5 Core Principles of Information Assurance

Back in the old days, before IA existed the practice was simply known as information security, which had three controlling interests: confidentiality, integrity and availability.

The goal was as simple; all that was needed was a couple of guards put in charge of a computer's safety and well being. As technology evolved, information assurance came into the forefront of importance. Its goal was to guarantee that the data being protected was authentic and valid.

By combining the key points from information security and IA together, you now have the five fundamental pieces that make up information assurance today:

- **Availability** is the cohesion of processes involving the computer systems that hold the data and the security processes that protect it working in tandem, making the information immediately available to the end user.
- **Authentication** guarantees that downloadable files, logins and passwords are not fake.
- **Confidentiality** allows only authorized users to access, use or copy information. Authentication works closely with confidentiality, if the user is not authenticated they will not be granted access to confidential information. If the protected information is accessed by a non-authorized user, a breach of confidentiality has occurred.
- **Integrity** protects data and does not allow it to be corrupted, altered, deleted or recreated without proper authorization. Again, authentication is central to keeping another facet of information assurance functioning properly.
- **Non-Repudiation** is a service that validates the integrity of a digital signature's transmission; starting from where it originated and ending where it arrives. Non-repudiation guarantees that the digital signature is that of the intended party, thereby granting authorization to the protected information.

As you can see, you cannot have a proper IA protocol in place without all five of these facets working together hand-in-hand. Information security professionals receiving specialized training in IA will increase their value as an employee.