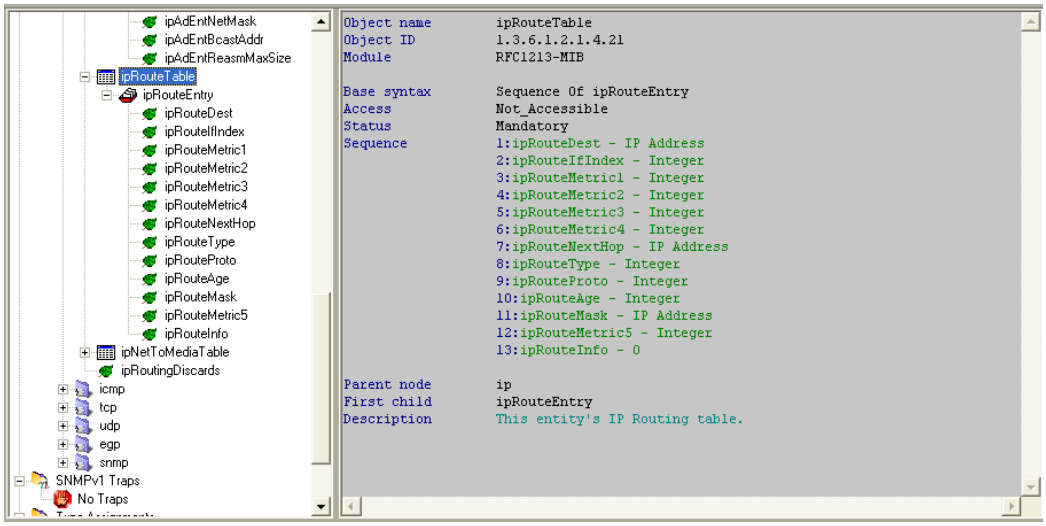
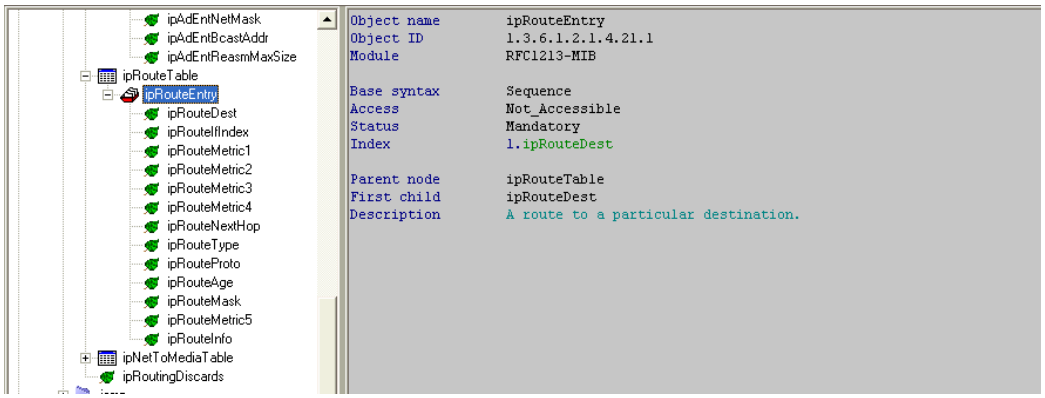
How to get IP routing table information with SNMP command

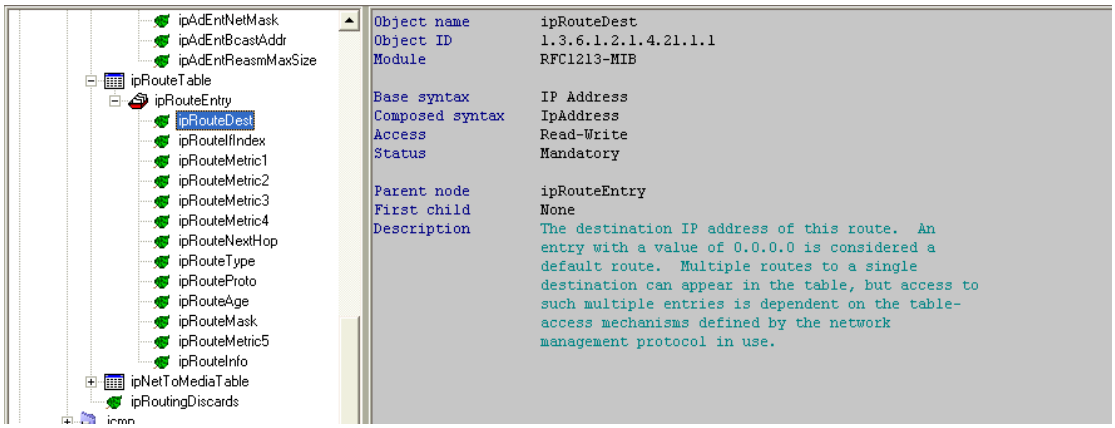
Follow the command below to get the information.

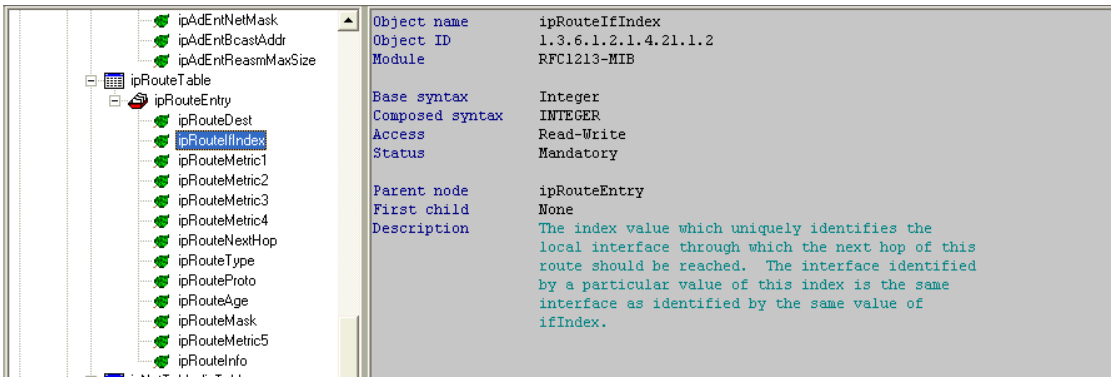
```
#snmpwalk -v 2c -c private 192.168.1.24 1.3.6.1.2.1.4.20
```

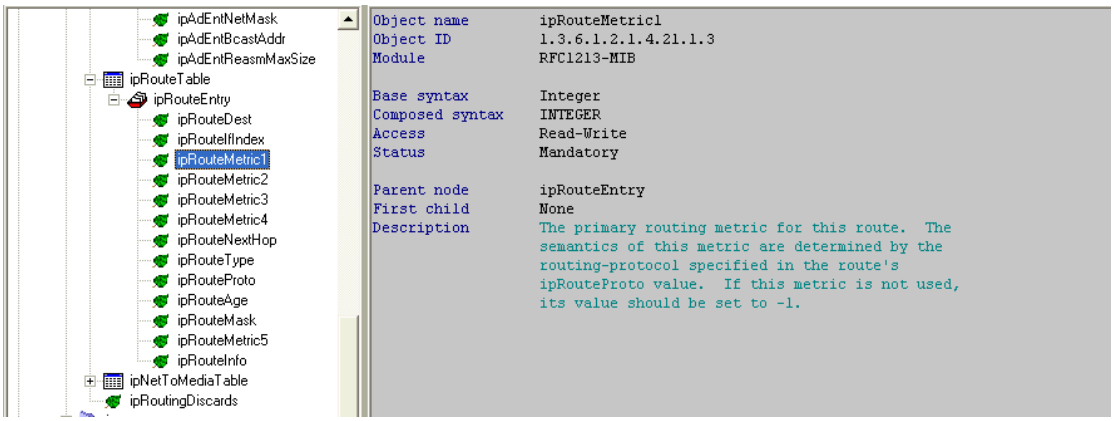
Please refer the following the description for IPIF OID meaning

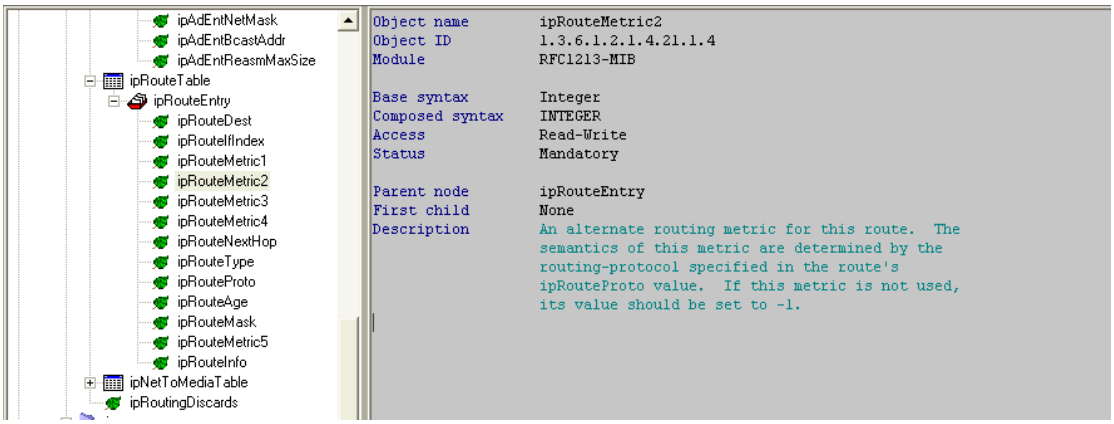


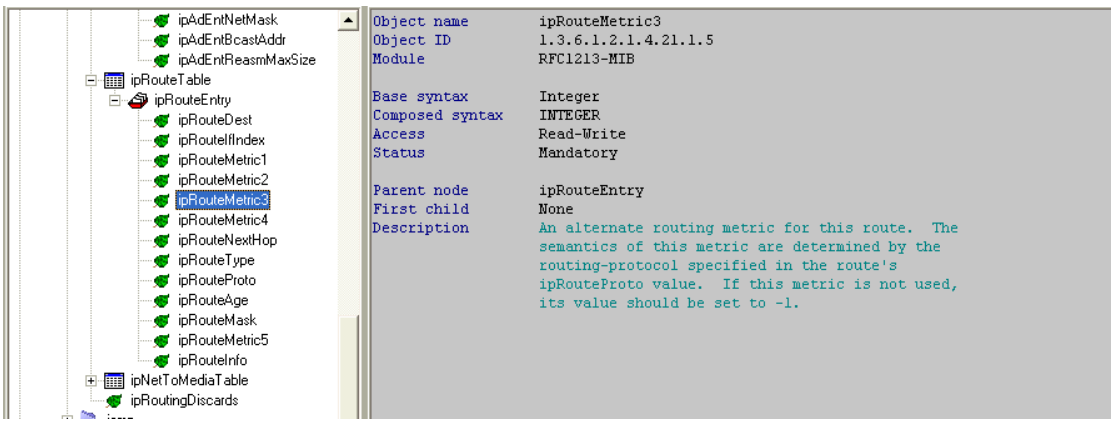


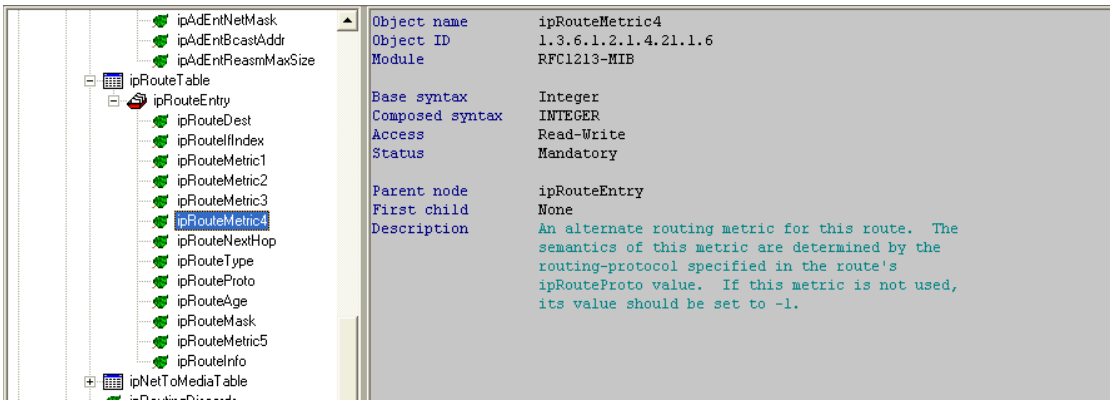


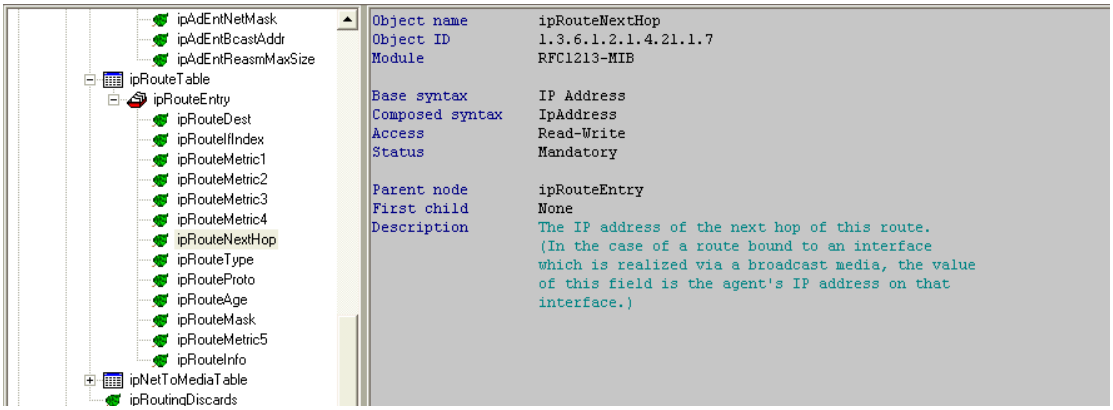

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
Object name ipRouteIfIndex
Object ID 1.3.6.1.2.1.4.21.1.2
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description The index value which uniquely identifies the local interface through which the next hop of this route should be reached. The interface identified by a particular value of this index is the same interface as identified by the same value of ifIndex.

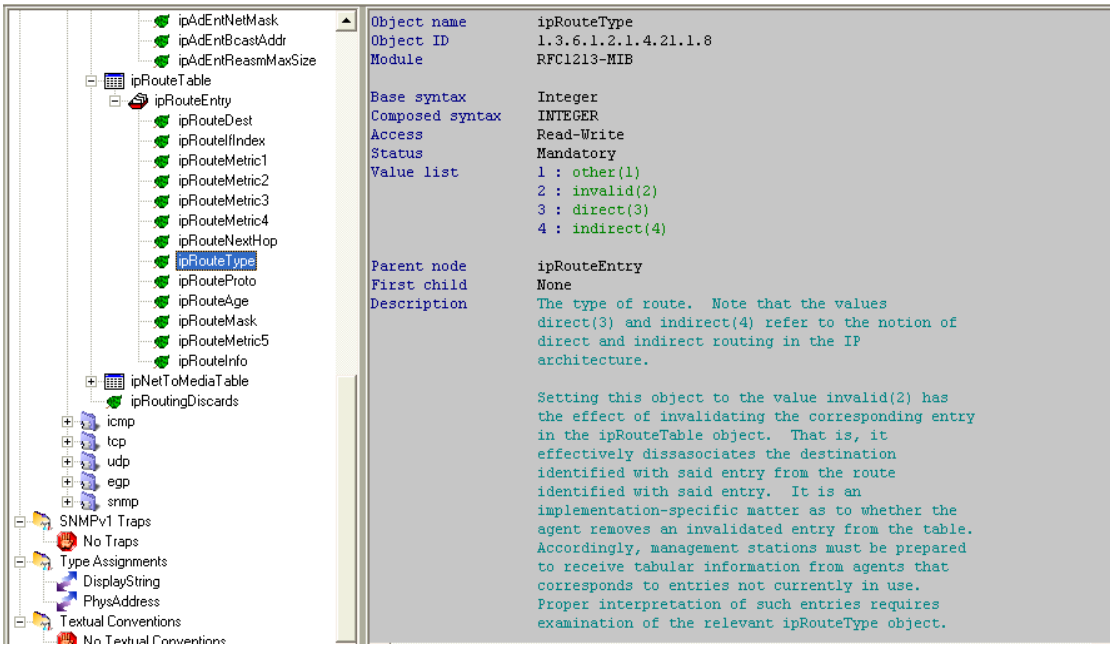

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
Object name ipRouteMetric1
Object ID 1.3.6.1.2.1.4.21.1.3
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description The primary routing metric for this route. The semantics of this metric are determined by the routing-protocol specified in the route's ipRouteProto value. If this metric is not used, its value should be set to -1.

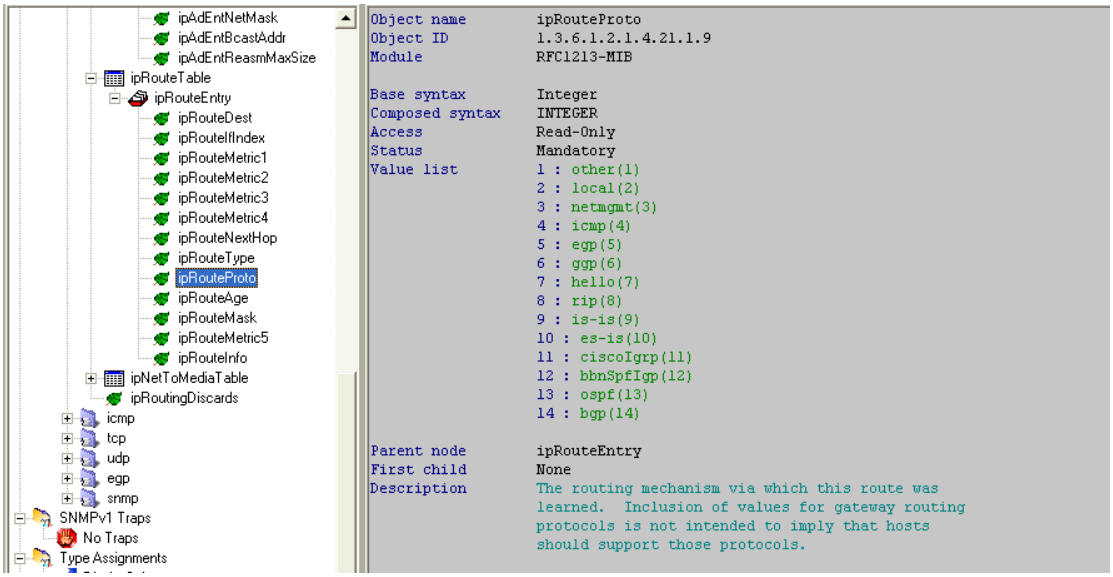

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
Object name ipRouteMetric2
Object ID 1.3.6.1.2.1.4.21.1.4
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description An alternate routing metric for this route. The semantics of this metric are determined by the routing-protocol specified in the route's ipRouteProto value. If this metric is not used, its value should be set to -1.

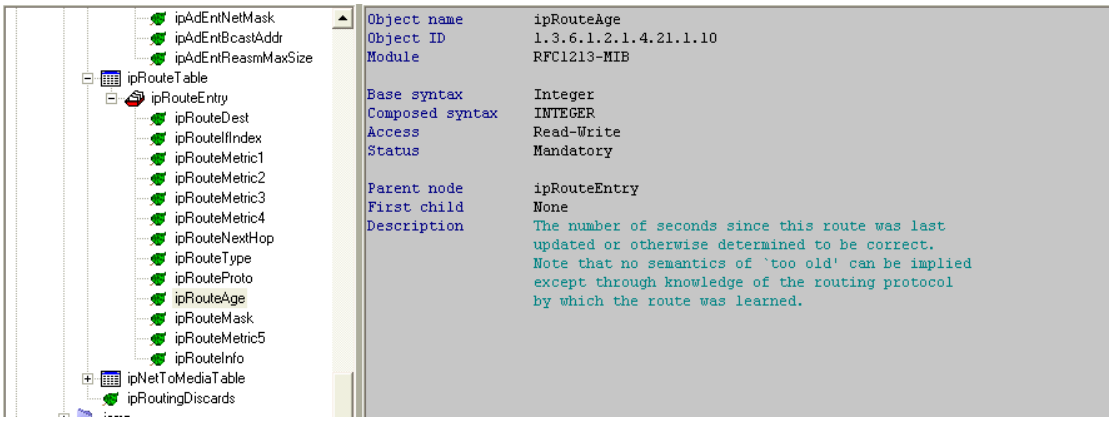

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
Object name ipRouteMetric3
Object ID 1.3.6.1.2.1.4.21.1.5
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description An alternate routing metric for this route. The semantics of this metric are determined by the routing-protocol specified in the route's ipRouteProto value. If this metric is not used, its value should be set to -1.

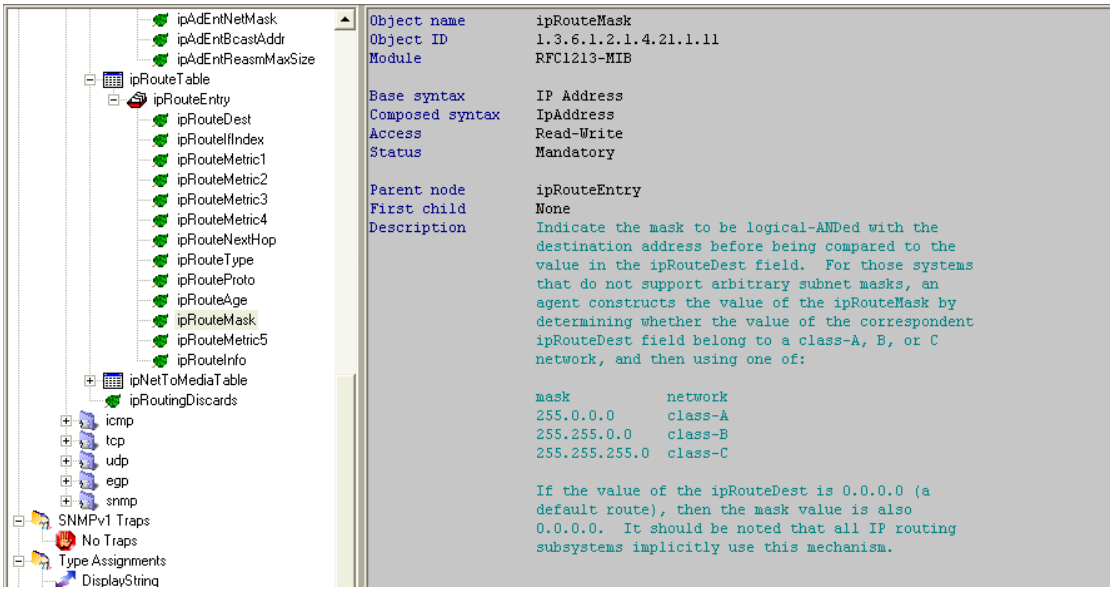

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
Object name ipRouteMetric4
Object ID 1.3.6.1.2.1.4.21.1.6
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description An alternate routing metric for this route. The semantics of this metric are determined by the routing-protocol specified in the route's ipRouteProto value. If this metric is not used, its value should be set to -1.

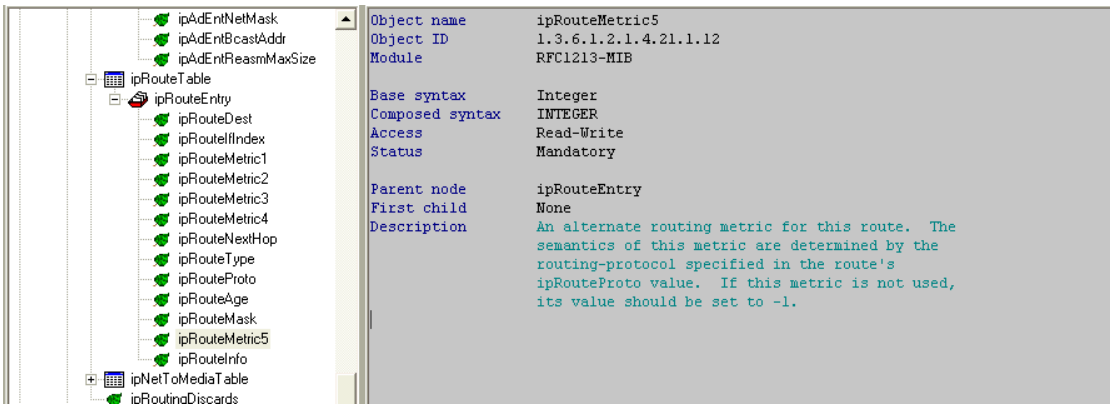

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
Object name ipRouteNextHop
Object ID 1.3.6.1.2.1.4.21.1.7
Module RFC1213-MIB
Base syntax IP Address
Composed syntax IpAddress
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description The IP address of the next hop of this route. (In the case of a route bound to an interface which is realized via a broadcast media, the value of this field is the agent's IP address on that interface.)

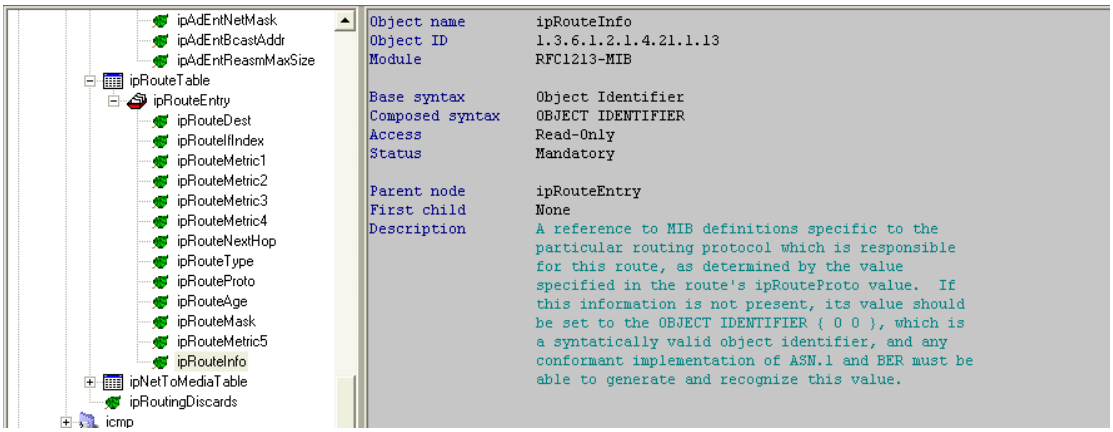

ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
icmp
tcp
udp
egp
snmp
SNMPv1 Traps
No Traps
Type Assignments
DisplayString
PhysAddress
Textual Conventions
Object name ipRouteType
Object ID 1.3.6.1.2.1.4.21.1.8
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Value list 1 : other(1)
2 : invalid(2)
3 : direct(3)
4 : indirect(4)
Parent node ipRouteEntry
First child None
Description The type of route. Note that the values direct(3) and indirect(4) refer to the notion of direct and indirect routing in the IP architecture.
Setting this object to the value invalid(2) has the effect of invalidating the corresponding entry in the ipRouteTable object. That is, it effectively dissasociates the destination identified with said entry from the route identified with said entry. It is an implementation-specific matter as to whether the agent removes an invalidated entry from the table. Accordingly, management stations must be prepared to receive tabular information from agents that corresponds to entries not currently in use. Proper interpretation of such entries requires examination of the relevant ipRouteType object.


ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
icmp
tcp
udp
egp
snmp
SNMPv1 Traps
No Traps
Type Assignments
Object name ipRouteProto
Object ID 1.3.6.1.2.1.4.21.1.9
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Only
Status Mandatory
Value list 1 : other(1)
2 : local(2)
3 : netmgmt(3)
4 : icmp(4)
5 : egp(5)
6 : ggp(6)
7 : hello(7)
8 : rip(8)
9 : is-is(9)
10 : es-is(10)
11 : ciscoIgrp(11)
12 : bbnSpfIgp(12)
13 : ospf(13)
14 : bgp(14)
Parent node ipRouteEntry
First child None
Description The routing mechanism via which this route was learned. Inclusion of values for gateway routing protocols is not intended to imply that hosts should support those protocols.


ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
Object name ipRouteAge
Object ID 1.3.6.1.2.1.4.21.1.10
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description The number of seconds since this route was last updated or otherwise determined to be correct. Note that no semantics of `too old' can be implied except through knowledge of the routing protocol by which the route was learned.


ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
icmp
tcp
udp
egp
snmp
SNMPv1 Traps
No Traps
Type Assignments
DisplayString
Object name ipRouteMask
Object ID 1.3.6.1.2.1.4.21.1.11
Module RFC1213-MIB
Base syntax IP Address
Composed syntax IpAddress
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description Indicate the mask to be logical-ANDed with the destination address before being compared to the value in the ipRouteDest field. For those systems that do not support arbitrary subnet masks, an agent constructs the value of the ipRouteMask by determining whether the value of the correspondent ipRouteDest field belong to a class-A, B, or C network, and then using one of:
mask network
255.0.0.0 class-A
255.255.0.0 class-B
255.255.255.0 class-C
If the value of the ipRouteDest is 0.0.0.0 (a default route), then the mask value is also 0.0.0.0. It should be noted that all IP routing subsystems implicitly use this mechanism.


ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
Object name ipRouteMetric5
Object ID 1.3.6.1.2.1.4.21.1.12
Module RFC1213-MIB
Base syntax Integer
Composed syntax INTEGER
Access Read-Write
Status Mandatory
Parent node ipRouteEntry
First child None
Description An alternate routing metric for this route. The semantics of this metric are determined by the routing-protocol specified in the route's ipRouteProto value. If this metric is not used, its value should be set to -1.


ipAdEntNetMask
ipAdEntBcastAddr
ipAdEntReasmMaxSize
ipRouteTable
ipRouteEntry
ipRouteDest
ipRouteIfIndex
ipRouteMetric1
ipRouteMetric2
ipRouteMetric3
ipRouteMetric4
ipRouteNextHop
ipRouteType
ipRouteProto
ipRouteAge
ipRouteMask
ipRouteMetric5
ipRouteInfo
ipNetToMediaTable
ipRoutingDiscards
icmp
Object name ipRouteInfo
Object ID 1.3.6.1.2.1.4.21.1.13
Module RFC1213-MIB
Base syntax Object Identifier
Composed syntax OBJECT IDENTIFIER
Access Read-Only
Status Mandatory
Parent node ipRouteEntry
First child None
Description A reference to MIB definitions specific to the particular routing protocol which is responsible for this route, as determined by the value specified in the route's ipRouteProto value. If this information is not present, its value should be set to the OBJECT IDENTIFIER { 0 0 }, which is a syntatically valid object identifier, and any conformant implementation of ASN.1 and BER must be able to generate and recognize this value.