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gateway

LANDA-IBM DINNER SEMINAR

The LAN That Time Forgot

Sherman Takes a Trip in the Wayback Machine

by Barry Earnes

An odd, yet goofy looking boy struggles up the long flight of steps towards a heavy metal door. He has a terrible haircut and wears oversized plastic framed glasses. His name is not Bill.

He carries a large glowing object in his hand, which he uses as a doorknocker.

'Mr. Peabody? Mr. Peabody, are you there?'

'Sherman?' replies a voice as the big door slowly swings open, 'My dear boy, what brings you to my lab?'

'I found this chunk of amber Mr.

'Gosh, you're smart Mr. Peabody, but how do to you get rid of pigs, er...bottlenecks?'

'Many companies resort to drastic measures Sherman - bigger, faster servers; more servers to divide the workload; more switched ports to dedicate bandwidth; faster LAN adapters... even migration to...um, faster LAN's.'

'Like Fast Ethernet, Mr. Peabody?'

'Some folks do Sherman, but we're here in Jurassic Parts to look at Token Ring. It's the LAN that time forgot. Remember?' Peabody, w-a-a-y over there, behind the LAN servers. It was hidden under some IBM manuals. I found it when I dropped my packet. There's something round inside and nobody can tell me what it is,' babbles Sherman.

'Hmmm...it's a Token Ring Network, Sherman. I thought these were extinct.'

'Golly Mr. Peabody, is that like Ethernet'?

'Oh no my boy, it's something quite different. I think a trip in the Wayback Machine is needed to refresh our memory about this technology. Come along Sherman.'

Welcome to Jurassic Parts. Please Don't Feed the Bandwidth. (Poof!)

'Wow Mr. Peabody, just look at all the old, techy thingy's! Where's the Tok... Toke...'

'Token Ring, Sherman. You missed IBM's Ken Jackson when he spoke at LANDA's October Dinner Meeting. He informed members that 35% of the LAN cards sold in Canada are Token Ring, amounting to \$58.8M (US).

'IBM supplies 80% of that market, so it doesn't take a genius (like me) to see that if you're not selling Token Ring you're losing a large

With Token You're Not Chokin' 'Mr. Peabody, the snake is choking

'Mr. Peabody, the snake is choking on the pig!'

'Yes, it's sad but not surprising Sherman. That snake is a High Speed Ethernet python and it just can't cope.'

'Look here, I still have the comparison list that Mr. Jackson left behind on his visit. Ethernet and Token Ring are both shared media, but the similarities appear to end there.'

It's Alive!

'So, what have we learned Sherman?'

'Whoa, that's easy Mr. Peabody! Token Ring is more robust than Ethernet!'

'Excellent Sherman. When we get back you can read more about the results of LANDA's Battle of the Bandwidth' challenge designed by the Tolly Group. It's on both the LANDA and IBM web sites. You can educate yourself about how good Token Ring is and how customers can be guided to the best solution.'

'Mr. Peabody, there's another odd looking creature over there. Is it alive?'

'I believe so. Yes, it is alive. It's ... it's ... Jeff Goldblum ! Run Sherman, run I'

market sharel'

'But Mr. Peabody, I'm just a nerdy kid, not a VAR!'

'Perhaps Sherman, but you can never be too rich or too thin.'

'Huh?'

'Never mind that now, don't step on the snakel'

The Pig in the (Monty) Python

'Jeepers Mr. Peabody, why is it so fat in the middle?'

'That snake is the LAN pipeline in a typical company, Sherman, and the bulge is the attachment pig that it's trying to swallow! Mr. Jackson outlined many reasons for this growth in LAN traffic, like e-mail and attachment-based applications. And he described the many devices needed to keep a LAN operational: specialty servers, port devices, hubs, switches, routers, remote access points, to name a few.

'But in the end, the result is always the same: LAN congestion due to shared media. Ergo, any LAN is a bottleneck waiting to happen!'

Need more information?

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Web Sites:

http://www.pc.ibm.com/options http://www.raleigh.ibm.com/ http://www.networking.ibm.com/

Fast Ethernet and Gigabit Ethernet LANs

Token Ring LANs

- fast movement to switched
- collision based technology, bursty traffic patterns drive bandwidth
- actual throughput 20-40%
 - perceived ease of installation/use
- perceived scalability of LAN architecture
- small packet/frame size limits growth, requires greater server cycles

- slower movement to switched
- token passing = deterministic traffic flow
 - actual throughput 90-99%
 - perception that it's harder to install
- highly scalable LAN architecture
- larger packet/frame sizes reduces load on server cycles