

# Multifactor Authentication

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## Abstract

*With the advent of Internet of Things, large number of devices became connected to the cloud via various services. From an Information Security perspective, this aspect adds additional tasks to the defense in depth layers. This article tackles the authentication level and its options. This topic has been chosen, as user/password authentication is obsolete and no longer secure. Despite the increased complexity of the passwords, the use of rainbow tables and the large processing power available, the systems are vulnerable to brute force attacks.*

**Keywords:** multifactor authentication, passwords, rainbow tables

## References

- [1]. [https://en.wikipedia.org/wiki/Multi-factor\\_authentication](https://en.wikipedia.org/wiki/Multi-factor_authentication).
- [2]. "Information technology -- Identification cards -- Financial transaction cards". ISO/IEC 7813:2006.
- [3]. van Tilborg, Henk C.A.; Jajodia, Sushil, eds. (2011). Encyclopedia of Cryptography and Security, Volume 1. Springer Science & Business Media. p. 1305. ISBN 9781441959058.
- [4]. "SANS Institute, Critical Control 10: Secure Configurations for Network Devices such as Firewalls, Routers, and Switches".
- [5]. "SANS Institute, Critical Control 12: Controlled Use of Administrative Privileges".
- [6]. <http://thedigitalteacher.ca/wp-content/uploads/2014/06/Screen-Shot-2013-02-07-at-12.14.39-PM.png>.
- [7]. [http://www.smspsscode.com/media/1235/adaptive\\_figure\\_01.png](http://www.smspsscode.com/media/1235/adaptive_figure_01.png).