#### **DNS Properties and Event Logs**

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#### **Opening the DNS Properties Window**

To open the DNS Properties window, to access and make changes to our DNS server, we right click on the DNS Server name and select Properties from the popup menu.

🚊 dnsmgmt - [DNS\BITS66\Forward Lookup Zon	dnsmgmt - [DNS\BIT566\Forward Lookup Zones\cwr.dyndns.ws]					
🚬 Eile Action <u>V</u> iew <u>W</u> indow <u>H</u> elp				_8×		
DNS cwr.dyndns	<b>ws</b> 3 record(s)					
Image: Configure a DNS Server         New Zone         Set Aging/Scavenging for All Zones         Scavenge Stale Resource Records         Update Server Data Files         Clear Cache         Launch nslookup         All Tasks         New Window from Here         Delete         Refresh         Properties         Help	arent folder) arent folder)	Type Start of Authority (SOA) Name Server (NS) Host (A)	Data [1], bits66., hostmaster. bits66. 192.168.0.2			
Opens the properties dialog box for the current selection						

### The Interface Tab

The first inspect the Interface tab where we will see the IP addresses of the internal and external network interface cards. The default is to listen to all IP addresses for DNS queries. However, we could decide to limit the listening and choose the second radial button option and select the IP addresses which we want to hear.

Next, we will visit the Forwarders tab.

BITS66 Properties				?	×
Debug Loggin Interfaces	g Ev Forwarders	ent Logging Advar	nced	Monitoring Root Hints	
Select the IP addr listen for DNS que you can limit it to	esses that will se ries on all IP addr selected IP addre	rve DNS requ esses defined sses,	iests. The se d for this coi	erver can mputer, or	
Listen on:					
All IP address	es				
C Only the follow	wing IP addresses	:			
I <u>P</u> address:					
		A <u>d</u> d			
<mark>192.168.10.</mark> 192.168.0.1	240	<u>L</u> emove			
			Consul	1	
		ж	Cancel		

### The Forwarders Tab

The Forwarders tab shows the server that resolve DNS request not answered by our DNS server. For home networks that do not have static IP addresses and do not have primary and secondary IP addresses assigned by the ISP, we are using two DNS servers provided by Google.com for public DNS resolution.

If our connection time is longer for a slow network connection, we can increase the time out which is now showing 5 seconds.

ITS66 Properties			? ×
Debug Loggir Interfaces	ng Event Forwarders	Logging Advanced	Monitoring Root Hints
Forwarders are s this server. Forw	ervers that can resol ard queries for name:	ve DNS queries not s in the following D	answered by NS domains.
DNS do <u>m</u> ain:			
All other DNS do	mains		<u>N</u> ew
			Remove
To add a forward below, and then	ler, select a DNS dom click Add.	ain, type the forwa	arder's IP address
Selected domain's	s forwarder I <u>P</u> addres	s list:	
	. A <u>d</u> d		
8.8.8.8	<u>R</u> emove		
0.0.4.4	Up	_	
	D <u>o</u> wn		
, Num <u>b</u> er of secon	ds before forward qu	eries time out:	5
🗌 Do not u <u>s</u> e re	cursion for this doma	in	
	ОК	Cancel	Apply

### The Advanced Tab

The Advanced tab will allow us to view the server options. We will not change any settings at this time.

BITS66 Properties	;			? ×
Debug Loggir	ng Eve	nt Logging	1.1	Monitoring
Interfaces	Forwarders	Advanc	ed	Root Hints
Server version nu	umber: a)			
Disable recurs BIND seconda Fail on load if Enable round Faile netma: Secure cache	ion (also disables fo ries bad zone data robin sk ordering against pollution	orwarders)		
Name checking:	M	ultibyte (UTF8	)	•
Load zone data o	on startup:	om Active Dire	ectory and	registry 💌
🔲 Enable autom	atic scavenging of	stale records		
S <u>c</u> avenging p	eriod: 0		days	<b>V</b>
			<u>R</u> eset	to Default
	0	K (	Iancel	Apply

### The Root Hints Tab

Root Hints are IP addresses that are linked to Full Qualified Domain Names (FQDN). We can copy a list from another server by selecting the Copy from Server button. We can add more FQDNs and IP addresses by selecting the Add button.

T566 Properties					?
Debug Loggin	g	Ever	nt Logging	<u> </u>	Monitoring
Interfaces	Forv	varders	Adva	nced	Root Hints
Root hints are use	ed to fin	d other DNS	5 servers o	n the net	work.
Server Fully Qu	alified Do	omain Name	(FQDN)	IP Addr	ess 🔺
a.root-servers.	net.			[198.41	0.4]
b.root-servers.	net.			Unknow	/n
c.root-servers.r	net.			[192.33	8.4.12]
d.root-servers.	net.			[128.8.	10.90]
e.root-servers.	net.			[192.20	3.230.10]
f.root-servers.r	iet.			[192.5.	5.241]
g.root-servers.	net.			[192.11	2.36.4]
n.root-servers.	net.			[128,63	5.2.53]
i.root-servers.n	ec.			[192.36	0.148.17]
j.root-servers.n	et.			[192,56 Upkper	0.120.30J
L root-servers.r	at			Unknow	
Infoot-servers.⊓	ес.			OHKIOW	
A <u>d</u> d	<u>E</u> dit.		<u>R</u> emove	<u>_</u>	opy from Server
		Ok	:	Cancel	Apply

## Adding a New Resource Record

After selecting the Add button, the New Resource Record window appears. We type a real URL such as <u>www.yahoo.com</u> into the textbox and press the Resolve button. A list of IP addresses appears that is associated with the Yahoo domain. Press the OK button and at the Root Hints tab press the Apply button to make the changes.

ew Resource Record			? ×
Name Server (NS)			
Enter a server name and o identify the name server. Server fully qualified doma	one or more IP ad	ldresses. Both a	re required to
www.yahoo.com		Browse	Resol <u>v</u> e
I <u>P</u> address:			
	A <u>d</u> d		
76.13.113.141 69.147.125.65 76.13.113.140	<u>R</u> emove		
	D <u>o</u> wn		
		ОК	Cancel

## The Monitoring Tab

The Monitoring Tab will tell us if our DNS server is resolving requests.

We check the simple query against the DNS server and a recursive query to other DNS servers checkboxes. We then press the Test Now button and both tests should pass. We can set the interval for the test to whatever seconds, minutes or hours we wish.

3ITS66 Properties			? ×					
Interfaces Debug Loggin	Forwarders	Advanced	d Root Hints Monitoring					
To verify the configuration of the server, you can perform manual or automatic testing.								
Select a test type	e:							
🔽 A simple quer	y against this DN	5 server						
🔽 A regursive qu	uery to other DN:	S servers						
To perform the te	est immediately, o	lick Test Now.	Test Now					
Perform autor	matic testing at t	he following interv	/al:					
T <u>e</u> st interval:	10 min	iutes 💌	]					
Te <u>s</u> t results:								
Date	Time	Simple Query	Recursive					
5/18/2010	9:13:58 AM	Pass	Pass					
5/18/2010	9:12:13 AM	Pass	Pass					
I								
		ок   са	ancel Apply					

## The Event Logging Tab

The Event Logging Tab is presently set for recording all events. However, we can select no events, errors only and errors and warnings.

We choose to log all events.

ITS66 Properties						? ×
Interfaces Debug Loggin	Forv g	varders Event	Adv Logging	anced	Root Hints Monitoring	
The DNS event lo events encounter analyze server pe	g mainta ed by th erforman	ins a record 1e DNS serve 1ce.	of errors er. You c	s, warnings, an use this i	, and other information to	
Log the following	events:					
C Errors only	reieac					
All events	mings					
i hi o <u>r</u> ono						
		ОК		Cancel	Apply	

# The Debug Logging Tab

The Debug Logging tab can record packets sent and received to the log file.

We will keep this setting off by default.

566 Properties	<u>?</u>
Interfaces   Debug Logging	Forwarders Advanced Root Hints Event Logging Monitoring
To assist with debug by the DNS server t Log packets for	ging, you can record the packets sent and received a log file. Debug logging is disabled by default. debugging
Packet direction: <u>Outgoing</u> <u>Incoming</u>	Transport protocol:         select at       Image: UDP         least one       Image: UDP         least one       Image: UDP
Packet contents; Queries/Transfe Update <u>s</u> Notifications	's Packet type; Request select at select at least one
Other options: Details Filter pagkets by	IP address Eilter
Log file	e;
Maximum size (by	es); 50000000
	OK Cancel <u>A</u> pply

### The DNS Event Viewer

In our DNS event viewer, we can see there are only information and warning messages. We do not have any DNS errors in the log.

To check the most current warning, we double clock on the latest warning.

🚊 dnsmgmt - [DNS\BITS66\Event Viewer\DNS Events]							
🚬 Eile Action View Window Ho	elp						
A DNS	DNS Events Fi	iltered view shov	ving 49 of 49 ev	ent(s)			
En BITS66	Туре	Date	Time	Source	Category	Event	User 🔺
	Information	5/18/2010	8:37:37 AM	DNS	None	3150	N/A
	Information	5/18/2010	8:37:37 AM	DNS	None	3150	N/A
192.168.0.x Subnet	Information	5/17/2010	8:09:41 PM	DNS	None	800	N/A
Event Viewer	Information	5/17/2010	8:09:41 PM	DNS	None	800	N/A
DNS Events	Information	5/17/2010	8:04:41 PM	DNS	None	2	N/A
~~~~	🔥 Warning	5/17/2010	8:04:35 PM	DNS	None	414	N/A
	Information	5/17/2010	7:10:42 PM	DNS	None	3	N/A
	🚯 Warning	5/17/2010	7:10:42 PM	DNS	None	414	N/A
	Information	5/17/2010	11:04:53	DNS	None	800	N/A
	🔾 Information	5/17/2010	11:04:53	DNS	None	800	N/A 🚽
	Information	5/17/2010	10:59:52	DNS	None	2	N/A
	🚯 Warning	5/17/2010	10:59:51	DNS	None	414	N/A
	( Information	5/17/2010	10:52:47	DNS	None	800	N/A
	Information	5/17/2010	10:52:47	DNS	None	800	N/A
	Information	5/17/2010	10:47:47	DNS	None	2	N/A
	Warning	5/17/2010	10:47:43	DNS	None	414	N/A
	( Information	5/13/2010	7:32:43 AM	DNS	None	800	N/A
	( Information	5/13/2010	7:32:43 AM	DNS	None	800	N/A
	Information	5/13/2010	7:27:42 AM	DNS	None	2	N/A
	Warning	5/13/2010	7:27:42 AM	DNS	None	414	N/A
	Information	5/12/2010	8:48:53 AM	DNS	None	800	N/A
	( Information	5/12/2010	8:48:53 AM	DNS	None	800	N/A 💌
<u> </u>							•

### **Event Property Window**

The current DNS domain for our server is not a FQDN. We will address this when we upgrade the server by adding Active Directory. At hat time our server will have a FQDN associated with it.

Event Prop	erties				? ×
Event					
D <u>a</u> te:	5/17/2010	<u>S</u> ource:	DNS		<b>†</b>
Ti <u>m</u> e:	8:04:35 PM	Category:	None		
Typ <u>e</u> :	Warning	Event <u>I</u> D:	414		+
<u>U</u> ser:	N/A				
C <u>o</u> mputer	: BITS66				
<u>D</u> escriptio	on:				
You might server co reference compute	ne is a single la ther than "host of have forgotte of the forg	bel hostnan microsoft.c n to configu ore informati gure the prin Help.	nas no b ne with n om''). ure a prim on, see e nary DNS	ary DNS domain ary DNS domain ither "DNS serve i suffix for a clien	for the er log
Deter 6		ias orny a sir	igie iabe	rhame, air zones	
Daga: Q	bytes C W	oras			
					- -
			IK	Cancel	Apply