

1 Problem

| | | |
|--------------|----------------------------|--|
| What | Problem(s) | Cyber security breach |
| When | Date | July 24, 2013 |
| Where | Different, unusual, unique | Hackers exploited software vulnerability |
| | Facility, site | Department of Energy |
| | Unit, area, equipment | Management Information System |
| | Task being performed | Maintenance of personally identifiable information (PII) |

Impact to the Goals

| | | |
|-----------------------------|--|-------------|
| Safety | Risk of affecting public health and safety | |
| Environmental | | |
| Customer Service | Loss of PII on over 104,000 individuals | |
| Mission | Loss of confidence in cyber security | |
| Production/ Schedule | Lost productivity (see below) | |
| Property/ Equipment | ? | |
| Labor/ Time | Credit monitoring, call center establishment | \$1,600,000 |
| | Recovery, lost productivity | \$2,100,000 |

This incident Annualized Cost \$3,700,000
 Frequency 3 cyber security breaches since May 2011
 Annualized Cost \$3,700,000

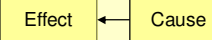
Department of Energy Cyber Breach Affects Thousands, Costs Millions July 2013

From the U.S. Department of Energy Office of Inspector General Special Report: The Department of Energy's July 2013 Cyber Security Breach (DOE/IG-0900), December 2013

"While we did not identify a single point of failure that led to the MIS/DOEInfo breach, the combination of the technical and managerial problems we observed set the stage for individuals with malicious intent to access the system with what appeared to be relative ease."

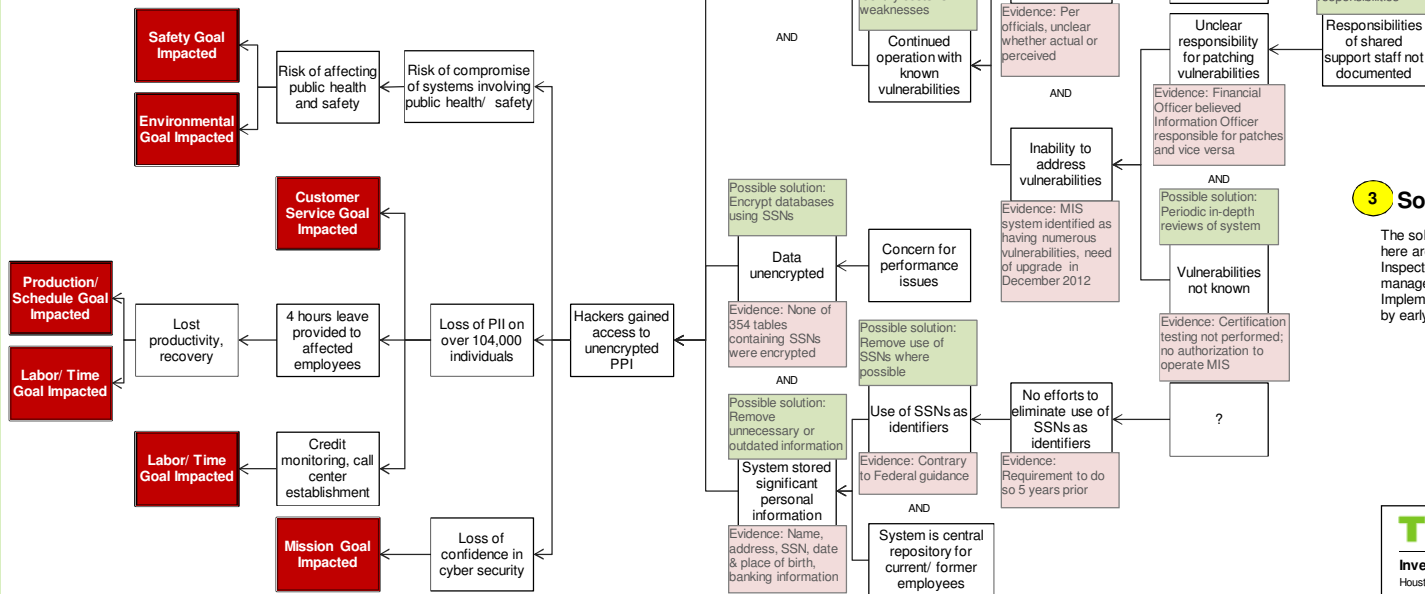
"The Department should have considered costs associated with mitigating a system breach ... We noted the Department procured the updated version in March 2013 for approximately \$4,200. That amount coupled with labor costs associated with testing and installing the upgrade were significantly less than the cost to mitigate the affected system, notify affected individuals of the compromise of PII and rebuild the Department's reputation."

Why?



NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of each arrow.

2 Analysis



3 Solutions

The solutions shown within the Cause Map here are the solutions recommended by the Inspector General and agreed to by the management of the Department of Energy. Implementation of these solutions is expected by early 2014.

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