CU Lab and Laptop Offerings

A CU ITSGB Position Statement

IT Student Governance Board
University of Colorado, Boulder

05/11/2015

Summary

On 03/13/2015, the board met with Julian Kinsman and Jeff Greene from OIT to discuss the future of computer labs and laptop loaner programs across CU's campus. The pair discussed OIT's plans to phase out a number of traditional desktop-based computer labs in favor of multi-purpose classrooms equipped with thin clients attached to a backend Virtual Desktop Infrastructure (VDI) environment. Such VDI solutions will also be available for students to access via their laptops and personal computing devices. Mr. Kinsman and Mr. Greene also discussed OIT's plans to discontinue the UMC short-term laptop checkout service[1] due to usage and cost concerns.

The ITSGB supports OITs efforts to move toward more flexible lab spaces and VDI-based solutions. We believe, however, that such efforts further highlight the growing reality that CU students require unrestricted access to a laptop or similar personal computing device in order to succeed academically. We thus call on OIT to undertake further measures aimed at ensuring all students have access to a laptop or similar device regardless of economic or technical situation. Such measures might include: the creation of both short- and long-term general purpose laptop loaner programs; the provision of laptop hardware maintenance services on campus; and further coordination with the CU Bookstore, laptop vendors, and the Office of Financial Aid. These measures must include streamlined processes that allow students to purchase or borrow recommended laptops (potentially at an academic discount) and to receive financial aid in support of such purchases when necessary.

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[1] www.colorado.edu/oit/services/teaching-learning-spaces/laptop-checkout

Position

The ITSGB agrees with OIT's present and future plans for a transition to a VDI-based lab environments where thin-clients with access to virtualized backend services are deployed in lab spaces. We believe that many general purpose computing labs across campus are underutilized and not well matched to the "bring your own device" (BYOD) usage model favored by most students today. By transitioning to VDI-based systems, students will be able to access the software and hardware resources they require to complete coursework on a wider range of devices and in a wider range of locations. Furthermore, unneeded desktop-based lab space can be repurposed for other uses: e.g. as collaborative spaces where students may undertake team projects or access specialized hardware such as large monitors. We favor the VDI-derived ability to access any software at any thin-client located across campus, as opposed to having to visit a specific lab where such software is installed. Furthermore, we look forward to students being able to access specialized software environments from their personal computing devices directly, negating the need to visit labs at all. Such personal-device based access offers numerous benefits over forcing students to visit specialized labs, from the convenience of being able to work from one's residence hall or classroom to the public safety gains offered by not having to traverse campus to complete course work late at night.

The move to VDI-based lab spaces does however highlight the reality that all students require access to a laptop or similar personal computing device in order to succeed academically at CU. Whether such devices are necessary to access VDI-based computing environments, complete coursework running native applications, or provide students computer access during course lectures (e.g. as in the Computer Science Department's program-during-lecture teaching model), it is difficult, if not impossible, for a student to succeed at CU today without easy and unrestricted access to a laptop or similar device. We call on OIT and the University of Colorado to undertake initiatives aimed at increasing student laptop access.

While many CU students have access to an adequate laptop or similar device, a significant minority still lack such access. Within this minority, we believe laptop access is most often hampered by three primary factors:

- **Lack of Financial Resources:** Laptops meeting OIT's recommended laptop guidelines[2] generally cost about $1000. Such a cost presents a significant financial burden to a number of CU students, preventing them from owning a laptop in the first place.
- **Lack of Technical Expertise:** Properly selecting and purchasing an appropriate laptop at a competitive price remains a challenge for many students, leading to students purchasing laptops or related devices not well suited for the uses they require (e.g. an engineering student purchasing an Android tablet/laptop hybrid incapable of running Windows engineering applications).
- **Temporary Barriers:** Even in cases where a student can afford and properly select a laptop for purchase, they may find themselves without laptop access due to temporary circumstances: e.g. if their device is damaged, requiring mail-in multi-week repairs.

In order to ensure that all students can reasonably access a laptop or equivalent device at all times during their academic career at CU, we propose some potential solutions to the barriers discussed above:

- **Streamline Financial Aid for Laptop Purchases:** It should be trivial for a student to account for the purchase of a laptop in their financial aid calculations and to receive aid for such purchases where available. We encourage OIT to work with the Office of Financial Aid in order to ensure that students are well informed about available financial aid for laptop purchases and are capable of leveraging such aid with minimal effort.
- **Streamline Recommendation and Purchasing Process:** Students who do not wish to expend significant time and effort selecting and purchasing a laptop at a reasonable price should not have to. OIT should provide straightforward and up-to-date examples of specific laptops or related devices at various price points well suited for the needs of different types of students at CU (e.g. engineering students, film and media students, english students, etc). Furthermore, it should be easy for the student to purchase such devices, either via the web or via the CU Bookstore in the UMC. Students should have access to academic discounts for such purchases where available and should be assured short lead times on such purchases.

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[2] www.colorado.edu/oit/software-hardware/recommended-software-and-hardware-list/student-pc-laptop

- **Institute a General Laptop Loaner Program:** To counter both short term unavailability (e.g. laptop repairs) as well as long term unavailability (e.g. financial decisions), OIT should explore rolling out a general laptop loaner program. Such a program would loan laptops to current CU students for both short term (e.g. days to weeks) as well as long term (e.g. full semester) periods at a low or no-cost basis. Such a system could be modeled after the Department of Computer Science's existing program of loaning used MacBook Pros to students who lack laptops on a semesterly basis. Priority for loaner laptops could be given to students with demonstrated financial or short-term needs and would serve to help ensure that all students have access to a laptop they can use at all times.
- **Provide On-Campus Laptop Repair Services:** In order to mitigate the disruption off-site laptop maintenance often entails (e.g. multi-week repair times required when laptops must be shipped to a vendor), OIT should explore providing on-site in and out of warranty laptop hardware maintenance services capable of providing, at a minimum, basic repairs and upgrades (e.g. hard drive replacements, RAM upgrades, etc). Such a service could be coupled with the previously mentioned laptop loaner service to provide students with a temporary laptop while theirs is being repaired. In cases where the scope of repairs exceeds OIT's capabilities, such a service should assist students with shipping laptops to a more capable repair center. This service could mirror similar on-site repair services offered by many of our peer institutions[3].

Conclusion

The board feels that ensuring all students have access to a laptop or similar device for use during course lectures, around campus, and at their place of residence should be a top OIT priority. Such access is essential to allowing students to meet the academic realities of modern curriculums. OIT's planned moves toward VDI-based lab infrastructure only serve to accentuate the importance of per-student laptop access.

We thank Mr. Kinsman and Mr. Greene for their time discussing OIT's VDI plans with the board. We look forward to hearing OIT's thoughts on these issues and to continuing this discussion. While this document represents the board's high-level goals, we are happy to lend additional thoughts and details to this discussion as required.

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[3] E.g. CSU's Computer Repair Center (http://lib.colostate.edu/services/computers/repair)