Multi-Domain Lightpath Authorization Architecture using Tokens

Requirements:

User: Wants simple, fast and flexible way to reserve and use a lightpath without somebody else being able to use the lightpath. Wants to be metered for the amount of time the lightpath is used.

Service Provider: Wants a secure way to separate authorized traffic from unauthorized traffic in order to provide a metered service without the need to know the user.

How tokens help:

Simplicity: Authorization is separated from use - no need for the network to know the user.

Speed: Token enforcement and counting is simple (crypto-based) comparison, which can be performed at several places at high speed.

Flexibility: Separate authorization process can be complex but does not influence time to enforce lightpath access.

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