

# New Edge Networks Gears Up for Class of Service Support on its Nationwide DSL Footprint

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**Current Perspective:**

**Positive**

**Vendor Importance:**

**High**

**Market Impact:**

**Moderate**

**Summary**

## Event Summary

January 14, 2008 – New Edge Networks is preparing to launch a service that allows businesses to tag and prioritize data applications traffic over DSL services. The service will add five classes of service (CoS), supporting differentiated services such as VoIP and transaction-oriented data alongside general-purpose applications. The service will honor DSL-originated CoS tags on an end-to-end basis. Service pricing has not been disclosed, but is expected to be significantly lower than for equivalent T-carrier services. Testing of New Edge's new CoS support for DSL is planned to start in February 2008, with a commercial offering planned for launch in April.

## Analytical Summary

- **Current Perspective:** Positive on New Edge Networks' plan to ramp up support for five class of service (CoS) tiers across its national DSL broadband footprint, because the provider will extend in-network CoS functionality to broadband access reaching about 90% of business locations nationwide. Competitors' IP services have established subsets of functionality in the past, but New Edge will be able to provide a functional blanket replacement of IP via T-carrier services using lower-cost IP over broadband connections.
- **Vendor Importance:** High to New Edge Networks, because broadband access is the carrier's traditional specialty. More recently, New Edge deployed a core IP/MPLS fabric, and in August 2006 added support for five CoS tiers on its new infrastructure. By adding CoS support to broadband, New Edge Networks will marry its two principal areas of focus.
- **Market Impact:** Moderate to high on competing providers of enterprise-class IP VPN

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services, because while some competitors also support a flavor of differentiation on broadband services, New Edge Networks has combined its national DSL footprint and its private networking capabilities with CoS support. Competitors traditionally have not had all these pieces aligned, meaning that New Edge will be able to offer functionality that competitors (at least initially) will not be able to match completely.

**Current Perspective:**

**Positive**

**Target Markets**

ISPs, ITSP, Large Enterprises, NSPs, Resellers/Channels, Small to Medium Enterprises

**Vendor Importance:**

**High**

**Perspective**

**Market Impact:**

**Moderate**

**Current Perspective: Positive**

We are taking a positive stance on New Edge Networks' ramping up support for five CoS tiers on its nationwide DSL broadband footprint, because the provider plans to extend in-network tiered functionality across its access footprint, both owned and served via various third-party providers, which reaches about 90% of business locations nationwide. While competitors offer various subsets of CoS-like functionality, New Edge Networks' CoS support for DSL combines the provider's traditional strength (its national broadband footprint) with its more recent major focus (private network services supported via national IP/MPLS VPNs). New Edge Networks expects to be able to use its infrastructure to support time-sensitive streaming and data applications, such as VoIP and business transactions. New Edge Networks intends to deliver CoS over broadband at costs that are significantly below equivalent services via traditional private leased circuits – in short, emulating the functionality of IP/MPLS-based VPNs over private leased circuits without the associated circuit costs.

New Edge Networks has a core of Cisco 12000 GSR, and added the Redback Networks (now part of Ericsson) SmartEdge 800 gear at its aggregation points to support CoS across ADSL broadband services, both its own infrastructure and those of major partners in its BigFoot footprint (which includes AT&T, Verizon, Qwest, Covad and Embarq). When launched, New Edge Networks anticipates limiting the service initially to ADSL (i.e., SDSL or IDSL are excluded), and connections will require more than 384 kbps bandwidth in each direction. Connections should be able to support up to 50% of the port speed at the highest CoS tier.

New Edge's added functionality should suit its target audience well. The provider's "sweet spot" are SME customers with five to 15 sites – large enough to require public data network services, yet small enough to be quite cost-sensitive. New Edge's retail industry vertical has point-of-sale applications, which are time-sensitive transactions – as a core requirement. Other targeted verticals such as healthcare, manufacturing and financial services each also can make use of CoS prioritization for their needed applications.

But New Edge Networks will not launch the service commercially until April 2008. The success of its CoS support over ADSL is going to be contingent on price, and on the ability for the different traffic classes to deliver consistent performance objectives. Finally, there are still certain service level guarantees, such as availability and time to repair, where private leased circuits deliver an edge. Customers that need the high-priority transactions that CoS

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**Current Perspective:**

**Positive**

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**Market Impact:**

**Moderate**

delivers almost by definition are delivering data that is important to their business. These customers will need to consider the trade-off of lower costs against the lower availability guarantees of ADSL when compared to traditional leased lines.

New Edge Networks' CoS support across a national broadband footprint has the potential to be a game-changing move. It isn't new to combine CoS support with broadband: Any up-to-date cable provider has CoS via DOCSIS, for example, and major broadband providers add CoS support to broadband for IP-integrated voice/data services. Covad and MegaPath deliver IP-integrated voice/data access services over broadband DSL. Many IP/MPLS providers offer to extend the service across DSL access, but they do so without CoS support. The provider's upcoming CoS support for ADSL benefits New Edge Networks as a provider of business services, but may also give rise to interest from wholesalers (potentially including those that use the provider's BigFoot wholesale broadband footprint), to support their VoIP and other prioritizing IP applications.

**Positives and Concerns**

**Competitive Positives**

- Though other providers use CoS with broadband access, New Edge Networks combines CoS and DSL in a way that hasn't been done before. The carrier will offer IP/MPLS-like CoS in five classes, and expects its higher-level CoS tiers to support real-time streaming and data applications (e.g., VoIP and business transactions). New Edge Networks will offer CoS differentiation on its nationwide ADSL footprint, across its own broadband facilities and third-party resold services, reaching about 90% of business locations.
- The main significance of New Edge Networks' adding five tiers of CoS to DSL is that the combination emulates capabilities of IP/MPLS VPNs that were previously only widely available via private leased circuit access. Since leased line access is more costly than ADSL, New Edge Networks expects to offer its CoS/DSL alternative at a significantly lower price than leased line equivalents.
- The combination of CoS and broadband merge New Edge Networks' two pillars of service expertise. The service provider started with a primary focus on broadband services, and more recently deployed a national IP/MPLS network, adding five tiers of CoS across that network in August 2006. The marriage of broadband with CoS support and IP/MPLS networking complements the provider's core area of focus.
- New Edge Networks' upcoming CoS tiers for ADSL also work well with the provider's target customer size and vertical focus. The provider's "sweet spot" are SME customers with five to 15 sites – large enough to need a private data network, but small enough to be quite cost-sensitive. New Edge's traditional core market is retail, which uses point of sale applications that are time-sensitive transactions. Other New Edge verticals, such as manufacturing, healthcare and financial services, each also have need for a way to prioritize traffic.

**Competitive Concerns**

- New Edge Networks hasn't launched the service yet. The provider will begin testing its planned support of CoS for DSL with customers starting February 2008, and general

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commercial launch is anticipated in April 2008. New Edge Networks has not firmed up topics such as pricing, except to note it will be significantly lower than equivalent alternatives via leased lines; it also has not yet defined the differences in performance SLAs for each of the five CoS tiers it will deliver.

**Current Perspective:**

**Positive**

- Lack of firm CoS is not the only point of differentiation between IP VPN services delivered via DSL broadband and IP/MPLS-based leased line services. Private leased circuits tend to come with more stringent overall availability guarantees and time to repair guarantees. New Edge Networks is trying to pressure incumbent local carriers to provide higher-quality SLA options for their ADSL broadband services, but there isn't evidence that large incumbent local carriers are going to do so.

**Vendor Importance:**

**High**

- There are other ways that competitors deliver differentiated traffic over broadband. Some, like Covad and MegaPath, deliver IP-integrated voice/data services via DSL. Some IP/MPLS providers offer the service over broadband, but without CoS support. Many providers offer managed router services that can prioritize egress traffic handling at the access router, if not in the network.

**Market Impact:**

**Moderate**

**Recommended Actions**

**Recommended Vendor Actions**

- New Edge Networks can tout that it has installed the network infrastructure and conducted all the tests needed to be satisfied the service works. The provider now just needs to stick to the rollout schedule, add SLAs showing what customers can expect in terms of differentiated performance, and confirm a percent range of anticipated savings by using CoS with DSL compared to IP/MPLS via private leased circuit.
- New Edge Networks needs to contact its existing BigFoot broadband footprint customers, as well as to VoIP providers of all sizes, and see whether it can win over a slice of their business. The carrier may have opportunities to win over pieces of CLEC IP-integrated T1 voice/data and standalone VoIP provider business. It might be able to partner with enterprise-focused cable providers that need to patch holes in their out-of-region business services footprint.
- Now that New Edge Networks has CoS that is VoIP-capable, it needs a line of VoIP solutions. Whether through acquisition, wholesale partnership(s) or internal development, the provider should get a line of solutions together that includes individual access lines served by integrated access devices (IADs), small business IP PBX/key system(s) and perhaps even native IP network-hosted VoIP.
- New Edge Networks should craft its message of differentiated CoS in ways that speak directly to its primary vertical markets of focus. Vertical segments may not be interested in CoS in abstract, but the retail industry will pay attention to priority transactions for POS via DSL; manufacturing companies may take note of SAP or other ERP support via DSL; and financial services firms may make it their own priority to upgrade to a service that offers to deliver faster, more reliable transactions.

**Recommended Competitor Actions**

- It's hard to position against a service that is not yet formally rolled out. The easiest first

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line of defense for competitors is to note that the service might look good on paper, but that it doesn't exist yet. Competitors can also caution that New Edge Networks is doing something new by adding CoS to DSL, and that inherently means there's risk involved in trusting a new approach that doesn't yet have a widely proven track record.

**Current Perspective:**

**Positive**

- Businesses selling IP/MPLS-based VPN services supporting CoS over private leased circuits can point out the service level guarantees not just for traffic, but also for service availability and time to repair. They can claim that any connection that needs CoS by definition is carrying traffic vital to the business, and that means traffic that should not be trusted to a relatively unreliable broadband access. They can also point out that ADSL upstream speeds often top out well below the 1.5 Mbps of a full T1, and claim the technology is unsuitable for sustained symmetrical communications.

**Vendor Importance:**

**High**

- Verizon Business and AT&T can claim that they already support type of service (TOS) marking for their Internet access/CPE-based IP VPN services: AT&T with its MIS/GMIS (managed Internet service) and Verizon Business with its IP VPN Broadband service. They can claim that this TOS marking is comparable to the CoS marking for DSL of New Edge Network, but that these carriers simply do not want to issue performance SLAs that cannot be backed with ironclad guarantees.

**Market Impact:**

**Moderate**

- Broadband VoIP specialists can claim that they have been delivering CoS across broadband for much longer than New Edge Networks. They can position New Edge Networks' CoS support as a gimmick as compared to their being able to support voice and data services in a turnkey package.

**Recommended End User / Customer Actions**

- New Edge Networks' new CoS support for its ADSL services will not be generally available until April 2008. Businesses that are starting to look around for a renewal now, should be able to work within the time frame to incorporate New Edge's new CoS support into their RFP. But they do so at some risk, as the new CoS support features do not yet have a demonstrable track record.

- New Edge Networks had already been working on raising its profile among enterprise-class customers requiring IP-VPN services, and it has touted high-quality service at attractive prices. By bringing DSL into play with CoS functionality roughly comparable to leased lines, New Edge Networks can cut more costs out of building enterprise-wide networks. For cost-sensitive businesses, it is worth checking out.

- Companies that define their communications traffic as "mission critical" may be better served via leased line transport for their primary access and broadband (or dialup, wireless or even satellite) as a failover. Though redundancy increases the network's complexity and cost, it makes more sense when an outage stands to put a company's revenue stream at risk.

