IPv6 deployment metrics

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Goals

- **Measure the degree of IPv6 deployment.**
  - It is important to start measuring the set of IPv6 specific metrics from the beginning of deployment
- Process
  - Define metrics set as the AP standard
  - Share methods/tools in AP region
  - Do measurement in each country/economy
  - Compile, Analyze & Publish
- Ranking is not the intention. We should be careful to deal with compiled data

IPv6 deployment metrics set Proposal

- Scale of IPv6 Internet

- IPv6 deployment ratio

- Characteristics and tendency of IPv6 traffic

IPv6 deployment metrics proposed (I)

Scale of IPv6 Internet	
Addresses	The number of IPv6 address blocks which has been allocated for LIRs by RIRs. (# of /32s)
	The number of IPv6 address blocks which has been registered to RIRs whois Databases. (# of /48s)
Routing information	Total number of IPv6 BGP4 routing entries
	Total number of ASs of IPv6 BGP4
	The average of AS path length of each IPv6 BGP4 routing entries
Traffic	IPv6 traffic amount of IX's backbone network

IPv6 deployment metrics proposed(II)

IPv6 deployment ratio	
Routing Information	# of ASs announcing IPv6 prefixes / # of ASs announcing IPv4
IP traffic	IPv6 traffic amount / IPv4 traffic amount at IX's backbone network
DNS/Mail/Web deployment rate	.JP DNS records statistics (to be described later)
Analysis of access to application (such like Web)	Ratio of IPv6 web clients and IPv4 ones

IPv6 deployment metrics proposed(III)

Characteristics or tendency of IPv6 traffic	
Traffic	Analysis of IPv6 traffic's contents (such like TCP or UDP, port number)