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The Center for Cyber Defenders

Expanding computer security knowledge

StarScream: RE and VA with IDA Pro

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Problem Statement:

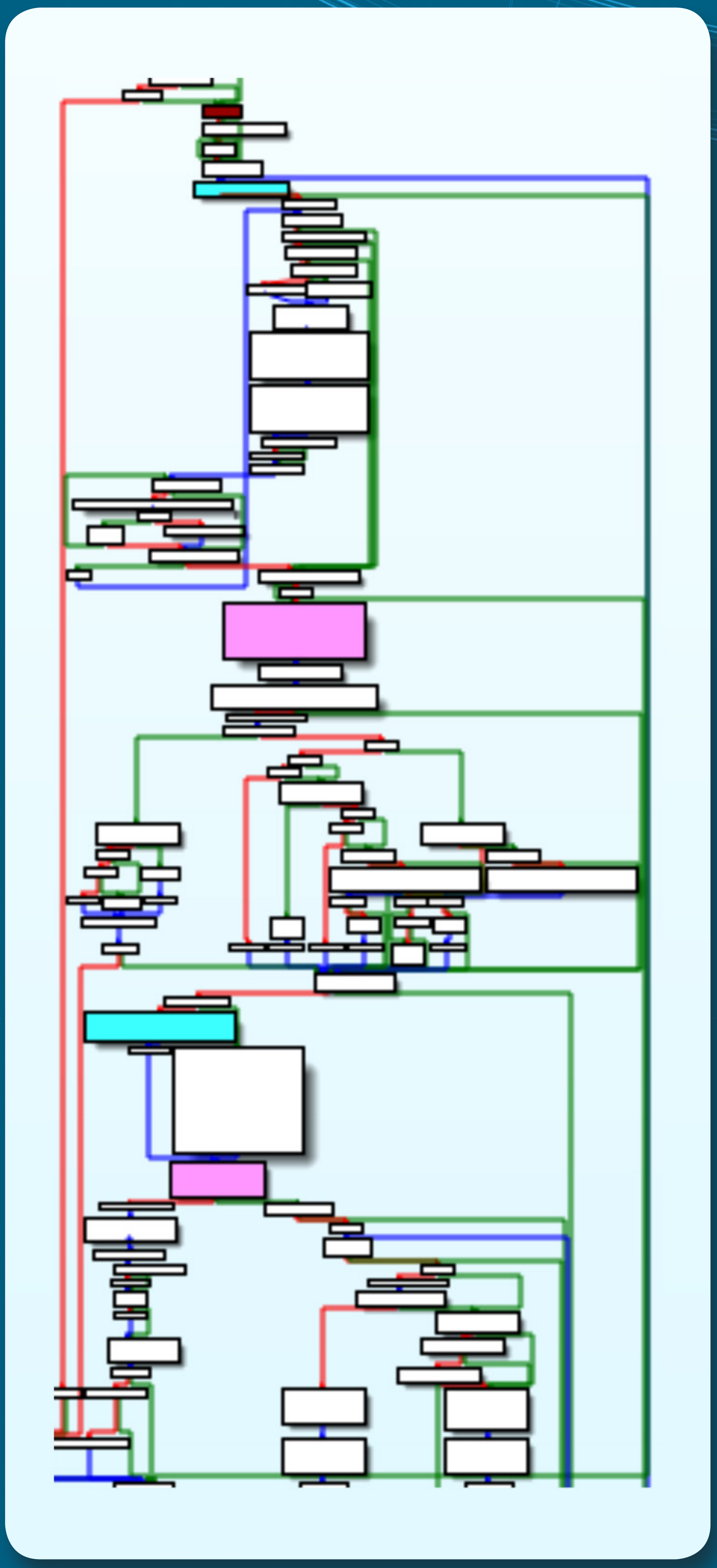
- Investigate vulnerabilities in source code extracted from an embedded system

Objectives:

- Reverse engineer binary code using IDA Pro
- Perform a vulnerability assessment to locate and categorize any weaknesses

Approach:

- Disassemble binary code using IDA Pro
- Develop familiarity with code based on previous annotations
- Explore and annotate smaller functions
- Conglomerate understanding of smaller functions to develop high-level understanding of code



Graph view of essential function

Results:

- Determined significance of different control flow paths
- Ruled out code previously thought to be vulnerable

Impact and Benefits:

- Highlight the importance of secure code in embedded systems

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