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Teachers in Charge, IT in Control:

Strategies for Managing Classroom Technology

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Teachers in Charge, IT in Control: Strategies for Managing Classroom Technology

In today's technology-enabled classroom, curriculum and testing requirements are the fundamental driver. Hopefully, after totaling up all the time teachers spend managing distracted students and dealing with technology, they still have the time they need to devote to testing and the curriculum. Therefore, introducing technology to the classroom requires striking a balance. While technology is primarily the responsibility of IT, ultimately the application of that technology falls to the teacher. The key question facing IT is: How do we exercise our responsibility for technology in a way that enables teachers without burdening them?

Technology in the Mix, Challenges in the Classroom

It's very easy to recognize the vast potential for the more-engaging classroom experience that technology can facilitate. However, even if teachers fully embrace the technology, they quickly see the additional challenges it brings to the classroom.

Student/device association. Not only must teachers deal with devices, they must associate users to those devices. This is true whether they are shared devices on carts, classroom laptops, or individually assigned devices in a 1 to 1 program.

App management. Who chooses the apps the students will use? If it's the teacher, how do those apps get to the correct classrooms, to the correct students, and with the correct configuration that will make them most useful?

Classroom setup. Technology setup is as essential in the classroom as arranging the desks or developing a lesson plan. But it's not nearly as simple for teachers, nor as familiar.

Classroom management. Teachers need to manage their classes. But when managing classes means managing technology, how are the appropriate administrative rights assigned so teachers can manage effectively?

IT has a complex array of technology to be managed, and the last thing it needs is to leave the total configuration of endpoint devices to non-technical staff. Teachers aren't prepared nor trained for that, but even more critically, they don't have the time. Yet they do need a certain degree of control in order to leverage the technology that IT acquires for them to use in the classroom.

The Answer: Endpoint Management + Classroom Management

The Ivanti® LANrev endpoint management solution, in conjunction with new technology from Apple known as Apple School Manager, creates a new ecosystem for managing computing in education. This combination creates a comprehensive solution for the educational challenges that teachers and IT departments face in the classroom. It manages the relationship between the school district and Apple for purchasing devices and apps, and also the relationships among teachers, students, and classes. While Apple School Manager orchestrates all the moving pieces, Ivanti LANrev provides the essential management capability that moves those pieces to where they need to go.

Multiple Platforms, One Management Tool

Most districts don't rely on a single platform, and platform choice can vary by grade level or as a result of purchasing decisions. Even districts that are largely standardized on a single platform for classroom use are constantly evaluating alternative technologies, have pilot programs in place, or refresh their technology in cycles of three to five years. In this regard, school districts are not much different from organizations in the corporate sector who likewise deal with an enormous proliferation of technologies, device types, and operating systems that IT must manage. Ivanti LANrev handles all platforms and operating system versions—present and future—so school districts can future-proof their endpoint management solution.

Ivanti LANrev is a fully cross-platform endpoint management solution, driven by smart policies and with integration features that make it an ideal complement for Apple School Manager. It includes:

- Provisioning, support, and configuration that allows IT to pre-define roles and permissions and push everything out automatically
- Smart policies for automation based on class, user, or device information
- Security enforcement and remediation to protect student privacy and district property, including automated remediation actions
- Mobile content management for distributing documents, media files, textbooks, tests, class syllabus, and other files to devices, with control over whether students are allowed to copy or share those files outside of the container

Apple School Manager handles the complex array of moving pieces that must be coordinated in educational computing, eases the burden on IT, and enables teachers to manage technology in the classroom without demanding a high degree of technical work. It folds together some pre-existing offerings from Apple as well as new capabilities.

Device Enrollment Program. School districts that already have a DEP account can migrate that account to Apple School Manager. Also, application licenses procured through the Volume Purchase Program no longer need to be assigned to specific users; Apple School Manager now provides the ability to manage, distribute, and reclaim licenses that were previously assigned to users or devices.

Managed Apple IDs. Previously, school districts had to get students to sign up for their own Apple IDs, which involved parental permission and also caused conflicts with how application licenses were assigned. Managed Apple IDs, first introduced in iOS 9.3, offer the ability to assign Apple IDs that remain under school control. Managed with Ivanti LANrev, this removes many of the complications and challenges that IT previously dealt with.

Student Information System integration. Apple School Manager integrates with and allows data import from SiS systems, allowing the SiS information to be used to configure devices and users by classes. It also makes it much easier to configure devices in advance. Alternatively, LANrev can manually import the data.

Shared Devices. Not every school has a 1 to 1 device-to-student program, for budget or other reasons. Shared devices are configurable through LANrev, allowing the correct apps and configurations to be assigned to the student who is actually using the device at the time, based on the login information.

About Ivanti LANrev

Ivanti LANrev is a fully cross-platform solution that combines endpoint management for Mac and Windows and mobile device management for Android, iOS, and Windows mobile devices. Its capabilities include:

- Ability to deploy the agent to all computers
- Complete inventory of more than 700 information items related to the hardware, user, and installed software
- Ability to attach custom information items for tracking cost centers, class information, class schedules, and other items useful for better reporting on, and configuring, computers
- Deployment of OS upgrades and updates across all Mac and Windows platforms present and future, including patented technology that images Macs while in use
- Complete remote configuration of devices, easing reliance on non-technical people, as well as full screen-sharing and remote control
- Patch management for third-party applications as well as operating systems
- Power management to support green-IT policies on managed computers

Pre-Shipment Device Configuration

Using Apple School Manager and Ivanti LANrev in tandem, IT can order devices through the Apple Device Enrollment Program, pull data into the LANrev console, and visualize and manage the configuration of those devices. In fact, IT can customize the out-of-box experience for the user even before the district receives the devices. This includes the ability to customize the setup wizard that users see when they first power-up the device.

For example, it's common to bypass the standard Apple setup, including the acceptance of terms, and replace them with language used by the district. DEP support in LANrev also makes it possible to lock the devices into management by requiring enrollment in the setup wizard, so students can't disable any restrictions placed by the district. Even a factory reset of the device can't disable the restrictions; the device will simply repeat the same out-of-box sequence. In addition, smart policies assigned in advance as part of the setup wizard can distribute apps and content. As soon as the device is activated, it is ready to use, customized for the assigned student to use for classwork.

Instead of IT staff having to configure thousands of devices, they can configure a dozen policies and hand out devices literally still shrink-wrapped. When users remove the devices from the boxes, they follow the setup prompts. Here's a typical sequence:

- Student authenticates to the school's Active Directory
- Device displays the school's technology policy
- Data is imported from Active Directory to help drive customization
- LANrev pushes out applications specific to LANrev architecture: the LANrev Apps self-service portal, as well as the LANrev Safe container for class-related media files and other documents
- LANrev pushes out configurations that are automatically customized for users as appropriate and adds them to the policies. Examples include sending customized welcome emails, setting up security, and specifying automated remedial actions (such as locking the device, issuing student notifications, removing access to district assets, or deleting file containers)
- Department or class-level policies push out specific apps and content targeted to grade levels, individual classes, types of users, or specific users

All of the above actions happen and are completed within a minute or two of the device first being turned on, resulting in a process that's hands-off for IT, and fast and seamless for teachers and students.

Classroom Configuration

Using LANrev, IT defines the users, devices, and locations, defines the classes, and assigns devices to users. Import from the SiS makes much of the data available automatically. Then, teachers can use the Apple Classroom app to manage student use of their devices in the classroom. Through LANrev, IT can preconfigure the Classroom App for the teacher's classrooms and classes, and push out the configuration to the teacher's device. With the Classroom app, teachers can:

- See all the devices and students in their classes
- Open specific apps on all the devices in the classroom at once, or just selected subgroups in the class, to ensure that the students are using the apps they should be
- Lock the devices to ensure attention is on the teacher
- Lock the device so only a specific application may be run
- Virtually look over the student's shoulder to see what's on their screen, or share that student's screen with the rest of the class

Conclusion

Together, Apple School Manager and Ivanti LANrev make it possible for IT to configure technology for the right students, the right devices, and the right classes. The result is a far-simpler rollout for IT that avoids configuring thousands of devices manually. IT firmly controls the of use of educational computing resources, and teachers gain the needed control over technology in the classroom without burdening them with the equivalent of an IT role. Ultimately, schools and districts can fully realize the promise of classroom computing to enrich and empower education.

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