Find a Confidential Career

The ever-growing information security field keeps personal information private

By JEFF NAITZ
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A s the popularity of Internet shopping continues to rise, so too does the risk. With annual revenues for e-commerce in the billions, according to the Department of Commerce, millions click and spend private information without even a thought of it falling into the wrong hands. So who ensures that it’s secure and not scammers picking up your credit card number? Information security professionals.

In many ways, information security is a field that was only created 20 or 30 years ago. And while confidentiality isn’t a new concept, as technology has boomed and more information has been stored, the opportunities for employment in computer information security continue to multiply.

“I have seen a significant increase in interest in people wanting to get involved in the field,” said Clifford Neuman, a computer information security researcher and designer. “Once we hit the mid-90s and we started on the building, electronic commerce that’s when the interest really picked up on both sides...the increase in attacks and, of course, the increase in technology.”

The median salary in 2008 for information security professionals was $75,000, experts said.

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SECURITY

As the Internet has changed the way we interact, so has the need for information security. Security managers and security analysts are needed to protect corporate systems, government systems, military systems, and other electronic networks.

As of October, IS&2 has bestowed Certified Information Systems Security Professional (CISSP) certification to more than 45,000 people in 135 countries. Qualifications to take the CISSP exam include at least five years of hands-on experience, one year of which can be substituted with an appropriate college degree.

Tipton warned that the test to obtain a CISSP can be difficult — in fact, he studied for three months prior and utilized all six allotted hours to complete his exam. But he said that the certification shows prospective employers you have a certain level of competence in the field.

Both Tipton and Neuman said they have seen great increases in the size of and opportunities in the information security field. (IS&2’s) understanding rate has increased by year after year, particularly in the last five years, and enrollment in Neuman’s classes now exceeds 100 students each semester.

It’s an exciting area,” Neuman said. “It’s also interesting looking at this data? So it’s not, ‘What products do we install?’ but, ‘As I’m designing this application, what are the typical things we need to do in the design?’

Neuman noted that the programs being developed aren’t necessarily security programs, but could be any type of computer program that an information security program or architect would try to make as safe — or hacker-proof — as possible.

GET CERTIFIED

The examination is about applying principles and using products to keep specific information safe. This area, too, is broad, and jobs encompass everything from systems administrators to chief information officers and chief information security officers.

While programs and architects often acquire professional degrees, like USC’s computer systems security specialization, information security professionals on the operational and usually go for certifications.

A number of certifications are offered and recognized in the field, including specializations in engineering and software. The most popular is the CISSP, or Certified Information Systems Security Professional.

Hard Tipton is the executive director at the International Information Systems Security Certification Council (CISSP), a nonprofit leader in certifications. Tipton explained those who seek CISSP certification come from a variety of backgrounds including telecommunications, the systems industry and corporate settings.

“The CISSP is the gold standard,” Tipton said. “We define our CISSP as a professional, our CISSP requires knowledge in the governance, in cryptology, it requires vast telecommunications knowledge, a system administrator expertise. There also an architectural side to it, a management piece. It’s a full picture of 10 domains of knowledge.”

As an example, a CISSP typically develops information security strategies, writes information systems policy, manages information systems and personal security and ensures that security policies comply with industry regulations.

Those with this certification often work as information security and assurance professionals, risk managers, and security analysts.