UNIVERSITY OF INFORMATION TECHNOLOGY

FACULTY OF COMPUTER NETWORK AND COMMUNICATION

Logo, company name

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**REPORT**

Subject: Cryptography

Semester II (2023 – 2024)

**Report Lab 3**

Student: Võ Ngọc Bảo

Student ID Number: 22520127

Class: NT219.O22.ANTT

University of Information Technology

Lecturer: Nguyễn Ngọc Tự

**Hồ Chí Minh City, June 2024**

Report Lab 3

**Student Information**

Full Name: Võ Ngọc Bảo

Student ID Number: 22520127

Class: ATTT2022.1

**Device Information**

CPU: AMD Ryzen 5 5600H 3.30 GHz

Ram: 8 GB DDR4 3200MHz

SSD PCle: 512GB

**RSA\_OAEP**

**DER**

Key:

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Testcase | Encypt  (Window) | Decrypt  (Window) | Encrypt  (Linux) | Decrypt  (Linux) |
| plain1.txt | 3.449 ms | 4.584 ms | 0.1935 ms | 4.191 ms |
| plain2.txt | 3.516 ms | 4.532 ms | 0.199 ms | 4.223 ms |
| plain3.txt | 3.574 ms | 4.622 ms | 0.194 ms | 4.18 ms |
| plain4.txt | 3.56 ms | 4.53 ms | 0.1935 ms | 4.153 ms |

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**Base64**

Key:

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Testcase | Encypt  (Window) | Decrypt  (Window) | Encrypt  (Linux) | Decrypt  (Linux) |
| plain1.txt | 3.688 ms | 64.103 ms | 0.2025 ms | 55.456 ms |
| plain2.txt | 3.866 ms | 64.17 ms | 0.2009 ms | 55.878 ms |
| plain3.txt | 3.768 ms | 64.216 ms | 0.2081 ms | 56.282 ms |
| plain4.txt | 3.818 ms | 63.884 ms | 0.2148 ms | 55.898 ms |

**A black and white screen with white text

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

A screen shot of a computer screen

Description automatically generated

A computer screen shot of a screen

Description automatically generated with medium confidence

**Comments and Comparison:**

* Executing the code in Linux is faster than Window
* Time executes are not dependent on plain size
* Decrypt time in Base64 format is biger than DER
* Decrypt time is biger than encrypt time in both OS