LOCK SECUITY REHAB

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Agenda

- Security Program History
- Original CPSP/CISP Designs
- CISP Projects: 10 Years Later
- Proposed Security Rehab Plan
- Review

Security Program History

Security Program History

Prior to the Critical Project Security Program (CPSP) Huntington District navigation structures were more open to the public and many had video camera systems for “operational use” (for safety and to aid with the lockage process)

Security Program History

In 2002 all LRH navigation projects and Bluestone Dam were identified as being in the top 100 most critical civil works projects and were added to the Critical Project Security Program (CPSP).

Security Program History

These Critical Infrastructure Security Projects (CISP) were required to meet specific security requirements related to physical security and electronic surveillance/intrusion detection.

Original CPSP/CISP Designs

Original CPSP/CISP Designs

- Intrusion Detection System (IDS)

  Monitoring Stations (Computers)

  Motion Detection

  Card Readers

  Door, Window, Hatch, Fence Sensors
- Closed Circuit Television System (CCTV)

  Monitors, Joysticks

  Pan/Tilt/Zoom (PTZ) Cameras

  Recorder (DVR)

Original CPSP/CISP Designs

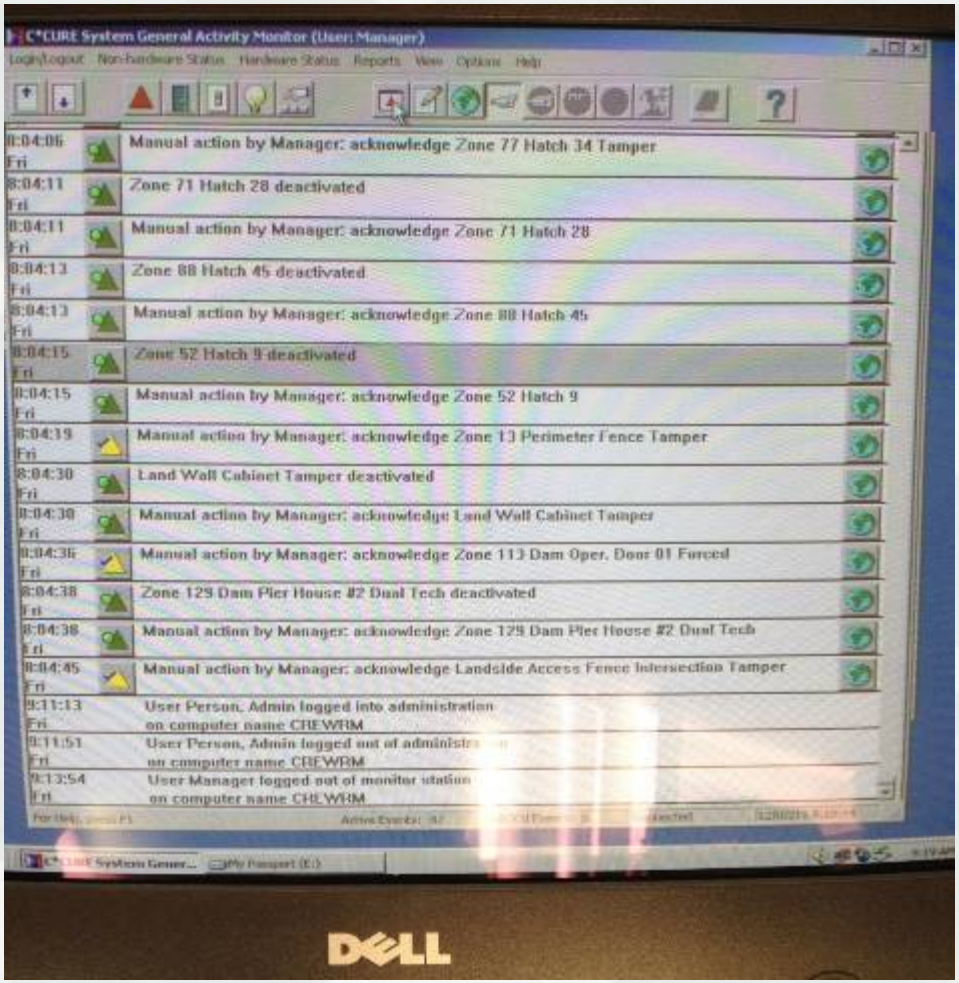
- The IDS and CCTV systems work together with controlling equipment located in a head end rack.
- Typical items found in the rack include: system server, CCTV switcher and DVR and fiber optic modules.

Original CPSP/CISP Designs

- Most LRH locks have control stations in lock control shelters and in the operations building. A control station includes CCTV monitors, CCTV joystick and IDS computer for monitoring alarms and unlocking doors/main gate.

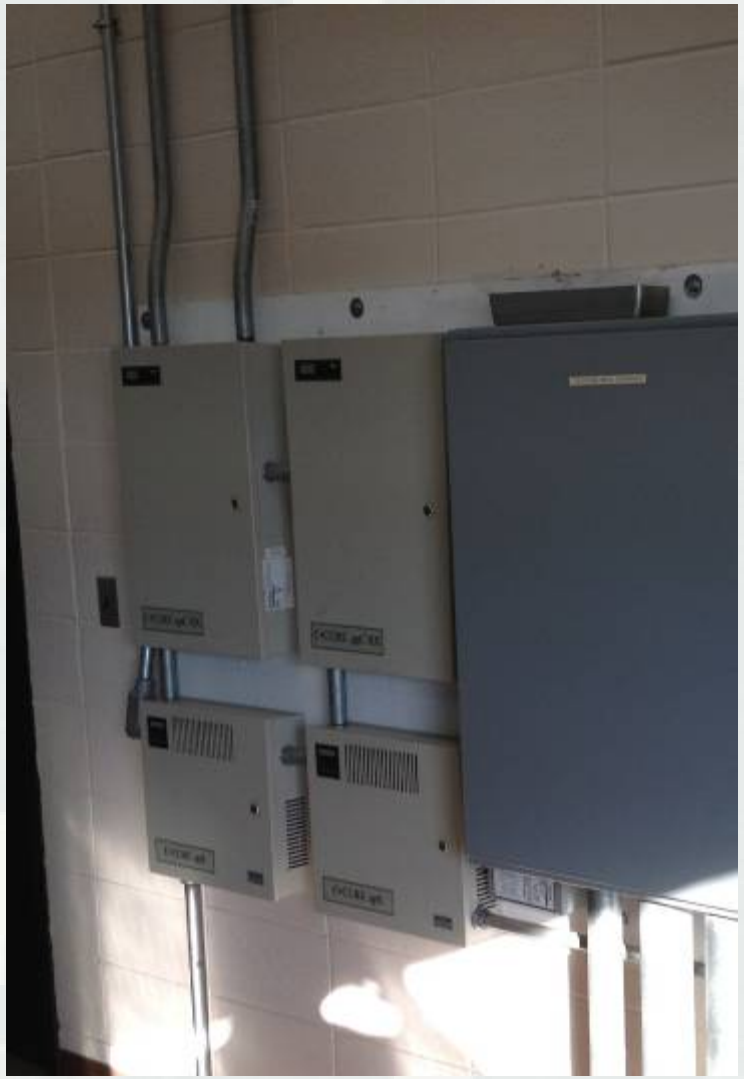
Original CPSP/CISP Designs

- Existing user interface shows system events such as motion detection and door entries in chronological order.



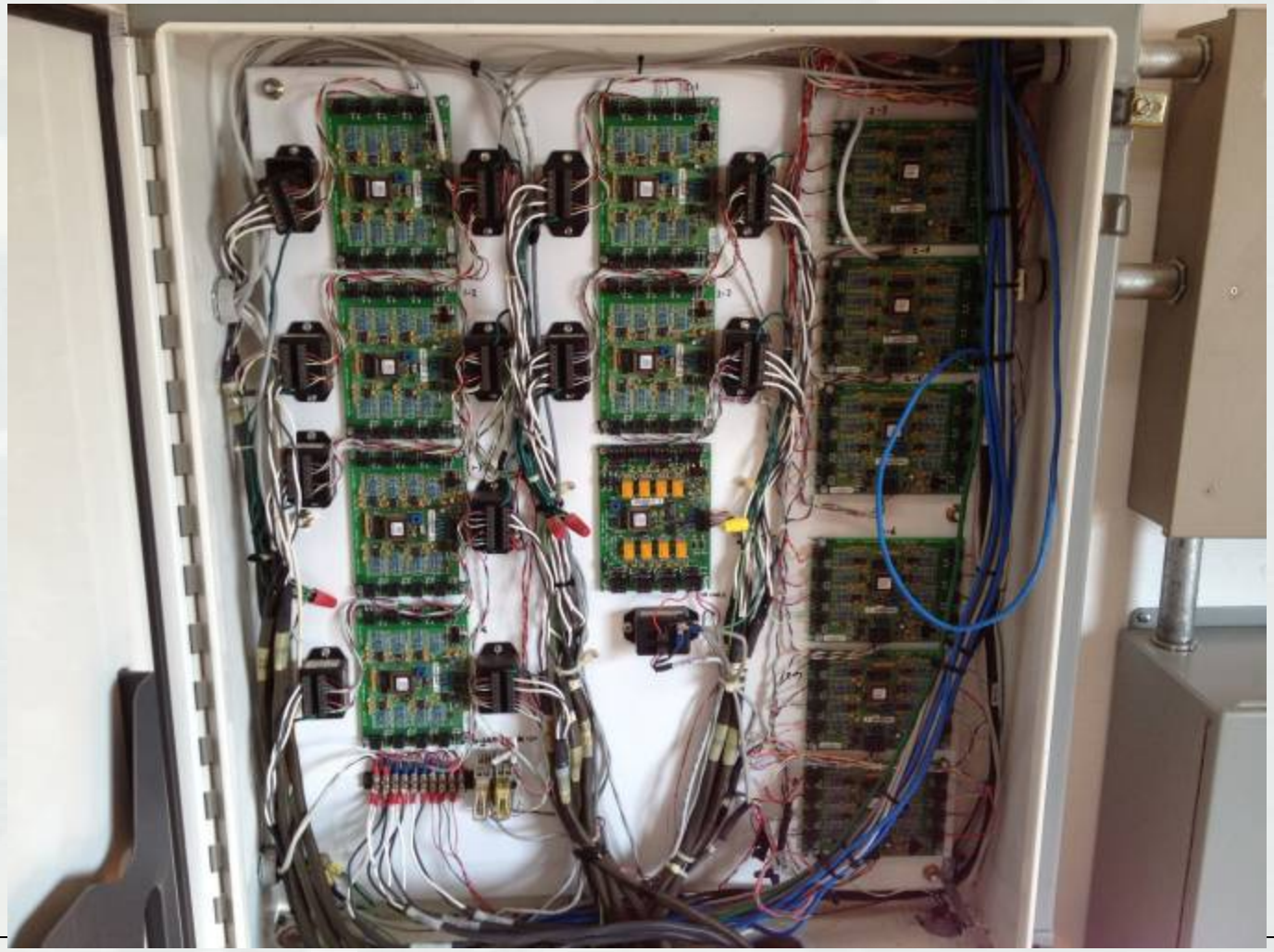
Original CPSP/CISP Designs

- Typical Software House system controllers



Original CPSP/CISP Designs

- Typical Software House I/O boards



Original CPSP/CISP Designs

- Dual-tech motion detection.
  It takes infrared and ultrasonic detection to trip the sensor.

Original CPSP/CISP Designs

- Prox Card Readers

Original CPSP/CISP Designs

- Typical Pelco PTZ Dome

CISP Projects: 10 Years Later

CISP Projects: 10 Years Later

- During the past 10 years maintenance on the security systems has come from lock operating budgets.
- Typical problems have been failures with DVRs, CCTV cameras, monitors, joysticks, switchers, IDS servers and workstations and Software House controllers.

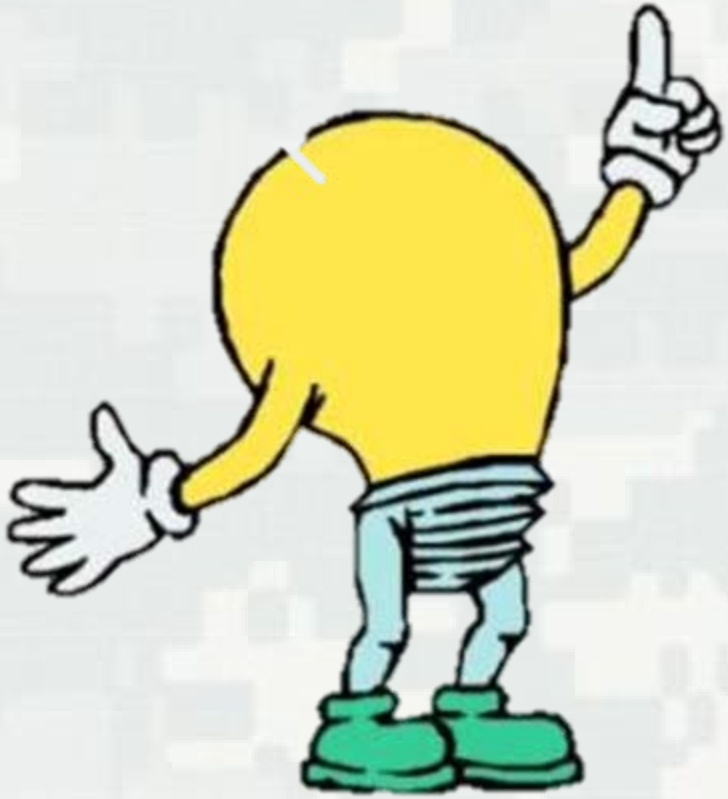
CISP Projects: 10 Years Later

- The original IDS software used to monitor security systems was not user friendly and nearly required a full time employee to monitor all of the system activity.

CISP Projects: 10 Years Later

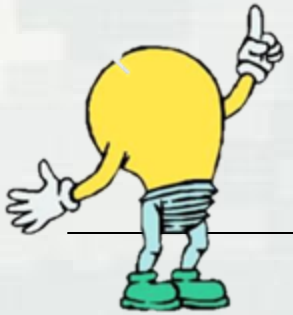
- The Software House controllers and input/output cards failed often and the Federal Government could not purchase replacement parts directly. What's more Software House engineers would not give much help or advice over the phone since we are not "dealers"

Proposed Security Rehab Plan

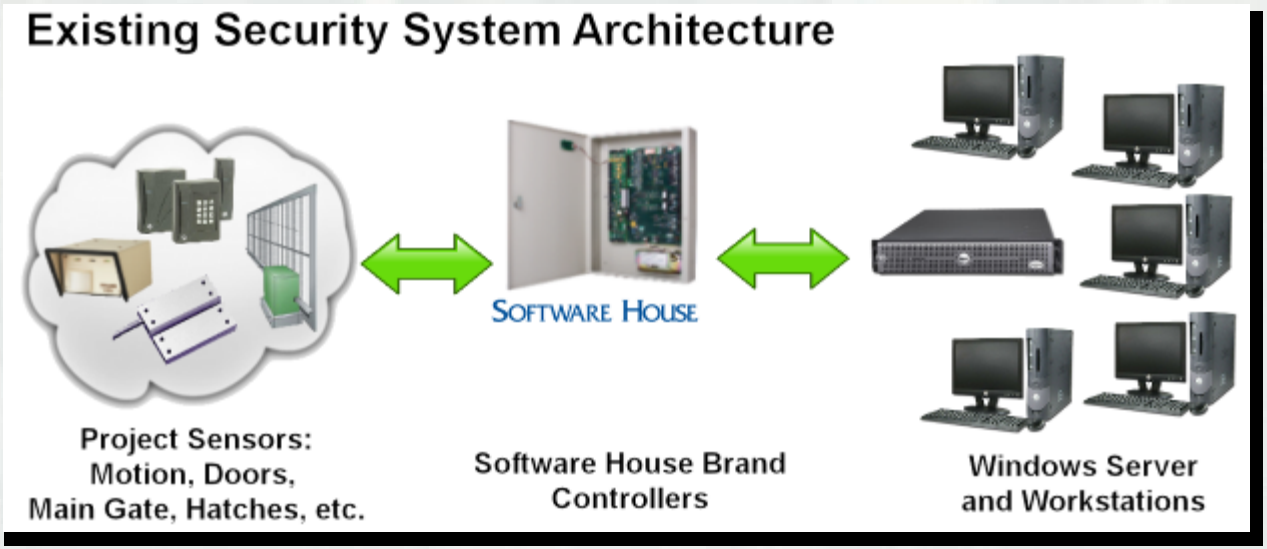


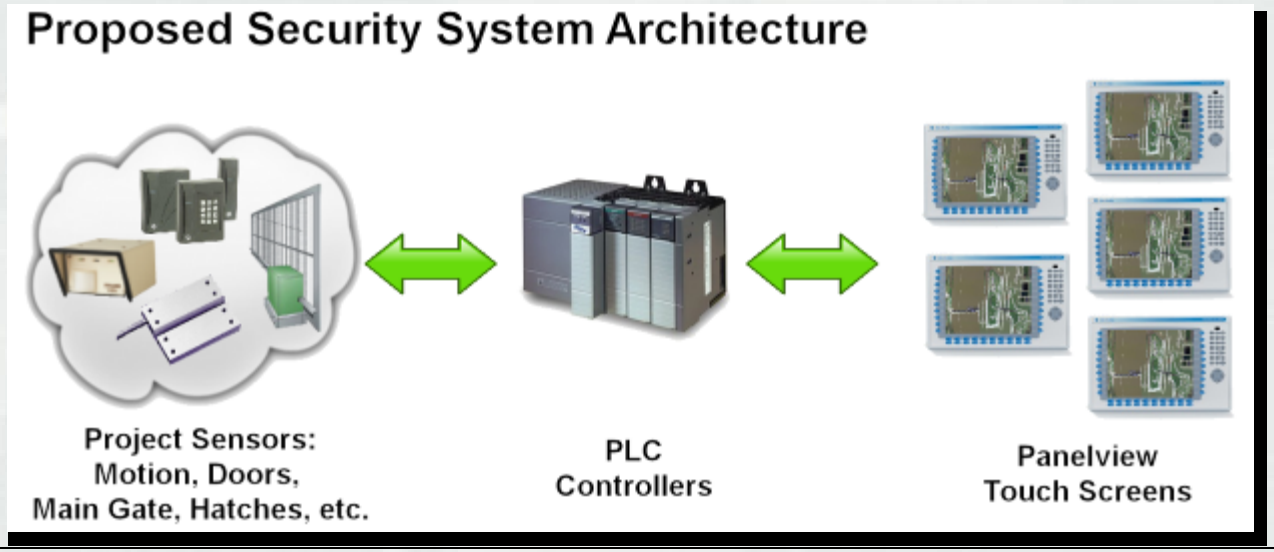
Proposed Security Rehab Plan

- Huntington District is currently working toward replacing the Software House controllers with PLCs.



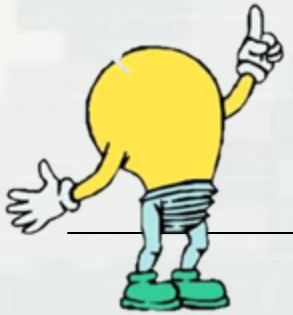
Proposed Security Rehab Plan





Proposed Security Rehab Plan

- We can expand existing PLC systems used for purposes such as remotely controlling dam gates to include security system input/outputs.
- In most cases additional wiring will not be necessary. Our existing fiber optic backbone will remain intact.



Proposed Security Rehab Plan

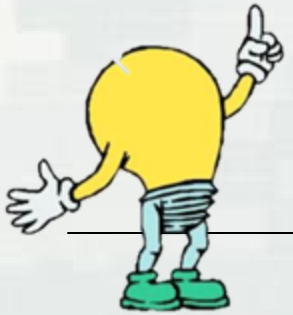
- Existing PLC infrastructure for dam roller gate remote control and position indication

Proposed Security Rehab Plan

- Existing touch screen PanelView displays for roller gate remote control

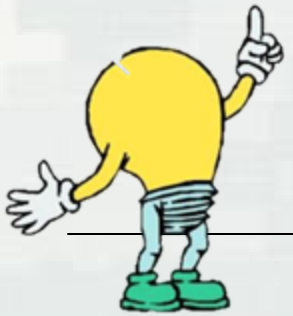
Proposed Security Rehab Plan

- Advantages:
  - Cheaper lifecycle solution
  - Expandable controls and telemetry system for future purposes
  - Takes up less space
  - Easier to use
  - Easier and cheaper to replace parts
  - Technicians only need to be trained on one system.



Proposed Security Rehab Plan

- Example Cost (includes adding on to existing PLC and fiber comm system)
  - $70,000 PLC parts, head end cabinet parts upgrade
  - $5,000 software licenses (RS Logix 5000 and Factory Talk Studio)



Review

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Questions?