

# Remote Servicing under HIPAA with proposed Solution A

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NEMA/COCIR/JIRA Security and Privacy  
Committee

Systems Engineering – Security and Privacy in  
Healthcare

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# What you will learn today

- Remote Servicing is critical
- Remote Servicing presents new security risks
- Vendors are working on a common solution that will
  - a. Reduce administration (Hospital and Vendor)
  - b. Improve Accountability
  - c. Provide a more secure environment

# Security and Privacy Committee (SPC)

- Joint effort by NEMA-MII, COCIR-IT, and JIRA
- Mission: Ensure a level of data security and data privacy in the health care sector that:
  - Meets legally mandated requirements
  - Can be implemented in ways that are reasonable and appropriate
  - Reduces Healthcare costs of compliance
- Scope: All systems, devices, components, and accessories used in medical imaging informatics
- Scope is not exclusive of other products and is expected to be extendable to all Equipment that maintains Patient Data (PHI)
- International data security and data privacy legislation, currently focusing on the European Community, Japan, and the United States of America

# Efforts of the SPC

- Educational Document :
  - <http://medical.nema.org/privacy/education.pdf>
- Remote Servicing Proposal (This talk)
  - <http://medical.nema.org/privacy/remote.pdf>
- Audit Controls:
  - <http://medical.nema.org/privacy>
- Secure IHE Profiles
  - Work in progress
- Members: AGFA, GE, Kodak, Konica,  
Dhilinc, Siemens, Toshiba

# Why do Remote Servicing?

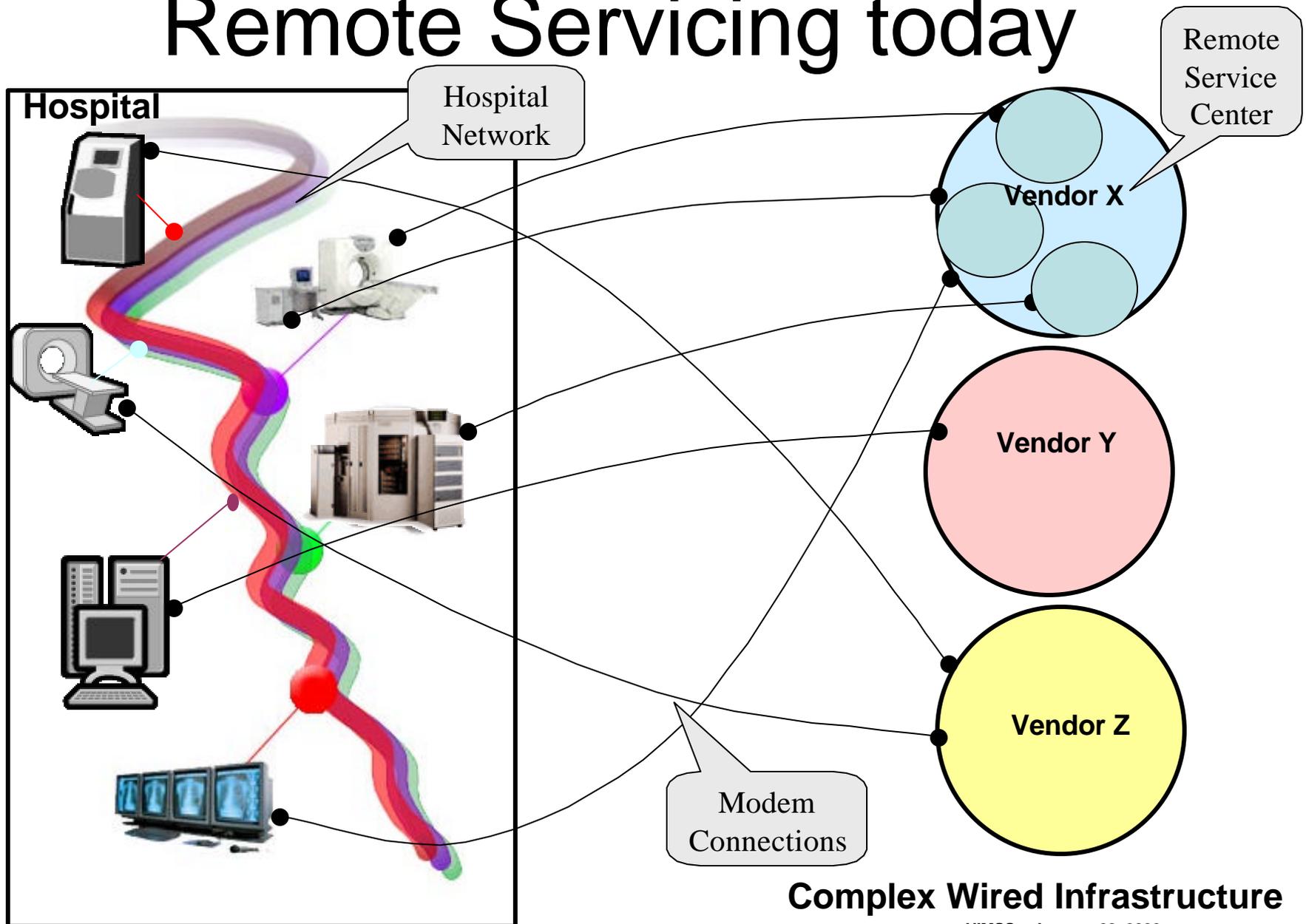
## Benefit to Health Care Provider

- Better Availability and Integrity of the systems
- Quick response as no Travel involved
- Higher quality of service
  - Knowledge base available at the Vendor
  - Expert can be applied to the problem/solution

## Benefit to Vendor

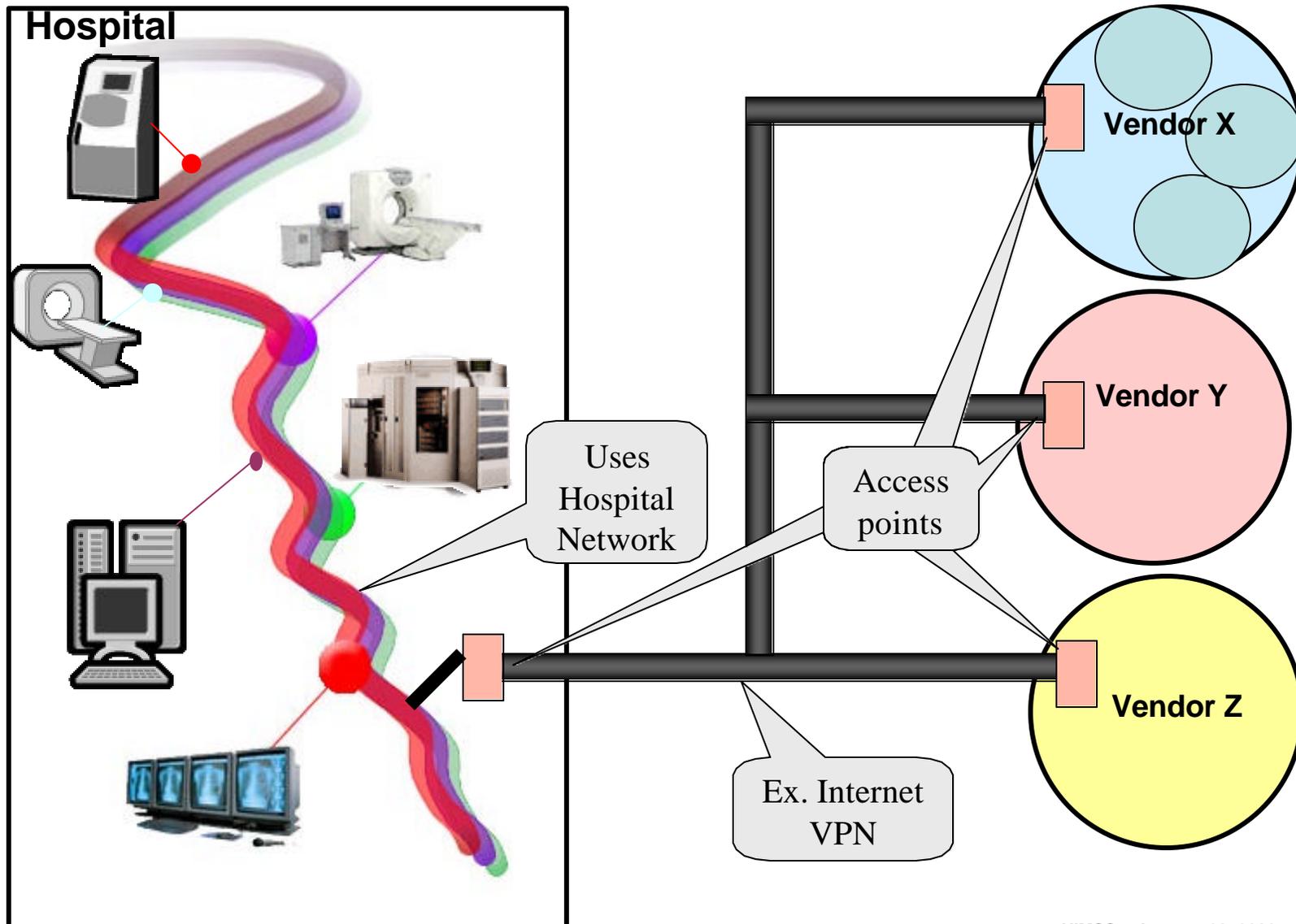
- Lower costs to service equipment

# Remote Servicing today

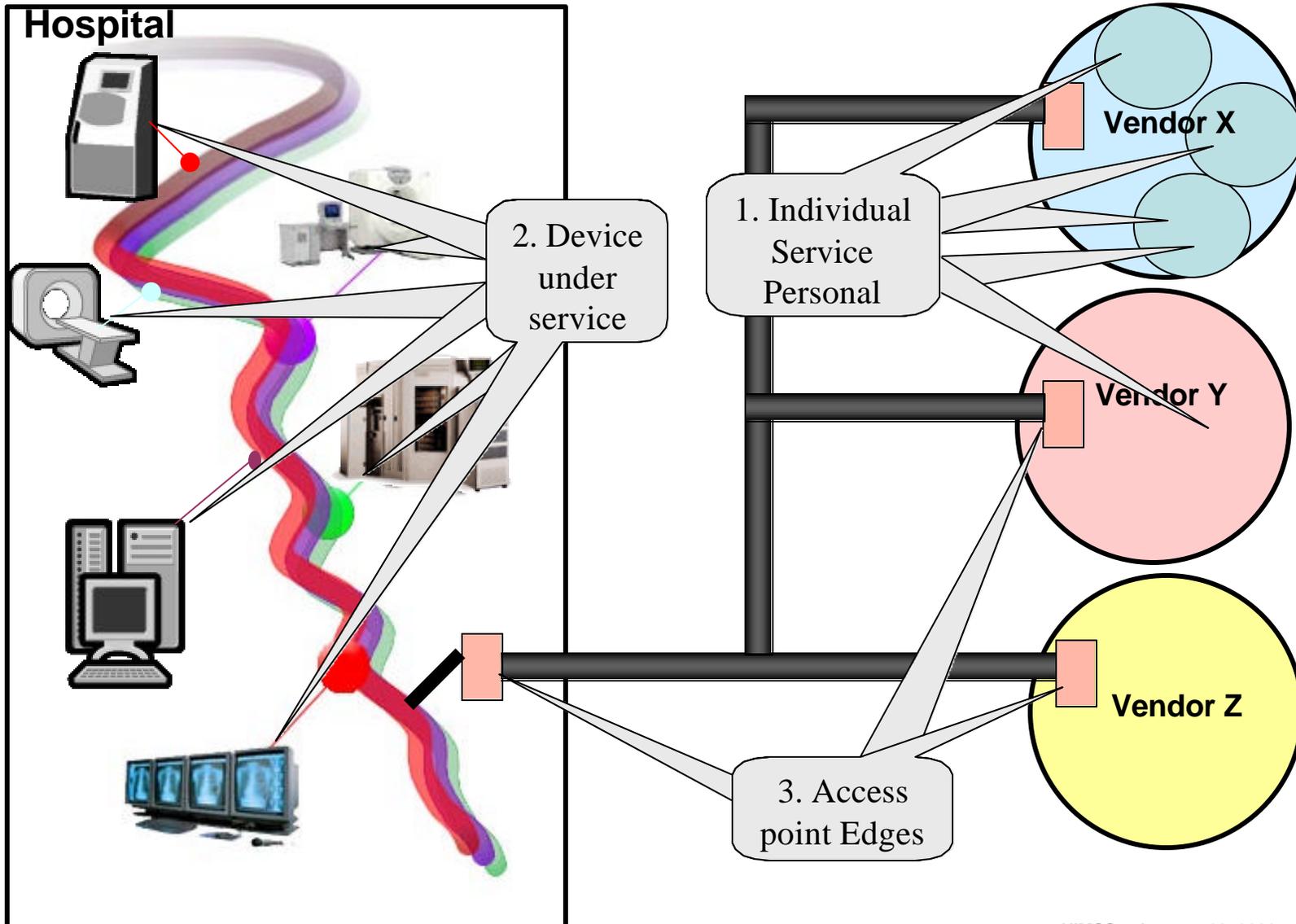


**Complex Wired Infrastructure**

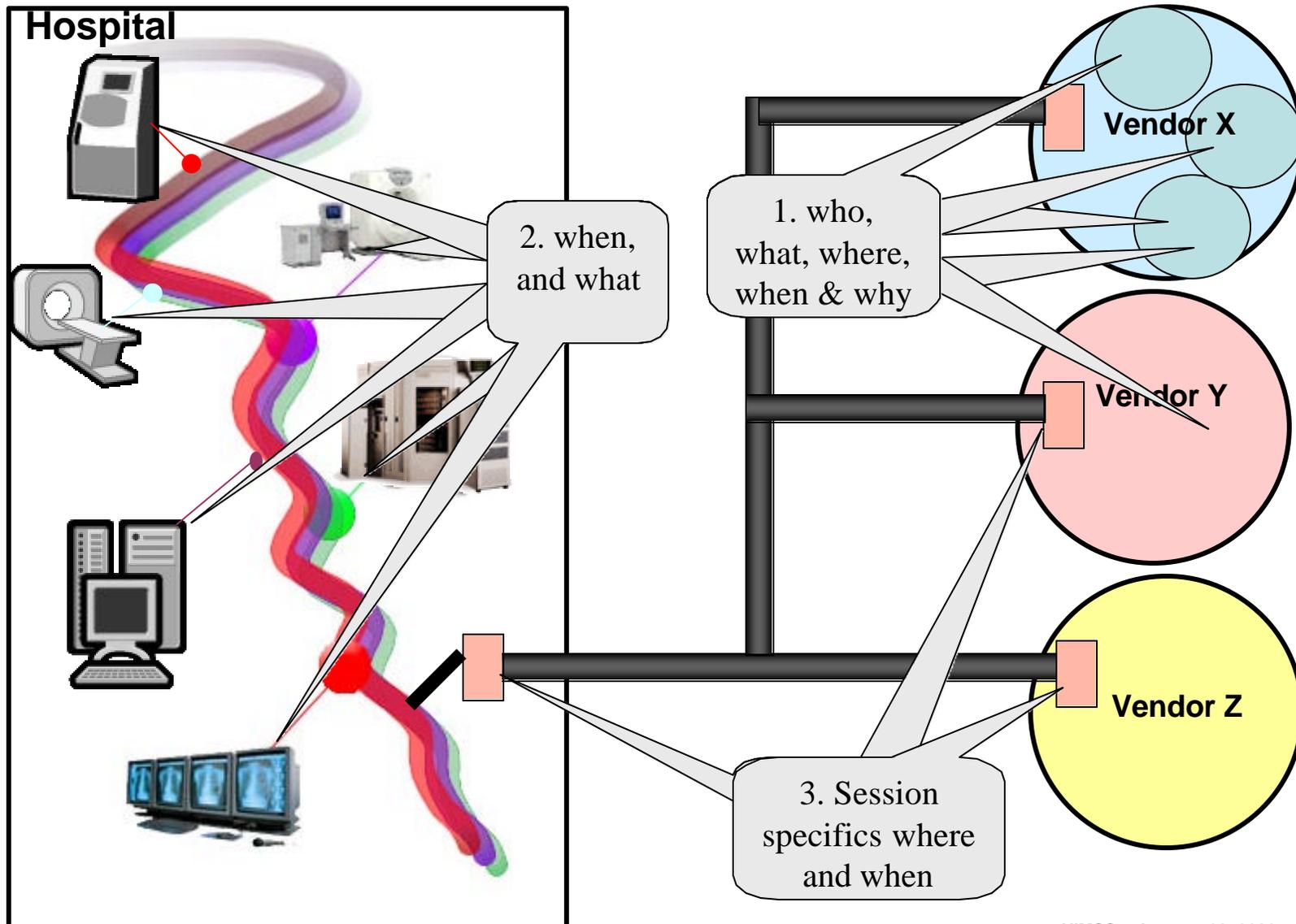
# Remote Servicing Solution



# Access Control



# Audit Trails



# Health Care Provider gains Control and Manageability

- Control of each session and/or vendor
- Rules that restrict where vendor X can go, what tools they can use, when they can connect, etc
- Strong Access Point Authentication
- Audit trails to prove accountability

# Next Steps for SPC

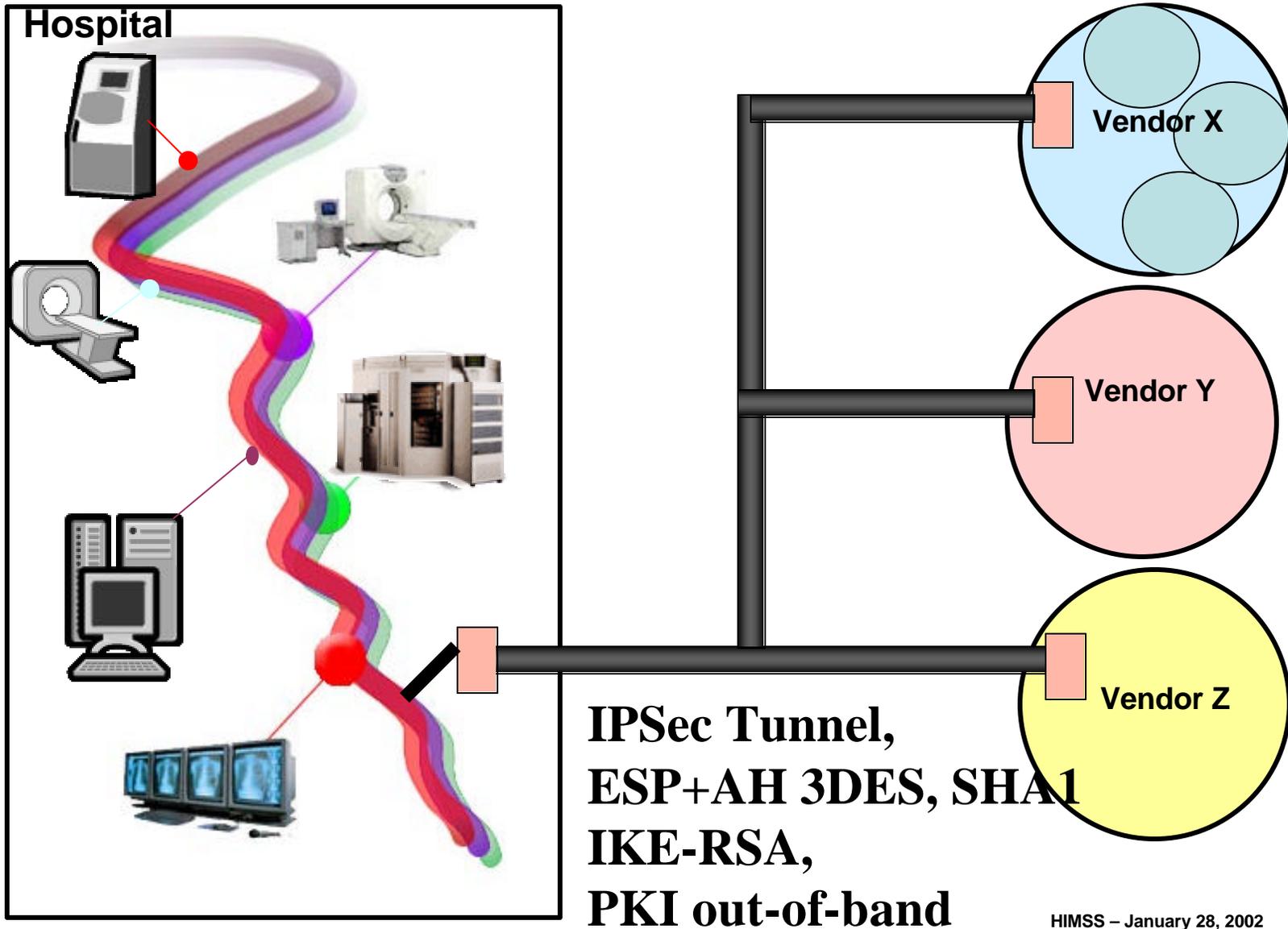
## → Focus Group Charter

Define a Reasonable and Practical solution that follows this architecture

- Candidate 'A' -- IPSec tunneling over the Internet

- ESP/AH – 3DES and SHA1
- IKE – Session Key negotiation
- Certificates – communicated out-of-band (mail, courier, etc)
- Filtering and Routing rules maintained by the Healthcare facility
- Audit trails maintained at RSC
- Individual Authentication maintained at the RSC

# Solution A: IPSec on Internet



# Conclusion

- The Focus Group is actively creating these Descriptions of Candidate Implementations
  - Vendors are providing experts from their Service organizations
  - AGFA, GE, Kodak, Philips, Siemens, Toshiba, +
- Targeting End of 2002 with demonstration at RSNA
- Will seek approval by NEMA, COCIR, and JIRA early 2002

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