Managing Trust for Industrial Control Systems

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Infrastructure Challenges

- Designed for safety, not security
- Standard applications, OSes seldom patched
- Susceptible to a variety of attacks
- Lack forensic capabilities
- Logging for operations, not communication

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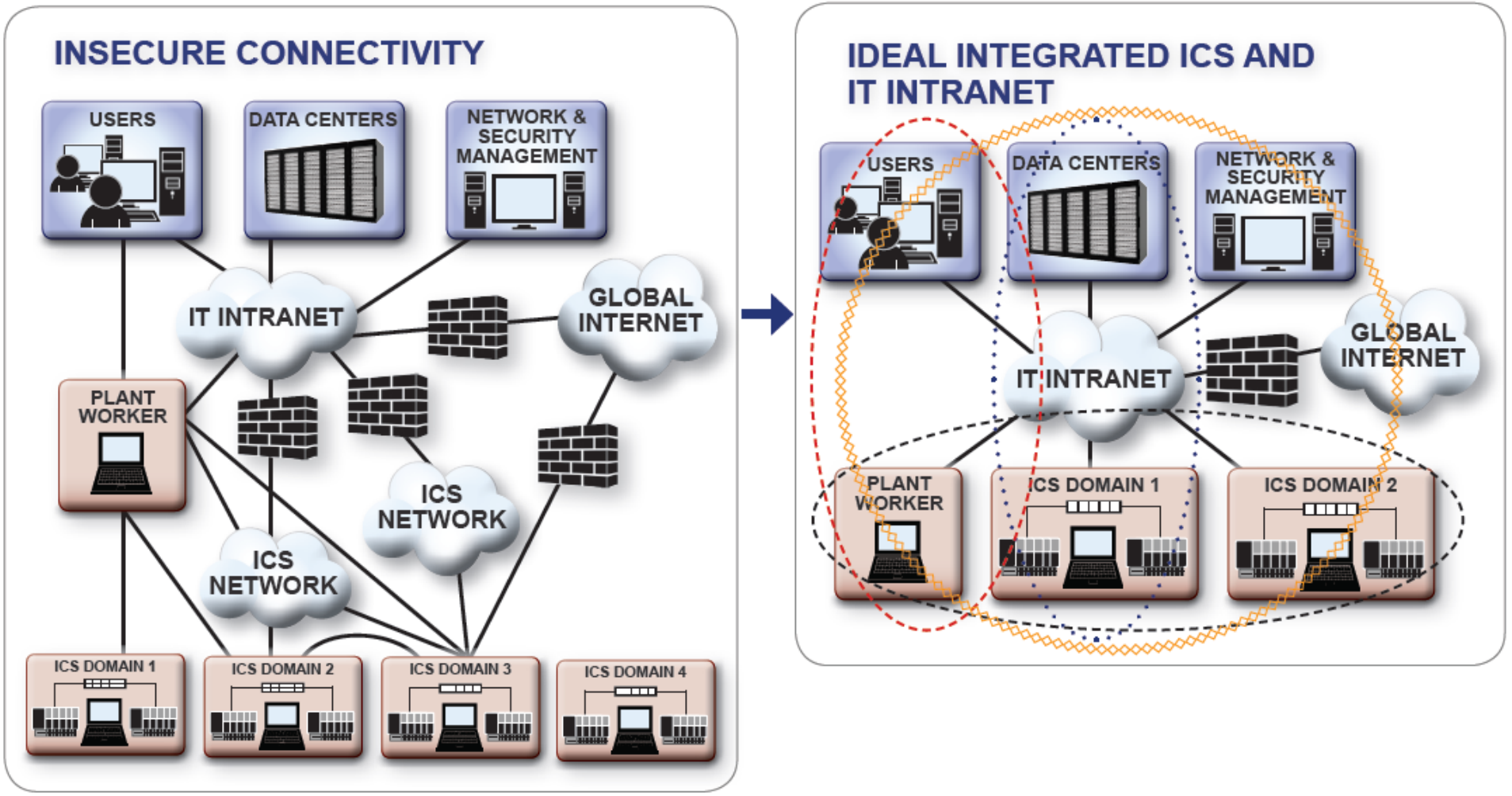
Goal: Integrated ICS & IT Intranet



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Integration Drivers

- Geographically dispersed systems
- Responsiveness
- Business agility
- Cost savings
- Compliance
- Security
- Safety

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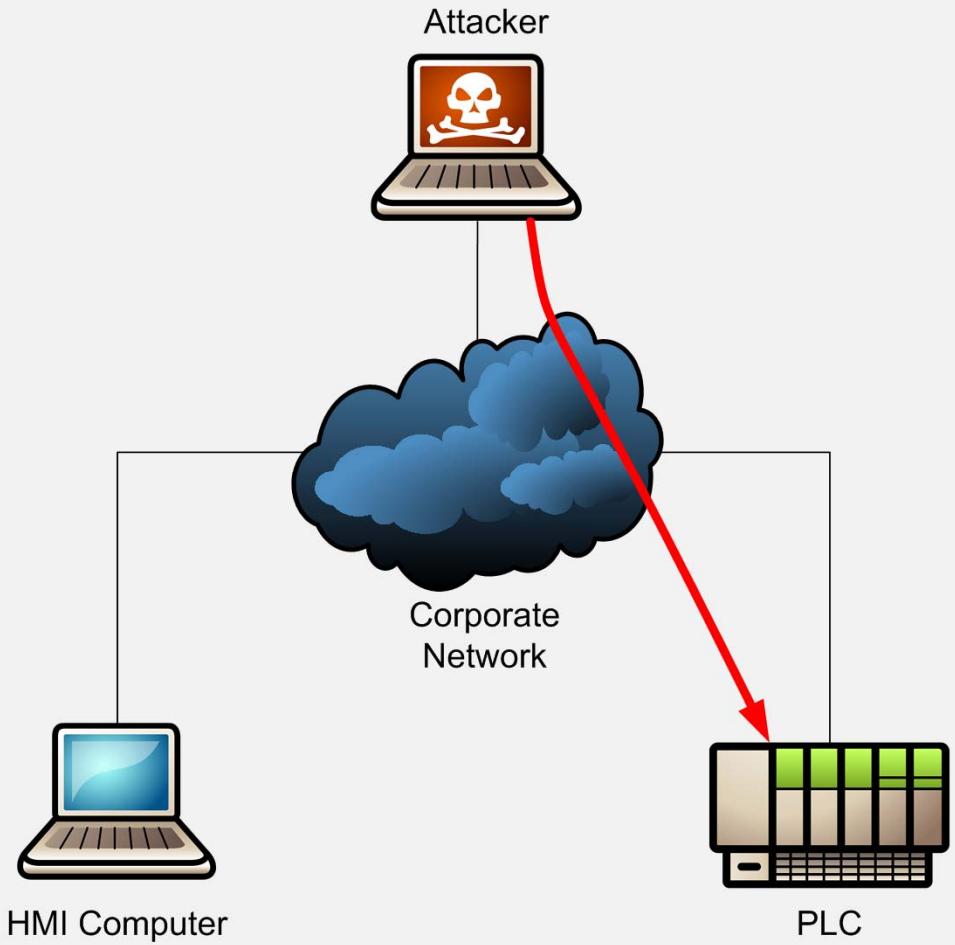
Security Challenges



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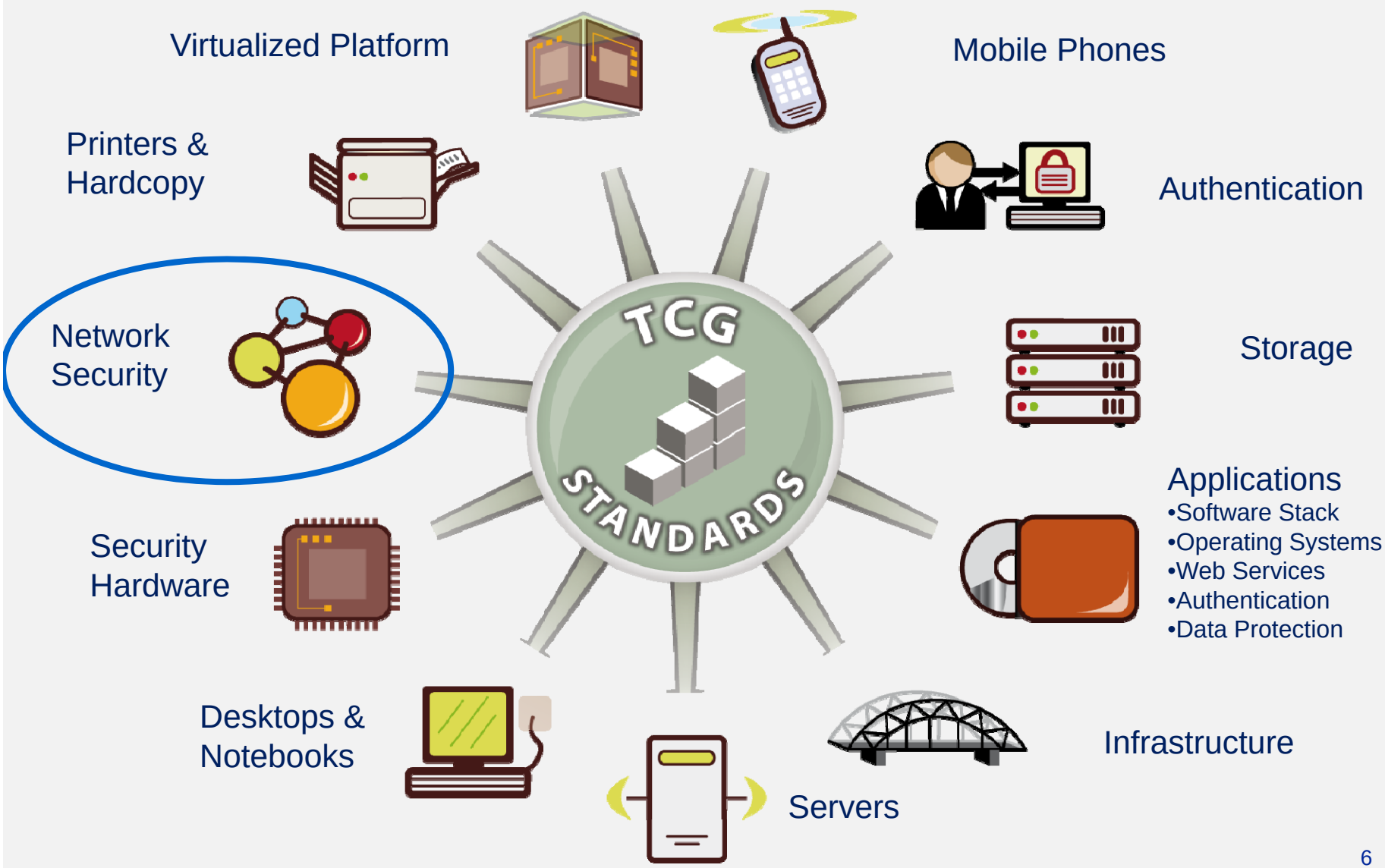
TCG: Standards for Trusted Systems



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Trusted Network Connect

- **Open Architecture for Network Security**
  - Completely vendor-neutral
  - Strong security through trusted computing
  - Original focus on NAC, now expanded to Network Security
- **Open Standards for Network Security**
  - Full set of specifications available to all
  - Products shipping since 2005
- **New Standard for Industrial Control Systems**
  - Aligns with ISA100.15 Backhaul Network Architecture
  - Aligns with IETF standards for PKI and identity-based comms

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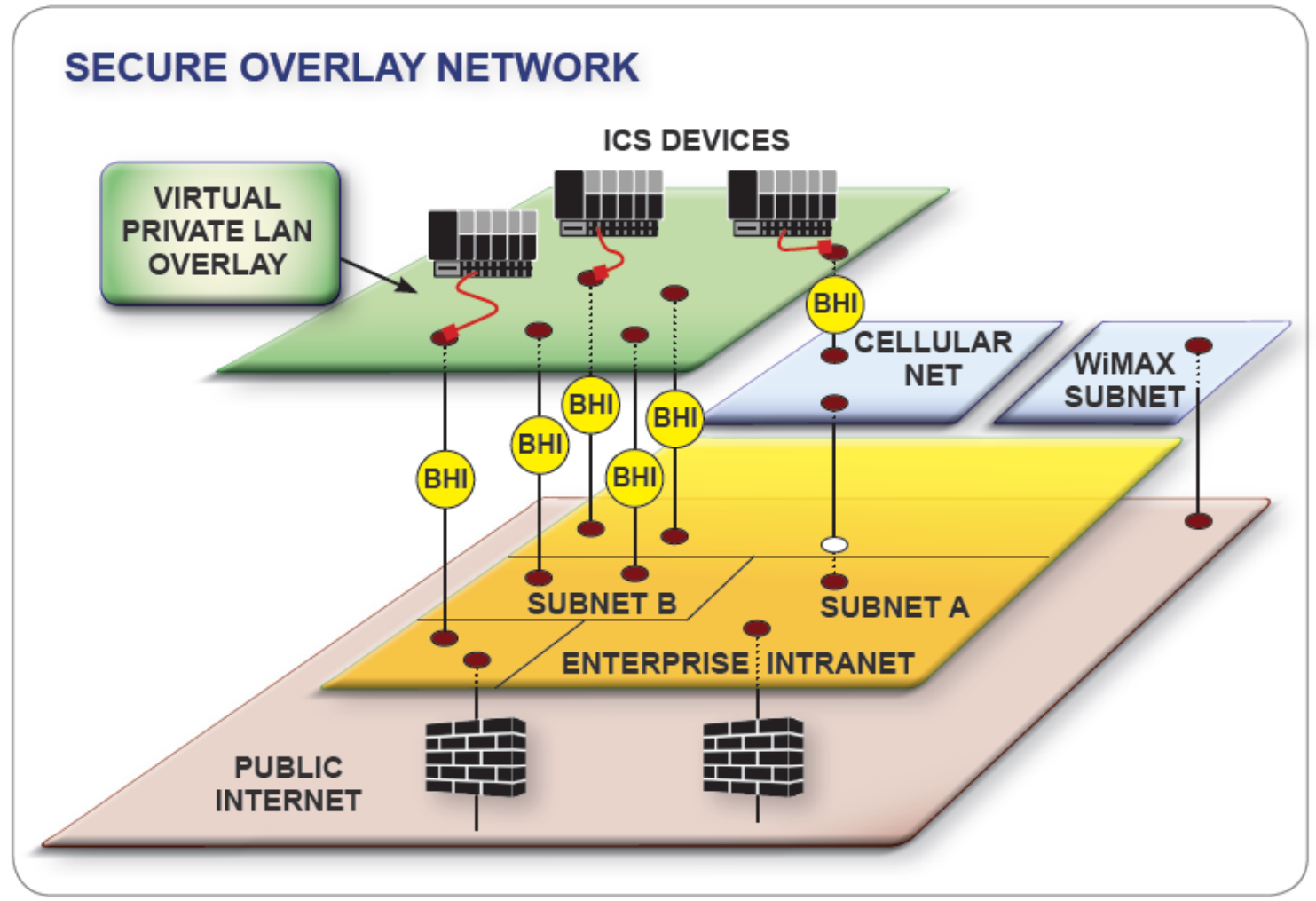
Solution: Secure Overlay Network



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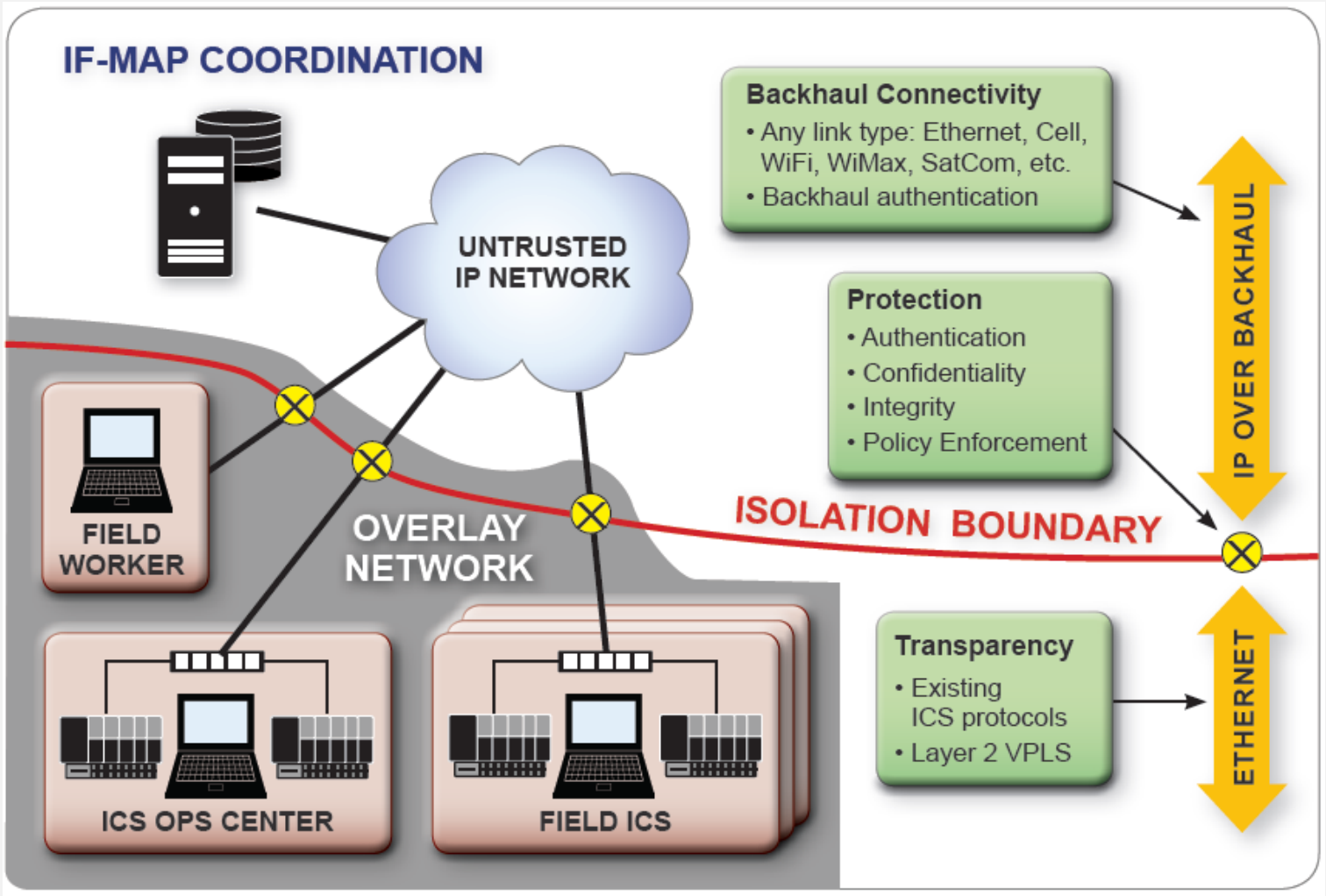
Dynamic Connectivity and Trust Management



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Next Steps and Call to Action

- Read the ICS Security Using TNC Technology Architects Guide: http://bit.ly/HQsqaT
- Design ICS security solutions customized for your unique environments.
- Contact vendors and insist on acquiring TCG-certified ICS security solutions based on the TNC and ISA standards.
- Deploy solutions in pilot first, observe and correct issues, then deploy into production.
- For more information on TCG technologies and architects guides, visit www.trustedcomputinggroup.org

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Thank You!

Questions?

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