Basic YANG Model for Steering Client Services To Server Tunnels

draft-bryskin-teas-service-tunnel-steering-model-00

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Rationale:

- No good universal way to bind tunnels to their clients/services
- Service-to-tunnel mapping is service specific
- Tunnel utilization efficiency and scalability issues
- Service to tunnel re-mapping difficulties
Tunnel pool

• Identified by network unique ID
• Comprised of tunnels with similar properties (e.g. fast tunnels)
• Managed by service orchestrator via configuring tunnel types, IDs and references to appropriate tunnel data stores for pool tunnel components. All other model nodes are read only (redundant network state information)
• Services are mapped to tunnel pools via pool IDs
• Provides via state information services (and optimally their parameters) that are currently mapped onto the tunnel pool
Advantages of service to tunnel pool mapping approach

- Scalability and efficiency of network resource utilization
- Automation, transparency and elasticity
- Service to tunnel mapping is decoupled from service definition, tunnels could be shared among multiple services of different types
Next steps

• Soliciting discussions, comments and contributions