

**A Framework For  
Virtual Metropolitan Internetworks  
(VMI - Layer 2 VPN)**

draft-senevirathne-vmi-frame-02.txt

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Objective:

Provide a Framework for VMI (Layer 2 VPN)  
**solutions**

VMI = { VPLS, pt-pt Layer 2 VPN }

## Flow of Framework (top down approach)

Specifications - by users



Requirements - by Service Providers



Framework - for VMI solutions and  
Equipment vendors

# VMI Taxonomy

Services plane

Management plane

Infrastructure plane

# VMI Service Specification (*service plane*)

Mostly Provided by Users

- Required Network Topology (pt-pt, a-2-a etc..)
- Number of Sites to be connected
- Access Method
- Traffic Engineering
- Security requirements

## VMI management (*management plane*)

(mostly Service provider requirements)

- Service provisioning
- Billing requirements
- Service Level Agreement (accounting)
- Cost of providing the service  
(simplicity vs. complexity)

## Network Service Models (*Service plane*)

As seen by the users

- Full mesh
- Partial mesh
- point-to-multi-point (hub and spoke)
- point-to-point
- hierarchical, multi domain model

## Building blocks (Elements) for VMI Solutions

*(Infrastructure plane)*

- Backbone Transport
- Access methods
- VMI configuration and membership discovery
- Network management and accounting
- VMI Forwarding instances
- QoS and Traffic engineering
- Redundancy and Resilience



Q&A

What is Next ??