Ethernet Innovation Summit Preview: May 22-23rd @Computer History Museum, Mt View, CA

Fri, 05/03/2013

Introduction:

This Ethernet Summit will be one of the most important gatherings this year of press and analysts from around the world! Inspired by "40 years of Ethernet Innovation" and looking forward to the next 40 years of networking. Meet key press and analysts in a series of scheduled sessions to discuss the latest hot topics concerning Ethernet innovation, enterprise networking, cloud computing, virtualisation and telecoms, paving the way for increasing your visibility across the globe.

A full day conference and dinner on May 22nd will be followed by a day of round table discussions, hot debates and industry briefings on May 23rd. Leaders of the Ethernet industry – now a $100 billion a year market – will talk directly to the world's IT press and industry analysts, including this author.

Thanks to Carrier Ethernet and the pioneering work of the MEF and ITU-T, the sessions will be live streamed on the Internet (details to be provided). Much more info on this event at: http://www.netevents.org.uk/portfolio/global-summit
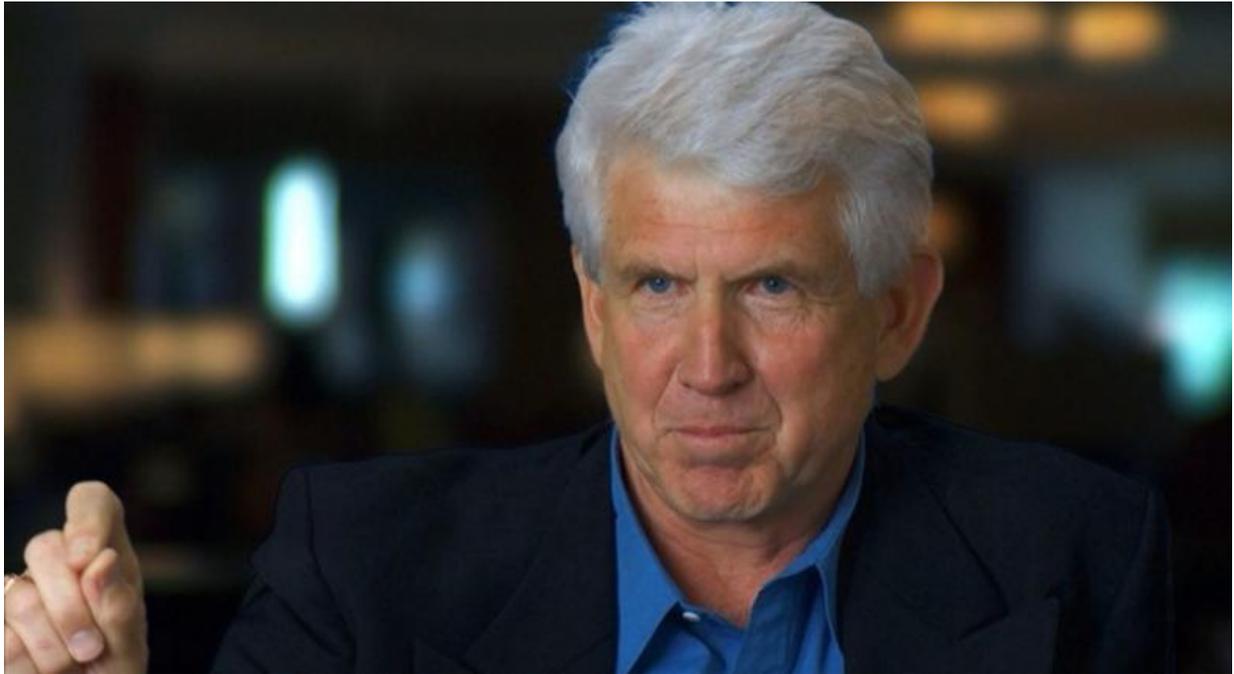
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Early History of Ethernet:

According to Bob Metcalfe: "The first Ethernet was a one-node Ethernet, which isn't very interesting. It was a node that could transmit to itself for testing and de-bugging purposes. Then we had two nodes – which incidentally we called Michelson and Morley who happened to be the two physicists who disproved the existence of the ether, so we thought that was ironic – then eventually the cable got strung all over the building."

What was the real innovation, as they saw it then? "In those days our big innovation was putting a computer on every desk – I know that's hard to believe! We put one on every desk then ran this co-ax down the middle of the corridor and everybody tapped into it from their PCs. So it grew to fill this building."

The benefits were immediate, and so other departments wanted in on the network. "The labs wanted to be connected so, with an Internet protocol, we built an Internet that spanned the research laboratories of Xerox. It wasn't until the late seventies that we began leaving Xerox and installing Ethernets elsewhere."

Bob Metcalfe (shown below) went on to found 3Com, makers of the first Ethernet commercial Ethernet cards. Within 20 years Ethernet saw off competition from token-based networking and came to dominate the LAN space, covering every continent with islands of Ethernet connectivity.

Role of XEROX PARC:

Heir to this great tradition is Steve Hoover, the current CEO of PARC. He points out the importance of an open spirit of enquiry to balance the intense commercial pressure to deliver results: "One of the key things is recognising that innovation is going to require failure. So you can't start something and not believe that it's possible to fail…. Of course it's not about failing, failing's not good, but it's about learning."

Steve compares this innovative culture to a class of five-year olds: "It's all the questioning … It's why, why, why! That leads to really good innovation because people are getting to the fundamental ideas, they're questioning the status quo, they're willing to change it and break it. Fail on the way and then pick yourself up, dust yourself off and move on to the next."

Vital Contributions of Government and Academia:

A key element of the 40th birthday celebrations will be discussion around the need to foster and maintain this dynamic spirit of innovation in today's globally competitive environment. This goes beyond a purely business concern, innovation is vital to national pride and prosperity – even to survival. It is, therefore a concern for governments too.

Steve Hoover points out that the business world sometimes forgets the contribution made by past governments: "If you look back at the history of the Internet, Arpanet was government-initiated. The tremendous commercial

"If you look back at the history of the Internet, Arpanet was government-initiated. The tremendous commercial impact I don't believe would have occurred without their foresight in investing in those fundamental capabilities."

"Today at PARC we are working to repeat that model over and over and over again." Steve is very keen to enroll government support for this work, pointing out the need to recognize that: "The government does identify fundamental research areas to work in and is willing to invest. That partnership – of government investing in core capabilities, in new areas, taking some of the

higher risk, plus industry's ability to capitalise and leverage it – that partnership is really important."

Metro Ethernet Forum (MEF) and Carrier Ethernet:

Over the last 10 or 11 years, IEEE 802.3 Ethernet First Mile, the MEF and the ITU-T developed solid standards for Carrier Ethernet. These specs were developed to enable "islands of data" to be connected via Ethernet, rather than more complex and costly WAN technologies such as Frame Relay and ATM. Last year marked a turning point: for the first time Carrier Ethernet sales exceeded that of all other WAN technologies combined.

As MEF President Nan Chen once predicted: "In future there will be a single language linking business worldwide. It won't be English. It won't be Mandarin. It will be Ethernet".

The Future of Ethernet:

Bob Metcalfe says that networking and the Internet has given this generation "collective intelligence" and so much more to play with in terms of access to all that has already been achieved, both the successes and the failures of the past and present. So who knows what form Ethernet's 50th anniversary will take in ten years time?

For full details of the events on May 22/23rd visit: http://www.netevents.org.uk/portfolio/global-summit

Watch the video about the events including interviews with Bob Metcalfe and Steve Hoover:

http://www.youtube.com/embed/wpIYUcWwRww

Here's the link for the live streaming starting May 22nd:

http://www.netevents.org.uk/global-netevents-summit-live

References:

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Post Event Addendum:

Day 1 videos can be viewed at: http://www.netevents.org.uk/global-netevents-summit-live