

## Proposal for Layer Separation of 802.16.3 Application

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# **Proposal for Layer Separation of 802.16.3 Application**

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# **Outline**

**What is happening?**

**Some history**

**Proposal**

**Advantages**

**Questions**

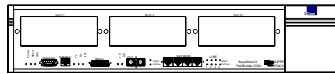
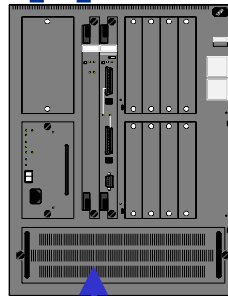
# What is Happening?

**DHCP Server**

**TOD Server**

**TFTP Server**

**IP LAN**



**Base Station**

**IP aware with**

**DHCP RA**

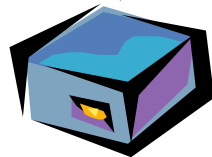
**Layer 3 / Layer 2**

**Connection**



**Subs. Station**

**IP Host**



- Scan for downstream channel and establish synchronization with the BS.
- Obtain transmit parameters (from UCD message)
- Perform ranging

**SS Supports ATM Protocol but not IP**

- Perform registration
- Privacy initialization

# History

**The idea comes from Bay/LanCity proprietary system**

**Proposed to CableLabs and Adopted by DOCSIS**

**Found dangerous by experts and fixed many times**

**Carries unnecessary baggage**

**TFTP Server Timestamp**

**TFTP Server Provisioned SS Address**

**BS MIC**

**SS MIC**

# Proposal

- **Make personality determination (download) a BS property.**
- **Add a new Vendor Specific Information Field to Registration.**
- **Add only the primary CID via registration.**
- **The remaining CID's has to be added after the registration.**
- **Add a separate section for each protocol (e.g. IP, ATM, MPEG) supported.**

# Advantages

- The whole initialization process does not have any dependency to other protocols.
- Since the SS does not play any role in personalization the method is more secure than bootstrapping initialization information.
- Separating the protocol being transported to a distinct appendix makes:
  - More efficient use of resources
  - Better interoperability

# Questions

- **Should the external interfaces of the BS to WAN be specified per protocol supported?**
  
- **Should the management interfaces and constructs (e.g. MIBs) be specified?**



**Questions?**

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