SummitCTF - 1c3Gh3tt0 – Writeups

Crypto

Et\_Tu?

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CeasarCipher?

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Et\_Tu2?

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Et\_Tu3?

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Base65?

1. import base65536

2.

3. ciphertext = "𓍓ꕭ𓉩襃𠅆楣鑮敹鑯桄散驤𓉟晨𠍳"

4.

5. decoded = base65536.decode(ciphertext)

6.

7. try:

8. print("Decoded bytes:", decoded)

9. print("As UTF-8:", decoded.decode('utf-8'))

10. except Exception as e:

11. print("Error decoding as UTF-8:", e)

Can you hear?

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LESS is more

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1. import os

2. import base64

3. import numpy as np

4.

5. def verify\_signature(flag, signature, key\_matrix):

6. """

7. Verify if the signature matches the flag using the key matrix.

8. This is a placeholder for whatever quantum cryptographic verification

9. we're supposed to implement. Since the exact method isn't specified,

10. we'll use a simple checksum approach to find the outlier.

11. """

12. # Convert flag to bytes if it's not already

13. if isinstance(flag, str):

14. flag = flag.encode()

15.

16. # Simple checksum approach - in a real quantum system this would be different

17. checksum = sum(flag) % 10\*\*24

18. return str(checksum) == signature

19.

20. def process\_file(filepath):

21. with open(filepath, 'r') as f:

22. content = f.read().splitlines()

23.

24. flag\_line = [l for l in content if l.startswith('Flag:')][0]

25. signature\_line = [l for l in content if l.startswith('Signature:')][0]

26. key\_matrix\_line = [l for l in content if l.startswith('Key Matrix:')][0]

27.

28. flag = flag\_line.split('Flag: ')[1].strip()

29. signature = signature\_line.split('Signature: ')[1].strip()

30. key\_matrix = eval(key\_matrix\_line.split('Key Matrix: ')[1].strip())

31.

32. # Try to decode the flag

33. try:

34. decoded\_flag = base64.b64decode(flag).decode('utf-8')

35. except:

36. decoded\_flag = "Invalid base64"

37.

38. # Verify the signature

39. is\_valid = verify\_signature(flag, signature, key\_matrix)

40.

41. return {

42. 'filename': os.path.basename(filepath),

43. 'flag': flag,

44. 'decoded\_flag': decoded\_flag,

45. 'signature': signature,

46. 'key\_matrix': key\_matrix,

47. 'is\_valid': is\_valid

48. }

49.

50. def main():

51. files\_dir = 'files'

52. files = [os.path.join(files\_dir, f) for f in os.listdir(files\_dir) if os.path.isfile(os.path.join(files\_dir, f))]

53.

54. results = []

55. for file in files:

56. results.append(process\_file(file))

57.

58. # Find files with invalid signatures

59. invalid\_files = [r for r in results if not r['is\_valid']]

60.

61. if invalid\_files:

62. print(f"Found {len(invalid\_files)} file(s) with invalid signatures:")

63. for f in invalid\_files:

64. print(f"\nFile: {f['filename']}")

65. print(f"Flag: {f['flag']}")

66. print(f"Decoded Flag: {f['decoded\_flag']}")

67. print(f"Signature: {f['signature']}")

68. print(f"Key Matrix: {f['key\_matrix'][:2]}... (truncated)")

69. else:

70. print("All files have valid signatures. Checking decoded flags instead...")

71. # If all signatures are valid, look for a flag with SummitCTF format

72. summit\_flags = [r for r in results if r['decoded\_flag'].startswith('SummitCTF{')]

73. if summit\_flags:

74. print("\nFound file(s) with SummitCTF flag format:")

75. for f in summit\_flags:

76. print(f"\nFile: {f['filename']}")

77. print(f"Flag: {f['flag']}")

78. print(f"Decoded Flag: {f['decoded\_flag']}")

79. else:

80. print("No files with SummitCTF format found. All files appear identical.")

81.

82. if \_\_name\_\_ == '\_\_main\_\_':

83. main()

84.

Forensics

Everyone always has something to say

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just listen

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HideNSeek

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LSB?

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LSB? pt.2

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Misc

Word1

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Website

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Word2

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Word3

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OSINT

One Bite

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Where's This Hokie?

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3.14-lons

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Rev

What's up?

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do you even rev bro?

1. # Define the encrypted data

2. var\_88 = 0x160a213c38382006

3. var\_80 = 0x3d0a3e313c2e1301

4. var\_78 = b'e\"\n!e\n6e1f'

5.

6. # Convert the integers to bytes (little-endian)

7. encrypted\_bytes = (

8. var\_88.to\_bytes(8, 'little') +

9. var\_80.to\_bytes(8, 'little') +

10. var\_78

11. )

12.

13. # XOR each byte with 0x55

14. decrypted\_bytes = bytes([b ^ 0x55 for b in encrypted\_bytes])

15.

16. # Print the decrypted string

17. print(decrypted\_bytes.decode('utf-8', errors='ignore') + '}')

18.

Web

JS1

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LFI1

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LFI2

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Temps

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JS2

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Fraudulent Signatures

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A screenshot of a computer

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A screenshot of a computer program

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