



Business Transformation One Step at a Time

TRENDS IN THE IPv6 INDUSTRY

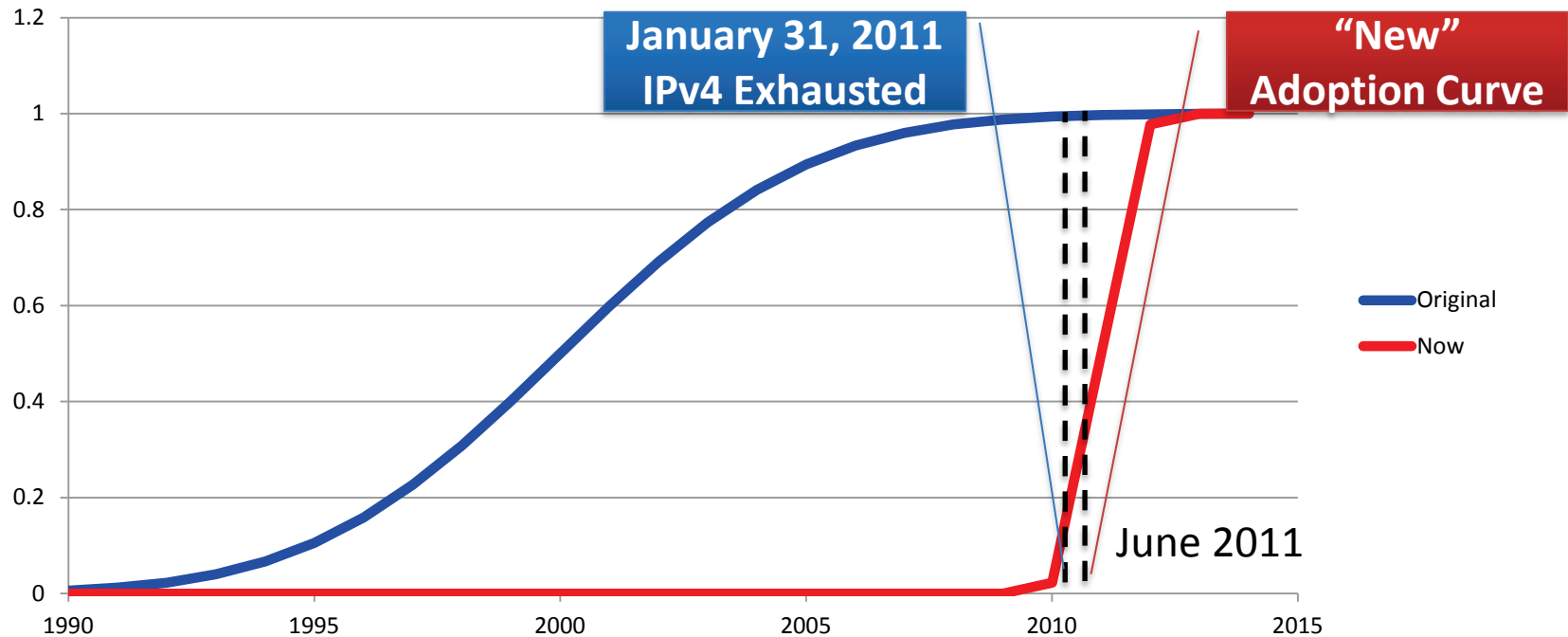
by

Yurie Rich



- Yurie Rich, COO of Nephos6
- Working with IPv6 since 2000
- Nephos6?
 - Team of v6 and cloud expertise
 - Professional Services
 - Education

The Adoption Path of IPv6



- Adoption was to occur over a long period of time
- Technology and market conditions did not foster a gentle integration curve
- IPv4 address exhaustion, the initial impetus transpired in 2/2011, forcing a more rapid adoption process

The Business Case



IPv6 adoption is an organizationally unique proposition

Why IPv6?

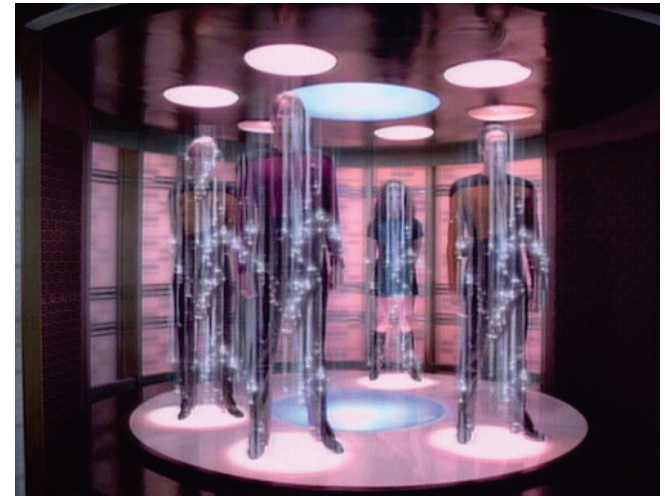


Your Business Now



Advance the status quo?

IPv6 is about survival



Innovate and Adapt

Trends in IPv6



- Address exhaustion has changed the playing field
 - Real interest, even in regions where there are plenty of IPv4 addresses
- [World IPv6 Launch Day](#)
- Transition mechanisms less interesting than dual stack deployments
- Organizations recognizing cost-effectiveness of IPv6-dominant vs long-term dual stack
- IPv6-only networks
- More activity around IPv6 training for staff
- Organizations discovering IPv6 security is lot like IPv4 security
 - Beware the “Oops” factor – IPv6 is likely in your environment already

World IPv6 Launch Day



- Follow on to World IPv6 Day (June 2011)
 - Proved that IPv6-enabled public facing services will not be the end of civilization as we know it
- Organized by ISOC
- Goals
 - Outward facing services (websites) reachable via IPv6 permanently
 - No cheats (i.e. www.example.com and www.ipv6.example.com) – dual stacked!
- How to participate:
 - <http://www.worldipv6launch.org/form/>



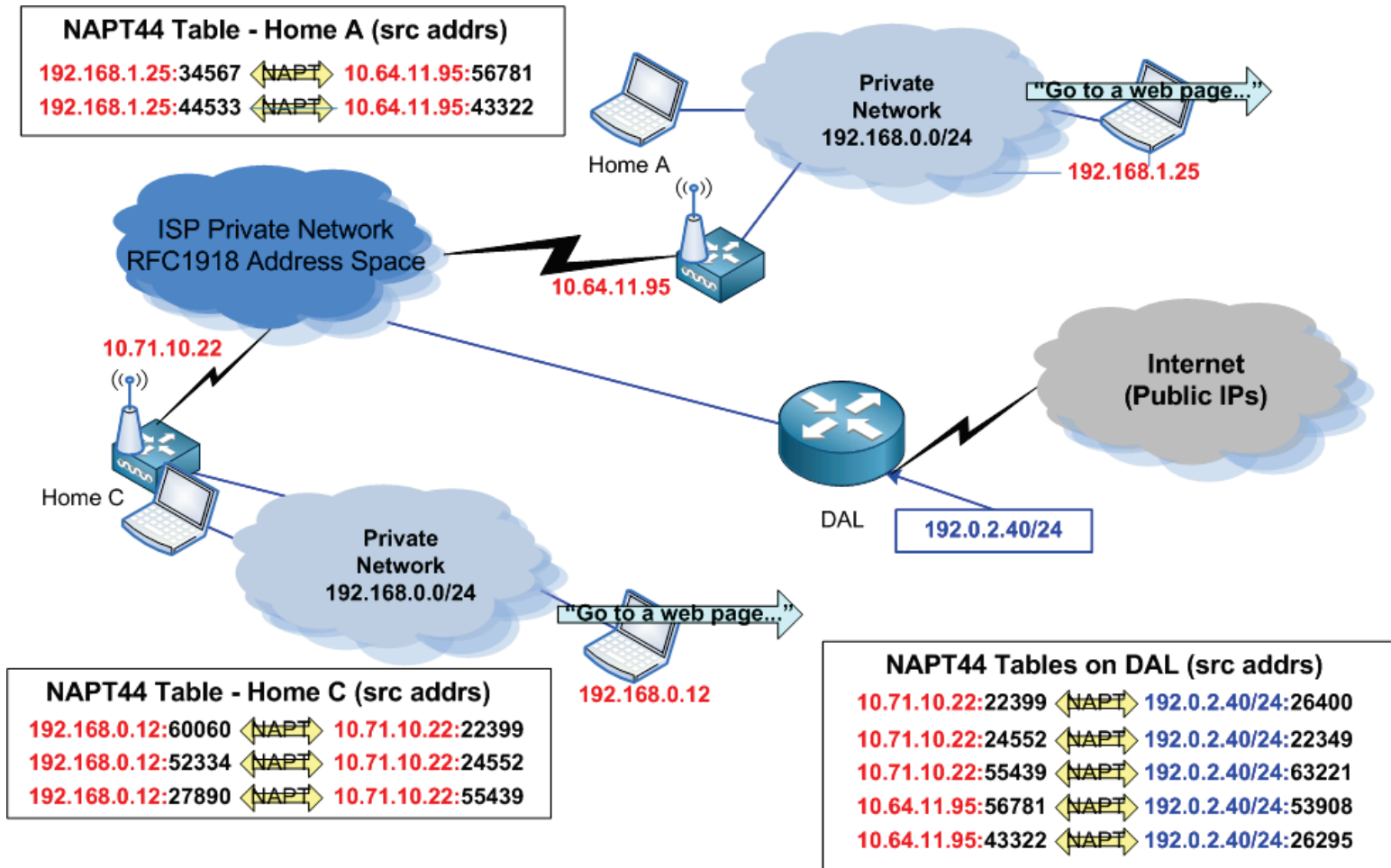


- Service providers moving fast if already haven't
 - Address exhaustion is big issue
 - How do you add more customers?
 - Move to IPv6, or
 - Implement Carrier Grade NAT (CGN)
 - Backbone providers mostly IPv6-ready
 - Access providers getting IPv6 ready
 - Working on back-end systems first
 - ISPs pushing CE device makers
 - RFC standards as well as IPv6 Ready Logo testing framework

NAT444 (aka NAPPT444 aka CGN aka LSN)



- NAPT444 is NAPT 2X between client and Internet



Issues associated with CGN



- Lawful intercept is very messy
- Troubleshooting, audit, tracking – breaks or is challenging
 - Not going to make your advertising customers happy
- Impacts many popular applications, like mapping software, gaming, VoIP, content distribution, geolocation, SSL
- Temporary solution – will still need to go v6 eventually

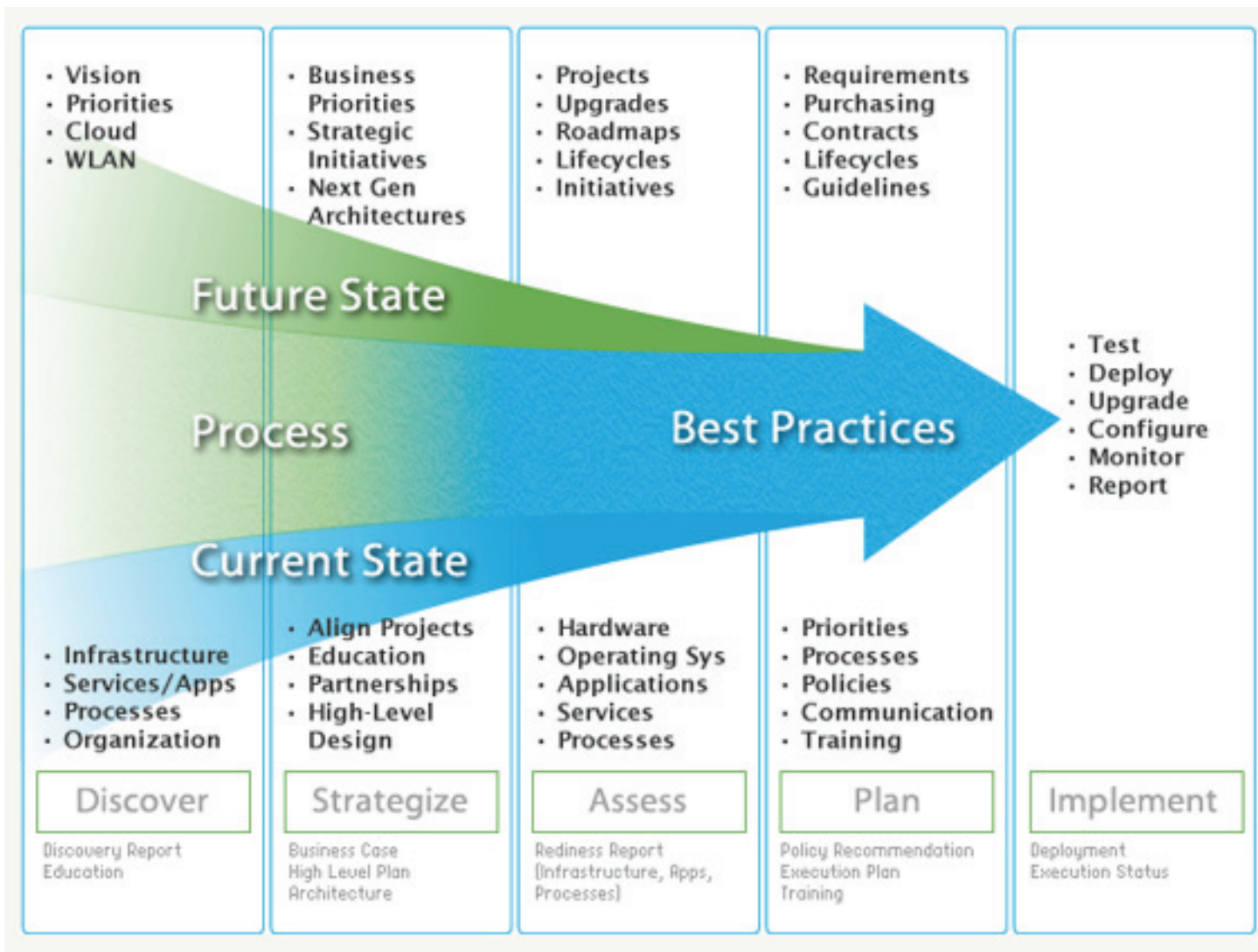


- Vendor products becoming IPv6-ready
 - Some feature gaps (example: Cisco IOS does not yet have VRRP support for IPv6, but does for IPv4)
 - Inconsistent (i.e. routers strong, OS strong, IDS – not so much)
 - Improvement in requirements in RFP/Procurement cycles
 - Service support for IPv6 lags
 - Applications support for IPv6 lags
- Buyers beware – some “old” technology floating around

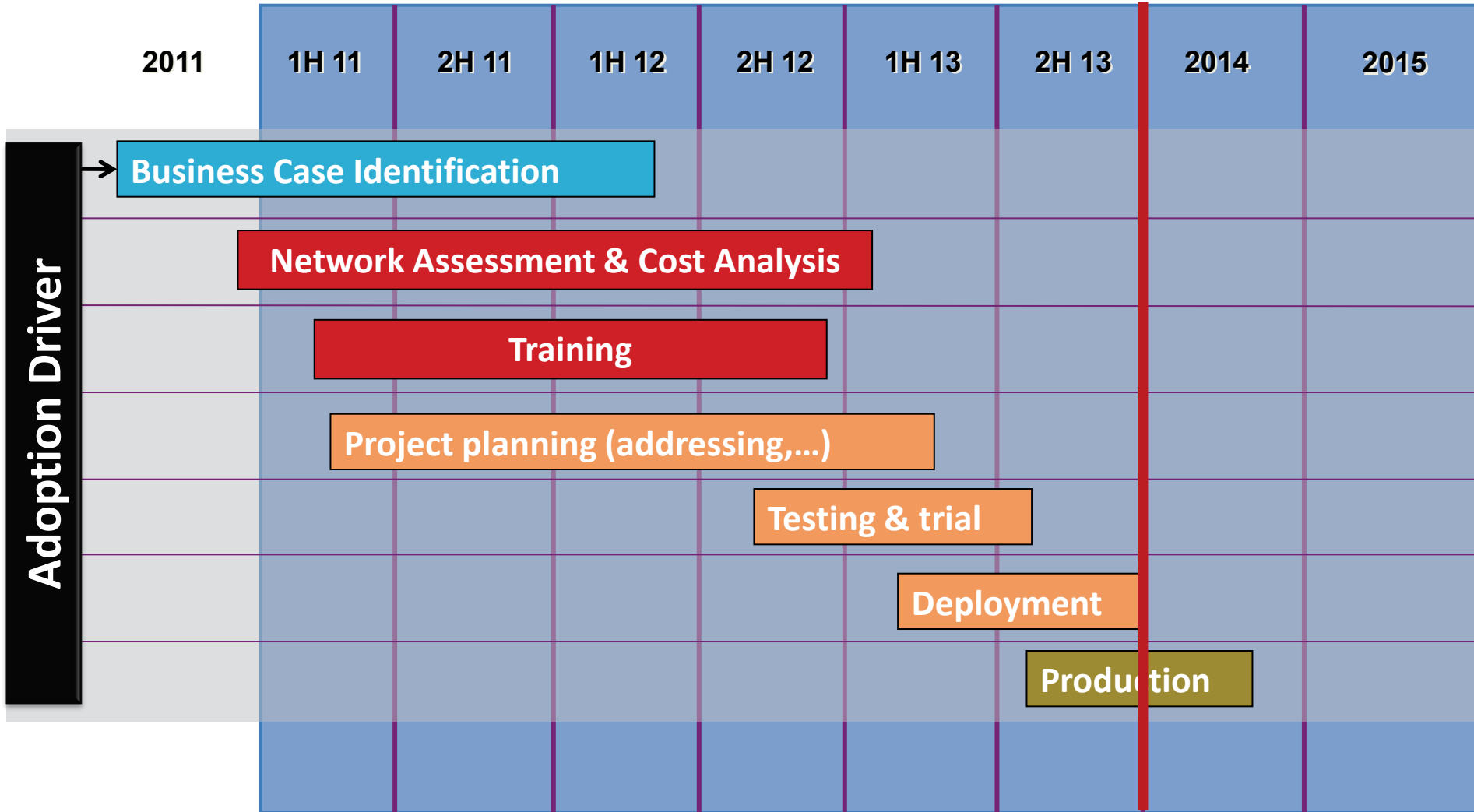


- Enterprises considering strategy, plans
 - Not moving immediately, but moving
 - Less “business case”, more “how meaningful to me”
 - Know they have to commit, trying to figure out to do it
 - Lack of expertise/experience
- Windows XP EOL – Windows 7/8 changing adoption strategies
- Enterprise starting points
 - Strategy
 - IP Address Planning
 - Assessment

Five Steps to IPv6 ... and Cloud



Sample IPv6 Integration Roadmap



Phase length for your IPv6 deployment project will vary



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THANK YOU