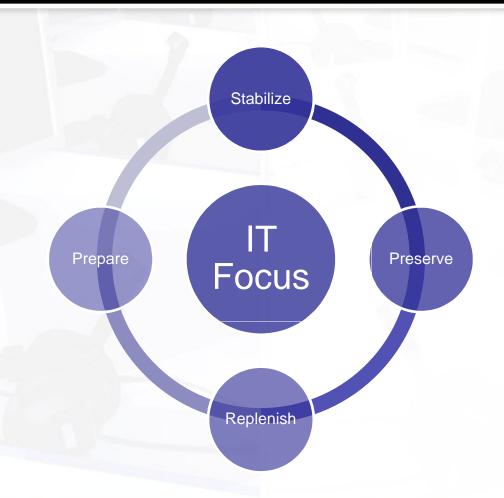# Information Technology

December 2011 – Board Workshop

IT Focus for the Future

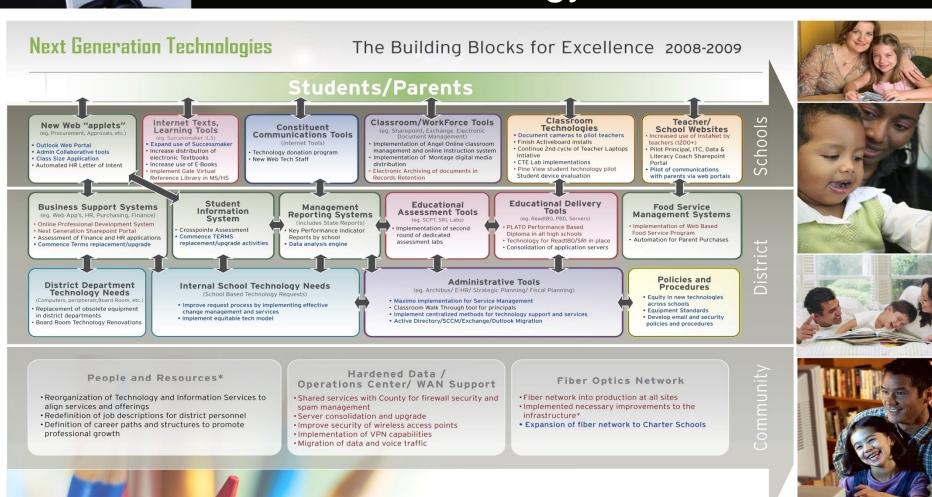- Stabilize

- Preserve

- Replenish

- Prepare

Our efforts for today….

- Where we have come – and where we are going
- Core Functions and Workload Indicators
- Points of pride
- Highlights of core areas
- Challenges/opportunities moving forward

Our IT Professionals are the finest!! We make it happen!
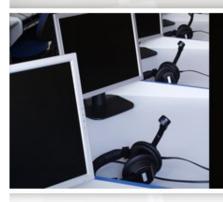
Our Technology Roadmap - District Technology Plan

Next Generation Technologies — The Building Blocks for Excellence 2008-2009

Students/Parents

Schools

New Web "applets"
(eg. Procurement, Approvals, etc.)
- Outlook Web Portal
- Admin Collaborative tools
- Class Size Application
- Automated HR Letter of Intent

Internet Texts, Learning Tools
(eg. Successmaker, ILS)
- Expand use of Successmaker
- Increase distribution of electronic Textbooks
- Increase use of E-Books
- Implement Gale Virtual Reference Library in MS/HS

Constituent Communications Tools
(Internet Tools)
- Technology donation program
- New Web Tech Staff

Classroom/WorkForce Tools
(eg. Sharepoint, Exchange, Electronic Document Management)
- Implementation of Angel Online classroom management and online instruction system
- Implementation of Montage digital media distribution
- Electronic Archiving of documents in Records Retention

Classroom Technologies
- Document cameras to pilot teachers
- Finish Activeboard installs
- Continue 2nd cycle of Teacher Laptops Intiative
- CTE Lab implementations
- Pine View student technology pilot Student device evaluation

Teacher/ School Websites
- Increased use of InstaNet by teachers (1200+)
- Pilot Principal, ITC, Data & Literacy Coach Sharepoint Portal
- Pilot of communications with parents via web portals

District

Business Support Systems
(eg. Web App's, HR, Purchasing, Finance)
- Online Professional Development System
- Next Generation Sharepoint Portal
- Assessment of Finance and HR applications
- Commence Terms replacement/upgrade

Student Information System
- Crosspointe Assessment
- Commence TERMS replacement/upgrade activities

Management Reporting Systems
(includes State Reports)
- Key Performance Indicator Reports by school
- Data analysis engine

Educational Assessment Tools
(eg. SCPT, SRI, Labs)
- Implementation of second round of dedicated assessment labs

Educational Delivery Tools
(eg. Read180, PBD, Servers)
- PLATO Performance Based Diploma in all high schools
- Technology for Read180/SRI in place
- Consolidation of application servers

Food Service Management Systems
- Implementation of Web Based Food Service Program
- Automation for Parent Purchases

District Department Technology Needs
(Computers, peripherals,Board Room, etc.)
- Replacement of obsolete equipment in district departments
- Board Room Technology Renovations

Internal School Technology Needs
(School Based Technology Requests)
- Improve request process by implementing effective change management and services
- Implement equitable tech model

Administrative Tools
(eg. Archibus/ E-HR/ Strategic Planning/ Fiscal Planning)
- Maximo implementation for Service Management
- Classroom Walk Through tool for principals
- Implement centralized methods for technology support and services
- Active Directory/SCCM/Exchange/Outlook Migration

Policies and Procedures
- Equity in new technologies across schools
- Equipment Standards
- Develop email and security policies and procedures

Community

People and Resources*
- Reorganization of Technology and Information Services to align services and offerings
- Redefinition of job descriptions for district personnel
- Definition of career paths and structures to promote professional growth

Hardened Data / Operations Center/ WAN Support
- Shared services with County for firewall security and spam management
- Server consolidation and upgrade
- Improve security of wireless access points
- Implementation of VPN capabilities
- Migration of data and voice traffic

Fiber Optics Network
- Fiber network into production at all sites
- Implemented necessary improvements to the infrastructure*
- Expansion of fiber network to Charter Schools

Prior to 2007   2007-2008   **2008 and beyond**

*Continuing process as needs and budget warrant

Information Technology

Leona Collesano

Director

Wayne Johnson
Networks and Telecom

Joe Binswanger
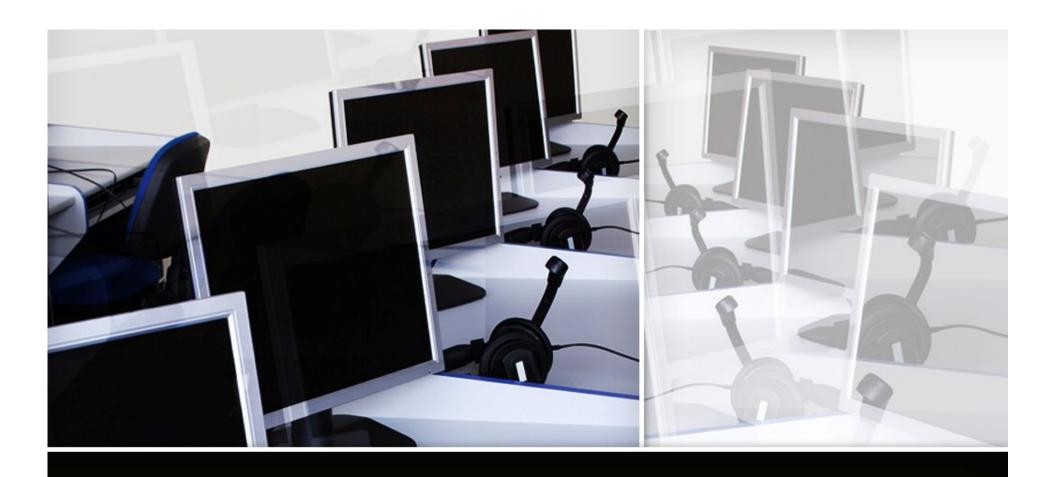School Support Services

Linda Seibel
Infrastructure and Operations
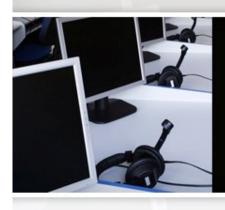
Rodney Davidson
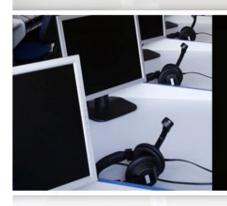Data Analysis and Reporting

Roy Pinchin
Applications

Infrastructure and Operations

Linda Seibel

Core Functions

- Track and monitor assets throughout the technology lifecycle
- Ensure the timely and efficient replacement of the computers used in our classrooms, computer labs, and District offices
- Manage all distributed services (printing, transmissions, etc) to all students, employees, local, state and federal authorities.

Workload indicators

- Administered the Refresh initiative to over 30 locations installing more than 19,000 computers
- Printing statistics
  - Print Counts - 191,000 monthly
  - Report cards & copies - over 656,000 annually
  - Direct deposits – over 137,000 annually
  - Payroll checks – over 700 annually
  - Accounts payable checks - over 15,000 annually
- Create & scan bubble sheets (over 8,000 annually)

Points of Pride

- Developed a PC model that has proven to be successful
- Donation of end of cycle computers to the Texcellence Program

Empower Users

Empower students and staff to be productive. Reliability of computer labs for student testing

Unify Infrastructure

Enterprise applications and unifying computer model variants supporting our District-wide infrastructure

Simplify Administration

Improve IT effectiveness and efficiency through improved service management

The Image: Building Blocks

Management
- System Center
- Active Directory

Data & User Settings
- Standardization
- Continuous Settings Enforcement
- Integrated Security and Compliance

Applications
- Microsoft Enterprise Applications
- Core District-wide Applications
- Application Delivery Model

Operating System
- Windows XP
- Transition to Windows 7

HP Refresh Project – Logistics and Preparations

HP Refresh Project-
Arriving at the Schools

HP Refresh Project – Planning and Execution

Planning and coordination with the School

On-Site checklist sheets used to ensure process and quality control

Getting Started –
Scripting and Quality Testing

HP Refresh Project – Installation Team

HP Refresh Project – Logistical Challenges

Storms

Obstacles

Temperatures

Uninvited guests

HP Refresh Project- Removing Old Inventory

HP Refresh Project-
Keeping Track of Inventory

School Support Services

Joe Binswanger

Core Functions

- Responsible for the full System Development Life Cycle (SDLC) of all instructional technology tools and resources

- Provide support, training and documentation for the instructional applications and video conferencing

- Coordinate activities of the Technology Service Desk

Workload indicators

Angel
- 62,232 accounts
- 1,379 courses
- 245,392 assessments

Classroom Tech
- 3,219 classrooms
- Replaced 1,117 bulbs

Safari Montage
- 94,293 log-ins
- 262,824 playbacks

Successmaker
- 26,432 accounts

Compass
- 8,342 accounts

Reading & Math Textbook Adoption
- 38,130 accounts

Safari Live
- 545 sessions

FCAT Retakes & EOC Exams
- 9,500 sessions

Technology Service Desk
- Over 70,500 tickets annually

Points of Pride

- Expanding Professional Development Opportunities
- Safari Live
- Installed 1,400 Projectors this summer in classrooms throughout the District
- Conducted CampAngel, CampActiv, and Successmaker institutes for the 3rd consecutive year
- Evaluated tools to address availability of Digital Content for students. Our focus is to make digital content available regardless of device.

B.Y.O.T. (Bring Your Own Technology)

Florida Statute 1006.29 (3)

(3)   Beginning in the 2015-2016 academic year, all adopted instructional materials for students in kindergarten through grade 12 must be provided in an electronic or digital format. For purposes of this section, the term:

(a)   "Electronic format" means text-based or image-based content in a form that is produced on, published by, and readable on computers or other digital devices and is an electronic version of a printed book, whether or not any printed equivalent exists.

(b)   "Digital format" means text-based or image-based content in a form that provides the student with various interactive functions; that can be searched, tagged, distributed, and used for individualized and group learning; that includes multimedia content such as video clips, animations, and virtual reality; and that has the ability to be accessed at any time and anywhere.

B.Y.O.T. (Bring Your Own Technology)

Speak Up 2010 Report
by Project Tomorrow

Figure 1: Parents are likely to buy a mobile device for their child to use at school (by grade of child)

	K - Gr 5	Gr 6-8	Gr 9-12
Likely	63%	69%	70%
School responsibility	14%	13%	12%
Unlikely	11%	10%	8%
Unsure	10%	8%	7%

THE journal

BYOD | Viewpoint

7 Myths About BYOD Debunked

Myth No. 1: BYOD deepens the digital divide.

Myth No. 2: BYOD will result in lessons geared toward the weakest device.

Myth No. 3: BYOD will cause students to be distracted.

Myth No. 4: Teachers need to become experts in all the technology students own.

Myth No. 5: BYOD will result in students engaging in dangerous activities.

Myth No. 6: Cell phones are not that powerful, so we should not waste our time with them.

Myth No. 7: BYOD will necessitate the standardization of apps and software across all devices.

B.Y.O.T. (Bring Your Own Technology)

Devices

Networks and Telecommunications

Wayne Johnson

Core Functions

- Deliver and maintain the district's Local Area Network (LAN) and Wide Area Network (WAN) for Intranet and Internet

- Provide secure and reliable network services for Data, Voice, Images, Video

- Deliver the districts core technology functions including email, virus protection, Business Systems, Instructional Learning Systems and other district level computer systems.

- Develop and maintain a Comprehensive IT Security Policy in conjunction with our partnership with SCGov.

Workload indicators

Cabling & Switches

- Over 1400 switches
- 149 miles of fiber cable
- Over 2500 miles of copper cable

Telephone

- 47 sites
- > 6000 telephones
- > 1600 phone lines
- > 4000 voicemail boxes
- 2 VOIP sites

Servers

- > 400 servers supported
- 124 servers SCGov DataCenter
- 100.2 TB of storage on SAN

Active Directory

- 41,298 accounts

E-mail & Archiving

- Over 5500 mailboxes
- > 20,000 emails sent daily
- >56,000 emails received daily
- 15.9 M emails annually

Web traffic

- > 4 billion web requests annually

Points of Pride

- Responsible for capitalizing on investments that provide for reimbursement to the district through the form of E-rate disbursements.

  - Since 2000, received over $4.2M in E-rate reimbursements.

- Implemented an online means of monitoring and recording district wide user acceptance of the Acceptable Use Policy.

- Implemented audit findings to include mandatory network password changes every 90 days.

- Implemented Voiceover Internet Protocol (VOIP) telephone solutions at 2 district schools.

What we do

- Intercoms
- Audio/Visual
- Servers
- Telephone – PBX and VOIP
- Hardware Repair
- Low Voltage Cabling
- Email

- E-Rate
- Network – wired & wireless
- Landings Support
- Cell Phones
- Food Service Application

Wide Area Network

Sarasota County Public Schools
INET Interconnect

Local Area Network

- Currently in Year 2 of a 5 year plan to upgrade all network equipment in the schools
- All schools will have the latest in Cisco Equipment
- Fully supported in budget

Challenges

- Comcast agreement will end in 2014

  OPTIONS:

  – Renew agreement with Comcast

  – Issue RFP for new services

  – Potentially partner with County to use new county fiber being installed on 41 this year.

New Technologies

- Television across the Network
- Use Safari

Applications

Roy Pinchin

Core Functions

- Responsible for the full System Development Life Cycle (SDLC), training and support of all district applications.
- Support key district strategic initiatives through the development of reports, processes and procedures.
- Apply rules as defined by the Department of Education for automated staff and student record keeping and transmissions.
- Develop technical specifications to facilitate collecting, storing, reporting, integration of disparate automated solutions and the use of information for data driven decision making.

Points of Pride

- Implemented CrossPointe.net system for HR, Finance, and Payroll

- Implemented Employee Portal (currently in pilot mode) allowing employees access to personal information

- Implemented the CrossPointe Gradebook and Parent Portal at all district schools.
  - Allows parents up to date information of student performance
  - Allows parents to see all children from a single sign-on
  - Allows parents to communicate with teachers
  - 12,000 student and 5,000 parent accounts currently in use
  - Parent portal available for middle and high school only

Why CrossPointe?

- Requires a single sign-on
- One database for all systems written in current technology
- Vendor maintains the software thus reducing the possibility of locally created errors in the system
- Provides a fully functional gradebook for teachers
- Provides a portal for parents and employees
- Provide ability to export data to other formats
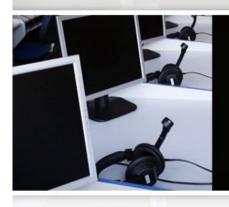- Allow district staff to import data from spreadsheets and other sources

Versus TERMS

- Multiple Versions
- Antiquated programming language
- Multiple profiles required
- Local staff required to maintain system
- Needs not covered by the application
- Users need access to terminals and/or specific software

- Requires network connection
- Exporting data is cumbersome process
- No support for teacher built into the system
- Report cards were only means to provide parents with information

The Bottom Line

- We have moved away from an antiquated systems and technology that requires a high level of maintenance by district staff.

- Provides staff, faculty, parents and students with online, up-to-date information never before available.

Other Systems Supported by Applications

- TAG
- Professional Development System
- Class Size Calculator
- Human Resources Vacancy System
- PALS Volunteer System
- ESE Transportation Requests
- Field Trip Manager
- Student Request Forms
- District Phone Directory

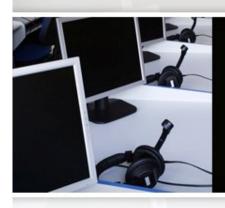# Data Analysis and Reporting

Rodney Davidson

Core Functions

- Assess and apply best practices technologies to enhance the District's educational and technological objectives

- Develop and implement data quality and review programs to ensure that data submitted for federal and state reports are accurate and submitted in a timely fashion.

- Define and document data collection standards

- Transmit/receive student and staff surveys, and requested information, reports, and publications from the FLDOE

Workload indicators

Support of all schools in numerous survey formats as identified in the table below:

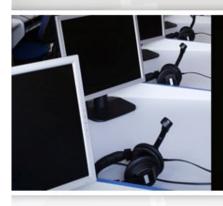| DataTransmissions	Student PK-12	Staff	WDIS	WDIS Federal Reporting (separate from DOE Reporting)
Surveys:	14	4	8	7
Formats:	21	13	7	12
Format Transmissions:	229	66	86	9
Number of Records:	1,806,112	186,105	51,361	11,218
Number of Elements Transmitted:	52,830,595	2,732,698	1,090,915	160
Edit Rules:	1,496	539	240	
System Programs:	84	52	28	
Report Request:	500	140	200	

Points of Pride

- Staff Survey processing is now completed using the CrossPointe.net Business Application

- Certify has been implemented for all major K-12 and Postsecondary Student surveys

- Report Splitter has been fully implemented for all K12 survey report distribution

Accountability

- Performance
- Progress
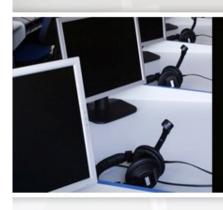- Assessment
- Funding

Reporting

- US Department of Education
- Florida Department of Education
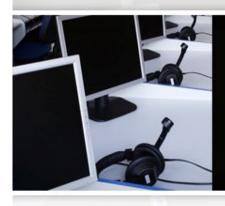- School District
- Community

Funding

- Adequate
- Accurate
- Timely
- Needs-based

Challenges

- Too much data, too little time, too few resources
- Difficulty making schools accountable for the quality of their students' data
- Frequent changes to federal and state reporting requirements
- Under-reporting of district needs may be difficult to catch

Challenges (con't)

- Highly paper-based, labor-intensive
- Difficulty identifying complex data errors
- Florida DOE withholds funding if districts do not report data correctly

WARNING

CHALLENGES AHEAD

Steps Taken

- To Improve Data Quality and Efficiency
  - Implemented Two Major Software Applications
    - Certify
    - Report Splitter

Certify

- Beginning in 2008, Sarasota County Schools instituted a daily, continuous data quality review process which
  - Provides an easy, cost-effective method for automatically validating and monitoring data on a daily basis
  - Ensures that student, school and district data are complete, accurate and up-to-date, by providing an easy and streamlined process

CERTICA
SOLUTIONS

Certify (con't)

- Today:
  - Schools take responsibility for the quality of their data
  - Data quality metrics are updated every day
  - Expensive, paper-based processes have been eliminated
  - Help desk calls have been reduced
  - District and school staff follow a self-service model for reviewing and remedying data quality issues

CERTICA
SOLUTIONS

Report Splitter

- Beginning in 2008, Sarasota County Schools instituted a paper reduction and time management process which
  - Automatically split AS400 reports into manageable sections
  - Allows users to define the locations that get scanned on each page
  - searches, selects and sorts the resulting pages into sections based on your selection criteria

rjs Software Systems

Report Splitter (con't)

- Today:
  - District and school staff have direct access to local and DOE reports electronically
  - Expensive, paper-based processes have been eliminated
  - Provides faster turnaround on data corrections
  - Improves time management significantly
  - District and school staff no longer have to wait for printed copies

rjs Software Systems

Information Technology

Conclusion

Other Points of Pride

- Introduced the use of iPads by administrators to aid in their use of "technology on the go" and reduce the need for costly mobile devices.

- Conducted a Technology Needs Assessment district wide to monitor and evaluate what tools are being utilized in the classrooms and departments and assist in defining future technology initiatives.

- Conducted Internet Safety presentations for students and parents at several traditional and charter schools throughout the district.

Collaborative Partnerships

- Sarasota County Government
- HP/Vitil
- Microsoft
- Comcast
- Technology Advisory Committee
- YOU!

Questions?