

IPv4 Transfers in Japan

□ Izumi Okutani

□ Japan Network Information Center (JPNIC)

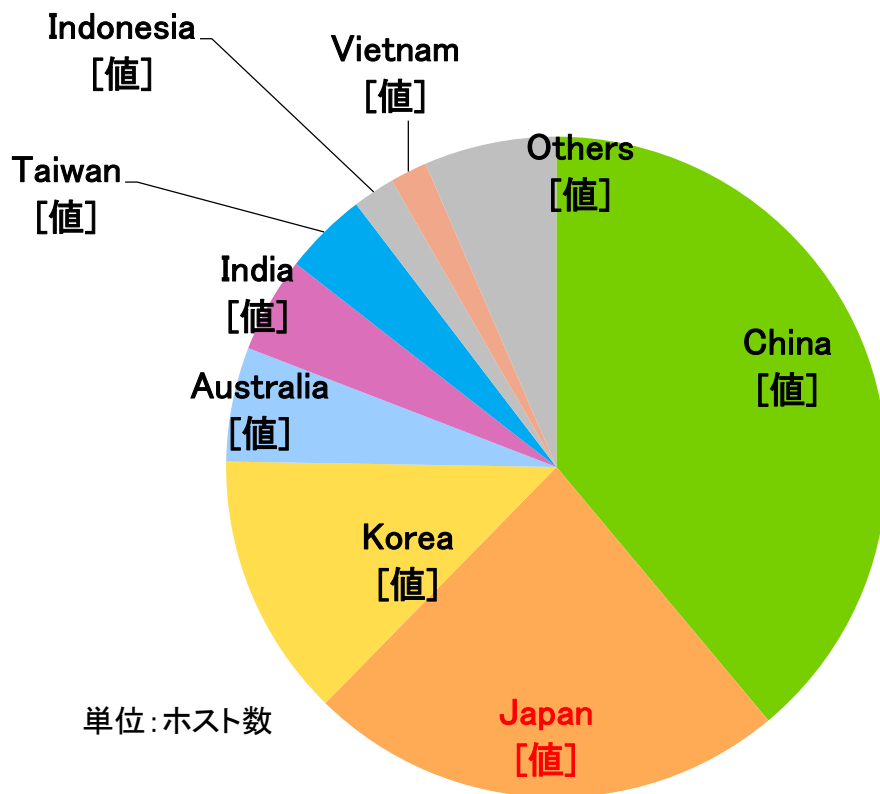
Number Resources Management in Japan

- JPNIC manages resources “Distributed from APNIC”, and “Historical IPv4 resources directly delegated to Japan (before APNIC established)”
 - Jun Murai received IPv4 address from Jon Postel, to distribute in Japan in 1989
 - These address space were later managed by JNIC1992, which became JPNIC(1993)
- Account Holders Under JPNIC
 - 415 LIRs
 - 1027 Historical Resource Holders
 - 67 Portable IP holders
 - 590 ASN holders



Rank	Country or entity	IP addresses[3]	%	Population
				(mostly 2012)[4]
	World	4,294,967,296	100	7,021,836,029
1	United States 	1,541,605,760	35.9	313,847,465
	Bogons	875,310,464	20.4	
2	China 	330,321,408	7.7	1,343,239,923
3	Japan 	202,183,168	4.7	127,368,088
4	United Kingdom 	123,500,144	2.9	63,047,162
5	Germany 	118,132,104	2.8	81,305,856
6	Korea, South 	112,239,104	2.6	48,860,500
7	France 	95,078,032	2.2	65,630,692
8	Canada 	79,989,760	1.9	34,300,083
9	Italy 	50,999,712	1.2	61,261,254
10	Brazil 	48,572,160	1.1	205,716,890
11	Australia 	47,573,248	1.1	22,015,576
12	Netherlands 	46,379,784	1.1	16,730,632
13	Russia 	42,762,784	1	138,082,178
14	Taiwan 	35,383,040	0.8	23,113,901
15	India 	34,685,952	0.8	1,205,073,612
16	Sweden 	30,373,544	0.7	9,103,788
17	Spain 	28,421,760	0.7	47,042,984
18	Mexico 	25,862,912	0.6	114,975,406
19	Switzerland 	20,872,696	0.5	7,655,628
20	South Africa 	20,386,560	0.5	48,810,427

IPv4 holding in Japan in APNIC region



IPv4 Transfer Policy in JPNIC

- We promote IPv6 distribution and its deployment in Japan: Approx 50% of LIRs with IPv6

- In parallel, we have adopted transfer policies to address current needs of industry in Japan
 - Transfer policy between JPNIC account holders (2011)
 - Transfer policy with other Internet Registries (2013)

- We are open to do transfers with other registries with equivalent policies

Other transfer related services in Japan

□ By JPNIC

- Pre-approval service
- Publish list of candidate recipient
 - Per request from candidate recipients (JPNIC Account holders) after they pass pre-approval
 - Name of candidate recipient is not publicly disclosed
 - You must be a JPNIC Account holder to request for contact details of the candidate recipient
- Publish transfer log of JPNIC account holders
 - <https://www.nic.ad.jp/en/ip/ipv4transfer-log.html>

□ Other

- There is a Japanese broker, with service in Japanese and fees in JPY

IPv4 Transfer related Listing Services

IPv4 Address Range	Source	Original Date of Allocation/Assignment	Recipient	Date of Transfer	Remarks
118.236.0.0/15	USEN CORPORATION	2007-11-05	So-net Entertainment Corporation	2011-08-22	
118.238.0.0/17		2007-11-05			
118.238.192.0/18		2007-11-05			
110.232.152.0/21		2009-05-26			
118.240.0.0/15		2007-11-06			
124.219.128.0/17		2007-11-06			
133.242.0.0/16	Architectural Systems Inc.	1990-09-03	SAKURA Internet Inc.	2011-08-29	
134.180.0.0/16	SANYO Electric Co., Ltd.	1994-02-28	SANYO Information Technology Solutions Co., Ltd.	2011-09-20	
203.174.224.0/19	COMMUNITY NETWORK CENTER INC.	2004-06-03	KMN Corporation	2011-10-11	
210.4.160.0/19		2006-05-08			
219.111.1					

IPv4 Transfer log: <https://www.nic.ad.jp/en/ip/ipv4transfer-log.html>

IPv4アドレス移転希望者リスト(2016年8月17日現在)

このリストは、IPv4アドレスの移転を受けることを希望する組織を一覧にしたものです。

このリストへの掲載を希望される方、このリストに掲載されている組織への連絡を希望される方は、以下に記載する手続きを確認のうえ、IPアドレス担当(ip-service@nir.nic.ad.jp)までご連絡ください。

管理番号	移転可能IPv4アドレスサイズ	掲載有効期限	備考
4	/15+/16	2018-05-31	
2	/20	2018-04-26	
1	/16+/17+/19	2017-11-23	

IPv4 Transfer – Candidate recipients:
<https://www.nic.ad.jp/ja/ip/transfer/wishlist.html>

IPv4 Transfers with JPNIC

□ Total IPv4 Transfers in APNIC region

- 25,186,659 hosts (Approx /8+/9)
- 888 Requests

□ IPv4 Transfers under JPNIC

- 7,207,345 (Approx /10+/11+/12)
- 236 Requests

□ Largest size transferred under JPNIC

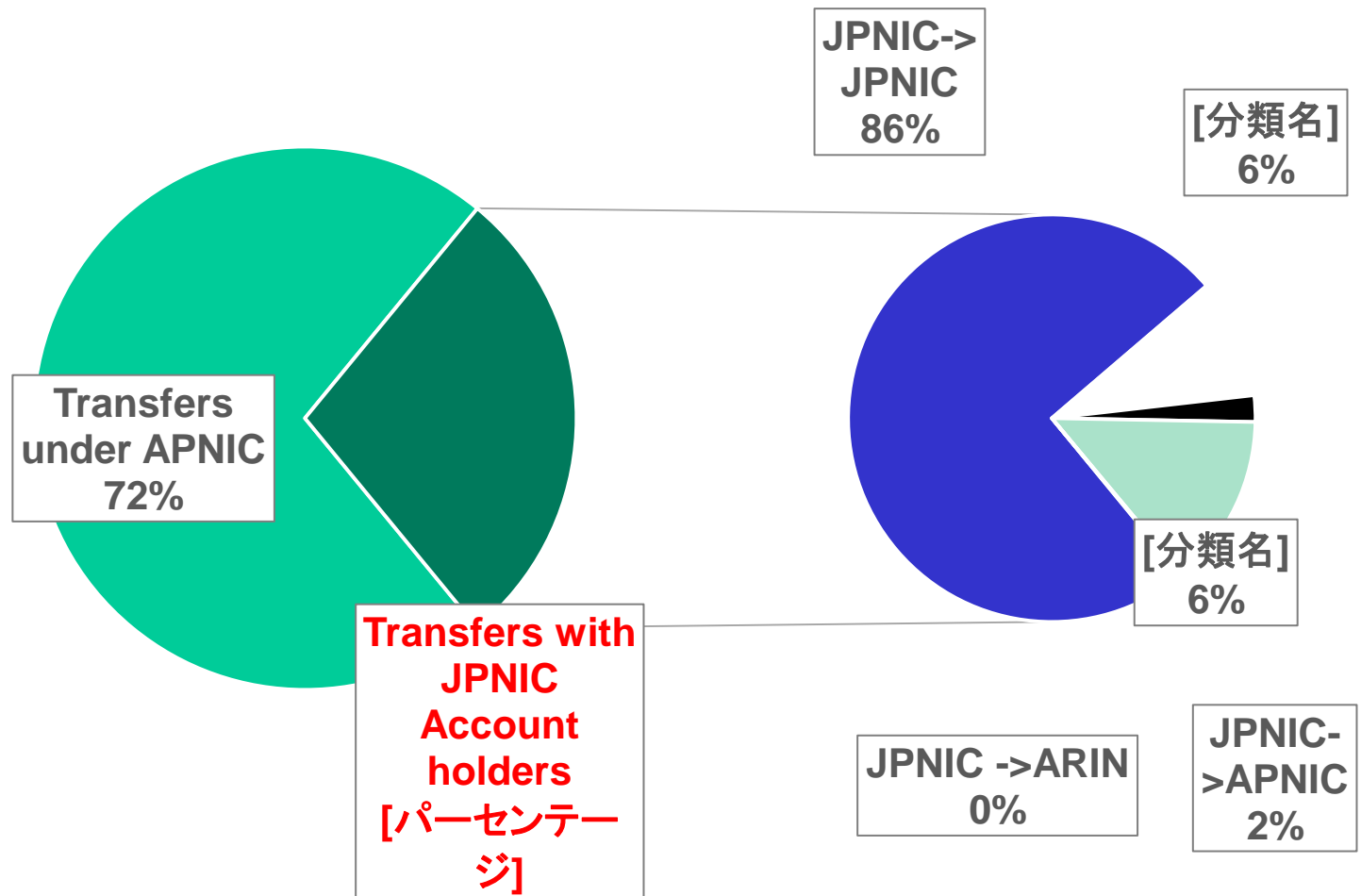
- /14+/16+/18+/21 (Non-contiguous)

□ Common transfer sizes under JPNIC

- /20, /19, /16

IPv4 Transfers with JPNIC

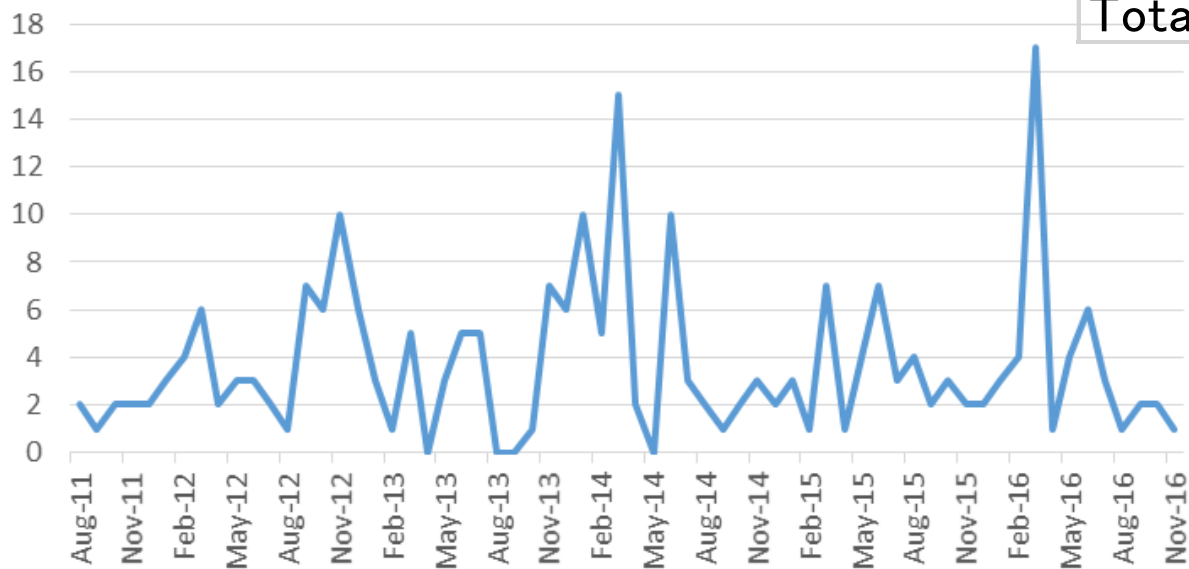
Account holders: Host Count



Trend of IPv4 Transfers in JPNIC

Year	No. of Requests
2011	7
2012	55
2013	36
2014	55
2015	37
2016	46
Total	236

No. of IPv4 Transfer Requests: Aug2011-
Nov2016



No Notable trend
observed

Observation

- ❑ Most common transfer recipients are data centers, hosting providers, VPN providers
 - They tend to come back and make multiple requests
 - Other recipients are major content providers, SNS, Online game, mobile, ISPs with data centers, CATV
 - Lately started to see a few account holders we do not recognize as Internet industry players
- ❑ 28% of transfer recipients also receive IPv6
 - Data centers and ISPs tend to receive IPv6
 - Cable TV providers and those who are not in conventional Internet industry tend not to receive IPv6

Summary

- IPv4 Transfer market in Japan is relatively active
- Common transfer recipients are data centers, hosting providers, VPNs, and have tendency to come back multiple times. They also have tendency to have IPv6 allocations.
- JPNIC accommodates our Industry to receive IPv4 transfers to address their immediate needs, at the same time prepare for IPv6 deployment