided in-kind contributions of over one million dollars, since 2002, supporting District technology and training efforts. This includes the following:

Miami Carol Sr. High School Donation	\$500,000
Active Directory\Exchange 2003 Support	\$261,614
AD\WServer Deployment - (DataCorp)	\$26,000
1 day on-site MCS consultations (3 1/2 yrs)	\$100,000
Learning Gateway Project (consulting and software)	\$165,000
Parent Academy	\$10,000
Portal RiverDeep integration	\$131,274
Sunshine Connections Federated Services	\$18,216
Ad Hoc Consulting Services	\$6,072
Total contributions	\$1,218,176

The Microsoft proposal is for a full Portal solution, supporting up to one million users and providing all the capability stated in the attached Scope Document. This will provide full Portal functionality to all District employees, students, parents and community members, such as volunteers and business partners. The proposal is implemented in three phases as summarized below. The total cost for hardware, software, services and employee training over the one-year project is \$ 3,821,214. Of this cost, \$400,000 is E-ratable, making the cost to the District \$3,421,214.

Phase I – Core Infrastructure Installation and Portal Extension

This phase will be completed by December 31, 2006, with deliverables appearing throughout the phase. Cost of this phase is \$116,800 in software, \$640,728 in services and \$1,063,408 in hardware.

Deliverables include the following:

- Adding pre-filled Parent consent forms automation to the Portal
- Adding employee human resource and benefit information to the Portal to reduce calls and paper requests
- Proving quarterly assessment scores to parents, teachers and students
- Extending the current Portals to include community members, vocational students and staff, Pre-K students and staff and all other District staff
- Installing and configuring the core hardware, software, security design and network design for the enterprise Portal

Phase II – Enterprise Portal Environment Build

This phase will be completed by July 31, 2007, with deliverables appearing throughout the phase. Cost of this phase is \$435,176 in software and \$583,776 in services.

Deliverables include the following:

- Simple, single sign-on appearing throughout the phase, prioritized by application usage
- Content Management and Collaboration targeting school sites, including collaboration spaces for classes.
- Other projects prioritized by the Superintendent such as I-Choose, Parent Academy Registration, Volunteers and delivery of role-based score cards

Phase III – Application Integration

This phase will be completed by September 30, 2007, with deliverables appearing throughout the phase. Cost of this phase is \$581,326 in services. Administrative functionality will be incorporated into the enterprise Portal based on District priorities.

Funds for the project are included in the 2006-2007 Capital Outlay Funds Adopted Budget.

Fund Source

0322 – Technology Lease

M/WBE Eligibility

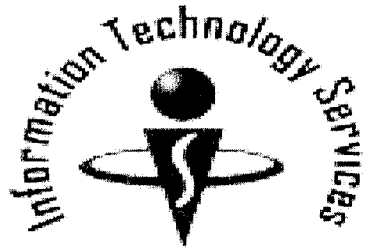
None

RECOMMENDED:

That The School Board of Miami-Dade County, Florida, authorize the purchase of:

- a) Software and services from Microsoft Corporation to implement an enterprise Portal at a cost not to exceed \$2,167,806 from Capital Outlay Funds in FY 2006–2007;
- b) Software from Version 3, Inc. to implement an enterprise Portal at a cost not to exceed \$190,000 from Capital Outlay Funds in FY 2006–2007; and
- c) Hardware to implement an enterprise Portal at a cost not to exceed \$ 1,063,408 from Capital Outlay Funds in FY 2006–2007.

OSP/vd



Information Technology Services

Project Scope Document P6260000

“We will assume no changes unless we hear from you by mm/dd/yy.”

Project Title:	Enterprise District Portal
Functional Area:	Business Operations
Team(s):	Enterprise Architecture
Prepared By:	Victor Diorio / Hector Echeverria
Initial Publication Date:	7/31/06

Alignment to District Goal(s):

<i>Place an X in box to the left of the goal or goals which the project addresses - double click on the Excel cell to edit.</i>	
X	Ensure achievement of high academic standards by all students.
X	Develop our students so that they are able to successfully compete in the global economy.
X	Actively engage family and community members to become partners in raising and maintaining high student achievement.
X	Reform business practices to ensure efficiency, effectiveness and high ethical standards.
X	Recruit, develop and retain high-performing, diverse and motivated faculty and staff.

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REVISIONS HISTORY

All revisions to this document must be approved and agreed upon by all stakeholders. It is understood that changes to the original document may affect the completion date of the project.

Date (mm/dd/yy)	Version	Author	Description
7/31/06	1	V. Diorio / H. Echeverria	Original

Information Technology Services
Miami-Dade County Public Schools

Enterprise District Portal

Project Stakeholders

=====

Name: <i>Type in alpha order (last name, first name) - * denotes a mandatory reviewer</i>	Department/Team
Castro, Lisa	ITS, Internet Services
Di Liello, Nick	ITS, Systems and Programming
Diorio, Victor	ITS, Enterprise Architecture
Grafer, Debbie	ITS, Technology Delivery
Karcher, Deborah C.*	ITS
O'Donnell, James P.*	ITS, Data Security
Rinehart, Craig	ITS, Business and Operational Services
Rohm, Terry Z.*	ITS, Program Mgmt./Process Engineering
San Pedro, Ofelia	Business Operations
Sims, Tom	ITS, Network Services
Zambrano, Mike	ITS, Enterprise Communications

Project Summary

What is a Portal: A portal offers many components and is based upon a single, secure sign-on and the role(s) an individual will have. A portal is entirely web based and independent of the computer being used or where the computer is located. Components of a portal are as follows,

- **Content Aggregation:** Gathers data and information from multiple sources and presenting a unified, context driven view to the individual user within the portal page.
- **Application Integration:** Connects separate systems through data sharing and automated transactions. Once a user has signed into the portal, all applications and systems authorized to that user will be available on the portal.
- **User Authentication:** Provides content and functionality tailored to individual user. Users sign-on only once through a secure single sign-on. Being web based, the portal is not dependant upon an individual's computer. Users can access the portal from any computer that has Internet access.
- **Personalization:** Allows for customization of the appearance and functionality of the portal and brings additional content into the portal based upon role and user profiles.
- **Collaboration:** Enables staff, educators and students to work together. Key collaboration features include meeting spaces, team sites, document posting and versioning, check in/check out, discussion groups, real-time communication (chat), polls, subscriptions and customizable alerts.
- **Search:** Helps users find the right content, regardless of whether the resource is intuitively categorized within the navigational structure.
- **Workflow:** Includes approval and review routing based upon business rules, alerts and notices of assignments or waiting approvals. Workflow supports parallel and serial processes and group work.
- **Web Content Management:** Offers the capability to create, store, manage and publish content to the Web. Content can include HTML pages, images, sound clips, XML files, plain text, rich media and other ancillary content such as style sheets and metadata. This is most beneficial to school sites maintaining their web sites and announcements to Students, Parents and the Community.
- **Analytics Reporting:** Generates data about user profiles, click-through streams, student and parent browsing or participation patterns, and site performance. This wealth of data can be easily transformed into insightful browsing trends, valuable user segmentation, and ultimately an intelligent feedback loop. Additionally, the portal technology works seamlessly with District data warehouse and reporting tools such as Cognos to permit scorecards, dashboards and reports to be embedded within the user portal.

Goal (Broad statement describing a desired end result or achievement as a successful outcome of the project)

Provide an enhanced, collaborative workspace between Students, Parents, Educators and the Community to maximize learning potential for all Miami-Dade County Public Schools students while also improving operational efficiency for all District staff.

Objectives (A measurable means necessary to accomplish stated goals)

- Assist in improving student achievement by developing collaboration between Parents, Students and Teachers. This includes provisioning of student school work and performance information.
- Improve communication between District, Schools and Parents by integrating announcements, event calendars and available resources into the individual portals.
- Reduce inconvenience to parents as electronic forms and progress reports will be available within the portal.
- Assist in improving instructional time by consolidating relevant student information and curriculum in one place for both teachers and students.
- Improve operational efficiency by delivering pertinent workflows, reports and applications to administrators in a central location based upon role and job function.

Scope (Processes required to ensure that the project includes all work required, and only the work required to complete the project successfully (from PMBOK))

Build out a portal framework to include single sign-on, role based collaboration, workflow, content management and security, and integrate it with new and existing systems.

- Phase I - Core Infrastructure Installation
 - Enterprise Portal Design Sessions
 - Design Public Key Infrastructure (PKI)
 - Microsoft Identity Integration Server (MIIS) Account/Group Provisioning Migration
 - Establish Portal Development/Test Environment
 - Legacy Forms Analysis & Training
- Phase II - Enterprise Portal Environment
 - Establish Production Environment
 - Incorporate Windows SharePoint Services (WSS) Sites Into Portal Environment
 - Develop Portal Site Definition Templates
 - Legacy Forms Migration and Development
- Phase III - Integration
 - Application Integration
 - Turnover Training

Deliverables (A tangible, verifiable work product such as a feasibility study, a design, or working prototype)

Phase I - Core Infrastructure Installation and Portal Extension

This phase will be completed by December 31, 2006 with deliverables appearing throughout the phase.

Deliverables include the following:

- Adding fillable Parent forms automation to the portal.
- Extending the current portals to include community members, vocational students and staff, Pre-K students and staff and all other District staff.
- Installing and configuring of the core hardware, software, security design and network design for the enterprise portal.
- Adding access to employee Human Resources and Professional Development information

Phase II – Enterprise Portal Environment Build

This phase will be completed by July 31, 2007 with deliverables appearing throughout the phase.

Deliverables include the following:

- Simple, single sign-on.
- Content Management and Collaboration.
- Other projects prioritized by the Superintendent such as I-Choose, Parent Academy Registration, Volunteers and delivery of role based score cards.

Phase III – Application Integration

This phase will be completed by September 30, 2007 with deliverables appearing throughout the phase. Deliverables include application integration based upon District and Superintendent priorities.

Risks (An uncertain event or condition that, if it occurs, has a negative or positive effect on a project objective (PMBOK))

Note: The overarching approach to mitigating risk is to provide short-term deliverables.

1. Implementation date not met due to problems with integration of the different products and technologies

Mitigation (Steps taken to reduce the probability and/or consequences of an adverse risk event to an acceptable threshold) :

- Frequent status review meetings that involve vendors and ITS staff
- Issues will be reviewed and addressed expeditiously in order to avoid any delays
- Limit change requests

2. Vendor does not deliver software, hardware or services on time

Mitigation:

- Clearly defined Statement of Work for each vendor

3. Scope Creep throughout the project lifecycle

Mitigation:

- Ensure that all requirements are captured upfront, review all requirements with stakeholders and gain formal approval prior to starting the implementation of each phase/task.
- Use change control management throughout the project lifecycle

4. Change in personnel working on the project due to personal reasons or reorganization

Mitigation:

- Identify backup resources proactively in case a project contributor or stakeholder is reassigned to other responsibilities during the project
- Ensure that proper project documentation is available, which will allow any qualified replacement to step in with a minimal learning curve

5. High adoption rates of the technology by Parents, Staff and the Community,

Mitigation:

- Vendor commitment to provide adequate support
- Proper funding to cope with unintended consequences of success
- Monitor and upgrade hardware environment as appropriate based upon load.

6. Standard risk related question for all projects "What is the impact if the project does not proceed? (Please answer in a brief paragraph.)

- Teachers, Principals, and District staff will continue to devote a significant amount of time just locating and accessing each one of the applications via individual logons or web links rather than having a centralized location with a single sign-on.
- Students and parents will not have access to valuable information that would allow them to get more involved in the learning process.
- Limits the ability to narrow the digital divide.

Estimated Initial Cost Analysis (Project costs incurred prior to system being placed into production)

Description	Number of Units	Type of Unit	Price per Unit	Estimated Cost
Labor Costs (Indirect/ District Staff):				
Project Planning	80	Hours	40	\$3,200
Project Scope Document	80	Hours	40	\$3,200
Project Requirements Document	80	Hours	40	\$3,200
Project Plan Document	80	Hours	40	\$3,200
Phase I	1,720	Hours	40	\$68,800
Phase II	920	Hours	40	\$36,800
Phase III	1,832	Hours	40	\$73,280
Summarizing Lessons Learned	8	Hours	40	\$320
Total:	4,800	Hours	40	\$192,000
Hardware/Software (Direct/Vendor):				
Hardware	1	Contract	\$1,463,408.00	\$1,463,408
Software	1	Contract	\$551,976.00	\$551,976
Technical Services	1.00	Contract	\$1,805,830.00	\$1,805,830
E-Rate Credit	1.00		-\$400,000.00	-\$400,000
Total Direct:				\$3,421,214
Indirect:				\$192,000
Grand Total:				\$3,613,214
Proposed delivery date: (Enter date here in format month/day/year (mm/dd/yy))				
Phase I - December 31, 2006				
Phase II - July 31, 2007				
Phase III - September 30, 2007				

Notes: (Enter relevant financial notes here such as software license type, hardware details, any unique aspects of services from contractors etc.)

Assumptions (Factors that for planning purposes are deemed to be true, real or certain (PMBOK))

- Executive sponsorship and stakeholder involvement will continue throughout the project lifecycle.
- Delivery date tied to approval date of the Board item.
- Resources assigned and available as dictated by project plan.
- Microsoft will manage its partners and subcontractors for services.
- Hardware will be delivered and configured in a timely manner.

Benefits – Qualitative Benefits/Direct

- All District employees, students, parents and community members will have swift access to the applications that they use on a daily basis and will be able to share information among them through department, team and class level collaboration.

Total Cost of Ownership (TCO) (Estimated final cost including development, deployment and maintenance)

Total Cost of Ownership Template					
	<i>(Use 3-year time horizon unless application forecasted useful life is definitely longer.)</i>				
Incurred Costs	Initial Costs	Year 1	Year 2	Year 3	Grand Totals
Technology - One time	\$1,615,384				\$1,615,384
Technology - Ongoing		\$82,796	\$82,796	\$82,796	\$248,389
Personnel - One-time	\$192,000				\$192,000
Personnel - Ongoing *		\$291,887	\$291,887	\$291,887	\$875,661
Operations & Processes - One-time	\$1,805,830				\$1,805,830
Operations & Processes - Ongoing					
Total Costs	\$3,613,214	\$374,683	\$374,683	\$374,683	\$4,737,264

*** Personnel – Ongoing**

- 3 Developers
- 1 Database Administrator
- 1 Network Services Specialist

Success Measurement (Documented criteria to determine objectives have been met)

- Improvement in student achievement
- Increased parent access to student information and involvement in the learning process.
- Satisfactory results from online surveys in regard to improved communication between District, Schools and Parents.
- Increased use of electronic forms and progress reports from the portal.
- Satisfactory results from online surveys in regard to improving instructional time.
- Satisfactory results from online surveys in regard to improved operational efficiency.

References (Show links to other project related documents.)

- Board Meeting Agenda Item

Acronyms / Glossary (Spell out abbreviated items and supply definitions of technical terms.)

- ADS - Active Directory Services
- MIIS - Microsoft Identity Integration Server
- WSS - Windows SharePoint Services

Document Definitions

Functional Area Business, Communications, Education, Financial, Personnel

Estimated Cost Analysis

Price per Unit

This cost should be based on type of staff involvement.

Network Data Communication Specialists \$40.

Systems and Programming Services staff \$40.

Support staff \$24.

Trainers \$40.

P##### Project Account Code from Project Accounting System

Revisions History All revisions to this document must be approved and agreed upon by all stakeholders. It is understood that changes to the original document may affect the completion date of the project.

Author Creator of initial document or changes to the document

Date Initiation or change date

Description "Initial" or what was changed

Version 1.0, 2.0, etc.

Stakeholders People involved in or affected by project activities

Procedures

1. Provide all stakeholders with a copy of the Project Scope Document.
2. Make the revisions to the Project Scope Document that were agreed upon and E-mail the Revised Project Scope Document to the stakeholders prior to the formal scope document review meeting.
3. Request a "Read Receipt" for the E-mail.
4. Ensure versioning is enabled in Xyθος for the scope document.
5. Include the following statement in bold on the cover page of the original and Revised Project Scope Documents and at the end of the E-mail message used to deliver the document to the stakeholders:

"We will assume no changes unless we hear from you by mm/dd/yy."