

Whither MBoned ?

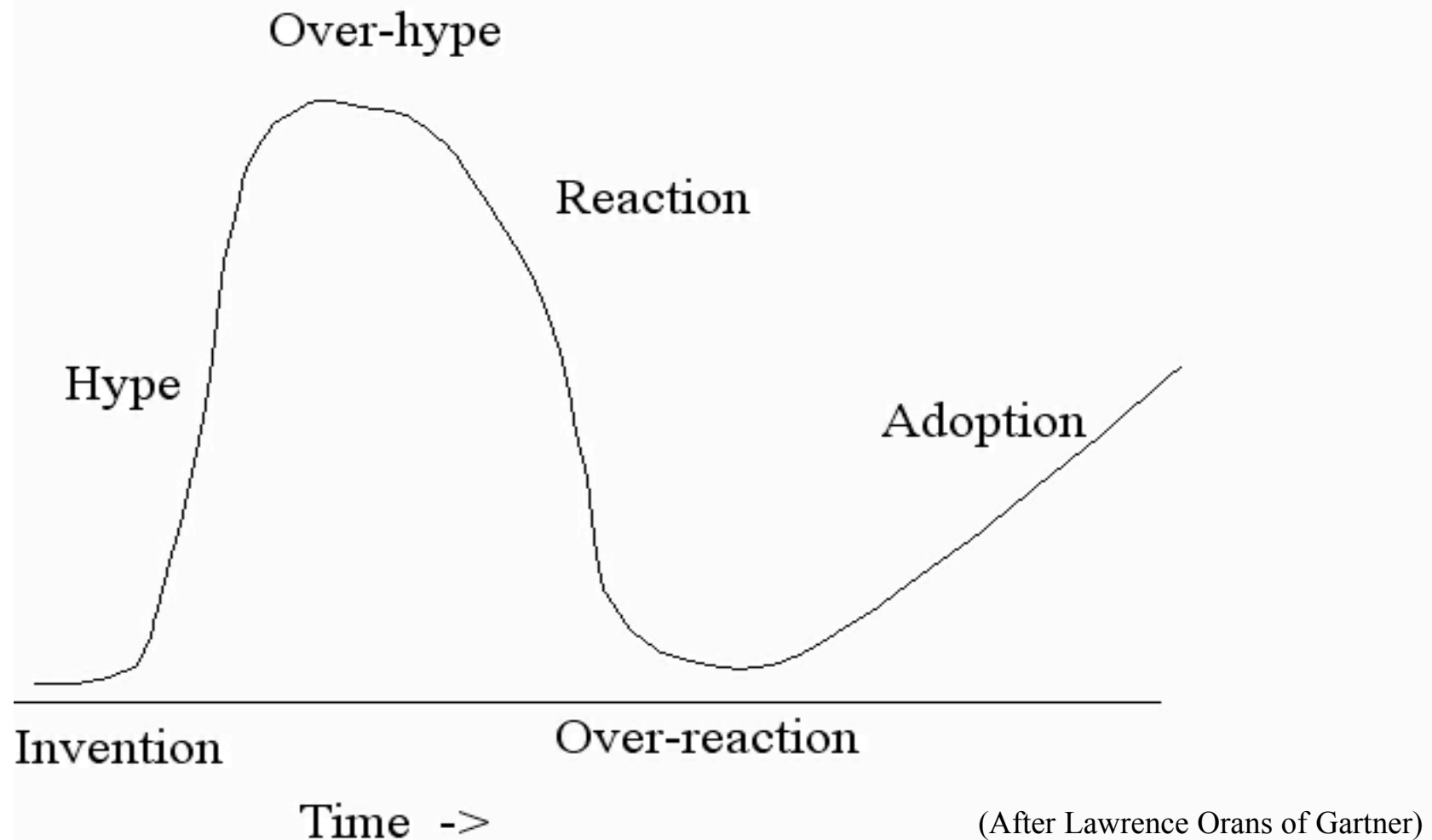
Marshall Eubanks

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What Happened to Multicast?

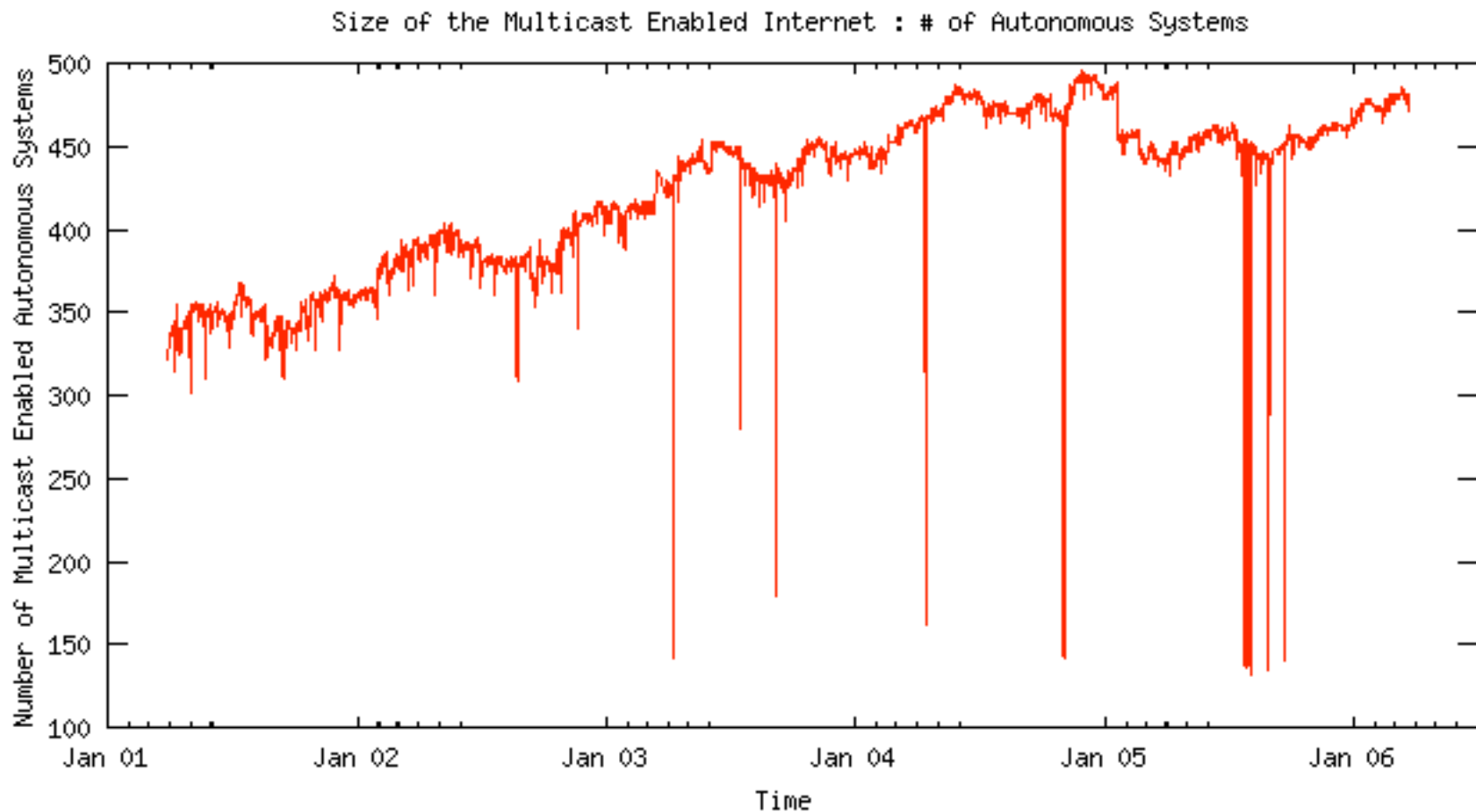
- By 1995, multicast seemed well on its way to universal adoption.
 - The MBone (Multicast backBone) had been set up and was growing.
 - Audiocasts and Videocasts of meetings, seminars, etc., such as the IETF, were fairly routine.
 - Serious interest was coming from industry.
- So why isn't it ubiquitous now ?
 - The hype got ahead of the technology!
 - The original technology was not suitable for adoption throughout the Internet. Basic parts had to be re-engineered on the basis of experience (see the first rule).
 - This took from ~ 1997 to early 2001.

The Life Cycle of New Technologies in General



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“Global” Multicast Deployment is lagging...



<http://www.multicasttech.com/status>

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...but Multicast is Hot

- By 2006, with the use of Multicast accelerating, “Triple Play” became the buzzword of the moment - Voice, data and (Multicast) video, all on the same network.
 - 14,000 hits for “Triple Play” this morning on Google™ News
 - 2140 hits for “IPTV” this morning on Google™ News
- Multicast is BCP for Triple Play / IPTV video
 - Generally ASM with IGMPv2
- 3G Wireless has adopted IP Multicast in the 3GPP MBMS and 3GPP2 BCMCS services
 - This includes multicast at the RF link layer.
- L3VPN Multicast is a hot topic in the IETF

Multicast Video : Walled Garden or Global Village?

- Most current plans for IPTV multicast streaming do not accept video from outside.
 - The “walled garden” approach.
- The real question is whether Zipf’s Law will allow the walls to stand.
 - My statistical models predict 100,000’s of channels will be supportable commercially in the USA alone.
 - It’s hard to see how the walled garden can be extended to encompass 100,000’s of channels
 - 100,000 channels is $\sim 10,000$ servers
 - The content provider should buy these, not the ISP.

What is to be done ?

- People are making money from Multicast
- Many of these people are not represented in MBoneD
 - Any IPTV operators here ?
 - Any wireless operators here ?
- One idea that I find gets resonance is to push IPTV standardization
 - Needed to free the walled garden
 - But some of this will not be at layer 3
- Some specific ideas
 - Operator Survey
 - Go to them - standardization BOFs at IPTV events, trade shows, etc. etc.
 - Others ?