

Replacement of Legacy SCADA, Telemetry and Control Systems: Planning, Budgeting and Implementation

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Project Manager



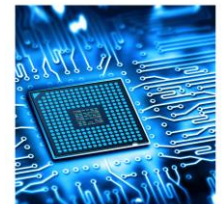
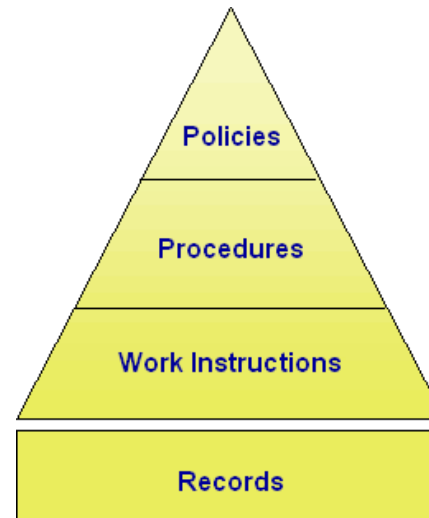
Replacement of Legacy SCADA

Documented Inventory

- Hardware
- Software
- Communications
 - Alternate Paths
 - Network Topology
- Firmware
- Policies – SOPs
- Licenses
 - Site, Enterprise
- Age
- Versions
- Support
 - Internal & External
 - Current Plan
- End of Life
- Spares
 - On hand, Vendor, E-Bay



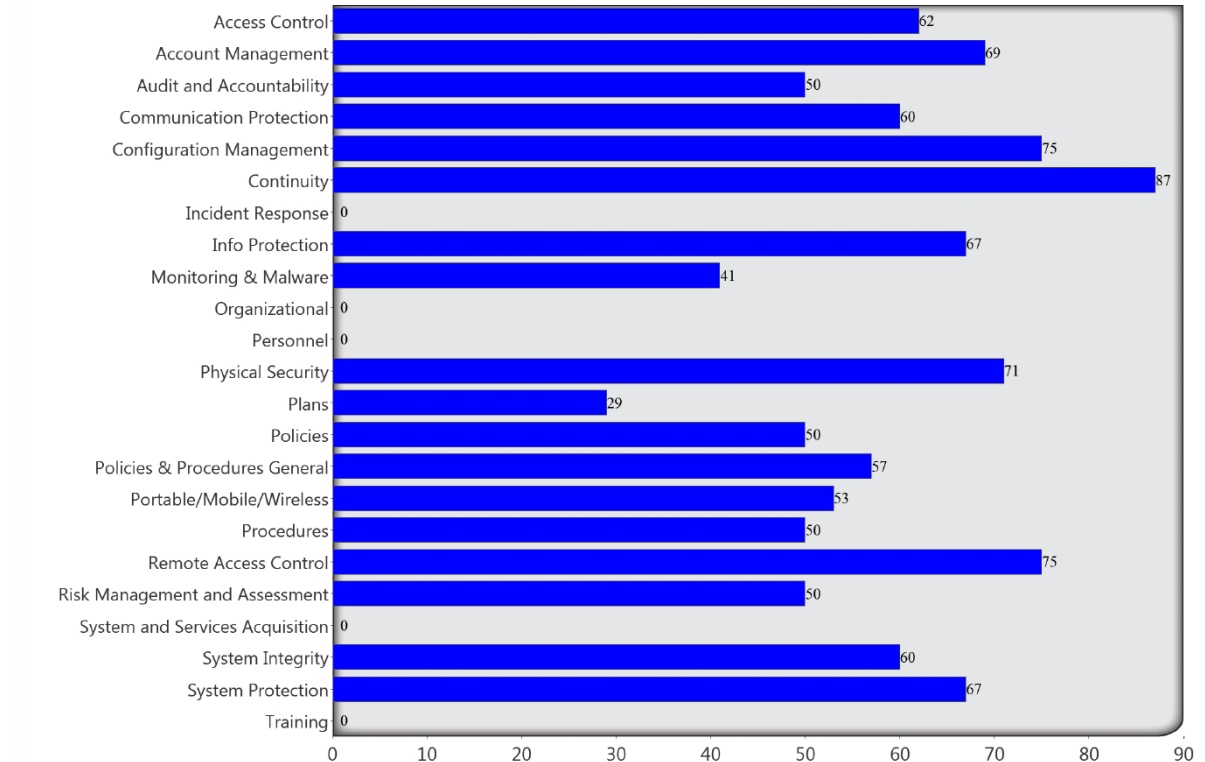
Wonderware
InTouch



Replacement of Legacy SCADA

Cyber Security Audit

- Internal & External
- Risk Analysis
- Gap Analysis
- Reports
- Network Trace
- Passive or Intrusive
- Do it NOW!



Replacement of Legacy SCADA



Master Plan

- Life Span
- Short-Term
- Long-Term
- Consultants
- Scope

- **Have a Project Plan**

Replacement of Legacy SCADA



Requirements

- What others are doing?
 - Conferences. Field Trips
- Scope of Project
- In House or Out Source
 - Training on new Systems
- Screens
 - Common Screens
- Control Strategies
- Database Design
 - Make tag names useful
 - Process, Site. PLC
- Connecting to other Applications
 - Historian, Maintenance Management
- Reporting – Alarming – Event Logs
- Remote Access
 - From Field or Internal

Replacement of Legacy SCADA

Buy in

- Workshops
 - Break into Tasks
 - Use Summaries as sections for Final Report
- Subject Teams
 - Experts and Novices
- Develop Standards
 - ISA, AWWA, Federal, State, Company Driven



Replacement of Legacy SCADA

Budgeting

- CapEx
 - Multiyear
 - Design Year 1, Implementation Year 2
 - Future Year Phases
- OpEx
 - Old and New systems
 - Support Contracts



Replacement of Legacy SCADA

Implementation Timing

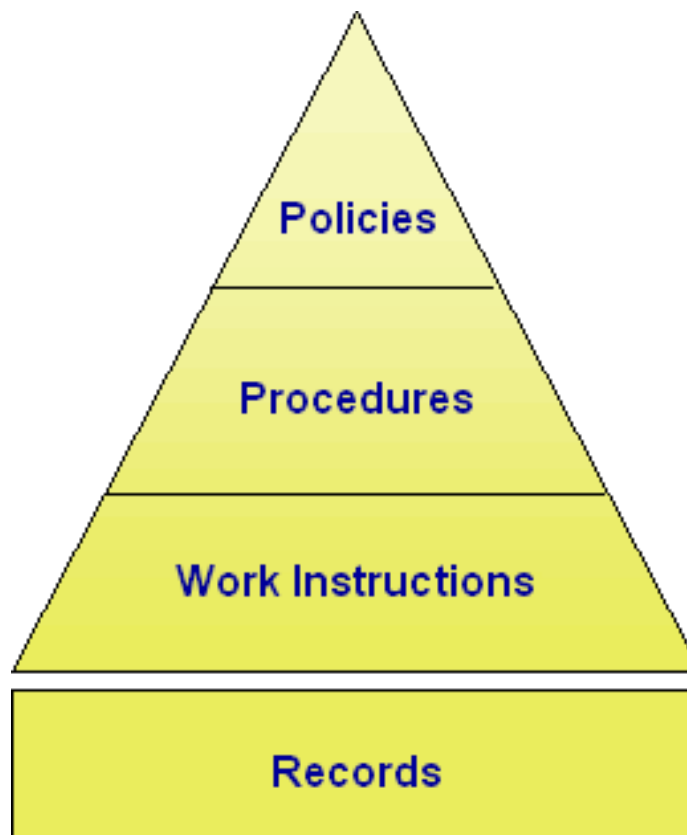
- Priorities & Phasing
- Seasonal Demands
- Middleware
 - I/O Server
 - May Need Short-term Upgrade Frist
- What are you planning to do?
 - HMI Upgrade
 - Radio System
 - Teleco
 - Cell Modems
 - PLC
 - SCADA



Replacement of Legacy SCADA

Policies - SOPs

- Standards
 - Passwords
 - Who can do what
 - Equipment
 - Configurations
 - Design Specifications
 - Sign-offs
 - Maintenance Tracking
 - Upgrades
- Document, Document, Document



Replacement of Legacy SCADA

Care and Feeding

- Upgrades
 - Compatibility Issues
- Personnel
 - SCADA Team, IT Group, Consultants
- Long-term Support
 - Will Vendor or Integrator be Around.
- Tracking costs
- Maintenance Management



Replacement of Legacy SCADA

I just need
the main ideas



Summary

- Documented Inventory
- Cyber Security Audit
- Master Plan
- Requirements
- Buy in
- Budgeting
- Implementation Timing
- Policies – SOPs
- Care and Feeding

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Questions?

