

OnVUE Online Proctoring Technology

1. OnVUE Online **Proctored Solution**

OnVUE, Pearson VUE's online proctored solution, combines convenience and security. OnVUE allows test takers to sit for a proctored exam almost anywhere.



With this model, test takers can test at home or in the office with only an Internet connection, a webcam, and our software. OnVUE provides a secure online delivery option to increase coverage and offer more convenient testing.

Clients use OnVUE to:

- Supplement brick-and-mortar test centers, extending test taker reach
- Provide capacity relief for overbooked testing centers and for high-volume testing events
- Provide online delivery for credential maintenance
- Offer distance learning students the choice of remote proctored or test center testing

Professional credentialing programs can use OnVUE to provide a convenient, proctored solution for continuing education (CE) and certification assessment maintenance, as well.

OnVUE supports global delivery. Our innovative approach, with strong test taker identity verification abilities, has been designed with data privacy laws in mind. OnVUE adheres to local privacy and data laws in 190 countries.

Pearson VUE's Unique Strengths in Online Proctoring

Not all remote proctoring solutions are equal. Our remote proctoring solution has the following unique strengths:

- Autonomous/Self Check-In for most test takers
- Live proctoring that closely replicates the test center experience
- Global infrastructure and the ability to scale operations

Additionally, Pearson VUE has the ability to segment greeter and proctor queues to accommodate different test taker segments, e.g., different languages and geographies.

Please refer to Pearson VUE's <u>OnVUE Testing Experience Video</u> to see OnVUE's features in action.

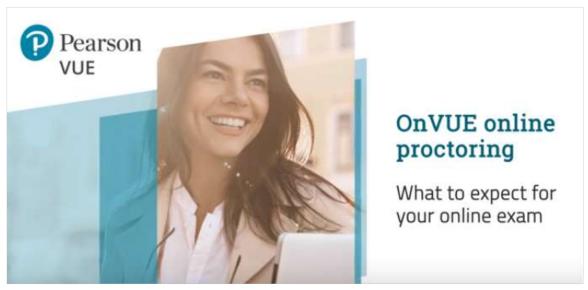


Figure 1. Visit pearsonvue.com for more videos and information about the OnVUE solution.

Online Proctored Capacity

OnVUE was built to support tens of thousands of tests at any given time. Pearson VUE successfully administered over 150,000 online proctored exams for 40 clients in 2019. We have bandwidth to anticipate capacity needs and expand corresponding staffing requirements, much the same way we do regarding brick-and-mortar test center capacity.

Pearson VUE's experience with managing a global proctor network through ongoing growth is unmatched. Our collaborative approach to managing capacity will make certain that our hours of operation efficiently accommodate test takers. OnVUE's testing hours are available 24 hours a day*, seven days a week.

2. Registration and Scheduling with OnVUE

The OnVUE Online Proctored test taker journey begins just like the traditional test center-based test taker experience: The test taker registers for the exam and schedules an appointment through the Pearson VUE website or though the client's website if Single Sign-On (SSO) is employed.

OnVUE Scheduling

All exam scheduling is completely managed by our web-based scheduling system and is initiated on demand by prospective test takers. Test takers make a reservation to test through Pearson VUE's online reservation system. Test takers also can schedule online for examinations 24 hours per day, seven days a week from any device with Internet access.

Pearson VUE's web registration and scheduling system provides test takers with the ability to:

- Choose the OnVUE as the mode of delivery for the exam
- View appointment availability with a graphical calendar display and the ability to compare appointment availability
- Change or cancel appointments prior to a testing appointment
- Receive appointment confirmations by email, as well as appointment reminders as the test date approaches

Before Purchasing an Online Proctored Exam

We strongly recommend that all test takers run the simulation exam to verify that their setup will work with the online proctored software. Test takers should use the same equipment and setup they intend to use for the exam while running the simulation exam. If their system does not pass the test, they must register for an alternative form of the test or find a setup that works.

Ready to Launch

After verifying that their setup is adequate, candidates will register to take the exam at their home or office, select an appointment time, and purchase their exam online. Payment is accepted using standard payment methods, including credit cards, electronic checks, and vouchers.

Test takers can select a test time within 15 minutes of registering, provided that an appointment is available.

Candidates must accept various policies, including a facial comparison policy agreeing to the use of artificial intelligence (AI) techniques, before they can complete registration for an online proctored exam. The registration confirmation indicates applicable ID and exam policies and includes a link to the page where the candidate can access the button to begin the exam appointment.

Cancelation and Rescheduling

Cancelation and rescheduling policies are specified by our clients and systematically enforced by our registration and scheduling system. Test takers who change or cancel an appointment outside of the allowable timeframe will forfeit the test administration fee.

3. OnVUE Test Taker Identification and Check-In

OnVUE captures images of government-issued identification as well as headshots pursuant to global data privacy laws.

At the scheduled appointment time, test takers log in to <u>pearsonvue.com</u> and click a "Begin Exam" button to start their exam session. Test takers can check in up to 30 minutes before, and up until 15 minutes after the scheduled appointment time.

They are provided with an access code for the exam and directed to download the required software. Then they are passed seamlessly to the OnVUE application and led through a series of automated checks and steps that prompt them to:

- Test their microphone, webcam, and audio
- Capture a headshot
- Capture their photo ID
- Capture four photos of the testing room workspace
- Shut down other applications running on the computer

The OnVUE software uses artificial intelligence (AI) techniques to perform enhanced ID authentication and a face-to-ID-photo comparison. A Pearson VUE greeter checks the room images. If validation does not indicate any issues that require remediation, the self check-in is successful and the test taker is permitted to launch the exam. The secure browser runs automatically before the exam is launched.

Remediated Check-In

If the ID photo/headshot comparison does not pass validation or any other issues exist, the session is added to the live greeter queue for a remediated check-in. A greeter contacts the test taker by chat, phone, or—if needed—voice over IP (VOIP) and performs check-in procedures only for those that did not pass during initial check-in.

If the test taker validation steps failed, greeters will check the test taker's name, ID, and ID expiration date and verify that the individual's photo matches the photo in the government-issued ID and the individual in the live webcam feed.

If applicable, they perform check-in procedures to verify that the testing area is clear. When the greeter is satisfied that all check-in requirements have been met and the workspace is clear, the test taker is released into the exam.

4. OnVUE Proctoring Option

Through OnVUE, Pearson VUE offers one proctoring option:

Live Monitoring — Standard to our online proctoring offering. Test takers are
monitored by artificial intelligence and a Pearson VUE-certified proctor via
webcam and microphone during the exam. Exams are terminated immediately if
prohibited behavior is detected.

OnVUE Live Monitoring

Proctors actively observe test takers in real time during their testing sessions. Greeters are available if a candidate fails to pass the automated check-in process. Greeters and proctors are located around the globe and proctor involvement is continuous. Proctors note abnormalities and other testing-related incidents using "Session Events" in OnVUE. These session events are logged and can be reviewed during and after a test taker's exam session.

"Hand Raise Chat" Function

Communication between the proctor and test taker is primarily facilitated via a chat application built into the online proctoring solution.

5. Proctor Training and Qualifications

Greeters and proctors complete an assessment specific to online proctoring exam delivery, and attend one week of classroom training to prepare for online proctoring. Topics covered include:

- Testing journey
- Exam check-in requirements
- OnVUE system
- Minimum technical requirements

- Issue troubleshooting
- Soft skills (essentially, interpersonal or inter-relational skills)
- Quality expectations
- How to respond to/escalate instances of misconduct

Training also includes role-playing (hands-on learning), where greeters and proctors experience many examples of situations they will encounter.

Proctor Role and Training

A proctor will unlock the exam and monitor test taker behavior throughout the entire exam administration. Pearson VUE directly employs the proctors for monitoring participants throughout the Online Proctored examination session.

Each of our proctors are certified by Pearson VUE employees and processes. They are trained and monitored by our Quality team, which provides regular feedback and updates on observed trends. At least one manager is actively monitoring when proctoring is being performed. As a part of our quality assurance processes, managers review data the proctors capture during exams.

Proctors' backgrounds are quite diverse; however, we look for individuals with a background in customer service. Pearson VUE recruits and hires only qualified personnel to operate this critical component of our service. We carefully screen all applicants, subject them to a criminal background check, and evaluate them for a variety of skills, including personal communication skills.

As a condition of employment, Pearson VUE's proctors commit to adhere to Pearson's Code of Conduct annually. In addition, personnel cannot be associated with the examination program or other organizations involved with the development or administration of the examination program.

All proctors undergo training with a veteran of the profession before they can work directly with test takers. When training is completed, we evaluate our proctors using a skills assessment. We also hold periodic refresher training and quality review sessions, which are also scored. All post-training assessment scores are tracked internally. The training program is evaluated and updated periodically based on feedback from test takers, clients, and our staff.

Proctor Evaluations

Proctors are evaluated based on the following criteria:

- Testing irregularities to testing sessions ratio
- Qualitative review of test summary notes
- Subject feedback
- Timeliness
- Attentiveness
- Management audit of phone calls, chat records, and test session video recordings

6. Test Taker Responsibilities

Test Taker System Requirements

Minimum system requirements for test taker delivery are the same as for Internet-based test (IBT) delivery except with the addition of a webcam, a microphone, and the bandwidth requirements detailed below.

To take an online proctored test, a test taker must have a system with the following:

- One of the following operating systems:
 - o Windows 10
 - Windows 8.1 (32-bit or 64-bit)
 - o Windows 7 SP1 (32-bit or 64-bit)
 - Mac OS X 10.10 or above
- Minimum RAM specified for the operating system (4 GB or more)
- Minimum display resolution of 1024 × 768 in 16-bit color
- Working webcam (minimum 640 × 480 resolution @ 10 fps) and microphone
- Internet connection of at least 1 Mbps for both the upload and download bandwidth
- Highly recommended: hardwired connection (not wireless) especially for those with a slower Internet connection
- OnVUE application (free to download)

Support for all issues is handled by Pearson VUE support teams.

Test Taker Preparation Steps

The client's landing page on pearsonvue.com will contain a button that test takers can click to simulate the exam experience. Test takers should perform this step before registering for an exam, in case any problems surface during the system check. This allows each test taker to run a system test and verify that the OnVUE solution will function properly.

Before the scheduled examination time, the test taker should:

- Set up in a walled room so other individuals cannot enter during testing
- Run the optional system-check utility that allows test takers to:
 - Check their Internet connection speed
 - Confirm that their microphone and speakers work
 - Verify that the webcam takes a clear image of them and their ID
- Remove or erase written materials from walls to prepare for the room scan during check-in:
 - Wall art and posters will be inspected
 - o Additional monitors need to be unplugged and turned away
- Verify sufficient lighting in the room—Will the room have enough light, especially before sunset?
- Clear material from the desk surface

We recommend that these steps be included on the client's online-proctored landing page, in the online proctored policies displayed in the test taker's registration and scheduling flow, and in the test taker's confirmation notices so that test takers can adequately prepare before their exam session.

7. OnVUE Score Reporting and Results Delivery

Score Reporting

For more than a decade, Pearson VUE has set the standard for delivering exam results quickly. Clients will decide to offer score reports immediately after the exam or at a later time. Pearson VUE can display "unofficial" exam results, immediately following the exam. This online "unofficial" score report will indicate pass or fail and may include the

test taker's picture and validation code, if desired. Web-based score reports can be made available to test taker via the Pearson VUE website.

Test takers can then:

- Receive notice of a score report via email, including a hyperlink
- Access and print score report at any time
- Generate PDF copies of their score report

Web-based score report delivery means there is no cost to the client or to the test taker for storing, printing, and distributing score reports. Further, it eliminates the need for duplicate score reports.

If a client allows results to be provided immediately on exam completion, test takers can view their score reports in the test driver. To print a score report, test takers log in to the Pearson VUE candidate website and access a printable copy. If a test taker's program is not configured to provide immediate results to candidates, score reports will not be shown to candidates on exam completion.

Results Feed

Clients receive a standard internet-based testing (IBT) result feed and can view results in the Pearson VUE IntelliVUE reporting tool. Exam delivery mode is captured in the database so that online proctored delivery volume can be determined by querying the database to complete financial reconciliation.