Supporting the 21st Century Learner

Jhone Ebert
Chief Technology Officer
Clark County School District

EXHIBIT T - EDUCATION
Document consists of 25 pages.
Entire document provided.
Meeting Date 05-09-12

Clark County School District

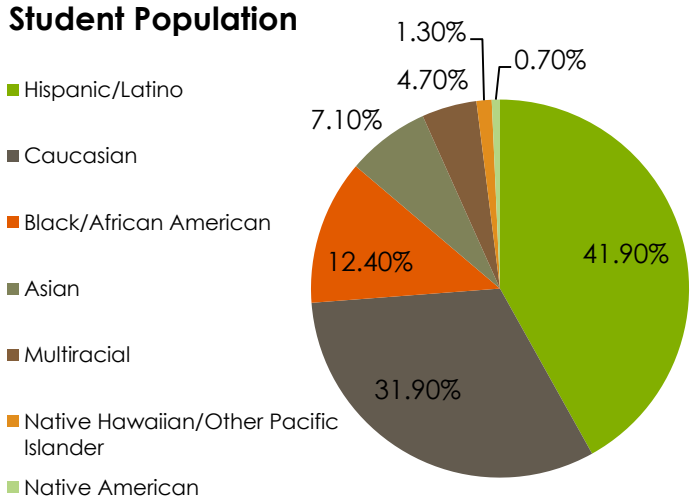
The District employs **37,341 employees** including full-time, part-time, substitute, and temporary employees

2010-2011 General fund operating budget **$2.13 billion**

2010-2011 enrollment **309,893 students**

357 schools

- 217 Elementary schools
- 59 Middle schools
- 49 High schools
- 24 Alternative schools
- 8 Special schools



CCSD is the **5th Largest** School District in the Nation.

Challenges

- Too few islands of excellence
- Achievement gaps are too great
- Reserved expectations of excellence

Strategies

- Embrace transparency
- Welcome criticism
- Partner with critical friends

Focus for Action

- **Harness breakthrough innovation** and redefine how schooling is accomplished.
- **Fully tap the potential of a new model of schooling**.
- **Align resources to our highest priorities** and execute with precision.
- **Continue to do what works** and stop doing what does not.

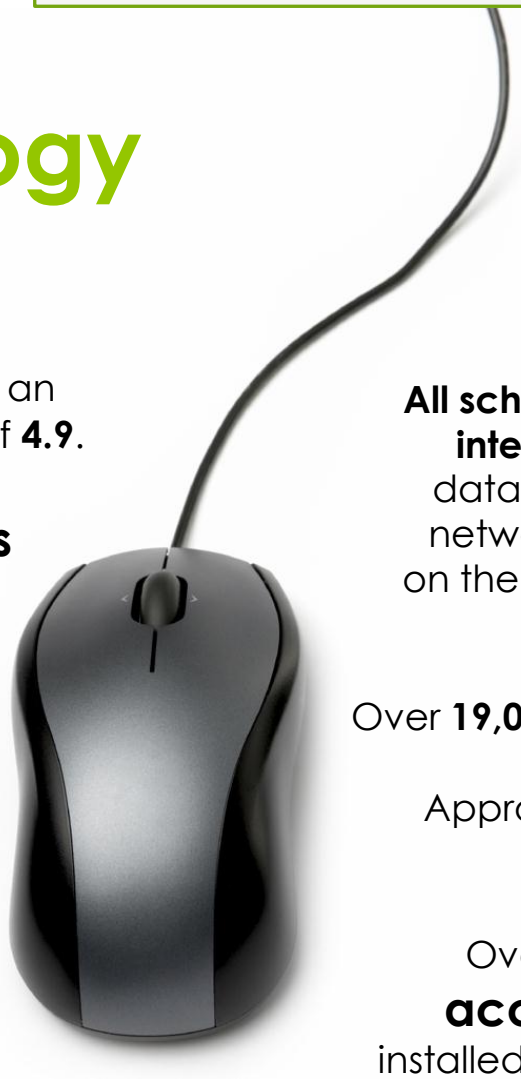
CCSD Technology

105,000 computers supported with an average child to one computer ration of **4.9**.

Over **150 million email messages** are delivered each year; spam filters caught **300 million spam messages** last year.

6,000 business process jobs are processed monthly.

There are over **32,000 telephones** on the CCSD telephone network, with over **75,000,000 calls** processed per year.



All schools and sites are interconnected via a data communications network; most sites are on the gigabit WAN (1.5 Gb/s capacity).

Over **19,000 data switches**

Approximately **120,000 data ports**

Over **12,400 Wi-Fi access points** are installed in CCSD schools.

Current Projects and Comparisons

Major Projects

Comparisons

1:1 Initiatives

Recommended Equipment Life Cycle

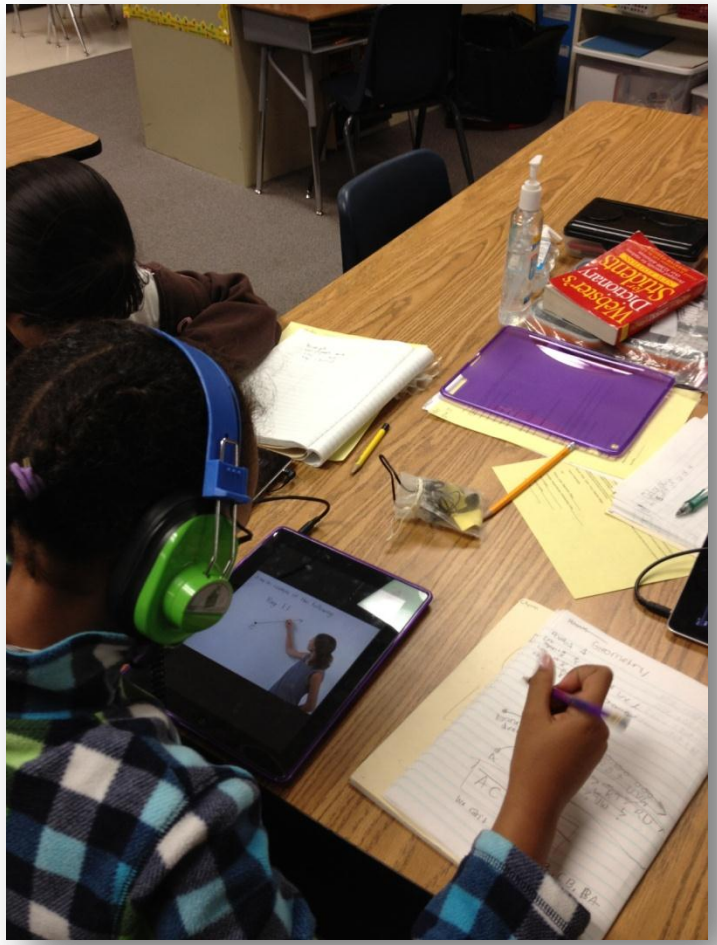
(examples)

Equipment	Recommended Upgrade (yrs)	CCSD Upgrade (yrs)	Difference
Backbone (WAN) Routers	5 years	7 years	2 years
Campus Wiring	9.5	15 years	5.5 years
Digital Telephones	6 years	12 years	6 years
Servers	4 years	5 years	1 year
Network Switches	4.5 years	10 years	5.5 years
Wi-Fi Access Points	3 years	5 years	2 years

Information taken from Network World, "When to Upgrade", November 2005
http://www.networkworld.com/supp/2005/tips/112805-lifecycle-tips.html

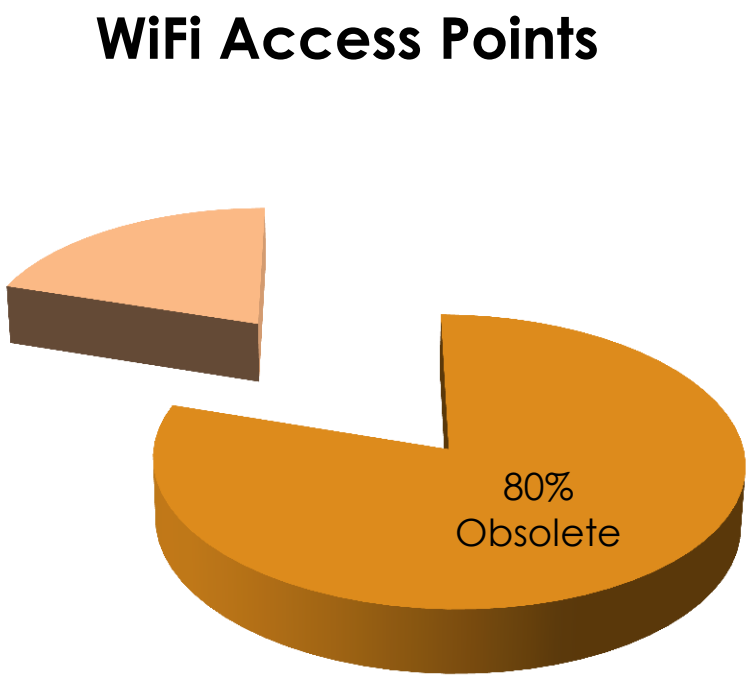
Other Devices

- Purchased by schools and departments
  - Printers
  - Projectors
  - Whiteboards
  - Document Cameras
- Annual cost = $3.7 million



WiFi

- WiFi is available in most schools
- Annual Cost = $2.2 Million



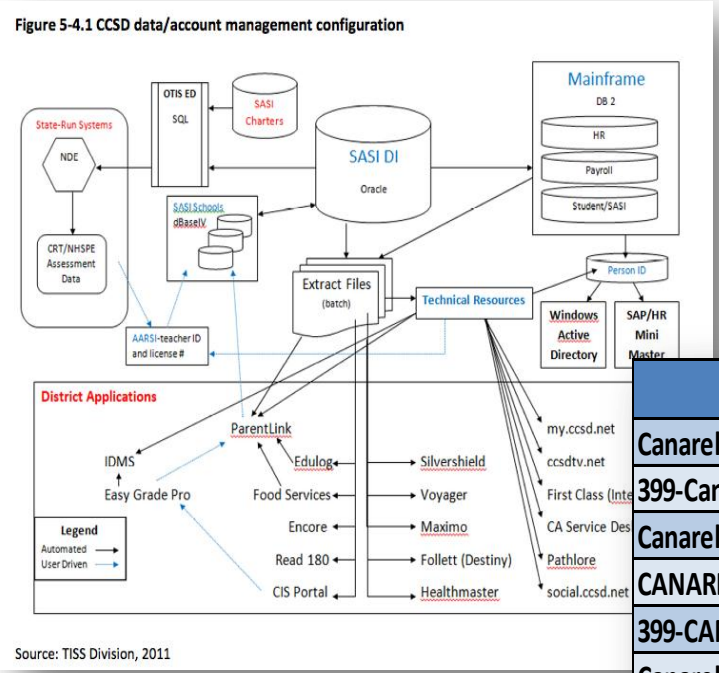
Internet

- Proxy servers
- Firewalls
- Access to the internet
- Total annual cost is $780,000

High Priority Projects

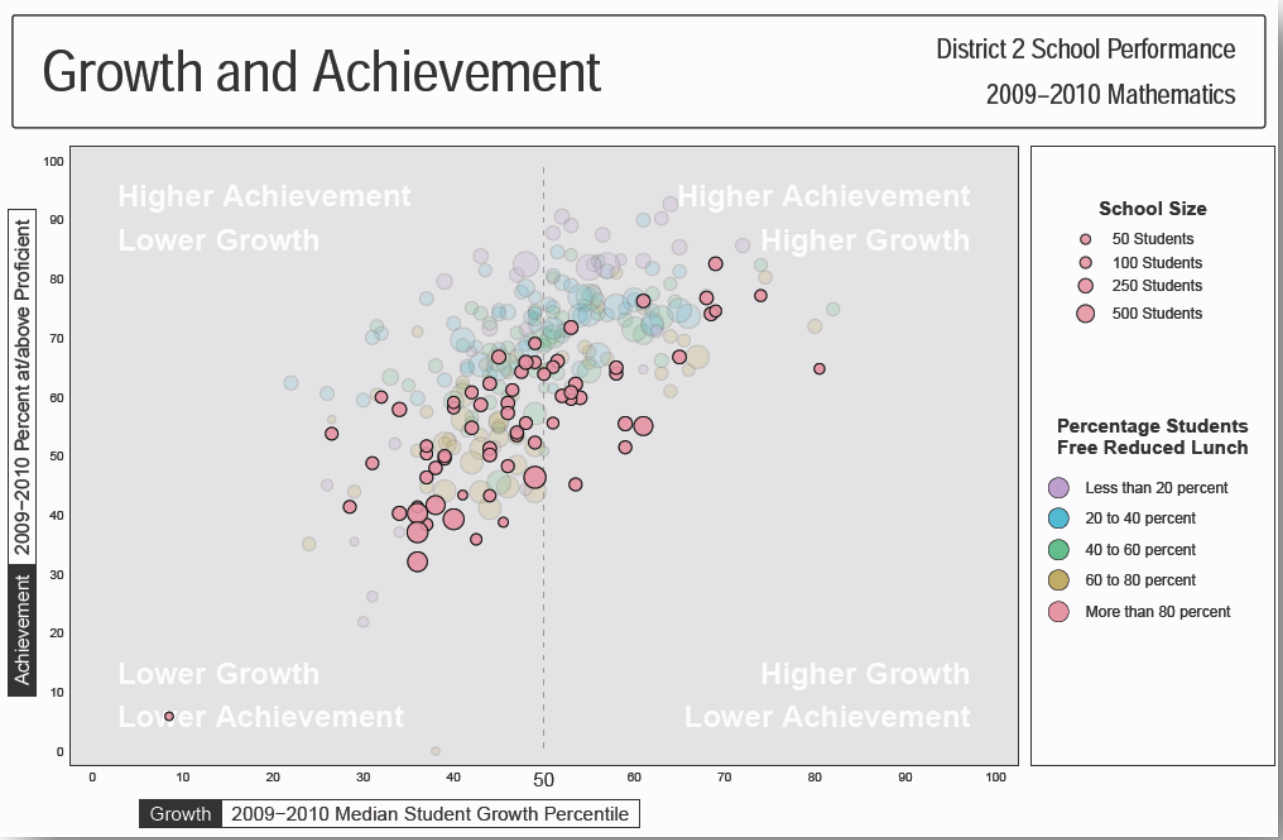
Project	Description	Estimated Cost
Data Management	Establishing and implementing enterprise data standards, data processes, clear staff roles and responsibilities for data management, and efficient data integration across all mission-critical systems.	$7.7 Million
Business Intelligence	Implementation of the already identified SAP Business Objects has been identified as the Business Intelligence platform for the District.	$1.6 Million
Identity Management	Implementation of an Identity Management System to streamline provisioning of users into systems, reducing or eliminating delays in getting staff access to applications.	$1.4 Million
Microsoft Windows and Active Directory Conversion	Conversion from Novell Netware to Microsoft Windows and Active Directory to allow the District to implement additional services and to keep pace with industry standard directory structures.	$1.63 Million
SIS Replacement	Selection and implementation of the new student information system (SIS) to replace SASI.	$23 Million

Data Management (example)

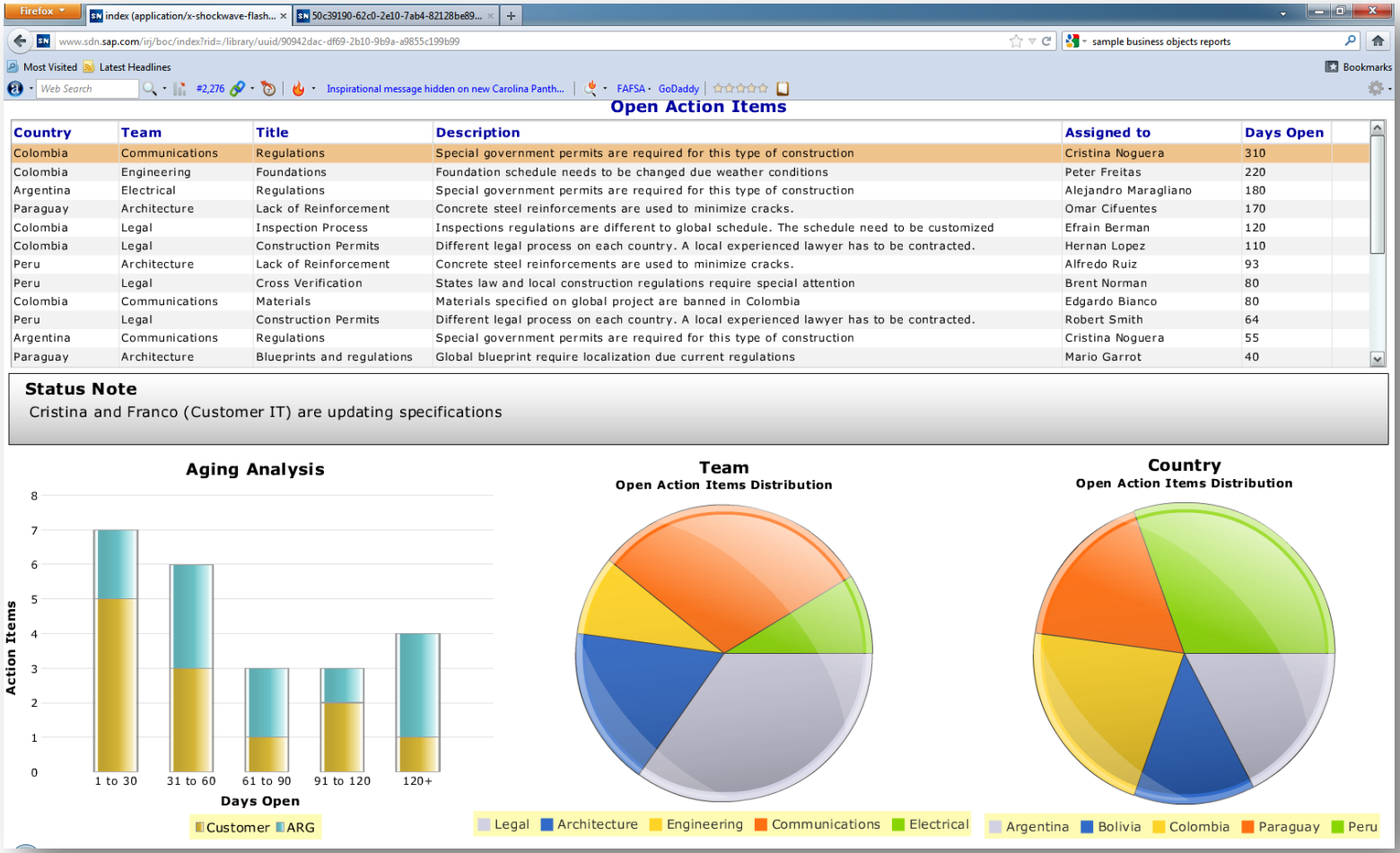


School Name	Source
Canarelli, Lawrence & Heidi MS	SASI.SCHOOLS
399-Canarelli Middle School	SASI.ASCH
Canarelli, Lawrence & Heidi MS	ccsd.net
CANARELLI H AND L MS	RSTARS
399-CANARELLI MIDDLE SCHOOL	Screen 19
Canarelli, Lawrence & Heidi MS	School Telephone Directory
CANARELLI MS	SAP Org Hierarchy
399-Canarelli MS	11-12 Official CCSD Count Day Demographics .xlsx
Canarelli, Lawrence & Heidi MS	TISS ServiceDesk
Canarelli Middle School	ParentLink
Canarelli, Heidi & Lawrence MS	School Payment Solutions
Canarelli MS	Nevada Growth Model

Nevada Growth Model

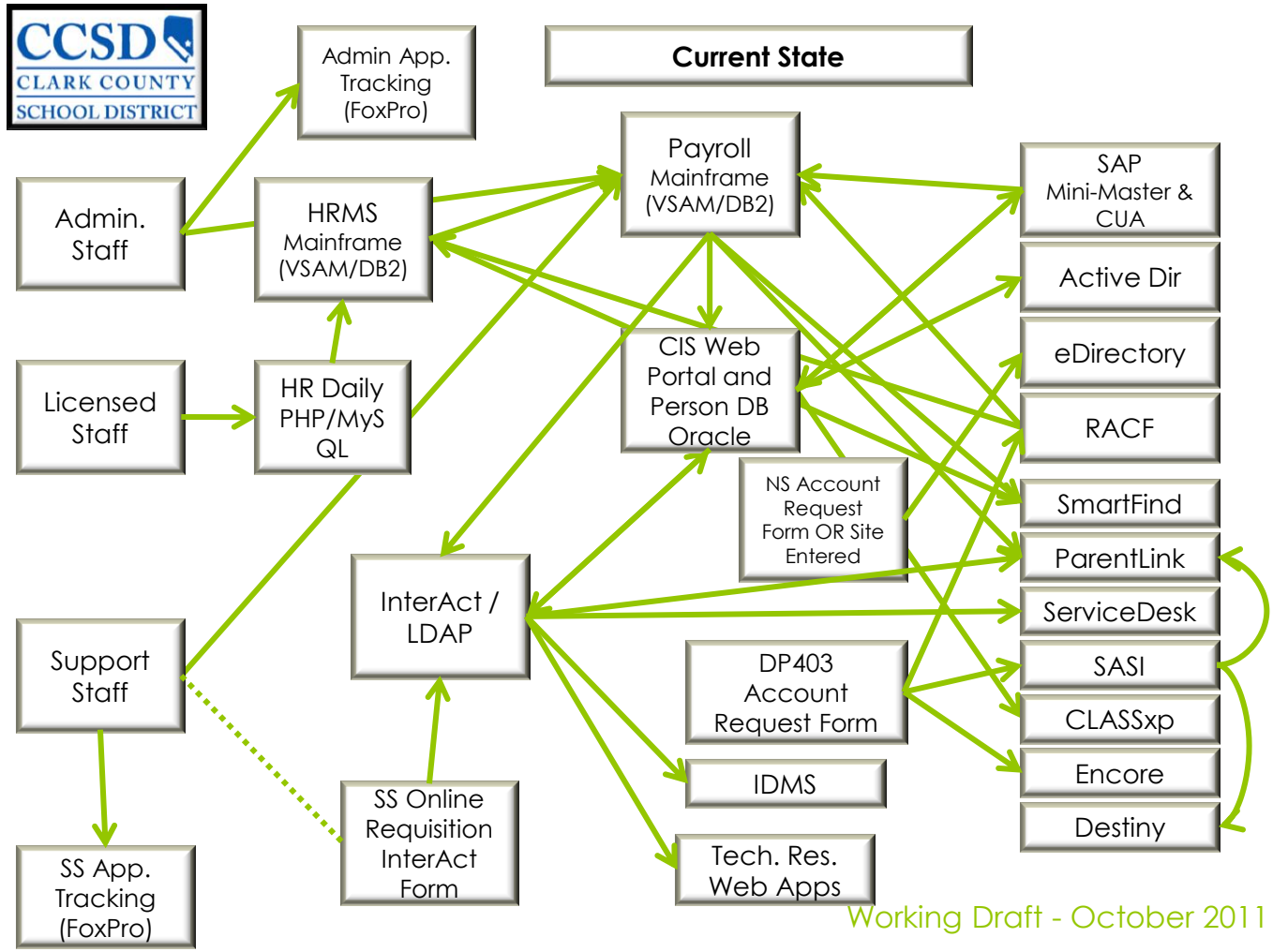


Business Intelligence



Country	Team	Title	Description	Assigned to	Days Open
Colombia	Communications	Regulations	Special government permits are required for this type of construction	Cristina Noguera	310
Colombia	Engineering	Foundations	Foundation schedule needs to be changed due weather conditions	Peter Freitas	220
Argentina	Electrical	Regulations	Special government permits are required for this type of construction	Alejandro Maragliano	180
Paraguay	Architecture	Lack of Reinforcement	Concrete steel reinforcements are used to minimize cracks.	Omar Cifuentes	170
Colombia	Legal	Inspection Process	Inspections regulations are different to global schedule. The schedule need to be customized	Efrain Berman	120
Colombia	Legal	Construction Permits	Different legal process on each country. A local experienced lawyer has to be contracted.	Hernan Lopez	110
Peru	Architecture	Lack of Reinforcement	Concrete steel reinforcements are used to minimize cracks.	Alfredo Ruiz	93
Peru	Legal	Cross Verification	States law and local construction regulations require special attention	Brent Norman	80
Colombia	Communications	Materials	Materials specified on global project are banned in Colombia	Edgardo Bianco	80
Peru	Legal	Construction Permits	Different legal process on each country. A local experienced lawyer has to be contracted.	Robert Smith	64
Argentina	Communications	Regulations	Special government permits are required for this type of construction	Cristina Noguera	55
Paraguay	Architecture	Blueprints and regulations	Global blueprint require localization due current regulations	Mario Garrot	40

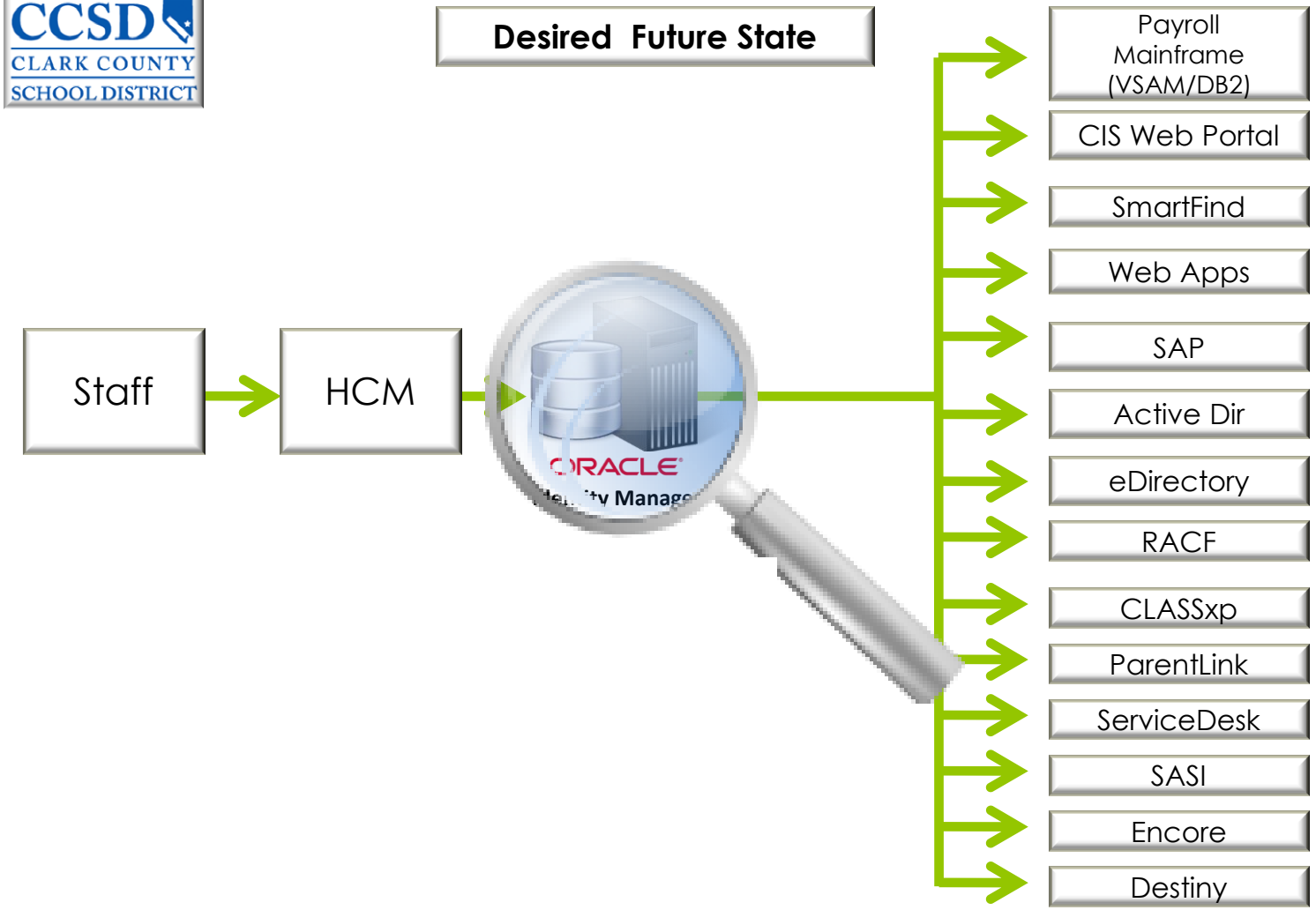
Identity Management (example)



Working Draft - October 2011

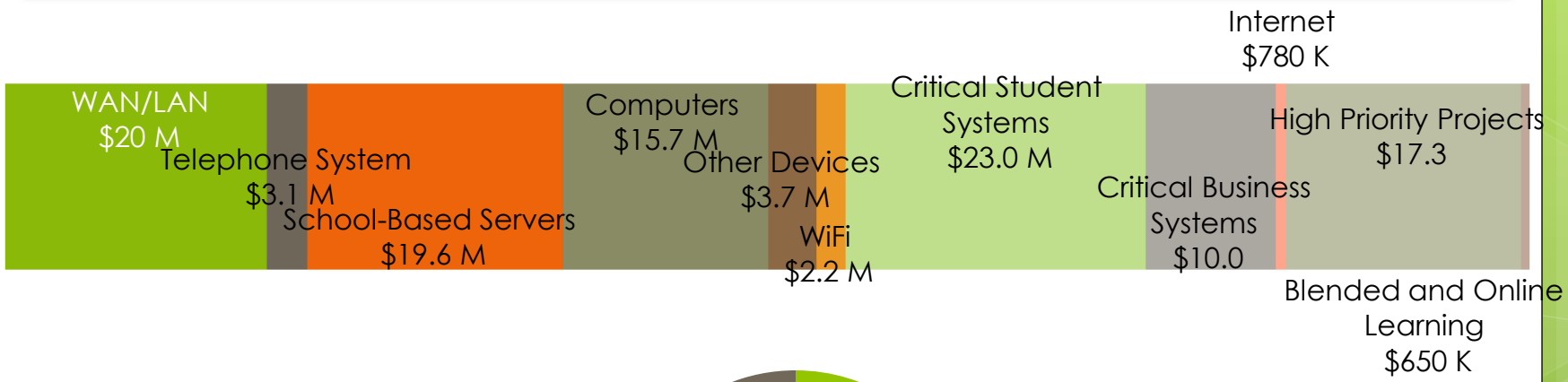
CCSD
CLARK COUNTY
SCHOOL DISTRICT

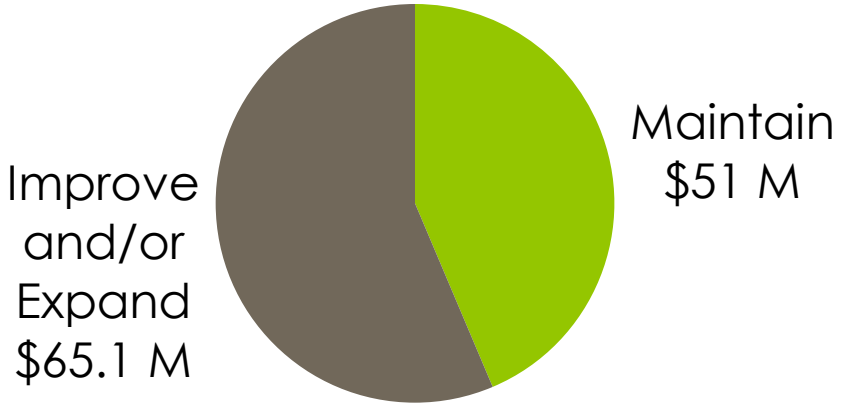
Desired Future State



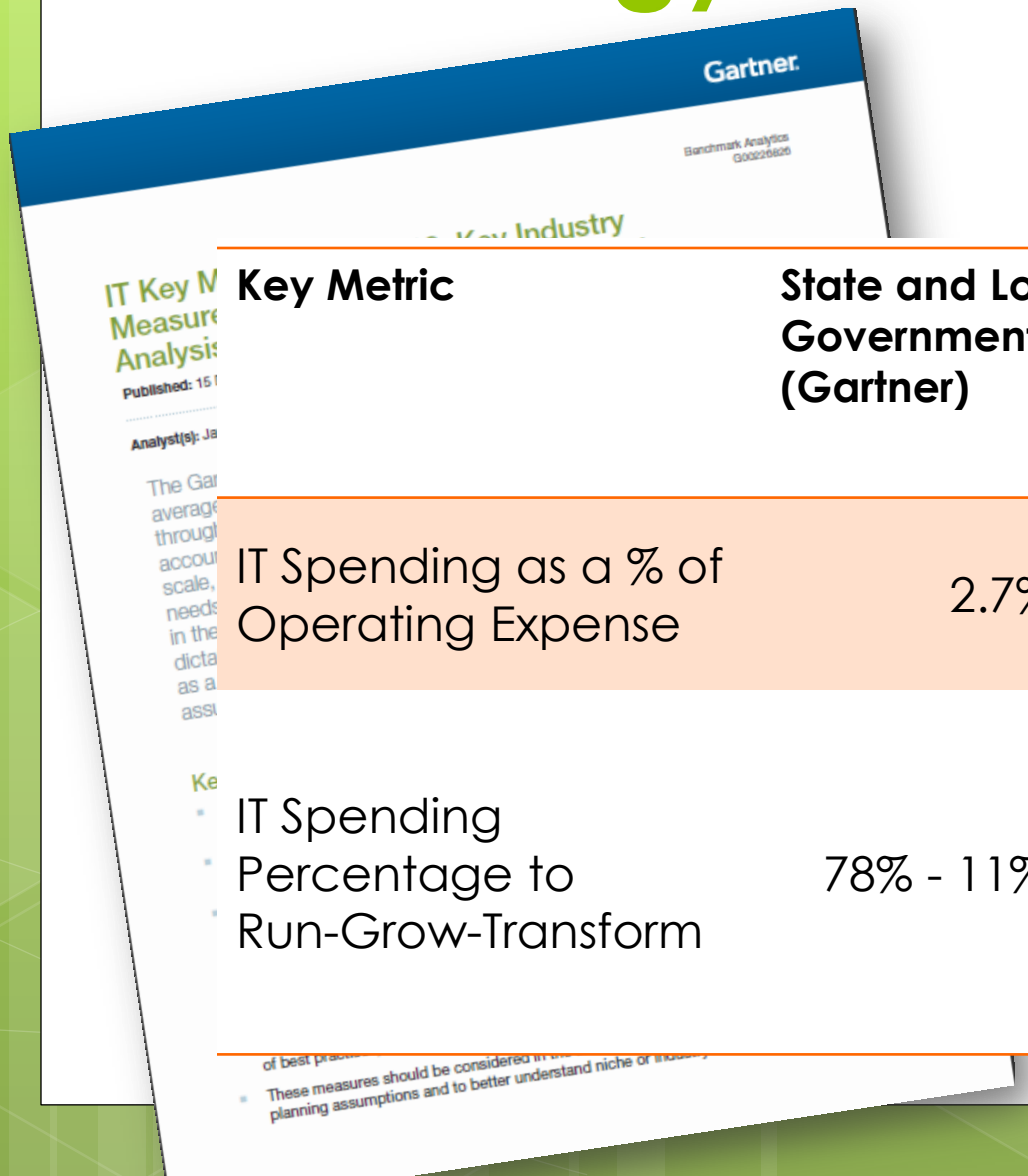
Budgetary Considerations

$ 116.1 million





Technology Metrics



Key Metric	State and Local Government Entities (Gartner)	Clark County School District
IT Spending as a % of Operating Expense	2.7%	1.7%
IT Spending Percentage to Run-Grow-Transform	78% - 11% - 11%	100% - 0% - 0% Currently Funded 50% - 10% - 40% Desired State (estimated)

the
infoSavvy
group

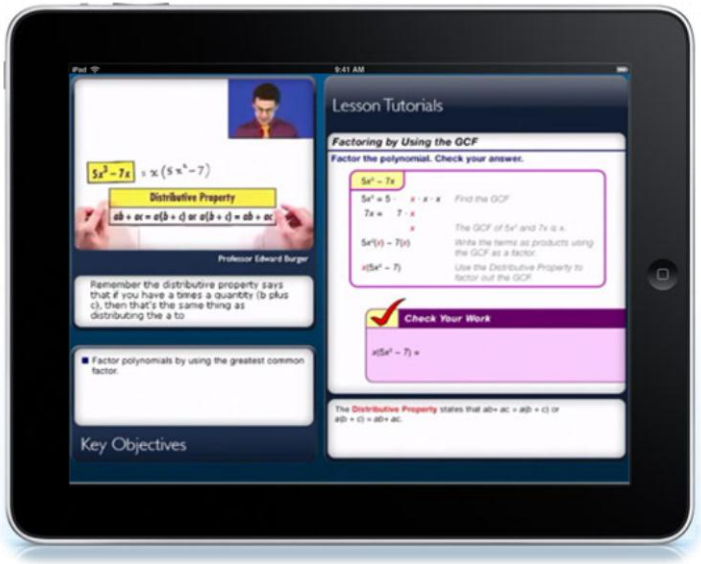
Mobile Devices and 1:1 Model

For students to use a mobile device, they must have:

- Device
- Access to content
- Access to LAN, WAN, Internet

Teachers and schools must have:

- Software
- Professional Development
- Related Services



Diverse pathways to high school completion

- Immediate targeted implementation to increase the graduation rate **this year**.
  - **Competency-based education**
- Credit retrieval
- Dropout recovery

Blended learning

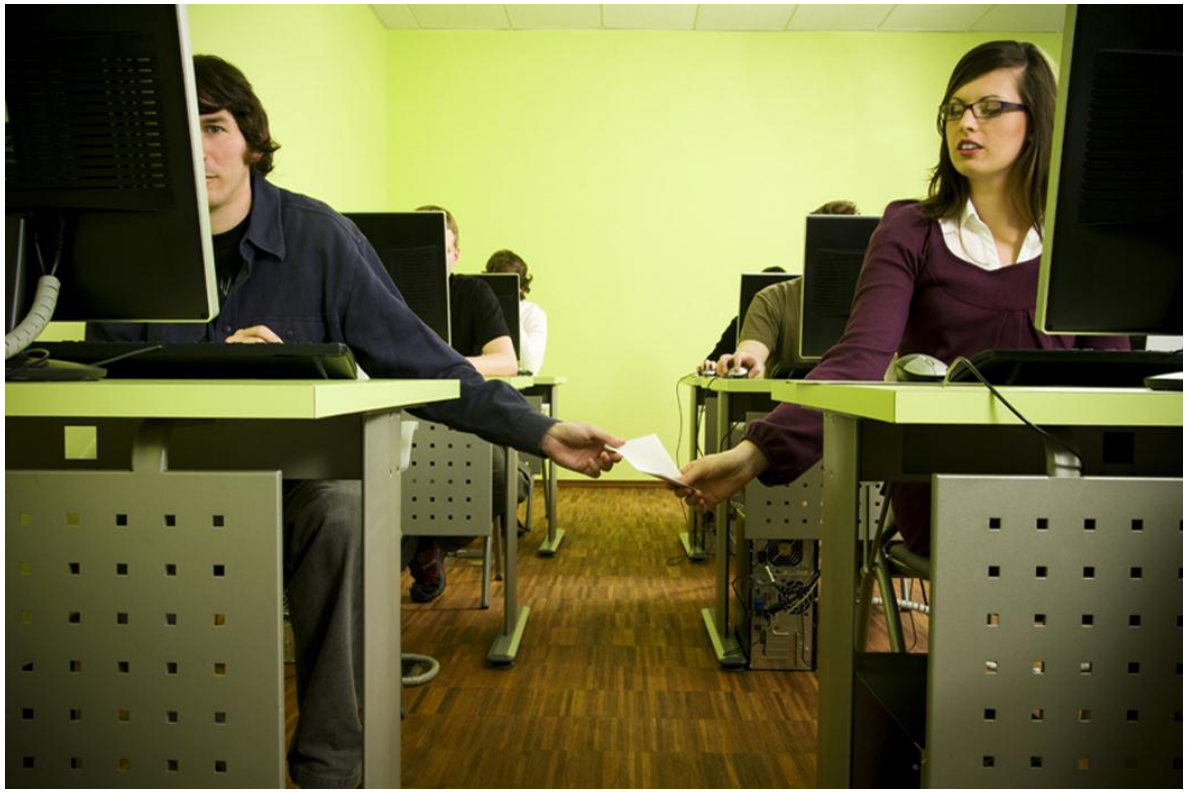
- Innovative Learning Environments
  - Unique and specialized programs at all CCSD schools
  - Aligned professional development
  - Virtual High School and Academy of Individualized Study
  - Blended Learning and Technology Resources Task Force

Blended & Online Learning

- 100,00 students blended/online by 2015
- Shifting the K-12 learning environment from the present arrangement to one that is instead almost entirely composed of blended or full-time virtual learning
- $300 per student/per course/per semester

Our Charge

"All our efforts have one purpose.
It is to ensure all students are ready by exit."

— Superintendent Dwight D. Jones

Connections