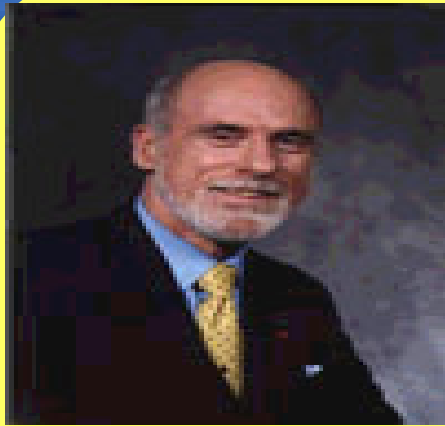


GLOBAL FORUM 2008

THE NEW INTERNET
based on IPv6

Power to the End-User





**”Running out IP
Addresses is like
running out Oil!”**

Vint Cerf 2004

No Urgency

Some Urgency

Emergency

The IPv4 Address Exhausting Debate ☺



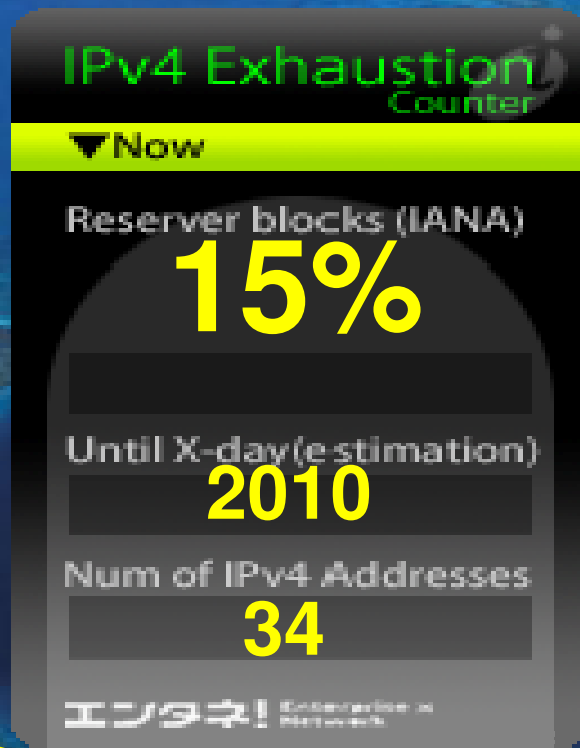
2030

Geoff Huston



2010

Tony Hain



Perception: IPv4 is Innovation - IPv6: an Upgrade

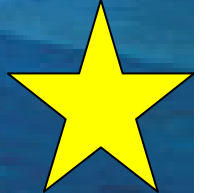
Yv4

Yv6

Political Goodwill

Not needed

Needed?



Business Drivers

Innovation

Upgrade



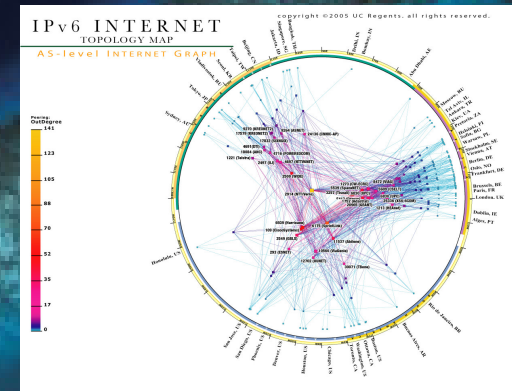
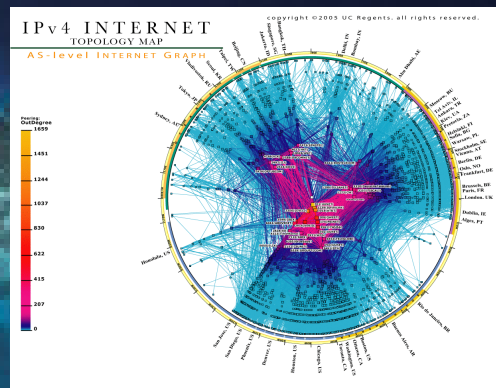
Technology Value

Powerful

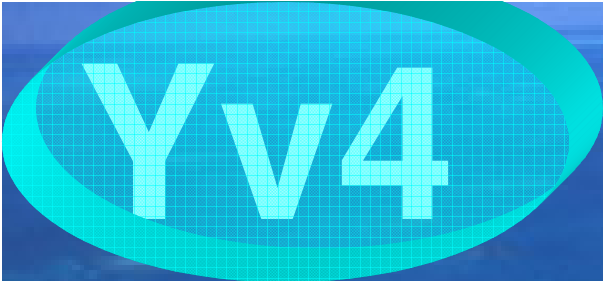
Same & More



Infrastructure



“The IPv6 Final Marathon” Vision & Way Forward



WORLD INTERNET USAGE & POPULATION STATISTICS

World Regions	Population (2007 Est.)	Population % of World	Internet Usage, Latest Data	% Population (Penetration)	Usage % of World	Usage Growth 2000-2007
<u>Africa</u>	933,448,292	14.2 %	43,995,700	4.7 %	3.5 %	874.6 %
<u>Asia</u>	3,712,527,624	56.5 %	1,400,000,000	12.4 %	36.9 %	302.0 %
<u>Europe</u>	734,000,000	11.2 %	380,000,000	51.8 %	10.8 %	221.5 %
<u>Middle East</u>	393,400,000	6.0 %	33,510,500	8.5 %	9.3 %	920.2 %
<u>North America</u>	334,538,018	5.1 %	234,780,000	70.2 %	18.9 %	117.2 %
<u>Latin America</u>	560,000,000	8.5 %	115,700,000	20.7 %	9.3 %	117.2 %
<u>Oceania</u>	34,000,000	0.5 %	19,000,000	55.9 %	0.9 %	117.2 %
WORLD TOTAL	6,574,666,417	100.0 %	1,244,449,601	18.9 %	18.9 %	244.7 %

First IPv6 Killer App!

IPv4 Achieved the Critical 20%
 IPv6 Can Drive Growth & Continuity!

World Internet Penetration

2020

3.2 M

50 %

2015

2.3 M

35 %

2010

1.6 M

25 %

2005

1.0 M

15 %

The Next Big Internet

Trillions of

- RFIDs
- Sensors

Billions of
Smart Devices

- Vehicles
- Buildings

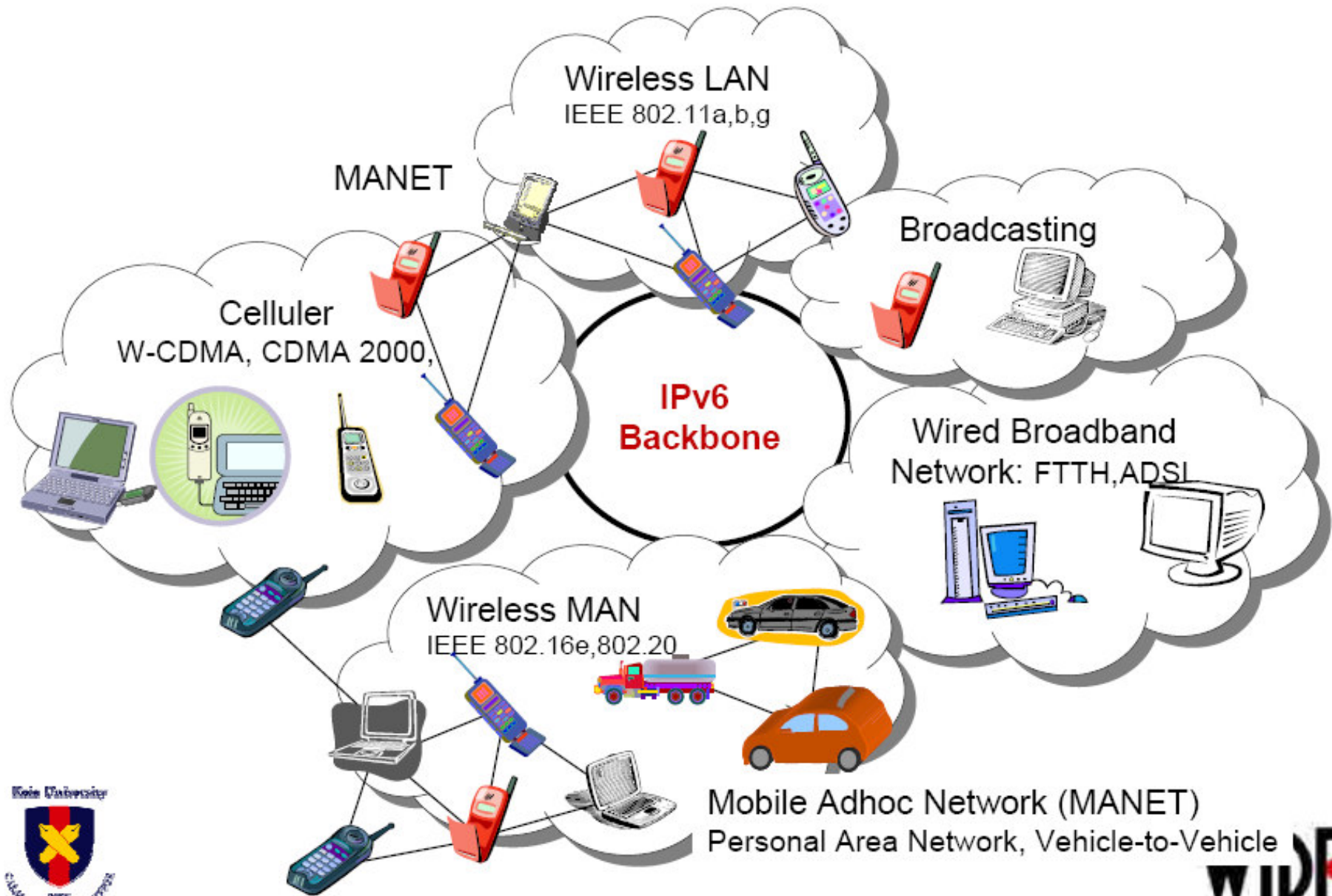
3-5 Billions

- Mobile Phones
- PDAs

3-500 M

- PCs

WWW: WORLD WIDE WIRELESS



End 2 End M U S E I e



IPv4
500 M

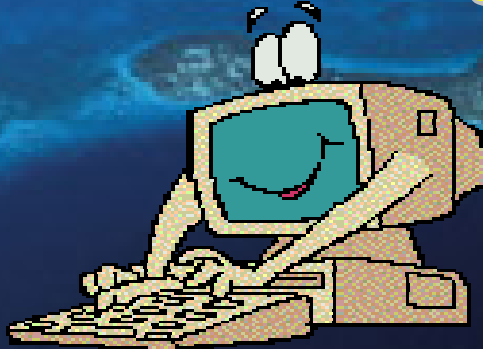


IPv6 Vision
Billions of Nodes

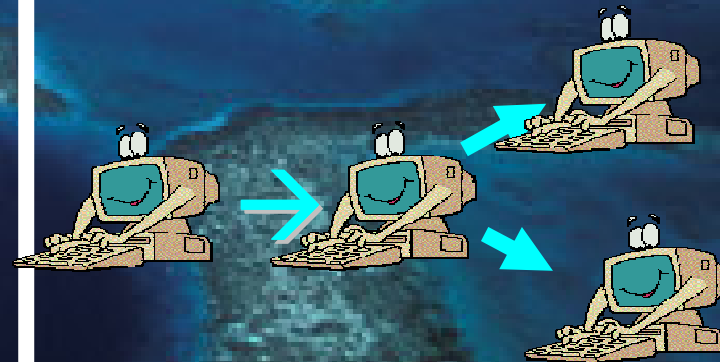
Always-on



Autoconfig



Multicast



IPv6



Always-on
Security
Privacy



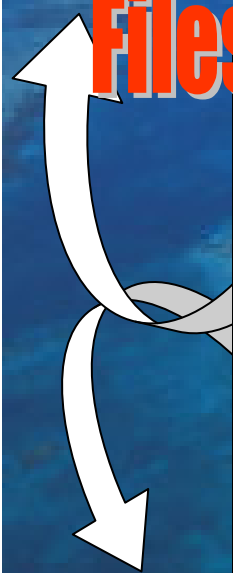
Vision & Way Forward

The New Internet The TWO-WAY Internet

End 2 End

Filesharing

Resource Sharing



Instant
Communication

Interactive

Collaborative
Computing

Wide Open Again for INNOVATION



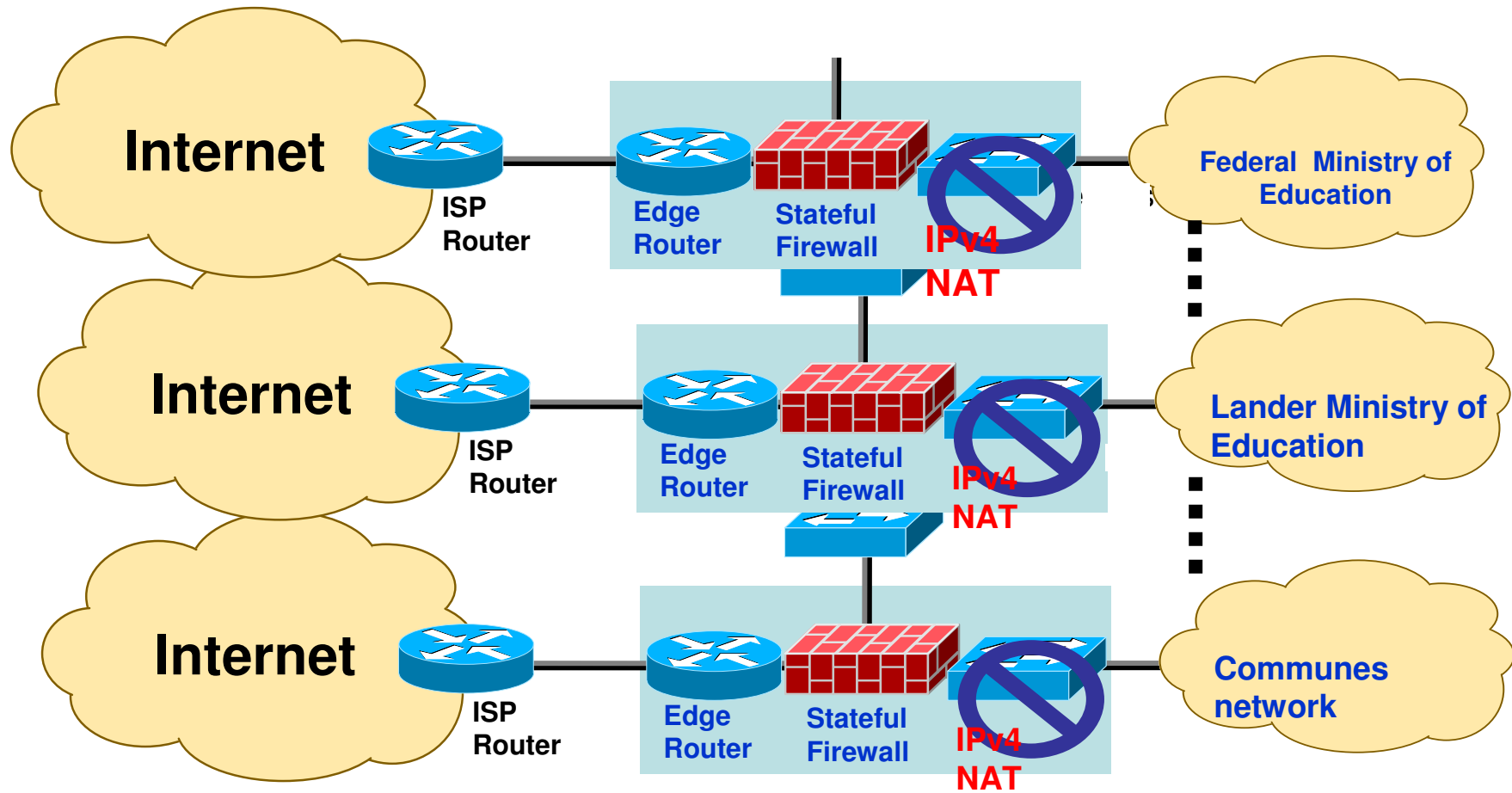
Vision & Way Forward

Killer Apps



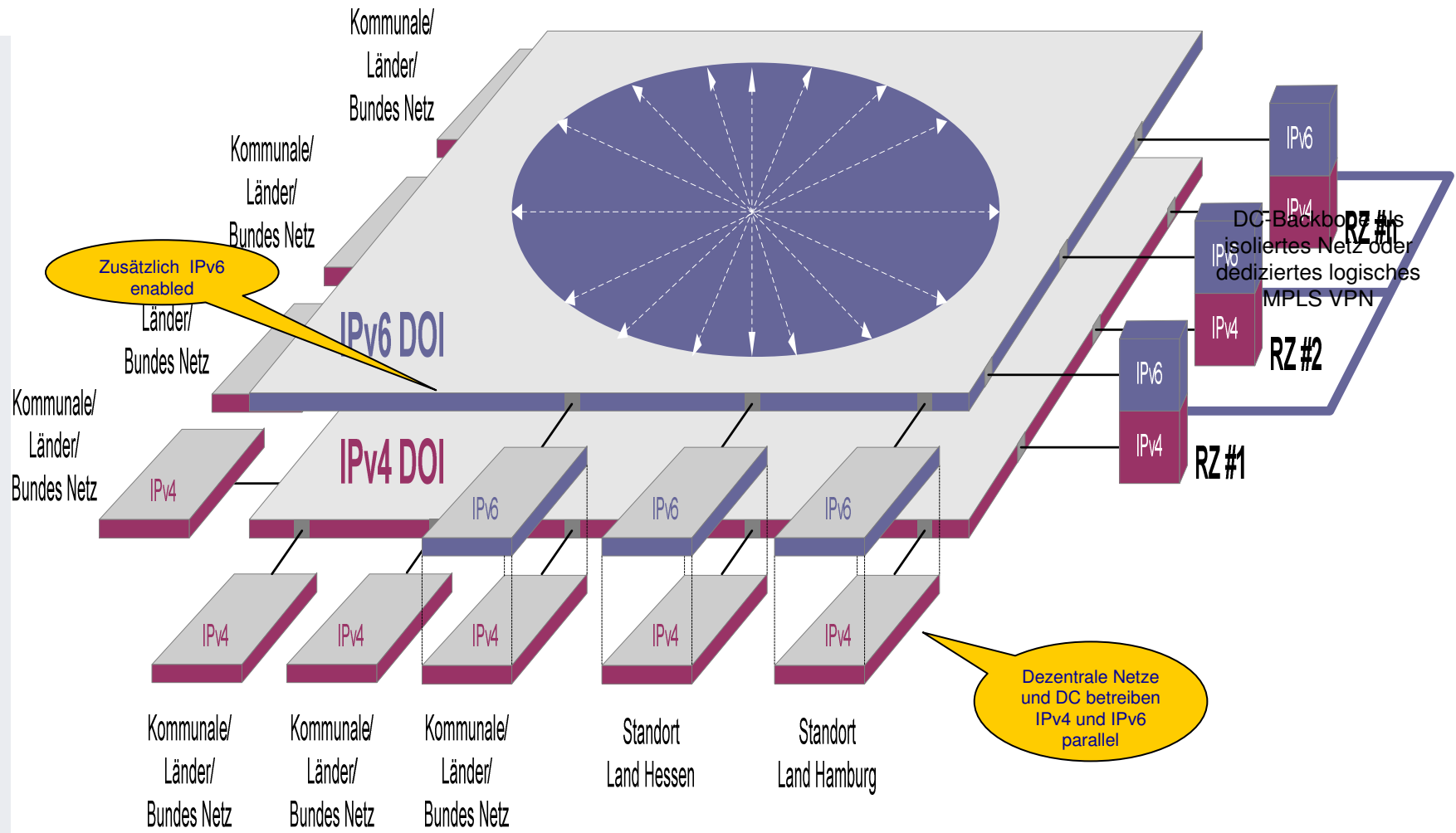


German Federal Government Simple email as Driver

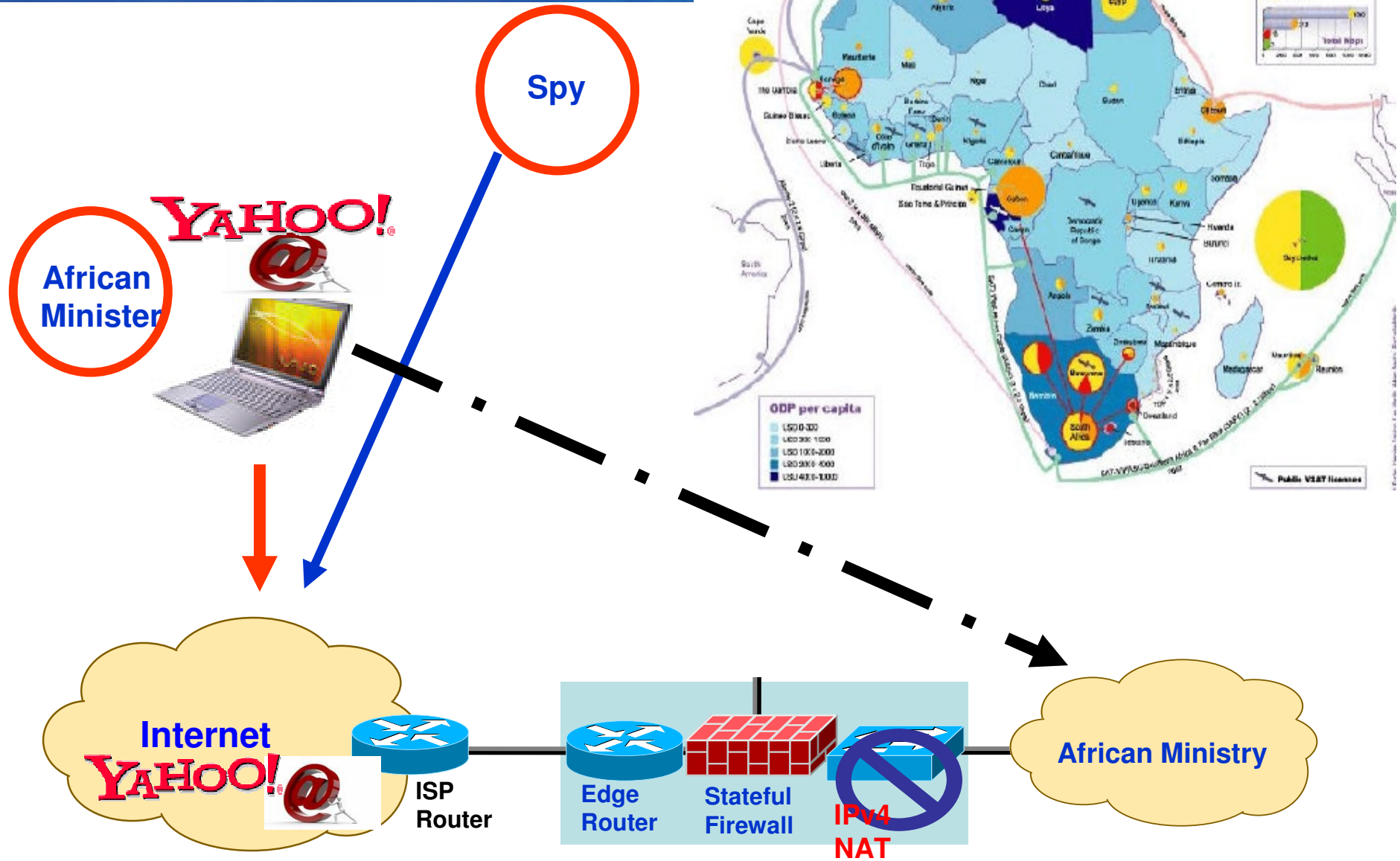




Die DOI definierte IPv4/IPv6 Dualstack Zielarchitektur ...



Developing Nations Ministers Yahoo email – the only email



The Seamless Network **Microsoft**[®]

Your potential. Our passion.

Internet

Trusted Zone

IPsec isolation
of Secure Net

Untrusted

Lab
Guest

Corporate Network

- ▶ Internet **IS** your network
- ▶ Applications just work
- ▶ All communications authenticated
 - Connection-by-connection
 - Access controlled by identity
- ▶ Trust boundaries defined by policy instead of topology
 - Traffic management at the edges
 - Network Immune Systems

Time Person of the Year

FORUM

2006



IPv6 is About FOOD!



