Netservers

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APPLICATION NOTE
Delivering enhanced Internet services to tenants using Netservers FireRack

Introduction

This Application Note explains why the availability of high-speed Internet services are now a "must have" for businesses, and how landlords can meet their tenants needs in those locations where affordable DSL or equivalent services are not available.

Some landlords may want to implement the solutions themselves and some may want to partner with a specialist organisation that has the experience to manage the complete service on their behalf. Netservers' solutions for each of these two scenarios are described below.

The opportunity

Most businesses take the availability of Internet access within the office for granted – just as they have done for years with the telephone service. Today, this means broadband Internet access which is fast enough to support multiple users simultaneously.

The old and traditional method of providing Internet access, dialling-up with a modem, is totally inadequate for the modern business environment. Business users have become accustomed to the sort of access speeds offered by new, very affordable technologies such as DSL and cable modems, because that's what many of them already use at home. So they expect a similar speed of Internet access when at work.

Unfortunately, DSL and cable services are only available in urban areas, either because of the distance limitations of the technology (in the case of DSL), or because new infrastructure has to be laid under the street (as with cable modems). Leased lines, which are used by large businesses, are prohibitively expensive for the majority of smaller businesses to consider. In business locations outside the urban areas, alternative ways of providing Internet services must be sought if the location is to be attractive to potential tenants.

For owners of business centres, business parks, shopping centres and multiple-tenant units, this represents both a problem and an opportunity. Without the availability of broadband access, it will become increasingly difficult to attract and then to retain tenants. The market is highly competitive with many good properties and office units lying empty, so landlords really cannot afford to ignore this issue. On the positive side, however, the demand for these new services indicates a potential new revenue stream for those property and management companies that can provide a solution.

Benefits of shared access

For many properties and estates, then, the only means of obtaining sufficient bandwidth for their tenants Internet access is via a leased line. Fortunately, whilst a leased line connection would normally be too expensive for an individual tenant to buy, it is a more viable option in a business community where many of the costs can be shared between multiple tenants.

If an individual tenant were to buy a leased line for their Internet access, the line would be idle for much of the time. This is because although end-users might be reading e-mail or browsing the web, data is not flowing on the line at all times. If the line is shared between a number of separate businesses, more efficient

use is made of the available bandwidth and so the costs to each business can be reduced. In this respect it is very similar to the way in which telephony services are usually delivered and these economies of scale provide a valuable business benefit to tenants.

To all intents and purposes, the landlord becomes the Internet Service Provider for the tenants. Although the concept of shared access is easy to grasp, there are a number of practical issues that need to be considered when planning the installation of a common infrastructure for Internet access.

Service considerations

Quality of service

It is important to ensure that tenants are supplied with a reliable service that delivers a quantifiable amount of bandwidth if they are to be satisfied. On a shared network, it is vitally important that one or more tenants cannot take more than their allocated share of the bandwidth – either deliberately or accidentally – and so degrade the performance of the service for everyone else.

Landlords should ensure that their shared network is designed in such a way that it is possible to set maximum and minimum levels for the bandwidth that will be allocated to each tenant. Ideally, it should also be possible to specify and control the "overbooking" of the network (i.e. the degree to which a set amount of capacity is shared between different businesses).

Service Management

For new tenants, the service should be ready and waiting when they move into their office space. This means the space should be pre-cabled so that the tenant just has to connect their existing computer equipment to the sockets to be ready to go. For tenants already using the service, it should be easy for the management company to monitor the usage - so that tenants can be upgraded before their service deteriorates. It should also be easy to change the amount of bandwidth made available to each tenant and for the management company to respond quickly to any firewall changes that might be requested by the tenant.

Adding value

Internet access is a commodity telecommunications service and, as such, prices have been driven down and profit margins are comparatively slim. In order to improve revenues and margins, it is necessary to offer a range of attractive value-added services to which tenants will subscribe. The most obvious of these are e-mail and web hosting services, but businesses are increasingly prepared to pay for effective anti-virus and anti-spam services, as well as IP VPN and managed security services.

These services require specialist skills, however, and it is necessary to have knowledgeable IT staff on hand to configure and support them. Unlike voice services, may also be necessary to take into account specific hardware and software that the tenant is using, especially if an IP VPN is required. Despite these hurdles, it is worthwhile finding a solution because the more sophisticated the services that the tenant uses, the more difficult it will be for them to move offices and get the same services elsewhere in the future.

Security

While is important for any business to protect their computer network from threats originating outside on the Internet, it becomes especially important when an Internet connection is a high-speed, "always-on" leased line connection. On a shared infrastructure, it is also necessary to ensure that any security weaknesses in one business do not pose an extra threat to other businesses connected via the same network. For these reasons, it is essential that every tenant has implemented adequate security measures, and that these security measures are correctly managed.

A possible solution is to install a firewall in every individual office space. However, the management of lots of separate firewalls can be an expensive and difficult process. It is usually far more cost-effective and practical to install a single, centrally managed security system – the Netservers FireRack for example - that does not allow the security of any part of the shared network to be compromised.

Billing

In most circumstances, the ideal pricing scheme is one that combines a flat rate with a variable rate for excess usage. This is because, on the one hand, businesses tend to prefer a regular, predictable service fee that they can easily budget for. On the other hand, the landlord needs to protect himself against those few tenants that might use the service excessively if it were just a flat fee. Therefore, it is a good idea to set a limit on the maximum amount of data that can be transferred, above which a usage fee becomes payable.

If such a pricing scheme is to be contemplated, either at the outset or at some time in the future, then it is important to implement a mechanism for recording the amount of bandwidth used by each tenant. It should also be possible for each tenant to view their usage so that they can take preventative steps if their usage becomes too great, and also so that they can verify any additional charges that may be incurred.

The Netservers solutions

From the above, it seems clear that the installation of a shared leased line is the only viable method of providing high-speed Internet access to tenants in some geographic locations. Furthermore, to ensure a good margin and a satisfactory return on investment, it is necessary to offer value-added services on top of the pure Internet access. However, becoming the tenants' ISP means taking on additional responsibilities and developing technical skills which are not currently possessed by most landlords.

Netservers offers two types of solution for landlords. Firstly, a purely hardware and software solution, which is suitable if the landlord wishes to install or enhance a shared computer network and is happy to manage the service themselves. Secondly, a fully managed service if the landlord would prefer to outsource the ongoing support to a third party specialist so that they can focus on their core competencies.

Netservers FireRack

FireRack is a highly sophisticated - yet cost-effective - system that sits in a central communications room and performs all of the functions described in the sections above. There are versions suitable for all sizes of business community, from small business units up to the largest of shopping centres or campuses.

Each tenant's office space is set up as a separate Virtual Network. This network is extremely flexible and allows a single Virtual Network to be constructed from more than one physical workspace, so that landlords can help their tenants to grow without necessarily needing to physically relocate them to larger offices.

Comprehensive support for IP VPNs means that landlords can offer tenants a range of flexible working solutions to cover off-site employees or associates, as well as secure links to other offices.

A friendly, web-browser interface is used to manage the configuration of each Virtual Network, to manage the additional services that each tenant has subscribed to, and to access usage and utilisation information. This Management Console can be accessed from any remote location - IT staff do not have to be located on-site. Also, since every Virtual Network is double-protected from every other Virtual Network, tenants are able to administer their own network, if they wish, without risking the security and performance of the network as a whole.

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Netservers Managed Internet Service

The Netservers Managed Internet Service is ideal for landlords who want to stick to what they understand best (property management) and who wish to use a qualified and experienced partner for the delivery and maintenance of computer network services.

Netservers can manage all aspects of the installation and on-going support of the shared Internet service. A wide range of pre-packaged value-added Internet services are available which means that Netservers can work with the landlord to put together a range of compelling services that will generate incremental revenue streams.

For more information about any of the Netservers products and services for managed office spaces, please contact us or visit our website.