

Magellan Access Solutions

Adrian Hatcher

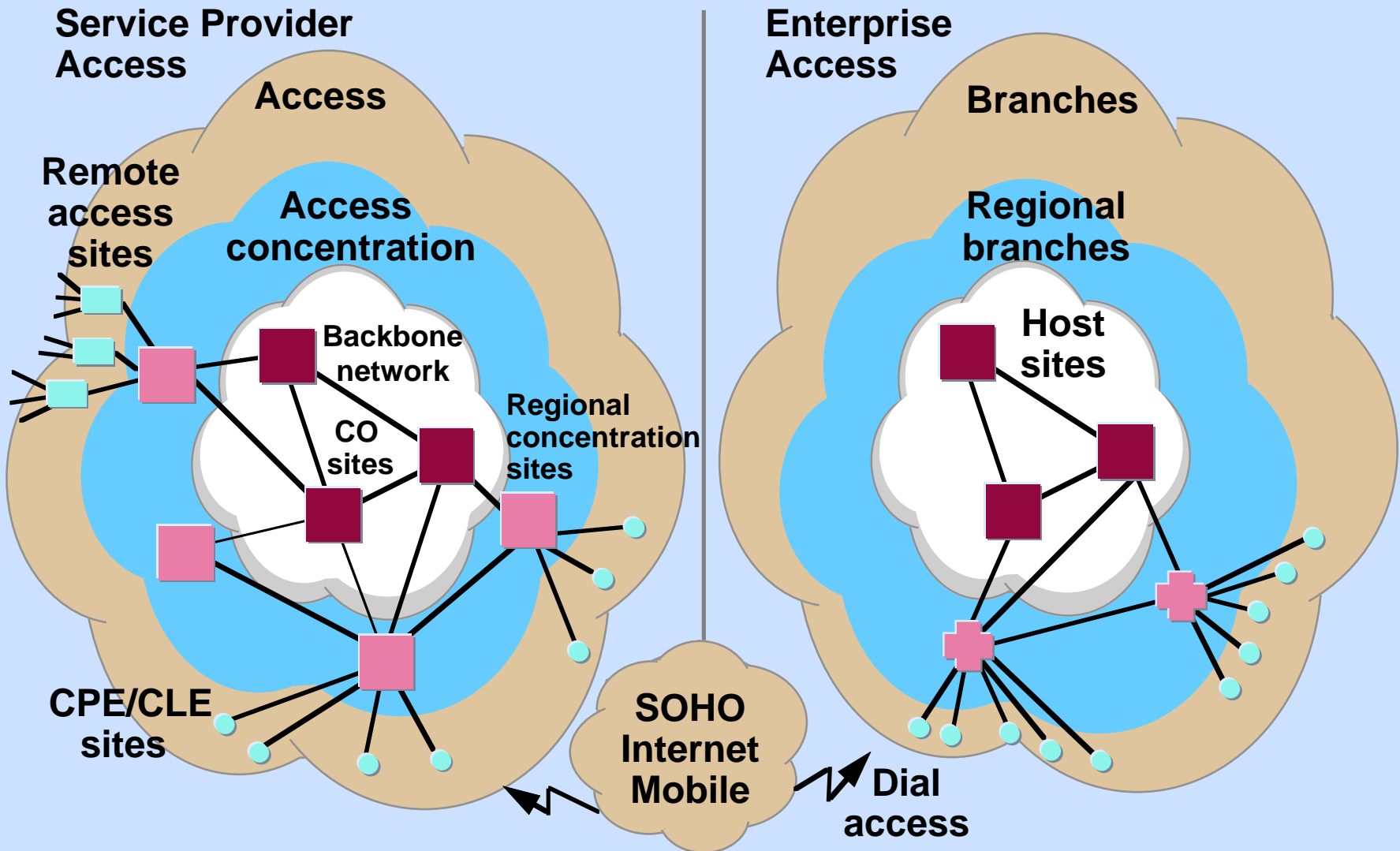
Senior Product Manager, Magellan Access



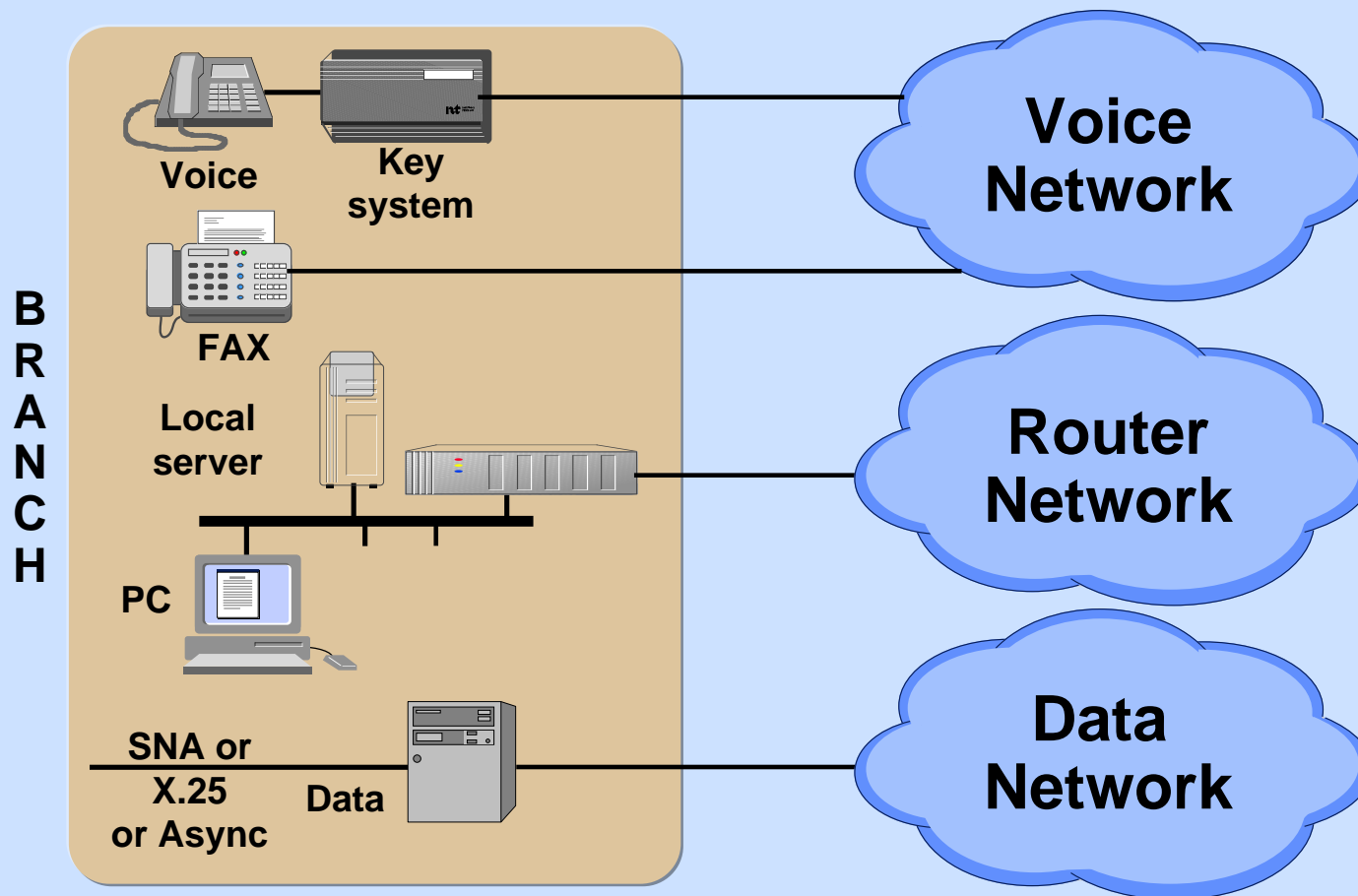
Agenda

- **Access Market Evolution**
- Magellan Access Solutions
- Magellan's Access Products

Typical Network Model

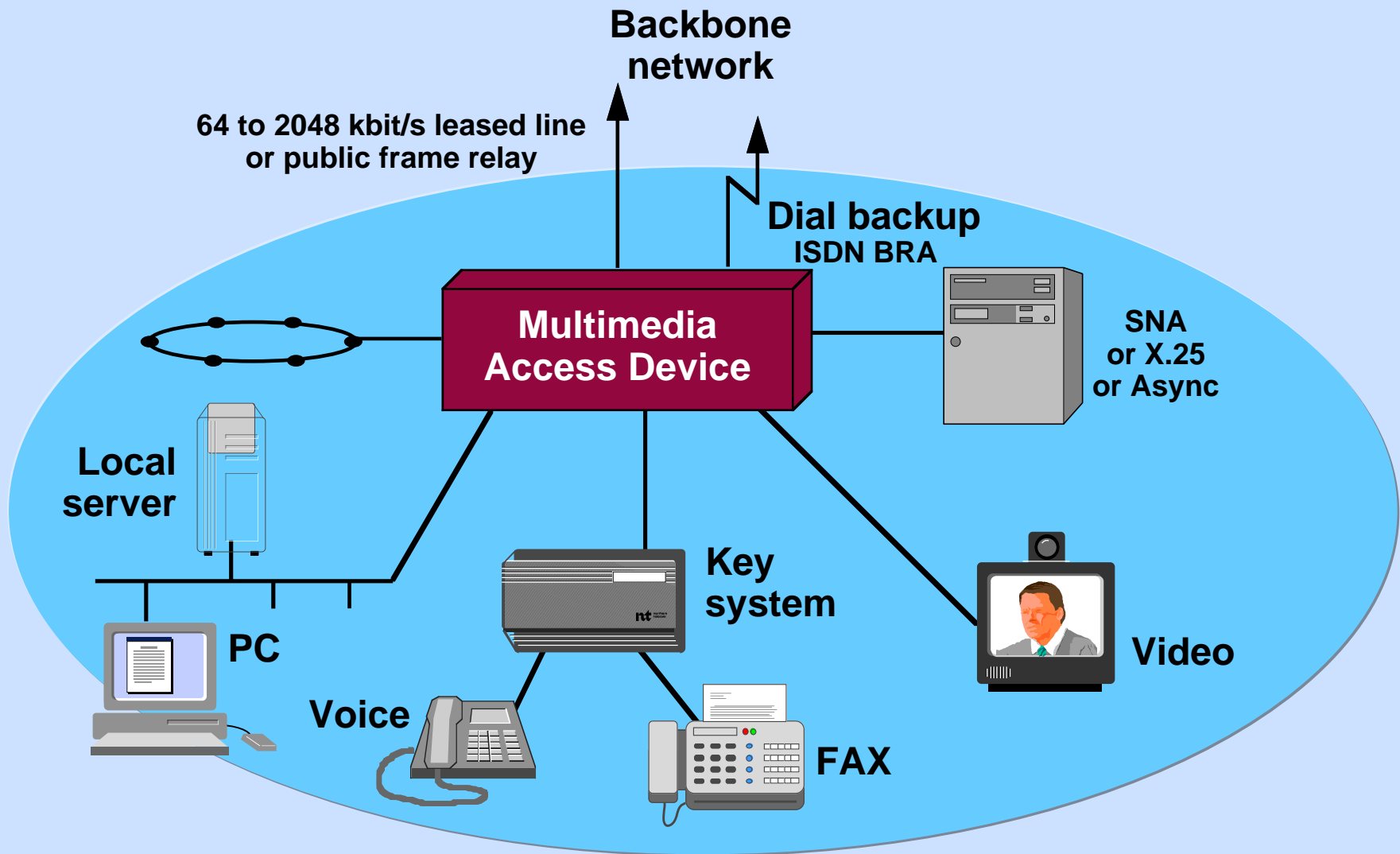


Today's Branch/CLE Environment



Opportunities to consolidate traffic and reduce cost

The Branch of the Future



Market Trends and Implications for Network Operators

Drivers

- Globalization and increased competition
- Liberalization of telecommunications market

Enablers

- Decreasing cost of processing power
- Accelerated pace of technology research

Trends

- Growing importance of corporate networking
- Increased competition and price pressure
- Increased demand for distributed processing environment and high speed networking
- Faster product evolution (new features, performance)

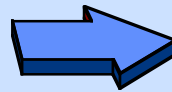
Need to effectively extend the values and benefits of backbone network consolidation to the access layer

Opportunity to drive business profitability

Key Access Values

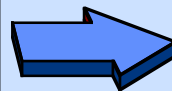
Access market trend

Need to effectively extend the values and benefits of backbone network consolidation to the access layer



End-user demands

- Low cost
- Fast response time
- High availability
- New services



Key values for network operators

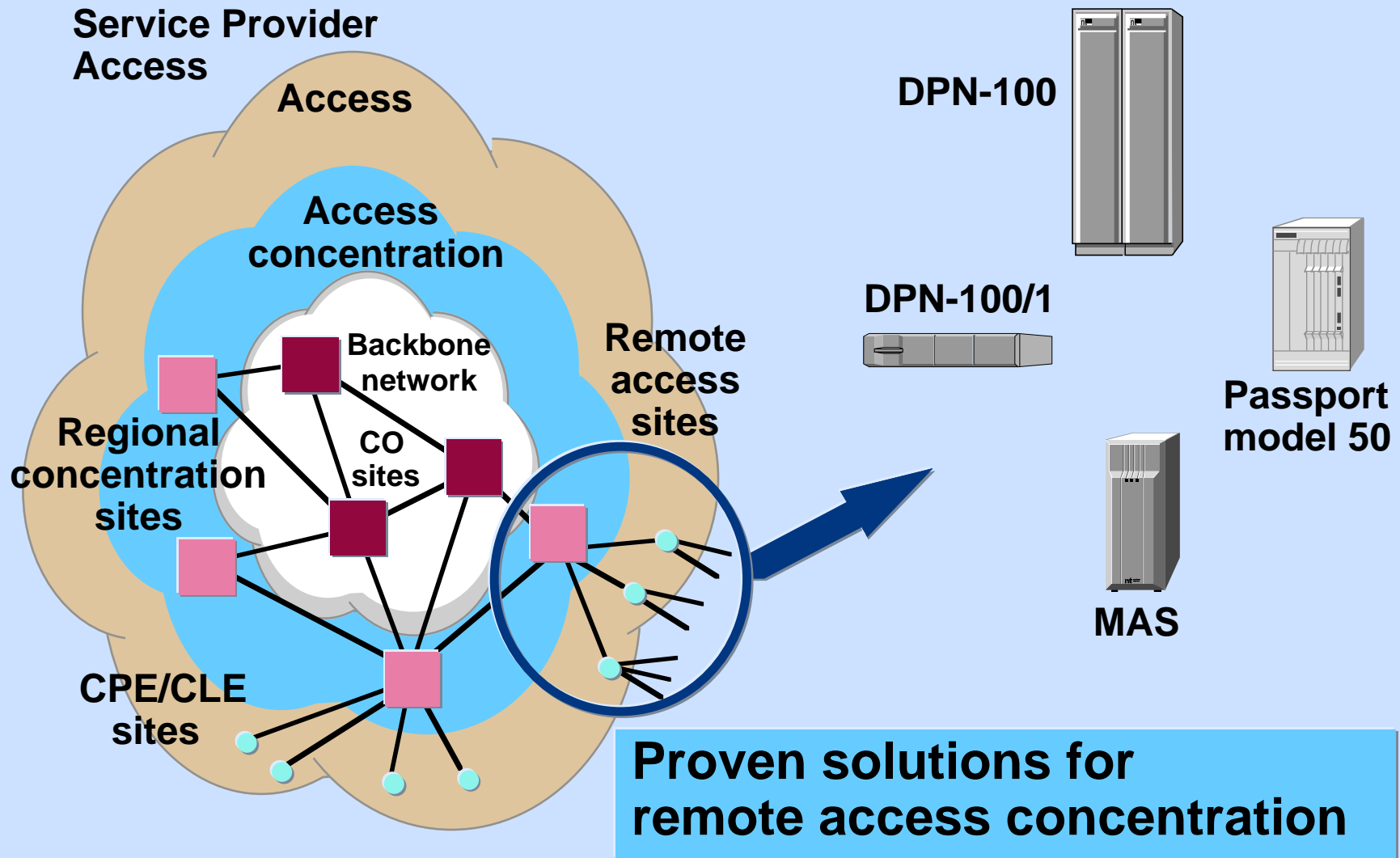
- “Best-in-class” product
- Overall network economics
- Clear evolution path
- Complete network solution
- Responsiveness (time-to-market)

Magellan solutions focused on customer values

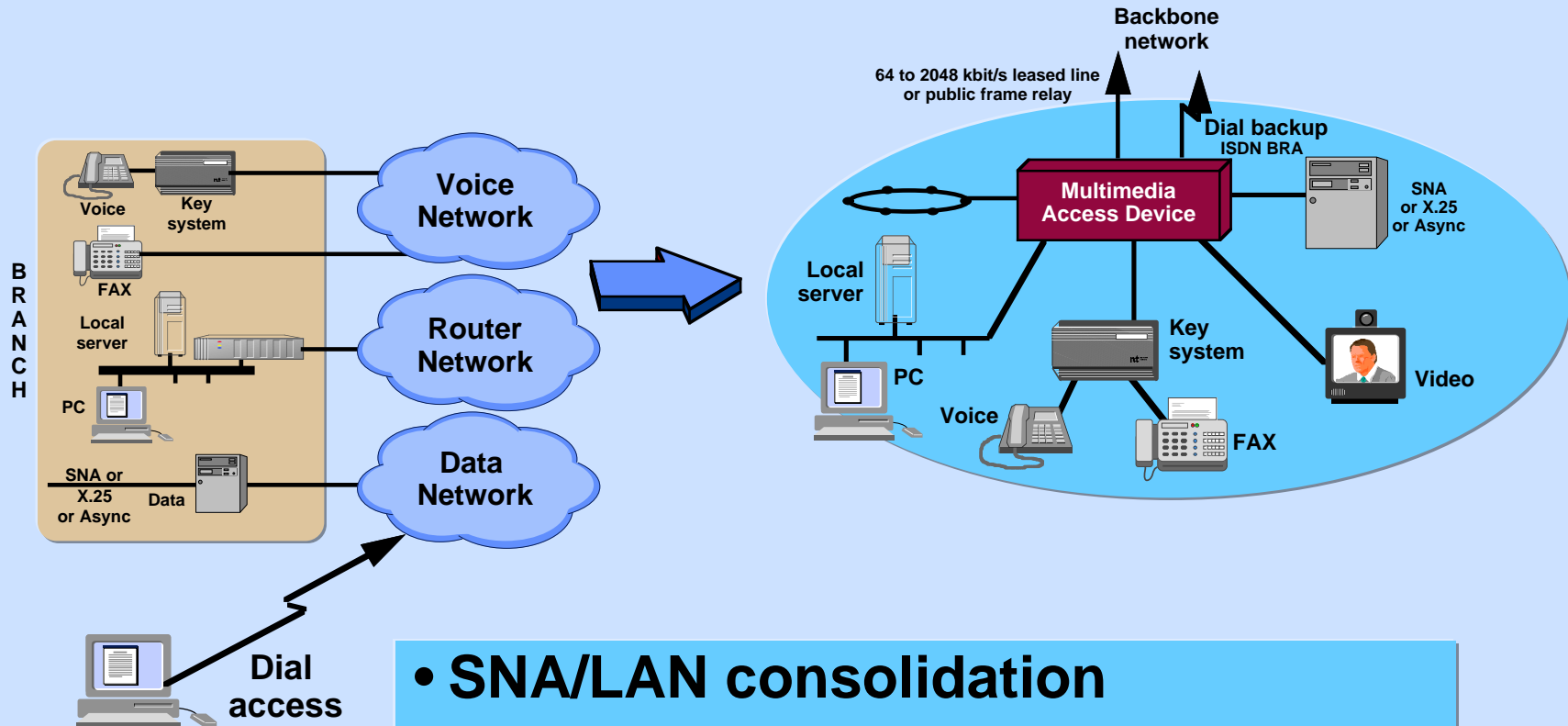
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- **Magellan Access Solutions**
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Service Provider Remote Access



Evolving Customer Requirements



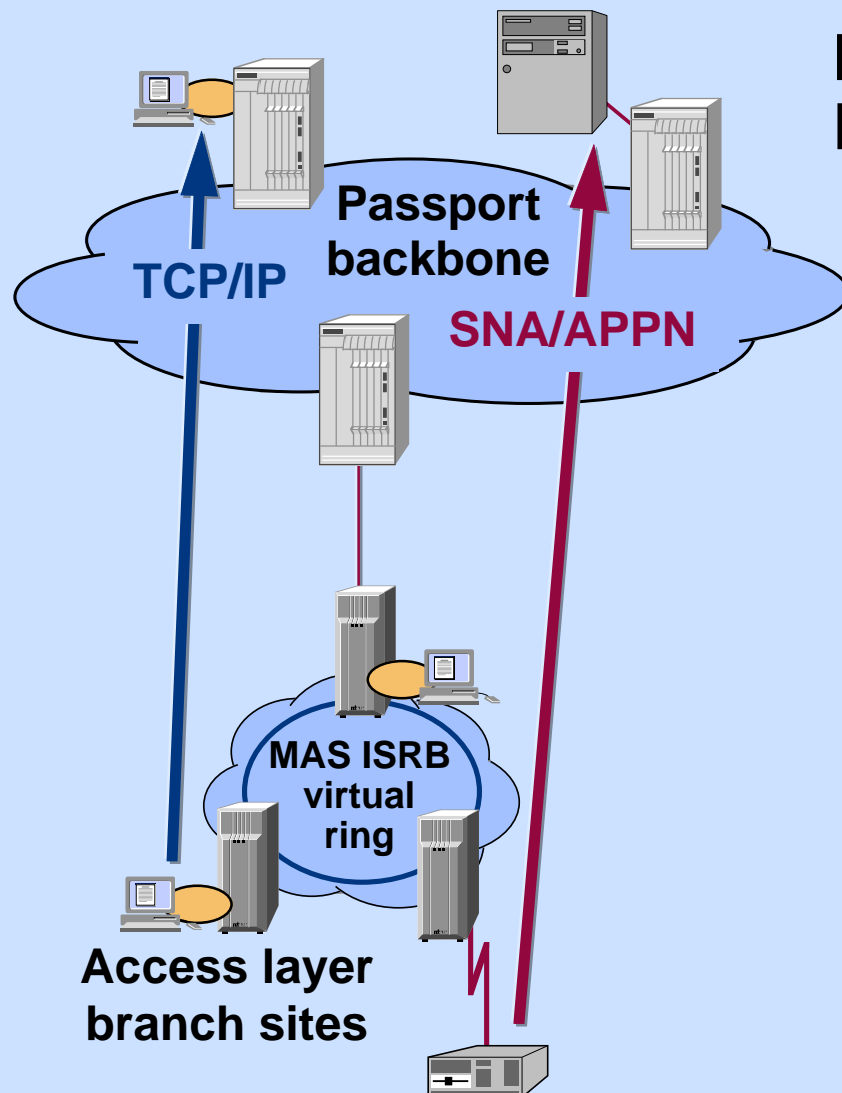
- SNA/LAN consolidation
- Remote LAN and Internet access
- Multimedia access

SNA/LAN Consolidation Challenges

- **SNA applications are ‘mission-critical’**
 - need to ensure revenue generating traffic not impacted
- **Growth of LAN-based traffic**
 - need to support distributed processing capabilities and information flow
- **SNA/LAN traffic incompatibilities**
 - differing bandwidth and delay characteristics

Consolidation must deliver values and benefits to support both SNA and LAN

SNA/LAN Consolidation Solutions Today

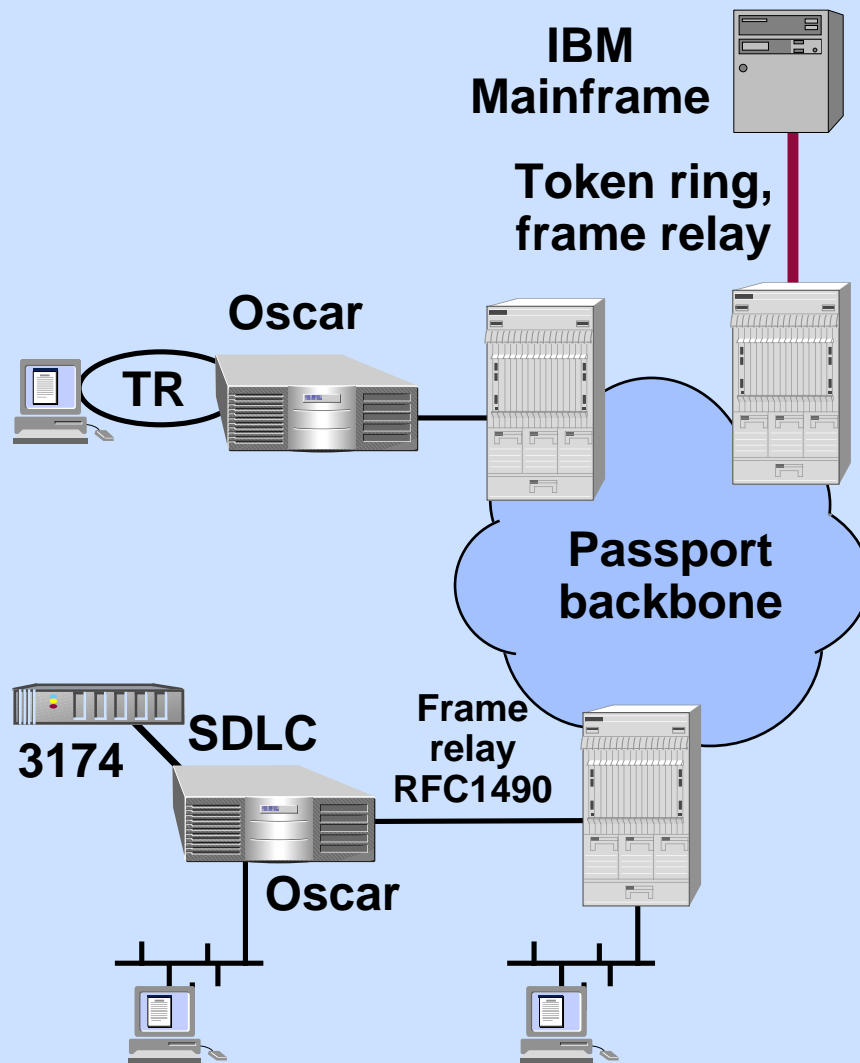


MAS SNA DLR and ISRB with Passport InterLAN Switching

Values and Benefits

- LAN internetworking
 - ISRB ring per user community
 - IP routing in Passport backbone
 - simplified engineering and setup
- SNA
 - SNA data link diversity
 - link termination and conversion
 - end-to-end class of service
 - network-wide backup and load balancing
 - dynamic rerouting around failures
- Multiple Priority System (MPS)
- APPN evolution path

SNA/LAN Consolidation Future Plans



Oscar and Passport InterLAN Switching

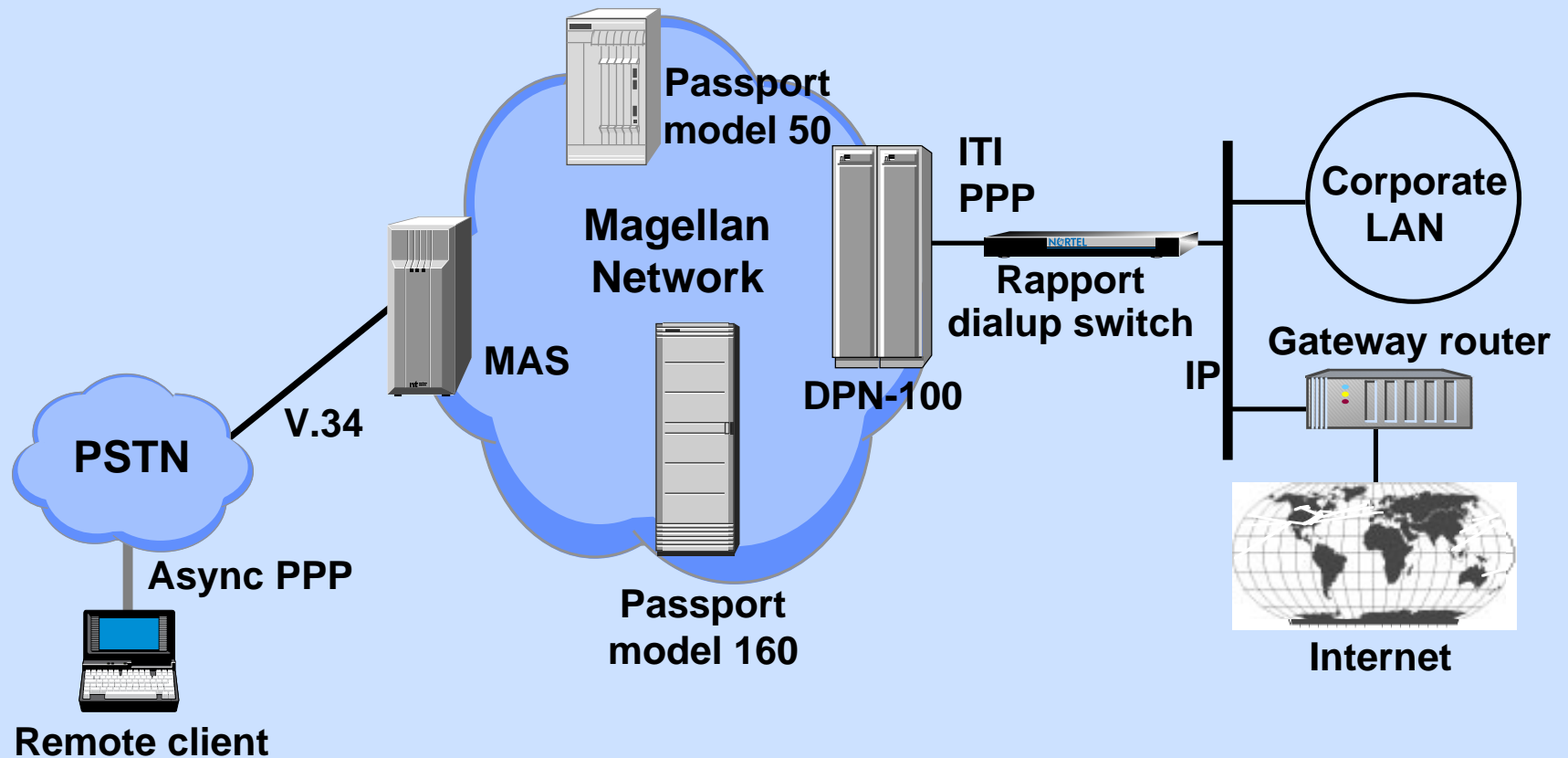
Values and benefits

- **LAN interconnection**
 - full featured bridge/router
 - RFC-1490 encapsulation
- **SNA networking**
 - SNA data link diversity
 - link termination and conversion
 - RFC-1490 encapsulation
 - end-to-end class of service
 - network-wide backup and load balancing
 - dynamic rerouting around failures
- **Multiple Priority System (MPS)**
- **APPN migration path**

Remote LAN and Internet Access Challenges

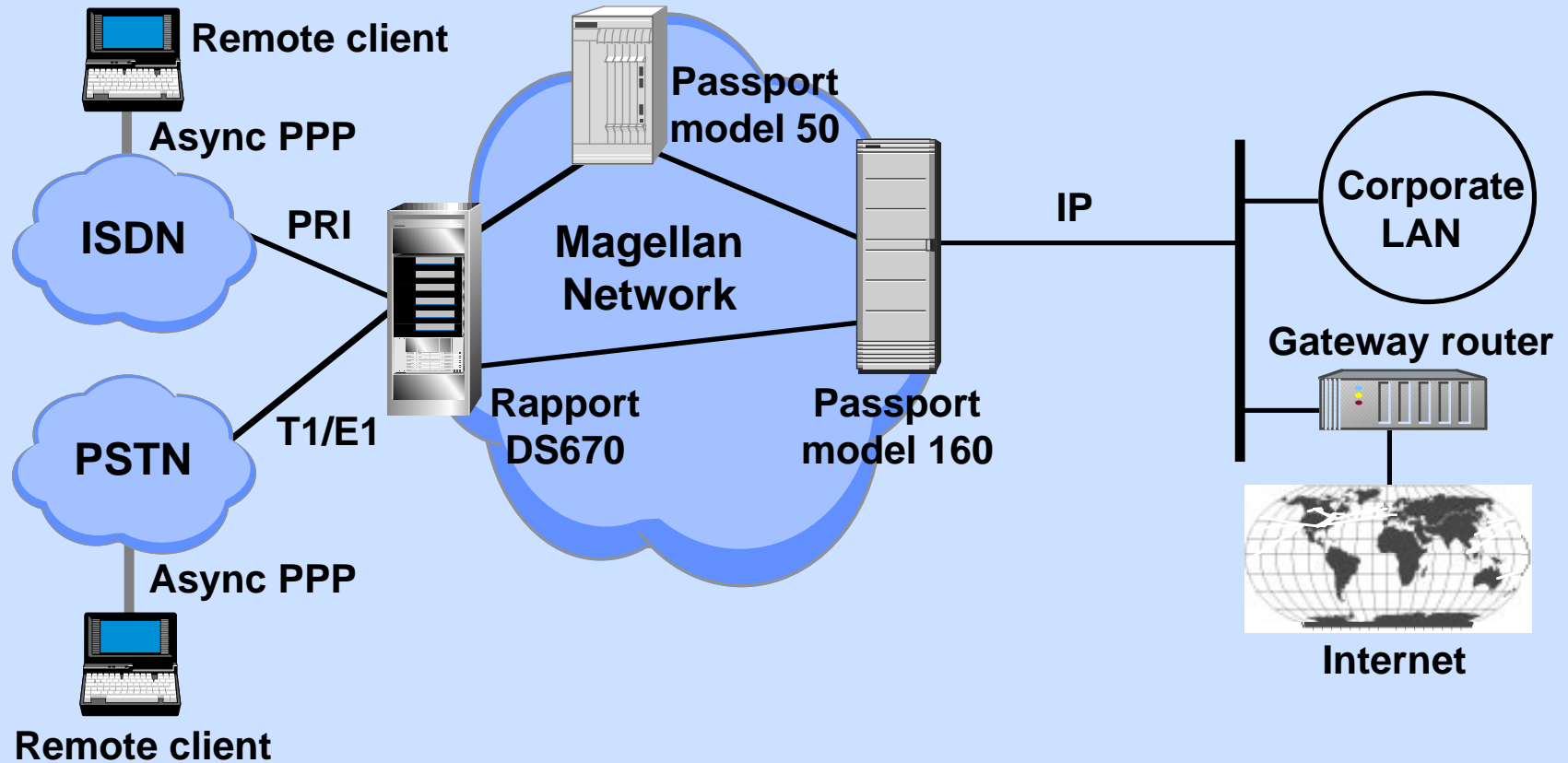
- **End-user need for Internet on-ramp**
 - global electronic mail
 - business marketing and promotion tool
 - information
 - entertainment
- **Need to connect mobile workforces to corporate networks**
 - corporate communications
 - business databases, applications
- **Support for telecommuting**
 - work-at-home
 - productivity gains

Remote LAN and Internet Access Solutions Today



Existing Magellan infrastructure supports remote access

Remote LAN and Internet Access Future Plans

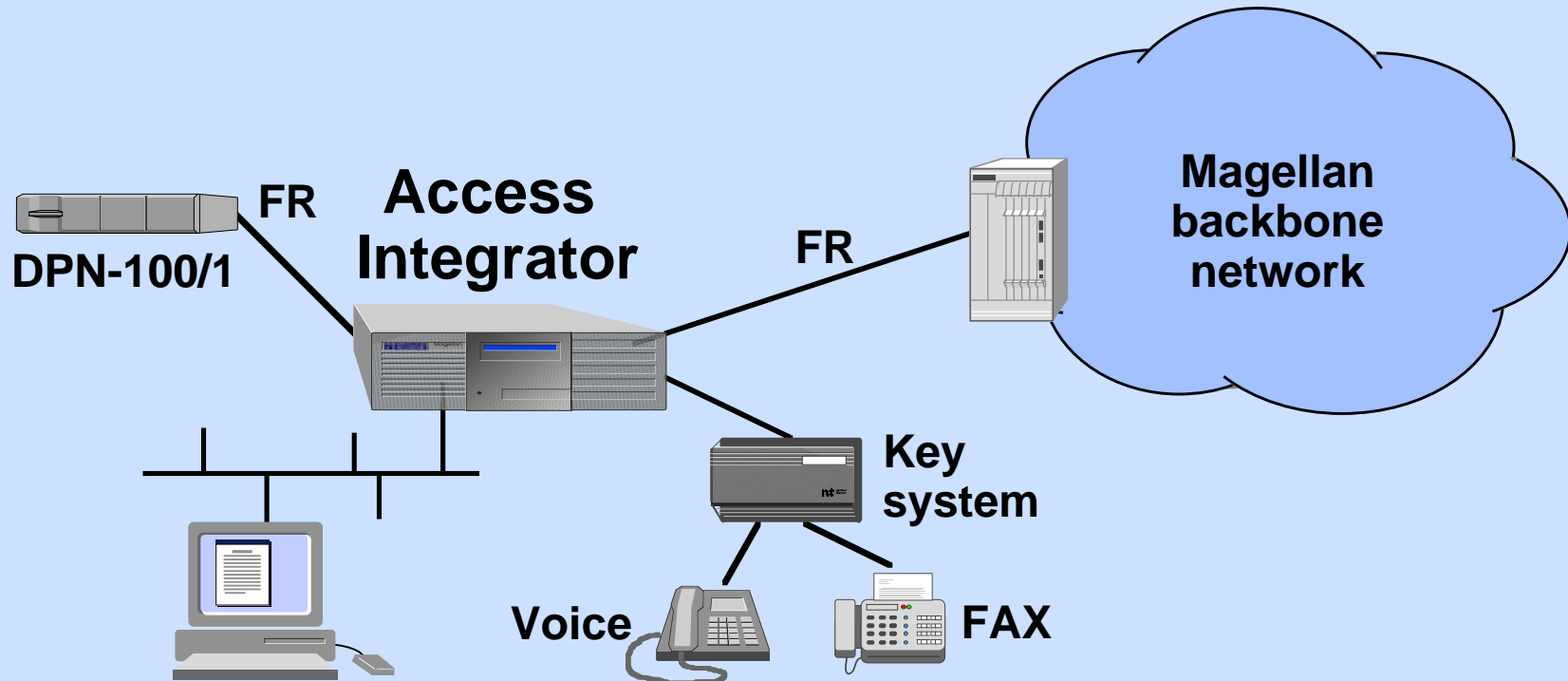


Passport/Rapport dialup switch solution for high performance requirements

Multimedia Network Consolidation Challenges

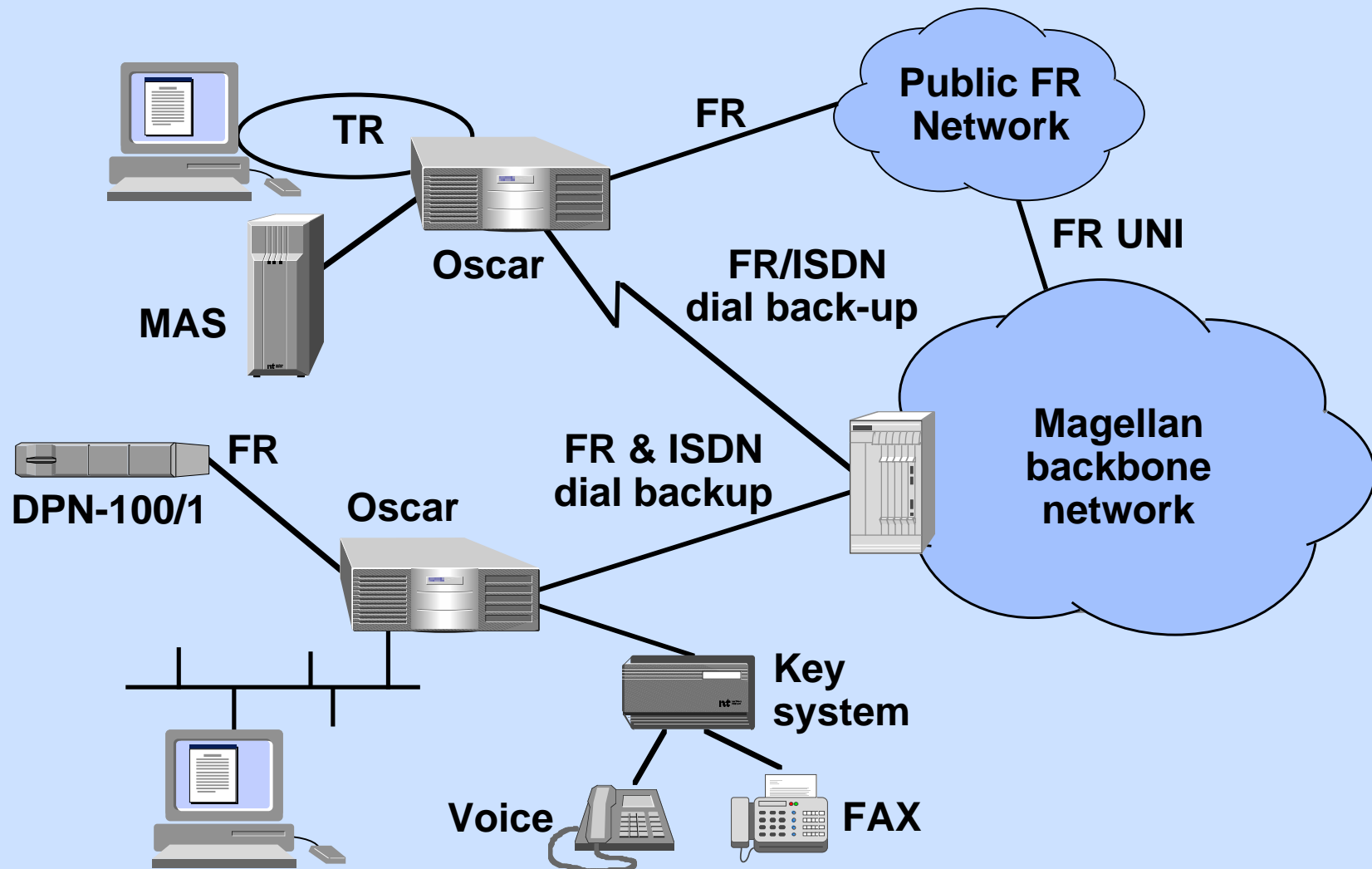
- **Demand for solutions that support new applications and services**
 - multimedia kiosks for financial services
 - telecommuting and telework
 - high-performance access to global information sources
- **Demand for improved overall network economics**
 - bandwidth utilization
 - network consolidation
 - efficient use of scarce skilled resources

Multimedia Network Consolidation Solutions Today



**Magellan Access Integrator
with Passport backbone**

Multimedia Network Consolidation Future Plans



Multimedia Network Consolidation Magellan Solution Values



Oscar provides high-value branch access for Passport networks

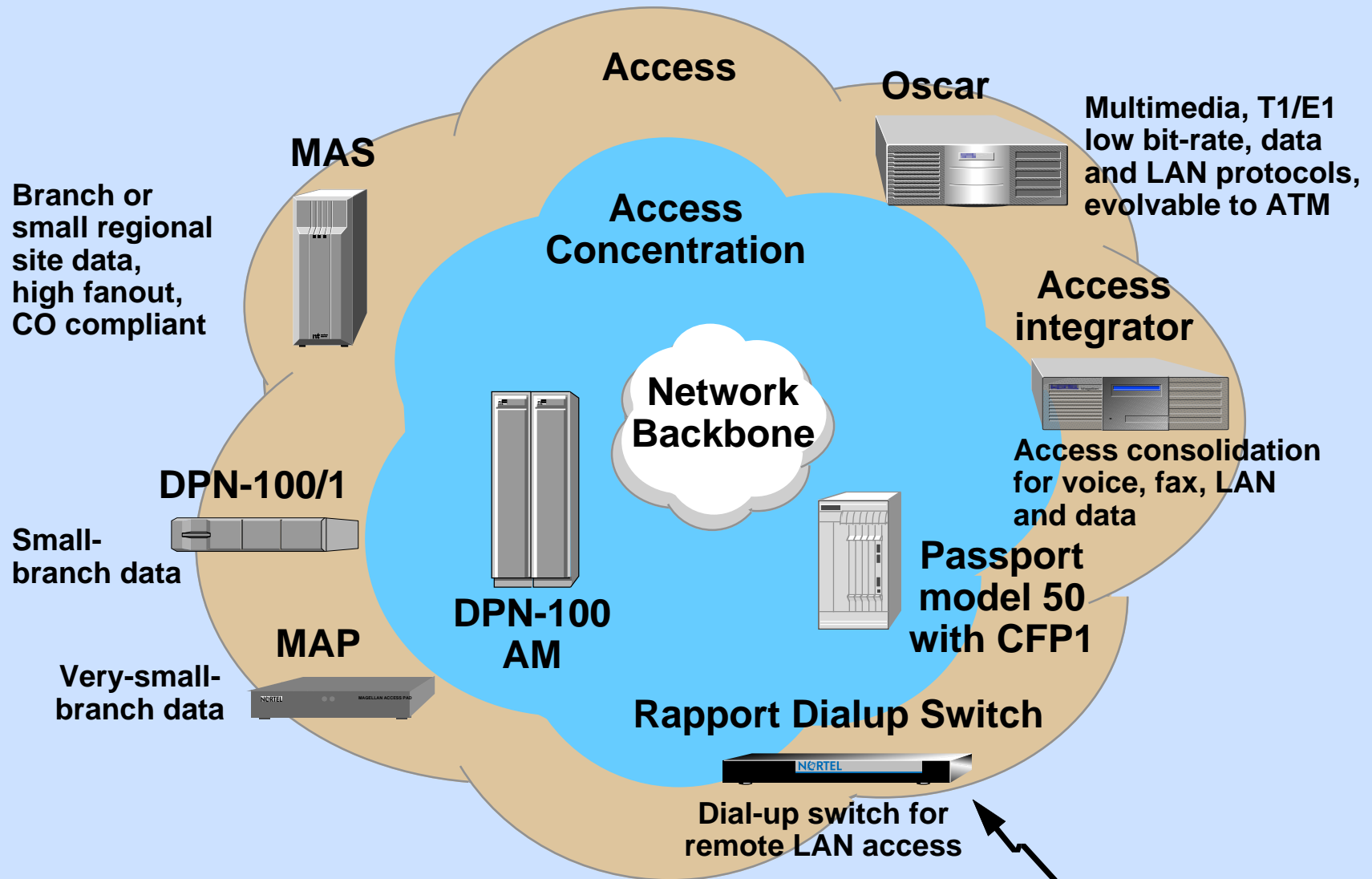
- **Consolidation of traffic**
- **Bandwidth savings**
- **Scalable**
- **Low-cost operation**
- **Integrated management**
- **Future proof architecture**

Extends Passport values to the branch

Agenda

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- **Magellan's Access Products**

Magellan Access Products



Magellan Access PAD (MAP)

MAP



Available now

**Global deployment:
300 units**



- **Very-small-branch device for FR/SNA/X.25/async services**
- **Remote manageability and software download capability**
- **Supports up to five ports**

DPN-100/1

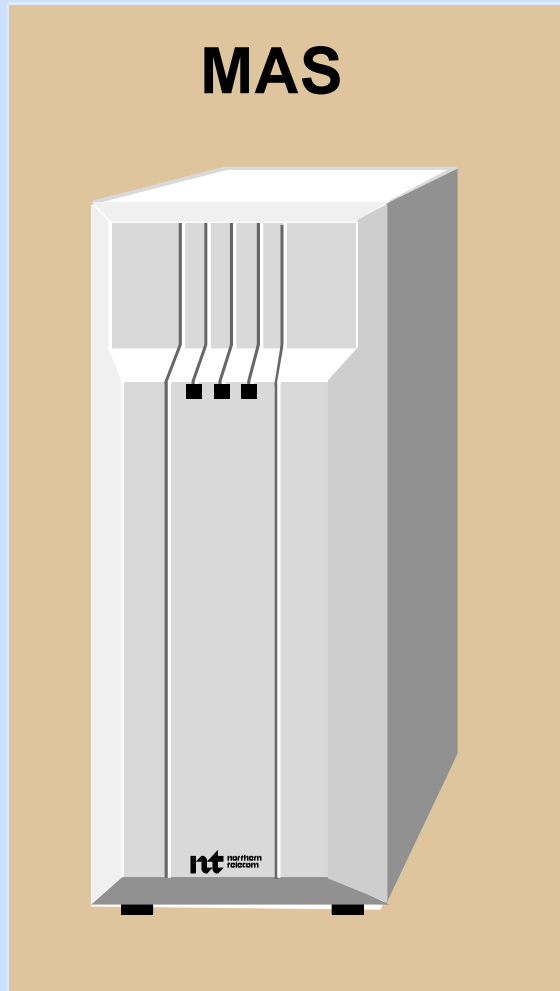
DPN-100/1



**Global deployment:
14000+ units**

- **Branch and remote access concentration device for FR/SNA/X.25/async services**
- **Remote manageability and software download capability**
- **Supports up to ten ports**

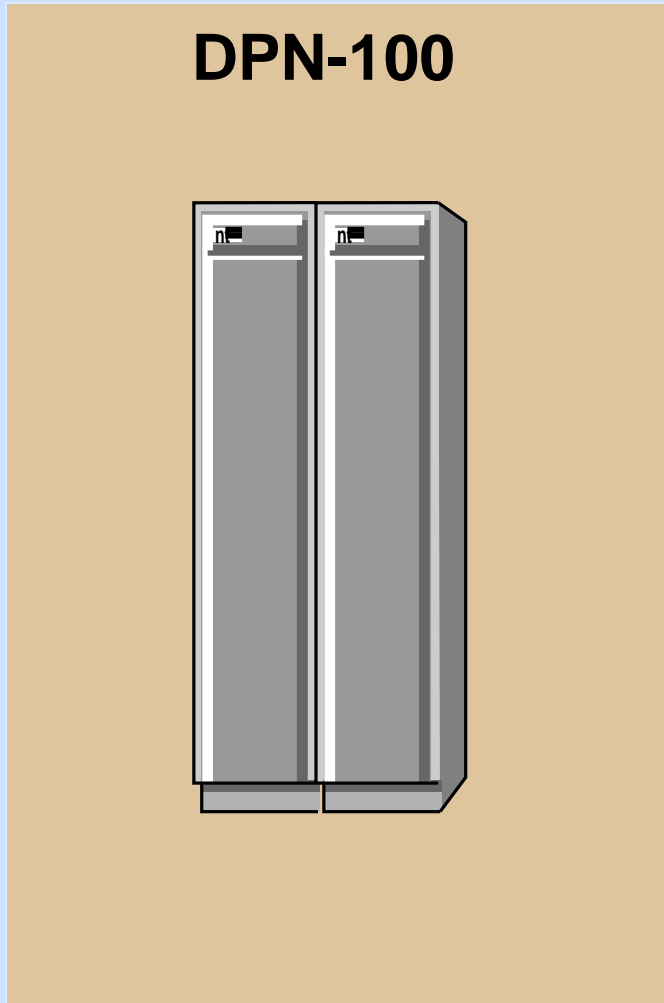
Magellan Access Switch (MAS)



**Global deployment:
12,000+ units**

- **Branch and small regional site concentration for FR/SNA/X.25/async services**
- **Integrated modems**
- **High performance PE and T1/E1 connectivity**
- **Drop and insert for PBX/WAN integration**
- **Supports up to 32 ports**

DPN-100

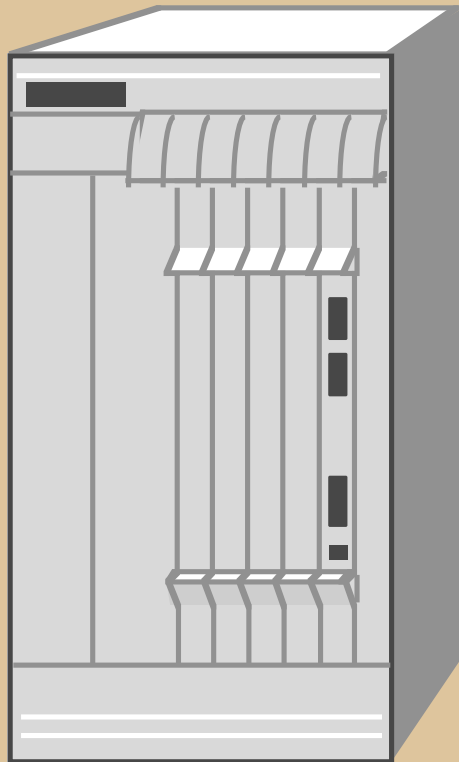


**Global deployment:
15,000+ DPN-100 shelves**

- **Market-leading packet switching technology**
- **Support for rich suite of protocols**
- **High-reliability and availability for mission-critical applications**
- **High-fanout data consolidation for reduced facilities cost**
- **Ongoing performance and application evolution**

Passport model 50

Passport model 50



**Global deployment:
500+**

- **Passport model 50 for regional site concentration**
- **Passport model 50 with CFP1 for small regional and large branch sites (1Q97)**
- **Frame/cell-based flexible architecture**
- **Dynamic bandwidth management**
- **Graceful technology evolution**

Rapport Dialup Switch

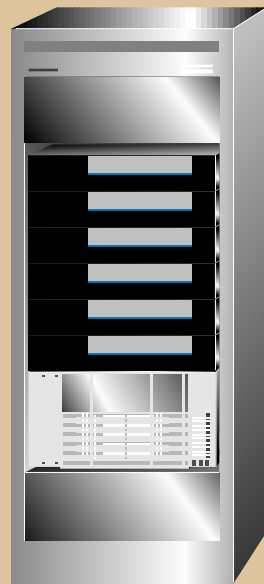
Rapport Dialup Switch



model 8E, 8T



model 112



model 670

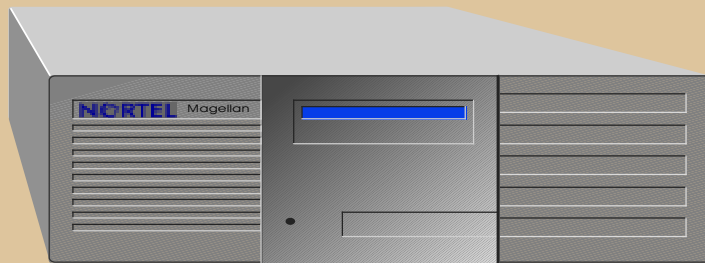
Available now



- Scalable portfolio of models
- Internet access and enterprise remote LAN access
- Dialup switch extends functionality of remote-access server
- High level of security
- SNMP-based management

Access Integrator

Magellan Access Integrator



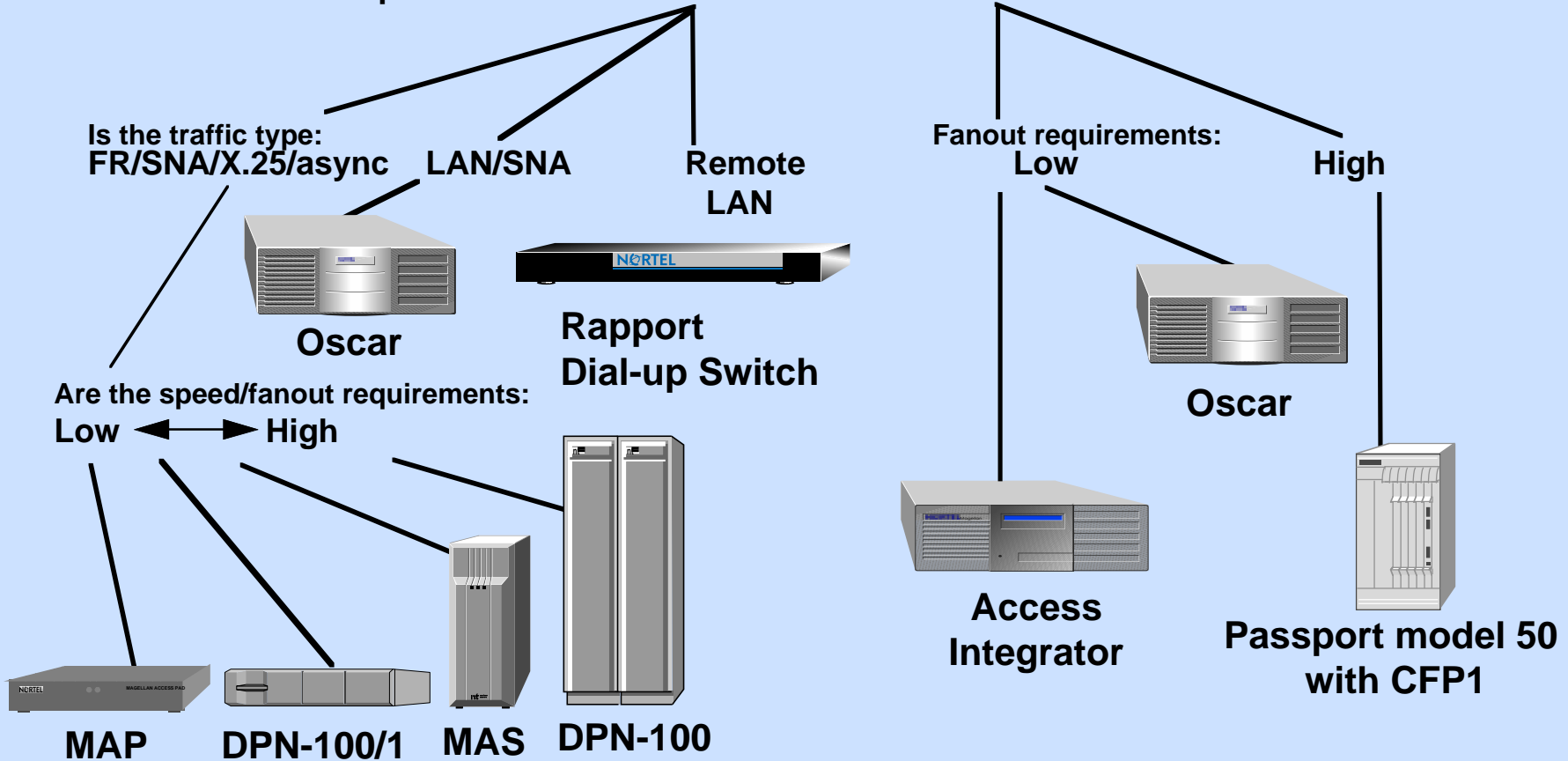
Availability 2Q96

NEW

- **Multimedia access integrator**
- **Voice, fax, LAN and data consolidation**
- **Bandwidth consolidation through:**
 - **speech compression and silence suppression**
 - **automatic fax demodulation**
 - **data compression**
- **Range of solutions and options to meet different needs**

Magellan Access Family

Is the network requirement for: **Data** or **Multimedia**



Flexibility to choose the best solution

Summary

- ✓ **Magellan extends the values and benefits of backbone network consolidation to the access layer**
- ✓ **Magellan solutions focused on customer values**
- ✓ **Proven solutions for wide range of access requirements**
- ✓ **Flexibility to choose the best solution**