Corrigent SYSTEMS

Packet ADMs for a Packet World!

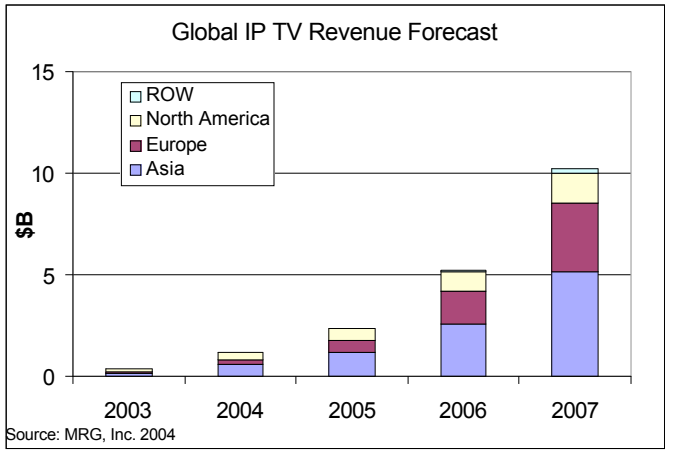
Gady Rosenfeld

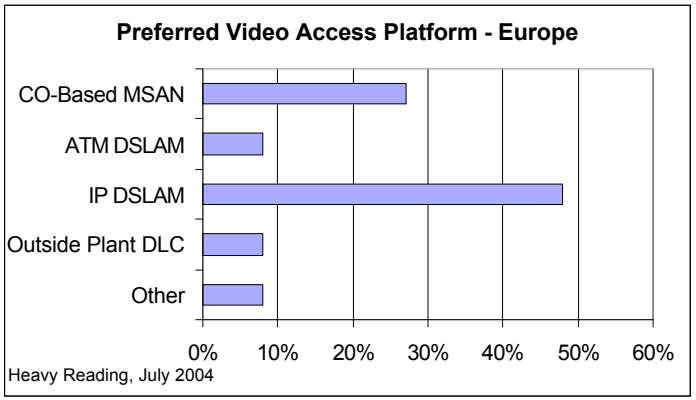
Corrigent Systems

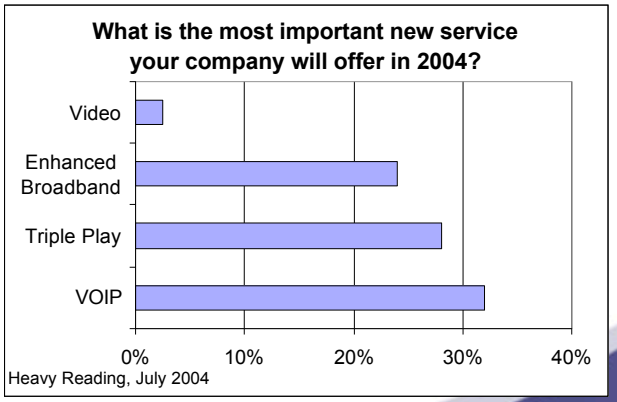
Gady@corrigent.com

Telco Triple-Play is Finally Happening

- IP TV subscribers to grow to 15M in 3 years
- Revenues from IP TV to grow to $10B by 2007
- Move towards Ethernet in the access
  - IP DSLAMs, ADSL2+, EPON, Wi-Fi, WiMax
- Telcos are driven by:
  - Potential increase in ARPU
  - Fierce competition from MSOs on voice lines
  - Bundling sticky offering

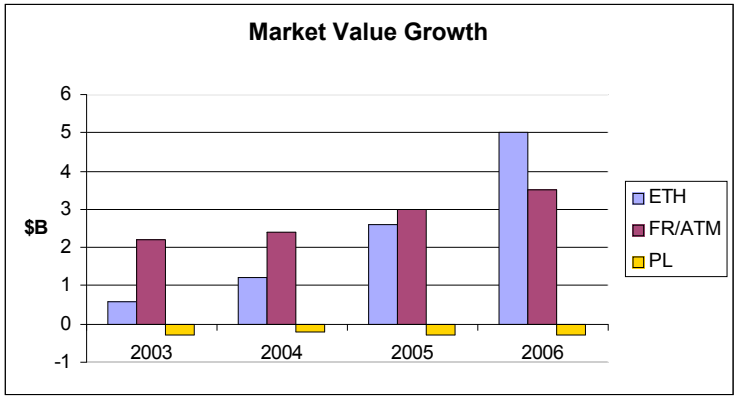


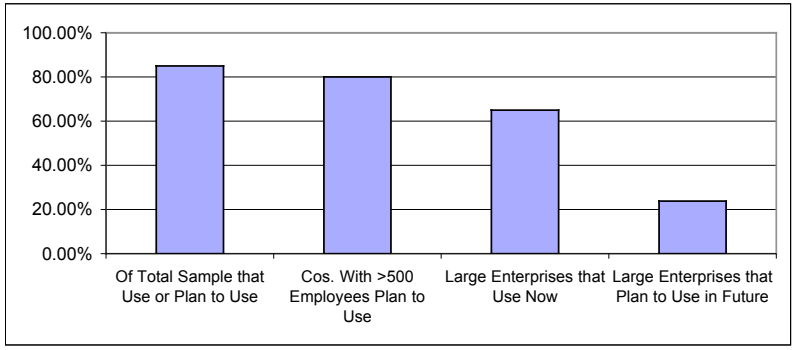




Ethernet is growing

- Exponential Ethernet services market Growth, slowly taking over ATM and FR market
- Negative growth for Private Line Market
- Most of Ethernet growth is in switched Ethernet and Managed Internet Access



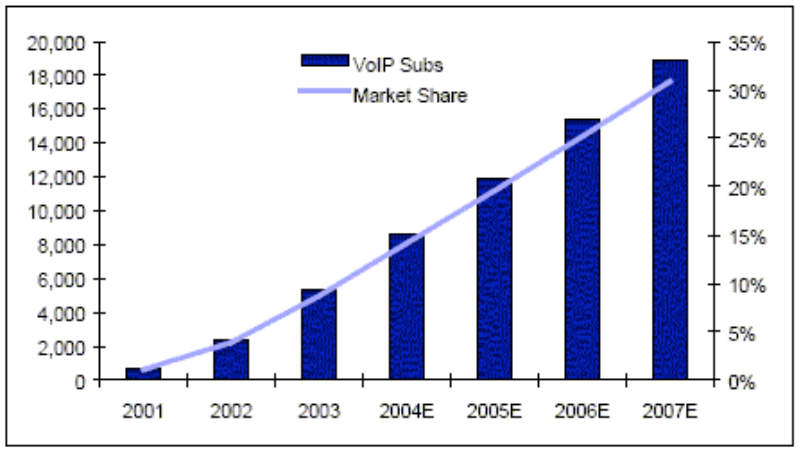


Service	Bandwidth	Customer Ports 2003	2004	2005
Managed Access	10 Mbps	350	850	1400
	100 Mbps	275	550	850
	1 G	75	125	200
VPN Access	10 Mbps	10	40	110
	100 Mbps	5	20	60
	1G	2	5	20
Ethernet Private Line	<=150 Mbps	1	7	13
	600 Mbps	1	5	10
	1 G	2	10	20
Switched Ethernet	50 Mbps	40	90	180
	150 Mbps	20	45	90
	>=600 Mbps	10	15	30

VOIP is starting to rollout

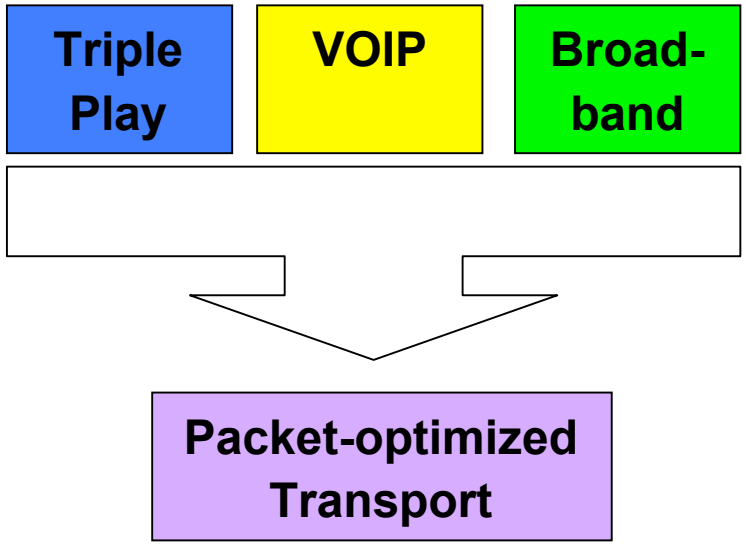
- Consensus that VOIP is high-margin/ high-return opportunity
  - Vonage – ARPU: $36, Margins: >70%
- Main driver is reduction in OPEX
- Features more important than price
  - Virtual numbers, real-time billing info, live support, call transfer, ring lists, unified messaging, voice recognition
- Incumbents are moving ahead with massive VOIP rollouts

VOIP subscribers in Japan

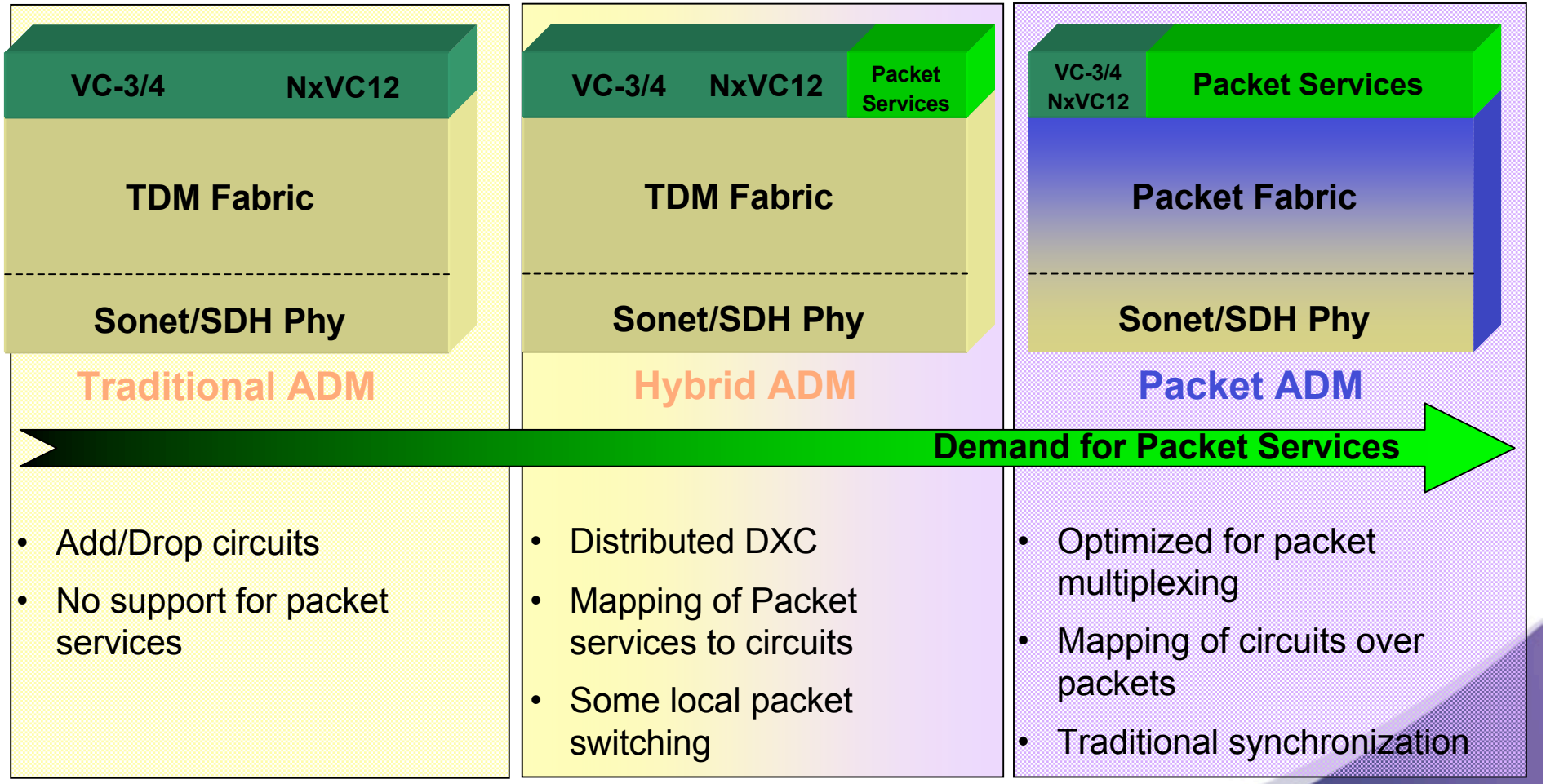


Problem Statement

- Data traffic is overwhelming the existing transmission network
  - Telco triple-play with video and digital TV distribution to consumers
  - Migration to VoIP
  - Wireless data growth – 3G, Wi-Fi, WiMax
- A clear need to differentiate between low-end services and high-priority services
- Only a scalable carrier-class packet-based transmission solution can accommodate the exploding growth in data traffic on one converged network



The Evolution of the ADM

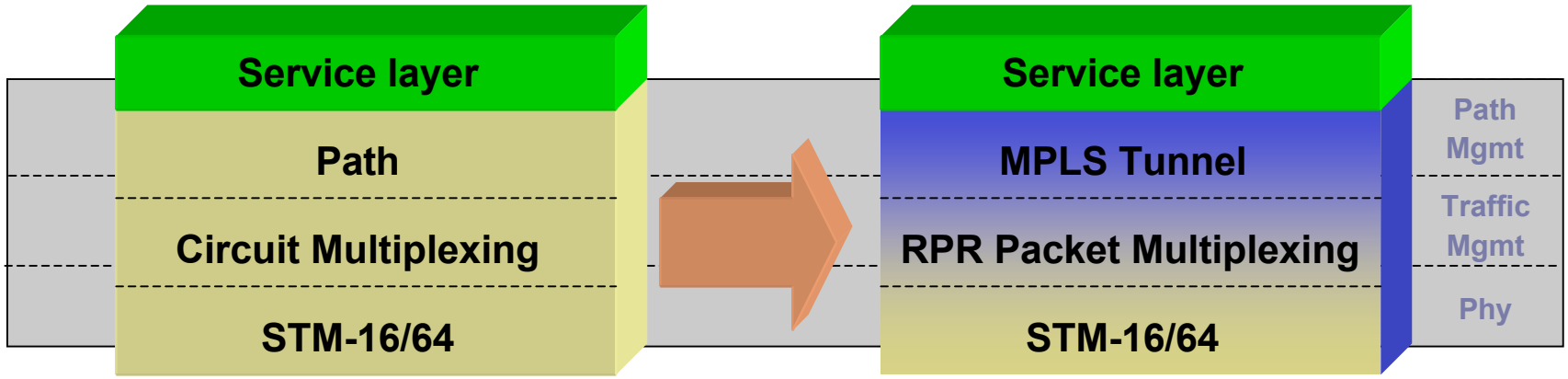


- Add/Drop circuits
- No support for packet services

- Distributed DXC
- Mapping of Packet services to circuits
- Some local packet switching

- Optimized for packet multiplexing
- Mapping of circuits over packets
- Traditional synchronization

Packet ADM Building Blocks



Sonet/SDH ADM

Packet ADM

Like an ADM

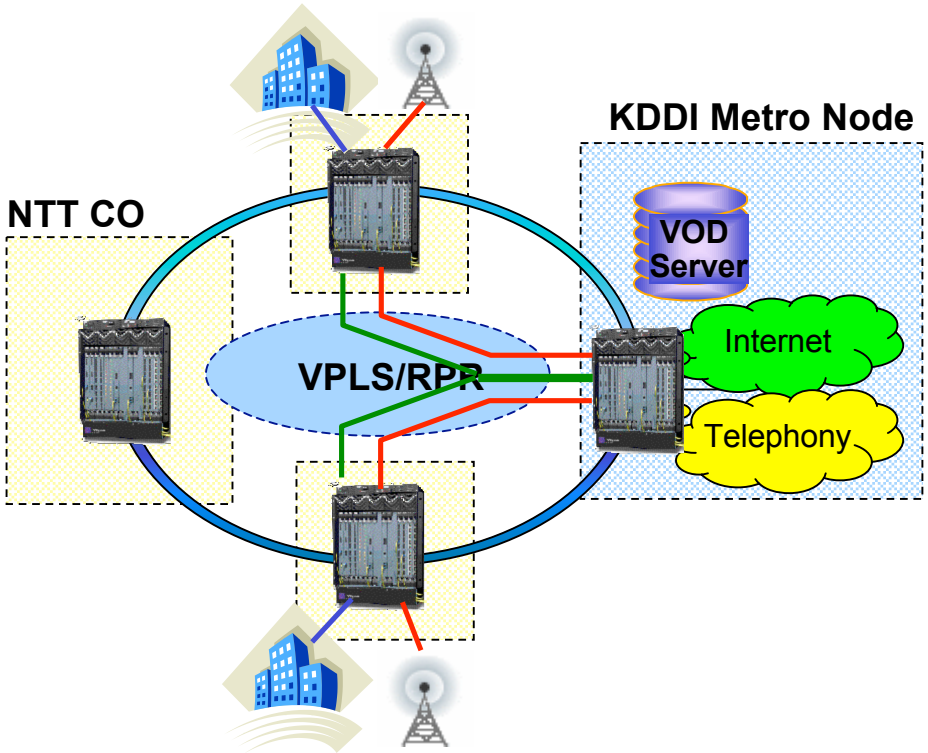
- Transparent (multi-service)
- Carrier-class
- Scalable
- OA&M
- High/low-speed interfaces
- Interworking with Sonet/SDH installed base

Unlike a Sonet/SDH ADM

- Packet efficiencies through packet multiplexing
- Class-of-Service differentiation
- Optimal bandwidth utilization
- End-to-end automatic provisioning
- Auto-discovery
- Interworking with core IP/MPLS

Corrigent's CM-100 Enabling KDDI's Triple-Play

- 10Gbps RPRs with CM-100 Packet ADMs connecting Co-location sites with KDDI Metro node
- VPLS carries Hikari-Plus end-users' traffic
- Metro Ring also carries 3G wireless traffic from base stations to KDDI Metro Node
- Metro Ring also carries Ethernet services (VPL/DIA) from office buildings



Corrigent Key Value Proposition

- Corrigent is focused on providing a new type of Metro Transport Solution – the Packet ADM, designed to allow carriers to:
  - Introduce packet-optimized transmission for a packet world!
  - Efficiently support a full range of Voice, Video and Data services
  - Preserve the existing SONET/SDH operational model, but revolutionize OPEX through interoperable automated MPLS-based service turn up
  - Decrease cost, increase revenues and enable profitable delivery of data services through true data awareness in the transport network
  - Bridge the transport and data networks with interoperable MPLS