

Leveraging Passport in a Magellan SNA Environment

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Agenda

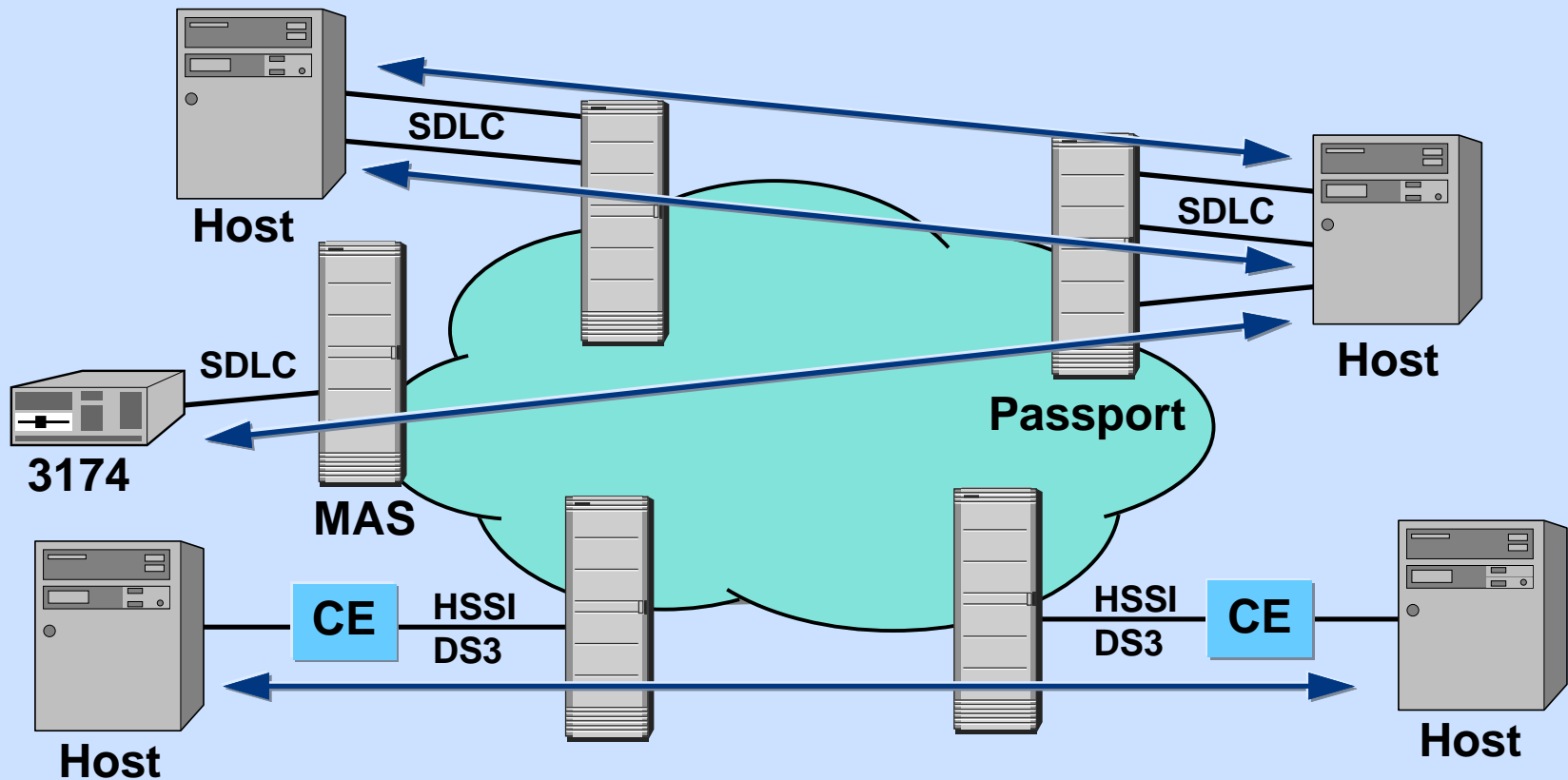
- **Passport SNA/APPN overview**
- Deployment examples
- Summary

Passport SNA/APPN Overview

- **Transparent services**
 - HTDS
 - frame relay
- **SNA data link routing (DLR)**
- **APPN network node (NN)**

HTDS

- Carries SDLC transparently
- Can be used with channel extenders (CE)

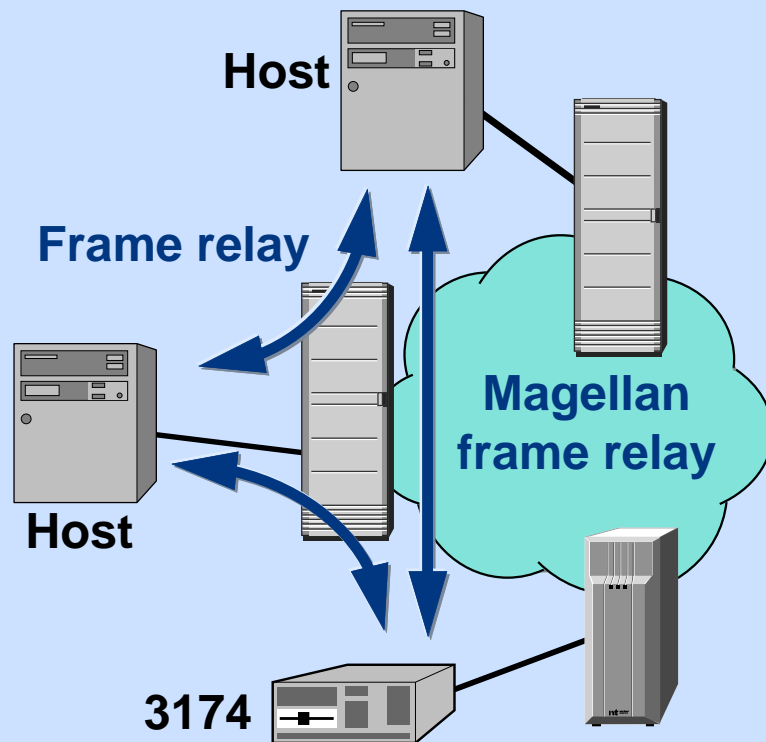


HTDS Benefits

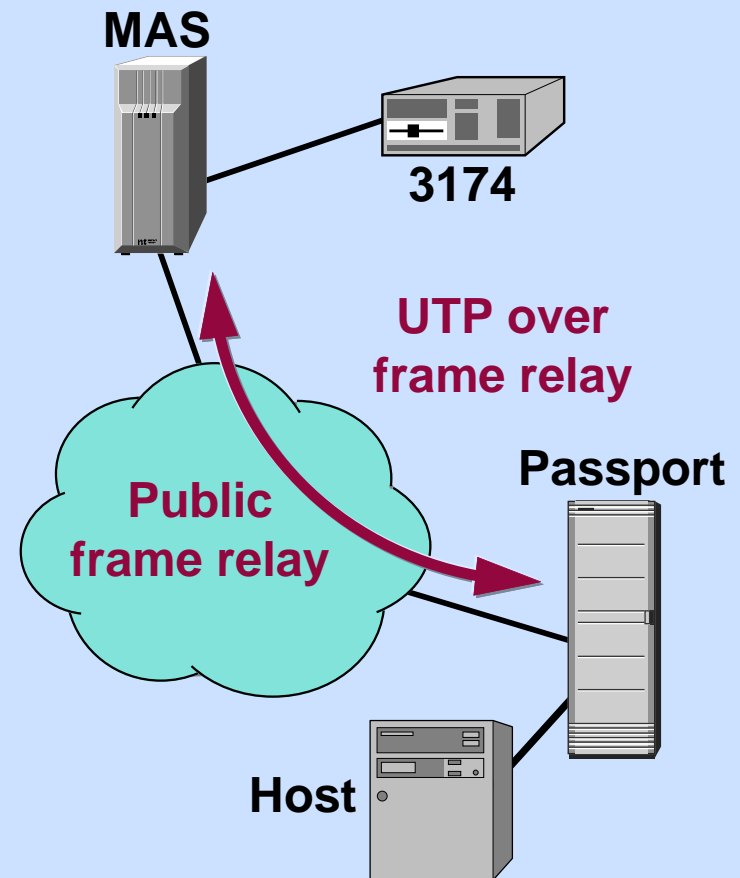
- **Easily introduced**
 - no changes to end devices
- **Bandwidth savings over TDM**
- **Multilink TG support**

Frame Relay

- End-to-end frame relay
- CIR/EIR and emission priority per DLCI/VC



- Alternatively use UTP over frame relay



Frame Relay Benefits

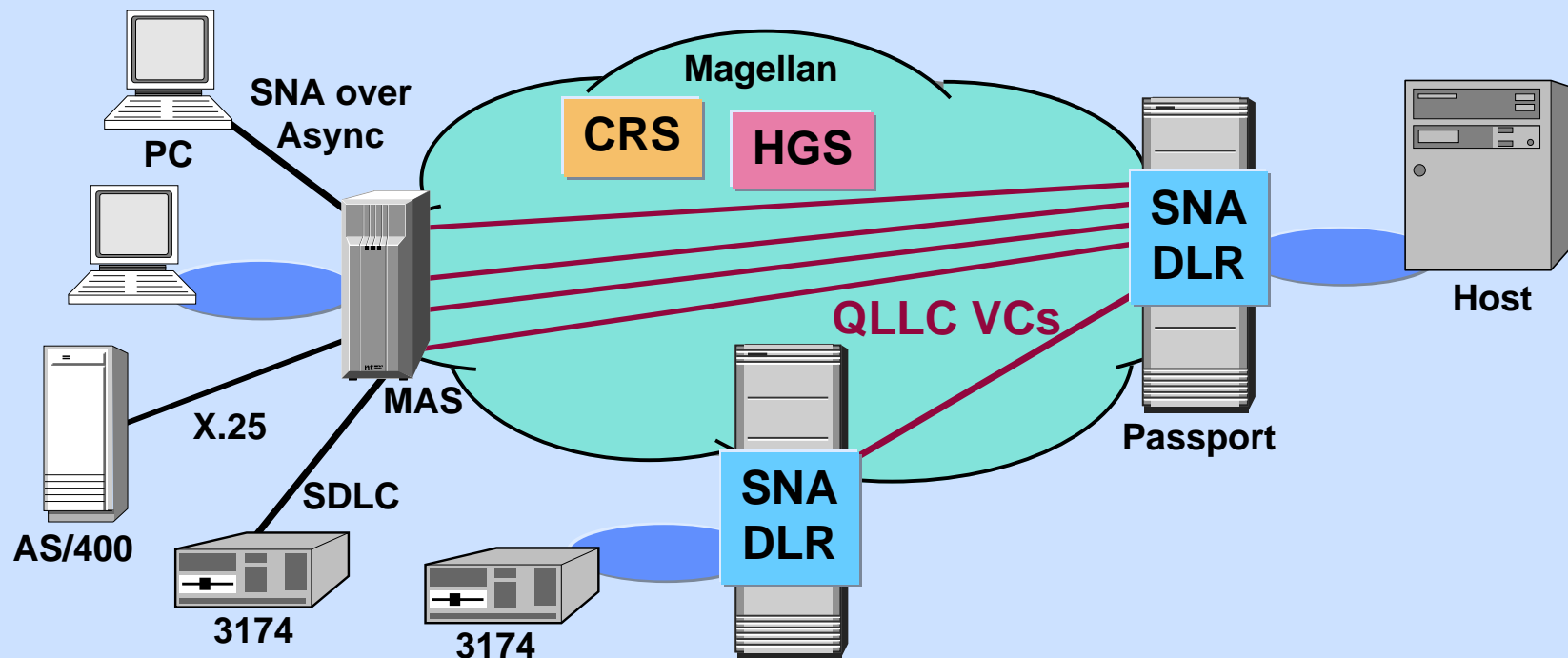
- **Magellan frame relay service**
 - easily introduced
 - emission priority per DLCI
 - bandwidth savings versus TDM
 - data consolidation
 - higher speeds/performance over SDLC
 - IBM endorsed
- **UTP over public frame relay**
 - use public frame relay where cost-effective
 - no upgrades to end devices
- **Hybrid of the two solutions**
 - best of both solutions

Passport SNA/APPN Overview

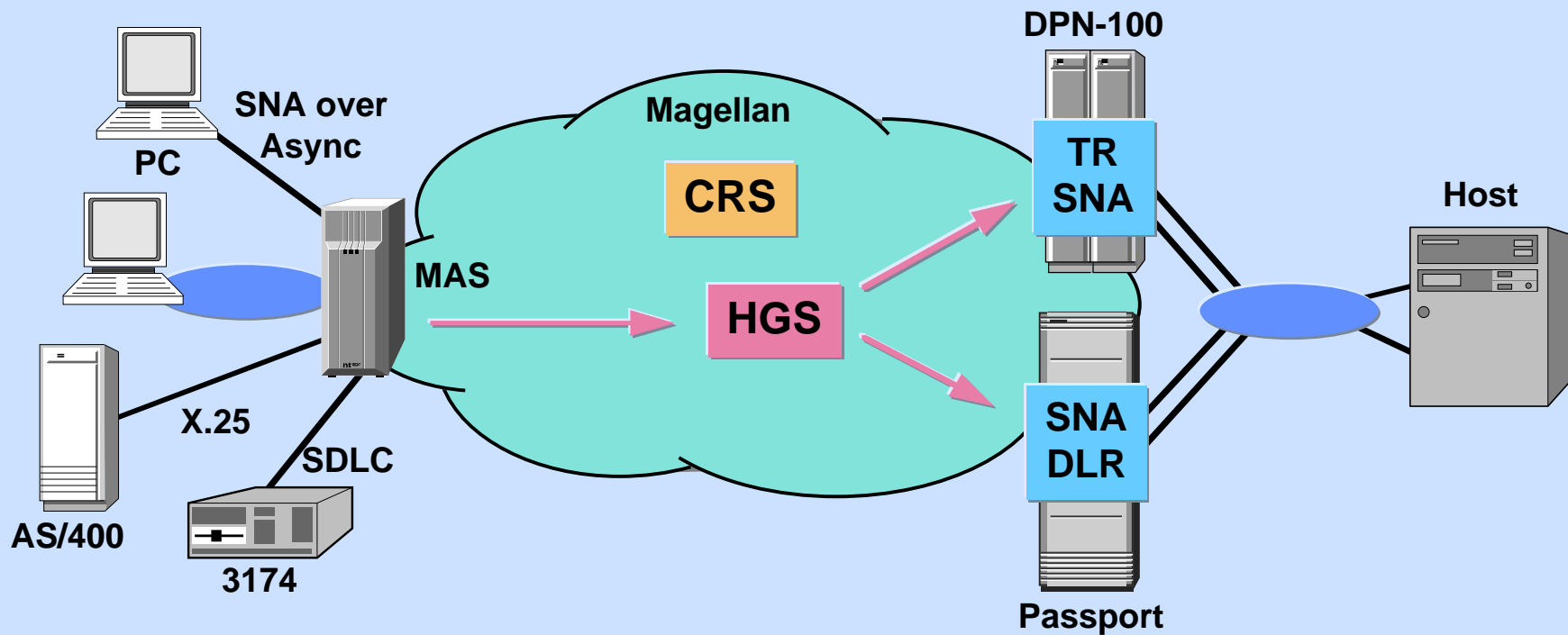
- Transparent services
- **SNA data link routing (DLR)**
- APPN network node (NN)

SNA DLR Overview

- Data link routing for legacy SNA and APPN
- Token ring on Passport
- Supports QLLC VC for DPN-100 attached devices
- Call redirection and hunt group capabilities
- Dynamic detection of attached token ring devices

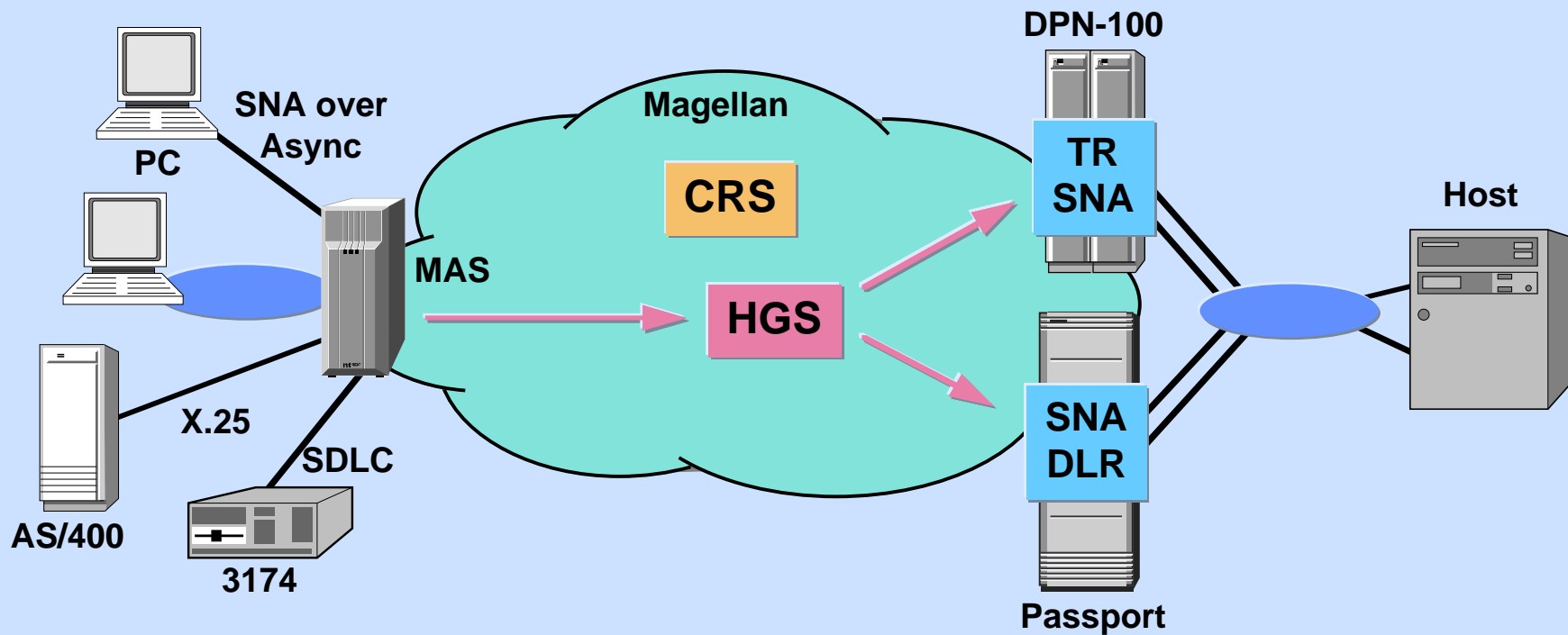


SNA DLR Benefits



- **Extends DPN-100 token ring SNA benefits to Passport**
 - hunt group and call redirection
 - switched appearance to host
 - any-to-any connectivity
 - dynamic non-disruptive routing around failures
 - proven end-to-end COS

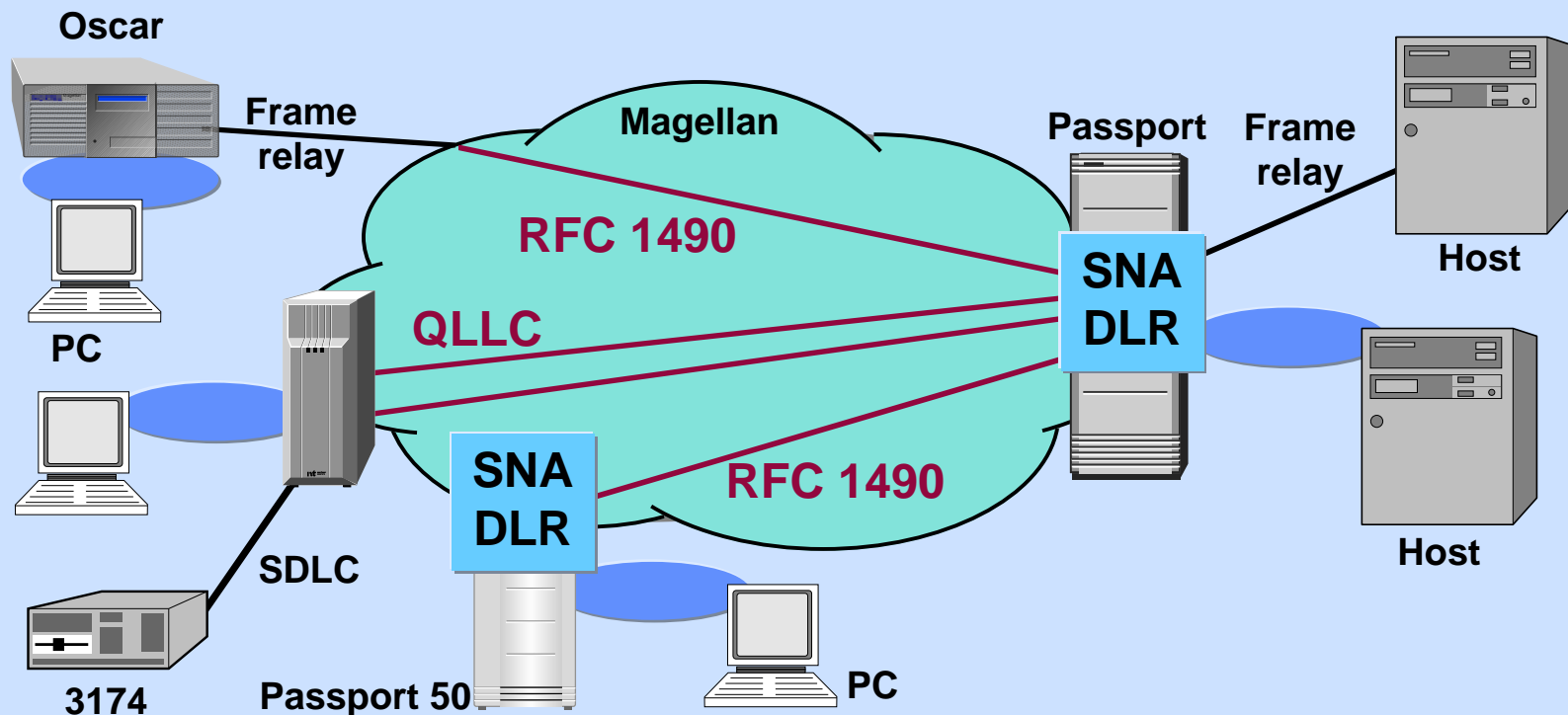
SNA DLR Benefits



- Simple migration from DPN-100 to Passport
- Improved performance and fanout
- Dynamic learning of LAN attached devices
- TR port shared with other LAN protocols

SNA DLR Future Enhancements

- Extend WAN interfaces to support RFC 1490
- Extend LAN interfaces to include ethernet and FDDI



Complete any-to-any connectivity

Passport SNA/APPN Overview

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- **APPN network node (NN)**



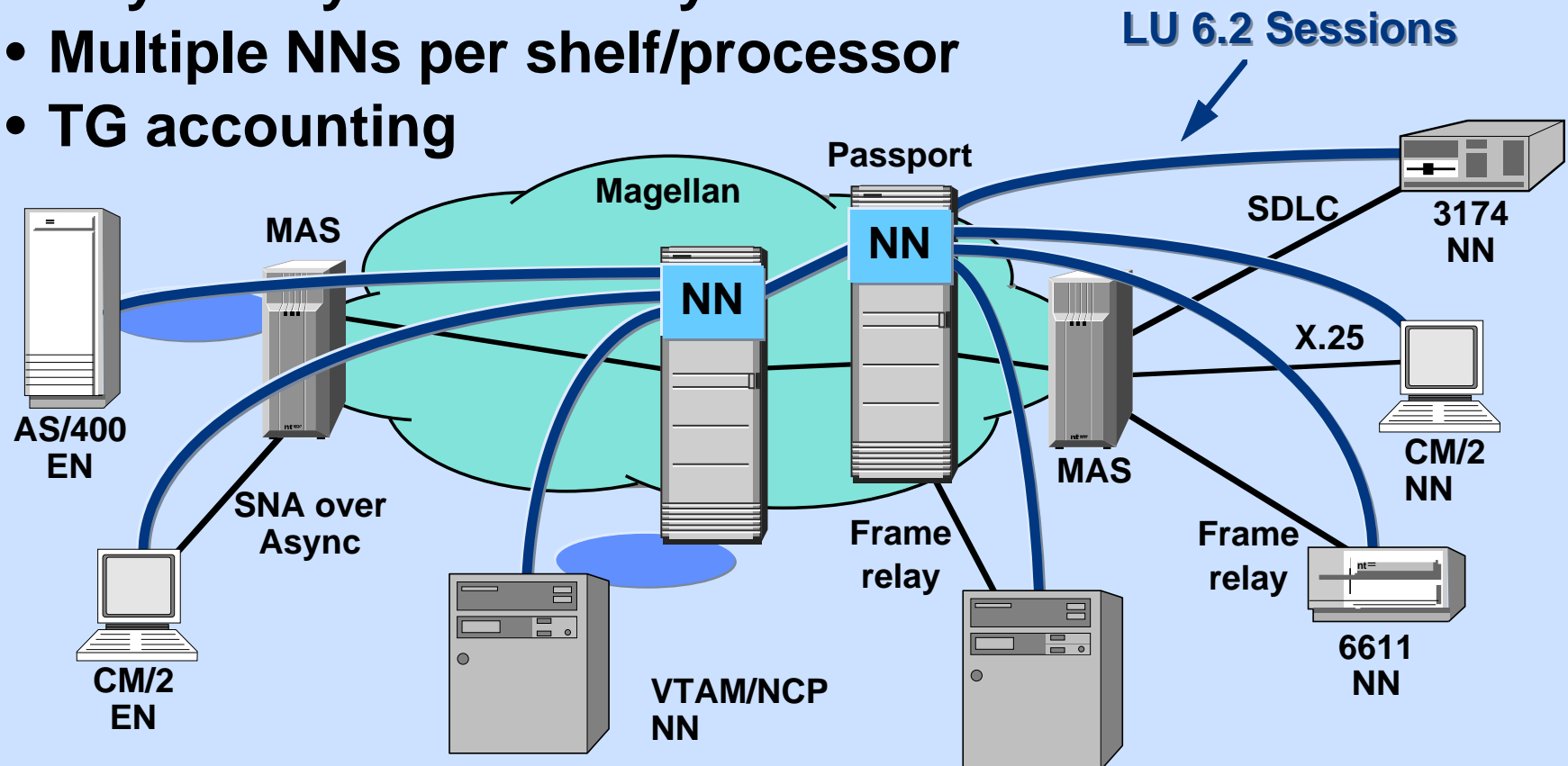
Will APPN Fly?

- **APPN is open**
 - APPN Implementors' Workshop (AIW)
 - vendor availability
- **APPN CoS required by large SNA networks**
- **Reduced administrative costs**
 - reduce or eliminate definitions
 - reduce or eliminate NCPs
 - manageable network change
- **Migration from SNA to APPN is simple**

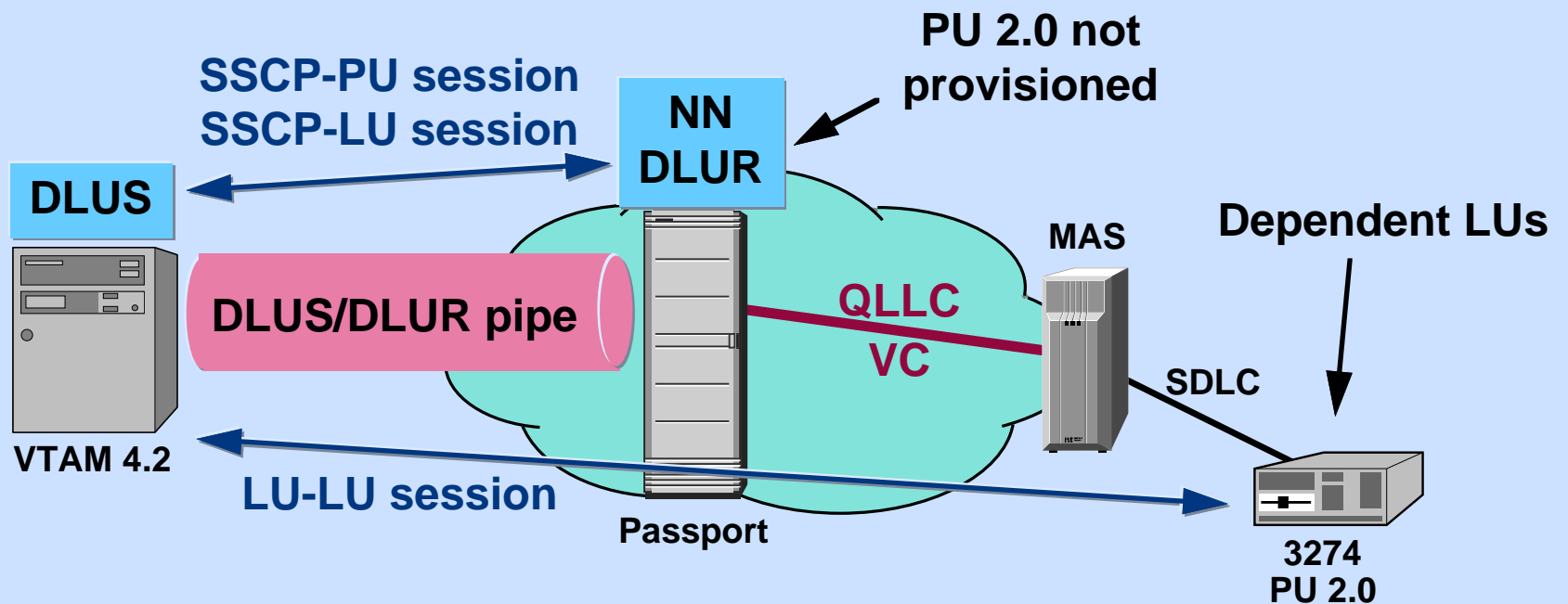
Strong appeal to Fortune 1000 companies

APPN NN Overview

- Extensive set of NN interfaces extend over wide area
- Supports ENs and NNs
- Any-to-any connectivity
- Multiple NNs per shelf/processor
- TG accounting

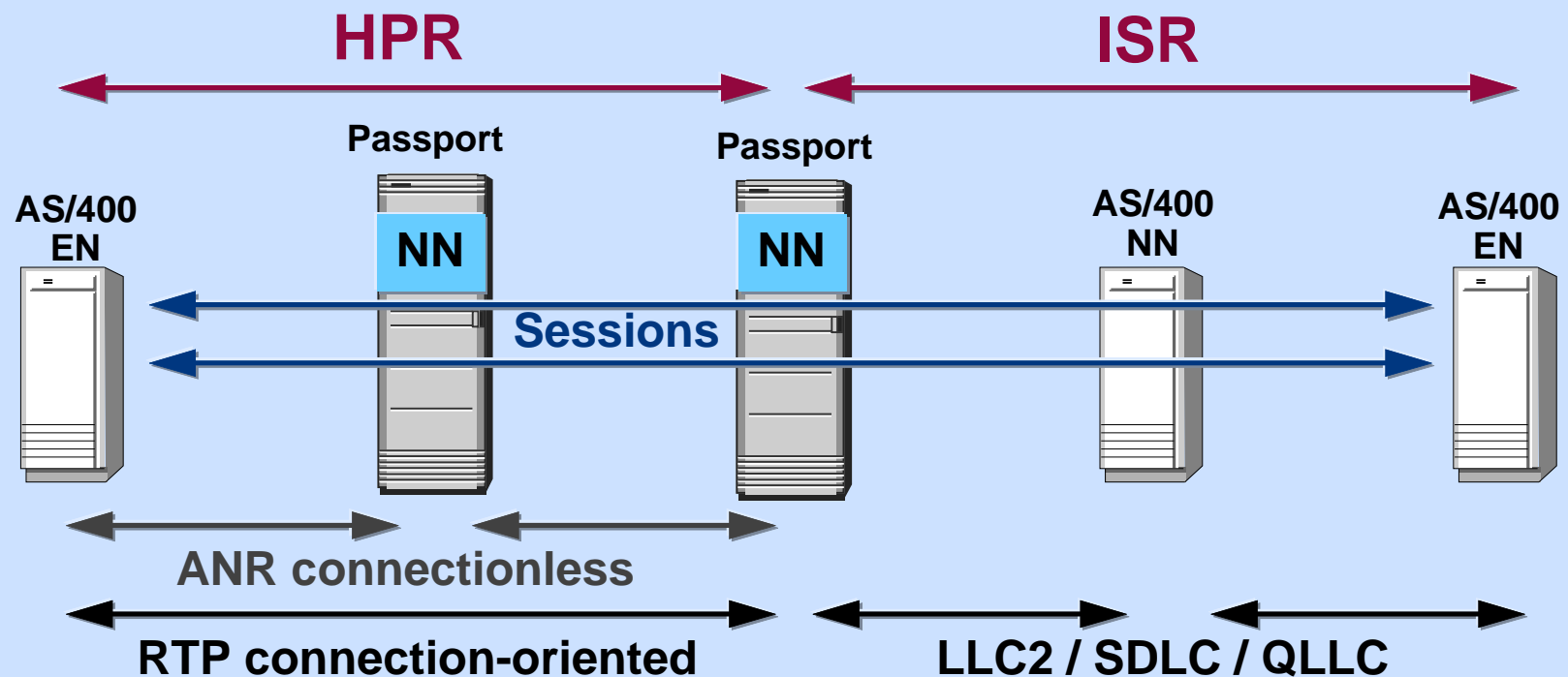


Dependent LU Requestor (DLUR)



- Proxy DLUR, no upgrades to PU 2.0 devices
- Legacy SNA devices make use of APPN
- All devices become switched
- Dynamic learning of PU 2.0 devices

High Performance Routing (HPR)



- Improved performance and memory consumption
- End-to-end non-disruptive routing around failures
- HPR to ISR conversion

Magellan APPN Benefits

- Extensive interface support
- Interfaces extended over wide area ✓
- Leverages existing DPN-100 investment ✓
- Any-to-any connectivity
- Multiple NNs per shelf/processor ✓
- APPN CoS mapping to Magellan CoS
 - prioritization at edge and intermediate nodes ✓

✓ - Magellan unique

More Magellan APPN Benefits

- **DLUR**
 - proxy DLUR, no upgrades to PU 2.0 devices
 - dynamic learning of PU 2.0 devices
- **HPR to ISR conversion**
- **TG accounting**
- **Concurrent SNA support eases migration**



Nortel commitment to SNA/APPN

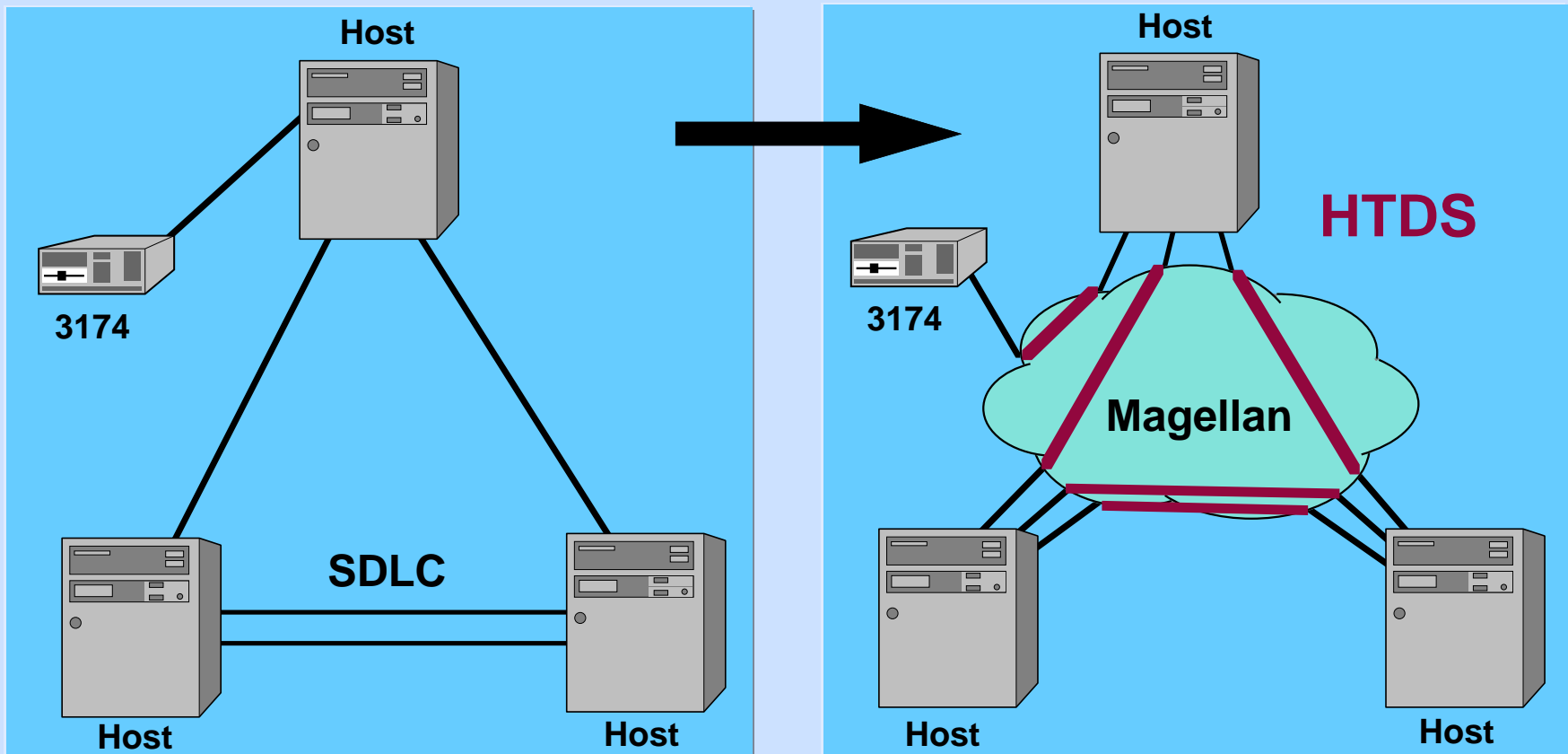
✓ - **Magellan unique**

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- **Deployment Examples**
- Summary

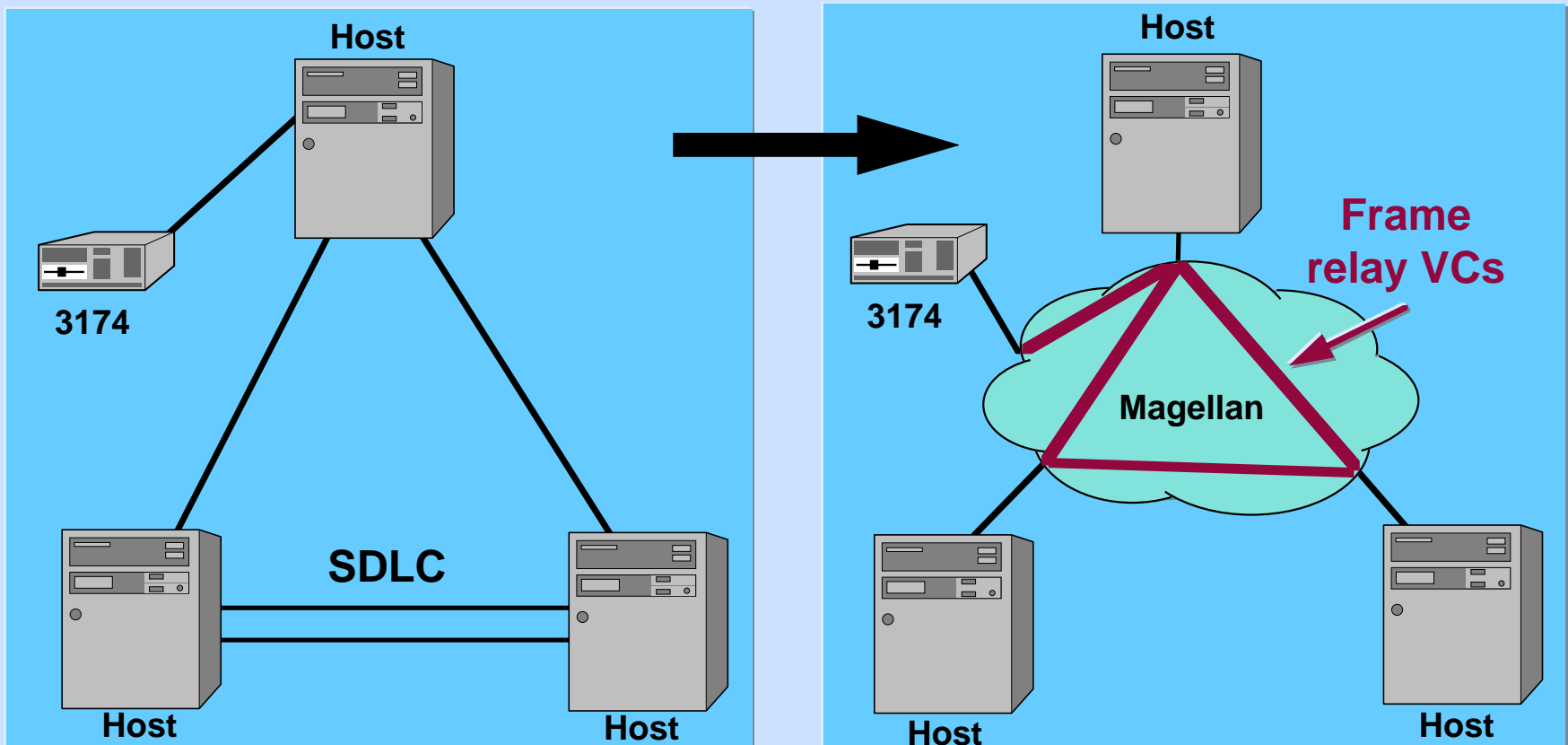
Leased Lines to HTDS

- Simple migration to multimedia networking
- Bandwidth consolidation for voice, other data



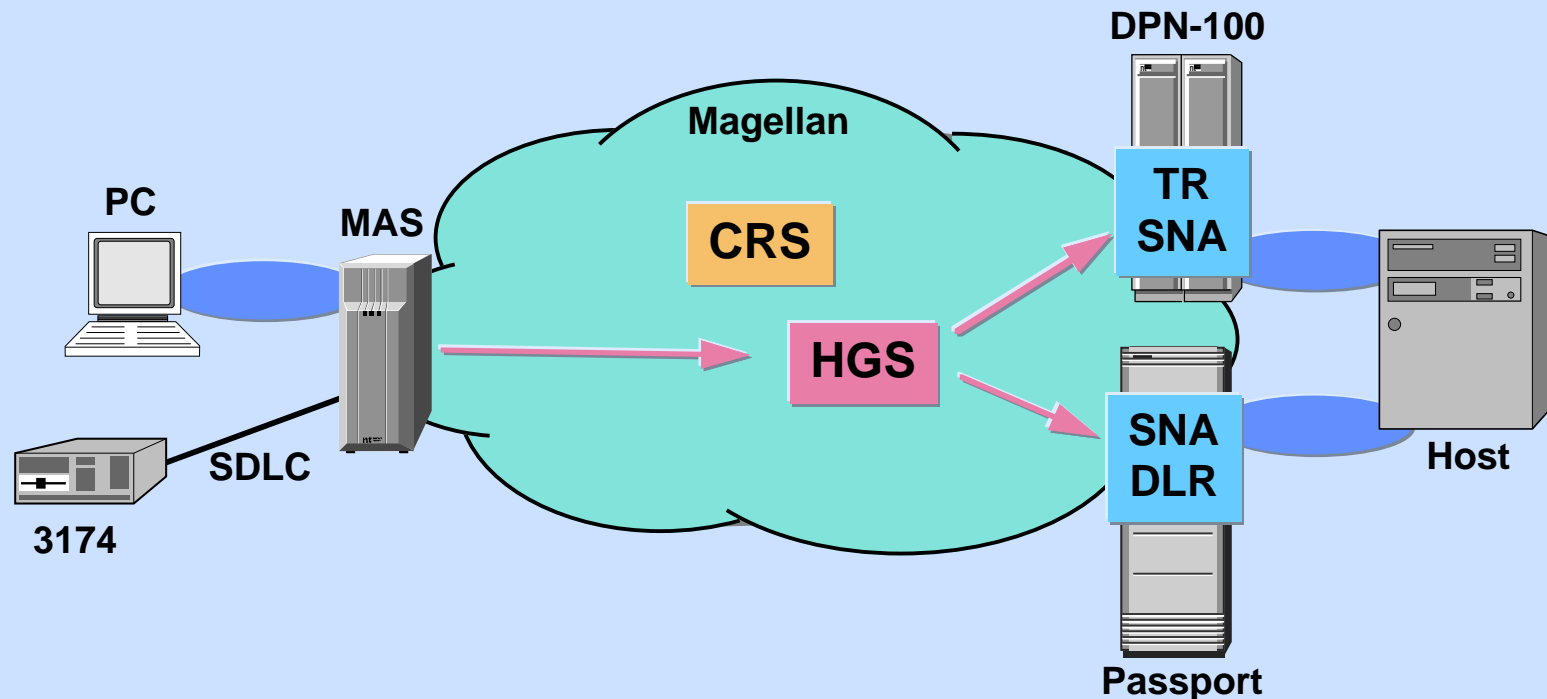
Leased Lines to Frame Relay

- Reduced access links, use multiple DLCIs
- Greater flexibility
- Bandwidth consolidation



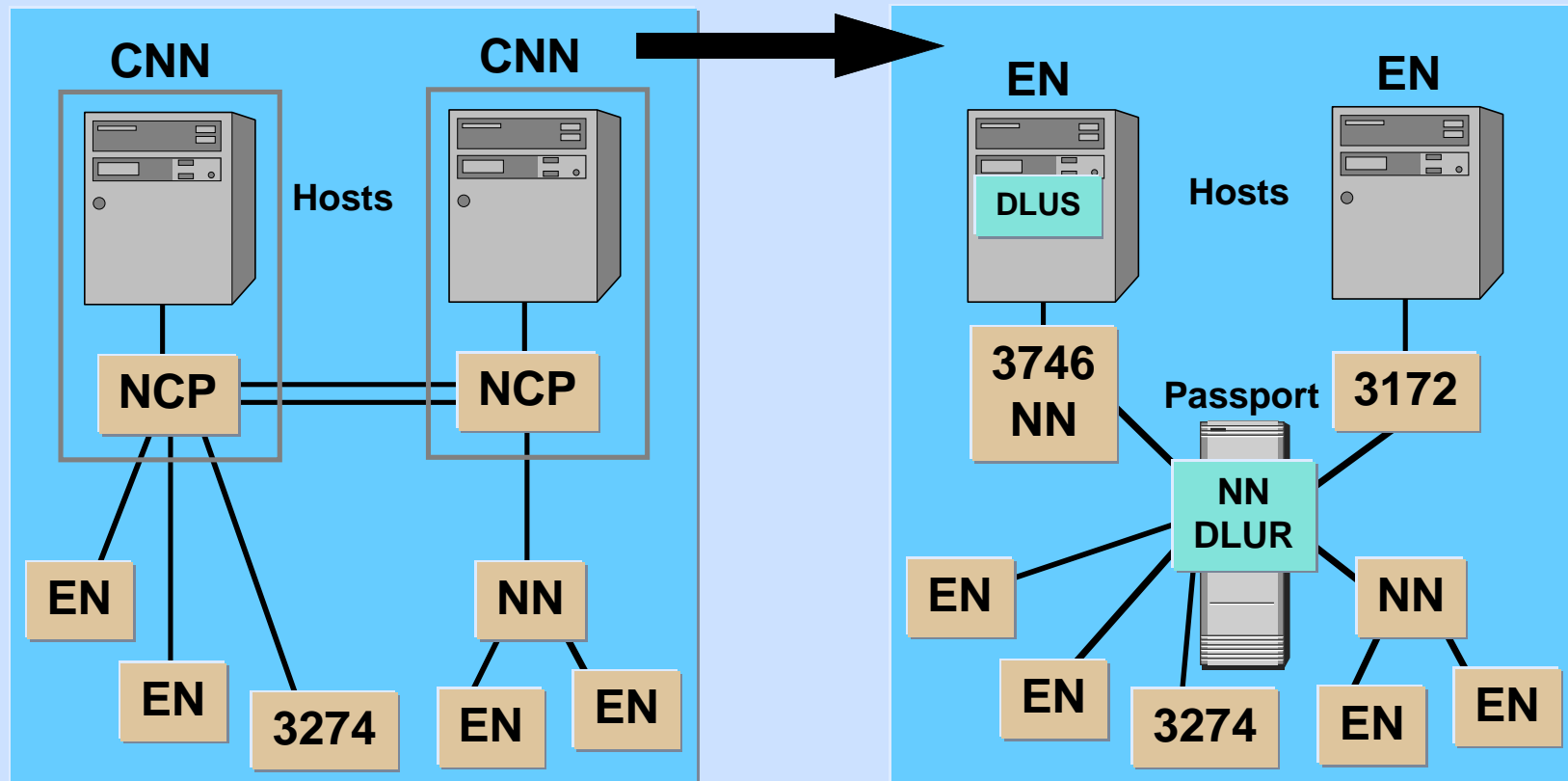
Data Center Evolution with DLR

- Passport in the backbone (data center)
- Improve performance and fanout
- Painless migration with HGS and CRS



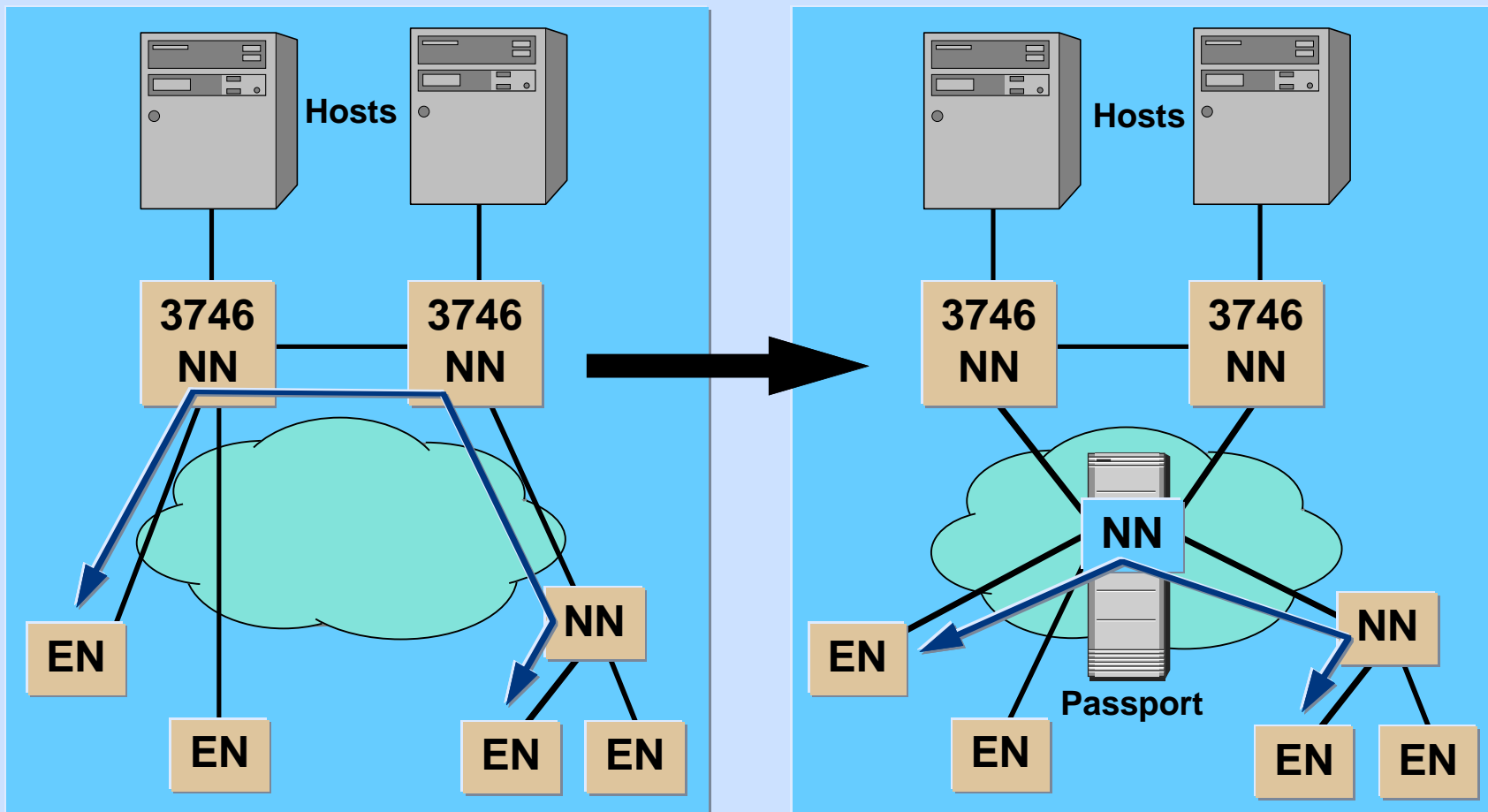
Host Simplification with APPN

- Eliminate NCPs
- Eliminate path tables (VRs, ERs)
- Simplifies network change
- DLUR for SNA



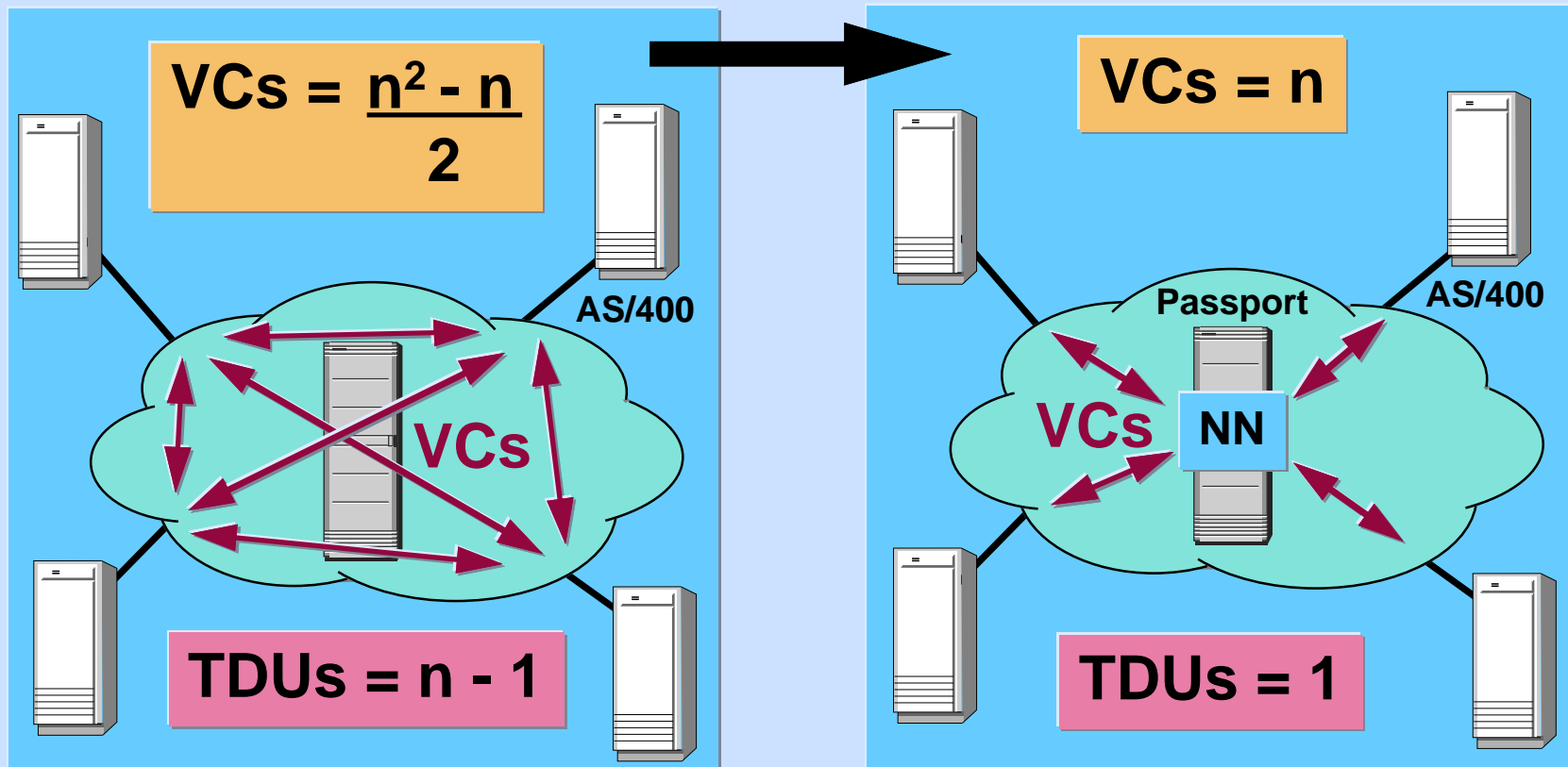
Peer-to-Peer Model

- Improved routes/efficiencies
- Improved cost-effectiveness



Frame Relay/X.25 to APPN NN

- Significantly reduced number of DLCIs/LCNs (VCs)
- Reduced topology (TDU) traffic



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Summary

- **Comprehensive SNA/APPN solution set**
- **Evolution is simple and beneficial**
 - easy introduction
 - cost reduction
 - networking benefits
 - network dynamism
- **Passport enterprise network switch is logical evolution**