

This is a general paper which will identify three risks associated with Google Search Engine. How can organizations mitigate these risks and what specific prevention and detection controls can be taken.

Risks Associated with the Technology

1. Authentication – One of the major issue with Google is authentication risk.

- Unauthorized access to the victim's documents in Google Drive
- Unauthorized access to the victim's emails
- Google Web search history or potentially sensitive company data stored in Google drive

2. Encryption –

- Anyone can break the encryption code of google and fetch important information
- Messages and emails are transmitted in encrypted form and it will be a big loss to the company if hacker manages to break the encrypted code
- Super-users with broad access rights can subvert and potentially disable encryption controls unless suitable checks and balances are put in place

3. Verification –

- Attackers can steal your password, they could lock you out of your account
- Go through – or even delete – all of your emails, contacts, photos
- Pretend to be you and send unwanted or harmful emails to your contacts
- Use your account to reset the passwords for your other accounts banking, shopping, etc

Mitigation Strategy-

- There must be third party authority that can not only authenticate an identity but also ensure that authentication is trustworthy.
- Enable two-factor authentication, you can generate a one-time key to access your account using phone or other device.
- Encryption policy must change periodically
- Do not downloading random software from the Internet

Prevention Controls-

- Don't pick weak passwords.
- Don't reuse passwords across sites, applications, and services.
- Do not disclose your password in public
- Avoid using public internet
- Do not use the same password on more than one site
- Do not click on random links in email messages

Detection Controls-

- Employing intelligent detection controls at data entry points
- Employing technologies that automatically remedy certain dangerous situations
- Analyze the periodic chart of growth
- Check on big falls and rise