



APNIC to publish Assignment Statistics

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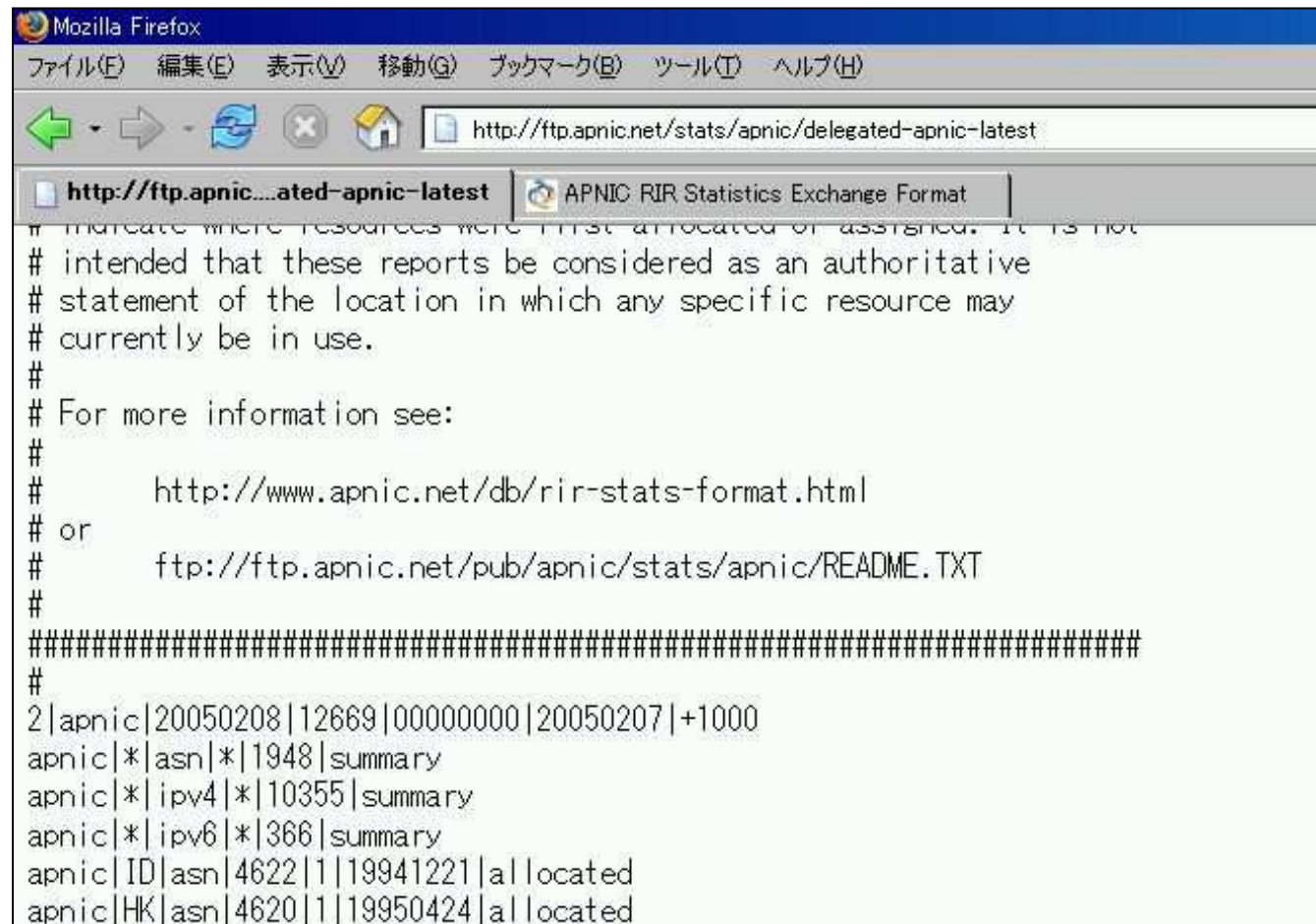
24 February, 2005

Introduction

- APNIC (and all RIRs) publishes “IP and AS numbers allocation report”
 - Gives statistics on IPv4/IPv6 address/AS number allocation (assignment) from RIR to NIR/LIR/user (if applicable)
 - Updated daily
 - “RIR Statistics Exchange Format” is given
 - <http://www.apnic.net/db/rir-stats-format.html>

Introduction (cont.)

- IP and AS numbers allocation report format



```

# indicate where resources were first allocated or assigned. It is not
# intended that these reports be considered as an authoritative
# statement of the location in which any specific resource may
# currently be in use.
#
# For more information see:
#
#   http://www.apnic.net/db/rir-stats-format.html
# or
#   ftp://ftp.apnic.net/pub/apnic/stats/apnic/README.TXT
#
#####
#
2|apnic|20050208|12669|00000000|20050207|+1000
apnic|*|asn|*|1948|summary
apnic|*|ipv4|*|10355|summary
apnic|*|ipv6|*|366|summary
apnic|ID|asn|4622|1|19941221|allocated
apnic|HK|asn|4620|1|19950424|allocated
    
```

Current Problem

- No data published regarding “assignments” are currently made public by APNIC
 - In spite that such data is necessary to study the IP address consumption (i.e. how much assignments are actually made from allocations)
- We cannot (should not) use APNIC WHOIS database to collect assignment statistics
 - WHOIS query shows “unnecessary (for this purpose)” information
 - Such as the name of the organizations, contacts...
 - Most of assignments are hidden from public database
 - "Privacy of customer assignment records“ had been implemented by the APNIC secretariat last year

Other RIRs

- Same as APNIC
 - Allocation data is open to public
 - Assignment data is not published either

Proposal

- APNIC to collect and publish IP address assignment statistics, including at least following information
 - Country code
 - Type of IP address (IPv4/IPv6)
 - Prefix size of the assignment
 - The number of assignments registered under the specified prefix
- All assignment data registered as “Assigned non-portable“ and “Assigned portable” should be collected
 - sub-allocation data, i.e, “allocated non-portable” will not be the target of the data collection in order to avoid double counts of assignments registered under such allocations

Proposal (cont.)

- Data format and the frequency of the report are left to the implementation, to allow flexibility

(Example)

Country Code	Address Type	Prefix	# of assignment
JP	ipv4	24	2678
JP	ipv4	25	3789
JP	ipv4	26	4800
JP	ipv4	27	9867
...
JP	ipv6	48	7680
JP	ipv6	64	1235
...
KR	ipv4	23	3450
...

Benefits

- Useful for future address policy discussion
 - Enables speculation of the volumes of address stocks within LIRs and the scale of deployment among end users by comparing the volume of allocations and assignments
 - Especially in terms of IPv6 which is still under diffusion period
- No conflict with “Privacy of customer assignment records”
 - Those who needs access to such data do not need to make WHOIS queries

Implementation

- NIR Considerations
 - Implementation is at discretion of NIRs
 - Some assignments are stored in NIR database and not be visible from APNIC
 - JPNIC already publishes assignment statistics
 - See next slide

JPNICが管理するIPアドレスに関する統計 - Mozilla Firefox

ファイル(F) 編集(E) 表示(V) 移動(G) ブックマーク(B) ツール(T) ヘルプ(H)

http://www.nic.ad.jp/ia/stat/ip/20050204.html

http://www.apnic.net...s/prop-026-v001.txt JPNICが管理するIPアドレスに関する統...

<< 割り当ての内訳 (ユーザネットワーク) >>

年/月	/16	/17	/18	/19	/20	/21	/22	/23	/24	/25	/26	/27	/28	/29	/30	/31	/32
2004/02	0	0	0	0	4	4	9	8	24	48	98	166	574	3175	10	1	7
2004/02	(0)	(0)	(0)	(0)	(3)	(3)	(3)	(1)	(3)	(5)	(2)	(8)	(14)	(11)	(0)	(0)	(0)
2004/03	0	0	1	0	3	4	6	5	23	49	171	277	983	5656	28	1	8
2004/03	(0)	(0)	(1)	(0)	(3)	(4)	(3)	(1)	(8)	(2)	(2)	(8)	(4)	(5)	(0)	(0)	(0)
2004/04	0	0	1	2	0	2	3	3	23	39	88	204	706	4431	8	0	2
2004/04	(0)	(0)	(1)	(2)	(0)	(0)	(2)	(1)	(11)	(1)	(1)	(3)	(8)	(10)	(0)	(0)	(0)
2004/05	1	0	0	0	1	2	4	9	19	23	88	156	629	2807	16	1	9
2004/05	(1)	(0)	(0)	(0)	(1)	(2)	(2)	(5)	(4)	(3)	(0)	(3)	(0)	(2)	(0)	(0)	(0)
2004/06	0	0	2	0	2	2	2	10	26	23	49	64	251	1315	19	1	5
2004/06	(0)	(0)	(2)	(0)	(2)	(1)	(1)	(2)	(13)	(3)	(5)	(5)	(7)	(11)	(2)	(0)	(0)
2004/07	0	0	0	1	0	1	4	12	13	14	58	63	280	1191	11	1	4
2004/07	(0)	(0)	(0)	(1)	(0)	(1)	(2)	(4)	(2)	(2)	(8)	(3)	(3)	(2)	(0)	(0)	(0)
2004/08	0	0	0	0	3	1	3	14	21	33	176	376	1544	6001	14	0	1
2004/08	(0)	(0)	(0)	(0)	(3)	(1)	(1)	(6)	(5)	(5)	(2)	(3)	(1)	(2)	(0)	(0)	(0)
2004/09	1	0	0	1	1	0	4	6	15	22	84	172	652	3021	23	0	2
2004/09	(1)	(0)	(0)	(1)	(0)	(0)	(3)	(1)	(4)	(1)	(0)	(6)	(10)	(0)	(0)	(0)	(0)
2004/10	0	0	0	0	1	2	4	8	29	26	102	210	1195	7081	16	1	6
2004/10	(0)	(0)	(0)	(0)	(0)	(2)	(0)	(3)	(8)	(2)	(3)	(2)	(3)	(1)	(0)	(0)	(0)
2004/11	0	0	0	2	2	4	2	5	33	11	682	451	248	6575	80	2	3
2004/11	(0)	(0)	(0)	(2)	(2)	(3)	(1)	(3)	(14)	(1)	(2)	(1)	(7)	(1)	(0)	(0)	(0)
2004/12	0	0	0	2	1	2	7	11	35	21	297	1176	1238	6681	27	1	3

Summary

- APNIC to publish assignment statistics
 - Country code
 - Type of IP address (IPv4/IPv6)
 - Prefix size of the assignment
 - The number of assignments registered under the specified prefix
- This statistics is useful for the whole address community for future policy discussion

Questions?

