

Whois Domain Object Authorisation

APNIC18 – DB SIG

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Procedural Problem

- Whois database authorisation is hierarchical
 - APNIC maintainer is the mnt-lower for all APNIC /8 domains
 - All attempts by members to create /24 and /16 domains fail for non MyAPNIC users

Example

- Member XYZ has been allocated 202.168.80.0 – 202.168.95.255 (/20):

```
inetnum: 202.168.80.0 – 202.168.95.255
netname: XYZ-NET
descr: XYZ Broadband Networks
descr: Suburbia
country: AP
admin-c: EG999-AP
tech-c: EG999-AP
mnt-by: APNIC-HM
mnt-lower: MAINT-AP-EXAMPLE
changed: hm-changed@apnic.net 20040712
status: ALLOCATED PORTABLE
source: APNIC
```

Example continued

- Member XYZ now tries to create a /24 reverse delegation, 80.168.202.in-addr.arpa:

```
domain:      80.168.202.in-addr.arpa
descr:      Reverse DNS Zone for 202.168.80.0/24
country:    AP
admin-c:    EG999-AP
tech-c:     EG999-AP
zone-c:     EG999-AP
nserver:    ns1.foo.bar
nserver:    ns2.foo.bar
mnt-by:     MAINT-AP-EXAMPLE
source:     APNIC
```

Example continued

- They submit the domain object to `auto-dbm@apnic.net`, but it fails
- Why?
 - Authorisation is hierarchical, the parent object `202.in-addr.arpa` contains:
 `mnt-lower: MAINT-AP-DNS`
 - Only new domain objects with `mnt-by` and password of `MAINT-AP-DNS` will succeed

Authorisation model problems

- Manual creation
- Inconvenient due to time delay
- Not providing best possible service

Procedural Solution - Allocation

- Compare mnt-by of domain template with mnt-lower of related inetnum object
- Maintainers match and correct password provided
- If conditions met then domain object is created

Example of Allocation Procedural Solution

- Inetnum object

```
inetnum: 202.168.80.0 -  
202.168.95.255  
netname: XYZ-NET  
descr: XYZ Broadband  
Networks  
descr: Suburbia  
country: AP  
admin-c: EG999-AP  
tech-c: EG999-AP  
mnt-by: APNIC-HM  
mnt-lower: MAINT-AP-  
EXAMPLE  
changed: hm@apnic.net 20040712  
status: ALLOCATED  
PORTABLE  
source: APNIC
```

- Domain template

```
domain: 80.168.202.in-  
addr.arpa  
netname: Reverse DNS for  
202.168.80.0/24  
country: AP  
admin-c: EG999-AP  
tech-c: EG999-AP  
nserver: ns1.foo.bar  
nserver: ns2.foo.bar  
mnt-by: MAINT-AP-  
EXAMPLE  
changed: hm@apnic.net  
20040712  
source: APNIC
```


Procedural Solution - Assignment

- Compare mnt-by of domain template with mnt-routes of related inetnum object
- Encouraged use of mnt-routes attribute
- Maintainers match and correct password provided
- If conditions met then domain object is created

Example of Assignment Procedural Solution

- Inetnum object

```
inetnum: 202.168.80.0 -  
202.168.80.255  
netname: XYZ-NET  
descr: XYZ Broadband  
Networks  
descr: Suburbia  
country: AP  
admin-c: EG999-AP  
tech-c: EG999-AP  
mnt-by: APNIC-HM  
mnt-routes: MAINT-AP-  
EXAMPLE  
changed: hm@apnic.net 20040712  
status: ASSIGNED PORTABLE  
source: APNIC
```

- Domain template

```
domain: 80.168.202.in-  
addr.arpa  
netname: Reverse DNS for  
202.168.80.0/24  
country: AP  
admin-c: EG999-AP  
tech-c: EG999-AP  
nserver: ns1.foo.bar  
nserver: ns2.foo.bar  
mnt-by: MAINT-AP-  
EXAMPLE  
changed: hm@apnic.net  
20040712  
source: APNIC
```

Exceptions

- Old allocations with no mnt-lower attribute.
- Assignments with no mnt-routes attribute.
 - Forward any domain templates which don't meet the proposed solution to helpdesk@apnic.net for manual intervention.

Statistics

- 622 new domain objects submitted for manual creation between January 1 and February 27 2004
- 558 (89%) would have succeeded through new algorithm

Implementation Schedule

- End of 2004

Questions?

- Thanks for your time!