

ATX
MIB Reference Guide Addendum
For Release 3.2

9032021

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SYSTEMS

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INTRODUCTION

The ATX LAN Switch Release 3.2 provides the ATX with additional features within the MIB framework. These additions include:

- Port Mirroring MIB
- Event Logging MIB
- Virtual Workgroup MIB
- IPX Source Route MIB
- Ping Management MIB
- Traceroute Management MIB

A.1 PORT MIRRORING MIB

This unit supports the ATX port mirroring configuration. Port mirroring permits the ATX to monitor network traffic on one or more ports. Port mirroring can be done both locally and remotely.



On a remote receiving ATX, both mirrorIPAddr and mirrorTargetPorts must be zero.

```
mirror_grp                {ecs-1 29}

mirrorStatus              {mirror_grp 1}
Integer Read-Write
```

To turn on/off port mirroring.

```
mirrorDiagPort            {mirror_grp 2}
Integer Read-Write
```

This entry defines the diagnostic port to output mirrored packets. It can be one of the Ethernet, Token Ring or FDDI interfaces in the ATX.

```
mirrorIPAddr              {mirror_grp 3}
IP Address Read-Write
```

This entry defines the IP address for remote mirroring. It must be a valid host address.

```
mirrorTargetPorts         {mirror_grp 4}
Octet String Read-Write
```

An octet string specifies the list of ports to be mirrored, with each octet representing a single port.

```
mirrorOversizePkt         {mirror_grp 5}
Integer Read-Write
```

Specified whether to discard or truncate oversized packets.

A.2 EVENT LOGGING MIBS

This unit supports the ATX Event Logging configuration. An event logging filter, established using LCM or SNMP, determines whether event logging entries should be stored.

A.2.1 Event Logging MIB

slogFilter {slog 1}
Octet String Read-Write

The current event logging filter, represented as a bitmask.

slogTrap {slog 2}
Integer Read-Write

When enabled, logging entries cause SNMP traps to be generated.

slogOverwrite {slog 3}
Integer Read-Write
{enabled (1), disabled (2)}

When enabled, logging entries will be overwritten in the logging queue. When disabled, the entries in the logging queue will not be overwritten until someone reads them.

slogEntryNumber {slog 4}
Integer Read-Only

The number of entries in the logging entry table.

slogEntryTable {slog 5}
Sequence of SlogEntry Not-accessible

This table contains the event logging entries.

slogEntry {slogEntryTable 1}
SlogEntry Not-accessible

SlogEntry

slogIndex Integer
slogEntryTimeStamp TimeTicks
slogEntryMessageText Display String
slogEntryName Display String

slogIndex {slogEntry 1}
Integer Read-Only

The index of the logging entry in the logging entry table.

slogEntryTimeStamp {slogEntry 2}
TimeTicks Read-Only

The time at which the event logging entry was generated.

slogEntryMessageText {slogEntry 3}
Display String Read-Only

The text of the eventlogging entry message.

slogEntryName {slogEntry 4}
Display String Read-Only

The name of the event logging entry.

A.3 VIRTUAL WORKGROUP MIB

sxworkgroup {es-1xe 14}

sxWorkGroupNextNumber {sxworkgroup 1}
Integer Read-Only

The next available workgroup number to be used. When creating a new workgroup, it is recommended to read the value of the variable and use it to key into the workgroup table.

sxWorkGroupCurrentCount {sxworkgroup 2}
Integer Read-Only

The total number of workgroups currently defined.

sxWorkGroupMaxCount {sxworkgroup 3}
Integer Read-Only

The maximum number of workgroups allowed.

sxWorkGroupTable {sxworkgroup 4}
Sequence of SxWorkGroupEntry Not-accessible

This table contains work group definitions for the interfaces.

sxWorkGroupEntry {sxWorkGroupTable 1}
SxWorkGroupEntry Not-accessible

Each entry in this table contains definitions for the interfaces.

SxWorkGroupEntry

sxWorkGroupNumber Integer
sxWorkGroupName Display String
sxWorkGroupPorts Octet String
sxWorkGroupType Integer
sxWorkGroupIpAddress IP Address
sxWorkGroupIpMask IP Address
sxWorkGroupIPXNetwork Octet String

sxWorkGroupNumber {sxWorkGroupEntry 1}
Integer Read-Write

An Integer that defines the work group, used as an index to this table.

sxWorkGroupName {sxWorkGroupEntry 2}
Display String Read-Write

A 1-16 character work group name.

sxWorkGroupPorts {sxWorkGroupEntry 3}
Octet String Read-Write

A list of all ports within the group. The first octet specifies ports 1-8, the second 9-16, etc.

sxWorkGroupType {sxWorkGroupEntry 4}
Integer Read-Write
IP (1)
IPX (2)
All (3)
Invalid (4)

The type of work group: All - no additional information needs to be supplied.
IP - the IP network (and, optionally IP mask) must be supplied.
IPX - the IPX network number may be supplied, or else all IPX network numbers will be assumed.

sxWorkGroupIPAddress {sxWorkGroupEntry 5}
IP Address Read-Write

The IP network address.

sxWorkGroupIpMask {sxWorkGroupEntry 6}
IP Address Read-Write

The IP network mask, if set to 0, the default network mask is applied.

sxWorkGroupIpxNetwork {sxWorkGroupEntry 7}
Octet String Read-Write

The IPX network number '0' means all networks.

A.4 IPX SOURCE ROUTE MIB

sprotoIpxRoute {sprotoEntry 5}
Integer Read-Write Enabled (1), Disabled (2), sr (3)

Specifies whether or not this port is used for Novell Netware IPX routing. sr(3) specifies using source route in addition to IPX routing (on either token ring or FDDI port).

sipxsrGrp {sipx 7}
Integer Not-accessible

NetWare IPX with Source Routing Group.

sipxsrAgingTime {sipxsrGrp 1}
Integer Read-Write

SR cache age time, in seconds.

sipxsrPort {sipxsrGrp 2}
sipxsrPortEntry Not-accessible

IPX SR explorer configuration for each port.

sipxsrPortEntry sipxsrPort Integer
sipxsrStatus Integer
sipxsrExplorerType Integer

IPX Source Route MIB

sipxsrPort {sipxsrPortEntry 1}
Integer Read-Write

Indicates the port number.

sipxsrStatus {sipxsrPortEntry 2}
Integer valid (1), invalid (2)

Set valid (1) to configure explorer type, set invalid (2) to remove explorer configuration and default to STE.

sipxsrExplorerType {sipxsrPortEntry 3}
Integer ARE(1), STE (2) Read-Write

Use ARE or STE for explorer frame.

sipxsrTable {sipxsrGrp 3}
Sequence of SipxsrEntry Not-accessible

IPX SR cache entries.

sipxsrEntry {sipxsrTable 1}
SipxsrEntry Not-accessible

IPX SR cache definition.

SipxsrEntry sipxsrIndex Integer
sipxsrPortNumber Integer
sipxsrMACAddress Octet String
sipxsrRouteInfo Octet String
sipxsrRouteAge Integer
sipxsrRouteSource Integer

sipxsrIndex {sipxsrEntry 1}
Integer Read-only

Artificial index to the SR cache.

sipxsrMACAddress {sipxsrEntry 2}
Octet String Read-only

The target MAC Address (same as IPX node address).

sipxsrRouteInfo {sipxsrEntry 3}
Octet String Read-only

RIF format defined in the standard RC|RC|RD:

RC: type+lenght+direction+largest size

RD: Ring Number+Bridge Number
For non-SR, null string is used.

sipxsrRouteAge {sipxsrEntry 4}
Integer Read-only

The number of seconds since the last update.

sipxsrRouteSource {sipxsrEntry 5}
Integer non-SR (1), STE (2), ARE (3), non explorer (4) Read-only

Type of frame from which the route was learned.

A.5 PING MANAGEMENT MIB

spingDataTimeout {spingMgt 1}
TimeTicks Read-Write

The time, in centiseconds, from the last ping activity (a send or receive of an ECHO_RESPONSE or ECHO_REQUEST message), to when the spingEntry information for that ping request will be deleted.

spingTable {spingMgt 2}
Sequence of spingEntry Not-accessible

The set of information describing the active ping requests and their results.

spingEntry {spingTable 1}
SpingEntry Not-accessible

The parameters, state, and results of a ping request.

SpingEntry	spingNMSAddr IP Address
	spingDestAddr IP Address
	spingState Integer
	spingCount Integer
	spingDataSize Integer
	spingWait TimeTicks
	spingTimeOut TimeTicks
	spingOperation Integer
	spingMin TimeTicks
	spingMax TimeTicks
	spingAvg TimeTicks
	spingNumTransmitted Integer
	spingNumReceived Integer

Ping Management MIB

spingNMSAddr {spingEntry 1}
IP Address Read-only

The IP address of the NMS, used to determine which ping request to return information on.

spingDestAddr {spingEntry 2}
IP Address Read-Write

The IP address which is to be the destination of the ping ECHO_REQUEST. This variable cannot be set while spingOperation is on.

spingState {spingEntry 3}
Integer not-started (0), active (1), timed-out (2), completed (3) Read-only

The current state of the ping request.

spingCount {spingEntry 4}
Integer Read-Write

The number of ping requests which are sent. This variable cannot be set while spingOperation is on.

spingDataSize {spingEntry 5}
Integer Read-Write

The datagram packet size which will be sent with the ECHO_REQUEST, in bytes. This variable cannot be set while spingOperation is on.

spingWait {spingEntry 6}
TimeTicks Read-Write

The time, in centiseconds, between the sending of each ECHO_REQUEST message. This variable cannot be set while spingOperation is on.

spingTimeOut {spingEntry 7}
TimeTicks Read-Write

The time, in centiseconds, since the last ECHO_RESPONSE was received (or the last ECHO_REQUEST) was sent, if there have been no responses) when the ping request will time out. This variable cannot be set while spingOperation is on.

spingOperation {spingEntry 8}
Integer on (1), off (2) Read-Write

Setting spingOperation to on will begin the ping request. Setting spingOperation to off will terminate the ping request.

spingMin {spingEntry 9}
TimeTicks Read-only

The minimum round trip time for the ping requests and responses, in centiseconds.

spingMax {spingEntry 10}
TimeTicks Read-only

The maximum round trip for the ping requests and responses, in centiseconds.

spingAvg {spingEntry 11}
TimeTicks Read-only

The average round trip time for the ping requests and responses, in centiseconds.

spingNumTransmitted {spingEntry 12}
Integer Read-only

The number of ICMP ECHO_REQUEST messages that have been transmitted during this ping request.

spingNumReceived {spingEntry 13}
Integer Read-only

The number of ICMP ECHO_RESPONSE messages that have been received as a result of this ping request.

A.6 TRACEROUTE MANAGEMENT MIB

straceDataTimeOut {straceMgt 1}
TimeTicks Read-Write

The time, in centiseconds, from the last traceroute activity (the response to or timeout of the last probe sent), to when the straceEntry information for that traceroute request will be deleted.

straceTable {straceMgt 2}
Sequence of straceEntry Not-accessible

The set of information describing the active traceroute requests and their results.

straceEntry {straceMgt 2}
StraceEntry Not-accessible

The parameters, state, and results of a traceroute request.

StraceEntry	straceNMSAddr IP Address
	straceDestAddr IP Address
	straceMaxTTL Integer
	straceDataSize Integer
	straceNumProbes Integer
	straceWait TimeTicks
	straceOperation Integer
	straceHop Integer
	straceHopAddr IP Address
	straceProbe Integer

TraceRoute Management MIB

straceState Integer

straceTime TimeTicks

straceNMSAddr {straceEntry 1}
IP Address Read-only

The IP Address of the NMS, used to determine which traceroute request to return information on.

straceDestAddr {straceEntry 2}
IP Address Read-Write

The IP Address which is to be the destination of the traceroute request. This variable cannot be set while straceOperation is on.

straceMaxTTL {straceEntry 3}
Integer Read-Write

The maximum time-to-live for outgoing traceroute probe packets. This determines the number of hops that can be in a traceroute. This variable cannot be set while straceOperation is on.

straceDataSize {straceEntry 4}
Integer Read-Write

The size of the datagram sent with each probe. This variable cannot be set while straceOperation is on.

straceNumProbes {straceEntry 5}
Integer Read-Write

The number of probes which are sent for each hop. This variable cannot be set while straceOperation is on.

straceWait {straceEntry 6}
TimeTicks Read-Write

The time to wait in response to a probe. This variable cannot be set while straceOperation is on.

straceOperation {straceEntry 7}
Integer on (1), off (2) Read-Write

Setting straceOperation to on will begin the traceroute request. Setting straceOperation to off will terminate the traceroute request.

straceHop {straceEntry 8}
Integer Read-only

The hop count for a set of probes with a particular TTL.

straceHopAddress {straceEntry 9}
IP Address Read-only

The IP address of the host which responded for a probe with a particular TTL.

straceProbe {straceEntry 10}
Integer Read-only

The probe instance for a particular hop.

straceState {straceEntry 11}
Integer not-started (0), active (1), time-exceeded (2), host-unreachable (3), net-unreachable (4), completed (5)
Read-only

The current state of the trace probe.

straceTime {straceEntry 12}
TimeTicks Read-only

Round trip time of a probe for a particular hop.

