

# QoS for Tactical Link Layer Networks

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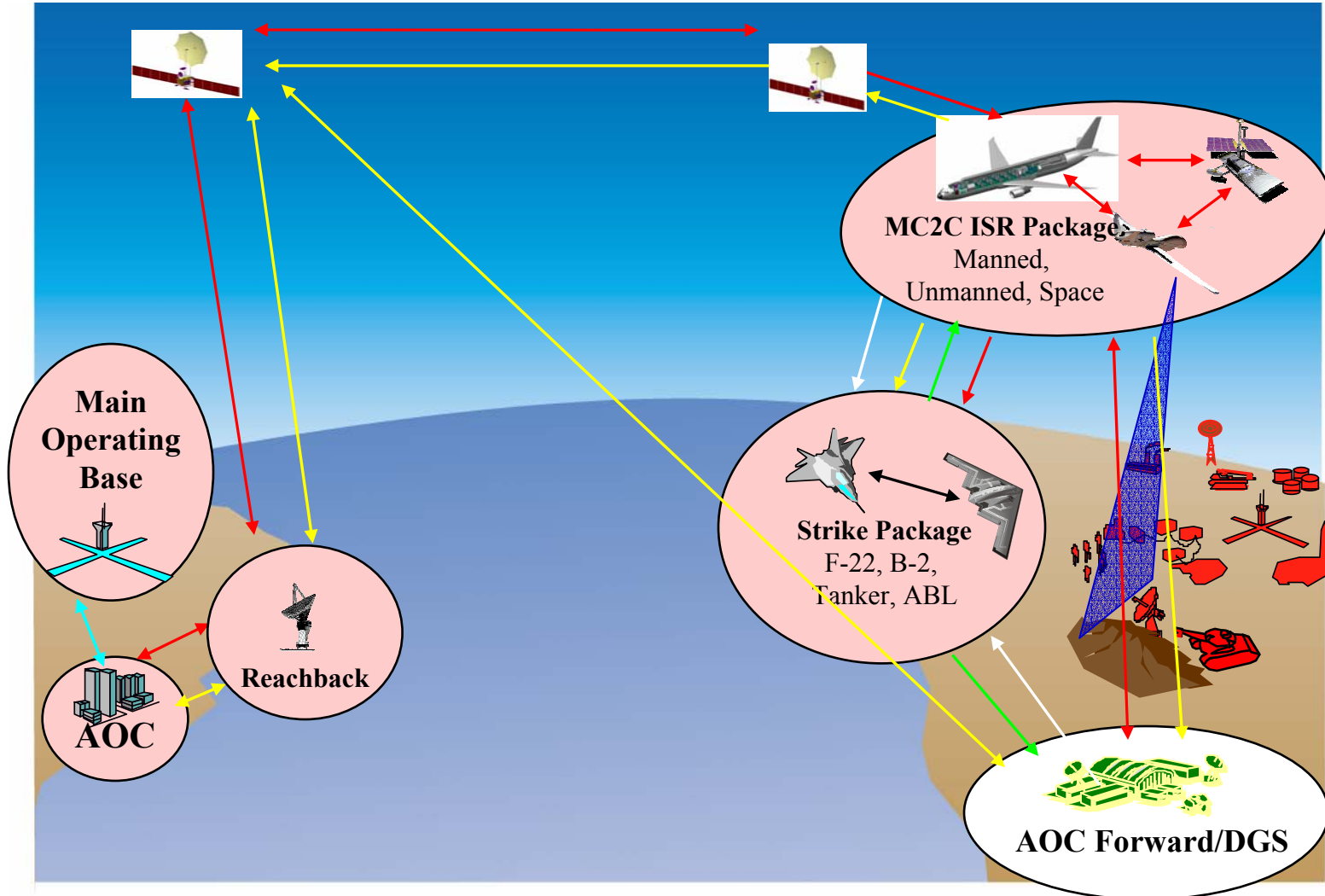
The logo for the MITRE Technology Program, featuring a stylized graphic of stacked blocks in yellow, orange, and blue to the left of the text.

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# Problem

- **As DoD applications become multimedia in nature, increasingly tough demands are levied upon the underlying tactical data links and networks. These demands drive us to investigate the implementation of Internet Protocol (IP) quality of service (QoS) techniques across DoD tactical link-layer networks. Although some commercial products support QoS mechanisms, the underlying tactical link-layer architectures often do not.**

# Background



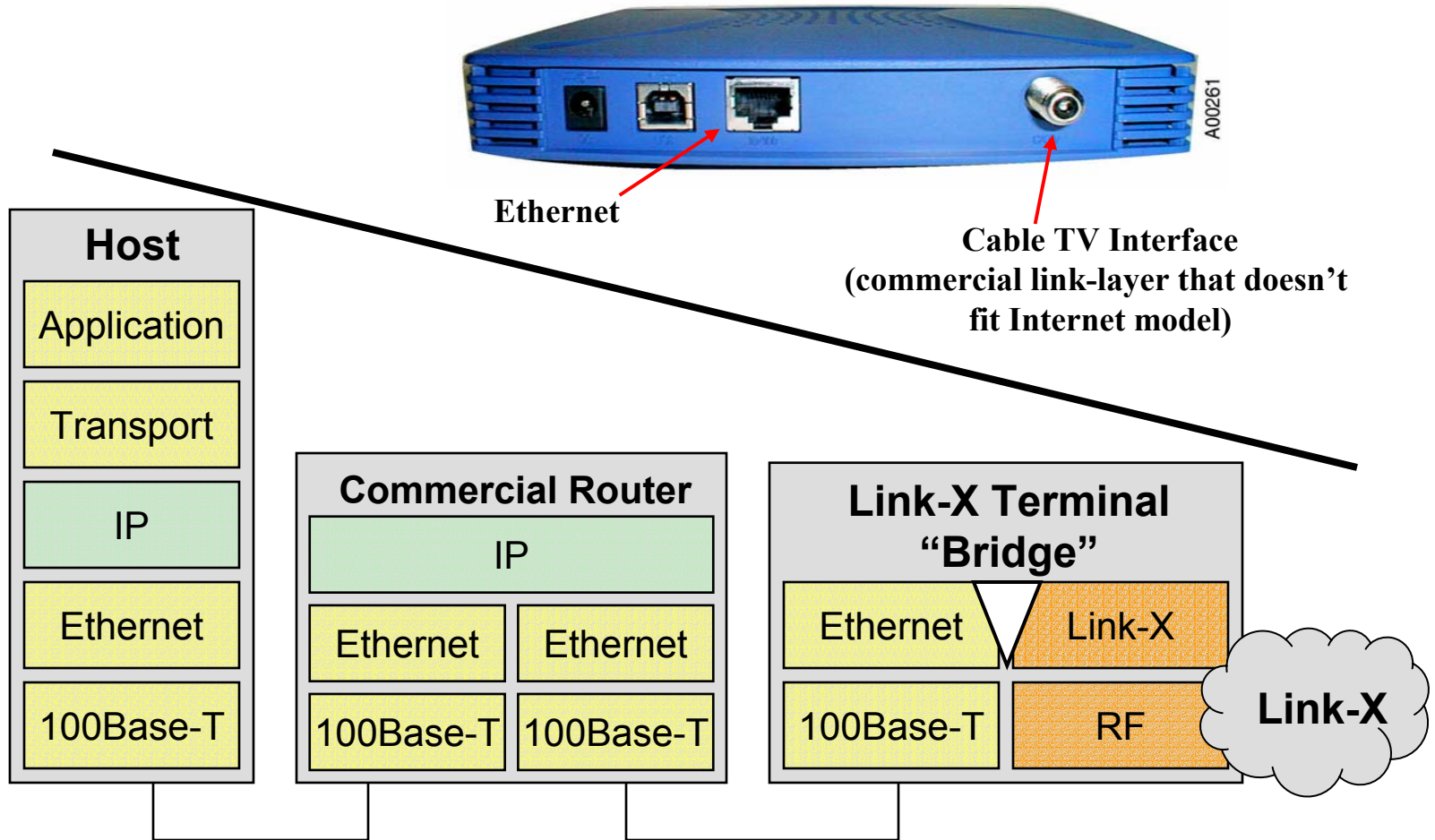
# Objective

- **To meet the increasing demands placed on tactical networks we must find a framework in which QoS mechanisms can operate. The primary goal of this project is to define architecture components or the “hooks” that must be built into our link-layer networks to enable QoS management.**

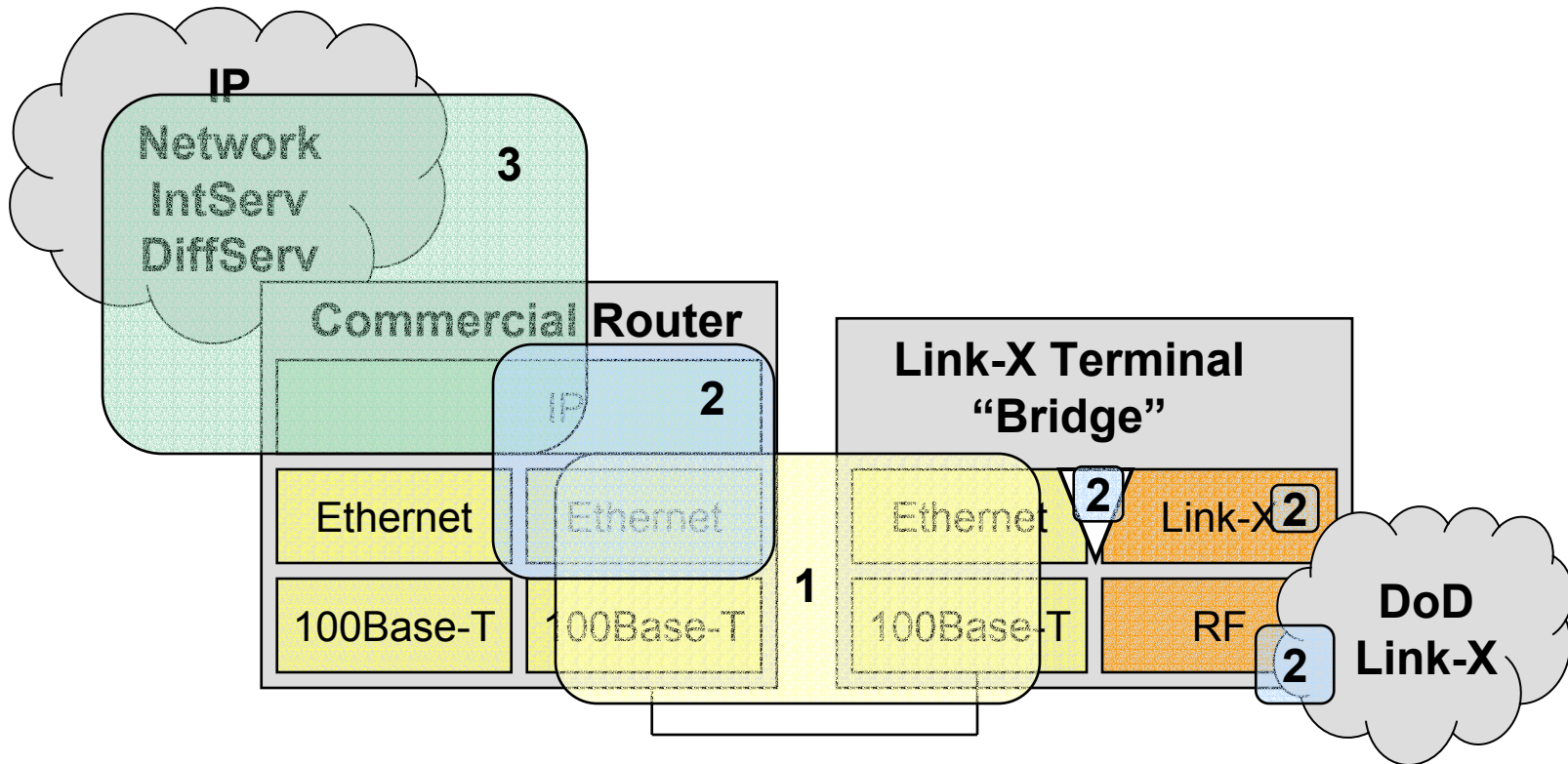
# Activities

- **Identify & evaluate QoS options using COTS networking equipment with a simple (i.e., non-QoS) radio**
- **Identify & evaluate QoS options for customization of COTS equipment with a simple radio**
- **Develop & evaluate QoS options/features for next-generation radio architecture, which would allow full integration of end-to-end QoS within the network**
- **Develop prototypes/demonstrations**

# Highlight



# Highlight



1. Standard interface
2. Enabling architecture components
3. Enterprise/end-to-end management

# Impacts

- **Evaluation of QoS capabilities via use of existing COTS features and functions allows us to provide QoS implementation recommendations to projects with short-term needs (e.g., FAB-T, MC2A, MC2C).**
- **Next-generation QoS-enabled radio architecture would allow full integration of end-to-end QoS within the network (e.g., JTRS, WNW, MUOS, TTNT, Global Grid).**

# Future Plans

