

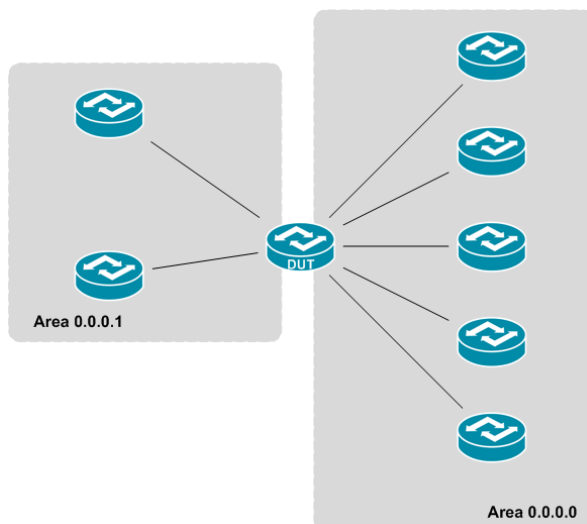
# How to use SNMP to get OSPF Area ID

Created at 2011/05/30

## Introduction

Simple Network Management Protocol (SNMP) is a widely used protocol for monitoring the health and welfare of network equipment.

## Topology



There are two OSPF area (0.0.0.0 and 0.0.0.1) in this topology, the DUT is an area border router which attach to both of area.

## OID

Name: ospfAreaId  
Type: OBJECT-TYPE  
OID: 1.3.6.1.2.1.14.2.1.1  
Full path: iso(1).org(3).dod(6).internet(1).mgmt(2).mib-2(1).ospf(1.4).ospfAreaTable(2).ospfAreaEntry(1).ospfAreaId(1)  
Module: OSPF-MIB  
|  
Parent: ospfAreaEntry  
Next sibling: ospfAuthType

Numerical syntax: IP Address  
Base syntax: IpAddress  
Composed syntax: AreaID  
Status: current  
Max access: read-only

Reference: [OSPF Version 2, Appendix C.2 Area parameters](#)

Description: [A 32-bit integer uniquely identifying an area. Area ID 0.0.0.0 is used for the OSPF backbone.](#)

## Step-by-Step

### I. SNMP Command

```
snmpwalk -v 2c -c private <DUT IP> 1.3.6.1.2.1.14.2.1.1
```

### II. Result

```
C:\>snmpwalk -v 2c -c private -m ALL 10.90.90.91 1.3.6.1.2.1.14.2.1.1
OSPF-MIB::ospfAreaId.0.0.0.0 = IpAddress: 0.0.0.0
OSPF-MIB::ospfAreaId.0.0.0.1 = IpAddress: 0.0.0.1
```

We can see the DUT attach to backbone area and 0.0.0.1.

## Reference

- This example is made by DGS-3600 series in firmware R 2.80.B61.
- SNMP Tools is Net-SNMP.