

# Issues Matrix

toolkits

Description of the Issue & education value prop	RFP Usage	Intel-Architecture Differentiator
Allows for use of educational apps on tablets and laptops equipped with touch screens.	Touch capability, multi-touch display, built-in mouse/pointing capability that provides pointing functions and is easy to use (e.g., track pad, touch pad, touch screen, etc.).	IA ensures optimum performance with fluid sensitivity.
Writing, annotating, sketching, highlighting, and drawing are significant parts of the learning process. Research is now showing that tablets and pen interfaces make it easier for students to manipulate math equations and annotate digital textbook pages. They also offer a great way for teachers to mark and comment on student assignments that have been handed in digitally.	Stylus and touch capability, spare stylus accessories. For example: 10-inch multi-touch display (with an actual screen measurement of 9.7-inch diagonally)capable of operating with a stylus (per the Smarter Balanced Assessment Consortia (SBAC).)	Certain tablets equipped with IA allow for highly responsive and powerfully accurate pen and stylus functionality.

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<p>Devices that feature long battery life ensure that digital learning will not be disrupted while also encouraging mobile learning.</p>	<p>Battery life and other relevant electrical specifications of solution; battery capacity that will allow device to be used throughout a standard school day without being recharged. The battery will need to have the ability to be recharged through a charging station or cart at the school. The device shall also be able to be powered/charged by a standard electrical outlet. The vendor must specify the recharge time, electrical load, battery life, and other relevant electrical specifications of its solution. The vendor must describe its strategy to ensure sufficient battery life, and how its solution takes into account common battery intensive tasks. For example, “Rechargeable battery - eight hour battery capacity that will allow the device to be used throughout a standard school day without being recharged.” Another example: “The portable computing device will have a battery capacity that will allow the device to be used throughout a standard school day without being recharged. The battery will need to have the ability to be recharged by the student at home or elsewhere or through a type of multi-unit re-charger at the school, and will need to be able to be recharged overnight or sooner. The device shall also be able to be powered by a standard electrical plug.</p> <p>The Bidder must specify the recharge time, electrical load, battery life, and other relevant electrical specifications of its solution. Although each local school unit that opts to participate in this program shall be responsible to ensure minimum building readiness for the installation of the bid solution based on specifications supplied by the Provider — including electrical wiring needs — the bid solution should be designed to minimize necessary costs of building preparation in terms of adding electrical receptacles or additional power to classrooms. The proposed solution should respect the limited electrical power capacity within the school and classroom environment.</p> <p>The Department recognizes that while the type of usage can impact battery life, that in general battery life is often most impacted by the display, motors, and network radios. The Bidder must describe its strategy to ensure sufficient battery life, and how its solution takes into account common battery intensive tasks.</p> <p>Battery replacements and proper recycling of spent batteries will be done within the per seat cost and in such a way that does not impact teaching and learning. The Bidder must describe its plan for providing replacement batteries and for recycling spent batteries.”</p>	<p>IA guarantees consistently high-quality performance without sacrificing battery longevity.</p>

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<p>Schools, above all, need software that fits its processes—not the other way around. Compatibility means the software should help you operate in the way you want to, with the systems you have, at the scale you need.</p>	<p>Accommodation and accessibility of software and assistive technologies. For example: “The Proposer must include current and upgraded versions of the core operating system software and all other software included as a part of the Proposer’s solution for five years from the date of delivery of a specific unit in order to maintain usability with upgrades and enhancements to surrounding systems and peripherals. The Proposer must provide a device that will not require hardware upgrades in order to reasonably keep up with possible future software upgrades (e.g., initial delivery must include adequate memory, storage, and processing power for typical upgrade cycles given the term of the agreement) or the Proposer shall include a description of how it plans to upgrade the equipment through the life of the project to maintain adequate functionality and minimize disruption and the availability of the solution.”</p>	<p>IA supports the most popular educational software and applications, ensuring seamless compatibility between devices and the programs students need to succeed.</p>
<p>The main benefits of online testing are getting rid of paper, increasing student engagement, and receiving test scores in a timely manner so as to be instructionally actionable. But there are also challenges such as ensuring an adequate number of computers, ensuring adequate bandwidth, creating a viable scheduling window, network security and stability, scale, staffing, budget, comparability with paper-based tests, and overall readiness.</p>	<p>Must support the Common Core State Standards implementation by providing all students with the opportunity to engage with digital curriculum, interactive supports, and adaptive assessments (PARCC, etc.). For example: “The solution must meet and, ideally, exceed the Hardware Purchasing Guidelines published by the Smarter Balanced Assessment Consortia (SBAC) and the Partnership for Assessment of Readiness for College and Careers (PARCC).”</p>	<p>IA provides a stable and dependable platform for high-stakes online assessments to occur without interruption or error.</p>
<p>Constant student use, multiple users and the rigors of anywhere/anytime accessibility demand that devices be durable, perhaps even requiring rugged casings.</p>	<p>The portable computing device with case must be highly durable and withstand reasonable and normal daily use by K-12 school students. It is desirable that devices shall be durable enough to withstand occasional mishaps, and resist hazards such as dust, dirt and spills – and still function. It shall also be desired that the device have parts and accessories that cannot be easily tampered with or broken. In order to provide necessary protection for the device during normal transport, the Proposer must include an appropriate carry case (at a minimum, capable of providing protection for the device sustaining a six-foot drop). The case must provide a replaceable screen protector. It is desirable that the case has sealed ports. The case must allow schools to easily label cases for identification. Cases, including all parts, shall be fully covered by the Proposer’s support and warranty program.</p>	<p>Intel devices and those of most of our vendors feature rugged devices with student-friendly form factors and/or cases to avoid damage and unwanted disruptions in learning.</p>

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<p>Mobile devices are at a higher risk of being lost or falling into the wrong hands than desktop systems, requiring school IT staff to apply strong measures to protect sensitive data and user privacy.</p>	<p>The solution must protect against eavesdropping and unauthorized access. The solution may include encryption or other techniques to provide this assurance. The Vendor must describe how its proposed solution will provide such protections. Security must allow access to authorized users only – to only those resources, files, applications, and services that they are authorized to use. Security will be definable by an administrator both on an individual user basis and by class of user (teachers, students, parents, administrators, etc.). Identification of a user must be unique to each individual. All solutions shall have all FERPA, CIPA, and COPPA requirement compliances.</p>	<p>Intel Device Protection Technology offers users new security capabilities to help proactively secure mobile devices and block malware.</p>
<p>How can you manage users and devices, and ensure compliance to policies no matter how one is connected or where they are located on your network? The key is in unifying and simplifying management while delivering flexibility and scalability.</p>	<p>For example: “The device must be able to:</p> <ul style="list-style-type: none"> <li>• update “over the air” without physically attaching it to another computer/device</li> <li>• support a “Find My Device” feature, either via software or hardware/firmware or via MDM (see below)</li> <li>• be managed by a mobile device management (MDM) system</li> <li>• support VPN (natively or via no-cost application)</li> <li>• support industry standard cryptographic functionality to protect content stored on or transferred on/from device.”</li> </ul> <p>Another example: “Each site should be able to view assets deployed to the site. In addition, schools should be able to utilize the asset manager to assign portable devices to specific students or teachers. Sites and districts should be able to perform management tasks against one, some, or all of its assigned assets. The most common task performed to some or all assets is the assignment of an asset to an individual by entering an ID or other unique identifier into a field reserved for local inventory management. The solution should include a method for a site to import data either directly from the school’s student information system or from a simple data file (i.e. .txt, .csv, etc.) in order to update or overwrite site modifiable fields. Inventories will be made available to each site regarding that site’s equipment at installation time as part of the installation and acceptance process.”</p>	<p>With industry-leading performance and responsiveness, Intel’s processor platform delivers improved manageability and security for the most demanding education technology needs.</p>
<p>Testing, sharing, storage, usability and special uses (such as science labs) may require that learning devices work with peripherals including keyboard, mouse, printers, cameras, etc.</p>	<p>The device must be able to utilize common peripherals for input and output (e.g., networked and stand-alone printers, digital cameras, digital video cameras, scanners, etc.). For example: “The Proposer must describe to what extent its proposed solution satisfies the accessibility requirement. This will include a description of whether and how the device provides the functionality and/or the capability to interface with peripherals, software and assistive technologies for visual, hearing, mobility, communication, and cognitive impairments.”</p>	<p>Many Intel education solutions feature open architecture so educators can choose from a variety of useful peripherals, software, and infrastructure.</p>

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<p>A consistent and strong school Wi-Fi network with adequate and scaleable bandwidth is the foundation of any digital learning effort.</p>	<p>The device must be able to connect to network file servers using common networking protocols (e.g., smb, afp, nfs, ftp, etc.). The solution will provide IEEE 802.11n, 5GHz Wi-Fi wireless access for the computing devices to the school's existing network. While school internal networks vary, the network operating systems tend to cluster into Windows, Macintosh OS X, Unix and Linux. All schools have Wi-Fi Wireless, Ethernet capability, and Internet access.</p> <p>School anticipates that usage of the network will increase throughout the course of the Agreement as teachers and students integrate the solution into daily curricula and tasks. In addition, the nature of the usage may change over time as Internet technologies evolve and/or usage patterns change. While the school cannot predict those changes, vendors must describe how its solution will accommodate known network usage patterns including but not limited to content acquisition, cloud-based services, video streaming including multi-cast sessions, and other bandwidth intensive tasks. For example: "The device will be able to connect to the Wi-Fi network and also be able to also access the school's pre-existing local network, and the Internet, wirelessly (via WiFi) within the school, home or other area outside the school. The Bidder must describe the device's native connectivity capacity as well as connectivity options including those that may require additional attachments and whether these attachments are a part of the proposed solution. The Bidder must describe its wireless network connectivity solution in detail."</p>	<p>School and district networks increase scalability, flexibility and improve performance through the use of common platform using Intel® Architecture.</p>
<p>End-of-life, length of support, software licenses, servers, security solutions, and maintenance plans should all be considered when evaluating a device's true cost of ownership.</p>	<p>Vendor should complete and present a four year, per pupil total cost of ownership pricing tool for Portable Computing Devices, Deployment, Support, etc.</p>	<p>IA generally provides a lower total cost of ownership through compatibility with popular software, ease of deployment, dependable management and security, responsive IT support, and guaranteed hardware and hardware support.</p>
<p>Disruptive learning tools are positioned to transform the classroom model and become the engines of change over the long term. The disruptive option is to deploy online learning in new models that depart from the traditional classroom.</p>	<p>Solution should support a personalized, disruptive learning model to achieve individual, critical, successful application, behavior change and adaptive reasoning skills consistent with strategic individual/organizational objectives.</p>	<p>Intel delivers disruptive learning solutions that are a fundamental shift from a one-way, one-size-fits-all approach to education to a learner-centered approach that minimizes environmental, emotional, functional, and stylistic learning barriers and is customized to the unique needs of every learner.</p>

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<p>One primary 21st century skill is collaboration. Devices and systems must facilitate seamless teacher-to-student, student-to-student, teacher-to-teacher, and even teacher-to-parent collaboration scenarios.</p>	<p>Ability for students/teachers to share screens for presentations, collaboration, and real-time assessments. Communication and collaboration (e.g. sharing data, asynchronous and synchronous text-based communications, video/audio chat, etc.). For example: "Communication and collaboration (e.g. sharing data, asynchronous and synchronous text-based communications, video/audio chat, etc.) to ensure all students demonstrate proficiency with 21st century skills and technology (critical thinking, problem solving, communication, and collaboration)."</p>	<p>Intel Education solutions help facilitate collaboration both in and out of the classroom through innovative digital tools, powerful and reliable technology, and proven pedagogical strategies.</p>