

IPv6 Implementation in CO.ZA

Ensuring that your registry is not in the critical path to IPv6 adoption

CO.ZA Registry

<http://www.coza.net.za>

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The problem

Subject: TT080409-000091: Ticket Notification - Customer Centre

=== TiX Ticket History and Updates ===

On 09-04-2008 11:27, <deleted> wrote :

Hi David,

Can you be specific on what you want. Is it 6 additional ips on top of this range

196.7.x.x/29

<address>196.7.x.x</address>

<netmask>255.255.255.248</netmask>

Overview

- IPv6 for a registry entails
 - DNS resolution
 - IPv6 glue registration
 - IPv6 glue provision in the resolution
 - requires IPv6 transit
- (Services via IPv6 (web, whois –

Critical Path

In order for IPv6 adoption to be widespread, •
names need to resolve to IPv6 addresses
Registries are in this critical path •

DNS Resolution

Authoritative server software needs to be •
IPv6 compliant
OS as well •
(Network hardware (and software) •
.....Fortunately •
most reasonably stuff already is –

IPv6 Glue Registration

- Registry software needs to understand IPv6
- Policies need to cater for IPv6 Registration
- Syntax checking and parsing is different
 - vs dead:beef::cafe 192.168.0.1

Services

- web •
- (network (dhcp vs IPv6 autoconfig •
- resolvers •
- whois •

Some Technical Gotcha's

- network autoconfig •
- explicit binding of services to ports •
- apache listen directive –
- bind listen directive –
- Routers •
- needed upgrading to properly handle –

Some Policy Gotcha's

- Obtaining IPv6 Address space
 - required engaging AfriNIC community re micro-allocation
 - now solved
- Routing allocation obtained
 - our allocation still not visible to ~10% of the Internet

Recommendations

Do any policies •

eg what delegation checking –

Ensure your hardware can handle •

eg CISCO IOS/memory –

Ensure your registry can handle glue •

Ensure your resolution services can handle •

IPv6

?Question
?Suggestions