SCANTRON.
ASSESSMENT SOLUTIONS

SECURE INTERNET-BASED TEST ADMINISTRATION
VIA LIVE ONLINE PROCTORING

Scantron partners with Examity, a frontrunner in live online proctoring (LOP), in order to provide a seamless blend of cutting-edge technology and operations to bring LOP test delivery to the next level of security and convenience. Scantron will provide secure internet-based delivery of ONCB's certification examinations via live online proctored testing.

Live online proctoring allows candidates to complete the examination from their own computer via an internet connection at a time and place of their choosing. Testing sessions are available 365/24/7. The candidate's computer must have webcam capability and speakers, and the environment should be quiet to avoid distractions and to ensure that the online proctor can hear everything at the candidate's location. There also are technical requirements, such as an adequate internet connection, to ensure the proctor has access to the candidate's computer and the session can proceed without internet disruption. Candidates are informed of the computer specifications in advance of the testing session.

Figure 1. Notice to Schedule Email

Candidate Registration

Scantron will continue to accept candidate applications and collect application and testing fees. Eligible candidates will receive a notice to schedule (NTS) email.
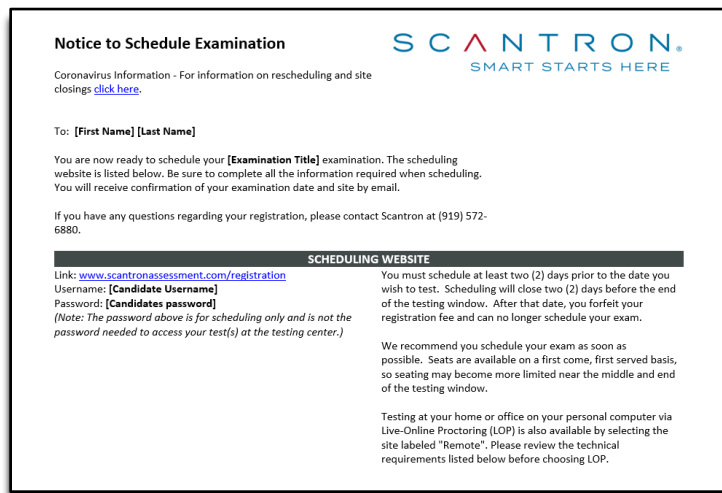

Figure 2. Examination Scheduling Demographic Screen

Test Scheduling

Following receipt of eligibility data, Scantron will send a notice to schedule (NTS) email to candidates with instructions on accessing Scantron's online test scheduling system as well as information regarding the computer specifications required for live online proctored testing. The NTS email will provide candidates with a username and password (generated by Scantron), which will allow them to access Scantron's online test scheduling system. The online scheduling system will initiate the scheduling process by requesting that candidates verify appropriate demographic information. Next, the system will direct candidates to schedule a testing session

during a specific time period for live online proctoring. Candidates can schedule to take the examination at any time 24/7.

Figure 3. Live Online Proctoring Scheduling, Rescheduling, and Cancellation Screen

Candidates will be able to perform a system check during the scheduling process, and Scantron encourages candidates to perform the system check at this time. Candidates whose PC/laptops fail the system check will receive feedback on the hardware or software updates that are required to support the live online proctored testing session.

Candidates should have the opportunity to request reasonable accommodations at the time of application. In accordance with the requirements of reasonable accommodations regulations, Scantron makes such arrangements routinely for individuals with reasonable needs upon written request and approval from ONCB. Currently provisions are made on an individual basis for (but not limited to) registrants with visual, hearing, or physical impairments. For live online proctoring, accommodations are generally related to additional testing time. Scantron PASS™, the test delivery driver, will allow candidates to enlarge or zoom as needed.
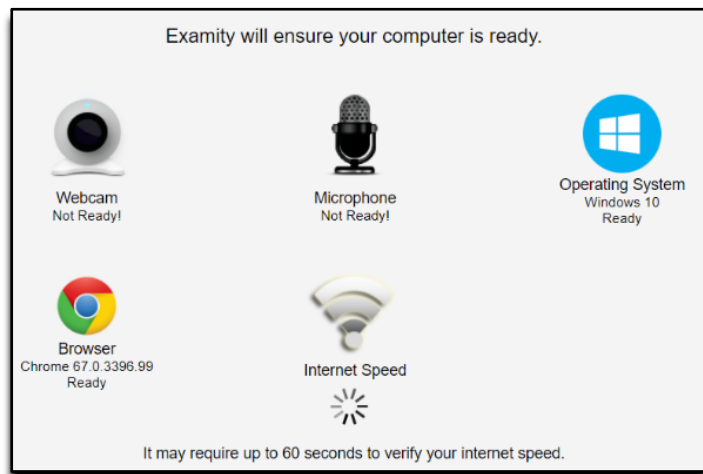

Figure 4. System Check Interface

Confirmation Notice

Scheduled candidates will be sent an immediate confirmation of their testing session. Candidates will receive a confirmation email with their appointment information as well as instructions for how to access their examination during their scheduled testing session and a unique examination password.

The confirmation email also will provide information regarding the online tutorial of Scantron's test delivery driver (Scantron PASS™). Through the online tutorial, candidates will be able to simulate use of the mouse and keyboard, enter responses, and become familiar with the process for reviewing items and changing responses. This tutorial is provided free of charge.

Cancellation and Rescheduling

A candidate may cancel or reschedule the testing session up to 24 hours prior to the scheduled testing appointment. The candidate must cancel or reschedule the testing session by accessing Scantron's online scheduling system. A candidate who does not appear for his or her scheduled appointment will be considered a no-show.

Live Online Proctors

Examity provides highly qualified individuals who have considerable experience in live online proctored test administration. Following a rigorous screening process, including personal interviews and background checks, proctors complete an eight-week training process, which includes coursework on proctoring and data management processes, as well as training in privacy, data security, customer service, and software and tools used to perform proctor duties. This training includes several live simulations by senior staff, which allows proctors to familiarize themselves with identifying, documenting, and escalating suspicious candidate behavior.
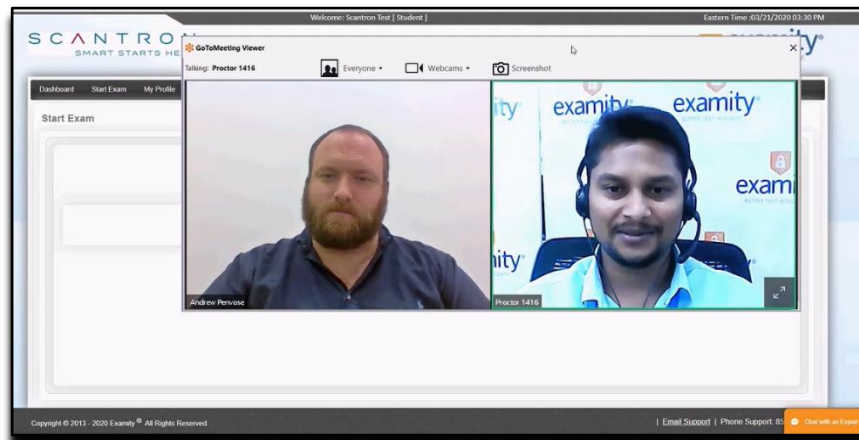

Figure 5. Live Online Proctoring Proctor Interface

Proctors are instructed on procedures for candidate admission, security, time allocation, and other aspects of the administration of the certification examination. In addition, proctors ensure compliance with any client-specific test administration specifications available in the test administration proctor manual/documentation. Throughout the testing process, proctors maintain tight security of the examination through constant observation with a maximum candidate to proctor ratio of 8:1.

Proctors work in a controlled environment where they are monitored by proctor leads and operations managers. All testing appointments are recorded and audited.

Testing Procedures

Scantron's secure internet-based test delivery system, Scantron PASS™ specifically addresses the security and verification issues associated with qualifications or credentials that must be guaranteed in order to confirm that the eligible, registered candidate completes testing. Live online proctored test administration provides monitoring of the candidate during test administration.

On the day of the examination, the candidate logs in to Scantron's registration portal using the unique username and password provided to in the confirmation email from Scantron. The candidate will be transferred to the Examity to connect with the proctor and start the testing process.

The candidate will access a system check and instructions for commencing the testing session. If a candidate's computer fails the system check, he/she will be required to correct/update the issue or reschedule the testing session. All candidates are required to pass the system check prior to testing.

The proctor will verify the identity of the candidate by examining (and capturing via video) the candidate's government issued ID. The proctor will instruct the candidate to complete a room scan, including the workspace and underneath the work area. Lastly, the proctor will review the examination and confirm the candidate understands and agrees to all examination and test administration rules.

Once the check-in process is completed, the proctor will connect to the Scantron PASS™ system where he/she will log in with his/her unique proctor username and password. The proctor will select the appropriate candidate from the drop-down menu and complete the proctor attestation. The candidate will confirm his/her demographic information and enter the unique examination password provided in the

Figure 6. Scantron PASS™ Candidate Attestation

Scantron confirmation email. Then, the candidate will review the candidate attestation and confirm compliance. Following dual login, the candidate may review the demonstration/tutorial or begin the examination.

The candidate may communicate with the proctor at any time via chat features available within the site as well as the webcam microphone. If directed by the proctor, or in case of technical difficulties, the candidate may contact the proctor by telephone. When the proctor has completed the necessary steps to ensure monitoring, the candidate will click a link to launch the examination.

Testing Irregularities

Proctors closely monitor candidates during testing in order to detect and report any examination malfeasance or suspicious candidate behavior. The proctor will have complete access to the candidate's computer to monitor for unauthorized activities such as accessing other software applications, using multiple monitors, or having someone else taking the test remotely. The proctor will be able to see the candidate's desktop and everything he/she is doing to monitor for unauthorized activities. The candidate will show the proctor a 360-degree view of his/her environment, including the desk, by holding and moving the webcam/laptop as directed by the proctor. The proctor will watch the candidate on a webcam and record

the video and audio throughout the testing session, and the recording will be retained for 30 days.

Any unusual activity by a candidate is immediately flagged and addressed by a proctor. These situations include, but are not limited to, attempting to take screenshots of an examination item, attempting unauthorized movements in the testing environment, unprofessional conduct toward the proctor, talking to others during testing, and attempting to access unauthorized materials or equipment. If a proctor flags suspicious behavior, the proctor will contact Scantron to report and discuss the behavior and determine if the examination should be terminated. If it is determined that the examination should be terminated, the examination is terminated by Scantron personnel through Scantron's systems.

Information on these situations, including the candidate's name, identification number, examination form name, examination type, and test date, as well as a summary of the incident, will be communicated as soon as possible to ONCB.

Scantron Security Measures

Scantron's guidelines focus attention on security matters at all stages of the test administration process. All examination and candidate data are securely stored in an offsite data center, which is equipped with backup power using multiple redundant battery backup systems and generators. The data center network consists of a multi-carrier, redundant configuration to ensure there is no single point-of-failure. All information on the network is secured by multiple firewalls and is constantly monitored to ensure data security. This protects examination and candidate data before, during, and after the testing appointment.

Scantron PASS™ is an internet-based delivery system with all data transmitted from and stored on Scantron's server database. Secure internet-based delivery enhances examination security because data is not retained at the test site. Data transmissions between Scantron and each testing center occur through SSL (secure socket layer) encryption. SSL creates a secure or locked connection, over which data can be sent securely. SSL data transmission is the Internet industry standard as approved by the International Internet Engineering Task Force (IETF). Additional security measures include:

- Scantron PASS™ records the number of times a candidate touches each item, the time spent on each item, changes to answers given, and whether an item was marked or flagged. This information provides a basis for statistical analysis, and, more importantly, in the unlikely event that internet connectivity is lost, it enables the system to return candidates to the appropriate position in the examination. The data also can be used to assist in identifying candidates whose behavior during the testing appointment may have been inappropriate.

- Scantron's security guidelines require that Scantron maintain double-locked security areas in all permanent offices, with additional protection provided by alarm systems. These areas are referred to as vaults. Only personnel who have passed continued screening have access to confidential materials. This access is provided on a "need-to-know" basis only.

- All examination and candidate data are stored within an Oracle database secured via dual-level, role-based passwords. Only select Scantron technology team members have access to these passwords.

- The database server operating system is both locked down and password protected. The database engine has no external internet connection (i.e., it has no access to/from the internet). The database (RDBMS) is also password protected with different and unique username/password combinations. All schemas on the server also have unique usernames and passwords. Access to the databases by Scantron staff members is on a need-to-know basis only.

- All data transfers will occur via secured VPN, FTP, or HTTPS/XML. All Internet data transfer is encrypted via 256-bit SSL.

- Delivery of examination materials will be made by recognized national carriers. All deliveries require written receipts for delivery.

- Confidential material that is no longer needed may be shredded, at the direction of ONCB. Any examination material that is either no longer used or no longer needed may be declassified at the direction of NAIFA.

- On the suspicion of a serious lapse of security, Scantron will notify ONCB promptly so that appropriate action may be taken.

- All Scantron staff members must sign nondisclosure/confidentiality statements.

Examity Data Security

Examity's live online proctoring captures a minimum amount of candidate data. Examity collects only the candidate's first and last name and email address. Examity provides role-based single sign-on access and API integrations of all information needed to proctor examinations. Examity does not import the client's examination content as all content resides within Scantron's secure systems and the Scantron PASS™ test delivery driver. Unique proctor passwords and dual proctor/candidate login protocols ensure the candidate cannot take the examination unproctored. During the candidate authentication process, proctor passwords entered by Examity are never revealed to the candidate. This process ensures the security of client data.

Examity's rigorous data security policies enabled the company to achieve Learning Tools Interoperability 1.3 certification in September 2019. Considered the gold standard in education technology. Examity is the first and only online proctoring provider to be certified at the new standards, distinguishing Examity as one of the most secure providers on the market.

Scantron Data Management

Scantron retains a complete historical record of each candidate's test and maintains all electronic data permanently during the contractual period. All examination and candidate data are stored in an offsite data center, which is equipped with backup power using multiple redundant battery backup systems and generators. These systems are tested weekly and in the event of an electrical outage, the generators will cycle in automatically to provide dedicated power to all systems ensuring no server will lose power. The data center is housed in a hurricane-proof building, secured with biometric fingerprint readers and electronic card/pin access. The data center network consists of a multi-carrier, redundant configuration to ensure there is no single point-of-failure. All information on the network is secured by multiple firewalls and is constantly monitored to ensure data security. The building is equipped with redundant HVAC systems to provide the proper environment for computer systems.

Servers are configured with redundant configurations and clustered to provide uninterrupted access even in the event of multiple system failures. Load balancers assist in ensuring internet traffic is always routed in the most optimal way. Networks and servers are separated, and access is controlled through redundant security measures. Information is never made public nor is information ever shared between clients.

Backup software and hardware is used to store data both in real time and based on backup schedules. Multiple copies are made nightly and backups are then stored in different geographic locations. Backups that

are kept offsite are done so in a digital manner and transferred using encrypted private networks. Access to all information is only given on an as required basis for Scantron staff members.

All materials, including the item and exam files, candidate registration and identification information, and candidate testing records shall be proprietary to ONCB and shall be made available to ONCB at any time during the Agreement period.

Scantron's procedures adhere to all requirements set forth in the *Standards for the Accreditation of Certification Programs* (National Commission for Certifying Agencies, 2014), *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 2014), the American National Standards Institute's *ANSI/ISO/IEC 17024:2012 Conformity Assessment: General Requirements for Bodies Operating Certification of Persons*, and the *National College Testing Association's Professional Standards and Guidelines* (2000). These procedures are continually evaluated both internally and by external audit to ensure quality, consistency, and security.