January 2013

TO: District Superintendents
Superintendents of Public and Nonpublic Schools
Principals of Public, Charter, and Nonpublic Schools

FROM: Ken Wagner

SUBJECT: Technology Purchases to Support the Implementation of the New York State P-12 Common Core Learning Standards

This memorandum is intended to provide Boards of Cooperative Educational Services (BOCES), school districts, charter and other public schools, and non-public schools with guidance on the purchase of the technology devices, infrastructure, and broadband connectivity that support personalized learning, the implementation of the New York State P-12 Common Core Learning Standards (CCLS), and computer-based testing (CBT).

Although technology can support personalized learning and the implementation of the CCLS in many ways, there are additional requirements to consider when making technology purchases that are intended to support computer-based testing (CBT). Given limited fiscal resources and best professional practices, the most cost-effective option may be to purchase dual-use devices, which can be used for both CBT and other general classroom purposes.

Next-Generation Assessments and Computer-Based Testing

The New York State Education Department (NYSED) will deploy New York State's next generation of summative assessments that measure the CCLS beginning in the current school year for the Grades 3-8 English Language Arts (ELA) and Mathematics tests, and beginning in the 2013-14 school year for the ELA and selected Mathematics Regents examinations. In addition, New York is a governing state within the Partnership for Assessment of Readiness for College and Careers (PARCC) consortium, a group of 22 states and the District of Columbia, which is developing assessments in Grades 3-11 that measure the Common Core State Standards. The PARCC consortium is planning its first operational test administration in the 2014-15 school year.

Although the Board of Regents has not yet determined whether to adopt the PARCC assessments when they are available, both the New York State and PARCC assessments will be implemented with the support of technology. The New York State assessments will phase in CBT over time, beginning with field tests as soon as the 2013-14 school year. The PARCC assessments are being designed for computer-based administration. See below for a summary of upcoming CBT opportunities. NYSED will continue to update this chart as timelines are finalized.

Opportunities for CBT[1]

Grade Level	Spring 2013	Spring 2014	Spring 2015
3-5	PARCC Item Tryout	PARCC Field Tests	PARCC Assessments become Operational in NYS (subject to Board of Regents approval)
6-8	PARCC Item Tryout	PARCC Field Tests Potential NYS CBT Field Tests	PARCC Assessments become Operational in NYS (subject to Board of Regents approval)
9-12	PARCC Item Tryout	PARCC Field Tests	PARCC Assessments become Operational in NYS (subject to Board of Regents approval)

Since both the New York State and PARCC assessments will require CBT, schools and districts should establish goals and plans that guide decisions on how many and what types of technology devices to purchase prior to the 2014-15 school year.

Please note that CBT is only one purpose for which technology devices can be used to assist students and their teachers. We strongly recommend the dual use of these devices to support general classroom instruction and personalized learning opportunities.

How Many Devices Are Needed to Support CBT and Other Classroom Purposes

The number of devices needed to support a CBT program depends on the number of students who must be tested simultaneously in order to complete the test within a given administration window.

Since the details of the PARCC administration are not yet determined, it is advisable that schools and districts aspire toward the capacity to administer a computer-based assessment simultaneously to all students in a single tested grade within an elementary, middle, or high school grade span (i.e., Grades 3-5 or 6-8 or 9-12). Schools that enroll only one grade span should aspire to have an available CBT-compatible device for each student in the largest tested grade in the school, along with the necessary infrastructure and broadband connectivity. Schools that enroll multiple grade spans (e.g., a K-8 school) should

---

[1] Dates are projected and subject to change. Statewide PARCC assessment adoption is subject to Board of Regents approval. The Department will continue to pursue a strategy that allows additional New York State CBT pilot and operational exams.

aspire to have sufficient devices to test multiple grades simultaneously. See below for a summary.

Recommended Device Counts for Goal-Setting Purposes[2]

Grade Configuration	Example	Recommended Count (one CBT-compatible device for each student in the largest tested grade within each tested grade span)
One Tested Grade Span (Grades 3-5 or 6-8 or 9-12)	Grade K-5 school with 100 students per grade	100 (100 students within the Grades 3-5 tested grade span)
Two Tested Grade Spans (Grades K-8 or 6-12)	Grade K-8 school with 100 students per grade	200 (100 students in each of two tested grade spans – Grades 3-5 and 6-8)
Three Tested Grade Spans (Grades K-12)	Grade K-12 school with 100 students per grade	300 (100 students in each of three tested grade spans – Grades 3-5 and 6-8 and 9-12)

This guidance is not intended as absolute, but rather as information to be used for local goal-setting purposes against which to gauge current status and plan future purchasing decisions.

What Types of Devices Are Needed to Support CBT and Other Classroom Purposes

PARCC has recently released minimum and recommended CBT-compatible device specifications at http://parcconline.org/technology (see "Technology Guidelines for PARCC Assessments: Version 2.0" attached) that include the following general guidelines:

- Although Windows XP is common in schools, Microsoft is discontinuing support for XP in August 2014, creating security and support risks for schools. In addition, XP machines may be slower overall and may not have sufficient processor or memory capacities to upgrade.
- Tablets – PARCC will support iPad version 2 or later with iOS6 or newer installed and Android or Windows tablets or Chrome devices configured to meet security guidelines. External keyboards **may be required** for tablets to ensure that students are not at a disadvantage when producing content (e.g., composing an essay).
- There will be a 9.5 inch or larger minimum screen size requirement, meaning that tablets smaller than 9.5 inches (including well-known Kindle and iPad Mini tablets) will not be supported.

---

[2] In addition, this guidance is intended primarily for grade-specific assessments, such as those found within the current Grades 3-8 ELA and Mathematics assessment program and those planned for PARCC. Recommended device counts for tests taken by students in more than one grade level (e.g., Regents exams) would depend on the largest number of students who will need to take the test simultaneously.

- **All devices (including tablets) must support PARCC's security requirements**, including the "lock-down" during test administration of unrestricted internet access, cameras, screen capture, e-mail, messaging, etc., while simultaneously allowing a PARCC secure browser or other test software to access the device.

PARCC defines its minimum specifications as those necessary to satisfy PARCC requirements for the 2014-15 and 2015-16 school years. Devices meeting only these minimum specifications should be upgraded or replaced as soon as possible. PARCC's recommended specifications are designed to meet PARCC requirements through the 2018-19 school year.

The State Educational Technology Directors Association (SETDA) recently released guidance at http://www.setda.org/web/guest/assessment that included the following general principles (see the December 4, 2012 guidance document entitled "Technology Readiness for College and Career Ready Teaching, Learning and Assessment"):

- By the 2014-15 school year, schools will likely require external Internet connections to their Internet service provider of 100 Mbps per 1,000 students and staff. Local network architecture, server settings, the number of wireless access points, and weak wireless signals may affect performance in individual classrooms.
- It is strongly recommended that CBT-compatible devices be less than five years old at the time they will be used for CBT and other classroom purposes, and run on a currently-supported operating system with the latest software and security patches applied.
- When purchasing devices, schools should consider mobile/portable general purpose devices (laptops, tablets), devices that allow students to complete assignments and create content vs. only accessing or consuming content, and devices that support the needs of students with special needs, including students with disabilities and English language learners.

Finally, see http://www.p12.nysed.gov/technology/devices/home.html for NYSED's comprehensive technology guidance, including information about:

- Various uses of technology to support personalized learning, classroom instruction and the next generation of assessments that leverage computer-based testing;
- How to assess your school or district's technology readiness using the Technology Readiness Tool provided by PARCC;
- Infrastructure and technology device options;
- Available technical support; and
- Available State and Federal funding sources.

Planning Purchases Prior to the 2014-15 School Year

There are only two budget cycles prior to the 2014-15 school year. Therefore, districts and schools planning to make CBT and other educational technology investments through the annual budget cycle have two opportunities remaining: winter 2013 while preparing the 2013-14 school year budget; and winter 2014 while preparing the 2014-15 school year budget.

Although the guidance contained in this memo may change as the available technology and product offerings of the CBT market continue to mature, NYSED's recommendation for the 2013-14 school year is to budget for the purchase of as many dual-use devices as possible to reduce the current gap between existing counts and the recommended / goal-setting count described above (one device for each student in the largest tested grade in the school in each tested grade span). In addition, districts may wish to check with their Internet Service Provider for bandwidth testing/planning and with their computer network support provider to test/plan wireless coverage and/or internal wired network capacity. NYSED will revisit this guidance again next year as districts and schools approach the preparation for the 2014-15 budget cycle.

Finally, please note that although many educators are excited about the potential of tablet devices to support classroom instruction, the tablet market is still emerging, and there are issues around screen size, input methodology (peripheral keyboards and docks, touch screens, etc.) and security (potential access to the Internet during test administration) that should be considered by schools and districts when planning device purchases for CBT purposes. Traditional desktops and laptops are a more conservative and proven option for CBT purposes (it is possible that early pilots may not support a full range of tablet devices). In addition, laptop devices that can be moved throughout a school building while accessing the building's secure broadband network are particularly effective dual-use devices for classroom instruction and CBT purposes.

The fiscal resources listed in the Appendix of this memo, including the soon-to-be launched New York State School Technology Voucher Program, can be used to support these efforts. Your Regional Information Center (RIC) can assist with your planning, purchasing, deployment, and professional development processes.

For more information about the information contained in this memo, please contact the Office of Educational Design and Technology by e-mail at edtech@mail.nysed.gov, or by phone at (518) 474-5461. Thank you for your support as we continue with these complex and important initiatives.

Attachment

c.   Regional Information Center Directors
        Charter School Network Leaders

Appendix: Funding Sources

For additional information, see http://www.p12.nysed.gov/technology/devices/funding.html

This winter, NYSED expects to launch the New York State School Technology Voucher Program (NYS-STVP) that makes funds available from a previous Settlement Agreement between New York State consumers and Microsoft Corporation (Case No. 10519300, N.Y. sup. Ct.). We anticipate that these vouchers can be used for eligible technology purchases during the 2012-13 and 2013-14 school years by public schools (district and charter) having at least 50 percent or more of their students enrolled in Free or Reduced-Price Lunch programs (FRPL) for the 2011-12 school year and serving students in any grades between kindergarten through 12. NYSED will post a new web page in January with complete information on this program.

State Aid

1. **BOCES Aid** can be used for a variety of expenditures related to technology integration in learning, teaching, and assessing, including the implementation of computer-based testing (CBT). Details of each CO-SER are available in the BOCES Administrative Handbook, updated November 2010. (Page numbers below refer to pages in the Handbook.)

    ### Funding for Technology

    - Instructional Technology Service #6360 - computer-based services for instructional activities. A shared service which may be used to acquire technology, but the technology acquired through this service would be BOCES owned.
    - Computer Service: Management #7710 - provides computer-based service using either central or distributed processing for fiscal management, state reporting, educational management activities, infrastructure planning, security and network/internet bandwidth (pp. 293-296). Technology acquired through this service would be BOCES owned. (Note: This CO-SER is for services purchased from a Regional Information Center.)

    ### Funding for Professional Development and other areas related to the implementation of computer-based testing

    - Model Schools Technology Planning and Implementation Process #6368 - services to help teachers learn about and apply instructional technology in the classroom, including planning, curriculum development, staff development and evaluation.
    - Computer Education Coordination #6120 - services to support district activity by providing professional assistance, advice, supervision, or leadership, including staff development (p. 161).
    - Staff Development: Certified & Administrative #6261 - shared service designed to improve the skills of teachers, administrators, or other instructional/instructional-certificated personnel (p. 262).

- Staff Development, Other #6262 - shared service designed to improve the skills of teachers, administrators, or other instructional/instructional support personnel (p. 264).
- School/Curriculum Improvement #6211 - services designed to strengthen instruction, raise standards, improve curriculum and assessment practices and build capacity at local levels (pp. 179, 253).
- Curriculum Development #6210 - shared service designed to improve school district instruction through cooperative creation of curriculum materials and related staff development (p. 251).
- Computer Instruction #5930 - provides shared itinerant service in Computer Instruction to two or more school districts (p. 150).
- Computer Support #6366 - provides services and functions associated with district-owned computers or unaided BOCES-owned computers (p. 242).
- Computer-Based Guidance #6364 - provides a computer-based information system used to help pupils make higher education or career decisions (p. 240).
- Planning, Instructional #6212 - shared service that provides participating districts with assistance in the development of internal planning processes, and planning skills and/or the development of plans and recommendations in areas of specific concern related to instruction (p. 257).

2. State Building Aid

- [State Building Aid for Public School Districts and BOCES](#) – Bulletin that provides guidelines and information on school construction and the state aid available for school construction projects.

3. Technology Aid

- [Computer Administration Aid](#) [Section 3602(10)(c) of the Education Law] (2012-13 Estimated Aid = $37.9 Million) – Aid for approved expenses for data processing by large city school districts and any other school districts that are not part of a BOCES.

4. Professional Development Aid

- [Programs that Reimburse for Computer Technology Expenses](#) - training and staff development for instructional purposes.

5. Curriculum and Instruction Aid

[Instructional Materials Aids (IMA) ($285.1 million)](#)
  - Instructional Computer Hardware and Technology Equipment Aid [Sections 753 and 754 of the Education Law] (2012-13 Estimated Aid = $39.1 Million) [2012-13 State Aid Handbook](#) (p. 29).
  - [Aid for Computer Software Purchases](#) [Section 751 and 752 of the Education Law] (2012-13 Estimated Aid = $46.8 Million) [2012-13 State Aid Handbook](#) (p. 30).

o Textbook Aid [Section 701 of the Education Law] (2012-13 Estimated Total = $181.7 Million, Including $46.8 Million from Lottery**)** 2012-13 State Aid Handbook (p. 38).
o Academic Improvement Aid [Section 3602(10)(d) of the Education Law] (2012-13 Estimated Aid = $51.6 Million) 2012-13 State Aid Handbook (p. 29).

State Grants

- Learning Technology Grant - Program to provide funding for progressive integration of technology in classrooms and library media centers and sustained professional development in the use of instructional technology. Funding for the 2012-2015 program has been awarded.

Federal Aid (E-Rate)

- NYSED E-Rate Program Information - ensures that all eligible schools and libraries have affordable access to modern telecommunications and information services.
- NYS E-Rate Central - provides consulting, compliance, and forms processing services to E-rate applicants.

General NYSED Contacts

Please contact the NYSED offices below for general information.

- Office of Educational Design and Technology – (518) 474-5461 or edtech@mail.nysed.gov
- Office of State Aid – (518) 474-2977 or https://stateaid.nysed.gov/contactus/
- Office of Educational Management Services – (518) 474-6541 or emscmgts@mail.nysed.gov

For information on Devices, please visit:
- NYSED Purchasing Guidance
- NYSED Textbook, Software, Library Materials and Computer Hardware Aid Guidance
- NYS Office of General Services Procurement Services
- IDEA (see also http://www.p12.nysed.gov/specialed/finance/2012-13-IDEAapplicationMemo.htm#appd)

For more information on Infrastructure, please visit:
- Office of Facilities Planning – (518) 474-3906 or emscfp@mail.nysed.gov

For more information on Curriculum and Instruction, please visit:
- Office of Curriculum and Instruction – (518) 474-5922 or emscurric@mail.nysed.gov