IPv4 Transfer Process in APNIC Region

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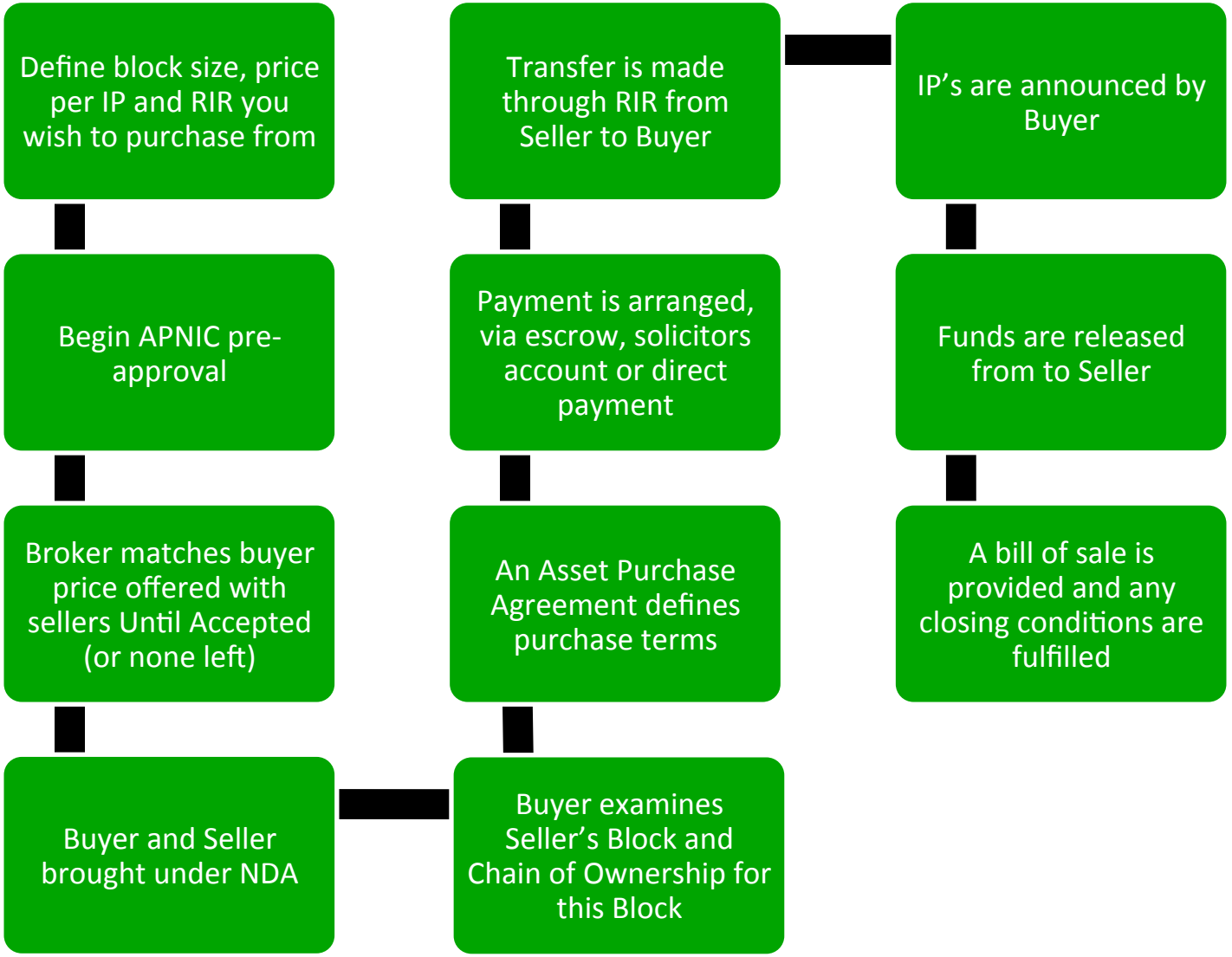
IPv4 MG ViewPoint

IPv4 E2E Purchase Process



You Need IPv4 Numbers? Network Engineering Must:

Determine How Many IP's

Consider historical network and customer growth rates

Is there data center or location expansion?

Get Internal Budgetary Approval

Depends on: Block Size Being Acquired; Cleanliness of IP's; Originating RIR

/16 – /18 : $8 from ARIN region to $9 in APNIC

/19 : $10 - $11 in APNIC

/20 : $13 - $15 in APNIC

All prices USD per IP

Get APNIC Pre-Approval

Complete Transfer Pre-Approval Form in

MYAPNIC

Determining How Many IP's: Example

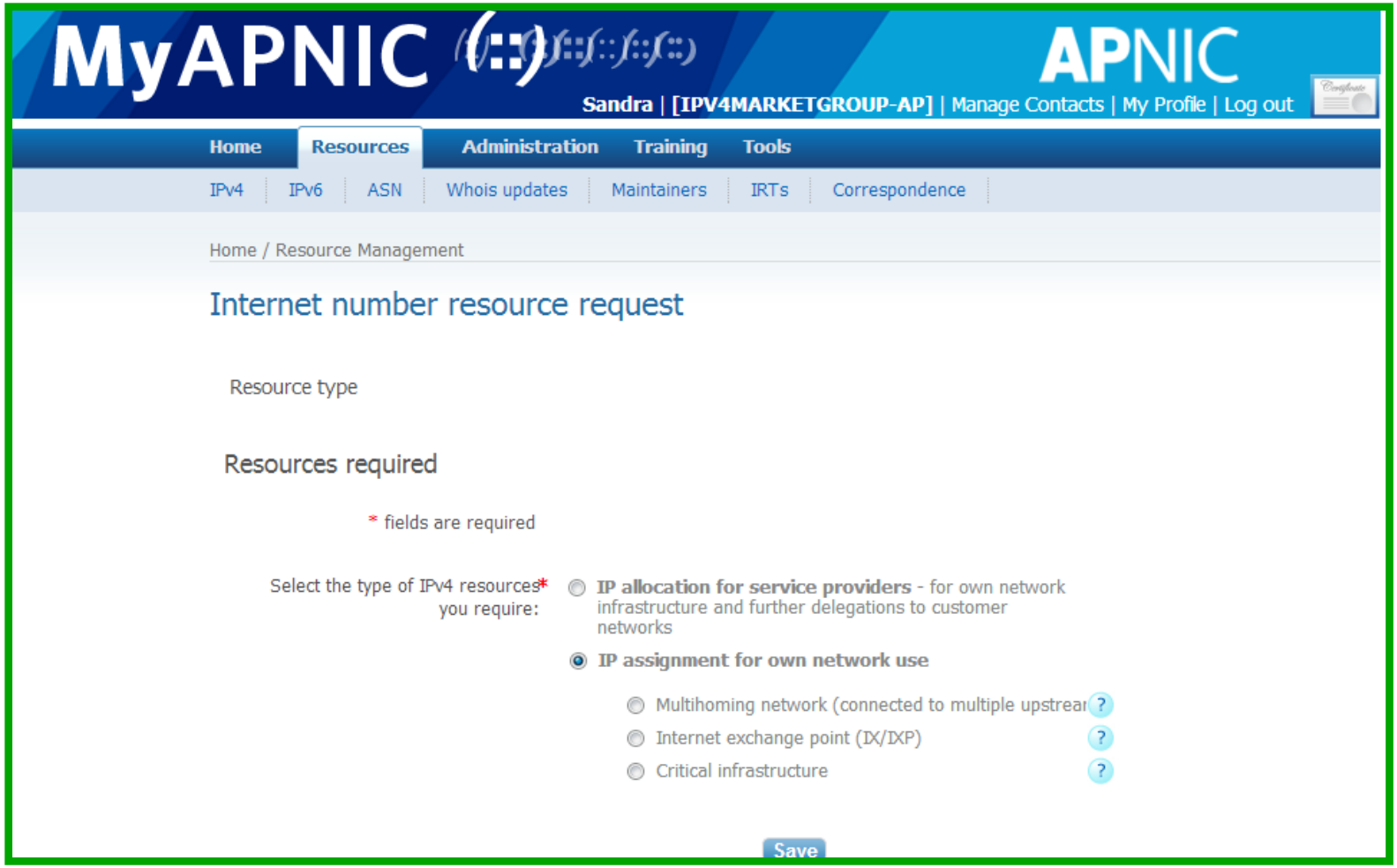
	SINGAPORE	HONG KONG	IP's DEPLOYED	IP's NEEDED	IP's IN POSSESSION	PERCENTAGE USED
IPS Sept 1, 2013	20,000	10,000	30,000		40,000	75.00%
new Data Center Pods 2013	40,000	10,000	50,000			
subtotal	60,000	20,000	80,000			
50% growth in cloud and managed SG	90,000					
150% growth in cloud and managed HK		50,000	140,000			
IP shortfall by Dec 2013				100,000		
2014 Growth						
3 Data Center Pods in 2014	10,000	5,000	155,000			
50% growth in cloud and managed - to June, 2014	150,000	82,500	232,500			
20% growth to June 2015 - IP shortfall by June 2015	180,000	99,000	279,000	239,000		
Number of /16's need in next Two years				**3.65**		

1. Currently company has 40,000 IP's and 30,000 are deployed
2. They plan growth at two locations in SG and HK, for two purposes, a) data center, with 40,000 nodes in SG and 10,000 nodes in HK in 2013 and b) cloud and managed services growth of 50% in SG and 150% growth in HK
3. There are similar calculations for 2014 and 2015 growth
4. This results in an estimate showing needed IP's of 279,000 in 2 years, a 239,000 shortfall
5. They can therefore produce a business case and APNIC case for up to 3.65 /16's

Business Case to Buy a /16

1. Costs:
   a. $600,000 USD or $9.155 /IP
   b. Transfer cost of AUD 1,925
2. Benefits:
   a. Added business income

APNIC Pre-APPROVAL



APNIC Pre-APPROVAL

Network plan

* fields are required

Critical infrastructure

Type of IP resource required* IPv4

Implementation date* (DD/MM/YYYY) 01/12/2013

Organization URL* www.newnetwork.com

What type of critical infrastructure do you operate?*

- [x] Root domain name system (DNS) server
- [x] Global top level domain (gTLD) DNS server
- [ ] Country code TLD (ccTLDs) DNS server
- [ ] National Internet Registry (NIR)

Please enter or upload supporting information for your provider-independent request.

By default IPv4 requestors will receive a /24. If you require more address space, please enter the prefix length(s) required along with any supporting information.

Prefix lengths (IPv4) /16

Supporting information

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Network Diagram
Network Planning Chart
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Policy Considerations

APNIC

- Allows transfers between regions, including ARIN
- Generally transfers from within APNIC are about two weeks faster than from ARIN

Using Policy

- Get pre-approval for your desired block size before you allocate business, legal and technical resources to the transaction

Guidelines

- Justified need is based on 24 months in APNIC region
- Current resources must be 80% used
- Your pre-approval is valid for a 24 month period

Examine Seller's IPv4 Block

- Prior to purchase
  1. Get History of IP's from Seller:
     a. How long have they had possession of them
     b. How have they used them
     c. Have they ever been mailed on
     d. What was the history before they had them?
  2. Check senderbase.org to see if they were used for email marketing
  3. Check various spam listings to see if IP's look clean, not blacklisted, not hi-jacked
  4. Check RIR registry
  5. Anticipate and prepare for possible geo-satellite issues
- After Purchase
  1. Arrange ISP announcement and discuss any issues with Seller

Negotiation Points

Price	• Depends on Block Size • Smaller Blocks Command Higher Prices
Payment Method	• Direct Payment • Escrow • Solicitors Account • Bankers Trust
Payment Terms	• On deposit in advance with escrow and solicitors account • At close • Net 30
Venue	• Singapore is desirable as a neutral venue

Asset Purchase Agreement - 1

ASSET PURCHASE AGREEMENT

THIS ASSET PURCHASE AGREEMENT is made this ___ day of August, 2013 by and between:

_____, a _____ corporation established under the laws of _____ with its head office at _____ (**"Seller"**),

AND

_____, a _____corporation established under the Laws of _____, with its principal place of business at _____ (**"Buyer"**)

(Seller and Buyer are collectively, the **"Parties"**, and individually, the **"Party"**).

WHEREAS, Buyer desires to purchase from Seller, and Seller desires to sell to Buyer, all Seller's rights, title and interest, to IP Address block a.b.c.0/17 (32,768 total IP addresses) ("**Requested Block**")

NOW, THEREFORE, the Parties agree as follows:

1. Purchase of Assets.

Subject to the provisions of this Agreement, Buyer agrees to purchase, and Seller agrees to transfer, all Seller's rights, title and interest, to the Requested Block.

2. Purchase Price.

a. The Purchase Price for the Requested Block shall be $9.00 USD per IP address, for a total of $294,912 USD (**"Purchase Price"**) payable as set forth herein.

Identify Buyer and Seller

Define Block Being Purchased

Define Purchase Price

Asset Purchase Agreement - 2

3. Transfer Process

(a) The Parties shall comply with the procedures prescribed by APNIC for the recognition of transfers of IPv4 Address Blocks between APNIC account holders.

(b) The Buyer shall, if it has not already done so, initiate the APNIC Pre-Approval Process using the appropriate form on MyAPNIC.

(c) The Seller shall file a request with APNIC for the transfer of the Requested Block to Buyer. The Seller shall give the Buyer an e-mail [in accordance with Clause 12] with a screen shot of the confirmation screen once the request has been filed with MyAPNIC. The Buyer shall provide all cooperation to the Seller necessary to make such request.

(d) At all times during the transfer process the Buyer and Seller shall respond promptly and diligently to any request by APNIC for information or documentation.

(e) The Seller shall do whatever else that is necessary in order to perfect the transfer of the Requested Block by registering it in the Buyer's name.

(f) The APNIC Hostmaster will process and record the transfer of the Requested Block, and Buyer will login to MyAPNIC and confirm the Requested Block is added into its account and Seller will login to MyAPNIC and confirm the Requested Block is removed from its account.

(g) Upon receipt of:

(i) notice by APNIC to Buyer that transfer is complete (an email copy of which shall be forwarded by Buyer to Seller); and

(ii) notice by APNIC to Seller that transfer is complete (an email copy of which shall be forwarded by Seller to Buyer),

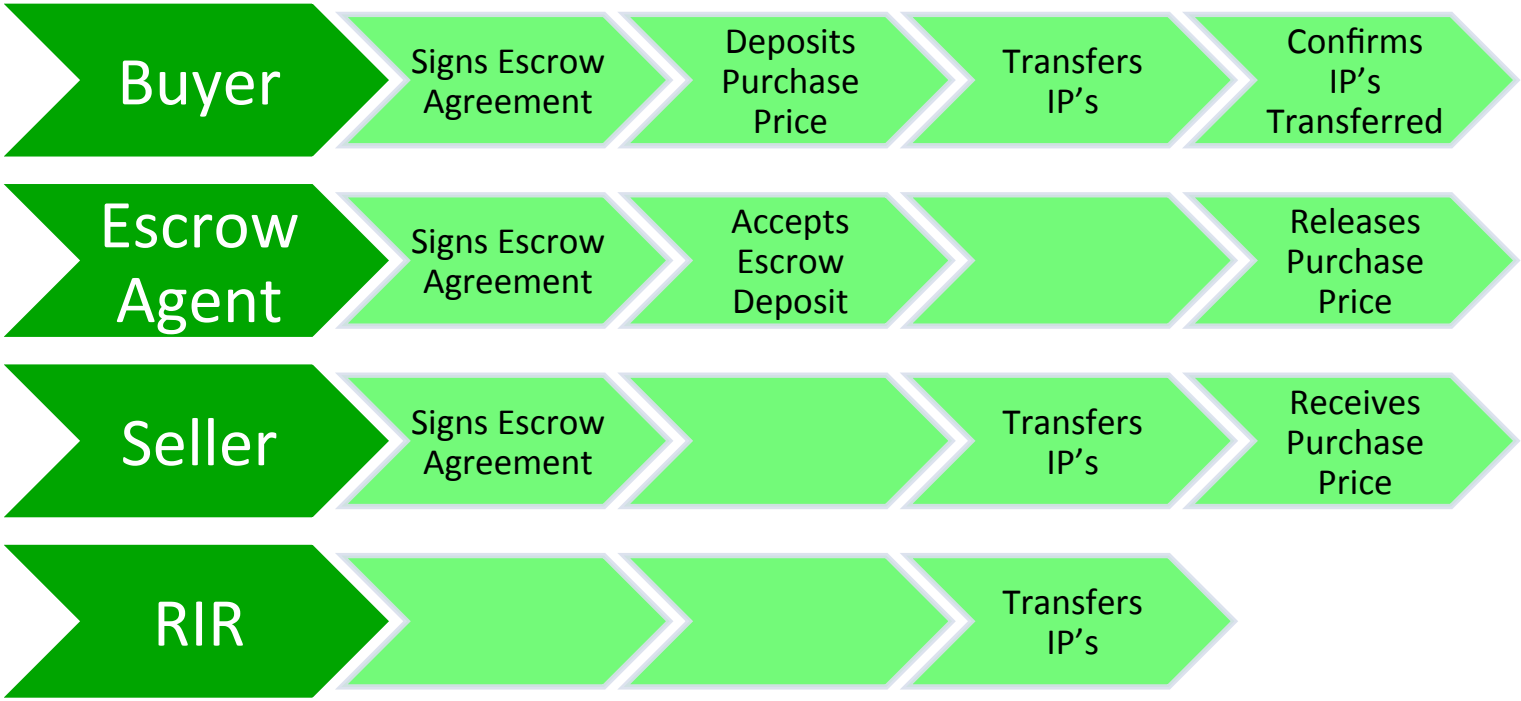
the registry transfer process will be complete.

APA documents transfer process

Defines the steps each party takes

Defines when complete

Escrow Process in a Successful Transaction



Impact of Trading Markets On AP Region

- Trading Makes IPv4 Numbers available to entities that could not otherwise get them
- Trading volumes have been relatively slow in AP and globally, probably due to relatively high prices, historically ~$10 USD per IP, and stockpiling by some companies
- Trading is accelerating, albeit slowly, in APNIC
- Prices have fallen from the Nortel/Microsoft price point of $11.75 per IP to about $9.00 per IP USD for a /16
- APNIC supplies are scarce and at some point inter-RIR transfers will become the norm

IPv4 Market Group Perspective on the Marketplace

- North American companies with IP's need incentive to free them to sell – unlikely they will sell at much less than $7 per IP for very large blocks
- Buyers may have distrust in the process but we have successfully facilitated 50 transactions globally where buyers have received what they paid for: It is very important to have
  - legitimate legal documents,
  - a legitimate seller, with proof of ownership, and proof of clean IP's
  - a safe payment method such as transfer before payment (we prefer escrow), and,
  - co-ordinated transfer between seller and buyer
- RIPE prices are 10% higher and this may drive ARIN and APNIC prices up

Thank You

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