

A CYBER SECURITY CHRONICLE

In the opening scene of *Hamlet*, Bernardo is asked to identify himself by reciting a password before he can take over his castle post from Francisco: "Long live the king!"¹ This exchange, from Shakespeare's prolific tragedy, is one of the most famous examples of passwords in literature. Historically, we have relied on passwords as a way to manage privileged access, but poor management and evolving threats are now making them obsolete.

In order to understand where cyber security is headed, we must first examine where it has been. The following timeline provides a brief history of passwords.

AN UNAUTHORIZED HISTORY OF PASSWORDS

1706 ARABIAN NIGHTS

This ancient collection of Arabic stories was officially published in English in 1706. In one of the most famous stories, a woodcutter named Ali Baba overhears a secret phrase used by a group of thieves to protect their treasure. While the thieves aren't watching, Ali Baba utters the phrase "Open sesame" and takes the treasure.²

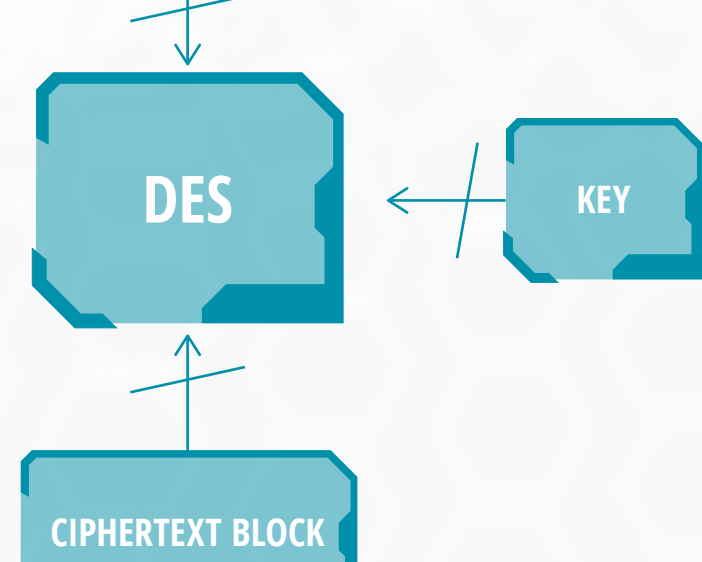
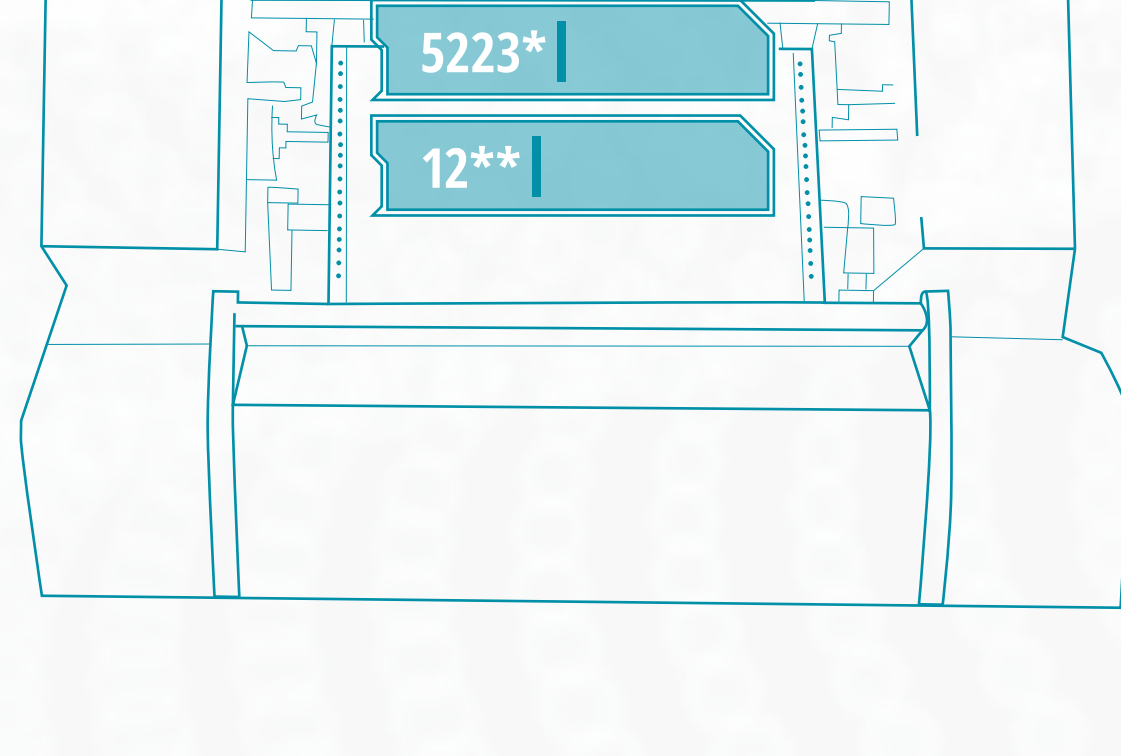


1961 FIRST COMPUTER PASSWORD

Researchers at MIT build a large time-sharing computer (CTSS) and control access to personal files and usage time with a password.³

1962 FIRST COMPUTER PASSWORD FAILS

In order to increase his CTSS access time, one of the MIT researchers prints out all of the passwords stored on the computer.⁴

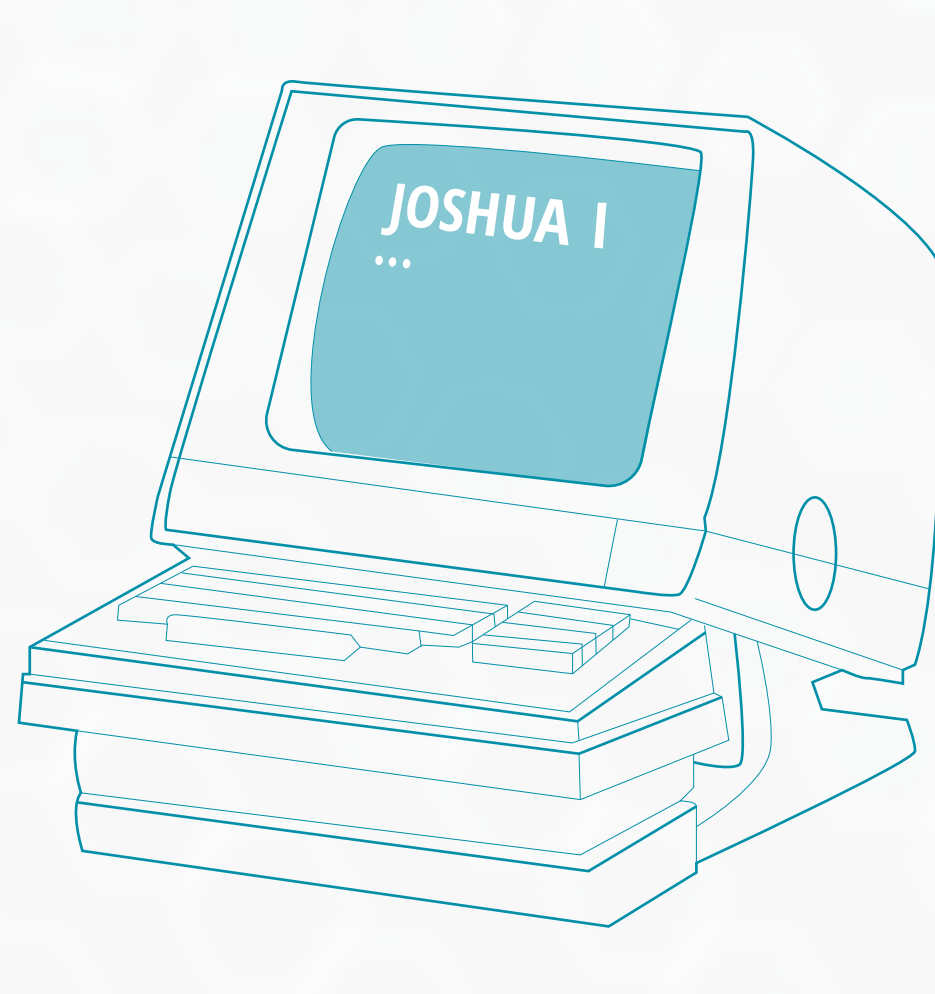


1979 DATA ENCRYPTION STANDARD

The National Institute of Standards and Technology (NIST) creates an algorithm that sets a new standard for password security.⁵

1983 WARGAMES

David Lightman (played by a young Matthew Broderick) accidentally hacks into a military computer after conducting research on the original programmer and learning that he had a son named Joshua who died tragically. Predictably, the password is "Joshua."⁶

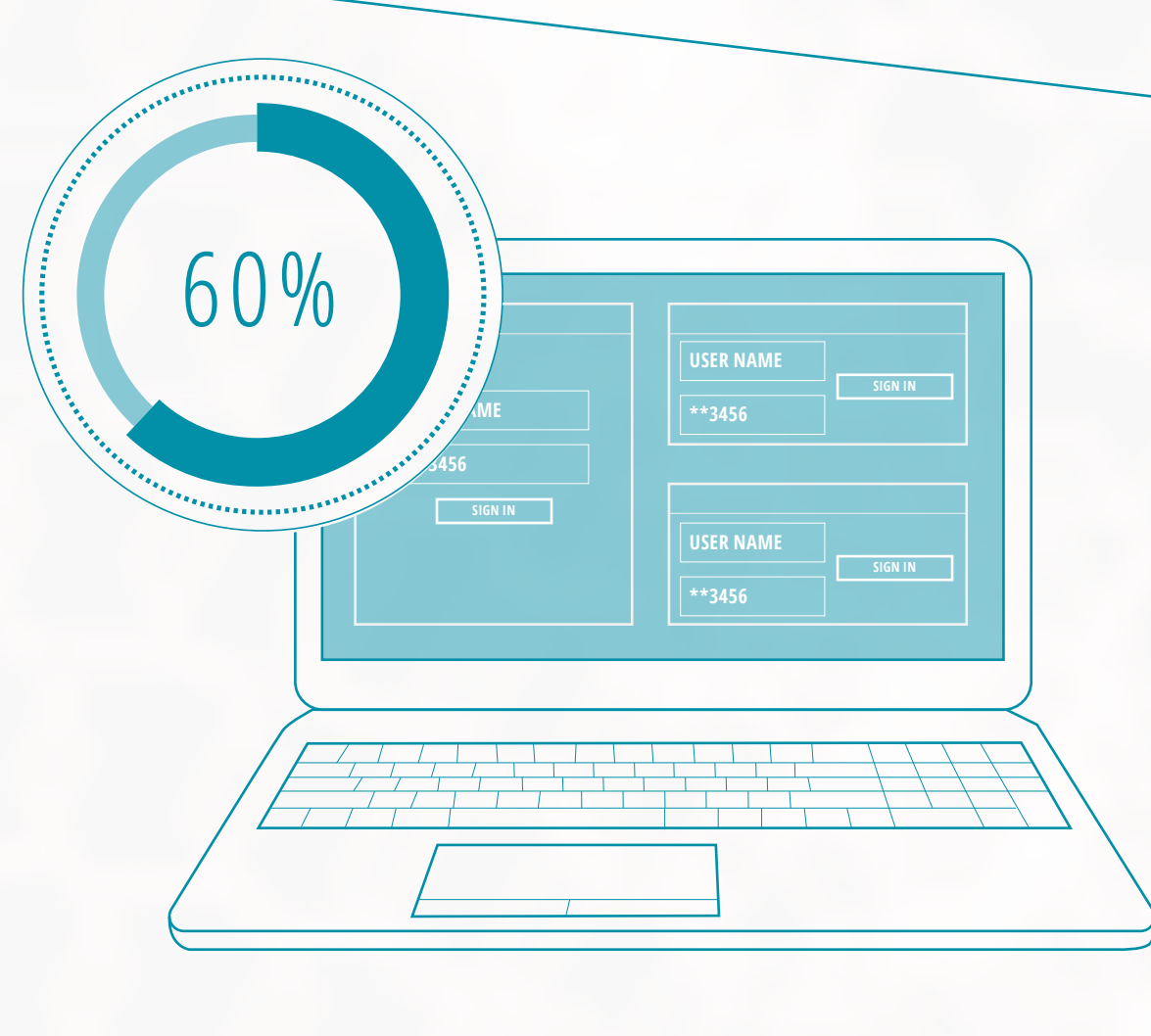


1998 ELECTRONIC FREEDOM FOUNDATION

After two decades of being the security standard, a digital rights group cracks the Data Encryption Standard (DES) code in a mere **56 hours**.⁷

2010 WALKER, TEXAS DANGER

An anonymous engineer at a major social networking company claimed there was a time during which employees were able to access any user profile with a master password inspired by action hero Chuck Norris.⁸



2016 OLDER, BUT NOT WISER

According to a recent global survey of IT professionals **60% of employees** report using the **exact same password** for everything they access—a prime example of poor password management.⁹

Although passwords were once vital to identity access management, the rapid evolution of the cyber security landscape is making single forms of authentication obsolete. **In order to avoid becoming the latest headline, modern enterprises need multiple layers of security to safeguard their sensitive assets.**

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