Rudolph F. Crew, Ed.D., Superintendent of Schools

SUBJECT: APPROVAL OF THE DISTRICT'S COMPREHENSIVE INFORMATION TECHNOLOGY BLUEPRINT DEVELOPED BY CELT CORPORATION

COMMITTEE: INNOVATION, EFFICIENCY & GOVERNMENTAL RELATIONS

The "new basic skills" for the twenty-first century will require students to have the ability to access, analyze and communicate information effectively. They must be empowered through the use of technology to create their own knowledge. The District must provide students, teachers, administrators, and staff with the technology tools necessary to prepare students for higher education and for the world of work, as well as to improve the quality of decision-making and increase efficiency.

In response to these demands, the School Board of Miami-Dade County, at its meeting of April 13, 2005, authorized the Superintendent to enter into a contractual service agreement with CELT Corporation to develop a comprehensive five-year technology plan. The objectives were to ensure technology literate students, technology competent teachers, and an efficient and effective support staff. Additionally, this planning effort was recommended to align technology initiatives with the 2005-2008 District Strategic Plan and determine the District's total cost of technology.

Development of the Technology Five Year Plan

Since then, the District and CELT Corporation have completed a three-phase research and planning study. **Phase 1** involved research, site visits, interviews, and data collection. This phase included interviews, focus groups, and site visits conducted with approximately 600 stakeholders including district staff, school principals, teachers, support staff, students, parents and information technology vendors. **Phase II** focused on a review of the findings and recommendations. **Phase III** addressed the development of the Information Technology Blueprint and technology budget over a five year period.

Several preliminary documents have been published during this process including the *Initial Findings and the Preliminary Recommendations* and the *Best Practices Implementation Guidelines.* The most recent document; *Comprehensive Information Technology Blueprint,* which will be the roadmap for Miami-Dade County Public Schools (M-DCPS), contains conclusions, evaluations, and recommendations. Electronic versions of these documents are available at http://itblueprint.dadeschools.net/.

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The *Initial Findings and the Preliminary Recommendations* uncovered that technology in the classroom was random and inconsistent and that student opportunities to use technology as tools for learning were limited. This was partially due to the inconsistent and inequitable distribution of technology resources (hardware, software, training) in schools and offices. Even when the technology was available, the school support was inadequate to maintain and expand new initiatives.

Schools had computers, but lacked the needed teaching proficiencies to facilitate and integrate them into the classroom. Relevant information was available in data storage, but unavailable to staff and EESAC when developing school improvement plans. There was no connection between what was available and what was needed. The administrative and decision support systems were fragmented, obsolete, redundant, and paper intensive.

After implementation of the technology blueprint, the quality of MDCPS technology services and resources will ensure that:

- Students are technologically proficient and academically successful;
- Teachers are highly qualified and engaging;
- Administrators are effective and efficient;
- Support staff is productive; and
- Parents can be more involved in their child's academic progress.

Comprehensive Information Technology Blueprint

The *Comprehensive Information Technology Blueprint* resulted in 80 information technology initiatives which have been combined into eleven strategic recommendations. The Major Recommendations are:

1. **Curriculum/Technology Integration** – Develop a scope and sequence of technology proficiencies and embed them into the curriculum, staff development and the personnel evaluation system. *Benefit:* Teachers will discover and develop new skills through professional development to become collaborators and facilitators, working with highly motivated and engaged learners who are technologically literate.

2. **Learning Management System** - Procure a Learning System which consolidates curriculum materials, instructional resources, assessment tools, and student data. *Benefit:* Educational plans will be available in real-time and updated daily in a wireless, paperless environment. From their workstations, teachers and administrators, as well as students and their parents, will be able to access the results of all assessments in real time. Student records will be up to date immediately and the data will be available in a form which will allow it to be easily analyzed.

3. **Enterprise Resource Planning System** (ERP) For Business – Procure an "ERP" system for business operations which will provide a single, uniform software program across operational activities, initially within finance and human resources. *Benefit:* Through the replacement of our outdated financial, human

resources, payroll and procurement systems, the District will: 1) Dramatically improve service delivery to schools; 2) Radically improve the efficiency of District operations and our ability to manage them; 3) Reduce/eliminate paperwork and redundant manual processes; 4) Increase accountability and transparency to the public in the use of public funds; 5) Provide better data for decision makers and stakeholders at all levels.

4. **Standard Technology Configurations and Refresh Program** – Maintain a standard and flexible technology configuration and refresh program for classrooms and offices that both defines and sustains a critical mass of technology resources throughout the district. *Benefit:* Our objectives are to provide access to technology and the internet for every student in every classroom, and to develop a technology literate teaching force which integrates technology into the curriculum in a meaningful and productive manner.

5. **Web-based Human Resource and Staff Development Program** – Implement a proficiency-based human resource management system which links professional development to staff proficiencies, school improvement plans, and student needs. *Benefit:* Targeted teacher training will enhance teacher's skills, match them to their student's needs, and provide opportunities to develop teaching methods based on changing instructional models and curriculum requirements.

6. **School/Program Improvement Planning Tools** – Implement web-based planning tools, for creating school and district strategic plans, fully integrated with the data warehouse and dashboard/scorecard effort. *Benefit:* EESAC will have real time data and analysis to allow for the development of relevant school improvement plans that meet the targeted needs of the students and the community. By sharing the strategic plans with businesses, community members and parents, the District begins to develop true partnerships. These partnerships will provide the much needed financial and political support to implement the district's initiatives.

7. **Document/Forms Management System** – Implement a comprehensive and integrated Document Production and Forms Management System, including document delivery, work flow, and document storage and retrieval software. *Benefit:* Consistency in forms and reports, automated storage and data retrieval is more efficient in terms of accuracy and staff time. Paperless documentation is more consistent, traceable, and cost effective and will result in significant savings.

8. **Network Integration and Connectivity Community** – Implement an integrated network/communication system for supporting voice, data, video for instruction, administration, security, and energy management. *Benefit:* Increases parental communication, professional collaboration and expanded virtual learning opportunities for students. Parents will monitor academic progress, attendance, and homework assignments in real time. It will allow for the transfer of timely, reliable and accurate information to be shared between the home and the school reducing the need for paper documents.

9. **Governance and Organization** – Establish Information Technology Coordinators (ITC) at the school level and provide technicians at all schools. *Benefit:* Provides competent technology support and expertise to all schools allowing for immediate response and resolution to issues and answers to questions. Instructional software can be integrated more readily with fewer interruptions/ downtime.

10. **Information Technology (IT) Implementation and Management** – Provide resources to support the implementation, integration, monitoring, and updating of the recommendations and projects from the Blueprint on an ongoing basis. *Benefit:* Dedicated staff trained and experienced in working with and developing the district's technology infrastructure and systems will ensure the success of the IT Blueprint.

11. **Summit on Technology, Learning and Economic/Workforce Development** – Conduct a countywide summit on Technology, Learning and Economic/Workforce Development to support the Parent Academy programs and other community outreach initiatives. *Benefit:* Students, teachers, parents will have a better understanding of school technology and instructional material that is available for their use. The district will develop true peer partnerships linking the business community, parents and students.

This plan will serve as the roadmap for developing an integrated technology infrastructure. It will provide equitable access, use, and support of information technology resources for all students. In addition, it will empower them with twenty-first century information literacy skills vital to compete in an information-based global economy.

The *Comprehensive Information Technology Blueprint* is the beginning of a vital and necessary process to meet the District's technology requirements. Although much work has been done, the planning process is not complete. The next steps are to identify funding sources and prioritize projects based on that funding. As this plan is implemented, each project will be brought to the Board for individual approval and funding. The projected cost of the plan over five years is $399,438,000. The table on the following page summarizes the cost for each of the major recommendations.

Major IT Blueprint Recommendations
and Projects Cost Summary
Attachment A

Major Recommendations *	Total 5-Year Cost
1. Curriculum/Technology Integration	$1,084,000
2. ERP for Learning	$26,017,000
3. ERP for Business	$31,522,000
4. Standard Technology Configurations and Refresh Program	$231,861,000
5. Web-based HR and SD Program	$3,125,000
6. School/Program Improvement Planning	$376,000
7. Document/Forms Management System	$9,367,000
8. Network Integration and Community Connectivity	$60,876,000
9. Governance and Organization	$32,198,000
10. IT Implementation and Management	$3,012,000
11. Summit on Technology, Learning, and Economic/Workforce Development	$0
TOTAL	$399,438,000

The plan will be submitted to the State of Florida to satisfy federal E-rate and instructional technology program participation guidelines and replaces both the District's *Instructional Technology Plan* as well as the *Information Technology (2003-2006) Strategic Plan.*

RECOMMENDED: That The School Board of Miami-Dade County, Florida, approve *The Comprehensive Information Technology Blueprint* developed by CELT Corporation. As this plan is implemented, each project will be brought to the Board for individual approval and funding.