



**Introducing QoS DSL IPStream.  
Voice with all the upstream.  
And the downstream.**

Welcome to your next market opportunity.

**NetServices delivers Alltogether® Business.**

With a range of voice and data services, NetServices are uniquely positioned to deliver on the convergence promise.

Ours is a completely integrated service which is geared to the changing needs of business - bringing a business alltogether® whether a multi-site operation, a business embracing home or tele-working, or an organisation looking for unified communications.

**For more information on how we can help you become an Alltogether® Business, visit our website at [www.netservicesplc.com](http://www.netservicesplc.com), call us on 0870 753 0900 or come and see us (Stand 68) at the Convergence Summit.**

**netSERVICES**  
alltogether®

# Introducing QoS DSL IPStream. Voice with all the upstream. And the downstream.



At NetServices, where networking is our business, DSL has always been an important aspect of our product portfolio. With the availability of higher bandwidths and its recognition as a stable access technology, DSL is playing an ever increasing role within business networking.

## NetServices

NetServices specialise in providing a range of voice and data services and converged infrastructure solutions. Our core strength is in networking and managing applications running over them to ensure they effectively support business.

In many ways voice is just another application. However it is also an application with 'special needs' – effective management of voice over the network requires this recognition of the fact that as a real-time application it should not be treated in the same manner as other enterprise applications.

Through development of our voice application (Voice4IP), NetServices distinct advantage to our partners and customers is the knowledge and expertise we have gained in managing complete end-to-end voice over IP, from minutes/ WAN to application. Designing and integrating voice and data infrastructures is a complex undertaking and for many organisations having all these skills and supplier relationships in-house is cost prohibitive.

NetServices heritage in networking combined with our experience in voice applications ensure we are ideally placed to deliver the converged solutions to businesses.

**For more information visit**  
**[www.netservicesplc.com](http://www.netservicesplc.com) or contact**  
**us on 0870 753 0900.**

Our pedigree already established in broadband, with the purchase of Telefonica's UK wide non-contended (DataStream) network NetServices became one of a handful of providers in the UK able to offer DataStream and IPStream (contended) DSL products. This has enabled NetServices to explore the boundaries of DSL for business quality voice solutions. In developing and delivering our range of voice products, Voice4IP, NetServices have also explored the boundaries of DSL to ensure service excellence regardless of the access technology used. This continued exploration has led us to become experts in the provision of DSL based networking and voice services to business and as such our knowledge in this area is second to none.

## Quality of Service

Quality of Service, more commonly referred to as QoS, is a protocol that gives priority to 'tagged packets' within a network, thus ensuring an uninterrupted route for real time applications. In effect this 'bus lane' or 'right of way' is an 'always open' channel exclusively for specified real time traffic, such as voice, EPoS and Citrix applications. Until recently this service has only been available on leased lines and Ethernet technologies, which has proven cost prohibitive for smaller offices.

Through extensive research and development and strategic partnerships NetServices can now offer QoS on both DataStream and IPStream DSL, on both the up and downstream traffic. As voice flow has a greater need for symmetrical bandwidth than data; where the majority of traffic is in the downstream, the ability to apply QoS symmetrically is a necessity for business quality voice over DSL. The focus for this development has been to provide a low cost alternative to prioritised leased line and Ethernet access circuits. QoS DSL offers additional benefits other than lower cost, such as;

shorter term of contract, minimal installation fees and faster lead times, proving that this is more than just another networking development for technical guru's to get animated about, but one which is truly beneficial to business.

Technology is constantly evolving; therefore to succeed companies working in the channel must also evolve. Our role as technology specialists is not just to provide the technology, but also to 'translate' these products to demonstrate the viable business benefits. Unless we demonstrate the appropriate uses of this service to clients, businesses will not realise the benefits offered from this ongoing development.

## alltogetherbusiness

One of the areas putting businesses and IT departments under pressure is the increase in mobile and remote working. According to the UK Labour Force Survey; about 7.4% of the UK workforce, or 2.2M people, can be described as teleworkers, i.e. they work at home at least one day per week. This number has grown rapidly and is continuing to increase as businesses attempt to meet the demands of flexibility from their staff.

For most people working outside the main office, whether occasionally or on a permanent basis, the expectation is that the corporate desktop should be extendable in its entirety to their remote location. Effectively meaning the phone should work as a fully functioning extension as if it were in the office, that they can access all enterprise applications and that access, speed and quality of these services of these should be of a standard equivalent to that in the office.

In current workplaces a compromise is almost always necessary. IT departments have struggled to keep pace with the demand of a changing working environment and the costs of providing



fully functional, high bandwidth voice and data connectivity has been prohibitive. NetServices' ability to manage quality of service over all DSL technologies means voice quality is not an issue and as it is a private network i.e. security and individual firewalling is not required making it a highly cost-effective solution.

“ **NetServices provide Mazars with a national MPLS network delivered over Ethernet, leased line, and DSL. With this development, NetServices are now able to implement QoS seamlessly across all access technologies so we can have a fully converged network capable of running our business applications including Citrix and IP telephony with complete confidence in service quality of both the voice and data application.** ”

**Tony Hogg  
Mazars**

Where, for example, an MPLS WAN is already in place, a private DSL-based network can be implemented complementary to the corporate network, resulting in home-based workers having access to the same telephony system and the business applications as they would in the office. Being able to prioritise traffic over the contended DSL therefore means that business networking can be extended, offering a solution to the remote worker challenge as well as maximising use of other existing infrastructure.

The retail and leisure environment is another sector that places huge demands on IT. Whilst the very largest can afford to be at the cutting edge of technology, this is not the case for more local and regional retailers. For these, networking stores has remained a challenge and many retail and leisure companies continue to operate on ISDN based systems. Relaying information from the till and storeroom to the head office, for supply and stock management, provides vital business efficiencies only if it can be achieved on a cost-effective network, such as the DSL based network.

With the QoS available on all access technologies convergence can now be extended to the SME, remote workers and small branch offices. Service providers and systems integrators can now deploy converged infrastructure solutions, to multi site organisations, where there are a number of branches or SOHO locations currently outside the existing converged WAN.

**NetServices provide networking services to a number of integrators and are working with Cisco, Panasonic and Avaya resellers to provide voice networking services to complement their existing portfolios.**

**For more information contact Phil Wedgwood on 0870 753 0900.**

### **BTs contended DSL (IPStream) doesn't support QoS therefore how can you provide a QoS DSL- IPStream service?**

Traditionally the BT IPStream network did not support end-to-end QoS. The BT IPStream Advanced Services feature "Downstream Quality of Service" was introduced in 2006 but only provides QoS in a downstream direction which is charged on a per session basis rather than being consistently applied.

QoS can be provided across any access technology providing that the fundamental building block that is required for implementation – a guaranteed amount of bandwidth being permanently available – is in place.

NetServices has harnessed the use of the Cisco feature "per session shaping and queuing over L2TP" to ensure that traffic classes are prioritised and reserved across its Central Pipe infrastructure. Therefore from the NetServices Central Pipe infrastructure, through to the end-user CPE router, an 800kb/s channel is provisioned with QoS applied across it.

**More FAQ's are available at [www.netservicesplc.com](http://www.netservicesplc.com)**

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An integrated range of voice and data services that help bring your business alltogether. Alltogether more efficient. Alltogether more profitable.

