

Access control overview

Welcome back. In this video, I'm going to introduce you to access control. When you try to access a system as an end user, typically, there are three stages--

identification, authentication, and authorization. Identification is where you claim an identity.

Authentication is where you try to confirm that you actually are the person that you claim to be. And authorization is making sure that you have the appropriate permissions and authority to access specific data or functions. When we look at authentication, specifically user authentication, there are typically three different factors which we could use to authenticate the user. We have something you know, something you have, or something you are. So that's knowledge, biometrics, and tokens.

Knowledge, typically, we would see in the form of a text-based password, but there are alternatives out there. Biometrics, we have aspects such as fingerprints, iris, retina, or even voice recognition. We also have tokens, although these tend to be used less often. These can be, for example, access cards which only you should have access to.

In addition to using one factor, we have the option of looking at multifactor authentication. The reason being behind this is that if one factor is compromised, then having another factor gives that extra assurance that it is indeed the end user. Now, if you look at the definition of multifactor authentication, technically, they must come from two separate factor categories.

So you could have a form of biometrics as well as a password or a token as well as a password or a token and biometrics and so forth. Two passwords by technicalities doesn't really count as multifactor authentication. It's very likely that you have used multifactor authentication. The drawback with this is, obviously, the impact on the usability. So oftentimes, it's down to the end user to decide--

are they more interested in the security and willing to give up the ease of having only a single factor there? It's a really fascinating area which we'll delve into more depth in future videos.

I hope you've enjoyed the video, and I'll see you next time.

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