

# aries

## Small Office Connectivity

How do SMB benefit from using the  
Small but Secured Aries Server Appliance

*white paper*

## Internet Needs

The Internet revolution is like nothing in the history of mankind. E-mail can be sent from San Francisco to New York in seconds. A color brochure can be downloaded from any where in the world in minutes. An exchange student in Seattle can chat with her family in Australia in real time. The Internet opens a whole new world of possibilities for recreation, consumers, and businesses.

With the world's high competitive market, businesses must keep up with technology and market trends. Fortunately, the benefits of the Internet are astounding providing the most cost effective medium today. The Internet provides low cost on communication with customers, partners and suppliers; a wealth of up to date information on industries; and it conveys a whole new marketing concept that has no boundaries.

Unfortunately, not all businesses are connected to the Internet. It is not the lack of desire, but rather, the lack of necessary Internet solutions.

Today, there are many Internet solutions available, but the problem is that most of these solutions are not tailored for all businesses. Internet solutions begin with choosing an Internet connection, choosing an Internet Service Provider (ISP) that can provide the desired connection, and considering how to network the Internet throughout a business.

Choosing an Internet connection is the first step to a successful Internet solution. The phone line modem connection provides a low cost solution, however, it is often sluggish, and it can also be an unreliable source of connection. Operation cost could increase from initially forecasted due to the usage and toll charges. The DSL/Cable modem and leased lines, another Internet connection to choose from, provide a much higher bandwidth but do not offer any sharing capabilities or security features.

Once a connection is attained, networking is the next most important step because, after all, all employees need access to the Internet. With the proper networking of the Internet, a business can attain security, and speed, at a low-cost.

Companies are limited in networking solutions. Companies that have limited financial resources often run a peer-to-peer network. While it may work well for most part, it can put much strain on a client's computer causing significant slowdowns.

Other companies use a network server, which is a dedicated server specialized for such a task. Having a centralized file storage also means easy archival of data without the need for backup software or manual archiving of individual PCs. The cost of a network server is priced in thousands of dollars and this is not justifiable for the large pool of SME with less than 25 employees. Being connected 24/7 means hackers have the opportunity to wreak havoc on the network. Security measures such as firewall, which requires separate hardware and/or software that need to be purchased.

Another inhibiting factor is the need to recruit a computer engineer or a MIS to administer the network, as these networks are often complicated and hard to maintain. Although such services may be outsourced, it generally involves a response time of anywhere from a couple of hours to a couple of days, not to mention troubleshooting time.

These days, more and more people are working out of the office. It poses a real problem for collaboration and resource sharing. It is inefficient and time consuming to have to return to the office to get a much-needed file.

Although Internet solutions are available, it requires thousands of dollars in computer hardware and a network administrator to attain proper Internet connections that will results with security.

## Celestix introduces the Aries

You don't need a mechanic to drive a car. At Celestix Networks, we believe that this should not be any different with a network server. At only half the size of a toaster weighing a little over 2 lbs, the Aries Integrated Internet Server boasts an array of server functions and networking solutions that are traditionally only available to expensive servers. By hiding the intricacies of a network server behind a comprehensive and easy-to-use interface, it can be managed by almost anyone, much like working the pedals and steering the wheel of a car.

The server functions and networking solutions include:

- **Choice of Internet Connection**

With a choice of Internet connection including 56K modem, ISDN, DSL, Cable and leased lines, the Aries is able to meet with a business' growing needs as well as adapt to current infrastructures limitations.

- **Firewall**

A firewall acts like a traffic light, allowing authorized users to gain access to files and resource on a network, yet providing security against hackers. The user needs only to specify which Internet services to allow and who may connect from off-site locations.

- **Intelligent Web Agent**

Optimizes network traffic by caching web pages so that the same web page or picture will not be downloaded again and again.

- **Intelligent E-Mail Agent**

It may be configured to process mail at intervals to avoid unnecessary connections to the Internet.

- **Internet Access Control**

Allows only authorized users have access to the Internet.

- **Content Filtering**

Undesirable sites containing games, pornography, video, etc. may be blocked.

- **Printer Server**

Although printers have become very affordable these days, it does not make economic sense to have a personal printer for each computer. Sharing a printer off a client may slow the printer down significantly. The Aries functions as a print server which is as simple as connecting a printer to it!

- **Network Storage**

Compatible with Windows, Mac and Unix, and it provides gigabytes of centralized storage and simplifies backup.

- **Backup/Restore**

Using a web browser, system and/or data files are backed up to another computer and are easily restored if the unthinkable should happen.

- **Web and FTP**  
These servers are used for publishing information regarding products and services.
- **Dialup Server**  
This server allows remote users to call in with a computer.
- **VPN**  
This forms a secure virtual connection over the Internet, giving remote users access to files and printers in the office.
- **Wireless LAN support**  
Simply by plugging in an optional Wireless LAN PC Card, the Aries acts as a bridge between the Wireless Network and the LAN. Everyone in office can have a wireless Internet connection!
- **4 button LCD interface**  
It is for easy setup and monitoring.
- **Browser-based Wizard**  
It simplifies configuring tasks with comprehensive explanation of features and settings.

### **Benefits to a Business**

Many products and solutions create new problems. The Aries provides a complete solution that works out of the box with absolutely nothing else to purchase and no monthly fees except those of your favorite Internet Service Provider (ISP).

Administrative tasks are designed to be simple and can be performed by an office manager with minimal networking knowledge. A concise online help file is available for reference and if further assistance is required, Celestix Networks' Technical Support is there to take the calls and if necessary, and access may be granted for Technical Support personnel to make changes directly to the Aries.

Designed to perform specific and repeatable task, it takes only minutes to reboot the Aries for it to reset itself. If all else fails, the Aries can easily be restored to factory settings and a backup copy reloaded from another computer. Restoration takes less an hour, depending on the amount of data.

Using the Aries can save time and money, which can then be properly distributed and utilized elsewhere. With the perfect solution, Celestix Networks is making an irrefutable proposition.

## Glossary

24/7

24 hours a day, 7 days a week

Cable Modem

A modem designed to operate over cable TV lines. Because the coaxial cable used by cable TV provides much greater bandwidth than telephone lines, a cable modem can be used to achieve extremely fast access to the Internet.

DSL (digital subscriber line)

Short for Digital Subscriber Line, a new technology that allows more data to be sent over existing copper telephone lines (POTS).

Firewall

A system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks that are connected to the Internet.

IP Address

A numerical identifier for a device on a TCP/IP network. The IP address format is a string of four numbers, each from 0 to 255, separated by periods.

ISDN (Integrated Services Digital Network)

An all-digital replacement for analog telephone service. ISDN provides two 64-Kbps channels, called B-channels, over a single phone line, which can be used together or independently to carry voice or data. The data signaling channel, or D-channel, carries signaling and limited packed communications at either 16 or 64 Kbps, depending on the service.

LAN

Local Area Network is a computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings.

Leased Line

A permanent telephone connection between two points. Unlike normal dial-up connections, a leased line is always active. The fee for the connection is a fixed monthly rate. The primary factors affecting the monthly fee are distance between end points and the speed of the circuit.

LCD

Liquid Crystal Display, a type of display commonly used in digital watches and many portable computers.

Peer-to-peer

A networking model where a computer is both a client and a server

POTS (Plain old telephone service)

Standard telephony for placing and receiving calls.

T-1

A digital carrier technology used for transmitting data through the telephone system at 1.544 Mbps.

### T-3

A digital carrier technology used for transmitting data through the telephone system at 45 Mbps.

### VPN

Short for Virtual Private Network, a network that is created using the Internet as the medium for transporting data. These systems use encryption and other security mechanisms to ensure that only authorized users can access the network and that the data cannot be intercepted.

### WILL (wireless local loop)

A broadband connection system that uses high-frequency radio links to deliver voice and data without the problems of gaining right-of-way for a fiber-optic cable installation or finding adequate copper connections for DSL. Also known as fixed-point wireless.