Securing Certifications:

Protecting the Value of IT Certifications

2011
Contents

What Is the ITCC? .................................................................................................................. 3
Who Are the Audiences for This Message? ................................................................. 3
What Is the Securing Certifications Initiative? ......................................................... 6
What Is the ITCC Membership Doing to Secure Certifications? ......................... 11
How Can Test Takers Help? ......................................................................................... 12
Glossary .............................................................................................................................. 13
Securing Certifications: Protecting the Value of IT Certifications

What Is the ITCC?

The IT Certification Council (ITCC) is a council of industry leaders that focuses on subjects surrounding IT certifications. The council recognizes the need for a qualified workforce to support the world’s technology needs and is committed to increasing the number of professional certifications. The ITCC is a resource for employers, government officials, those within academia, and individuals who seek information about the many benefits of IT certification. The council establishes industry best practices, markets the value of certification, and addresses exam security and other key certification issues. One critical initiative is Securing Certifications, which has been created to address problems of exam security. To learn more about the ITCC, its current initiatives, and how to become a member firm, please go to http://www.itcertcouncil.org/.

Who Are the Audiences for This Message?

There are three distinct audiences: candidates or test takers who take certification exams; employers who hire individuals and use certifications as one hiring criterion; and IT certification providers who produce products, services, or other best practices, and who create certifications as a measure of the skills an end user has acquired about products and services. Here is a look at each audience, and how this message plays out for each.

Candidates and Test Takers

Before issues surrounding test security can be resolved, it is important to understand how the ITCC categorizes candidates and others who take tests. The ITCC has identified three main groups of test takers (see figure 1):
IT Professionals
- This group represents the majority of certification candidates who are honest and have done the requisite learning and studying for their exams. They are proud to earn a certification and highly value those efforts.
- IT Professionals are most affected by cheaters and test abusers because the integrity of their hard-earned certifications is compromised. These candidates must feel that their hard work is valued; to do so, the certification industry must demonstrate a commitment to combating cheating and recognizing the value of a truly earned certification.
- One way to do this is to clearly demonstrate what actions and policies have been designed to prevent cheating and that they are being enforced. Honest candidates will support anti-piracy and anti-cheating efforts because they want to preserve the integrity of certifications.

Misinformed Individuals
- These candidates may cheat because they are misinformed. Most may not understand that the materials and methods they used had violated an exam agreement. They also may not understand the consequences of their actions.
- Brain dump sites in particular can be very misleading for these individuals, because the sites disguise themselves as official materials. Proxy-testing offers can be very tempting as well, especially for those candidates who did not pass an exam the first time or who find it difficult to make it to a test center.
Misinformed Individuals are either tempted to find shortcuts in test preparation and test taking because it is easy to do so, or they otherwise become victims of nefarious business practices.

The key to reducing the number of candidates who fall within this group is to educate them about the consequences of cheating and about how to recognize bad opportunities as well as legitimate preparation means.

Enforcement after the fact will retroactively invalidate those certifications, but that will do little to prevent the problem in the first place. For this group, a focus on prevention and education will have the greatest impact.

**Cheaters**

- This is the smallest group, and is comprised of candidates who intend to cheat the system and who have no regard for the consequences. They actively seek exam answers or brain dump material; they participate or pay for proxy testing; or they find ways to cheat during the exam.
- A lack of education is not a culprit in this category; rather, these candidates will find the means to obtain a certification or steal exam answers despite the ramifications.
- The first way to address this group of candidates is to proactively make it difficult for them to engage in such practices, such as enhancing test site security, designing exams that cannot be manipulated, and taking down proxy-testing and brain dump sites.
- The second way to address this group of candidates is to retroactively apply strict enforcement and consequences, such as candidate bans or decertification, to show that the community does not tolerate such practices.

**Employers**

Employers count on certifications to demonstrate job candidates’ ability to perform the work they are being hired to do. A certification is a stamp of approval to show that an employee has learned the skills and knowledge needed to add value to a position. That value is compromised by exam piracy, whether real or perceived, because employers may question whether they can trust a certification as a performance indicator for a job candidate. From the candidates’ point of view, devalued certifications hinder their chances for employment or promotions by that employer because they have lost a quantitative marker of their abilities and skills.

Employers must understand that the value of a certification is not compromised by the actions of those who obtained certifications inappropriately. While there will always be those who manage to cheat or obtain a certification they did not earn, those individuals make up a small percentage of test takers. The majority of candidates who have certifications have obtained them through preparation, study, and hard work. It is those candidates, not the cheaters of the system, that we need employers to recognize and associate with certifications.
IT Certification Providers

The IT companies, or vendors, that create certifications for their products, services, or best practices also recognize the value of certified individuals as well as the need for anti-piracy initiatives that maintain certification integrity. The ITCC provides value by not just focusing on the candidates’ and employers’ needs, but by collaborating with those companies who help create and support the industry itself.

What Is the Securing Certifications Initiative?

Definition of an IT Certification

As most dealing with IT products and services know, the IT certification is an industry-wide recognized method of objectively assessing the skills of a candidate on a particular subject. The IT certification is a critical element for validating the skills of individuals who are part of the IT industry ecosystem. The vast majority of candidates are honest, and they invest significant time and effort in developing their skills, preparing to take their certification exams, and achieving their certifications. A certification allows the candidate, a hiring manager, and the IT vendor (who created the product or service) to objectively evaluate the actual skills acquired by the IT professional. Protecting the integrity of the certifications, and the process of acquiring them, is key in maintaining the value of the certification for all three audiences.

The Value of Certifications

Aside from being an industry-recognized, objective measure of validating a candidate’s skills, the IT certification provides very real value for the three audiences: to the candidates who acquire them, to the employers who hire certified individuals to develop solutions, and to the IT vendor companies that produce the products and services that are being certified. The following statistics demonstrate the importance of certifications:

Candidates: In a Prometric study, 77% of respondents said that once certified, they felt they knew the product well and could solve problems faster. In a 2009 Certification Magazine salary survey, 36% of the candidates indicated that they received an increase after recent certification, and 47% of them attributed it to certification.

Employers: In two recent IDC studies, 76% of respondents said that certifications increased the credibility of their consultants, and 66% of the managers believed that certification improved the level of service and support offered to IT end users and customers. A 2009 Amazon Consulting study of managers who are responsible for building solutions for their companies indicated that 80% of the respondents placed trust in firms with IT certifications and were more likely to use them again.
**IT Vendors:** IT companies across the board can better measure the skills in their sales and delivery channel through qualifying certified candidates and Partner firms.

**Acts of an Unfortunate Few**

In general, IT certifications are well respected in the marketplace. Unfortunately, a very small number of candidates who choose to cheat outright, to take shortcuts in preparation for an exam, or to illegally share test content with others has raised the risk of eroding the perceived value of IT certifications.

Therefore, it is the objective of the ITCC member firms, and of the *Securing Certifications* initiative, to educate the vast majority of honest candidates about what is being done to safeguard the value of certifications. The ITCC must educate the small number of candidates who are “on the edge” of dishonesty in their test taking (either due to lack of knowledge of the problems, or of the consequences), so they can make the educated decision to test with complete honesty going forward. And finally, the ITCC must make it clear to the few who are cheating in one way or another that the collective body of IT vendors in the ITCC and many others in the industry are taking this problem very seriously and are enacting very real, and very harsh, consequences on all instances of detected cheating.

**Elements of the Problem**

Most people understand that to be able to pass any exam, they must put in effort and study. The majority will prepare for a test in advance by using a combination of formal training and informal self-study methods. These types of candidates work hard to ensure that their exam scores are the true reflection of their knowledge, skills, and abilities. As certification is valuable to individuals who are seeking employment and financial gain, it has become attractive to many. Unfortunately, a number of candidates underestimate the effort that is needed to pass the test that is required to attain the certification credential. Because certification is intended to demonstrate the minimum skills required for the job role, there may be some individuals who feel they can take the exam without studying and be successful, especially if they have held a job in the associated field for any length of time. Some people are simply cheaters (see figure 1 above) and will treat the certification as just another activity on their checklist as they advance their careers. These individuals for a number of reasons demand products and services that will ensure that they pass the test quickly. These shortcuts, while possibly briefly effective, undermine the value of the certification, because those individuals may not always have the minimum requirements to perform the job. To preserve the value of the certification, candidates need to ensure that they pass on their own accord as a reflection of their learning gains, competency, and overall skills and abilities.
The elements of this problem are varied and significant. Some of the recurring challenges met by most IT certifying agencies are as follows:

1. **Stealing IP:** All exam content, including the items, options, and correct responses, is the intellectual property (or IP) of the certifying agency. There are a growing number of nefarious individuals who will go to extraordinary measures to obtain actual exam content because there is high demand from those who have intentions to cheat as well as from those innocent candidates who are searching for study resources. Certifying agencies and their test delivery agents take standard measures to secure the content because it is expensive IP that is very difficult to replace. Whether they infiltrate the communications between the certifying agency and its vendors to capture the actual content, “take” a test to memorize the content, or take any other step to intercept the content, pirates are at the center of the security problems—and they will be addressed.

2. **Sharing questions or answers with others:** Some test takers discuss the results of their exams with fellow students and candidates. It is natural for most to have experienced this and to want to discover the answer or discuss shared challenges, in an effort to understand the content of the exam. These discussions can occur in person, on online forums, etc. However, innocent these discussions may seem, almost all IT certifying agents have NDAs (or nondisclosure agreements—see number 7 below) and candidate agreements in place that specifically prohibit sharing information from a test. The reason this sharing is prohibited is because candidates end up working together to figure out an answer—a dynamic referred to as “collusion.” In short, agencies wish to certify individuals based on their own knowledge and skills and not on a “collective knowledge” gathered from discussions. In addition to collusion, discussing items from a test, especially in public forums such as online spaces, may also pre-expose other candidates who have not already taken the test. Both collusion and pre-exposure inhibit a certifying agency from doing the job of certifying an individual on his or her knowledge and skills. By giving help on a test item or teaching others the content on an exam, candidates are essentially enabling someone who may or may not meet the qualifications of the certification to pass the test.

3. **Cheating during the test:** Cheating during a test has become a sophisticated strategy that no longer is limited to bringing cheat sheets or unauthorized notes into the testing room, or copying answers off another candidate’s test. In this digital age, candidates have smart phones and other mobile technology to aid them in cheating. This type of cheating is easily detectable with data forensics and is often backed up with video or eyewitness evidence. Candidates who are discovered cheating during a test can be subjected to decertification and can be banned from testing with a specific program or testing center again.

4. **Taking a test for another:** Proxy test taking is when one individual takes a test on another individual’s behalf. This behavior is considered test fraud because the results of the test are not those of the person who has registered for the test. Those who
commit this type of fraud risk their identities and their professional integrity because they pay large sums of money to individuals they may not have ever met and also provide them with intimate details of their personal backgrounds, up to and including copies of their government-issued IDs. The ITCC has gone to great lengths to detect this type of fraud, including requiring photos on score reports, digital signatures, and more. Candidates should be aware that entering into transactions with organizations that engage in this unethical business method is risky and could result in identity theft.

5. **Falsifying scores or the ownership of a credential or certification:** A few candidates will go to any length to obtain certifications, including falsifying their certifications by altering their score reports or producing other false “proof.” Again, this is test fraud and can easily be tracked down by the sponsor. These candidates’ companies may also be informed of the misconduct.

6. **Not understanding or recognizing what a brain dump is:** While innocently preparing for certification, candidates may have discovered websites that offer “study guides” or practice materials that come with a guarantee of a passing score. In some cases, these companies boast their products’ effectiveness and will cite validation of the content by actual instructors. These websites are called brain dumps. The phrase “brain dump” refers to a collection of confidential information relating to examinations, which is obtained by examinees who memorize, then “dump” (or record) the information after the examination. Brain dumps are also a way to refer to collections of exam items that have been stolen from high-stakes certification exams. While many of these companies and sites are upfront about where their material has come from and let the public know they are selling actual content, others do not. Candidates should watch for basic signs of brain dumps, which include lures like money-back guarantees, 100% pass rates, and other “too-good-to-be-true” promises. Cert Guard (http://www.certguard.com/) allows candidates to input a URL from a website to determine if a website or domain is a brain dump site or a legitimate preparation site. IT candidates should be careful of what companies they use to find additional preparation resources. Often, the IT vendor for a certification will indicate recommended or sponsored sites that can be trusted. If it sounds too good to be true or is listed on Cert Guard, that is a good sign for a test taker to avoid the company, which will help to maintain the value of certifications and protect credentials in the long term.

7. **Not understanding or following the terms of an NDA:** All IT organizations require candidates to agree to a non-disclosure agreement (or NDA) before they can take an exam. This agreement usually includes the specifics of what is being expected of candidates and which types of studying resources are prohibited. Candidates can familiarize themselves with the terms of an NDA by visiting the IT certifier’s website and downloading the terms in advance.

All of the issues listed above can cause doubt about the value of the hard-earned certification. Potential employers often use certifications to identify those candidates who
have the minimum skills, knowledge, and potential ability. Likewise, those with certifications tend to earn higher salaries and are valued highly. But as candidates knowingly or unknowingly subvert the certification programs as in the examples listed above, they run the risk of diminishing the value of the very credentials they seek. They also run the risk of consequences that could end their ability to further test and certify with an IT certification provider, or for their company to lose credit for their certifications, for example, because the certifications count toward achieved levels in Business Partner programs with the IT vendor.
What Is the ITCC Membership Doing to Secure Certifications?

Coming Together as an Industry Group

The problems described above cannot easily be addressed by any single IT vendor. Consequently, under the ITCC, member firms have formed a subgroup for the Securing Certifications initiative. The member firms of the ITCC have a common focus: to protect their own certifications from non-independent test taking (i.e., cheating) and to protect the value of all IT certifications in the marketplace. The members meet regularly, share best practices with one another on issues around cheating, and develop strategies to accelerate the efforts in protecting IP and protecting the investments of the vast majority of test takers. The ITCC works closely with testing vendors such as Pearson VUE, Prometrics, and Certiport, and they also collaborate with other industry testing organizations such as the security taskforce of the Association of Test Publishers. The ITCC is always seeking additional partners in these efforts, and involvement in the Securing Certifications initiative is often a compelling reason for a new IT vendor firm to join the ITCC.

Taking Actions against Cheaters

Much progress is being made. IT vendors are taking real actions against individuals who are cheating. Some actions include the following:

- Invalidating the test score for the test in question
-Possibly requiring a retake of the test to revalidate the candidate’s knowledge (or possibly not allowing a retake)
- Banning the offending candidate from all future testing with that vendor firm
- Optionally informing the candidate’s company of the cheating incident and the actions taken
- Discontinuing testing with test sites that have been found to be participating in test theft or other cheating activities
- Bringing lawsuits against individuals or other criminal entities that promote exam cheating

Maintaining the high value of the IT certification is of paramount importance to the ITCC member firms, and to this ITCC initiative. The next section discusses what honest candidates can do to help identify cheaters or suspicious sites or actions, so that the ITCC can take immediate and focused action, delivering consequences that are targeted to eliminate those instances.
How Can Test Takers Help?

Exam integrity is clearly important to certification candidates. They work hard to pass exams and earn certifications; it is disheartening to have that hard work devalued by cheaters and dishonest test centers. Combating piracy must be a global community effort. Test takers can do several things to help:

- Report testing violations, instances of cheating, brain dump sites, proxy-testing sites, and other disreputable activity to the certifying company’s tipline or via the exam provider’s own anti-piracy feedback mechanisms.
- Report sites that suggest they have “study guides” that guarantee passing grades or that offer to pass exams for people.
- Know how to recognize a brain dump site and how to explain to others what one is.
- Report discussion groups that give out answers, point to brain dump sites, or offer to proxy test.
- Educate their peers about the consequences of cheating. Test takers should not be afraid to speak up in chat rooms, forums, and other public arenas where piracy and other cheating behaviors are encouraged.
- Report instances of social media abuse, such as Facebook groups dedicated to exam cheating, Twitter feeds that provide exam answers, or blogs that brag about cheating.

Test takers must use their best judgment when combating piracy in order to avoid entering into potentially unsafe situations. Reporting abuse (to a vendor or the ITCC tipline) is the best way to keep ahead of exam abusers, and this will help the industry as a whole maintain the integrity of the certification process.
Glossary

- **Anti-piracy**: Activities and actions designed to combat software and content theft. Often this term is used to denote related practices, such as maintaining exam security or catching cheaters.

- **Brain dump**: Confidential information relating to examinations that is obtained by examinees who memorize, then “dump” (or record) the information after the examination. Brain dumps are also collections of exam items that have been stolen from high-stakes certification exams.

- **Certification**: A credential awarded by a company, academic institution, or governing body that verifies the recipient has the requisite knowledge and skills needed to perform a certain function or task. Most certifications are awarded following the passing of a test or completion of a course of study, or both.

- **Non-Disclosure Agreement**: Also referred to as an “NDA”. A contract that restricts the disclosure of confidential information or proprietary knowledge under specific circumstances.

- **Piracy**: The unauthorized use, reproduction, or misappropriation of intellectual property. Examples of piracy include reproducing copyrighted material; stealing exam content and answers; cheating on an exam; disseminating materials without a license; and downloading files without purchase.

- **Proxy testing**: The act of taking a test on the behalf of another in the pursuit of passing the test in that person’s name, rather than that of the test taker. A proxy tester could be an individual who sits in a test in lieu of another, or it could be a company that promises to take a test on behalf of a client.

- **Score report**: A record of one’s exam results, whether printed or electronic, that indicates a pass or fail. A score report may also contain information about the individual’s competencies in a tested area.