Introduction to Multi-Protocol Label Switching

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Refreshments at 2:30, Talk from 3:00-4:00

Today, a large percentage of the Internet's traffic traverses MPLS-enabled networks, and this number seems to only continue to grow. Most service providers today now employ MPLS technology within their networks to carry basic core network traffic. In addition to enabling MPLS in their core networks, providers are also beginning to reap the benefits of deploying the various applications of MPLS such as traffic engineering or fault-tolerant LDP to either enhance their existing service offerings, or to deploy new services such as layer-3 Virtual Private Networks or pseudo-wire services that can generate new revenue directly. A naive observer might surmise that this wide-sweeping acceptance of MPLS is due to it being this year's networking technology fad; however, this would be very short-sighted indeed. Service providers are not trusting their networks to MPLS simply because it is the latest networking technology, but rather because it can be used to enhance revenue generating service offerings such as Voice over IP (VoIP), while at the same time improving the multi-service scalability properties of their new and existing networks. More than ever, MPLS allows providers to differentiate themselves from their competitors more than any other technology has allowed them to in the past. This can simply translate into increased revenues.

This talk will introduce the audience to Multi-Protocol Label Switching, the key motivations for why it is the network transport technology of choice in the majority of service provider and large enterprise networks today, as well as a glimpse of net advances in services that are being or will soon be offered over MPLS-enabled core networks.

Bio: Tom Nadeau is a Principal Engineer at Cisco Systems, responsible for the leadership of operations and management and network management standards, development and architecture for MPLS-related components. He was recently co-editor of an IEEE Communications Magazine special section on MPLS Operations and Management. Tom has filed a number of patents in the area of networking and operations and management. Tom received his BSCS from UNH and a M.Sc. from UMass Lowell.