

**DONUT CHART INFRASTRUCTURE UPDATE
AS OF 06-15-2010**

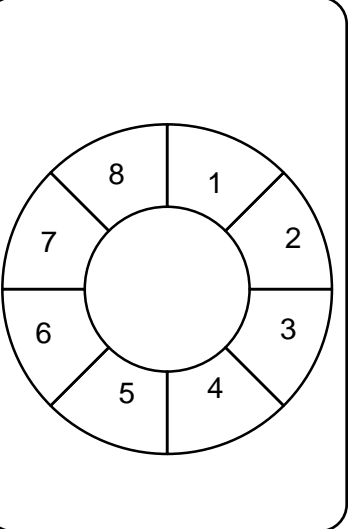
School E-Rate Percentage LEGEND

LEGEND	90% SCHOOLS
	80% SCHOOLS
	60% SCHOOLS
	50% SCHOOLS
	40% SCHOOLS
	NEW SCHOOLS REQUESTED AT 81%

BACKGROUND AREA:

K-8 CENTERS
PRIMARY LEARNING CENTERS (PLC)
ALTERNATIVE SCHOOLS

Tracking LEGEND

SCHOOL NAME	
	1- E-RATE PARTICIPATION (2/5 YEAR RULE)
	2- SCHOOL WAN BANDWIDTH CAPACITY
	3- WAN BANDWIDTH UTILIZATION (%)
	4- FIREWALL & DOMAIN CONTROLLER
	5- CIPA & PC COMPLIANCE TO DISTRICT STANDARDS
	6- BACKBONE - 10 GIG
	7- ITS CAMPUS - WIDE WIRELESS INSTALLED
	8- PBX UPGRADE / REPLACEMENT

DONUT CHART INFRASTRUCTURE UPDATE

AS OF 06-15-2010

1- E-RATE PARTICIPATION (2/5 YEAR RULE)

RED: TWO YEARS
YELLOW: ONE YEAR
GREEN: NOT USED

2- SCHOOL WAN BANDWIDTH CAPACITY

PURPLE: 100 MB
BROWN: 10 MB
BLUE: 1 GB
GREY: FRAME RELAY ONLY

3- WAN BANDWIDTH UTILIZATION (%)

RED: 100% - 90%
YELLOW: 89% - 75%
GREEN: 74% - 0%

4- FIREWALL & DOMAIN CONTROLLER

RED: NO DOMAIN CONTROLLER OR FIREWALL
YELLOW: FIREWALL ONLY
GREEN: INSTALLED
BLUE: DOMAIN CONTROLLER ONLY

5- CIPA & PC COMPLIANCE TO DISTRICT STANDARDS

RED: NOT INSTALLED
YELLOW: SCHEDULED
GREEN: COMPLETED
BLUE: NOT REQUIRED

6- BACKBONE - 10 GIG

YELLOW: PLAN IN PLACE TO PROVIDE 10 GBS
GREEN: SUPPORTS 10 GBS
BLUE: CURRENT 100 MB - 1GB BACKBONE IS SUFFICIENT

7- ITS CAMPUS - WIDE WIRELESS INSTALLED

RED: NOT UPGRADED
YELLOW: UPGRADE PLAN IN PROGRESS THIS YEAR
GREEN: UPGRADE COMPLETED
BLUE: PARTIAL WIRELESS ZONES

8- PBX UPGRADE / REPLACEMENT

RED: LEGACY SYSTEM IN PLACE
YELLOW: INSTALLATION IN PROGRESS THIS YEAR
GREEN: INSTALLATION COMPLETED
GREY: SYSTEM NOT PROVIDED BY M-DCPS

LEGEND DETAILED DESCRIPTION

Category 1 - E-RATE PARTICIPATION (2/5 YEAR RULE) – The E-Rate program guidelines starting with Funding Year 8 (2005-2006), stipulate that Priority Two funds (generally referring to the purchase of Field Equipment) for any given school can only be requested twice in five years. As an example, M-DCPS accepted funds in Year 8 (2005-2006) for the purchase of equipment in 90% schools. This uses up one year for those schools involved. In Funding Year 10 (2007-2008) M-DCPS requested funds to purchase equipment for ALL 90% and 80% schools in the district. Therefore, the 90% schools would be shown as RED, indicating that the two year allotment has been used and no further requests can be made for those schools until Funding Year 13 (2010-2011). In other cases, all 80% schools and below will be shown as YELLOW, indicating that one of the two allotted years is being used.

Category 2 - SCHOOL WAN BANDWIDTH CAPACITY – This represents the total bandwidth (Mbs) capacity provided to the site for Wide Area Network access. Every site has at least one T-1 Frame-relay circuit (1.5Mbs). Most sites also have a Metro Ethernet connection over fiber of either 100Mbs or 10Mbs connected to a different router at ITS. If a site has Frame-relay circuit(s) only, this section is Grey, sites with Frame-relay and 10Mbs MetroEthernet are Brown; sites with Frame-relay and 100Mbs MetroEthernet are Purple; and sites with Frame-relay and 1000Mbs MetroEthernet are Blue.

School WAN Bandwidth Capacity = "10 Mbs NMLI", "Brown",
School WAN Bandwidth Capacity = "100 Mbs NMLI", "Purple",
School WAN Bandwidth Capacity = "Frame-Relay Only", "Grey",
School WAN Bandwidth Capacity = "1000 Mbs NMLI", "Blue"

Category 3 - WAN BANDWIDTH UTILIZATION PERCENTAGE – This represents the usage of available bandwidth during normal business hours (8:00am – 3:00pm; Monday-Friday) for the past quarter. This usage is for general Internet traffic, email, and all other district applications. If the bandwidth utilization is below 60%, this section is Green; over 75% and less than 90%, this section is Yellow; and over 90%, this section is Red.

WAN Bandwidth Utilization Percentage >0 and WAN Bandwidth Utilization Percentage <= .74999, "Green",
WAN Bandwidth Utilization Percentage >= .75 and WAN Bandwidth Utilization Percentage <= .89999, "Yellow",
WAN Bandwidth Utilization Percentage >= .90, "Red"

Category 4 – FIREWALL AND DOMAIN CONTROLLER– Tipping Point Intrusion Prevention Systems (IPS) provides stateful access control rules based on source and destination IP and port and protocol as tradition firewall would. The IPS can also provide application control for Peer-to-Peer, spyware, instant messaging, and other unwanted applications. Tipping Point goes beyond what any traditional firewall can provide, giving protection against vulnerabilities in applications and operating systems. Microsoft Windows Active Directory Domain Controllers provide district sites with local authentication to District servers and network resources. Local domain controllers ensure that school resources are available in case of a network outage and allows for faster Active Directory searches.

Domain Controller and Firewall installed, "Green"
Firewall Only, "Yellow"
Domain Controller Only, "Orange"
No Domain Controller or Firewall, "Red"

Category 5 – C.I.P.A. (Children Internet Protection Act) and PC COMPLIANCE TO DISTRICT STANDARDS – The compliance indicated in segment 5 of the Donut Chart is first a measure of total CIPA Compliance as required by the E-Rate program. Further, this category measures whether the desktop computers and servers at the school are compliant with district standards for patch management and virus protection. To comply with the patch management requirement the computers must be running BigFix. To comply with the virus protection requirement the computers must be running Sophos Antivirus. Schools must have 90% or more compliant computers to be green, 50-89% to be yellow or 49% or less to be red.

Category 6 – BACKBONE – 10 GIG – References the data communication infrastructure between the main distribution frame - MDF and the intermediate distribution frames - IDFs. Data communication switching equipment is interconnected using fiber cable wiring providing servers, computers, printers, storage devices and other peripherals with network, mainframe and internet access with transmission speeds of up to 10 GBps – 10 gigabits per second or a data transfer rate equal to ten billion (10,000,000,000) bits.

Green indicates Backbone currently supports 10 Gbs
Yellow indicates plan in place to provide 10 Gb Backbone
Blue indicates Backbone currently supports 100 Mbs to 1 Gb

Category 7 - ITS CAMPUS-WIDE WIRELESS INSTALLED – Technology is rapidly moving away from the traditional wired infrastructure. The portability of wireless ensures agile content delivery to meet the needs of our dynamic student population. Laptops are now becoming the norm for staff and high school students in addition to PDA devices. We are currently standardizing on providing localized school-wide wireless connectivity. For those schools that have benefited from new construction, or E-Rate grants, category 7 will be green if the location has school-wide wireless connectivity. If category 7 is yellow it signifies that funds have been identified and there is a plan in place to provide school-wide wireless connectivity. Unfunded locations will be designated by red. Some locations do not warrant wireless due to their size or function. In such cases, category 7 will be blue.

Category 8 – PBX UPGRADE / REPLACEMENT - ITS identified a plan to replace equipment installed almost a decade ago leveraging Federal funding dollars provided by the Schools and Libraries Division (SLD) E-Rate. The plan, if fully approved would provide state of the art telecommunications services and equipment such as Voice over Internet Protocol (VoIP) capability, Voice Mail with automated attendant and a host of new features that have matured over the last five to seven years. In addition, the newer equipment will provide improved remote monitoring and diagnostics that will reduce operating expenditures and increase reliability.

ESE - REGION

8181 -Ruth Kruse
Educational

