**SERIAL KILLER CTF**

**Theme**: Serial killer puzzles with deep and immersive storytelling.

**Skills:** Cryptography, OSINT, web exploitation, file analysis, and basic scripting.

**Main Lore**

**Char name**: Viktor Kane doom

A man of unparalleled intellect, Kane wasn’t just a murderer; he was an artist, leaving cryptic messages and intricate puzzles at each crime scene. The media dubbed him "The Cipher Collector" because every victim was found with a unique encoded message. For over a decade, his riddles taunted law enforcement, cryptographers, and investigators, but no one could decode the final truth behind his killings.

In 2023, Viktor Kane was captured, but his game was far from over. A secret police report revealed that his capture was deliberate. Kane left behind a trail of digital breadcrumbs leading to what he ominously called "The Final Revelation." If his puzzles are left unsolved, he claims his masterpiece—a catastrophic cyber event—will be unleashed.

**Challenges:**

**Encryption:**

* **Lore**: A digital document found on Kane’s laptop contains his manifesto but is encrypted using a custom cipher. The title of the document reads: “When the Clock Strikes Midnight.”
* **Challenge**: Participants must break a substitution cipher with a twist—a dynamic shift pattern based on prime numbers.
* **Hint**: "Prime time is always right."

**Base64**

* **Lore**: GPS coordinates are found carved into a tree near Kane’s first victim. However, they seem scrambled.
* **Challenge**: Decode the Base64 string, then convert it into latitude and longitude. The coordinates lead to a hidden message.
* **Hint**: "You’ll need a different base to find the root."

**Recon**

* **Lore**: Kane left behind a hidden website titled "The Collector's Gallery," where he showcased his “art.”
* **Challenge**: Perform web reconnaissance to uncover a hidden login portal, exploit a vulnerable parameter, and retrieve a flag hidden in the source code.
* **Hint**: "Inspecting my work is only the beginning."

**Spectography**

* **Lore**: A chilling audio file recorded by Kane is filled with background noises, distorted voices, and cryptic whispers.
* **Challenge**: Analyze the audio file using spectrogram analysis to find hidden text or morse code embedded in the waveform.
* **Hint**: "Listen closely. The answers are in the noise."

**OSINT**

* **Lore**: Kane frequented a dark web forum to communicate with his followers. A thread titled "The Ark of Doom" holds clues to his next move.
* **Challenge**: Use OSINT (Open-Source Intelligence) techniques to track down the thread, retrieve the hidden PGP key, and decrypt the file it unlocks.
* **Hint**: "What’s hidden in plain sight often resides in the shadows."

**ASCII**

* **Lore**: Kane’s final victim left behind a clock frozen at 11:59, accompanied by a hexadecimal string.
* **Challenge**: Convert the hex to ASCII, which reveals a cryptographic puzzle involving SHA-256 hashes and a brute force attack.
* **Hint**: "Time waits for no one. Tick-tock."

**Enum**

* **Lore**: Kane’s diary is hosted on an old FTP server. Accessing it requires bypassing a login and deciphering the logs for the next clue.
* **Challenge**: Use FTP enumeration and exploit weak credentials to retrieve and decrypt the diary entries.
* **Hint**: "FTP might be old, but the truth never ages."

**Metadata**

* **Lore**: Kane hinted at a physical location where his most damning secret lies. A corrupted image file contains hidden EXIF data.
* **Challenge**: Extract and analyze EXIF metadata to uncover a message, then geolocate the image using visible landmarks.
* **Hint**: "Even the pixels can lie, but metadata never does."