

8 – Network Evolution

Action Item Template Response

General Action Item Information

Lead Division/Office: Networks

Action Item Number: 8

Action Item Short Name: Network Evolution

Dependencies with other EP Action Items:

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I. DESCRIBE YOUR PLANS FOR IMPLEMENTING THIS ACTION.

A. The UITS 10-year Network Master Plan addresses the majority of actions needed to ensure that its networks are upgraded and maintained to meet IU's future capacity, stability, and security needs. The Network Master Plan covers the technical upgrades, life cycle equipment refresh, and budgetary planning needed to meet the anticipated future needs for IU's networks.

Specifically, the implementation plans in the Network Master Plan for the following areas should be followed to implement this action item:

- Wire & Fiber Plant
- Telecommunications Facilities
- Data Network Core
- Wireless
- Data Network Security
- Voice Network
- Videoconferencing

B. The IPGrid network, which provides high-speed access to IU high performance computing resources at IUPUI and IUB from the TeraGrid network presence in Chicago, requires a plan, similar to the IU Network Master Plan, to ensure its ongoing capacity, stability, and security. This plan should include the following steps:

- Investigate long-term capacity requirements for the IPGrid system, including number of optical waves required for future high performance computing applications and other potential users at IU for data connectivity to Chicago.
- Examine current reliability capabilities of the IPGrid system.
- Develop long-term plan for capacity growth, and any needed reliability enhancements for the system in coming years. Potential reliability enhancements might include path redundancy, or hardware upgrades to provide better sparing, or more redundancy for hardware outages.

- Develop lifecycle and upgrade budget requirements based on this long-term plan.

II. WHAT ARE THE POLICY AND PRACTICE IMPLICATIONS OF YOUR PLANS?

III. IDENTIFY STAKEHOLDERS.

- UITS Networks
- UITS Research Technologies
- UITS Enterprise Infrastructure
- IU Purchasing
- IU LSPs