

Magellan Open Management: Fit and Flexibility

Charles Kemp

Product Manager

Magellan Network Management

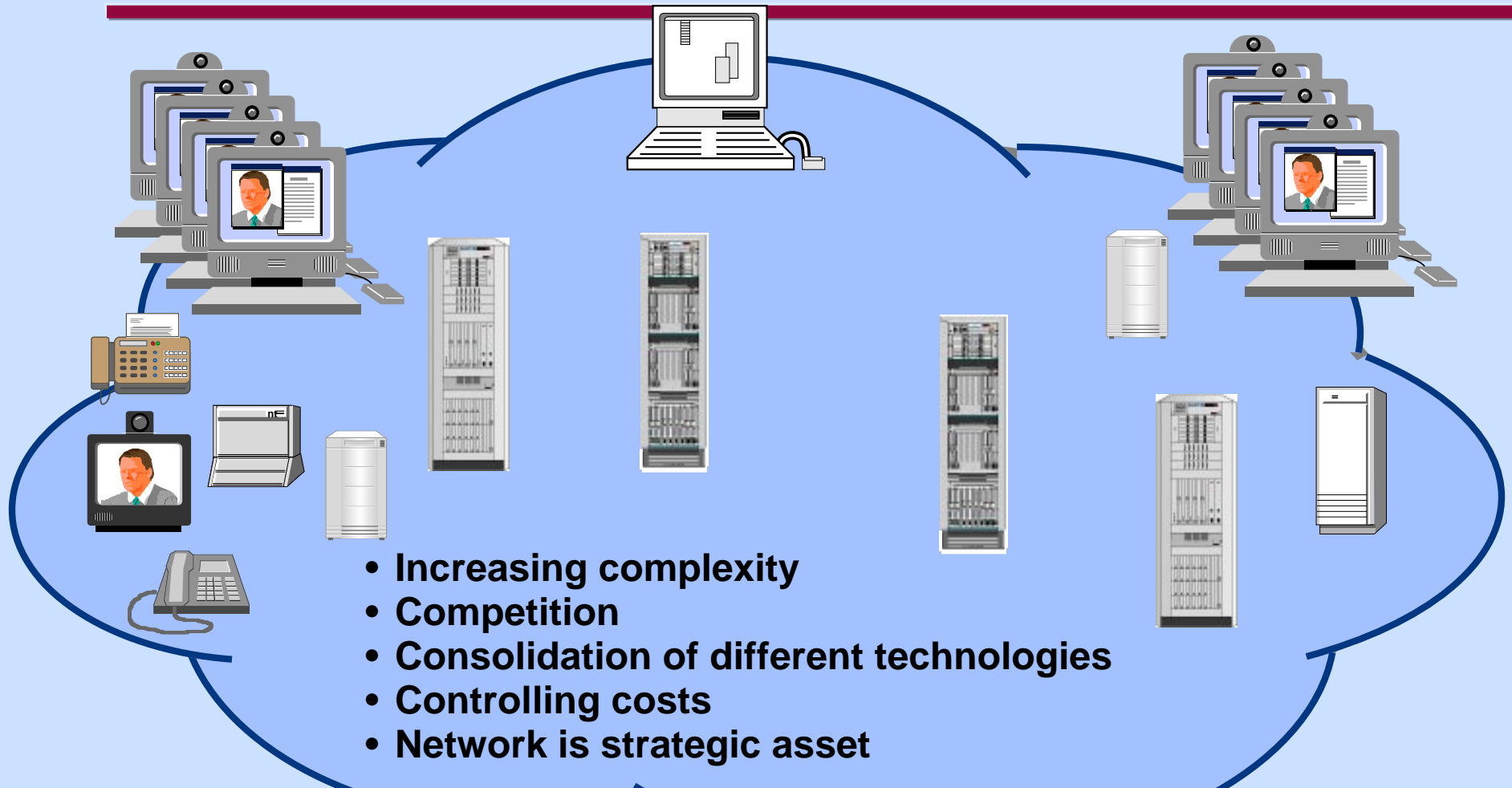
charles.kemp@bnr.ca



Agenda

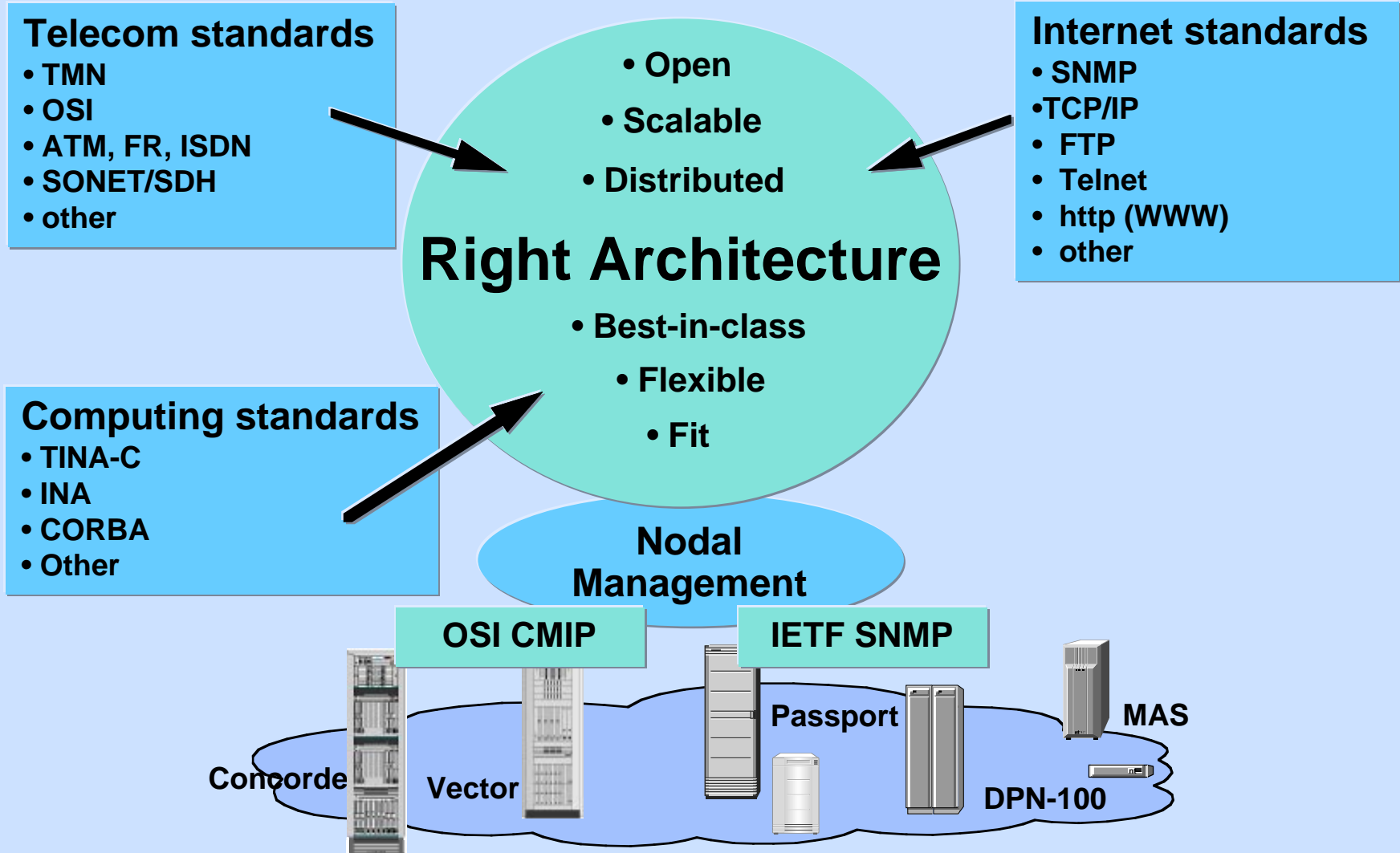
- **Introduction**
 - fit and flexibility
 - industry directions
- **Interfaces (fit)**
- **Platforms (flexibility)**

Customer Drivers for Flexibility



Need flexible management to stay competitive

Which Management Solution?



Open Interface Market Review


OSI

- Fault standard finalized
- Performance standard finalized
- Balance still pending

SNMP

- SNMPV1 available 1989
- SNMPV2 in progress

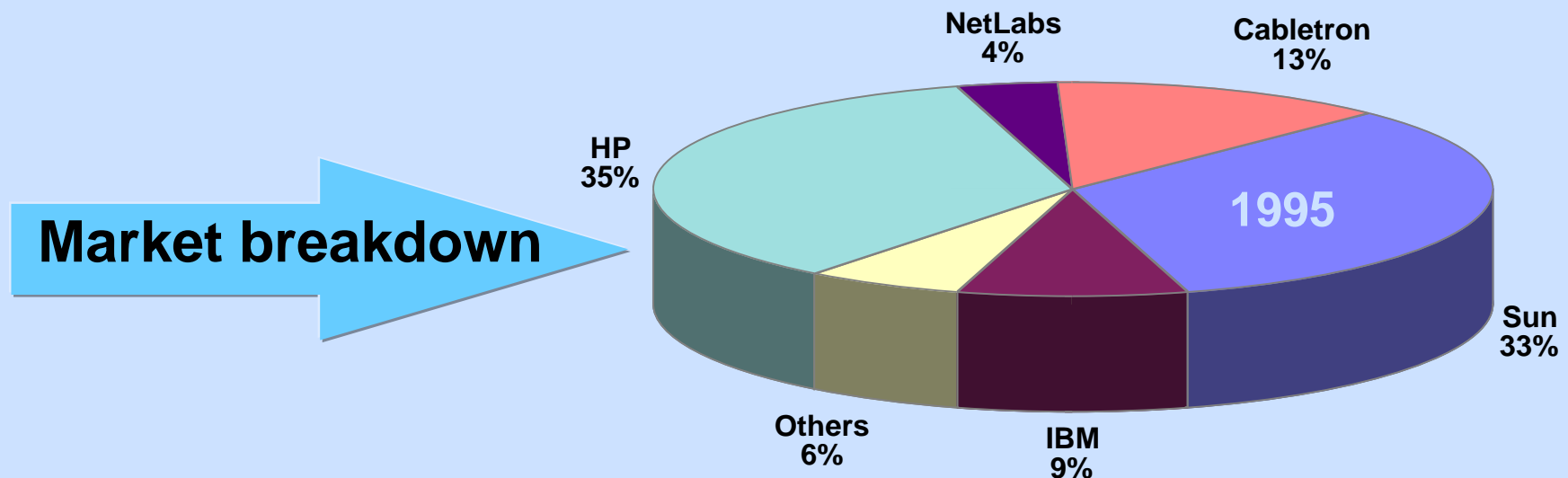
The de facto standard
in the network
management industry



There are two options: SNMP or OSI

Open Platform Market Survey

IDC industry survey



- HP OpenView is now the industry-leading platform
- Cabletron continuing to gain market share

Management Strategy

- **Deliver functionality on commercially available management platforms**
- **Maintain advantages of Magellan NMS**
- **Allow value-added functionality to be used in all platform environments**
- **Implement applicable standards and market influences**
- **Deliver published interfaces**

Deliver on what our customers need

Agenda

- Introduction
- **Interfaces (fit)**
 - SNMP
 - OSI
 - APIs
 - Magellan data provider
 - MagellanView
- Platforms

Magellan Interface Choices

Benefits of Standards:

- Reduced development operations consolidation
- Reduced Costs



Umbrella Network Managers

External System Interfaces:

- SNMP
- OSI
- API
- MDP
- MagellanView

Magellan Interfaces

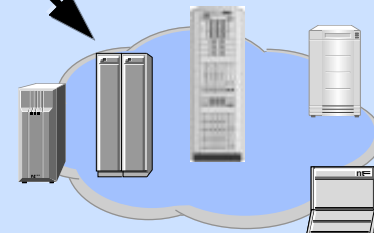


Other Network Managers

Benefits of integration:

- Vendor independence
- Fits your environment
- Smooth evolution path

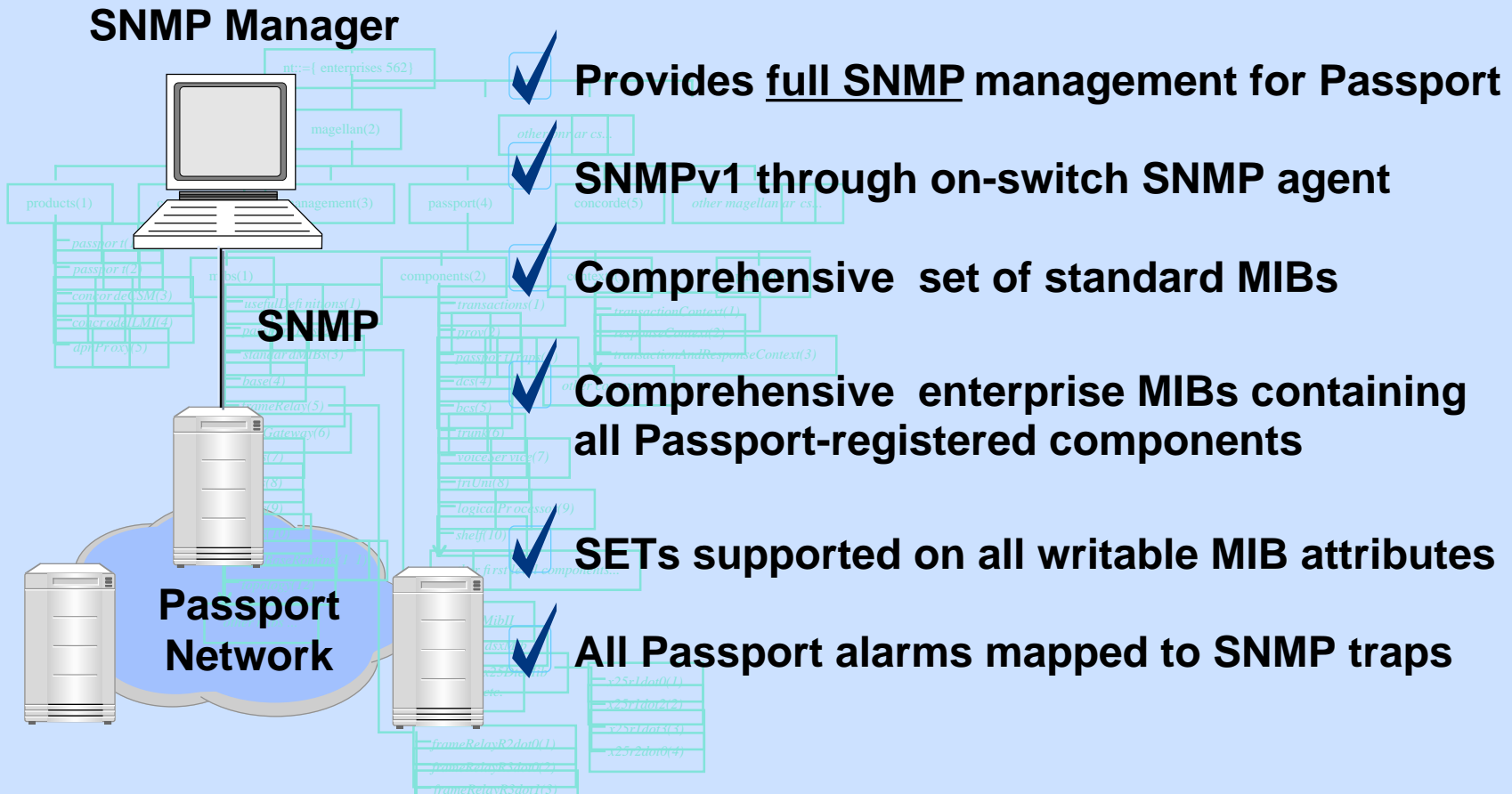
Non-Magellan Devices



Magellan Network

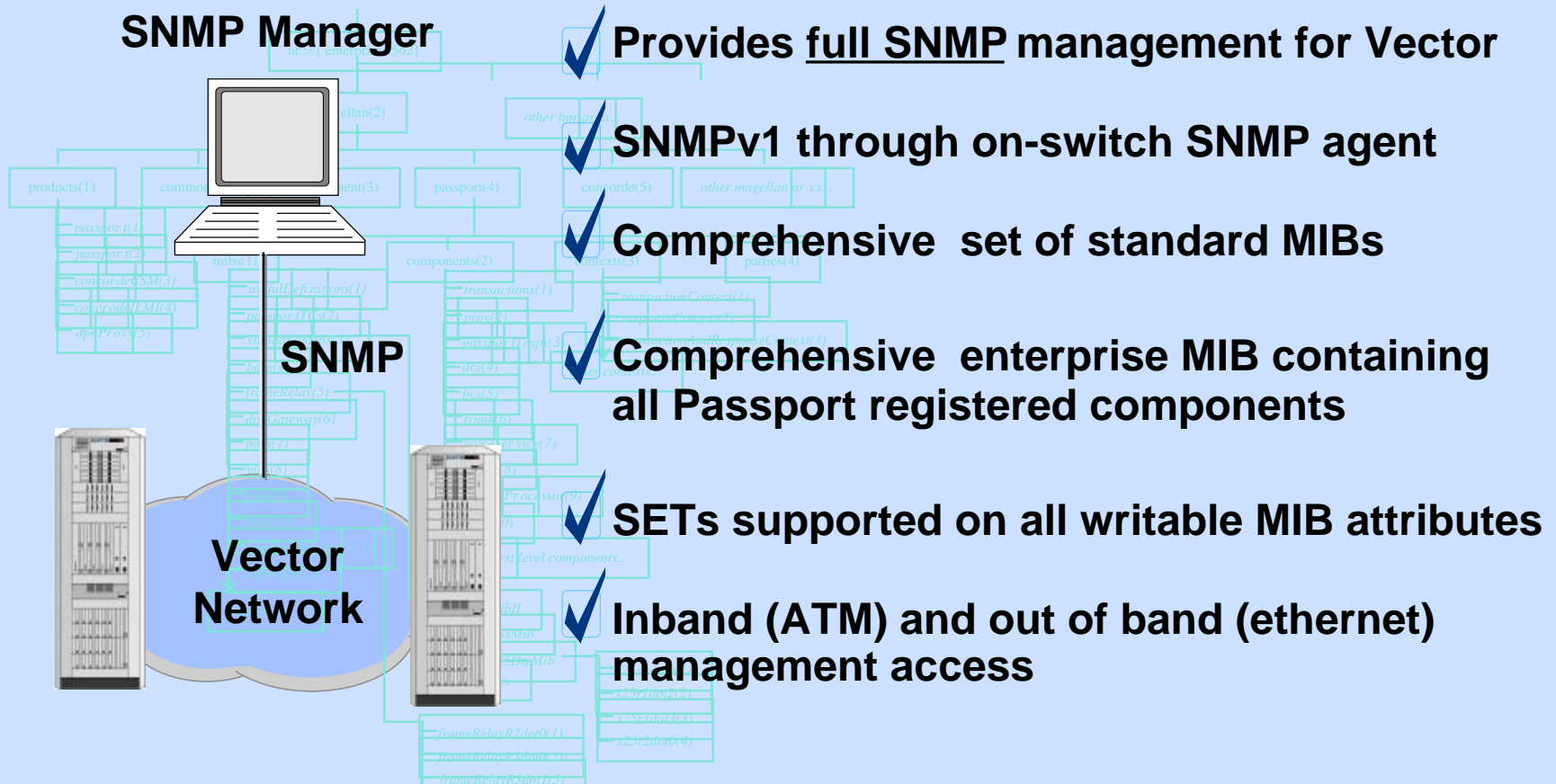
Interfaces to fit your operating environment

Passport SNMP Agent



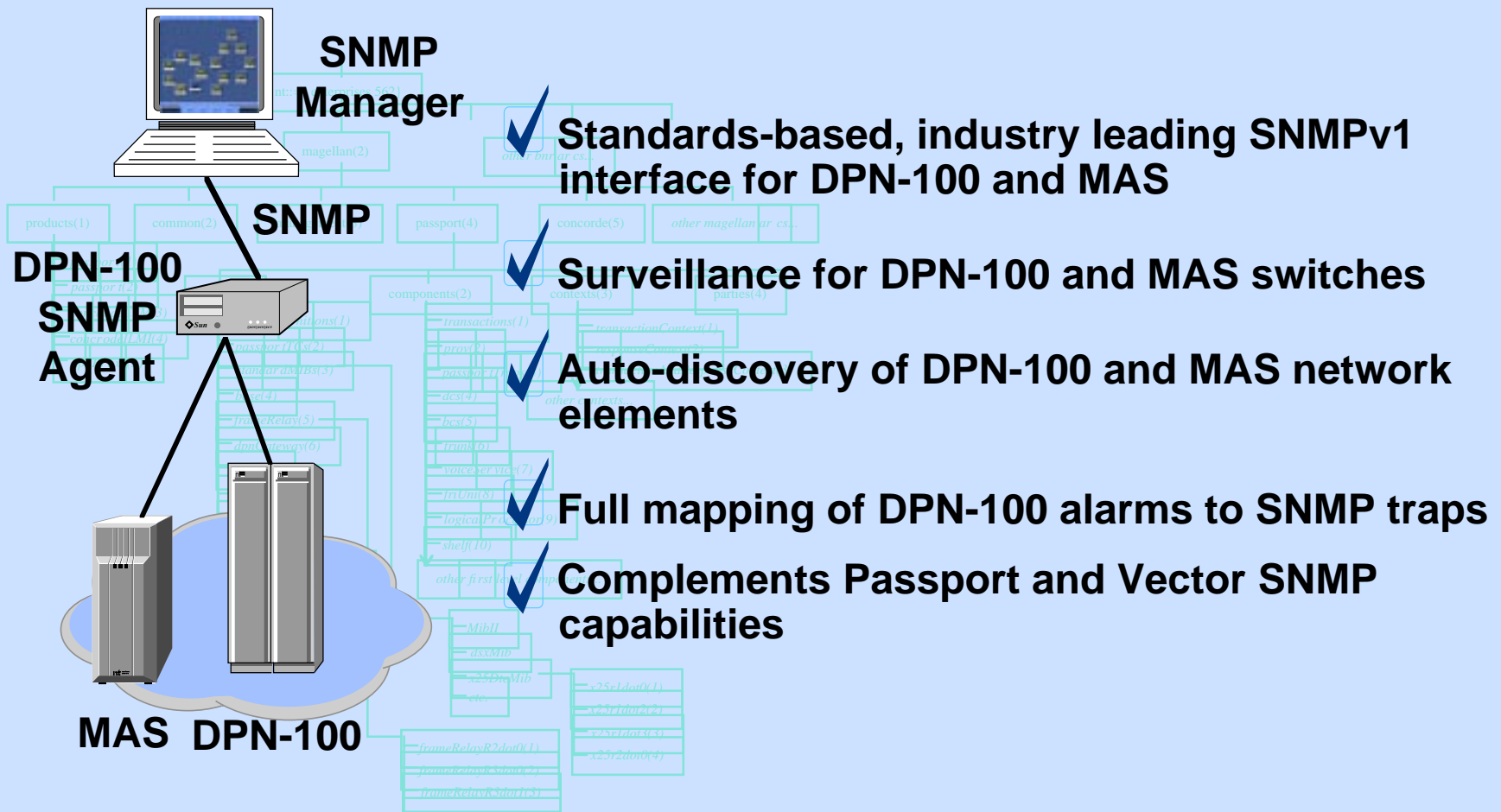
Fits Passport into your SNMP operating environment

Vector SNMP Agent



Fits Vector into your operating environment

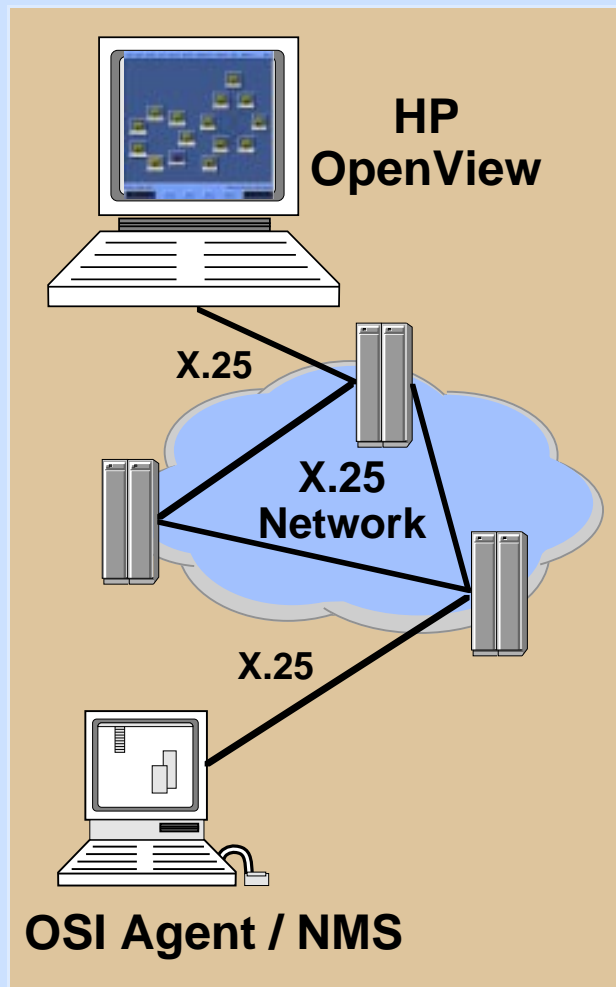
DPN-100/MAS SNMP Agent



Fits DPN-100 into your SNMP operating environment

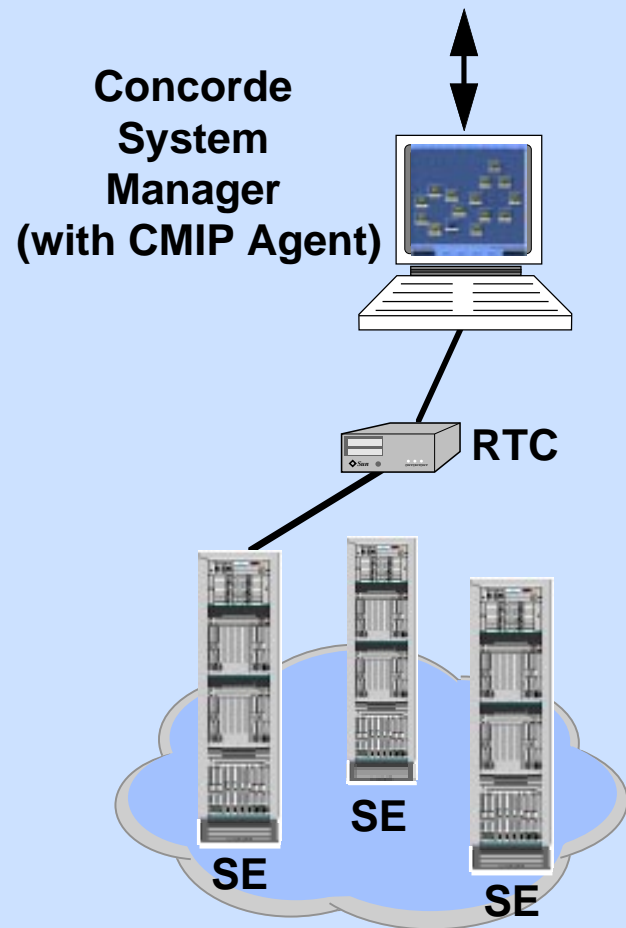
Passport / DPN-100 OSI Agent

Customer example



- ✓ Standards-based CMIP interface
- ✓ Provides DPN-100 and Passport surveillance capability
- ✓ Compliant X.700 and M.3000 Series

Concorde CMIP Agent

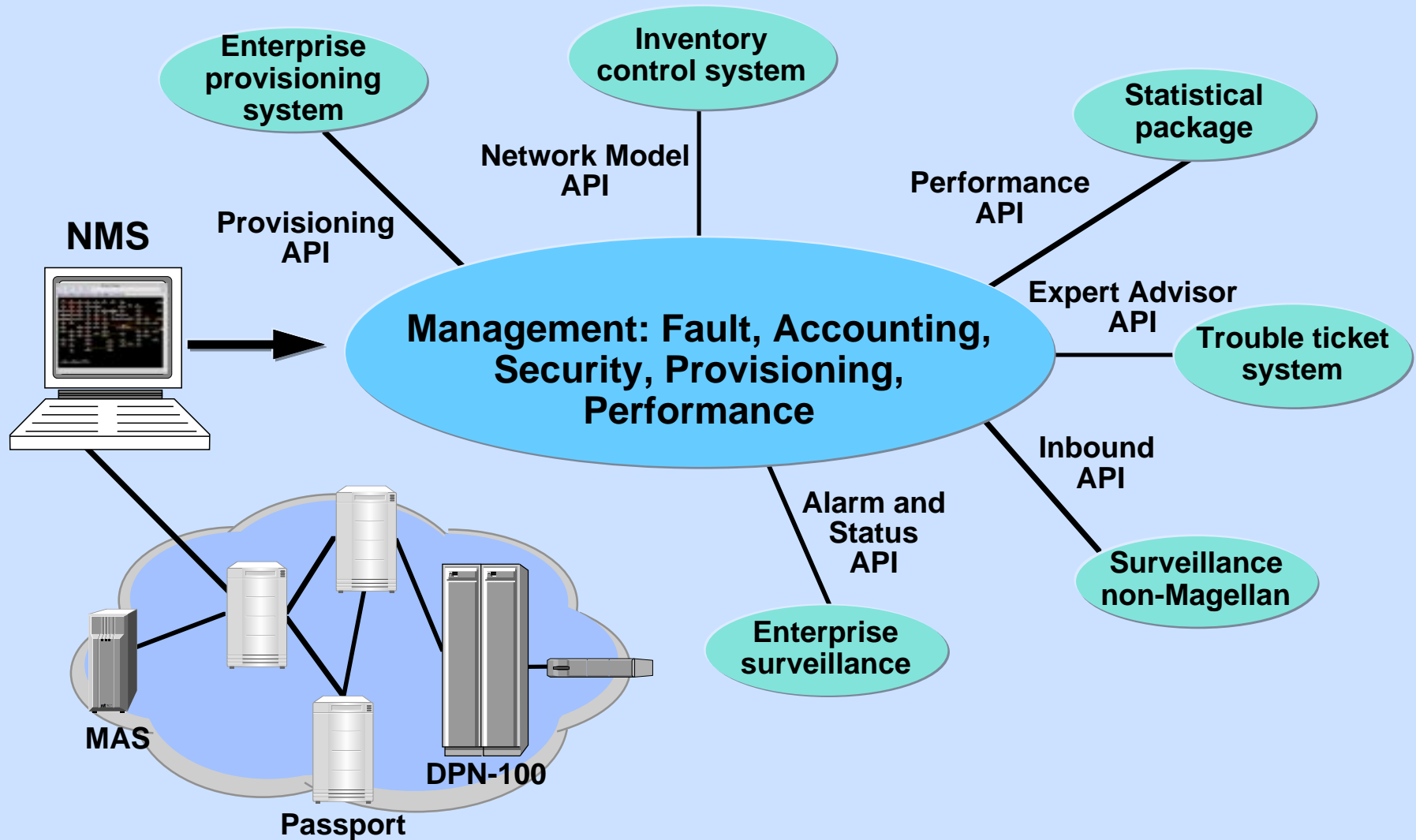


- ✓ **Standards-based CMIP interface**
- ✓ **ATM Forum M4 MIB support**
- ✓ **Full set of management capability, including:**
 - equipment configuration
 - PVC provisioning
 - fault management
 - performance management

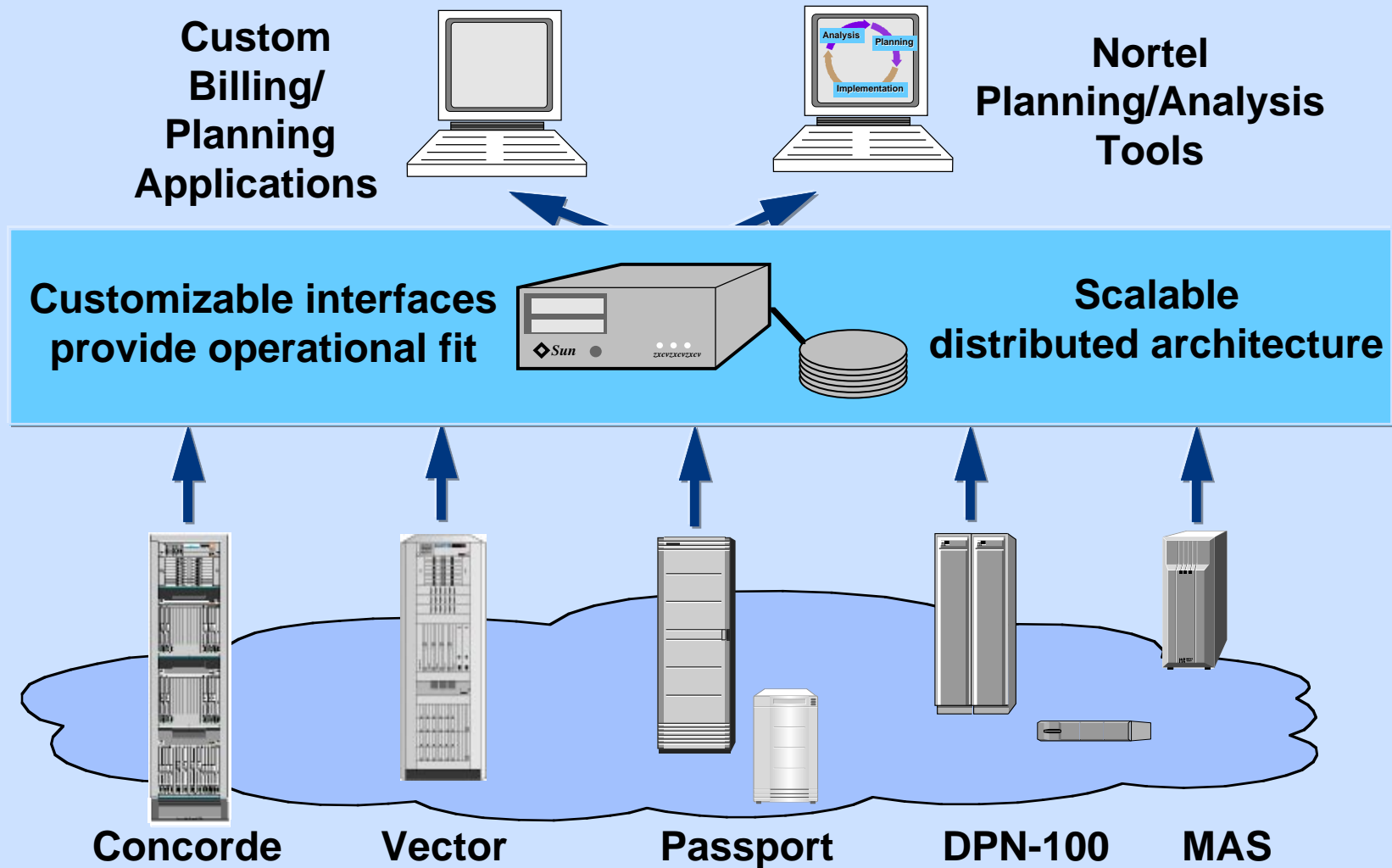
Fits Concorde into your CMIP operating environment

Application Programming Interfaces

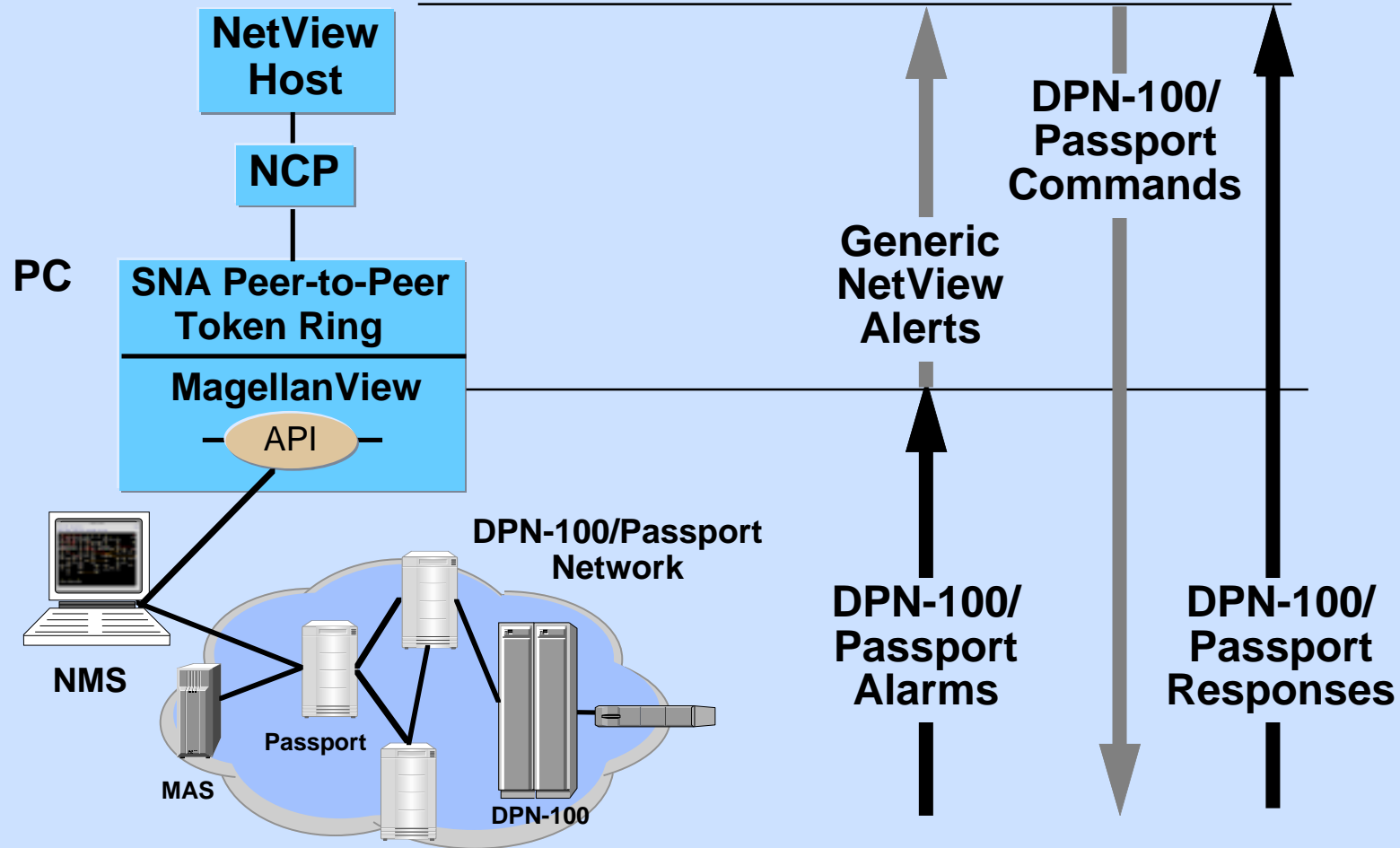
Architecture for Open Interconnections to External Systems



Magellan Data Provider



MagellanView



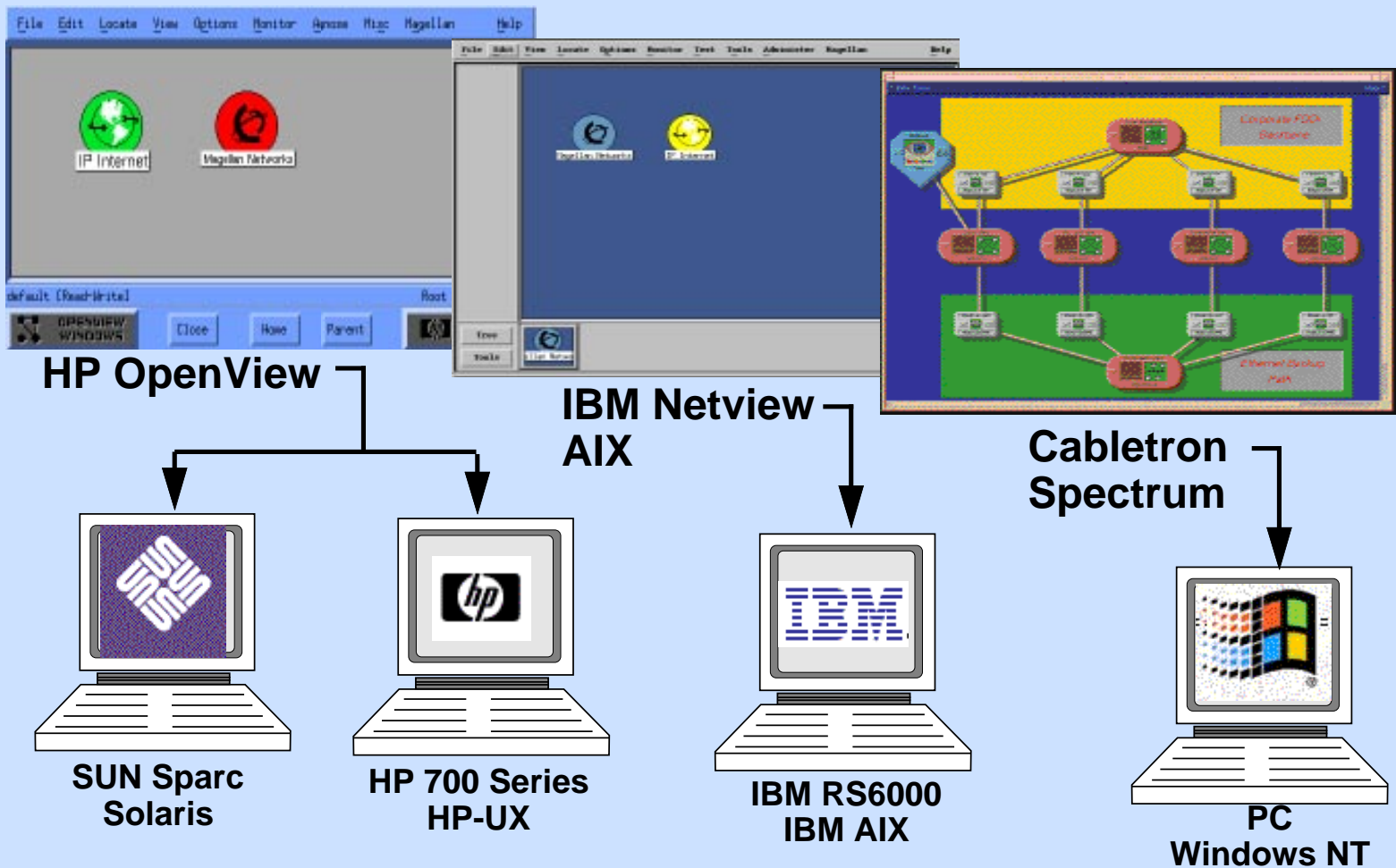
Manage Passport and DPN-100 faults from within IBM's NetView

Agenda

- Introduction
- Interfaces
- **Platforms (flexibility)**
 - platform portfolio
 - multiservices enterprise example (OMS for Passport)

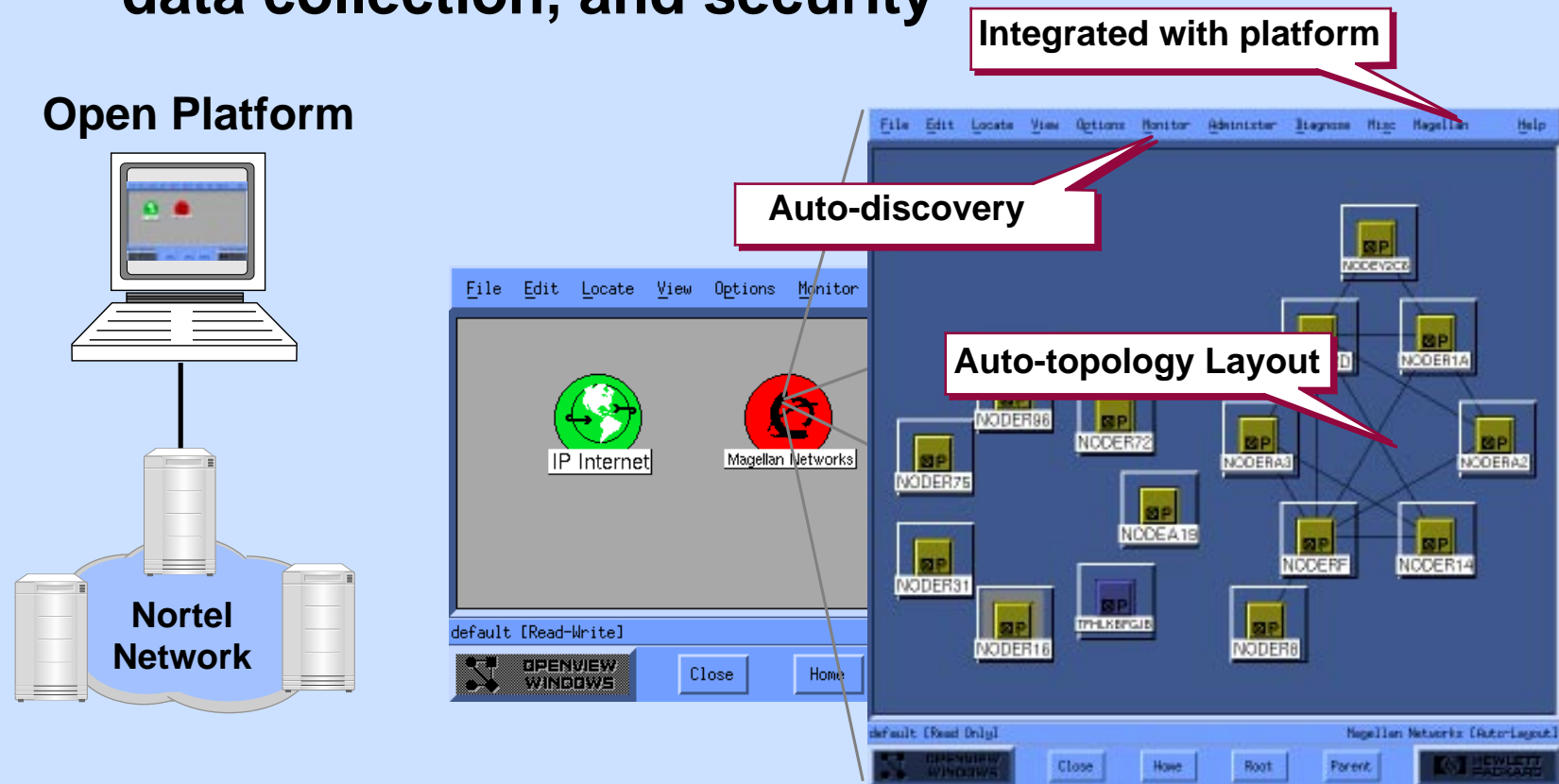
Magellan Open Platform Offerings

- Selection of industry-standard open platforms to fit your operating environment



Integration with Platform

- **Full network management capabilities**
 - fault, configuration, performance management, data collection, and security



Multiservices Enterprise Example

- OMS for Passport - simplified management through powerful, operationally intuitive tools

The screenshot displays the OMS for Passport interface. On the left is a network diagram with nodes labeled NODER96, NODER75, NODER31, NODER16, NODER2, NODER43, NODER14, NODER19, NODER14, NODER14, and NODER14. On the right is a detailed view of a card and its ports. The interface includes a menu bar (File, Actions, Tools, Help) and a toolbar with icons for various functions. A callout points to the toolbar: "Toolbar icons for quick access to functionality". Another callout points to the card view: "Same orientation as the actual shelf, component type and # clearly visible". A third callout points to the component relationships: "Component relationships and sparing indicated". A fourth callout points to a red port: "Port is in error condition". A fifth callout points to a white port: "Port available, but not provisioned". A sixth callout points to a green port: "Port is in operation".

Card	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Type	CP	V35	E1	E1	E1V						DS1		E1	E1	V11	CP
Logical Processor	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ports	0	0	0	0	0	0	1	2	3	4	0	1	2	3	0	0

Hierarchical Views

The image displays a network management interface with three main components:

- Bottom Left:** A configuration page for a card with 12 ports. A red box highlights port 4, which is connected to a service. A callout box points to this port with the text: "Point and Click to view services on ports".
- Center:** A table titled "EM/CHEWY Lp/2 DS1" listing services. A callout box points to the first row with the text: "Point and Click to view service attributes".
- Right:** A detailed configuration window for "EM/CHEWY Vs/204". A callout box points to the "Statistical" tab in the right-hand pane with the text: "Point and Click to view various attribute groups of a service".

Channel	Service	Channel
0	Vs/201	12
1	Vs/202	13
2	Vs/203	14
3	Vs/204	15
4	Vs/205	16
5	Vs/206	17
6	Vs/207	18
7	Vs/208	19
8	Vs/209	20
9	Vs/210	21
10	Vs/211	22
11	Vs/212	23

The detailed configuration window for "EM/CHEWY Vs/204" includes the following sections:

- Voice Service Operational Attributes:** Administrative State (unlocked), Operational State (enabled), Usage State (busy).
- Frame OSI State Attributes:** Administrative State (unlocked), Operational State (enabled), Usage State (busy).
- Logical Connection Attributes:** Path: EM/CHEWY Trn/130 LCh/609, EM/MTHT/60 Vs/204.
- Voice Service Provisionable Attributes:** Frame Interface Name (lp/2 DS1/0 Chan/0), Remote End Name (em/mtht/60 vs/204), Audio Gain (0), Silence Suppression (on), Echo Cancellation (on), u Law Conversion (off), Required Receive Bandwidth (32000), Required Transmission Bandwidth (32000).
- Summary:** Operational, Loc Operational, Provisionable, Plc Provisionable, Statistical.

Service-specific Attribute Views

- **Real-time attribute groups**
 - service summary attributes
 - operational attributes
 - provisionable attributes
 - statistical attributes
- **A mouse “click” between attribute groups**
 - easy-to-find information, customer feedback to form groups

Voice Statistics Attribute Example

Packets, Bytes

Audio Voice Cells vs
Silence Suppressed

LRC Errors

Frame rate indicator
(Compression on/off)

Point and Click to
select various other
attribute groups of the
voice service

The screenshot shows a web-based interface for 'Voice Service Statistical Attributes'. It features several sections: 'Logical Connection Statistical Attributes' with fields for Packets Sent (7115), Bytes Sent (18226), Packets Received (7109), and Bytes Received (17964); 'Framer Statistical Attributes' with fields for Total Cells (150326704), Audio Cells (12), Silence Cells (150326692), Modem Cells (0), Control Encoding Rate (32), LRC Errors (0), Frames Under Run (0), Frames Tx Network (94 MB/s), 32 kb/s, 24 kb/s, 16 kb/s, Frames Lost in Network (0), and Frames Dropped (0). On the right, a vertical menu allows switching between 'Summary', 'Operational', 'Loc. Operational', 'Provisionable', 'Plc. Provisionable', and 'Statistical' views. The 'Statistical' view is currently selected.

Simplified Service Monitoring

- Object-oriented design allows information to be viewed from different perspectives

Service locator tool

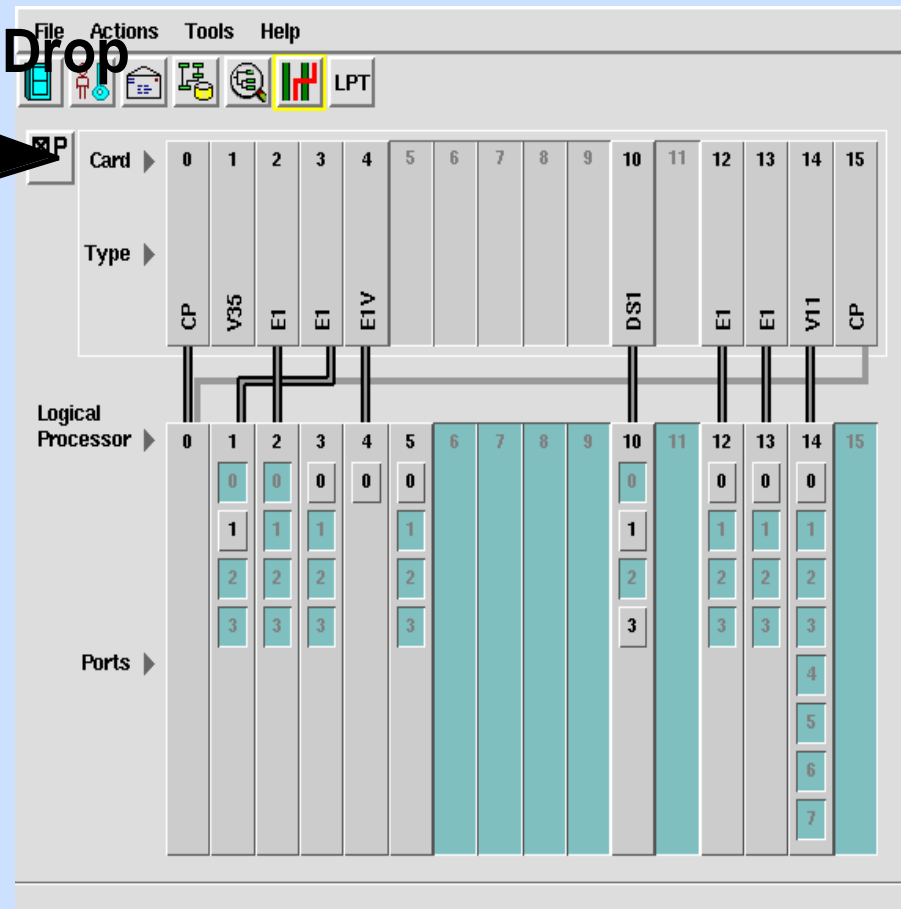
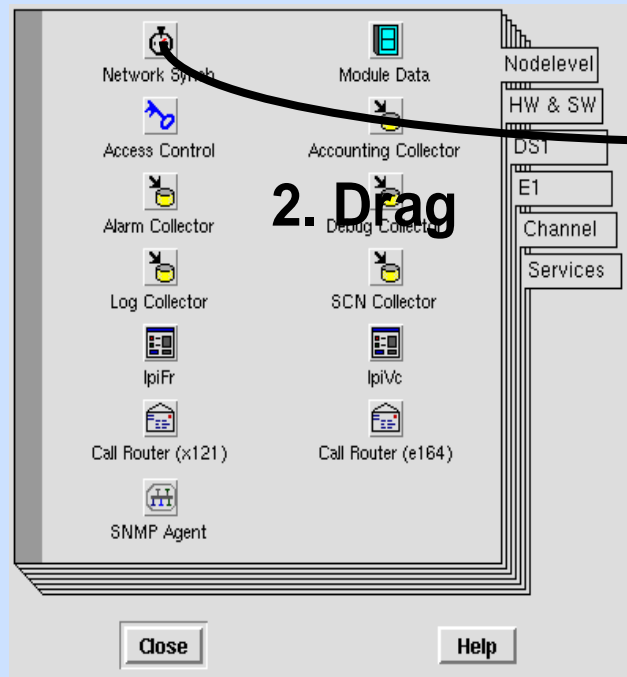
- Ignores physical component hierarchy
- Organizes from a service perspective
- Helps shift operations toward a service orientation
- Necessary approach to ATM multimedia adaption of services

The screenshot shows a software interface for service monitoring. At the top, there is a checkbox labeled "Show Location". Below it is a table with columns "Service", "Lp", "Port", and "Chan". The table lists services from Vs/201 to Vs/211. The service "Vs/208" is highlighted in red. To the right of the table is a tree view showing a hierarchy of components: FrUni, FrNni, Vs, Btds, Htds, Trunk, and DpnGate. A callout box points to the "Vs" component in the tree view, stating: "Point and Click to view all services on the Passport by one of these service types." Another callout box points to the "Vs/208" row in the table, stating: "Point and Click to view attributes on service VCs or timeslots". A third callout box points to the "Vs/208" row, stating: "Troubled Service". A fourth callout box points to the "Trunk" component in the tree view, stating: "Location of each service". At the bottom of the interface are "Close" and "Help" buttons.

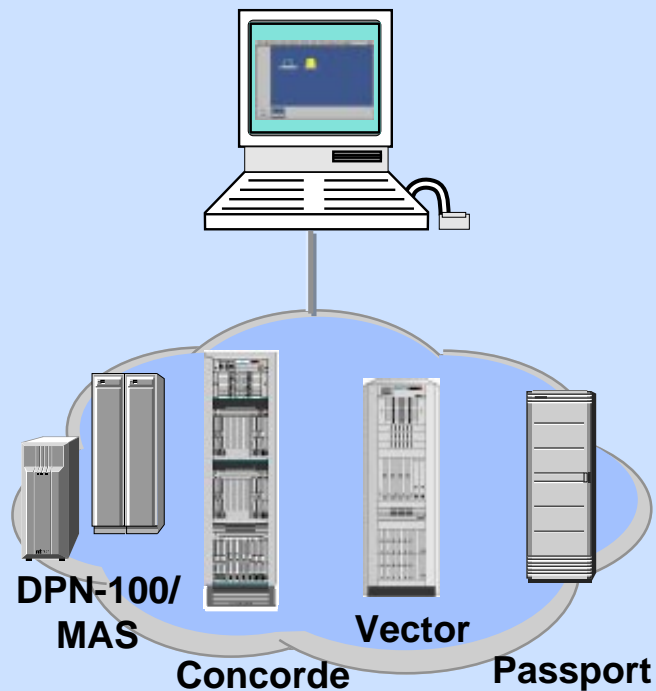
Service	Lp	Port	Chan
Vs/201	2	1	0
Vs/202	2	1	1
Vs/203	2	1	2
Vs/204	2	1	3
Vs/205	2	1	4
Vs/206	2	1	5
Vs/207	2	1	6
Vs/208	2	1	7
Vs/209	2	1	8
Vs/210	2	2	1
Vs/211	2	2	2

Provisioning - Fast and Easy

1. Click



Fit and Flexibility with Magellan



- ✓ **Strategic fit**
 - integration into your current environment
 - flexibility to address evolution plans
- ✓ **Open and industry-leading technologies**
 - standardized interfaces
 - leading open platforms
- ✓ **Cost-effective scalability**
 - event-driven architecture
 - distributed client-server model
- ✓ **Improve service for network users**
 - ease-of-use
 - controls complexity
 - reduces downtime
 - reduces costs

Fits into your existing infrastructure and provides flexibility to keep your network competitive