

# Lab 7: Security Techniques Comparison

Course: Computer Security

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This report compares three different security combinations used to protect digital data.

The comparison focuses on time, file size, difficulty, hiding level, integrity, confidentiality, and authenticity.

Criteria	Combination A	Combination B	Combination C
Time	Medium	Fast	Medium
File Size	Larger, Because data is hidden inside an image	Smaller than others	Larger than the original file
Difficulty	Medium	Easy	Medium
Hiding Level	High-the file hidden inside an image	Low-encrypted file is visible	High-data is hidden inside an image
Integrity	Medium	High	Very High
Confidentiality	High	Very High	Medium
Authenticity	No	No	Yes(digital signature is used)

- Based on the comparison table, **Combination C** provides the highest level of security because it combines encryption, steganography, and digital signatures.
- This combination ensures confidentiality, integrity, and authenticity.
- Combination A** is suitable when hiding sensitive data inside an image is required, but authenticity is not necessary.
- Combination B** is the fastest and simplest option and is useful when quick encryption is needed without hiding the file.

**In conclusion,**

each combination serves a different purpose.

The choice depends on the required level of security and use case.