

Process Owner: IT Operations	FORM	F-CMG-3.1
	<i>Re-enable DNS recursion for all DNS servers in Jaka and G2</i>	

Request Information				
Requestor	Alvinn P. Medrano			
Implementing Team	Systems and Server Operations			
Ticket Number/s	201916267			
Change Classification	<input checked="" type="checkbox"/>	Major	<input type="checkbox"/>	Minor
After the fact	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Emergency	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Proposed Change Date	June 14, 2019			
Proposed Change Start/End Time	22:00			
Proposed Change Verification Time	23:30			

Objective of the change
<ul style="list-style-type: none"> To allow incoming DNS request To resolved external DNS on applications

Technical/Operational Impact of the change		
Negative: DNS server resorts to Root Hints servers for outside resolution.	Beneficial: Allows your DNS server to receive a query for external names, forward the query to the remote server, and deliver the response to the requestor	Neutral: Setting pretty much disables Root Hints forcing it to only rely on the Forwarders.

Affected IT Infrastructure components			
Site	Hostname	IP Address	Function
GL2	GL2-VWIN-DC01	172.22.1.1	Domain controller for G2 main
GL2	GL2-VWIN-DC02	172.22.1.2	Domain controller 2 for G2
JAKA	JKA-VWIN-DC01	172.17.0.121	Domain controller for Jaka main

Affected Departments and Corresponding Contact Persons		
Department	Contact Name	Contact Info
Server Operations	Rovie Salvatierra	0917-627-4325

Test Environment implementation and Verification Summary
No Test implementation to be performed.

Test Environment Results Summary
No Test implementation to be performed.

Configuration Change Template

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Baseline File	3.1.137 DOMAIN FOREST
Baseline Version	5

Baseline File Changes:

Existing Configuration	Proposed Change	Impact	Section
- 3.1.137 DOMAIN FOREST	- To revert the original DNS server settings and enable DNS recursion.	- Forces it to use its forwarder for all recursive queries	DNS

Physical Implementation Procedures / Advisory

No physical implementation to be performed.

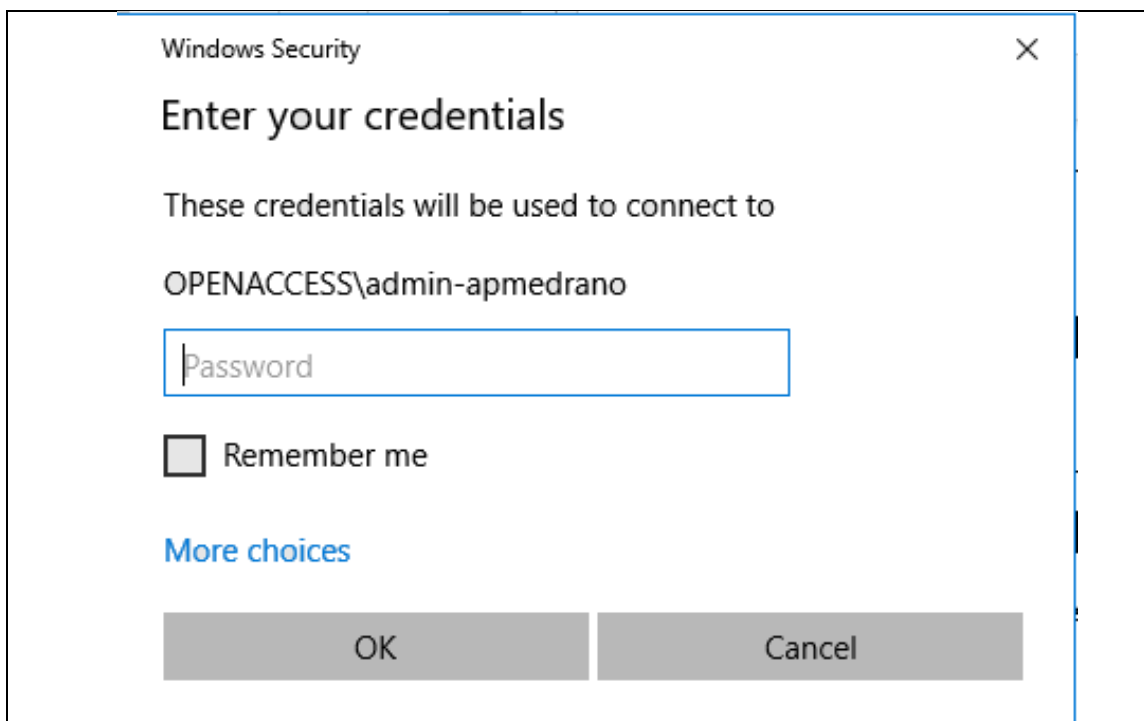
Backup Procedures

No back-up processes

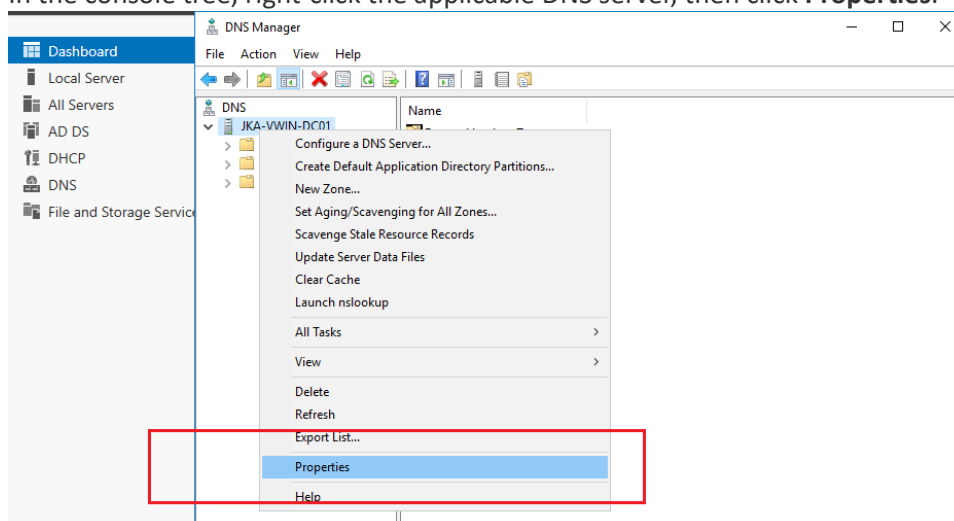
Technical Configuration Procedures

1. Connect to FortiCliet VPN via DOU Security as MFA.
2. Access DNS server using their management IP via RDP and enter admin credentials.

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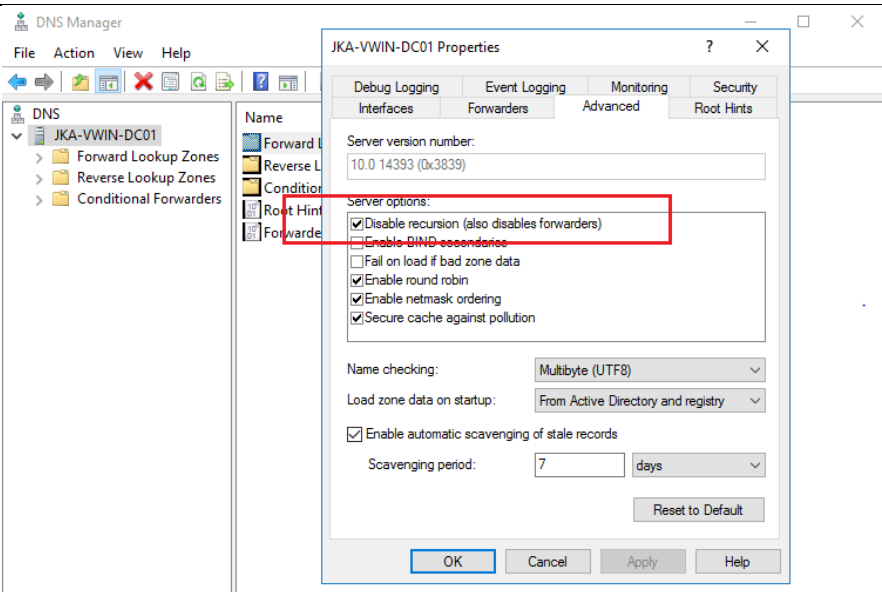


3. **Open DNS Manager** (To open DNS Manager, click **Start**, point to **Administrative Tools**, and then click **DNS**.)
4. In the console tree, right-click the applicable DNS server, then click **Properties**.



5. Click the **Advanced** tab.
6. In **Server options**, select the **Disable recursion** check box to enable it.

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7. Under the **Root Hints** tab, delete all root hints entries, and then click **OK**.

8. **Restart the DNS service** (from the Services control panel)

Verification Procedures

1. Verifying that DNS allow recursion from the outside of the network You can use the dns-recursion nmap script.

```
C:\>nmap -sU -p53 --script=dns-recursion 10.0.1.1

Starting Nmap 7.00 ( https://nmap.org ) at 2016-01-04 12:57 SA Pacific Standard Time
Nmap scan report for 10.0.1.1
Host is up (0.0030s latency).
PORT      STATE SERVICE
53/udp    open  domain
|_dns-recursion: Recursion appears to be enabled
MAC Address: 64:A5:C3:5D:38:5D (Apple)
```

2. If its disabled, you will only get an indication of an open port.

```
C:\>nmap -sU -p53 --script=dns-recursion 200.13.2

Starting Nmap 7.00 ( https://nmap.org ) at 2016-01-04 12:58 SA Pacific Standard Time
Nmap scan report for net.co (200.13.2)
Host is up (0.012s latency).
PORT      STATE SERVICE
53/udp    open  domain

Nmap done: 1 IP address (1 host up) scanned in 3.02 seconds
```

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Back-out Procedures

1. **Open DNS Manager** (To open DNS Manager, click **Start**, point to **Administrative Tools**, and then click **DNS**.)
2. In the console tree, right-click the applicable DNS server, then click **Properties**.
3. Click the **Advanced** tab.
4. In **Server options**, select the **Disable recursion** check box.

The screenshot shows the 'Advanced' tab of the DNS Manager properties window. The 'Server options' section is highlighted with a red box. It contains the following options:

- ☐ Disable recursion (also disables forwarders)
- ☐ BIND secondaries
- ☐ Fail on load if bad zone data
- ☒ Enable round robin
- ☒ Enable netmask ordering
- ☒ Secure cache against pollution

Other visible settings include:

- Server version number: 6.1 7601 (0x1db1)
- Name checking: Multibyte (UTF8)
- Load zone data on startup: From Active Directory and registry
- ☐ Enable automatic scavenging of stale records
- Scavenging period: 0 days
- Buttons: OK, Cancel, Apply, Help, Reset to Default