

DNS

A four letter word

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DNS

A four letter word
but it is sexy!

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DNS is Sexy

DYN INC. — BRINGING SEXY BACK TO DNS

Ok, so in truth we aren't bringing it back, but we are introducing the concept in a big way — and encouraging others to join the DNS IS SEXY movement. Why? Because while we love being behind the scenes, powering the Web infrastructure of today's coolest brands like Zappos, restaurant.com, Twitter, HomeAway, Squarespace, 37signals, Carbonmade and more.

See Why DNS IS SEXY



DNS is Sexy Because...

10. You can do all kinds of cool things with it: connect to your home network from anywhere; use your personal URL to view home security cameras and DVRs; host a website; start a blog; share your photos; host a live podcast...and the list goes on.

9. Recursive DNS like our free Internet Guide, can protect your family and friends



Short Lecture

What is DNS?

Words = Numbers

www.apple.com = 17.251.200.32

Concepts

Forward DNS

mail.megaglobalcorp.com = 64.99.80.30

Reverse DNS

64.99.80.30 = mail.megaglobalcorp.com

64.99.80.30 = mail.megaglobalcorp.com

Windows admins might not know this ;-)

**Yeah. SRV records are
important too.**

ie: dig -t SRV _ldap._tcp.domain.com

Architecting DNS Solutions

How many?
Where?
Primary/Secondary?

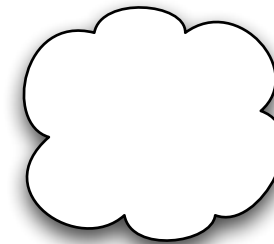
Split DNS

Inside DNS
mail.megaglobalcorp.com =
172.16.250.253



mail.megaglobalcorp.com
172.16.250.253

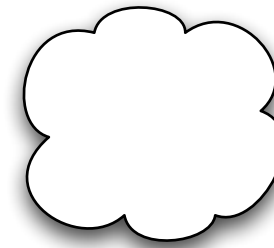
Outside DNS
mail.megaglobalcorp.com =
64.99.80.30



Views

Inside DNS
mail.megaglobalcorp.com =
172.16.250.253

Outside DNS
mail.megaglobalcorp.com =
64.99.80.30



mail.megaglobalcorp.com
172.16.250.253

Mac OS X v10.6: DNS search order behavior

<http://support.apple.com/kb/HT4030>

Test!

dig @dnsserver host.domain.com

dig, nslookup, host : direct queries

ping, dscl, dscacheutil : DirectoryService =
(/etc/hosts + mDNSResponder)

Scenarios

Who controls your DNS?
What do you do when it isn't
you?

**Me: Reverse lookups aren't
working for the box.**

**W2k3 Admin: But I clicked the
PTR record box!**

Subdomains to the rescue!

windowsdomain.com

macs.windowsdomain.com

server.macs.windowsdomain.com

(don't forget your forwarder!)

Mac OS X Server v10.6: Configuring service principals in Active Directory when using a disjoint namespace

<http://support.apple.com/kb/HT3795>

Use ADSI to edit the dNSHostName attribute of the affected Mac OS X Server computer record from:
server.macs.windowsdomain.com to: server.windowsdomain.com

.local domains

Remind your AD admin that the
1990's called and they want
their tech back

iOS 4: Unable to resolve unicast DNS names that end
in .local

<http://support.apple.com/kb/TS3389>

Mac OS X v10.6: Active Directory binding lost on
network transition (.local domain)

<http://support.apple.com/kb/TS3248>

Mac OS X v10.4, 10.5, 10.6: How to look up ".local"
hostnames via both Bonjour and standard DNS

<http://support.apple.com/kb/HT3473>

Free DNS Services!

When a record doesn't exist, it
shouldn't exist!
Why?

Prep for *AD/OD* integrations

Test!

```
computator1:~ admin$ host -t SRV _ldap._tcp.megaglobalcorp.com  
_ldap._tcp.megaglobalcorp.com has SRV record 0 100 389 winserv.megaglobalcorp.com.
```

```
computator1:~ admin$ host -t SRV _kerberos._tcp.megaglobalcorp.com  
_kerberos._tcp.megaglobalcorp.com has SRV record 0 100 88 winserv.megaglobalcorp.com.
```

```
computator1:~ admin$ host -t SRV _kpasswd._tcp.megaglobalcorp.com  
_kpasswd._tcp.megaglobalcorp.com has SRV record 0 100 464 winserv.megaglobalcorp.com.
```

```
computator1:~ admin$ host -t SRV _gc._tcp.megaglobalcorp.com  
_gc._tcp.megaglobalcorp.com has SRV record 0 100 3268 winserv.megaglobalcorp.com.
```

Holmes on Homes Moment:
Make it right!

Inspecting Default DNS Server Setup

Apple OS X Server knows what
is best for itself

Creating Our Own DNS Zones

Examining the DNS Configuration Files

Testing DNS - The Tools

Using Hosts Files

Hand Editing Zone Files

Is it safe now?

Providing Alternate DNS - The Cranky Windows Admin Scenario

DNS Testing Approaches

Round Robin DNS

Poor mans load balancing

Providing Redundancy for DNS Servers

Uses for SRV and other types of records

Discussion and Q/A

Thanks!