Forwarding

A *forwarder* is a network DNS server that you configure to forward DNS queries for host names that it cannot resolve to other DNS servers for resolution. In a typical environment, the internal DNS server forwards queries for external DNS host names to DNS servers on the Internet. For example, if the local network DNS server cannot authoritatively resolve a query for <u>www.microsoft.com</u>, then the local DNS server can forward the query to the internet service provider's (ISP's) DNS server for resolution.

Conditional Forwarding

You also can use conditional forwarders to forward queries according to specific domain names. A conditional forwarder is a setting that you configure on a DNS server that enables forwarding DNS queries based on the query's DNS domain name. For example, you can configure a DNS server to forward all queries that it receives for names ending with corp.adatum.com to the IP address of a specific DNS server, or to the IP addresses of multiple DNS servers. This can be useful when you have multiple DNS namespaces in a forest. For example, suppose Contoso.com and Adatum.com are merged. Rather than each domain having to host a complete replica of the other domain's DNS database, you could create conditional forwarders so that they point to each other's specific DNS servers for resolution of internal DNS names

On your Windows Server 2012/2012 R2 server, bring up the Start Menu and click on Administrative Tools.

Start



A2. When the Administrative Tools open, double-click the DNS console icon.

🖄 l 🗋 📗 = l	Administrative Tools					
File Home Share	View					
💿 💿 🔻 👘 K Control Panel → All Control Panel Items → Administrative Tools →						
🔆 Favorites	Name	Date modified	Туре	Size		
Desktop	퉬 Terminal Services	6/16/2013 1:38 AM	File folder			
🐌 Downloads	🛃 Active Directory Administrative Center	6/15/2013 3:43 PM	Shortcut			
🕮 Recent places	active Directory Domains and Trusts	6/15/2013 3:43 PM	Shortcut			
	🔝 Active Directory Module for Windows Po	6/15/2013 3:44 PM	Shortcut			
🌉 This PC	💦 Active Directory Sites and Services	6/15/2013 3:43 PM	Shortcut			
隆 Desktop	🔝 Active Directory Users and Computers	6/15/2013 3:43 PM	Shortcut			
Documents	📝 ADSI Edit	6/15/2013 3:43 PM	Shortcut			
🐌 Downloads	Component Services	6/15/2013 3:47 PM	Shortcut			
🌗 Music	🛃 Computer Management	6/15/2013 3:43 PM	Shortcut			
📄 Pictures	눩 Defragment and Optimize Drives	6/15/2013 3:35 PM	Shortcut			
📔 Videos	📸 DFS Management	6/15/2013 3:42 PM	Shortcut			
🊢 Local Disk (C:)	C Dick Cleanup	6/15/2013 3:46 PM	Shortcut			
	📸 DNS	6/15/2013 3:43 PM	Shortcut			
📬 Network	Erent Viewer	6/15/2013 3:44 PM	Shortcut			
	🐻 File Server Resource Manager	6/15/2013 3:41 PM	Shortcut			
	🚮 Group Policy Management	6/15/2013 3:45 PM	Shortcut			
	🔝 iSCSI Initiator	6/15/2013 3:47 PM	Shortcut			
	🛃 Local Security Policy	6/15/2013 3:43 PM	Shortcut			
	📷 ODBC Data Sources (32-bit)	6/15/2013 3:49 PM	Shortcut			
	📷 ODBC Data Sources (64-bit)	6/15/2013 3:49 PM	Shortcut			
	Performance Monitor	6/15/2013 3:41 PM	Shortcut			
	Resource Monitor	6/15/2013 3:41 PM	Shortcut			
	🛃 Security Configuration Wizard	6/15/2013 3:34 PM	Shortcut			
	🔊 Server Manager	6/15/2013 3:44 PM	Shortcut			
	Services	6/15/2013 3:43 PM	Shortcut			
	📷 Share and Storage Management	6/15/2013 3:42 PM	Shortcut			
	😹 System Configuration	6/15/2013 3:42 PM	Shortcut			
	🛃 System Information	6/15/2013 3:42 PM	Shortcut			

35 items

This will open the DNS Manager.

A3. In the DNS Manager, double-click on Forwarders.



You should be taken to the Forwarders tab in the server's Properties.

A4. Click the Edit... button.

DC1 Properties ? X					
Debug Logging Interfaces	Event Loggin Forwarders	ng Monitoring Secu Advanced Boot Hin		Security Root Hints	
Forwarders are DN queries for records	Forwarders are DNS servers that this server can use to resolve DNS queries for records that this server cannot resolve.				
IP Address		Server FQDN			
✓ Use root hints if	Use root hints if no forwarders are available				
Note: If conditional forwarders are defined for a given domain, they will be used instead of server-level forwarders. To create or view conditional forwarders, navigate to the Conditional Forwarders node in the scope tree.					

This will open the Edit Forwarders dialog.

A5. Type in the IP addresses for your SecureSchool appliance.

Edit Forwarders X				
IP addresses of forwar	ding servers:			
IP Address	Server FQDN	Validated	Delete	
<click add="" an<="" here="" th="" to=""><td>IP Address or DNS Name ></td><td></td><td>Up</td></click>	IP Address or DNS Name >		Up	
			Down	
Number of seconds before forward queries time out: 3 The server EODN will not be available if the appropriate reverse lookup zones and entries are not				
configured.				
			OK Cancel	

It should look something like this when you're done.

A6. Click OK to close the dialog box.

	Edit Fo	warders		x
IP addresses of forwarding s	ervers:			
IP Address	Server FQDN	Validated		<u>D</u> elete
	realise), gendra o	ОК		Up
				D <u>o</u> wn
Number of seconds before forward queries time out: 3				
The server FQDN will not be available if the appropriate reverse lookup zones and entries are not configured.				
			ОК	Cancel
		_	UK	Cancer

After clicking OK, you'll be taken back to the DNS server's Properties. It should look something like the screenshot below.

A7. By default, the "Use root hints if no forwarders are available" box will be checked. <u>Uncheck</u> <u>it.</u>

	DC1 Pro	perties	? X		
Debug Logging Interfaces	Event Loggin Forwarders	g Monitoring Advanced	Security Root Hints		
Forwarders are DNS servers that this server can use to resolve DNS queries for records that this server cannot resolve.					
Use root hints if no forwarders are available					
Note: If conditional forwarders are defined for a given domain, they will be used instead of server-level forwarders. To create or view conditional forwarders, navigate to the Conditional Forwarders node in the scope tree.					
0	K Cano	el <u>A</u> pply	Help		

A8. When you're done, click OK.