

■ Log Correlation Breakdown Diagram

■ Log Correlation Diagram (ASCII)

Normal Time Flow:

client1 --> [23:00] LOGIN	logserver --> [23:00] LOGIN
client2 --> [23:01] CMD_EXEC	logserver --> [23:01] CMD_EXEC

Time Drift Scenario:

client1 --> [23:00] LOGIN	logserver --> [23:00] LOGIN
client2 --> [23:06] CMD_EXEC	logserver --> [23:06] CMD_EXEC

■ Result: Impossible timeline for correlation

■ Impact: SIEM alerts fail, IR confusion, incident response delay

■ Challenge:

- Write a parser that flags logs out of sync
- Normalize timestamps or group by host