ProctorCache Recommendation for
Spring 2020 MCAS Computer-Based Testing

Below is an updated recommendation for 2020 on whether schools should use Pearson's ProctorCache software. ProctorCache precaches test content onto a designated machine in a school to reduce bandwidth requirements, reduce test-content load times, and provide a seamless experience for students.

Now that 98 percent of Massachusetts districts meet the 100 Kbps/student federal recommendation for digital learning and online testing, ProctorCache is *only* recommended in the scenarios below, instead of for all schools. (Kbps refers to kilobits per second and is a measure of bandwidth.)

To determine whether your school meets the 100 Kbps/student threshold for Internet speed, divide the school's bandwidth in Kbps by the number of students, and use a tool of your choice to test your school's bandwidth. The following is an example of how a school with a bandwidth of 60 Mbps might determine whether it meets the 100 Kbps/student threshold:
- Convert 60 Mbps to 60,000 Kbps.
- Divide 60,000 Kbps by the number of students in the school using the Internet on a given day.
- If 500 students will be using the Internet on a given day, divide 60,000 by 500.
- In this example, the school has a bandwidth of 120 Kbps per student.

For information on minimizing drain on your school's bandwidth, refer to Network Requirements and Guidelines.

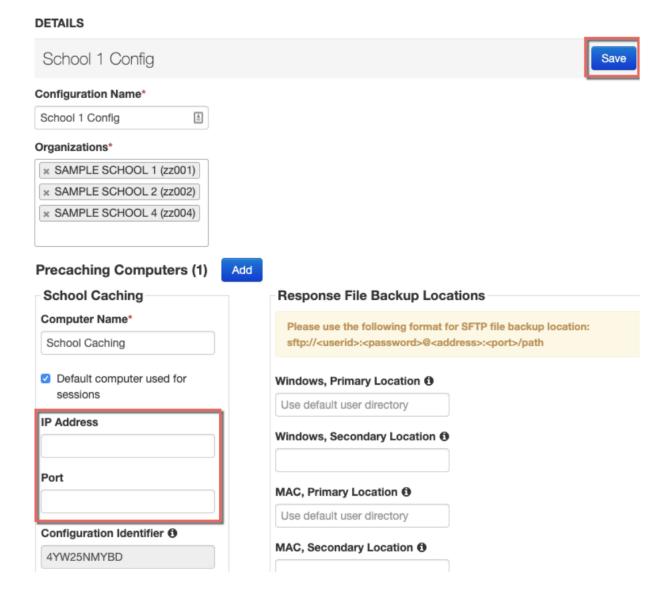| School's Bandwidth (Kbps per student at all times)	ProctorCache Recommendation for Schools That Used ProctorCache in 2019	ProctorCache Recommendation for Schools That Did <u>NOT</u> Use ProctorCache in 2019
Less than 100 Kbps/student	Use ProctorCache.	Install/use ProctorCache.
100–200 Kbps/student	Disable the 2019 configuration for ProctorCache prior to the Infrastructure Trial (see instructions below). Use the Infrastructure Trial to determine if ProctorCache is needed. During the Infrastructure Trial, if students experience a lag time waiting for the next screen to load, re-enable ProctorCache and conduct a second, smaller-scale trial to confirm that the issue is resolved (ProctorCache may be needed).	Do not install ProctorCache software. Use the Infrastructure Trial to determine if ProctorCache is needed. During the Infrastructure Trial, if students experience a lag time waiting for the next screen to load, install ProctorCache and conduct a second, smaller-scale trial to confirm that the issue is resolved (ProctorCache may be needed).
More than 200 Kbps/student	Disable the 2019 configuration for ProctorCache software prior to the Infrastructure Trial (see instructions below). During the Infrastructure Trial, if students experience a lag time waiting for the next screen to load, re-enable ProctorCache and conduct a second, smaller-scale trial to confirm that the issue is resolved.	Do not install ProctorCache software. Use the Infrastructure Trial to determine if ProctorCache is needed. If students experience a lag time during the Infrastructure Trial waiting for the next screen to load, install ProctorCache and conduct a second, smaller-scale trial to confirm that the issue is resolved.

Instructions to Disable and Re-Enable the ProctorCache Configuration
To disable the 2019 ProctorCache configuration in PearsonAccess Next, follow these steps:

1. Click on **Setup** and **TestNav Configurations.**
2. Click the dropdown next to the **Search** button, and click **Show All Results**.
3. Select your configuration and click the **Select Tasks** dropdown, select **Create/Edit TestNav Configurations**, and click **Start.**
4. Select your configuration on the left side of the screen and scroll down to the **Precaching Computers** section.
5. Delete the content in the **IP Address** and **Port** fields and then click **Save**.

To re-enable ProctorCache after disabling, follow the same steps and re-apply the **IP Address** and **Port** fields (these fields are shown in the screen shot below).

Schools using Mac OS devices for their ProctorCache machine should note that they will need to use a previous version of ProctorCache software since ProctorCache software for MacOS is not being updated. Contact the MCAS Service Center at 800-737-5103 for instructions.

Best Practices for Using ProctorCache
If ProctorCache is needed, a ProctorCache machine at the school level is recommended (but not at the district level). Using ProctorCache at the school level instead of at the district level will allow for continued connectivity during an Internet outage (if students have already logged in). **Students configured to connect to a district ProctorCache machine may lose connection during an outage.** Schools with district configurations have also reported connectivity issues, as well as log-in issues, with larger numbers of students connecting to a single ProctorCache, which can overload the machine.

It is also recommended that the device selected to act as the ProctorCache machine during testing is reserved for this purpose only. A device performing other functions in the school can result in delays when students navigate from one question to the next during testing.

During test administration, if the school experiences a loss of Internet connection, students who are already logged into the test should be able to continue testing. If the Internet connection does not restore before students are finished, have the students exit TestNav. Then, write down the device IDs and have the students sign back in when the Internet connection is restored so that they can submit their final answers. If a student is testing on a Chromebook, do **not** power off the device unless there is a secondary save location already set up.

Beginning in early December, a new option for schools to receive support while installing ProctorCache, conducting Infrastructure Trials, and setting up computer-based testing. Details will be provided in an upcoming Student Assessment Update.