

-- extracted from rfc2925.txt  
-- at Wed Oct 4 07:11:21 2000

DISMAN-NSLOOKUP-MIB DEFINITIONS ::= BEGIN

**IMPORTS**

MODULE-IDENTITY,  
OBJECT-TYPE,  
Unsigned32,  
mib-2,  
Integer32  
FROM SNMPv2-SMI  
RowStatus  
FROM SNMPv2-TC  
MODULE-COMPLIANCE,  
OBJECT-GROUP  
FROM SNMPv2-CONF  
SnmpAdminString  
FROM SNMP-FRAMEWORK-MIB  
InetAddressType,  
InetAddress  
FROM INET-ADDRESS-MIB;

-- RFC2851

**lookupMIB MODULE-IDENTITY**

LAST-UPDATED "200009210000Z" -- Sep 21, 2000 12:00:00 AM  
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**DESCRIPTION**

"The Lookup MIB (DISMAN-NSLOOKUP-MIB) enables determination of either the name(s) corresponding to a host address or of the address(es) associated with a host name at a remote host."

REVISION "200009210000Z" -- Sep 21, 2000 12:00:00 AM

**DESCRIPTION**

"Initial version, published as RFC 2925."

-- 1.3.6.1.2.1.82 -- ::= { mib-2 82 }  
-- Top level structure of the MIB

**lookupObjects OBJECT IDENTIFIER**

-- 1.3.6.1.2.1.82.1 -- ::= { lookupMIB 1 }

**lookupConformance OBJECT IDENTIFIER**

-- 1.3.6.1.2.1.82.2 -- ::= { lookupMIB 2 }  
-- Simple Object Definitions

**lookupMaxConcurrentRequests OBJECT-TYPE**

SYNTAX Unsigned32  
UNITS "requests"  
MAX-ACCESS read-write  
STATUS current

**DESCRIPTION**

"The maximum number of concurrent active lookup requests that are allowed within an agent implementation. A value of 0 for this object implies that there is no limit for the number of concurrent active requests in effect."

DEFVAL { 10 }

-- 1.3.6.1.2.1.82.1.1 -- ::= { lookupObjects 1 }

**lookupPurgeTime OBJECT-TYPE**

SYNTAX Unsigned32 (0..86400)  
UNITS "seconds"

MAX-ACCESS read-write  
STATUS current  
DESCRIPTION

*"The amount of time to wait before automatically deleting an entry in the lookupCtlTable and any dependent lookupResultsTable entries after the lookup operation represented by an lookupCtlEntry has completed.*

*An lookupCtlEntry is considered complete when its lookupCtlOperStatus object has a value of completed(3)."*

DEFVAL { 900 }

-- 1.3.6.1.2.1.82.1.2 -- ::= { lookupObjects 2 }  
-- Lookup Control Table

lookupCtlTable OBJECT-TYPE

SYNTAX SEQUENCE OF LookupCtlEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

*"Defines the Lookup Control Table for providing the capability of performing a lookup operation, gethostbyname or gethostbyaddr, from a remote host."*

-- 1.3.6.1.2.1.82.1.3 -- ::= { lookupObjects 3 }

lookupCtlEntry OBJECT-TYPE

SYNTAX LookupCtlEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

*"Defines an entry in the lookupCtlTable. A lookupCtlEntry is initially indexed by lookupCtlOwnerIndex, which is of type SnmpAdminString, a textual convention that allows for use of the SNMPv3 View-Based Access Control Model (RFC 2575 [11], VACM) and also allows an management application to identify its entries. The second index element, lookupCtlOperationName, enables the same lookupCtlOwnerIndex entity to have multiple outstanding requests.*

*The value of lookupCtlTargetAddressType determines which lookup function to perform. Specification of dns(16) as the value of this index implies that the gethostbyname function should be performed to determine the numeric addresses associated with a symbolic name via lookupResultsTable entries. Use of a value of either ipv4(1) or ipv6(2) implies that the gethostbyaddr function should be performed to determine the symbolic name(s) associated with a numeric address at a remote host."*

INDEX {  
    lookupCtlOwnerIndex,  
    lookupCtlOperationName  
}

-- 1.3.6.1.2.1.82.1.3.1 -- ::= { lookupCtlTable 1 }

LookupCtlEntry ::= SEQUENCE {

lookupCtlOwnerIndex SnmpAdminString,  
lookupCtlOperationName SnmpAdminString,  
lookupCtlTargetAddressType InetAddressType,  
lookupCtlTargetAddress InetAddress,  
lookupCtlOperStatus INTEGER,  
lookupCtlTime Unsigned32,  
lookupCtlRc Integer32,  
lookupCtlRowStatus RowStatus

}

**lookupCtlOwnerIndex OBJECT-TYPE**

**SYNTAX** SnmpAdminString (SIZE (0..32))

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"To facilitate the provisioning of access control by a security administrator using the View-Based Access Control Model (RFC 2575, VACM) for tables in which multiple users may need to independently create or modify entries, the initial index is used as an 'owner index'. Such an initial index has a syntax of SnmpAdminString, and can thus be trivially mapped to a securityName or groupName as defined in VACM, in accordance with a security policy.*

*When used in conjunction with such a security policy all entries in the table belonging to a particular user (or group) will have the same value for this initial index. For a given user's entries in a particular table, the object identifiers for the information in these entries will have the same subidentifiers (except for the 'column' subidentifier) up to the end of the encoded owner index. To configure VACM to permit access to this portion of the table, one would create vacmViewTreeFamilyTable entries with the value of vacmViewTreeFamilySubtree including the owner index portion, and vacmViewTreeFamilyMask 'wildcarding' the column subidentifier. More elaborate configurations are possible."*

-- 1.3.6.1.2.1.82.1.3.1.1 -- ::= { lookupCtlEntry 1 }

**lookupCtlOperationName OBJECT-TYPE**

**SYNTAX** SnmpAdminString (SIZE (0..32))

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

*"The name of a lookup operation. This is locally unique, within the scope of an lookupCtlOwnerIndex."*

-- 1.3.6.1.2.1.82.1.3.1.2 -- ::= { lookupCtlEntry 2 }

**lookupCtlTargetAddressType OBJECT-TYPE**

**SYNTAX** InetAddressType

**MAX-ACCESS** read-create

**STATUS** current

**DESCRIPTION**

*"Specifies the type of address for either performing a gethostbyname or a gethostbyaddr function at a remote host. Specification of dns(16) as the value for this object means that the gethostbyname function should be performed to return one or more numeric addresses. Use of a value of either ipv4(1) or ipv6(2) means that the gethostbyaddr function should be used to return the symbolic names associated with a remote host."*

-- 1.3.6.1.2.1.82.1.3.1.3 -- ::= { lookupCtlEntry 3 }

**lookupCtlTargetAddress OBJECT-TYPE**

**SYNTAX** InetAddress

**MAX-ACCESS** read-create

**STATUS** current

**DESCRIPTION**

*"Specifies the address used for a resolver lookup at a remote host. The corresponding lookupCtlAddressType objects determines its type as well as the function that can be requested.*

*A value for this object MUST be set prior to transitioning its corresponding lookupCtlEntry to active(1) via lookupCtlRowStatus."*

```

-- 1.3.6.1.2.1.82.1.3.1.4 -- ::= { lookupCtlEntry 4 }

lookupCtlOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                    notStarted(2),      -- operation has not started
                    completed(3)        -- operation is done
                }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Reflects the operational state of an lookupCtlEntry:

         enabled(1)    - Operation is active.
         notStarted(2) - Operation has not been enabled.
         completed(3)  - Operation has completed.

         An operation is automatically enabled(1) when its
         lookupCtlRowStatus object is transitioned to active(1)
         status. Until this occurs lookupCtlOperStatus MUST
         report a value of notStarted(2). After the lookup
         operation completes (success or failure) the value
         for lookupCtlOperStatus MUST be transitioned to
         completed(3)."
```

```

-- 1.3.6.1.2.1.82.1.3.1.5 -- ::= { lookupCtlEntry 5 }

lookupCtlTime OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS       "milliseconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Reports the number of milliseconds that a lookup
         operation required to be completed at a remote host.
         Completed means operation failure as well as
         success."
```

```

-- 1.3.6.1.2.1.82.1.3.1.6 -- ::= { lookupCtlEntry 6 }

lookupCtlRc OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The system specific return code from a lookup
         operation. All implementations MUST return a value
         of 0 for this object when the remote lookup
         operation succeeds. A non-zero value for this
         objects indicates failure. It is recommended that
         implementations that support errno use it as the
         value of this object to aid a management
         application in determining the cause of failure."
```

```

-- 1.3.6.1.2.1.82.1.3.1.7 -- ::= { lookupCtlEntry 7 }

lookupCtlRowStatus OBJECT-TYPE
    SYNTAX      RowStatus
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "This object allows entries to be created and deleted
         in the lookupCtlTable.

         A remote lookup operation is started when an
         entry in this table is created via an SNMP SET
         request and the entry is activated. This
         occurs by setting the value of this object
         to CreateAndGo(4) during row creation or
         by setting this object to active(1) after
         the row is created.

         A value MUST be specified for lookupCtlTargetAddress
```

prior to a transition to active(1) state being accepted.

A remote lookup operation starts when its entry first becomes active(1). Transitions in and out of active(1) state have no effect on the operational behavior of a remote lookup operation, with the exception that deletion of an entry in this table by setting its RowStatus object to destroy(6) will stop an active remote lookup operation.

The operational state of a remote lookup operation can be determined by examination of its lookupCtlOperStatus object."

**REFERENCE** "See definition of RowStatus in RFC 2579, 'Textual Conventions for SMIV2.'"

-- 1.3.6.1.2.1.82.1.3.1.8 -- ::= { lookupCtlEntry 8 }  
-- Lookup Results Table

**lookupResultsTable OBJECT-TYPE**

**SYNTAX** SEQUENCE OF LookupResultsEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

"Defines the Lookup Results Table for providing the capability of determining the results of a operation at a remote host.

One or more entries are added to the lookupResultsTable when a lookup operation, as reflected by an lookupCtlEntry, completes successfully. All entries related to a successful lookup operation **MUST** be added to the lookupResultsTable at the same time that the associating lookupCtlOperStatus object is transitioned to completed(2).

The number of entries added depends on the results determined for a particular lookup operation. All entries associated with an lookupCtlEntry are removed when the lookupCtlEntry is deleted.

A remote host can be multi-homed and have more than one IP address associated with it (gethostbyname results) and/or it can have more than one symbolic name (gethostbyaddr results).

The gethostbyaddr function is called with a host address as its parameter and is used primarily to determine a symbolic name to associate with the host address. Entries in the lookupResultsTable **MUST** be made for each host name returned. The official host name **MUST** be assigned a lookupResultsIndex of 1.

The gethostbyname function is called with a symbolic host name and is used primarily to retrieve a host address. If possible the primary host address **SHOULD** be assigned a lookupResultsIndex of 1."

-- 1.3.6.1.2.1.82.1.4 -- ::= { lookupObjects 4 }

**lookupResultsEntry OBJECT-TYPE**

**SYNTAX** LookupResultsEntry

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

"Defines an entry in the lookupResultsTable. The

first two index elements identify the lookupCtlEntry that a lookupResultsEntry belongs to. The third index element selects a single lookup operation result."

```
INDEX {  
    lookupCtlOwnerIndex,  
    lookupCtlOperationName,  
    lookupResultsIndex  
}  
-- 1.3.6.1.2.1.82.1.4.1 -- ::= { lookupResultsTable 1 }
```

```
LookupResultsEntry ::= SEQUENCE {  
    lookupResultsIndex      Unsigned32,  
    lookupResultsAddressType InetAddressType,  
    lookupResultsAddress    InetAddress  
}
```

**lookupResultsIndex OBJECT-TYPE**

**SYNTAX** Unsigned32 (1..4294967295)

**MAX-ACCESS** not-accessible

**STATUS** current

**DESCRIPTION**

"Entries in the lookupResultsTable are created when the result of a lookup operation is determined.

Entries MUST be stored in the lookupResultsTable in the order that they are retrieved. Values assigned to lookupResultsIndex MUST start at 1 and increase in order."

```
-- 1.3.6.1.2.1.82.1.4.1.1 -- ::= { lookupResultsEntry 1 }
```

**lookupResultsAddressType OBJECT-TYPE**

**SYNTAX** InetAddressType

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

"Indicates the type of result of a remote lookup operation. A value of unknown(0) implies that either the operation hasn't been started or that it has failed."

```
-- 1.3.6.1.2.1.82.1.4.1.2 -- ::= { lookupResultsEntry 2 }
```

**lookupResultsAddress OBJECT-TYPE**

**SYNTAX** InetAddress

**MAX-ACCESS** read-only

**STATUS** current

**DESCRIPTION**

"Reflects a result for a remote lookup operation as per the value of lookupResultsAddressType."

```
-- 1.3.6.1.2.1.82.1.4.1.3 -- ::= { lookupResultsEntry 3 }
```

```
-- Conformance information
```

```
-- Compliance statements
```

**lookupCompliances OBJECT IDENTIFIER**

```
-- 1.3.6.1.2.1.82.2.1 -- ::= { lookupConformance 1 }
```

**lookupGroups OBJECT IDENTIFIER**

```
-- 1.3.6.1.2.1.82.2.2 -- ::= { lookupConformance 2 }
```

```
-- Compliance statements
```

**lookupCompliance MODULE-COMPLIANCE**

**STATUS** current

**DESCRIPTION**

"The compliance statement for the DISMAN-NSLOOKUP-MIB."

**MODULE**

**MANDATORY-GROUPS** {  
 lookupGroup

}

```

OBJECT      lookupMaxConcurrentRequests
MIN-ACCESS  read-only
DESCRIPTION
    "The agent is not required to support SET
    operations to this object."
OBJECT      lookupPurgeTime
MIN-ACCESS  read-only
DESCRIPTION
    "The agent is not required to support a SET
    operation to this object."
-- 1.3.6.1.2.1.82.2.1.1 -- ::= { lookupCompliances 1 }
-- MIB groupings

lookupGroup OBJECT-GROUP
OBJECTS {
    lookupMaxConcurrentRequests,
    lookupPurgeTime,
    lookupCtlOperStatus,
    lookupCtlTargetAddressType,
    lookupCtlTargetAddress,
    lookupCtlTime,
    lookupCtlRc,
    lookupCtlRowStatus,
    lookupResultsAddressType,
    lookupResultsAddress
}
STATUS      current
DESCRIPTION
    "The group of objects that comprise the remote
    Lookup operation."
-- 1.3.6.1.2.1.82.2.2.1 -- ::= { lookupGroups 1 }

```

END

```

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