



Certified TIA-942 Tier IV Data Center

Beltsville, MD

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Data Center Standard TIA-942

- Developed by Telecommunications Industry Association
 - Leading, 600 member, trade assn. for global information and communications technology industries (www.tiaonline.org)
 - Accredited by American National Standards Institute (ANSI)
 - Standards development a key activity
- TIA-942: specification of minimum requirements for telecommunications infrastructure of (multi-tenant Internet hosting) data centers
 - Defines four data center tiers; Tier IV (or 4) most stringent
- Leading hallmarks of an ultra-reliable Tier IV data center:
 - Concurrent maintainability, and
 - Fault tolerance of a major system failure



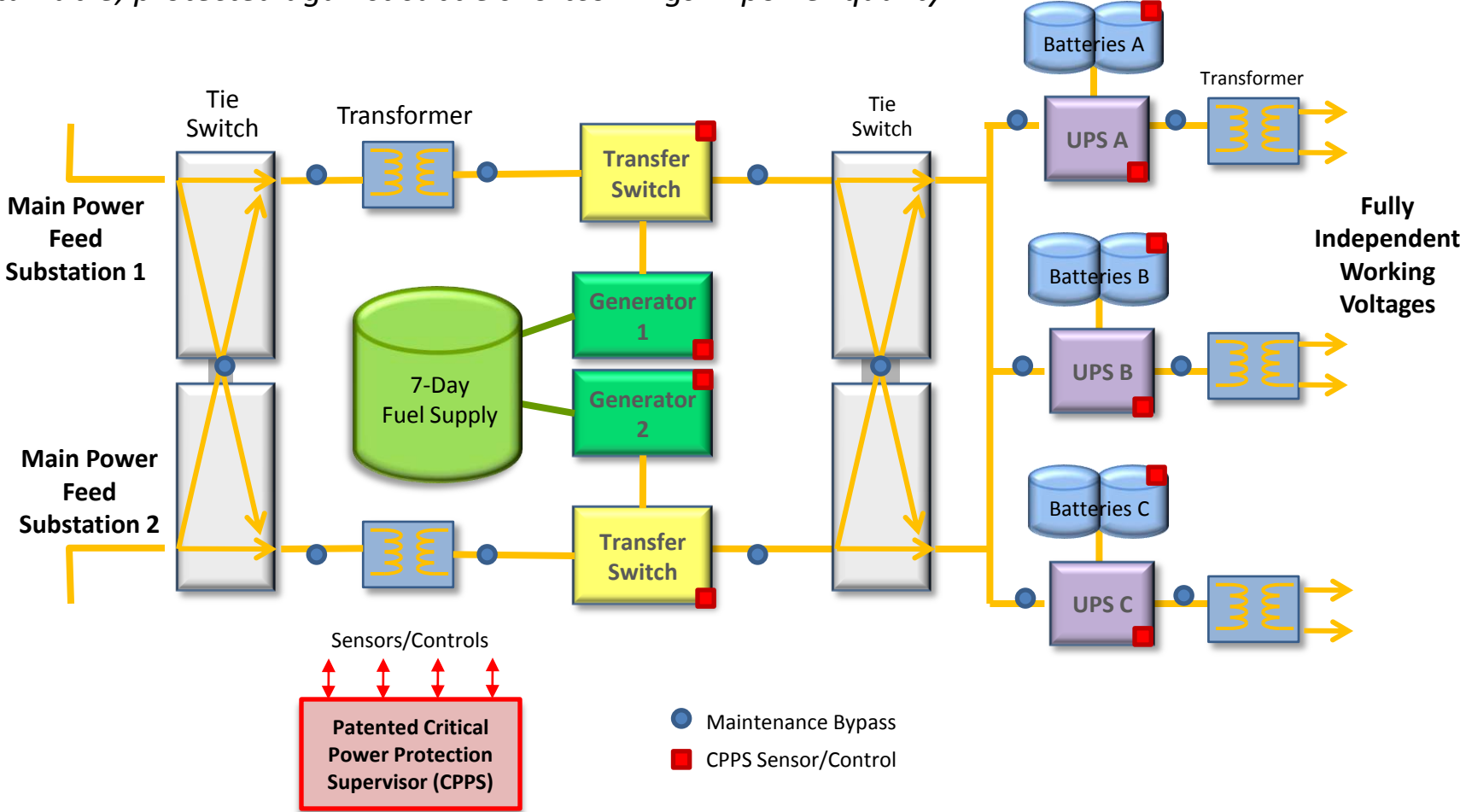
- TIA-942 Tier IV certifications in 2006, 2010.
- Notable ultra-reliability features include:
 - Dual main power feeds from diverse substations
 - 2N power redundancy; 2N generator redundancy
 - Unique power protection by patented power quality management technology
 - Fully independent A, B and C power feeds delivered
 - 7-Day on site supply of generator fuel
 - Dual cooling/heat rejection loops
 - 3N chiller redundancy; 3N cooling tower redundancy
 - Full maintenance bypass protections



Power System Block Diagram

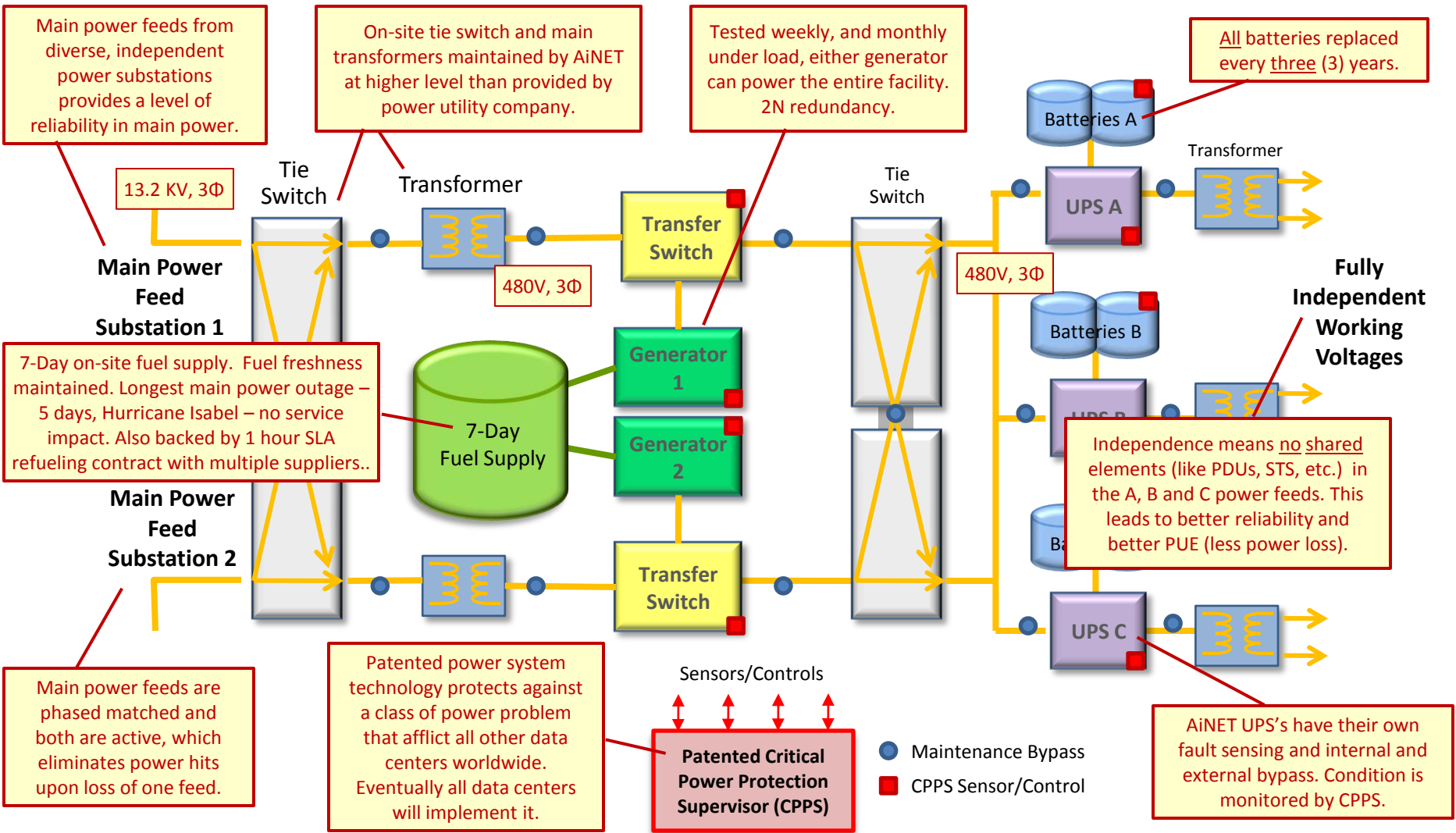
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No single point of failure; at least full redundancy of all systems; fully maintainable; protected against subtle shortcomings in power quality.





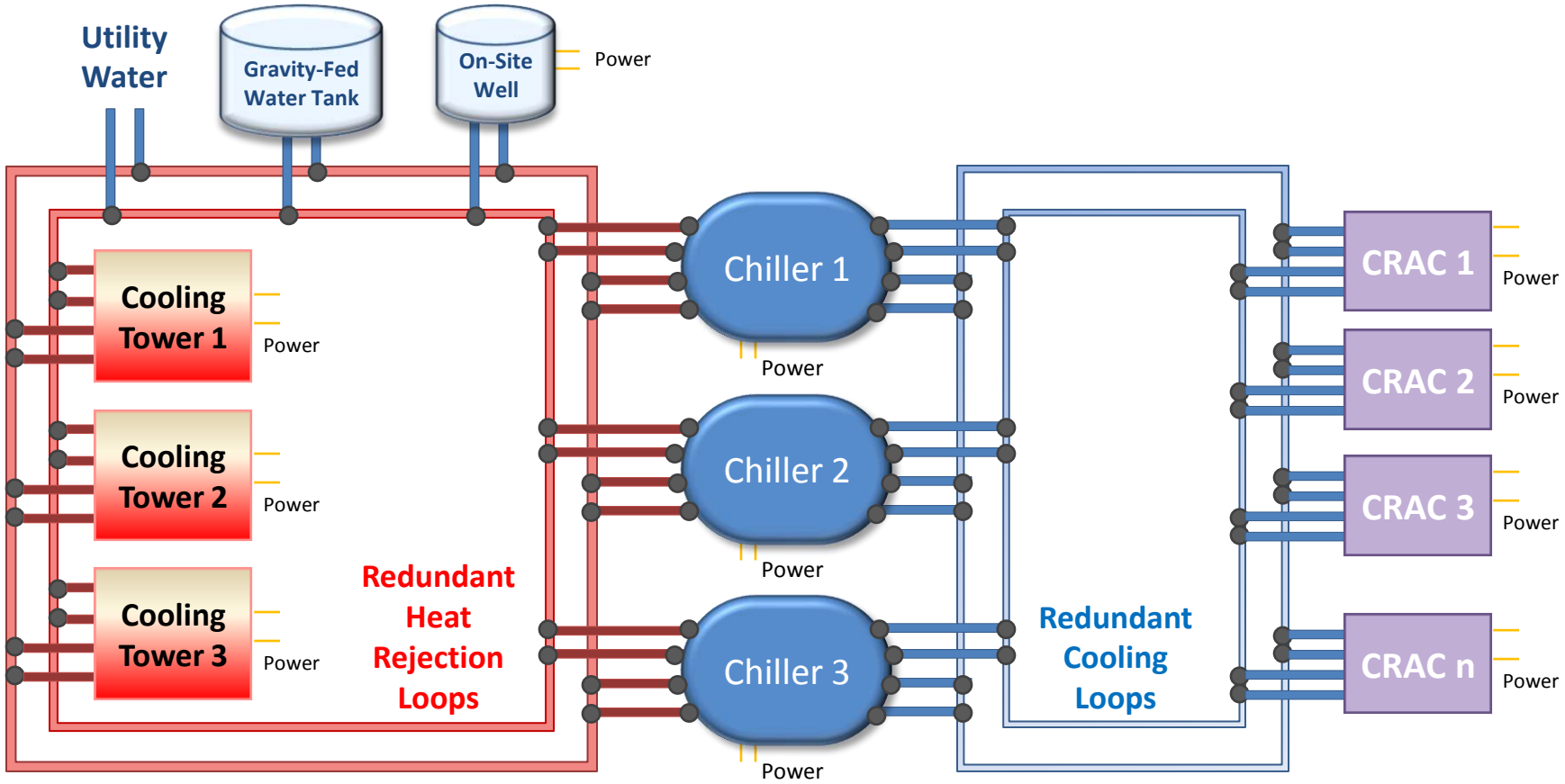
Comments on Power System





Cooling System Block Diagram

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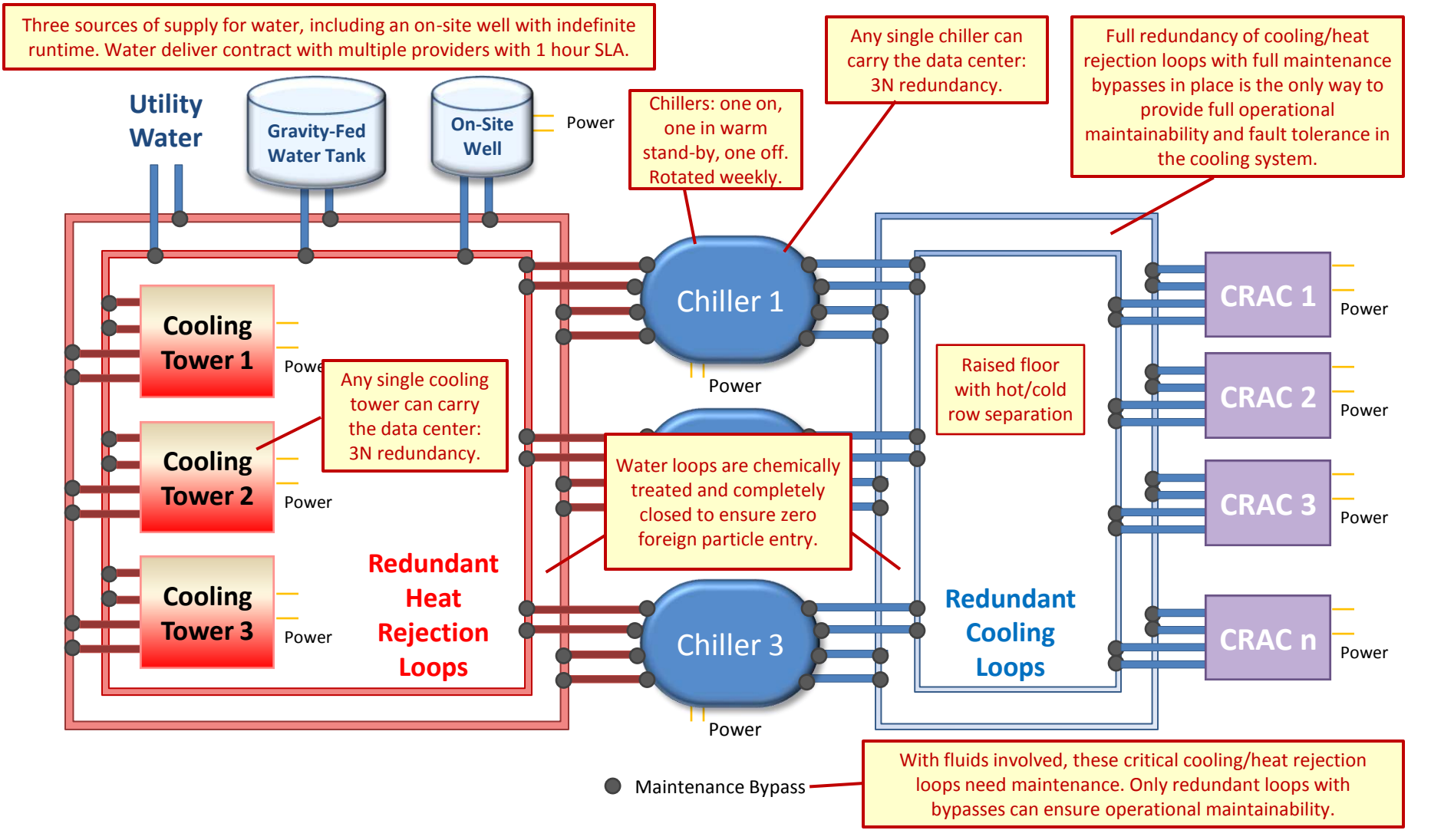


● Maintenance Bypass



Cooling System Block Diagram

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Other Certifications

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Other certifications of Beltsville site include:

- SAS 70 Type II (operational security)
- DCID 6/9 (physical security)
- ICD 705/ICS 705.2 (physical security)
- HIPAA and EHNAC (medical privacy)
- PCI-DSS (secure financial operations)
- SOX (business and financial operations)