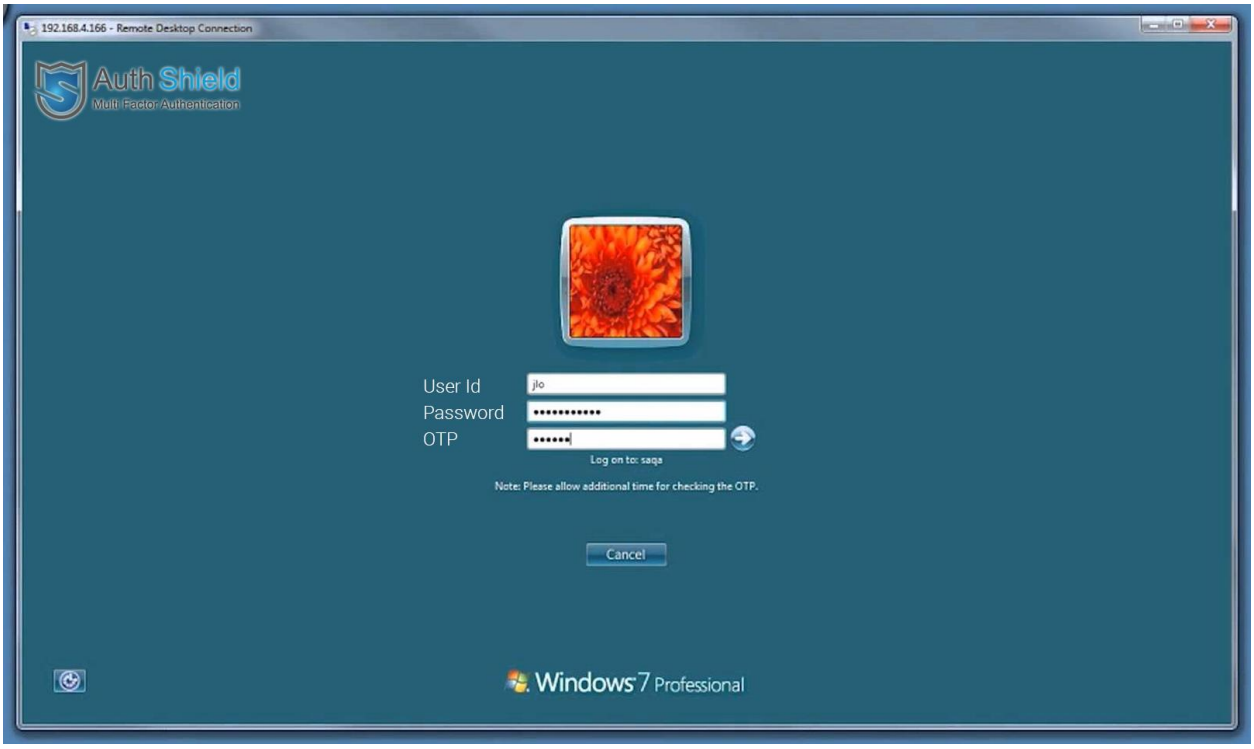
Auth Shield
Multi Factor Authentication

An Authentication Security Organization

Whitepaper

Integration of AuthShield Multi-Factor Authentication with Remote Desktop and Windows logons



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1. Introduction

A major target of most of the hacking attacks today is to steal the credentials of the user thereby breaking the single factor authentication in vogue. The target could be to steal the login credentials of multiple users to log into mail IDs, Web Applications, Windows Logon, VPN accounts, Database passwords etc. Strong authentication is the first pillar of trusted networks, in which identities can be trusted by independent partners. It is the foundation for a more secure network, where all users and all devices are strongly and mutually authenticated in an open, interoperable and federated environment.

"According to a survey carried out 70% of people reuse their passwords in multiple accounts. Less than 2% users have passwords that are complex enough and long enough to resist a combination of dictionary, rainbow and brute-force attacks"

2. Threats to Web Application

a. Social Engineering or Password Sharing

Most people end up sharing their passwords with their friends or colleagues. The act may be deliberate or accidental. But the fact remains that a user seldom even remembers the number of people the account details may have been shared with. At the same time, passwords are not

changed at frequent interval, giving an outsider unlimited access to an account. Occasionally, users also fall prey to common social engineering techniques and end up revealing answers to their security questions thereby providing intruders a chance to gain unauthorized access to the account.

b. Reuse Logins

A user on the net usually has more than one account. Most users end up using same or similar passwords in multiple accounts leading to a possibility where an inadvertent leak may lead to providing access to multiple accounts

c.Identity thefts – Phishing

"One Phishing attack at a Bank / Online Portal / store/ BPO etc can lead to a loss of thousands of accounts in one step

Acquire details such as credentials to SAP and other critical applications etc by masquerading as a trustworthy entity. Such an information breach by authorized personnel either intentionally or accidentally, can cause irreparable damage to an organization.

d. Virus, worms, Trojans

Keyloggers, remote sniffers, worms and other types of Trojans have been used since

the evolution of the internet to steal user's identity. Most data is accessed from stolen computers and laptops or by hackers capturing data on unprotected networks.

"The best way to beat a thief is to think like one."

3. Protecting the system

When your organization banks on you, what do you bank on?

Prevention is always better than cure. It is truer today than ever before when the theft is conducted on the net with no physical threats and with less cost to the perpetrator of the crime. The only challenge that remains is to cover ones tracks and considering the massive flow of information on the net almost on a daily basis, it is not much difficult either.

Multi-Factor Authentication: why do you need it?

Phishers try to obtain personal information such as your password or PIN-code by pretending to be a legitimate entity.

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Using Phishing, static passwords can be easily hacked providing fraudsters easy access your personal accounts, files and confidential information.

AuthShield - Multi Factor Authentication maps the physical identity of the user to the server and increases the security of financial and other critical systems. Integrating Stronger User Authentication system not only helps prevent Online Credit Card fraud, Card Cloning, Identity theft but also helps in the capture of habitual cyber criminals.

AuthShield authenticates and verifies the user based on –

- something only the user has (mobile phone/ land line/ hard token)
- something only the user knows (user id and password)
- something the user is (Biometrics)

AuthShield technology uses a dual mode of identification where along with the user id and password, verification is done through a secure randomly generated through One-time password (OTP). This is provided to the user through:

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Hard Token

AuthShield's Hard token is a security device given to authorized users who keep them in their possession. To verify a transaction using second factor of authentication, the device displays a changing number that is typed in as a password. The new number is based on a pre-defined unbreakable randomized algorithm. Thereby, the hard token enables the server to authenticate the digital identity of the sender using a hardware device apart from his user name and password.

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Mobile Token

AuthShield's mobile token is an application installed on smart phones which generates an OTP for the user on the phone itself.

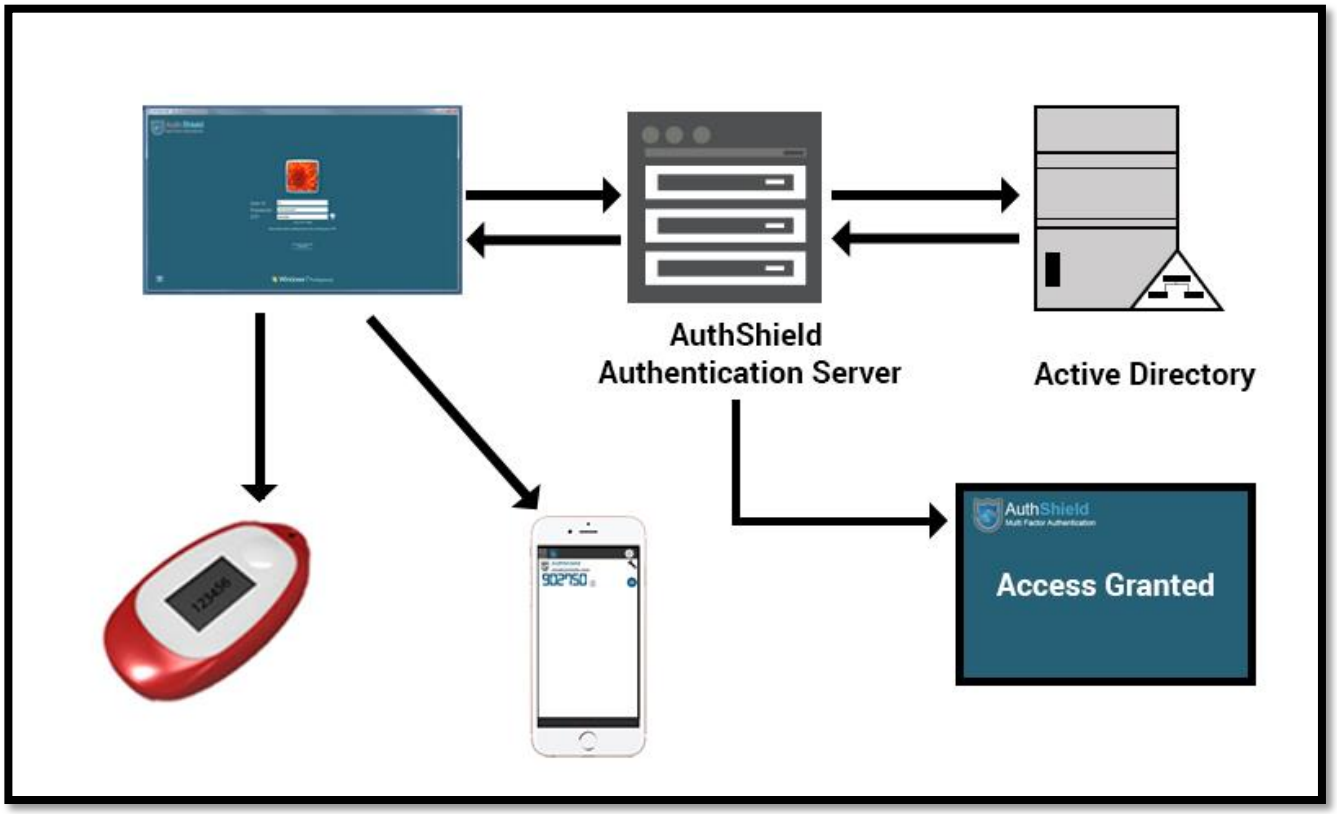
The architecture remains similar to a Hard Token except that the user only has to carry his mobile phone. Thereby, the device enables the server to authenticate the digital identity of the sender using a mobile phone apart from his user name and password.

Soft Token

AuthShield soft token is a convenient form factor installed on the laptop / desktop itself. The token generates a new password after fixed intervals of time. The user enters the password generated by the soft token as a secondary form of authentication.

4. Integration of AuthShield with Windows Logon

Architecture



Process

- AuthShield Authentication Plugin needs to be installed at the user's system.
- Enter OTP generated from Hard Token or Mobile Token
- Entered Password gets validated from Active Directory whereas OTP gets validated from the Authentication Server
- Once validated, User shall be granted access to the Windows.

5. Features

- OS Independent Authentication Mechanism
- Seamless Integration with the current business and security architecture
- Increases the log on security for Mails
- 99% security from Phishing attacks and identity thefts
- Unbreakable encryption on the lines of those used by US Government
- Logs are maintained to fix responsibility in case of an unlawful event.

6. Advantages of using AuthShield

For Users

Using AuthShield Multi-factor authentication can help in preventing-

- Online credit card fraud Phishing
- Card cloning
- Unauthorized access to data by employees.

For the organization

- OS Independent Authentication Mechanism
- Seamless Integration with the current business and security architecture
- Increases the log on security for critical applications.

7. About Us

The world today revolves around information. Information today is the energy that plays a critical role in our personal lives and drives our businesses. As we move further into this digital age, it has become imperative to not just protect our information from outsiders but to also draw intelligence from the vast amount information available to us.

Internet is the new playground for unwanted elements of society intent on committing terrorist or espionage activities, financial frauds or identity thefts. Keeping this in mind, it has become imperative to not only prevent these acts but also be in a position to intercept, monitor and block Internet communication to draw intelligence out of them.

AuthShield is an Authentication Security solution with a patented technology on implementing Multifactor Authentication at a protocol level. This makes it an application independent technology and needs no changes at the application. As an advantage of working at protocol rather than application level, an organization can use AuthShield to implement Multifactor Authentication in any and every technology such as **Downloading mails on phones / desktops,** SAP, Database queries, Internet of Things, or any other enterprise or cloud technology in a matter of minutes.

For more information visit - www.auth-shield.com