

fact sheet

How do I choose the best authentication system?

When authenticating the identity of staff within an organisation or visitors to a website, businesses face a number of choices. The table below summarises the main options available, how they work and their pros and cons. Remember that these are not necessarily exclusive choices; for instance, SSL technology used for securing transactions with websites is often employed in conjunction with passwords.

Technology	How it works	Pros	Cons
Password authentication	Matches user name and password to restrict access and authenticate identity	<ul style="list-style-type: none"> • Inexpensive • Well understood by users • Can be readily changed 	<ul style="list-style-type: none"> • Can be compromised by users • Does not authenticate data • Often transmitted insecurely
SSL (Secure Sockets Layer)	Creates a secure connection between Internet application and user	<ul style="list-style-type: none"> • Widely supported in Web browsers • Offers protection for all data transmitted between servers 	<ul style="list-style-type: none"> • Customers cannot choose when it is used • Relies on passwords for initial access
PGP (Pretty Good Privacy)	Uses public key cryptography; keys can be generated and authenticated by individual users	<ul style="list-style-type: none"> • Keys provide higher levels of authentication • Supported by many software packages • Cannot be easily changed 	<ul style="list-style-type: none"> • Private keys can be compromised • Public keys required to send information
PKI (Public Key Infrastructure)	Uses public key cryptography; keys are generated by certificate authorities	<ul style="list-style-type: none"> • Keys provide higher levels of authentication • Used by governments and major companies • Cannot be easily changed • May be used with biometrics to access private keys 	<ul style="list-style-type: none"> • Issuing certificates can be costly • Businesses may require multiple certificates • Private keys can be compromised • Public keys required to send information
VPNs (Virtual Private Networks)	Create encrypted 'tunnels' between corporate networks and the Internet	<ul style="list-style-type: none"> • Give easy access to remote users • Can provide sophisticated access controls 	<ul style="list-style-type: none"> • Expensive to implement • Does not support transactions with consumers