

Magellan Management Overview and Direction

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Agenda

- **Influences on network management**
- Where networks are going...
- Magellan strategy
 - our solution
- Summary

What is Network Management?

- **Network management is the act of monitoring, analyzing and controlling the behaviors of networked systems**
- **The process of controlling a complex communications network to maximize its efficiency and productivity**

**Definition has stayed consistent,
Scope of what is being managed has changed**

Why are Networks Important?

- **Fact:**

- networks and their applications are becoming indispensable tools
 - enable productivity
 - profit center or enable profit center
- networks are supporting more applications and more users
- trend is towards larger, more complex networks

Networks are able to directly or indirectly...
Save \$ ***Generate \$*** ***Save time \$***

Why is Management Important?

- **Well-maintained networks make/save money and time**
- **Complex networks cannot be managed by human effort alone**
- **Network management costs are 20-50% of total information systems budget**
- **Costs of improper management can be many multiples of the IS budget**
- **Customers are acknowledging realities of network ownership**

Efficient management maximizes potential, minimizes cost

The Players

1 - Customers

- service providers
- F1000 companies
- governments
- mass businesses

3 - Vendors

- equipment vendors
- software vendors
- management vendors
- computing vendors

2 - Standards bodies

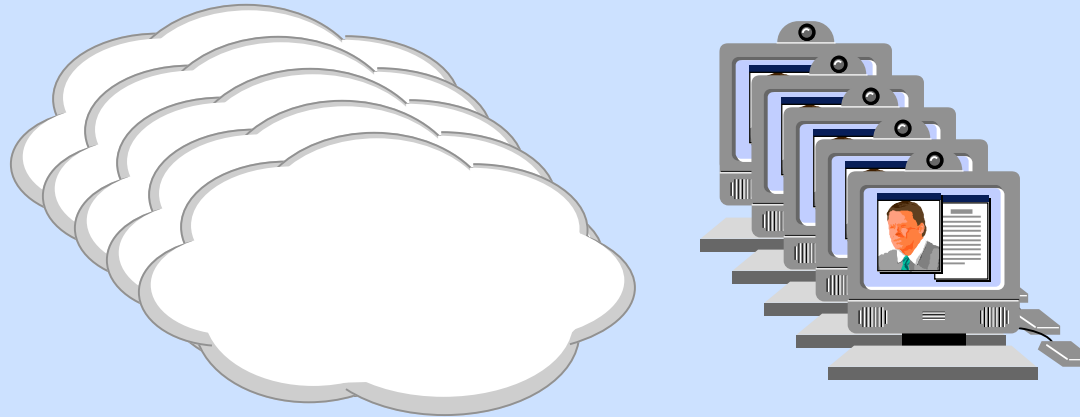
- ITU-T (formerly CCITT)
- Frame Relay Forum
- NM Forum
- TINA
- ISO
- IETF
- OMG
- OSF

Nortel takes its lead from customers and standards

Agenda

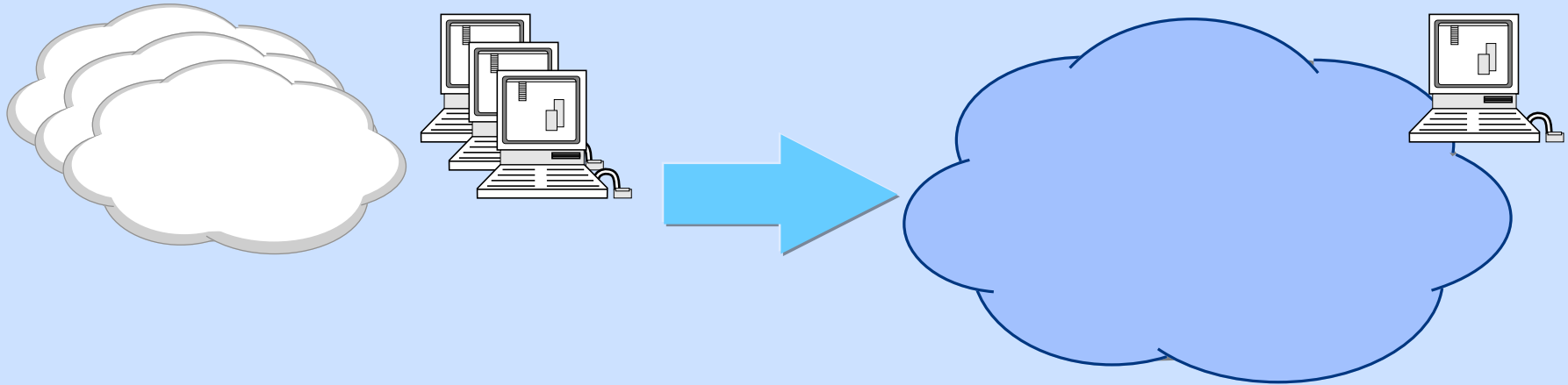
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Legacy Networks...



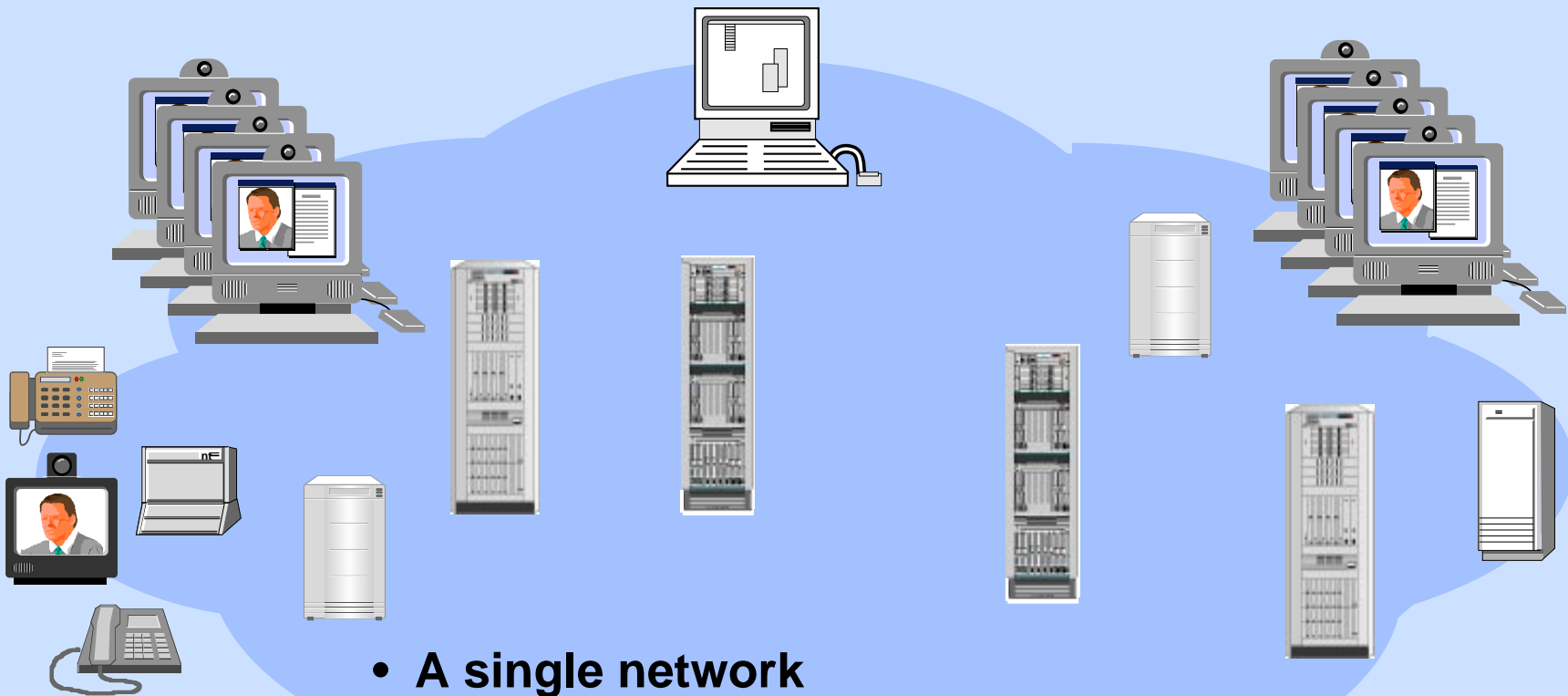
- **Multiple networks**
 - backbone network
 - modem network
 - mainframe network
 - access network
- **Multiple management stations**
 - different vendors and/or equipment
 - multiple management locations

Networks in Transition ...



- **Multiple networks still exist but...**
 - they are decreasing in number
 - target is **single-integrated-managed network**
 - decreased costs
 - increased complexity

The Future...



- A single network
- Management of millions of devices

Magellan's goal: to make the move from today to tomorrow as simple as possible

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Magellan Management Strategy

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

Delivering what customers need

Strategic Benefits...

- **Simplify move from yesterday's implementation to tomorrow's goal**
- **Minimize amount of change**
- **Ensure standards ideal is not encumbered by today's realities**
- **Enable customers to keep step with evolving management technologies**

Listen to and experience with our customers as they move

Components of the Strategy

- **Management platforms**
 - Magellan NMS
 - Magellan OMS
 - HP/OpenView
 - Cabletron Spectrum
 - IBM NetView/AIX
- **Value-added applications**
- **Customer Network Management**
 - ServiceMonitor

Addressing the needs of our customers

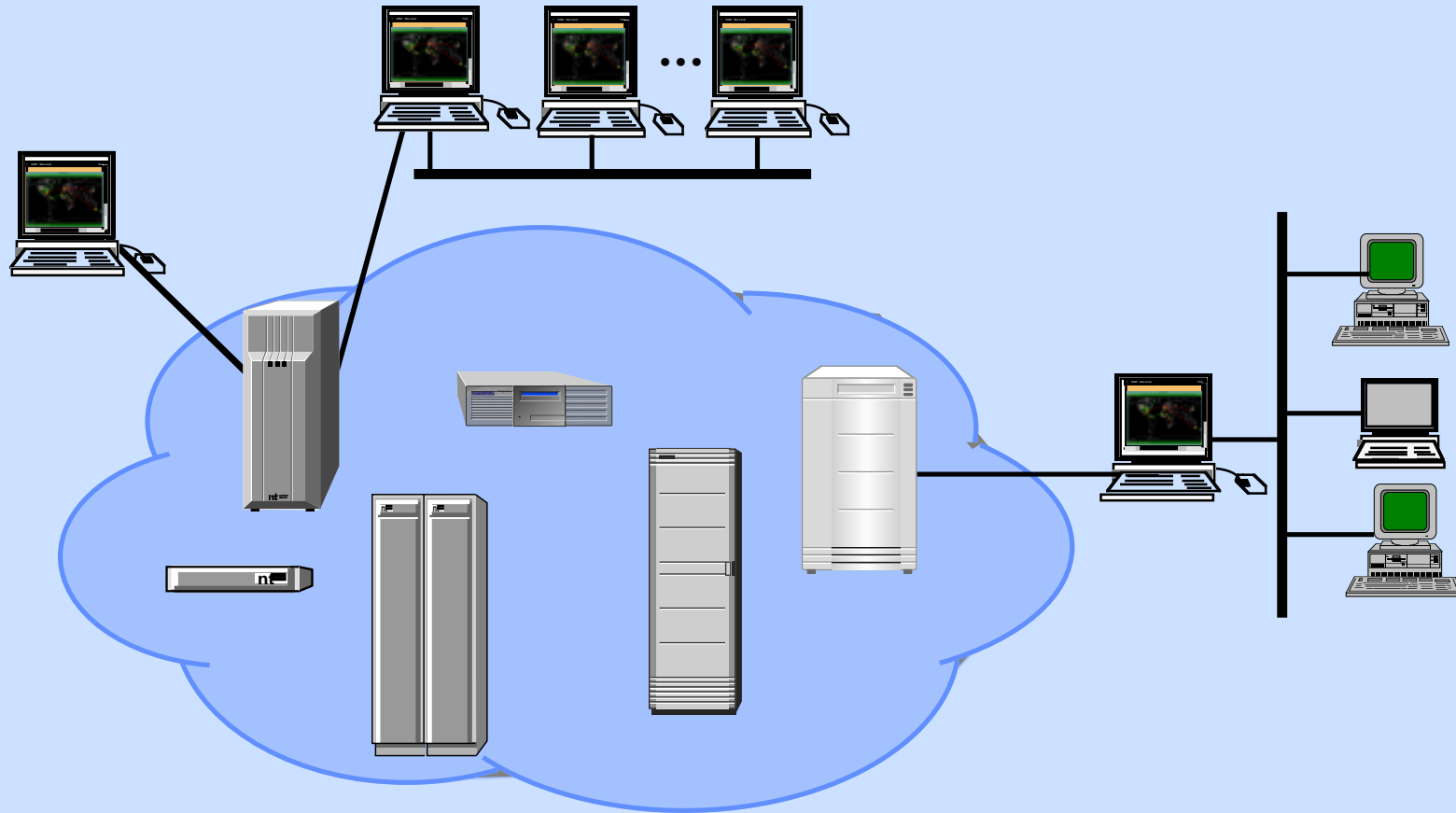
Magellan NMS



- **Advisor**
 - improving support of large networks
- **Expert Advisor**
- **Architect**
 - improve performance of DPN-100 provisioning
 - ‘point&click/drag&drop’ provisioning for Passport
- **Base**
 - Release 10 will be delivered on Solaris 2.5
 - will include support for the new multimedia access device (Oscar)

NMS manages DPN-100, MAS, Passport and Oscar

Magellan NMS-based Networks



A management platform built from customer needs

Magellan OMS

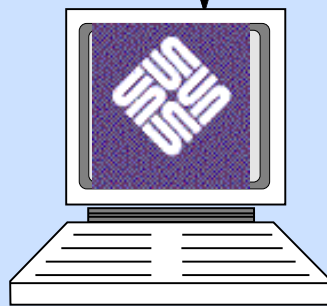


- **DPN-100**
 - surveillance only during '96 on HP OpenView (Sun only)
- **Passport**
 - initial release this month
 - delivered on HP OpenView for Sun and HP platforms
 - additional platforms delivered during '96
 - Cabletron's Spectrum management system - Windows NT
 - this platform will also include Meridian 1 applications
 - IBM's NetView/AIX platform - RS6000
- **Vector**
 - available today on HP OpenView (both Sun & HP)
- **Concorde**
 - included in '97 on HP OpenView (HP only)
- **Oscar**
 - included in '97 on HP OpenView (both Sun & HP)
- **OMS base**
 - end-to-end provisioning applications during 96/97
 - integrated network display in '96

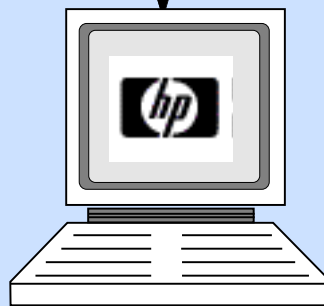
ATM-based Networks



HP OpenView



**SUN Sparc
Solaris**



**HP 700 Series
HP-UX**

**ATM management
based on lead
customer direction**

Passport-only Networks



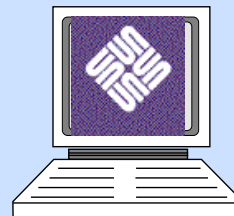
IBM NetView AIX



IBM RS6000
IBM AIX



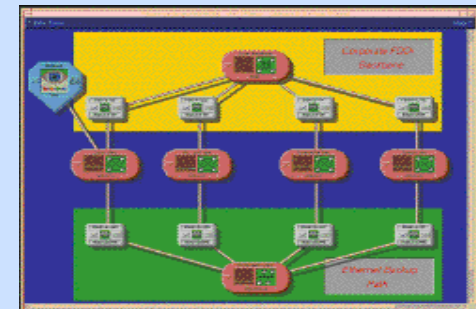
HP OpenView



SUN Sparc
Solaris



HP 700 Series
HP-UX



Cabletron Spectrum



PC
Windows NT

Selection of industry-standard open platforms

Combination Scenario



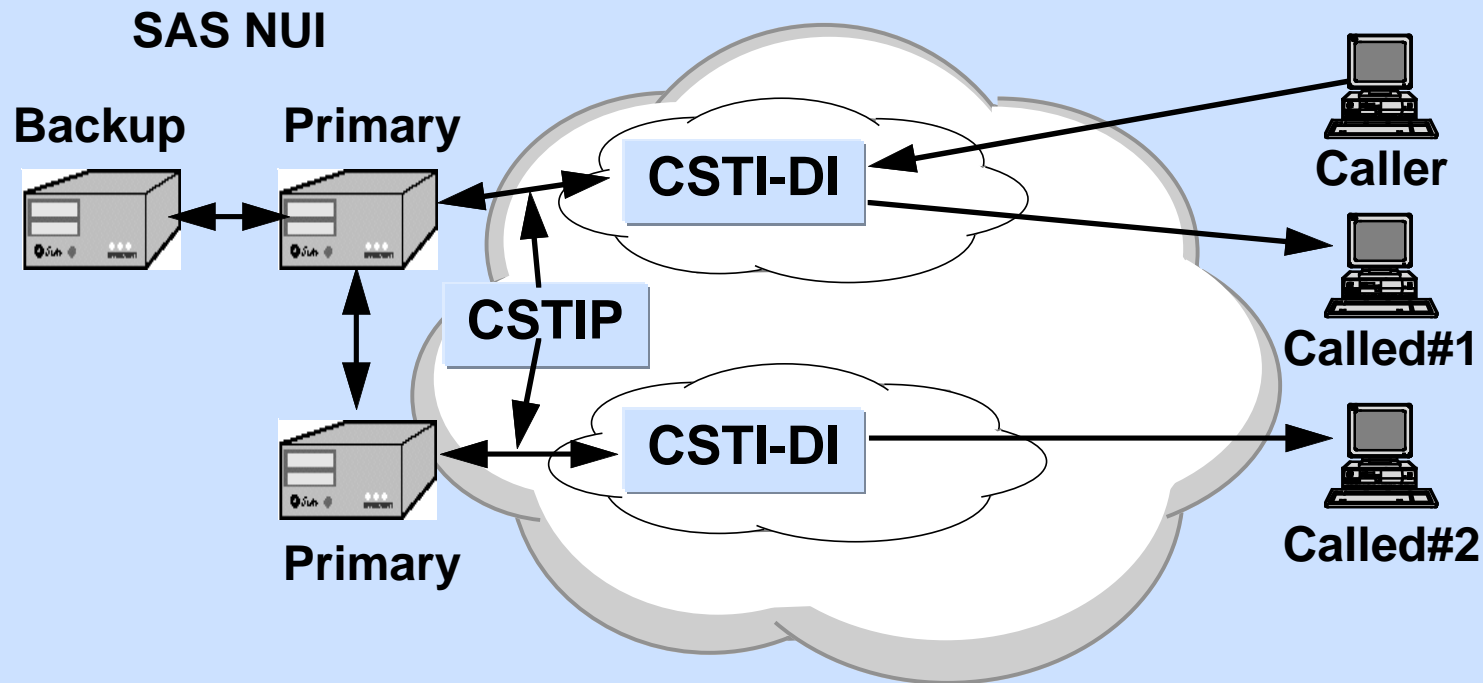
**Magellan NMS and OMS combine
to manage the entire portfolio**

Value-added Functionality

- **Wide range of interfaces**
ex: APIs, OSI Agent, etc.
- **Historical data collection**
ex: Accounting data, statistical data, alarms, etc.
- **Configuration tools**
ex: network reporting, backup and restore, etc.
- **Planning and analysis tools**
- **Dialup security**
– a new network dialup security capability

Functionality for any environment

New: Secure Access Server (SAS)



Dialup security for mobile/remote users

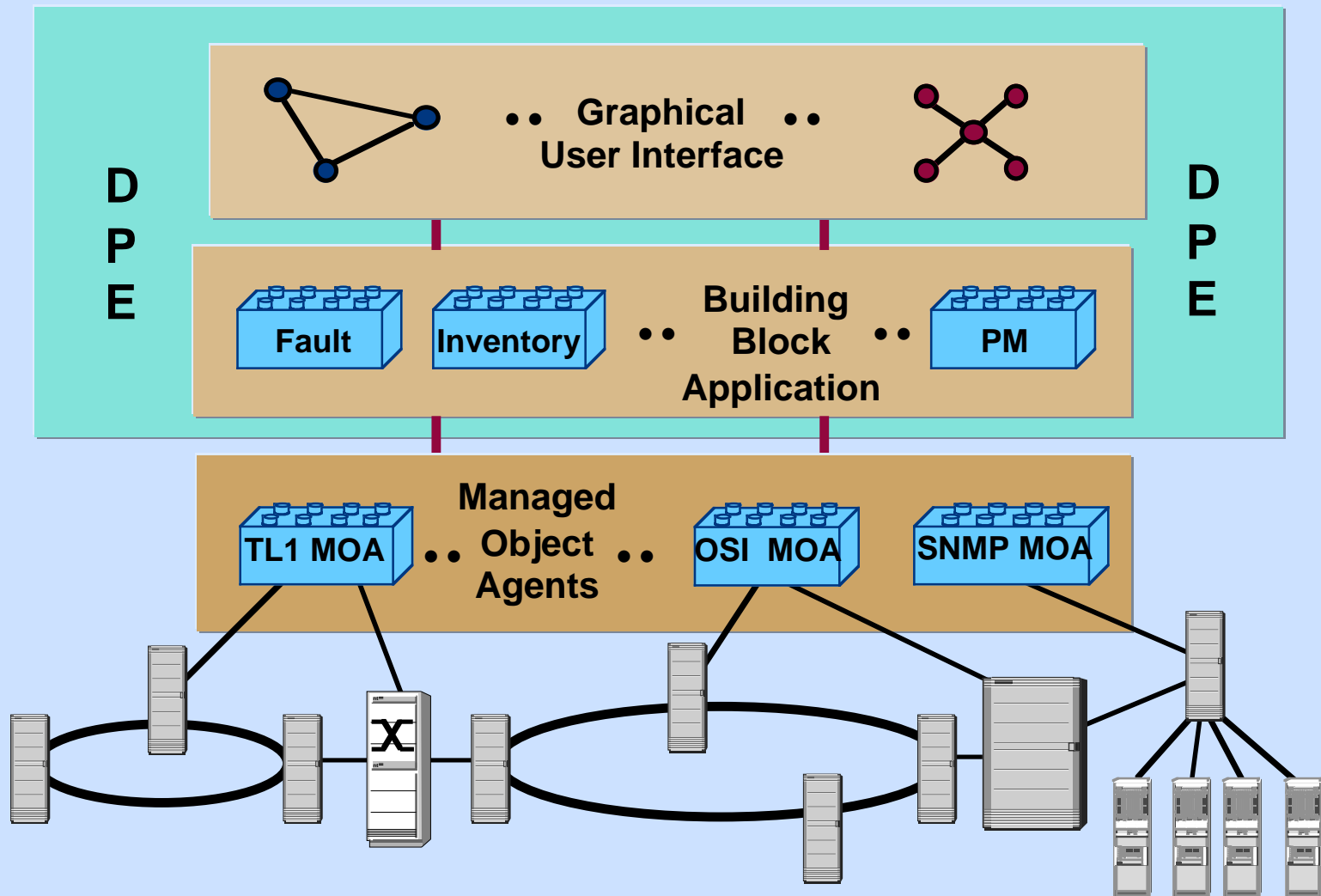
Magellan ServiceMonitor

- **Simple to use**
 - focus on management of VPN services rather than equipment
 - reduces complexity for customer
- **Cost-effective**
 - PCs have lower cost than workstation
 - reduced service provider training and support costs
- **Supports international VPNs**
 - Magellan service provider co-operation for global customers
- **Compatible with multiple Magellan products**
 - DPN-100, Passport, Vector (R3)

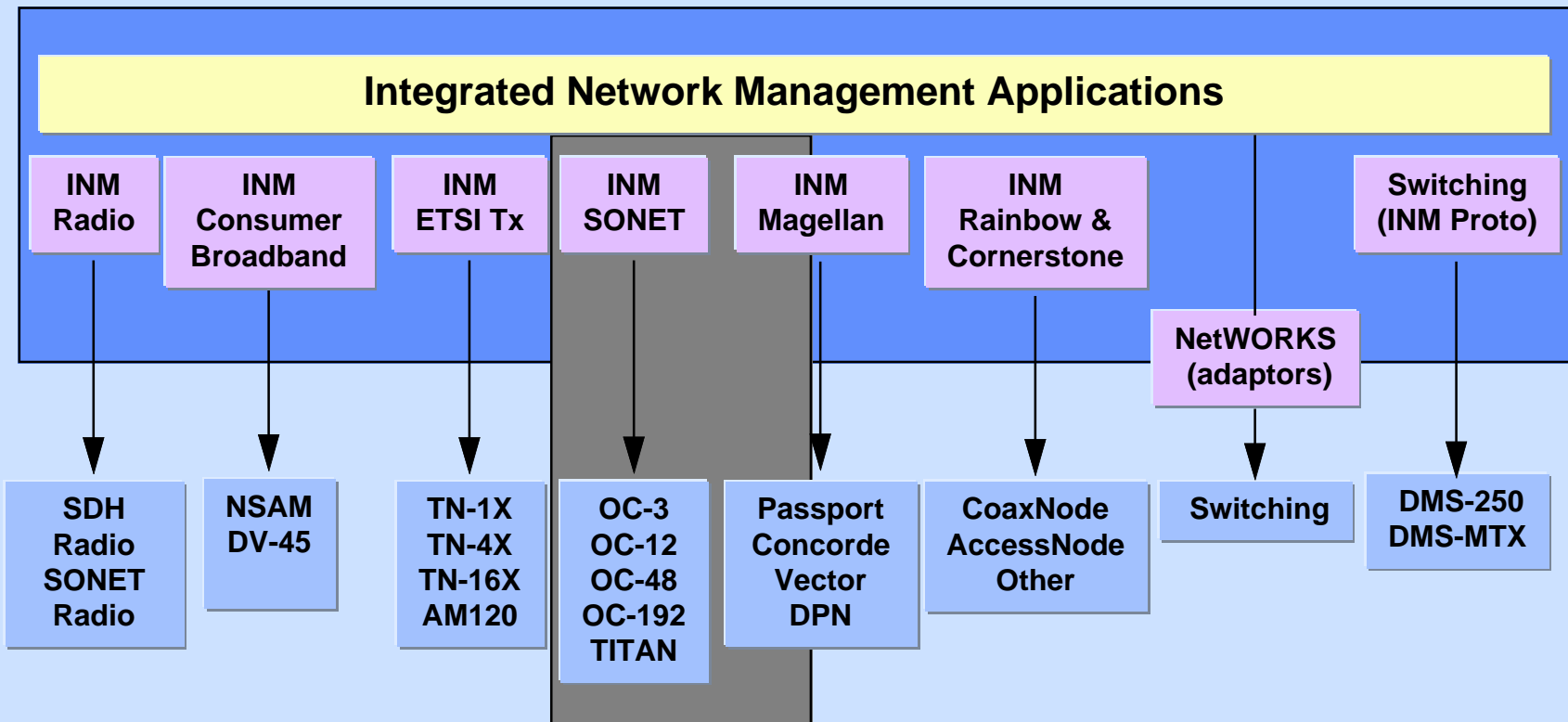
A customer-driven solution

What Tomorrow Looks Like...

TINA Architecture

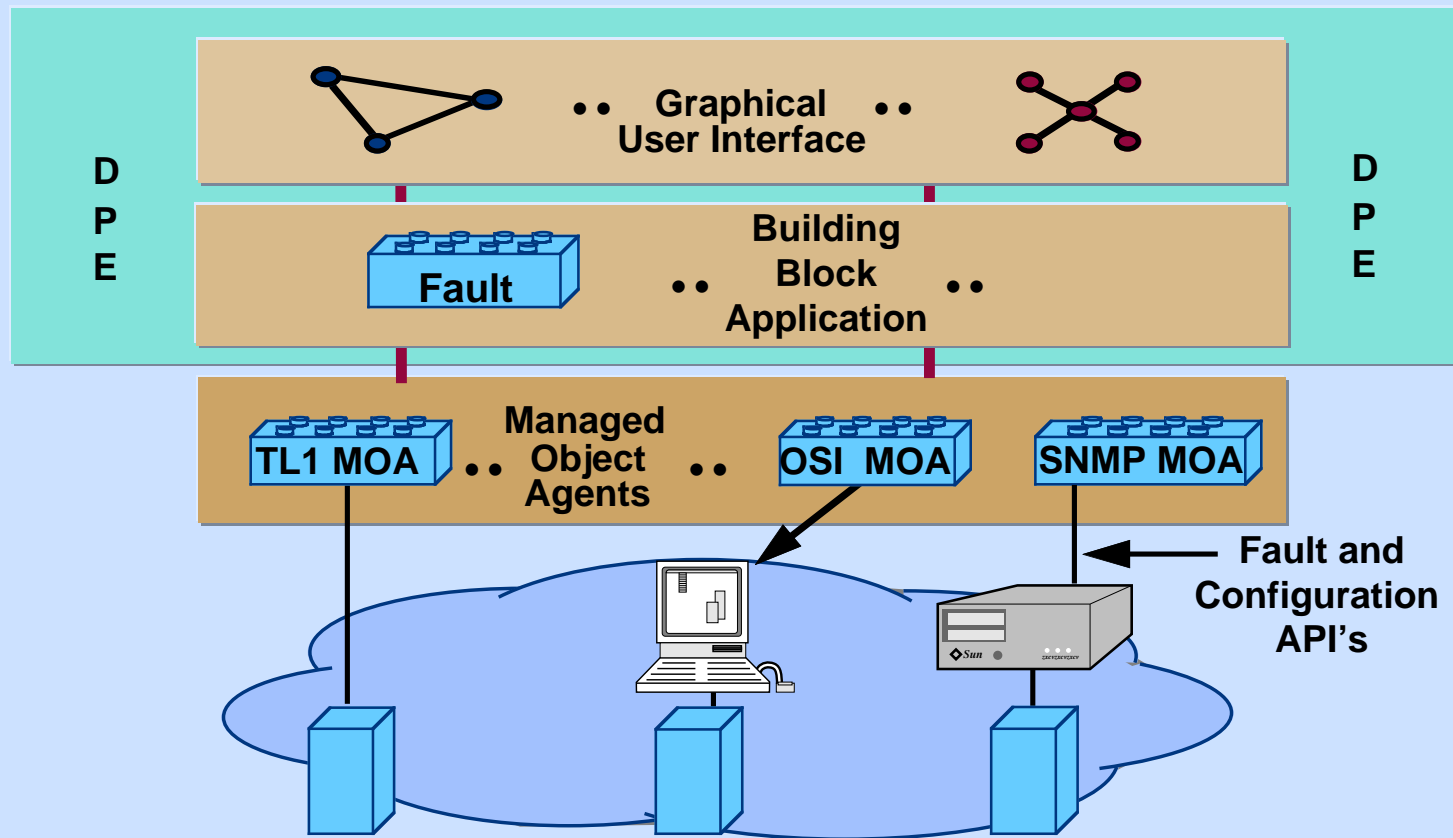


Nortel Delivers TINA



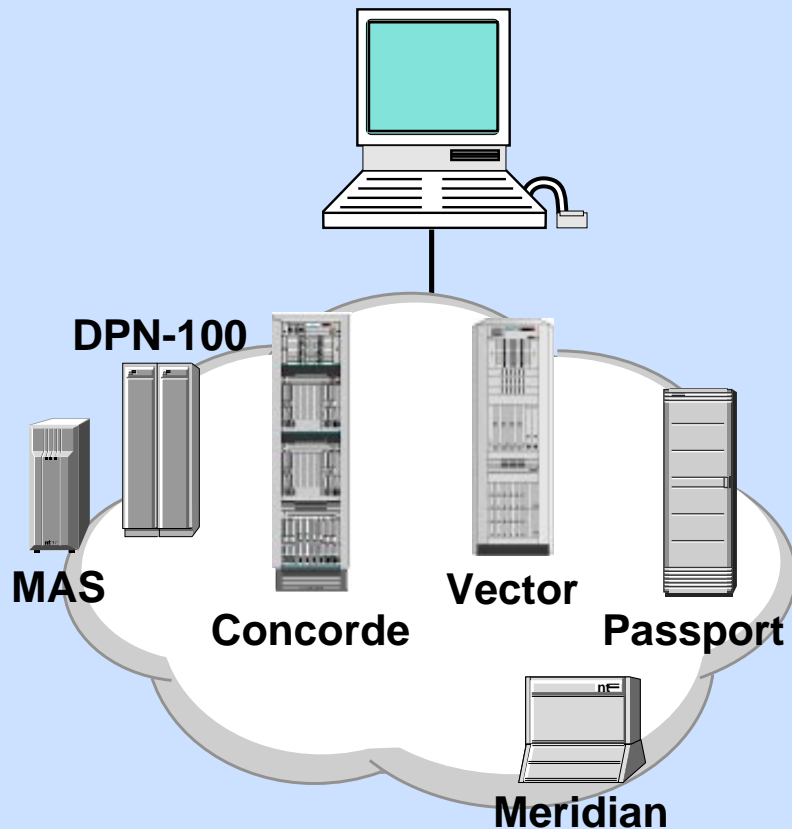
- Working with lead customer to deliver SONET-focused system
- Next step is SONET and ATM
 - near-term focus on delivering common fault and connection management software

Nortel's Integrated Network Management (INM)



Smooth evolution toward tomorrow's networking environments

Magellan Delivers a Capability Set that:



- ✓ **Fits into customers' environment**
 - flexibility to address evolution plans
- ✓ **Is open**
 - standards-based options
 - customer extendable
- ✓ **Integrates Magellan and other Nortel products**
- ✓ **Is scalable**
 - small as well as very large number of managed nodes
 - number of operators
- ✓ **Reduces network operating costs**
 - value-added applications
 - common network maps
 - service level management
- ✓ **Provides smooth migration to TMN for service provider applications**