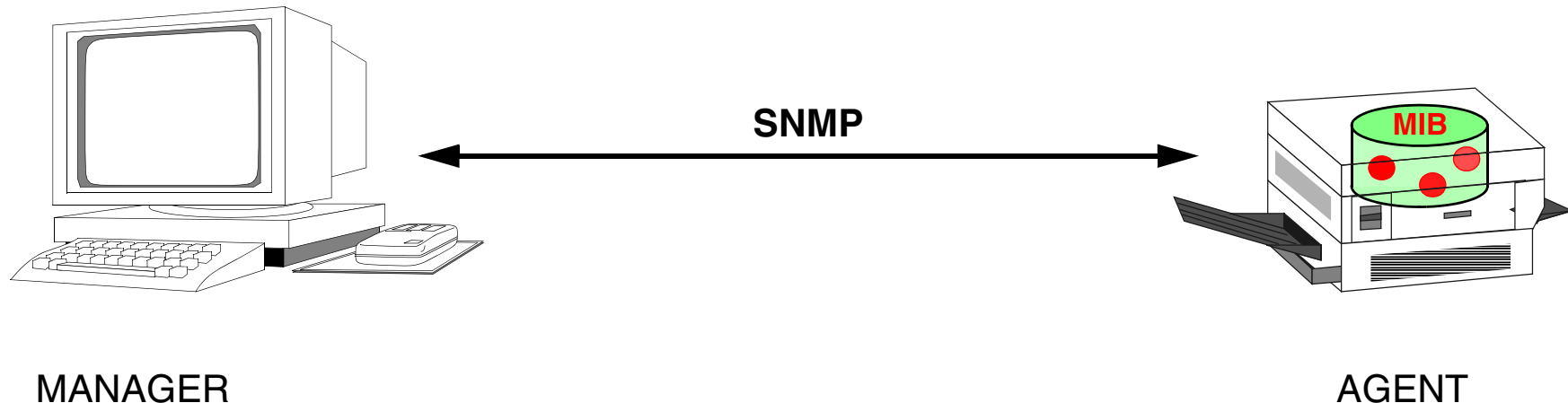# MIBs

MANAGEMENT INFORMATION BASES

CONTAIN THE MANAGED OBJECTS (VARIABLES)

THAT REPRESENT THE RESOURCES OF A SYSTEM

AND WHICH MAY BE MONITORED AND MODIFIED BY A (REMOTE) MANAGER

TO CONTROL THE BEHAVIOUR OF THAT SYSTEM

SNMP

MIB

MANAGER   AGENT

MIB DEFINITION AND MIB INSTANCE

MIB DEFINITIONS SHOULD BE KNOWN BY:

- THE IMPLEMENTORS OF THE MANAGED SYSTEM

- THE MANAGER

THE MIB IS INSTANTIATED WITHIN THE MANAGED SYSTEM
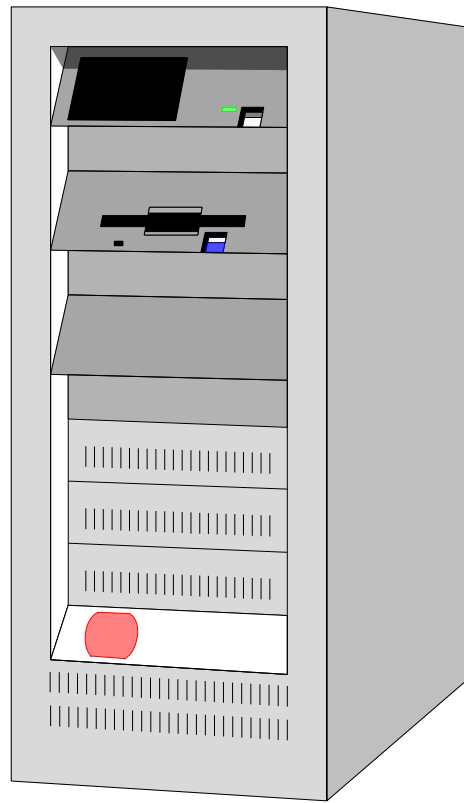
MODULARITY

THE MANAGED OBJECTS OF A SYSTEM
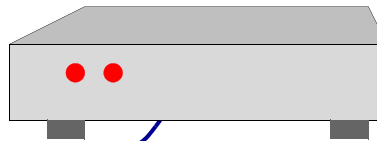## ARE USUALLY DEFINED IN MULTIPLE MIB DEFINITIONS

MODULES

- DIFFERENT MODULES CAN BE DEFINED BY DIFFERENT TEAMS

- MANAGEMENT FUNCTIONALITY CAN GRADUALLY BE EXTENDED

- DIFFERENT TYPES OF SYSTEMS
CAN SUPPORT DIFFERENT MIB MODULES

- VENDORS CAN EXTEND THE MANAGEMENT FUNCTIONALITY
VIA PROPRIETARY MIBS

HARDWARE MIBS

HOST RESOURCES MIB

MODEM MIB

PRINTER MIB

PROTOCOL MIBS

APPLICATION

| WWW | MAIL | DNS | X.500 | RDBMS | SNMP | ... |

TRANSPORT

TCP   UDP

NETWORK

OSPF
BGP
EGP

IP

ICMP
ARP
...

INTERFACES

TRANSMISSION

| 802.3 | 802.5 | FDDI | ATM | ADSL | SONET | ... |
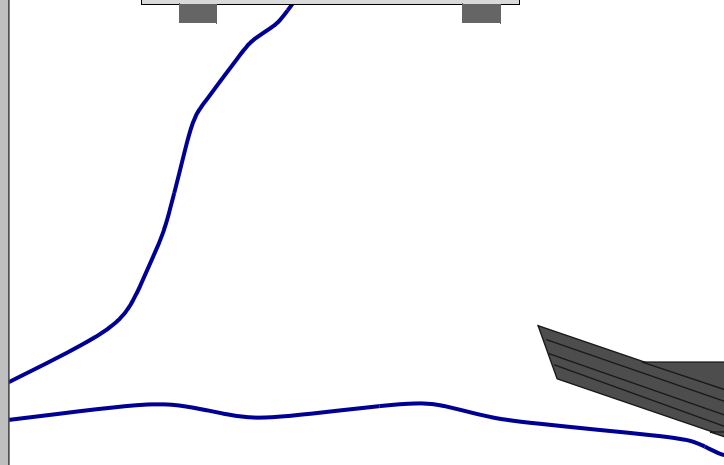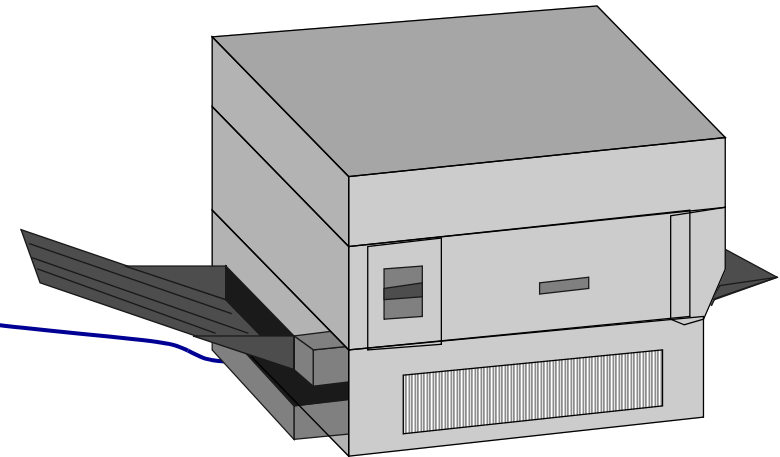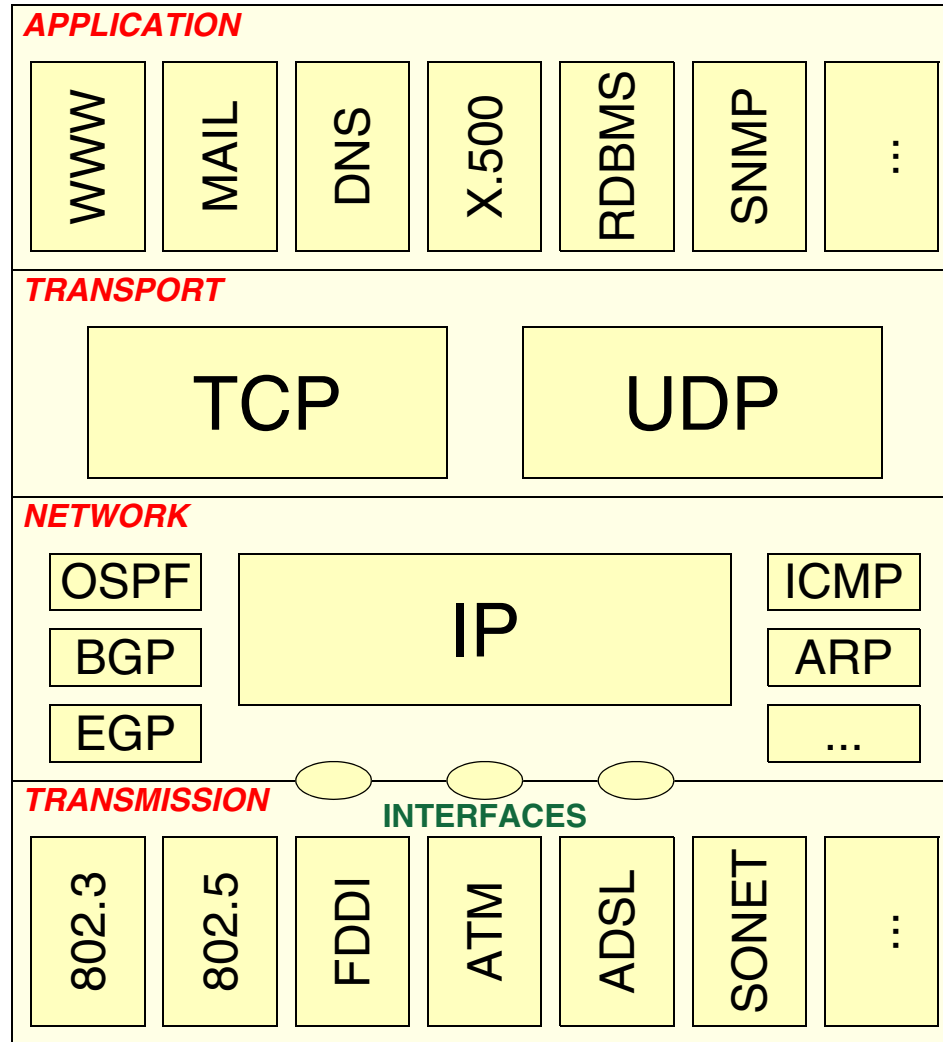
PROTOCOL MIBS - EXAMPLE: MIB-II

APPLICATION

| WWW | MAIL | DNS | X.500 | RDBMS | SNMP | ... |

TRANSPORT

TCP   UDP

NETWORK

OSPF
BGP
EGP

IP

ICMP
ARP
...

INTERFACES

TRANSMISSION

| 802.3 | 802.5 | FDDI | ATM | ADSL | SONET | ... |
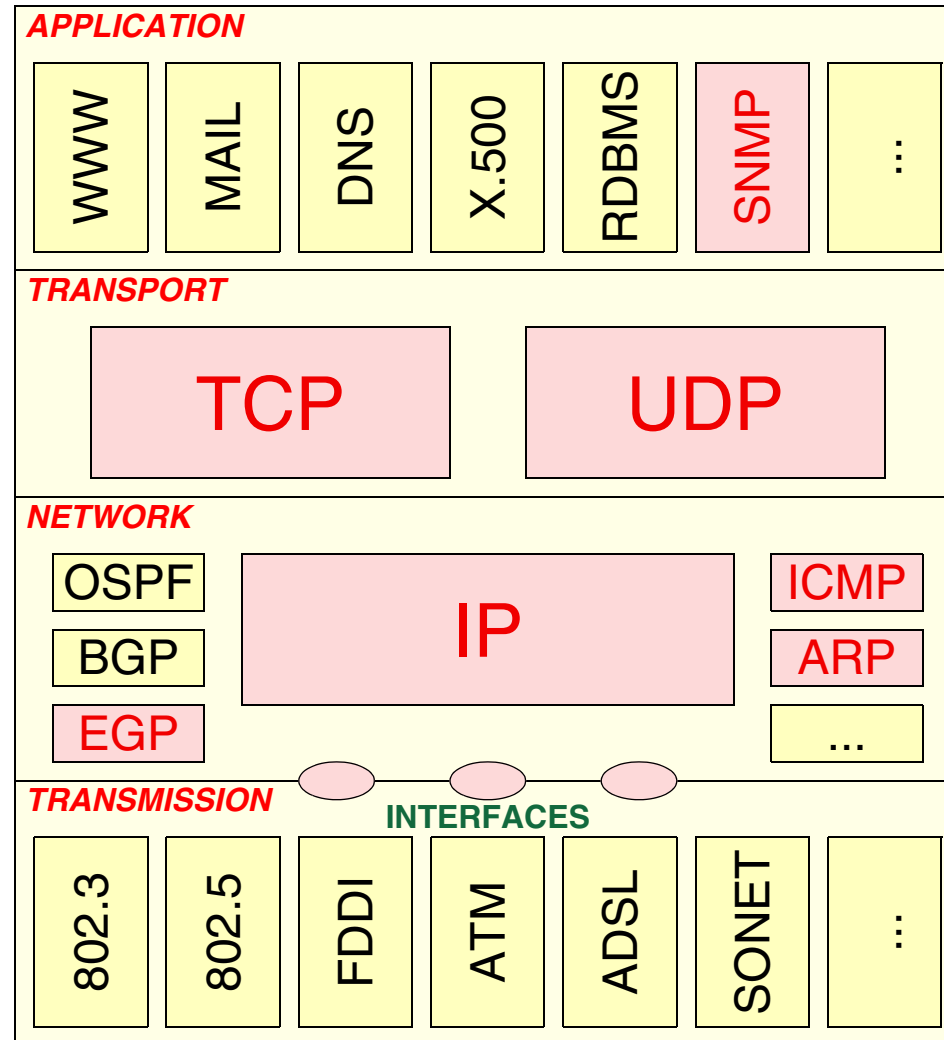
HARDWARE SPECIFIC MIBs

Title	RFC	STATUS
Host Resources MIB	2790	D
Entity MIB	2737	P
Job Monitoring MIB	2707	I
Printer	1759	P
Modem	1696	P
Parallel printer-like Hardware	1660	D
RS-232-like Hardware	1659	D
Character Stream Devices	1658	D
UPS	1628	P

TRANSMISSION MIBs

Title	RFC	STATUS
UNI/NNI Multilink Frame Relay function	3020	P
Frame Relay/ATM PVC Service Interworking Function	2955	P
Frame Relay Service	2954	P
Inverted Stack Table Extension to the Interfaces Group	2864	P
Interfaces Group	2863	D
Fabric Element in Fibre Channel Standard	2837	P
NBMA Next Hop Resolution Protocol (NHRP)	2677	P
Bridges with Traffic Classes, Multicast Filtering and Virtual LAN Extensions	2674	P
Radio Frequency MIB for MCNS/DOCSIS compliant RF interfaces	2670	P
Cable Device MIB for DOCSIS compliant Cable Modems and Cable Modem Termination Systems	2669	P
IEEE 802.3 Medium Attachment Units (MAUs)	2668	P
Object Identifiers for Identifying Ethernet Chip Sets	2666	I

Title	RFC	STATUS
Ethernet-like Interface Types	2665	P
ADSL Lines	2662	P
SONET/SDH Interface Type	2558	P
ATM Management	2515	P
Textual Conventions and OBJECT-IDENTITIES for ATM Management	2514	P
DS3/E3 Interface Type	2496	P
DS1, E1, DS2 and E2 Interface Types	2495	P
DS0 and DS0 Bundle Interface Type	2494	P
Classical IP and ARP Over ATM (IPOA)	2320	P
IEEE 802.12 Repeater Devices	2266	P
Dial Control	2128	P
ISDN	2127	P
Frame Relay DTEs	2115	D
IEEE 802.3 Repeater Devices	2108	P
Data Link Switching	2024	P
IEEE 802.12 Interfaces	2020	P
IEEE 802.5 Station Source Routing	1749	P

Title	RFC	STATUS
IEEE 802.5	1748	D
SMDS	1694	D
Source Routing Bridges	1525	P
FDDI	1512	P
Bridges	1493	D
Bridge Network Control Protocol of PPP	1474	P
IP Network Control Protocol of PPP	1473	P
Security Protocols of PPP	1472	P
Link Control Protocol of PPP	1471	P
Multiprotocol Interconnect over X.25	1461	P
X.25 Packet Layer	1382	P
X.25 LAPB	1381	P

NETWORK LAYER MIBs

Title	RFC	STATUS
IPv6 MIB for The Multicast Listener Discovery Protocol	3019	P
Protocol Independent Multicast MIB for IPv4	2934	E
Internet Group Management Protocol MIB	2933	P
IPv4 Multicast Routing MIB	2932	P
Textual Conventions for Internet Network Addresses	2851	P
Definitions of MO for the Virtual Router Redundancy Protocol	2787	P
IP Tunnel MIB	2667	P
MIB for IPv6: ICMPv6 Group	2466	P
MIB for IPv6: Textual Conventions and General Group	2465	P
Definitions of MO for Multicast over UNI 3.0/3.1 based ATM Networks	2417	P
Integrated Services - Guaranteed Service Ext.	2214	P
Integrated Services	2213	P
RSVP	2206	P
IP Forwarding Table	2096	P

Title	RFC	STATUS
IP MIB	2011	P
IP Mobility Support	2006	P
OSPF Version 2	1850	D
RIP Version 2 MIB Extension	1724	D
BGP Version 4	1657	D
Identification MIB	1414	P
BGP Version 3	1269	P
MIB-II	1213	S

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TRANSPORT LAYER MIBs

Title	RFC	STATUS
Real-Time Transport Protocol	2959	P
IP Version 6 MIB for the User Datagram Protocol	2454	P
IP Version 6 MIB for the Transmission Control Protocol	2452	P
User Datagram Protocol (UDP)	2013	P
Transmission Control Protocol (TCP)	2012	P

APPLICATION LAYER MIBs

Title	RFC	STATUS
MIB for the PINT Services Architecture	3055	P
Mail Monitoring MIB	2789	P
Network Services Monitoring	2788	P
RADIUS Accounting Server MIB	2621	I
RADIUS Accounting Client MIB	2620	I
RADIUS Authentication Server MIB	2619	P
RADIUS Authentication Client MIB	2618	P
Directory Server Monitoring MIB	2605	P
Definitions of Managed Objects for WWW Services	2594	P
Application Management MIB	2564	P
Definitions of System-Level Managed Objects for Applications	2287	P
SNMPv2 MIB	1907	P
RDBMS MIB	1697	P
DNS Resolver MIB Extensions	1612	P
DNS Server MIB Extensions	1611	P

REMOTE MONITORING AND MEASUREMENT

Title	RFC	STATUS
Remote Network Monitoring (RMON) MIB	2819	S
Traffic Flow Measurement: Meter MIB	2720	P
RMON MIB Extensions for Switched Networks Version 1.0	2613	P
RMON Version 2	2021	P
Token Ring extensions to RMON	1513	P

DISTRIBUTED MANAGEMENT

Title	RFC	STATUS
Notification Log MIB	3014	P
Expression MIB	2982	P
Event MIB	2981	P
Remote Ping, Traceroute, and Lookup Operations	2925	P
Delegation of Management Scripts	2592	P
Scheduling Management Operations	2591	P

VENDOR SPECIFIC MIBs

Title	RFC	STATUS
APPN/HPR in IP Networks	2584	P
TN3270E Response Time Collection	2562	P
TN3270E	2561	P
Extended Border Node	2457	P
APPN TRAPS	2456	P
APPN	2455	P
HPN	2238	P
DLUR	2232	P
APPC	2051	P
TCP/IPX Connection	1792	E
SNA Data Link Control (SDLC)	1747	P
Appletalk	1742	P
SNA NAUs	1666	P
DECNET Phase IV	1559	D

MISCELLANY

Title	RFC	STATUS
Common Open Policy Service (COPS) Protocol Clients	2940	P
Physical Topology	2922	I
Service Level Agreements Performance Monitoring	2758	E
Definitions of Managed Objects for Extensible SNMP Agents	2742	P
Collection and Storage of Accounting Information for CO Networks	2513	P
Accounting Information for ATM Networks	2512	P
Textual Conventions for MIB Modules Using Performance History Based on 15 Minute Intervals	2493	P
Techniques for managing asynchronously generated alerts	1224	E

NAMING OF MIBs