MROTEK™
Access Every Network

Connect

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Quote of the Month

Sucess is a lousy teacher.
It seduces smart people into
thinking that they can't lose.

Bill Gates.

Technology Trends

Triple Play for the Trendy Times

There is a lot of serious talk about triple play services worldwide by carriers and customer alike. Customers want more and better services for the same cost and carriers want to deliver more at the same cost. This is a problem which many vendors find nightmarish to solve and make both ends meet.

In order to resolve the chaos resulting from this disparate requirement one needs to focus on the network design architecture and make it very simple to deliver high speed pipes in order to run triple play services comprising of voice, video and data. Simple architectures with easy installation procedures result in lower capex on devices and ensure that we have a network which can be rolled out with lower OPEX. Prioritizing Data, Video and Voice traffic at the CPE level would be a key requirement to ensure end to end QOS.

What has succeeded very well is the past hundred years is the delivery of voice services. The Central Office architecture has stood the test of time and resulted in excellent service uptimes. One needs to consider the same age old mantras to deliver high quality triple play services.

Today there are no technical challenges to deliver high capacity pipes other than actual infrastructure on the ground. It is just that the rocket science of high bandwidth, fast switching devices needs to be simplified and deployed in a manner which uses existing infrastructure or reduces new infrastructure elements. 'Innovate to simplify' should be the motto.

Once a reliable infrastructure is in place it is up to human imagination to figure out why people do what they do and figure out which activity they will be willing to pay and ensure the growth of triple play.

MRO-TEK International Head Quarters
Hebbal, Bangalore

Australian ISP Uses RAD Converters to Extend Ethernet Service Coverage over Telstra's Last Mile

Running data traffic over the carrier's existing SDH or PDH network is an excellent way for an ISP to introduce new data service packages and extend its coverage area...

RAD offers a full range of 10/100BaseT Ethernet-to-SDH converters, from E1 to E3 and STM-1

Easy Deployment to Off-Net Customer Base

A nationwide Australian Internet Service Provider (ISP) has found an innovative and cost-effective way to quickly deploy Ethernet services over incumbent Telstra's access network to its own rapidly growing client base.

Island Internet Services, an up-and-coming ISP based in New South Wales, offers its customers a full range of access options, from dialup modems to permanent connections and web-hosting services to broadband DSL connectivity, Voice over DSL (VoDSL) and Voice over IP (VoIP). In order to provide data services to the largest possible customer base, Island needed to go off net and connect their routers over Telstra's ubiquitous PDH network. They did this by deploying RIC-E1 Ethernet-to-E1 converters from RAD Data Communications.

Most Economical and Least Complicated Solution

"Running data traffic over the carrier's existing SDH or PDH network is an excellent way for an ISP to introduce new data service packages and extend its coverage area while lowering operating costs and improving profitability," explains Udi Furman, General Manager of RAD Australia. "The challenge, however, is that SDH and PDH transport networks were designed for voice and not data," he continues. "A compact interface converter like the RIC-E1 is the most economical and least complicated solution for overcoming this obstacle," Furman states. "A converter offers simple, cost-effective connectivity to access networks, including leased line services."

David Blandford of Island Internet Services commented, "We have deployed RIC-E1s in both telephone exchange and customer environments over the last four years and they have performed flawlessly, not a single outage."

Operating full duplex at a rate of 2.048 Mbps, the RIC-E1 converts between E1 and standard data communications interfaces.

When equipped with an Ethernet interface, the device transparently connects remote LANs and VLANs over unframed E1 links utilizing the full E1 bandwidth. When equipped with a router interface, the RIC-E1 operates as a standard IP router. Interfaces are easily interchangeable given the product's modular design.

RAD offers a full range of 10/100BaseT Ethernet-to-SDH converters, from E1 to E3 and STM-1.

The RAD equipment was supplied to Island Internet Services by Proactive Communication Solutions (PCS), an authorized RAD distributor in Australia.

Shakti Insulated Wires Pvt. Ltd.

Chooses ZyXEL's Security Solutions

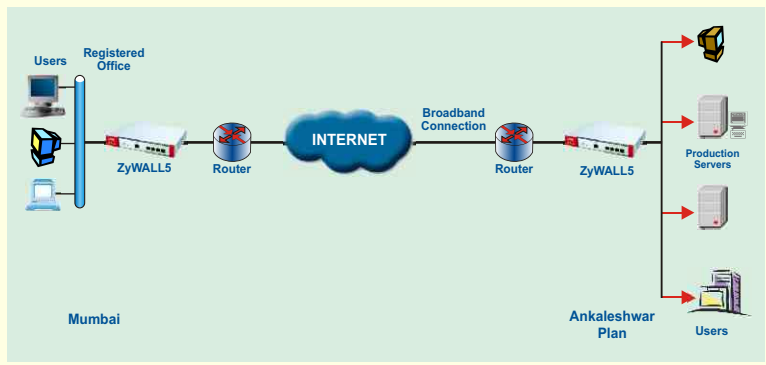
Shakti Insulated Wires Pvt Limited, a leading manufacturer of insulated wires, has chosen ZyWALL Internet Security appliance to protect the company's internal network of its registered office and the manufacturing plant and also to build a VPN tunnel between the two offices.

According to its blueprint, Shakti Insulated wires Pvt Ltd will implement ZyXEL's ZyWALL firewall at its registered office in Mumbai, and the manufacturing plant in Ankaleshwar. With ZyWALL's robust firewall and complete data encryption functions, ZyWALL enables Shakti Insulated wires to build up a complete protection network and VPN.

ZyWALL enables Shakti Insulated wires to build up a complete protection network and VPN

"After testing and evaluating many firewall/VPN products available in the market, ZyXEL ZyWALL's outstanding performance and competitive price were the most appealing factors to us when making our decision," said Mr. Haque, Head I.T. of Shakti Insulated Wires. "Implementing the ZyWALL not only provides a powerful network security gateway for accessing the production servers at the manufacturing plant, but also enables us to build a private secured network between our Mumbai registered office and the plant with its VPN functions. This private secured network will enable employees to have mutual access to the network through public network in a secure way. As a result, efficiency and performance will be improved and substantial costs will be saved."

Meridian Infotech, re-seller of MRO-TEK proposed the tailor-made solution, typically needed by medium-sized companies. The value proposition demonstrated by Meridian Infotech was in having a clear understanding of the required security and keeping in mind the most economic budget possible, winning the contract for them.



MRO-TEK's Expanding Product Line

ECAT-01

Ethernet and TDM Access Multiplexer

ECAT-01 from MRO-TEK provides a simple, flexible and cost effective solution for transporting TDM channels over long haul fiber link at distances upto 100 kms. With the TDM channels being transmitted independently along with Ethernet packets, high throughput for both TDM and Ethernet channels is guaranteed without any performance degradation.

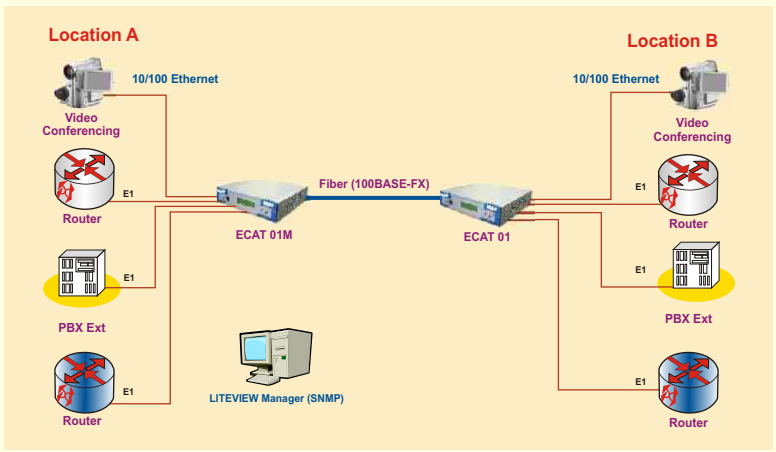
The ECAT-01 provides improved utilization of fiber links, due to its capability to multiplex upto 4 TDM channels and 10/100 Ethernet channel over the fiber link.

Configuration, monitoring and maintenance operations on ECAT-01 can be performed using LCD based front panel. This facilitates simplified setup operation for local unit. With Auto-config download mechanism, the remote unit can be auto configured. This feature simplifies installation steps and also reduces resource utilization considerably.

Also ECAT-01 provides the Link and Port status of local and remote units. With the loop back support, exhaustive monitoring capabilities are supported for easy maintenance and diagnostics.

ECAT-01 is inbuilt with auto ranging AC or DC power supply. With TEC approval available, ECAT-01 can be useful for Telcos, Carriers and Service Providers alike to transport TDM channels over long haul fiber connects.

The application diagram below depicts typically the transport of Ethernet and TDM channels over fiber link across an Enterprise network (from location A to location B).



Ivy06

Intelligent Residential Gateway

MRO-TEK's Ivy06 is a Next-Gen Intelligent Residential Gateway to deliver IP triple play services over broadband networks.

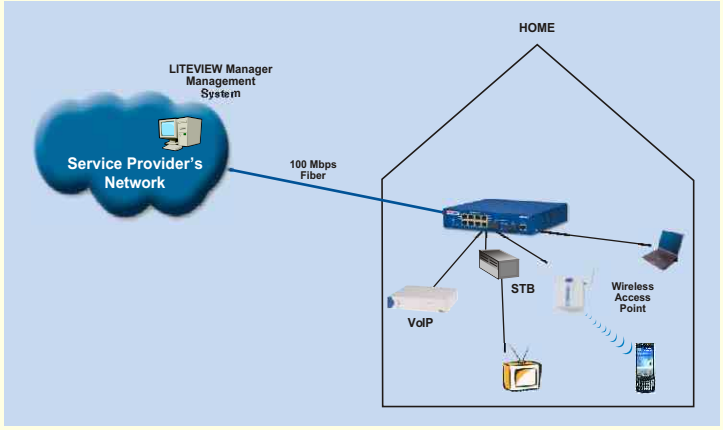
Ivy06 is an ideal CPE device used as home/residential gateway with capability to prioritize upto 4 levels using IEEE 802.1Q/802.1p based priority settings for effective bandwidth utilization and multi-service delivery.

Using the priority levels in Ivy06, Service Providers can deliver multi-service like IP Telephony, Video Streaming and Data Services. The home user, using Ivy06 can connect to devices like Set-Top-Box (STB), Access Point, Personal Computer and VoIP units for accessing IP Triple Play Services. The advantage for home user being the possibility to view high quality video streaming using high bandwidth without impacting Internet access or IP Telephony.

Ivy06 comes with internal auto-ranging AC or DC power supply. With other important features like Dying Gasp Support, Rate Limiting Support and SNMP support, Ivy06 is an ideal choice for Residential Gateway CPE. Ivy06 also is SNMP manageable with the following capabilities:

1. SNMP V2 agent support for management using dedicated management port.
2. Support for network configuration settings like Source IP address, gateway IP address, Netmask, SNMP Community string.

Ivy06 is designed for demanding network environments of Service Providers for complete end-to-end managed Ethernet Service Delivery.



We've Earned Our Stripes

Our success is built on the support of our customers, shareholders and business allies. We are always responsive to what they have to say and take their feedback into account in charting our future course of action. Words of appreciation from them are a constant source of inspiration for us, driving us to do even better.

We present here a letter of appreciation from M/s. Bharati Mobile Ltd. with regard to our work associated with their J&K launch, and another letter from a shareholder thanking us for our prompt action in sorting out problems related to the disbursal of dividend.

-----Original Message-----
From: Gupta_Rajesh@airtelindia.com
[mailto:Gupta_Rajesh@airtelindia.com]
Sent: Monday, October 25, 2004 5:01 PM
To: Ranjeet Kumar
Cc: Singh_Amandeep@airtelindia.com;
pandey_bharat@airtelindia.com

Subject: Launch Of J&K Circle/MiniCVS Installation

Dear Ranjeet,

I would like to personally thank you for your open handed support during our J&K launch. Your presence in the region was a great comfort in the last days when so many trials were going on, on the backbone media.

Once again thanks for your support. We will look forward for the same kind of support in future too.

Warm Regards,

Rajesh Gupta
Bharti Mobile Ltd, Chandigarh
Mob - +91-98150-49430

-----Original Message-----
From: Rahul Chakarbarti
[mailto:rahul_hutch@yahoo.com]
Sent: Monday, April 25, 2005 09:54 PM
To: VASANTH KUMAR
Subject: RE: MRO-TEK - Dividend

Hi Vasanth,

I have received your letter and dividend warrants as mentioned in your mail below. I want to thank you for the initiative and help from your end - yours is the first company from which I have received my pending dividend. Thanks a lot.

Best Regards
Rahul

Vignettes from our corporate journey

BFSI Technology India 2005

BFSI Technology India 2005 Bank.net

CIO Technology Senate 05

CIO Technology Senate '05, Bangkok

Best Distributor Award

BEST DISTRIBUTOR award received from RAD Data Communications during the meet at Eilat, Tel Aviv in the month of September 2005.

CONNECT QUIZ-16

1. Some 6000 critical computers connected to the Internet running on Unix were down to this worm in 1988. Generally acknowledged as the first Internet worm, what is it called?
2. In the world of Internet Security, what does SSL/TSL stand for?
3. What is the category of disk drives that employ two or more drives in combination for fault tolerance and performance?
4. What does the computer acronym FAT usually mean?
5. What kind of a router combines the feature of a traditional networking switch, a firewall and a DHCP server?
6. An IPv4 address consists of four bytes (32 bits). What about Ipv6?
7. In wireless networking, what is the mode that allows wireless devices to communicate with each other peer-to-peer?
8. It is a technique in which a datagram is contained within the envelope of Internet Protocol during transfer across the Internet. What is it better known as?
9. What are the two basic types of packets in the PPTP protocol?
10. EC and SS are the two technologies used by packet voice systems to create non-voice sounds typically called background noise (BGN). What are they?

ANSWERS TO CONNECT QUIZ-16

1. The Morris Worm
2. Secure Socket Layer / Transport Layer Security.
3. RAID (Redundant Array of Independent Disks).
4. File Allocation Table.
5. Broadband Router.
6. 16 bytes (128 bits).
7. Wireless Ad-Hoc Mode.
8. Tunnelling.
9. Data and Control packets.
10. Echo Cancellation and Silence Suppression.

Concept & Design : Mareech Advertising Pvt. Ltd.

MROTEK™
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MRO-TEK Limited
Bellary Road, Hebbal, Bangalore - 560 024
Ph : 080-23332951 Fax : 080-23333415
E-mail : mrotek@vsnl.com
www.mro-tek.com