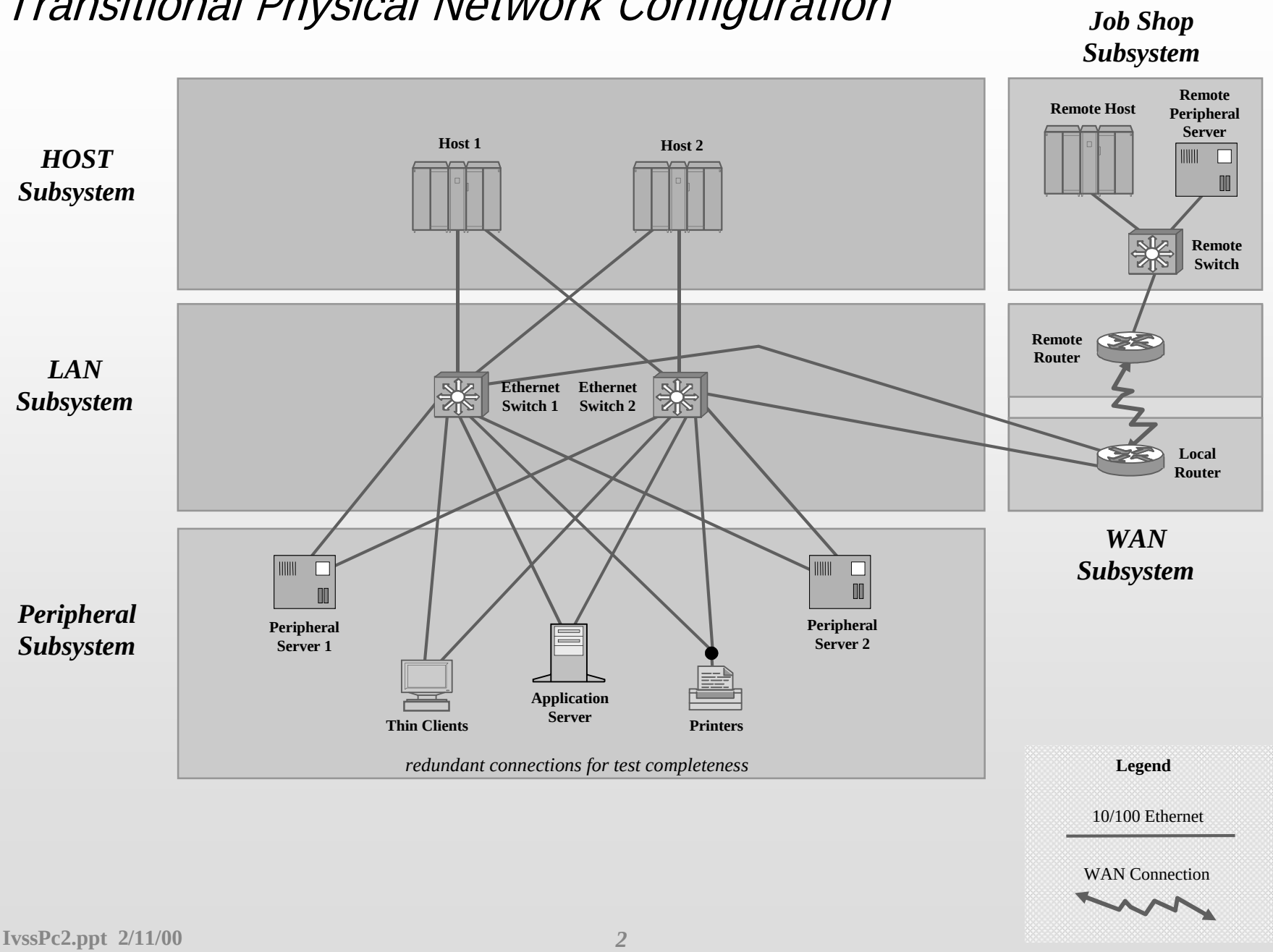
IVSS Peripheral Services POC

Version 2, Last Revised 2/11/00

IVSS Peripheral Services POC

Transitional Physical Network Configuration



IVSS Peripheral Services POC
Project Team

1 Activities Coordination

- *Bill Pomnitz, AOS*
- *Les Venemon, AUATAC*
- *Chris Malitsky, ACT (I2F)*
- *Ralph Caprio, ACT (Job Shop)*

2 Plans and Results Documentation

- *Jeff Miller, AUATAC*
- *Matt Clark,*

3 Tooling and Results Analysis

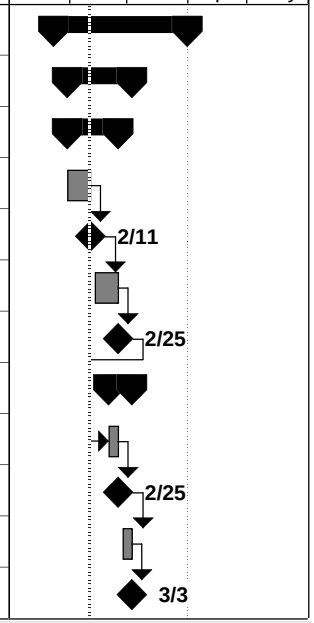
- *Jeff Miller, AUATAC*
-

4 Execution Team

- *Matt Clark,*
- *Chris Malitsky, ACT*
- *Jeff Miller, AUATAC*
- *Steve Schindel, AUATAC*
-

IVSS Peripheral Services POC
Basic Configuration Setup Schedule

ID	Task Name	Duration	Start	Finish	Predecessors
1	**IVSS Peripheral Services POC**	**50 days**	**Mon 1/24/00**	**Fri 3/31/00**	
2	**Base Configuration Setup**	**25 days**	**Mon 1/31/00**	**Fri 3/3/00**	
3	**LAN Configuration (Modified OSA Configuration)**	**20 days**	**Mon 1/31/00**	**Fri 2/25/00**	
4	Define Hardware/Software Configuration	10 days	Mon 1/31/0(	Fri 2/11/0(	
5	Hardware/Software Configuration	0 days	Fri 2/11/0(	Fri 2/11/0(	4
6	Install and Check-out Configuration	10 days	Mon 2/14/0(	Fri 2/25/0(	5
7	Working Configuration	0 days	Fri 2/25/0(	Fri 2/25/0(	6
8	**Systems Management Test Network Configuration**	**10 days**	**Mon 2/21/00**	**Fri 3/3/00**	
9	Define Hardware/Software Configuration	5 days	Mon 2/21/0(	Fri 2/25/0(	7FS-5 days
10	Hardware/Software Configuration	0 days	Fri 2/25/0(	Fri 2/25/0(	9
11	Install and Check-out Configuration	5 days	Mon 2/28/0(	Fri 3/3/00	10
12	Working Configuration	0 days	Fri 3/3/00	Fri 3/3/00	11



IVSS Peripheral Services POC

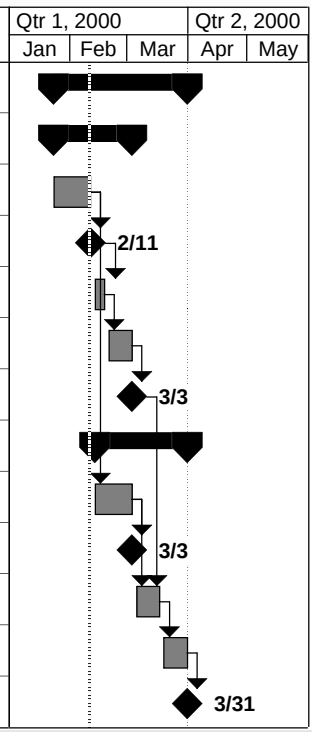
Network Computer (NC) Thin Client

IVSS Peripheral Services POC
NC Thin Client

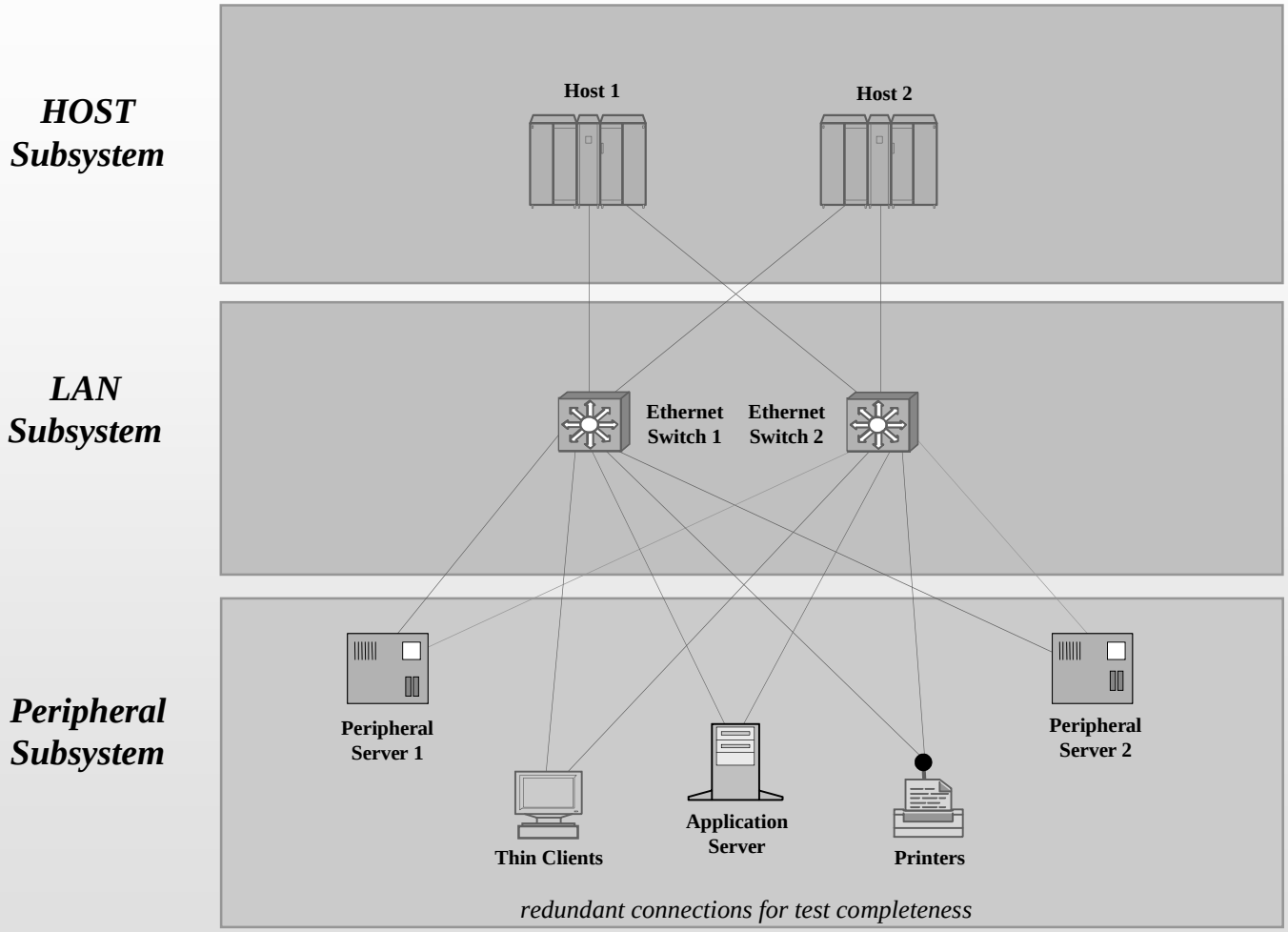
- *Thin Client Workstation*
  - Application display.
  - Connects to remote application servers over LAN.
  - Runs application client processes on thin client workstation (includes terminal emulators).
  - Processes thin client workstation I/O via local device drivers.
- *Thin Client Connection to Peripheral Server*
  - Full duplex 100 Mbps connection to peripheral server via Ethernet switch.
  - One thin client workstation per Ethernet switch port.
- *Peripheral Server*
  - Thin client workstation configuration services.
  - Thin client access and authentication services.
- Application Server
  - Runs application server processes.
- *Ethernet Switching*
  - Single or redundant switches, with logical isolation of LAN and separate/private network via VLANs.
  - Single or redundant switches, with physical isolation of LAN and separate/private network.

IVSS Peripheral Services POC
NC Thin Client POC Schedule

ID	Task Name	Duration	Start	Finish	Predecessors
13	**NC Thin Client Peripheral Services (IBM Network Station)**	**50 days**	**Mon 1/24/00**	**Fri 3/31/00**	
14	**NC Thin Client Peripheral Services POC Configuration**	**30 days**	**Mon 1/24/00**	**Fri 3/3/00**	
15	Define Hardware/Software Configuration	15 days	Mon 1/24/0(	Fri 2/11/0(	
16	Hardware/Software Configuration	0 days	Fri 2/11/0(	Fri 2/11/0(	15
17	Ship Configuration	5 days	Mon 2/14/0(	Fri 2/18/0(	16
18	Install and Check-out Configuration	10 days	Mon 2/21/0(	Fri 3/3/00	17
19	Working Configuration	0 days	Fri 3/3/00	Fri 3/3/00	18
20	**NC Thin Client Peripheral Services POC Test**	**35 days**	**Mon 2/14/00**	**Fri 3/31/00**	
21	Plan/Configure NC Peripheral Services Test	15 days	Mon 2/14/0(	Fri 3/3/00	15
22	NC Peripheral Services Test Plan	0 days	Fri 3/3/00	Fri 3/3/00	21
23	Execute/Analyze NC Peripheral Services Test	10 days	Mon 3/6/0(	Fri 3/17/0(	19,21
24	Document NC Peripheral Services Test Results	10 days	Mon 3/20/0(	Fri 3/31/0(	23
25	NC Peripheral Services Test Report	0 days	Fri 3/31/0(	Fri 3/31/0(	24



IVSS Peripheral Services POC
NC Thin Client Configuration

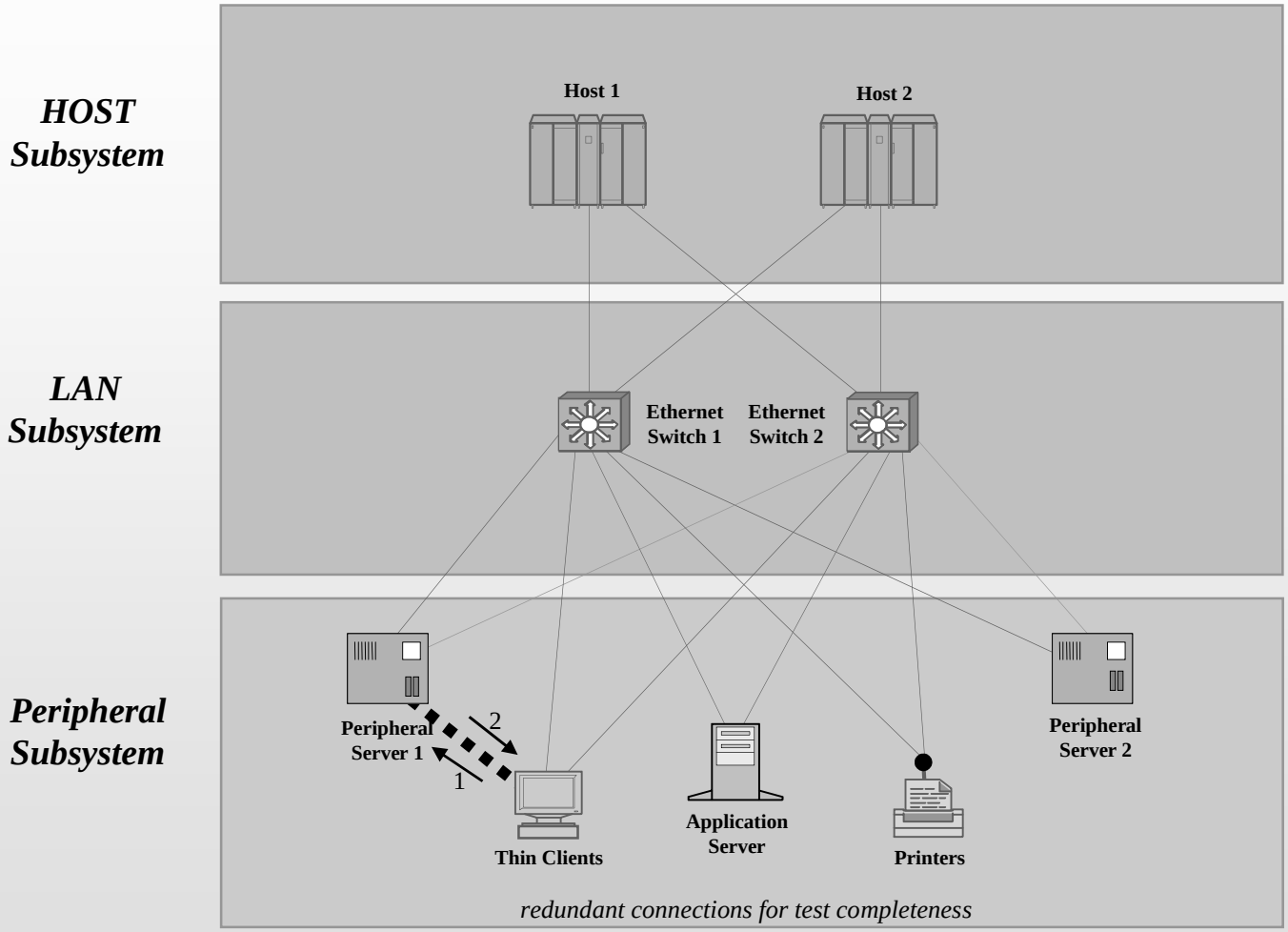


Legend

10/100 Ethernet

IVSS Peripheral Services POC (NC)

Step 1 Thin Client Logs on to Network via Peripheral Server



Peripheral Servers

- *Configuration Services*
- *Access Services*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Direct Printing*

Printers

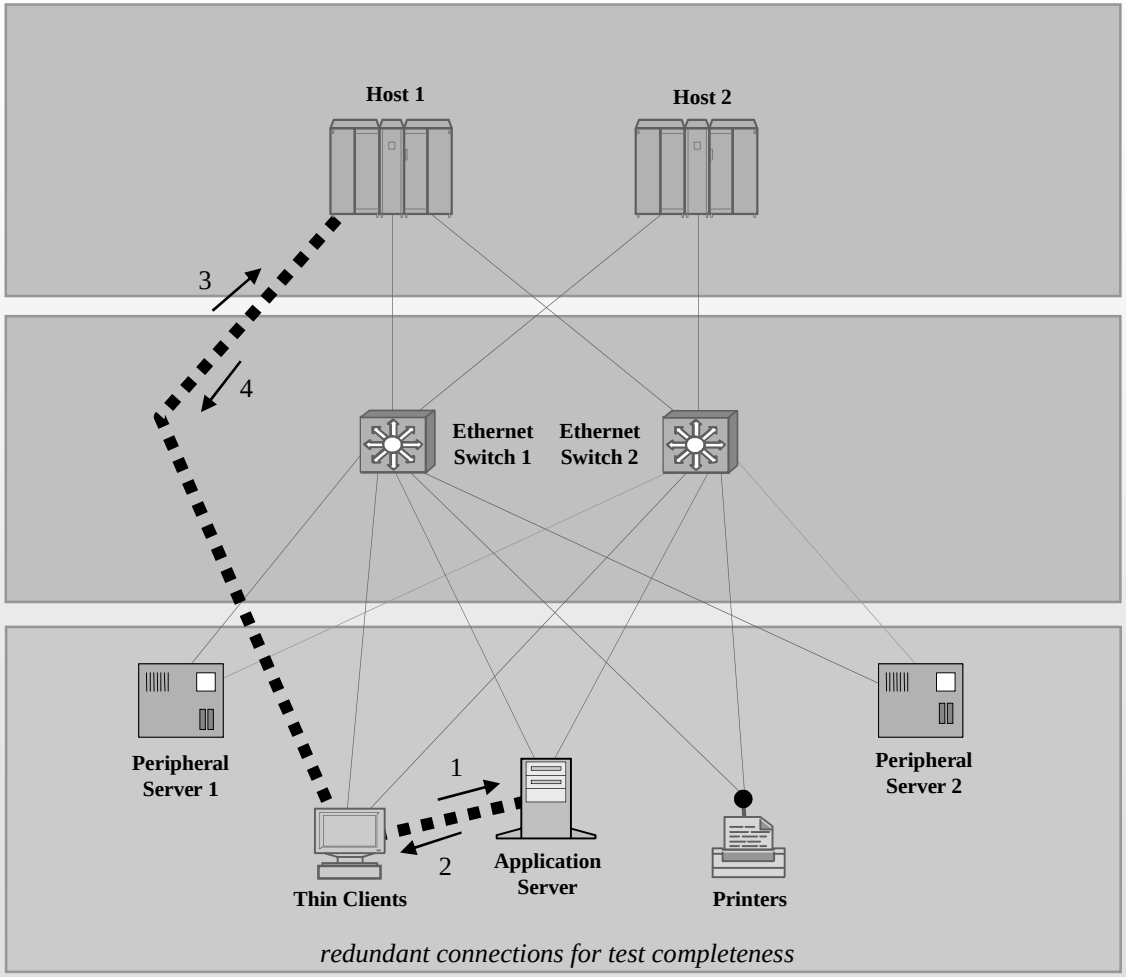
- *Network Connected*
- *Network Print Spooling*

Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (NC)
Step 2 Thin Client Connects to Application Servers



Peripheral Servers

- *Configuration Services*
- *Access Services*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Direct Printing*

Printers

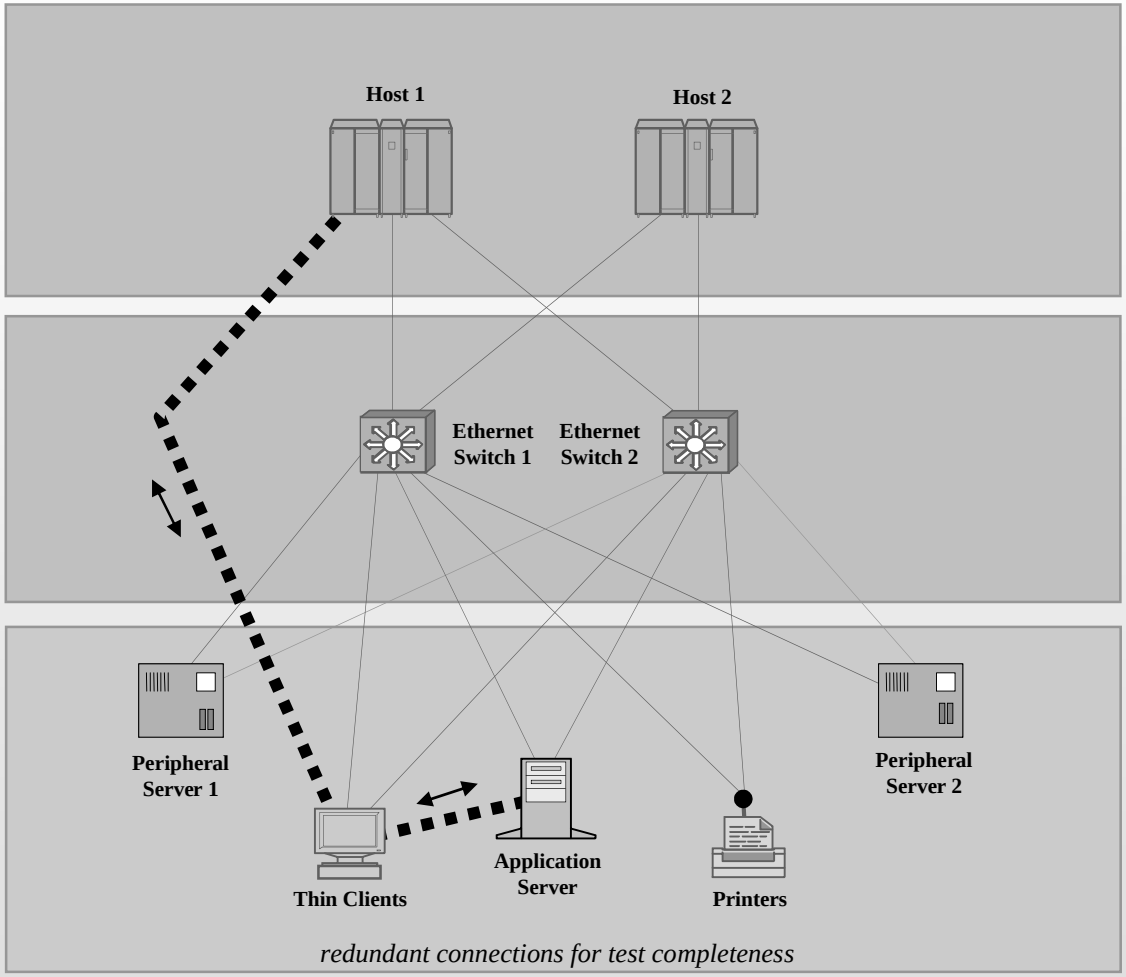
- *Network Connected*
- *Network Print Spooling*

Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (NC)
Step 3 Thin Client Interacts With Applications



Peripheral Servers

- *Configuration Services*
- *Access Services*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Direct Printing*

Printers

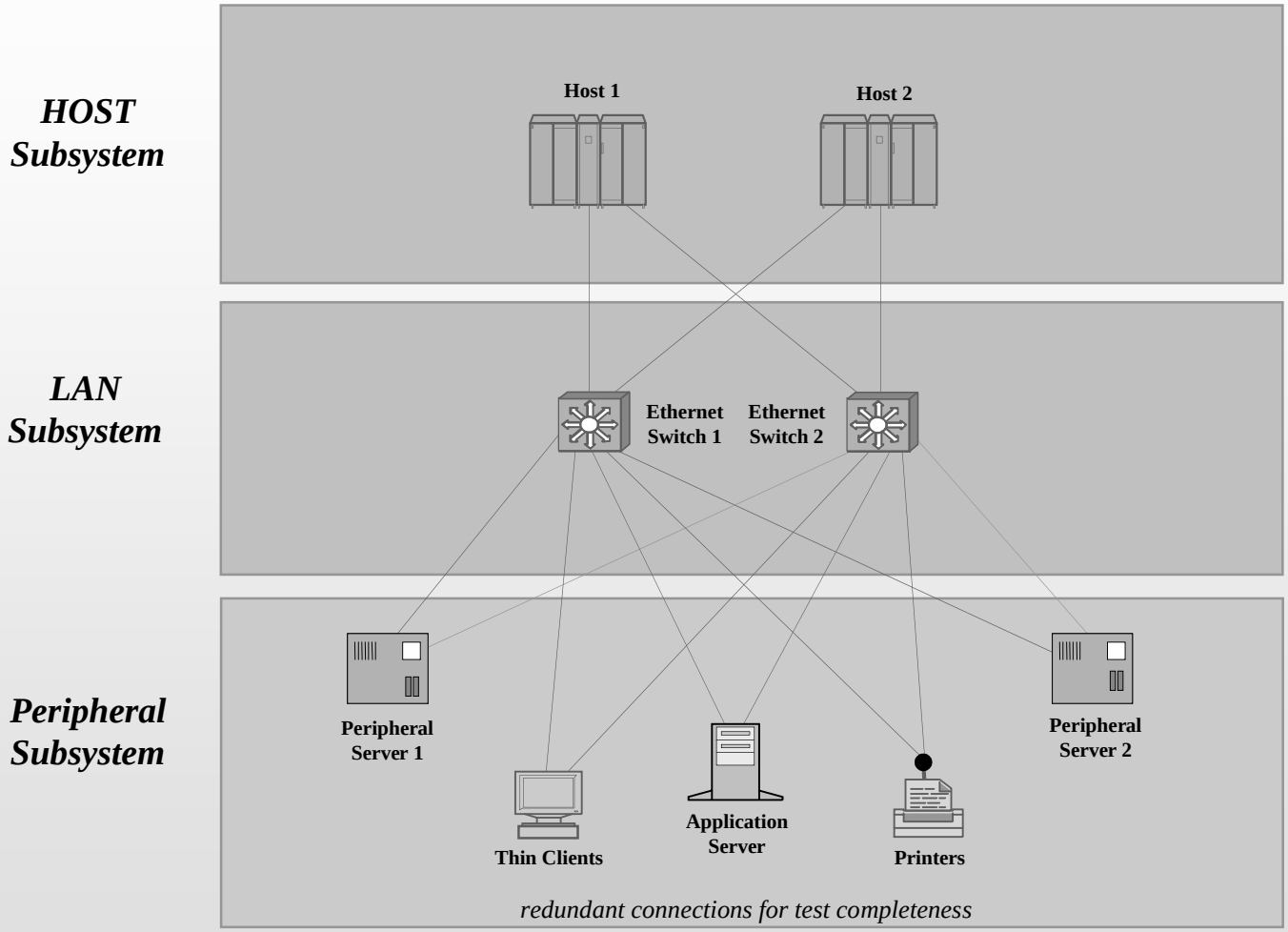
- *Network Connected*
- *Network Print Spooling*

Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (NC)
Step 4 Thin Client Disconnects from Network



Legend

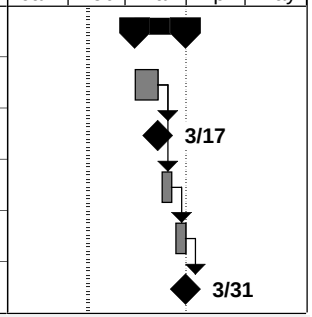
10/100 Ethernet

IVSS Peripheral Services POC

NC Flash Boot Thin Client

IVSS Peripheral Services POC
NC Flash Boot Thin Client POC Schedule

ID	Task Name	Duration	Start	Finish	Predecessors
26	**Flash Boot NC Thin Client Peripheral Services POC Test**	**20 days**	**Mon 3/6/00**	**Fri 3/31/00**	
27	Plan/Configure NC Flash Boot Peripheral Services Test	10 days	Mon 3/6/00	Fri 3/17/00	22
28	NC Peripheral Services Flash Boot Test Plan	0 days	Fri 3/17/00	Fri 3/17/00	27
29	Execute/Analyze NC Flash Boot Peripheral Services Test	5 days	Mon 3/20/00	Fri 3/24/00	27
30	Document NC Flash Boot Peripheral Services Test Results	5 days	Mon 3/27/00	Fri 3/31/00	29
31	NC Flash Boot Peripheral Services Test Report	0 days	Fri 3/31/00	Fri 3/31/00	30



... under construction

IVSS Peripheral Services POC

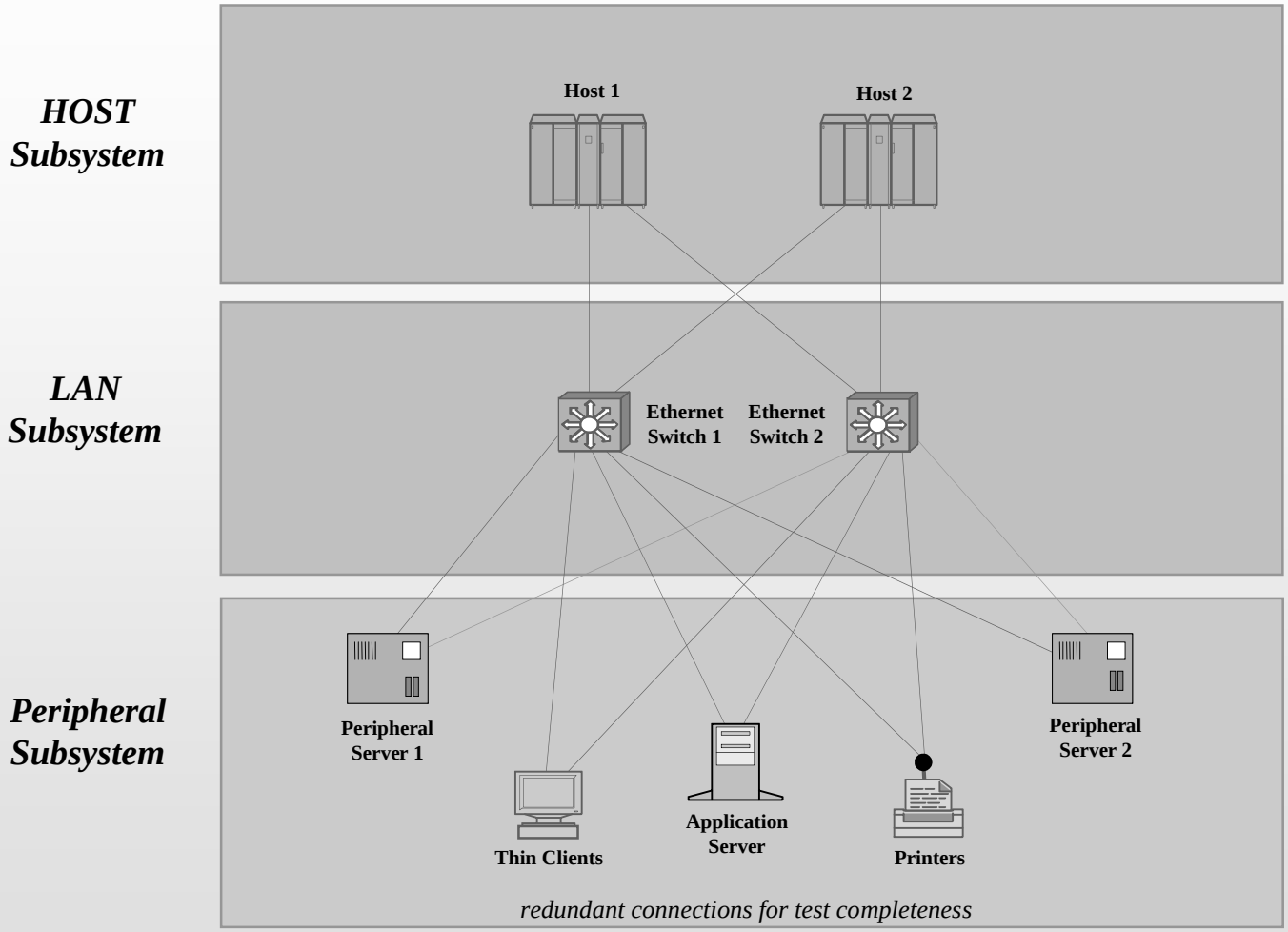
Front End Processor (*FEP) Thin Client*

IVSS Peripheral Services POC
FEP Thin Client

- *Thin Client Workstation*
  - Application display.
  - Stateless: no local processing, local session maintained on server.
- *Thin Client Connection to Peripheral Server*
  - Separate/Private Fast Ethernet network connecting workstations to server cluster.
  - Full duplex 100 Mbps connection to peripheral server via Ethernet switch.
  - One thin client workstation per Ethernet switch port.
- *Peripheral Server*
  - Thin client workstation configuration services.
  - Thin client access and authentication services.
  - Runs application client processes for each thin client workstation (includes terminal emulators).
  - Maintains thin clients' session states.
  - Maintains user's active session if user is disconnected from server.
  - Resumes user's session when user reconnects (from any thin client).
  - May processes thin client workstation I/O via virtual device drivers.
  - Each server cluster may have its own separate/private network for connecting thin clients.
  - Ethernet based specialized protocol may be implemented on private network.
  - Connects to remote application servers over LAN.
- Application Server
  - Runs application server processes.
- *Ethernet Switching*
  - Single or redundant switches, with logical isolation of LAN and separate/private network via VLANs.
  - Single or redundant switches, with physical isolation of LAN and separate/private network.

IVSS Peripheral Services POC
FEP Thin Client POC Schedule

IVSS Peripheral Services POC
FEP Thin Client Configuration (same as NC)



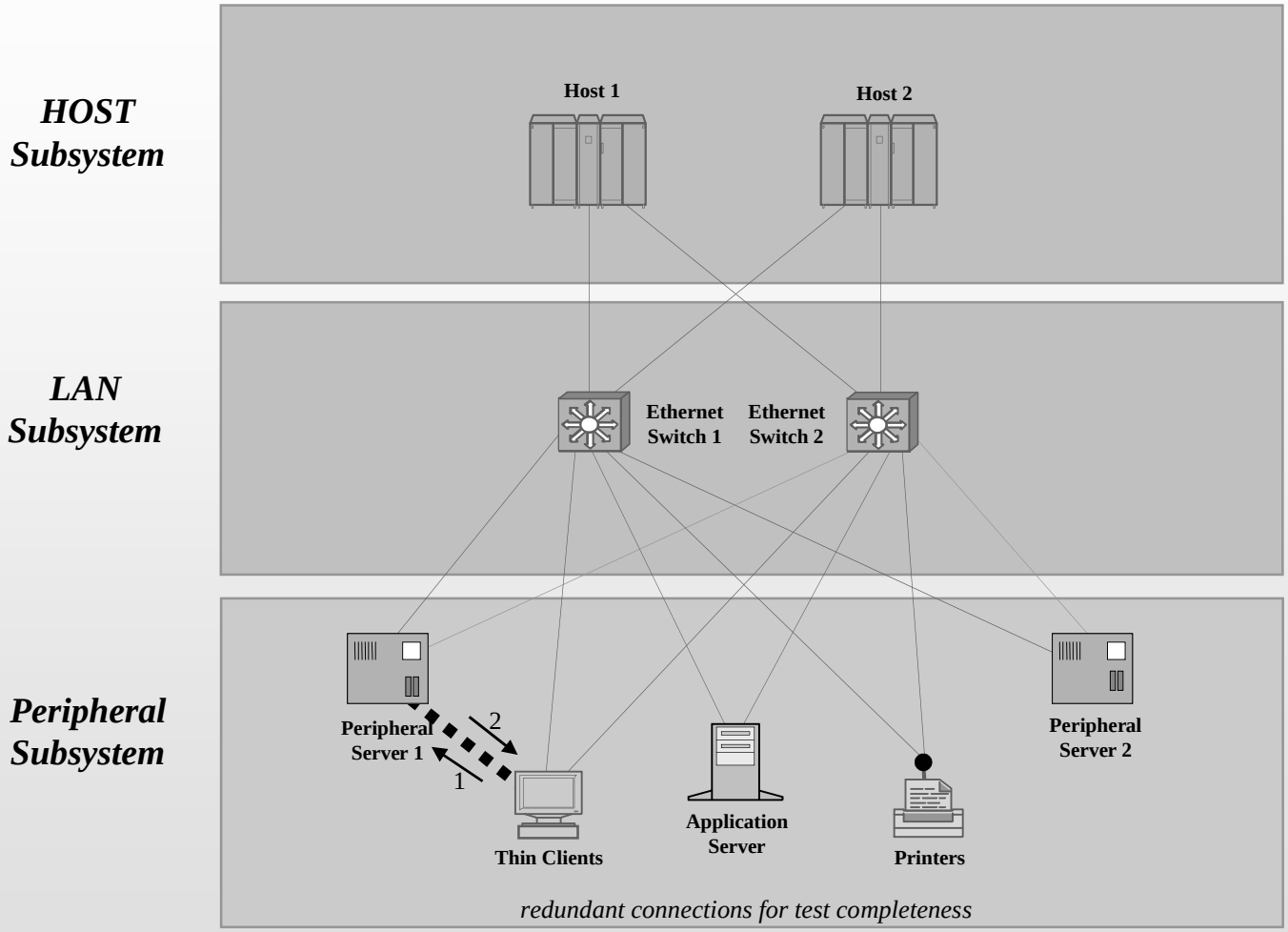
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (FEP)

Step 1 Thin Client Logs on to Network via Peripheral Server



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

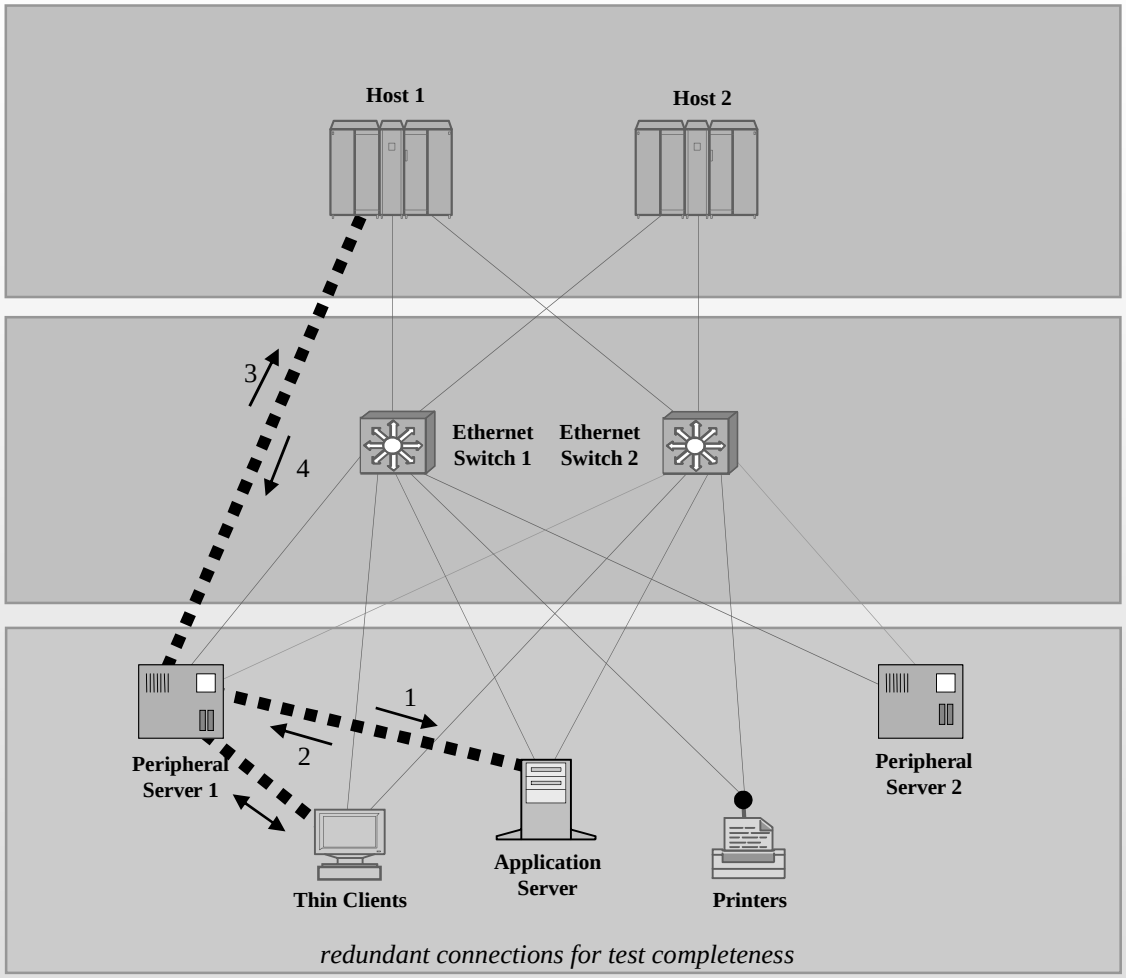
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (FEP)

Step 2 Peripheral Server Connects to Application Servers



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

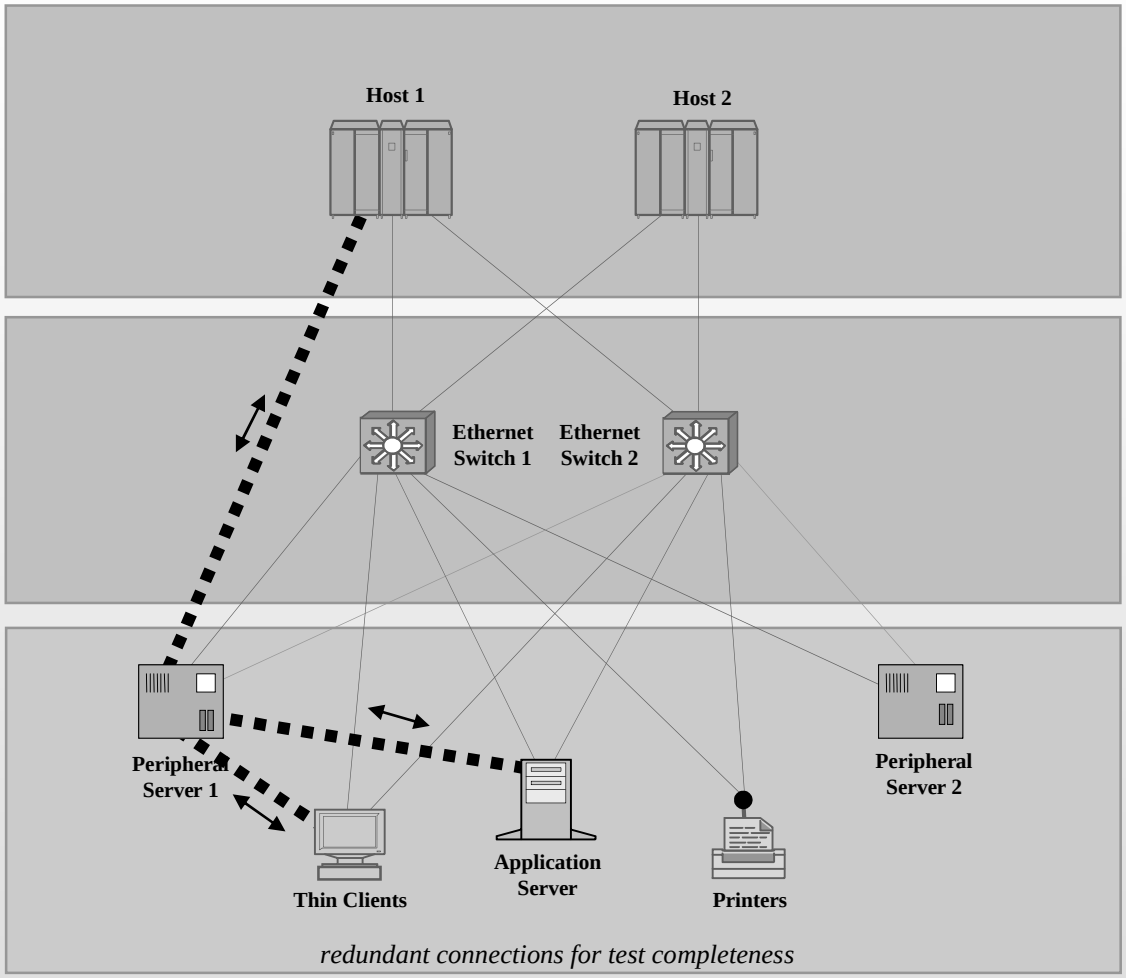
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (FEP)

Step 3 Thin Client Interacts With Applications



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

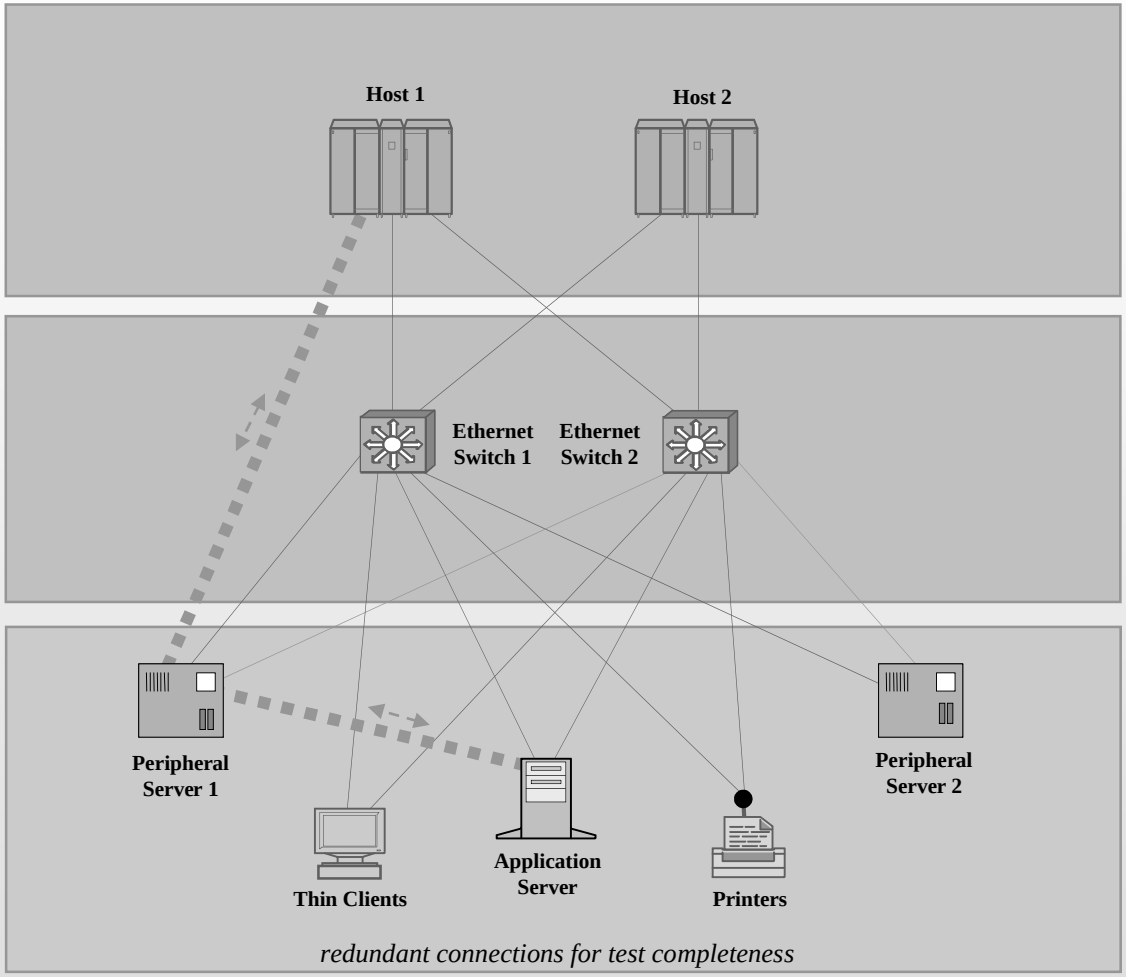
- *Network Connected*
- *Network Print Spooling*

Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (FEP)
Step 4 Thin Client Disconnects from Network



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

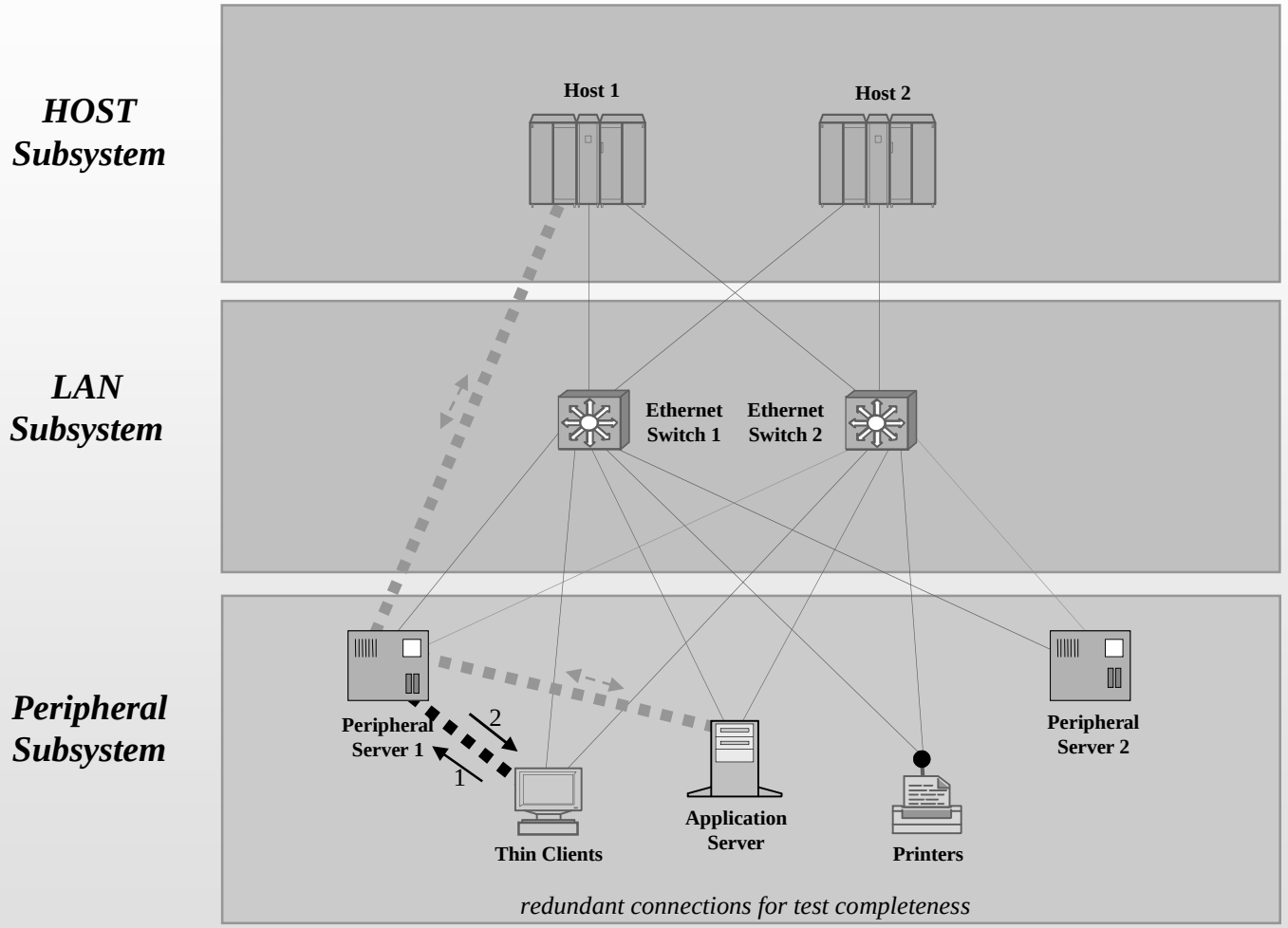
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (FEP)

Step 5 Thin Client Logs in to Network via Peripheral Server



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

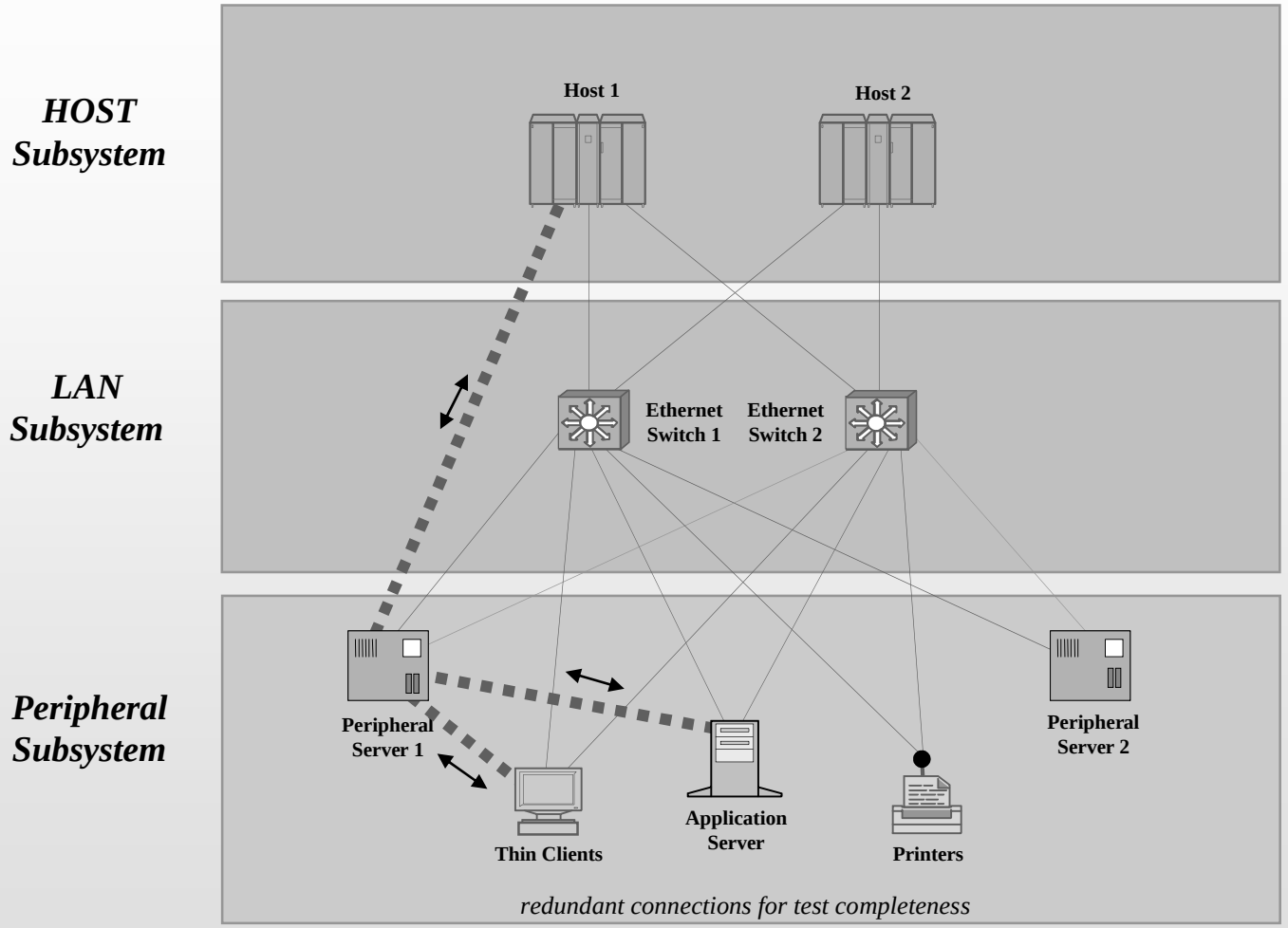
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (FEP)

Step 6 Thin Client Resumes Interaction With Applications



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

Legend

10/100 Ethernet

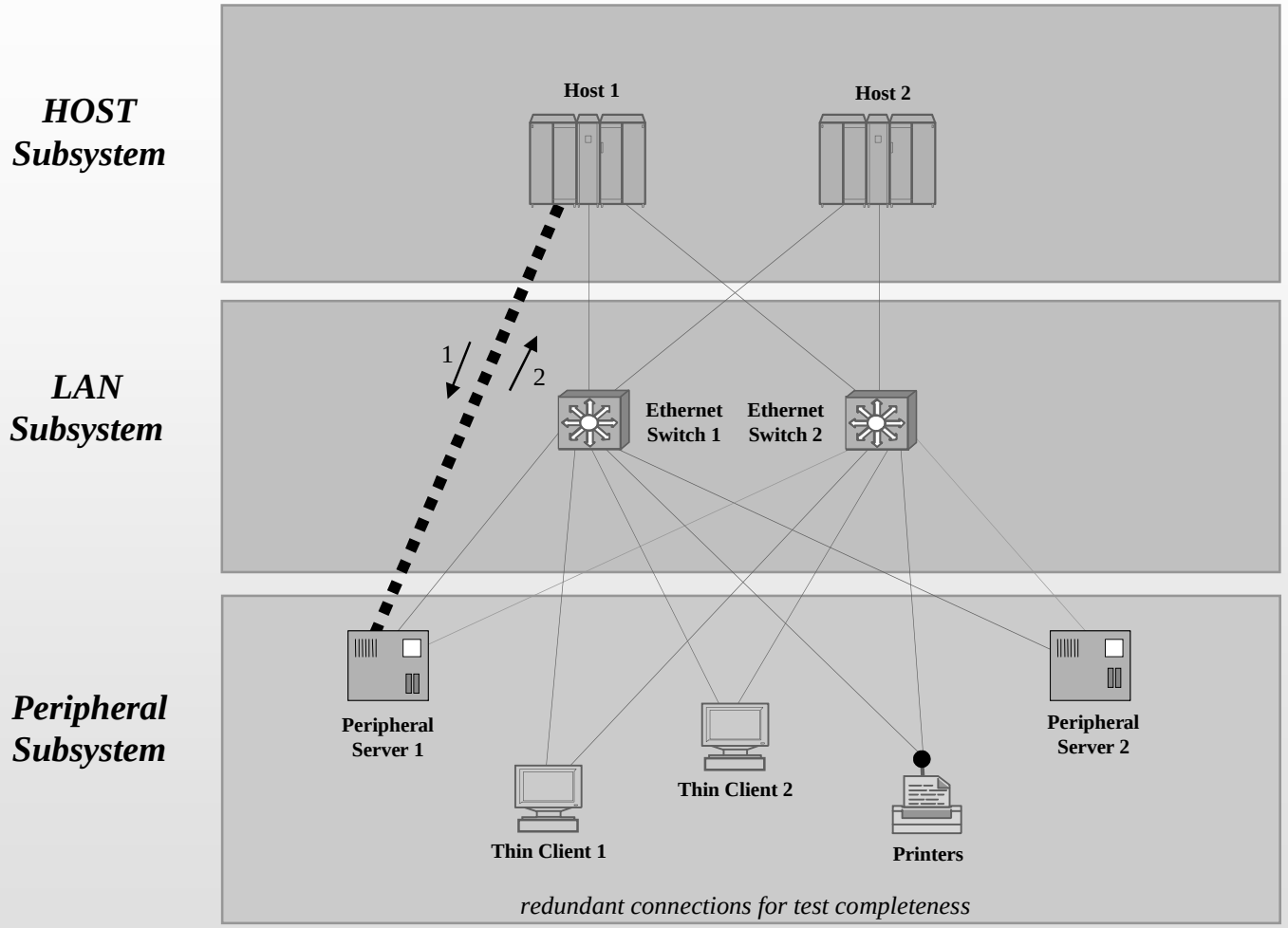
Logical Connection

IVSS Peripheral Services POC

Host as a Network Client in the Operational Environment

IVSS Peripheral Services POC (Host as a Client)

Step 1 Host Logs on to Network via Peripheral Server



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

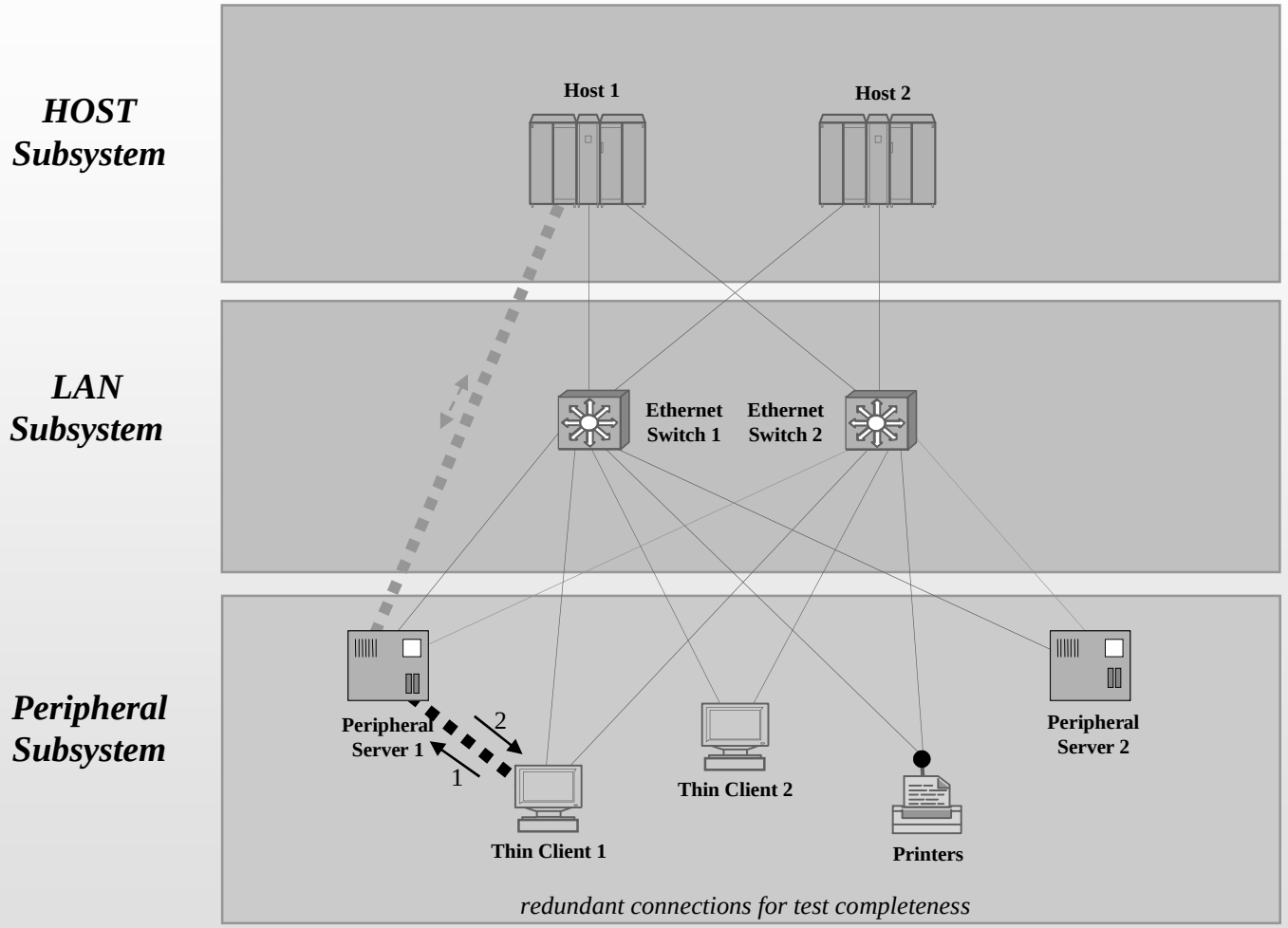
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (Host as a Client)

Step 2 Thin Client 1 Logs on to Network via Peripheral Server



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

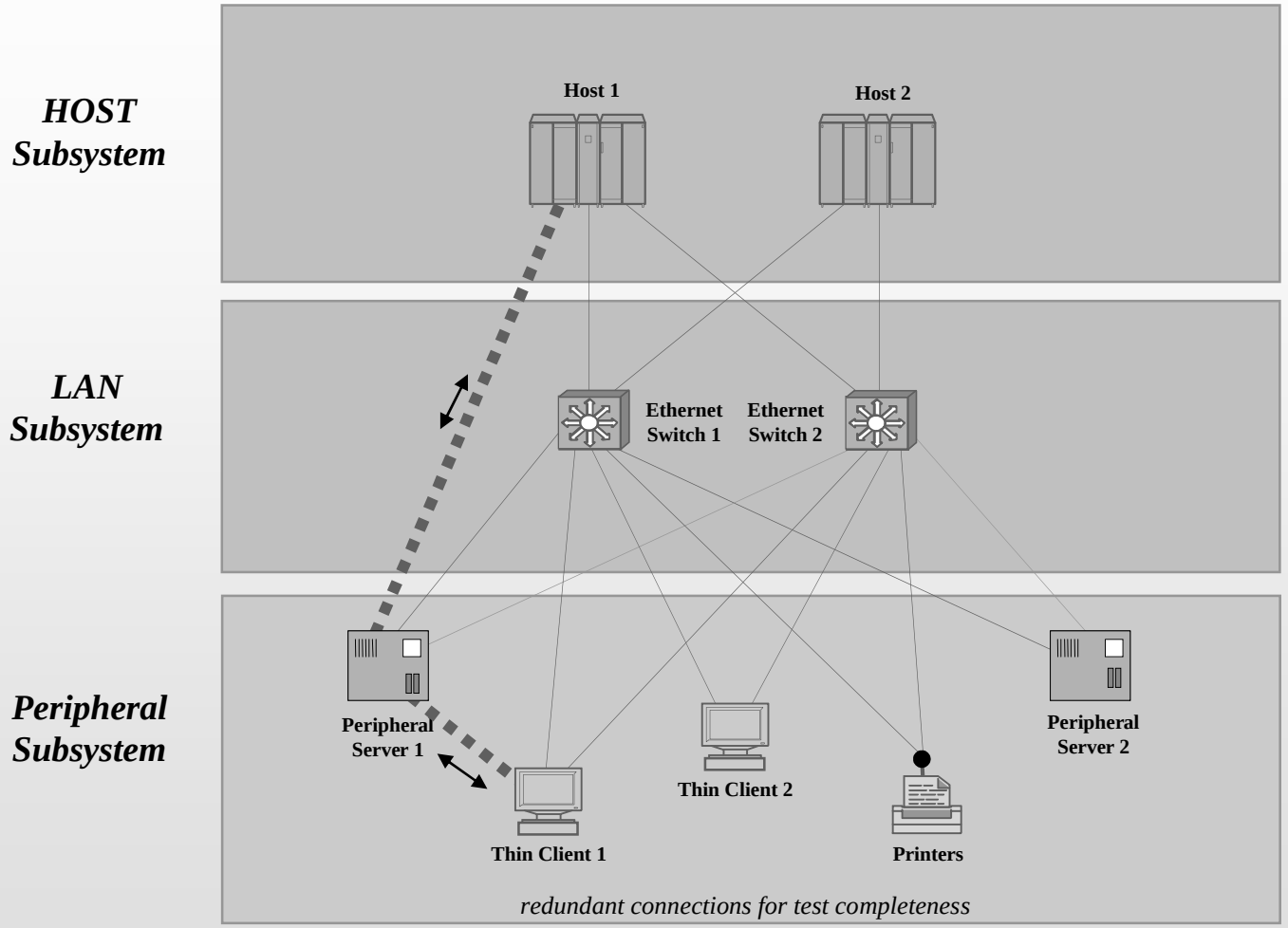
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (Host as a Client)

Step 3 Thin Client 1 Connected to Host Application



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

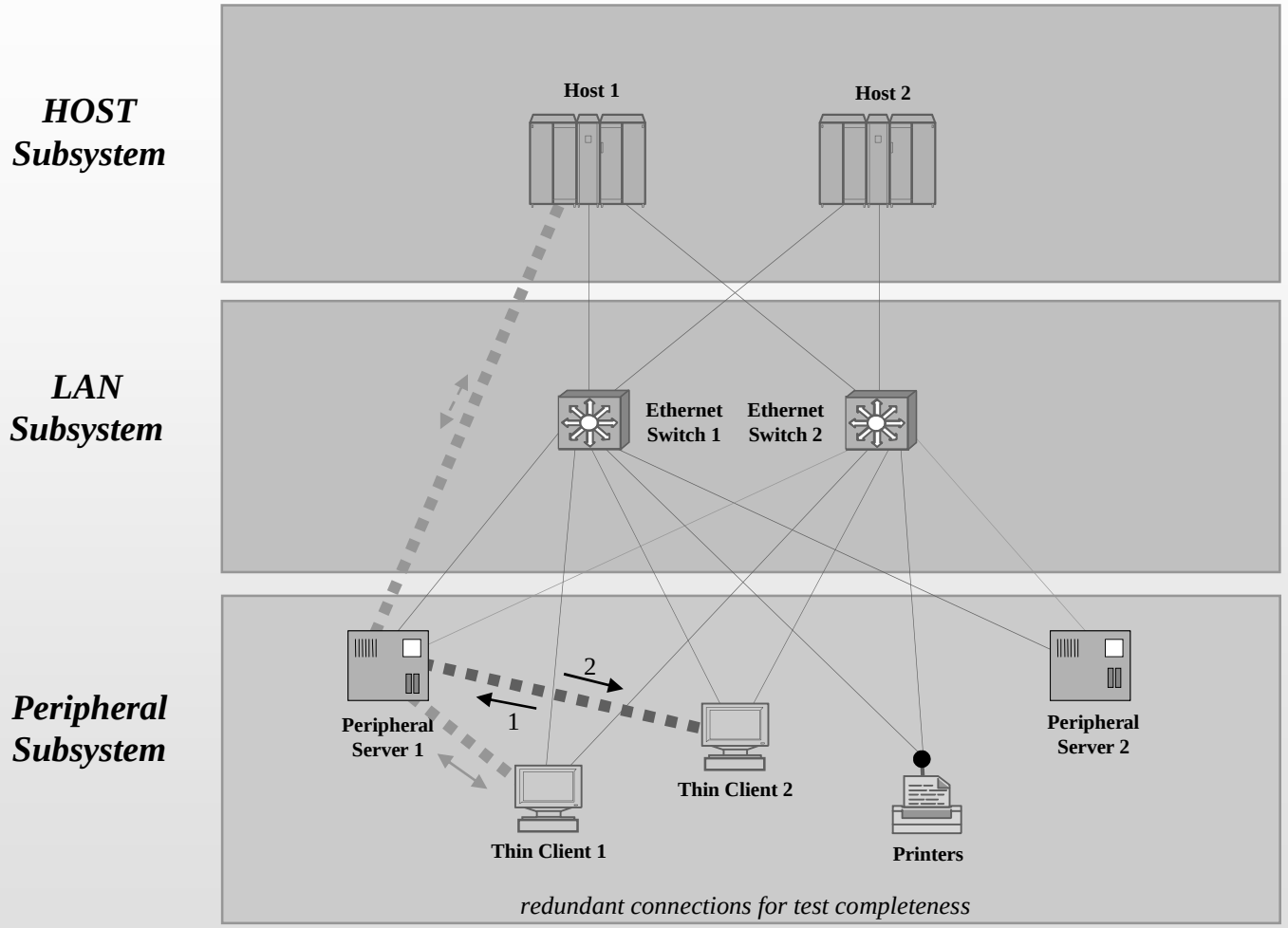
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (Host as a Client)

Step 4 Thin Client 2 Logs on to Network via Peripheral Server



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

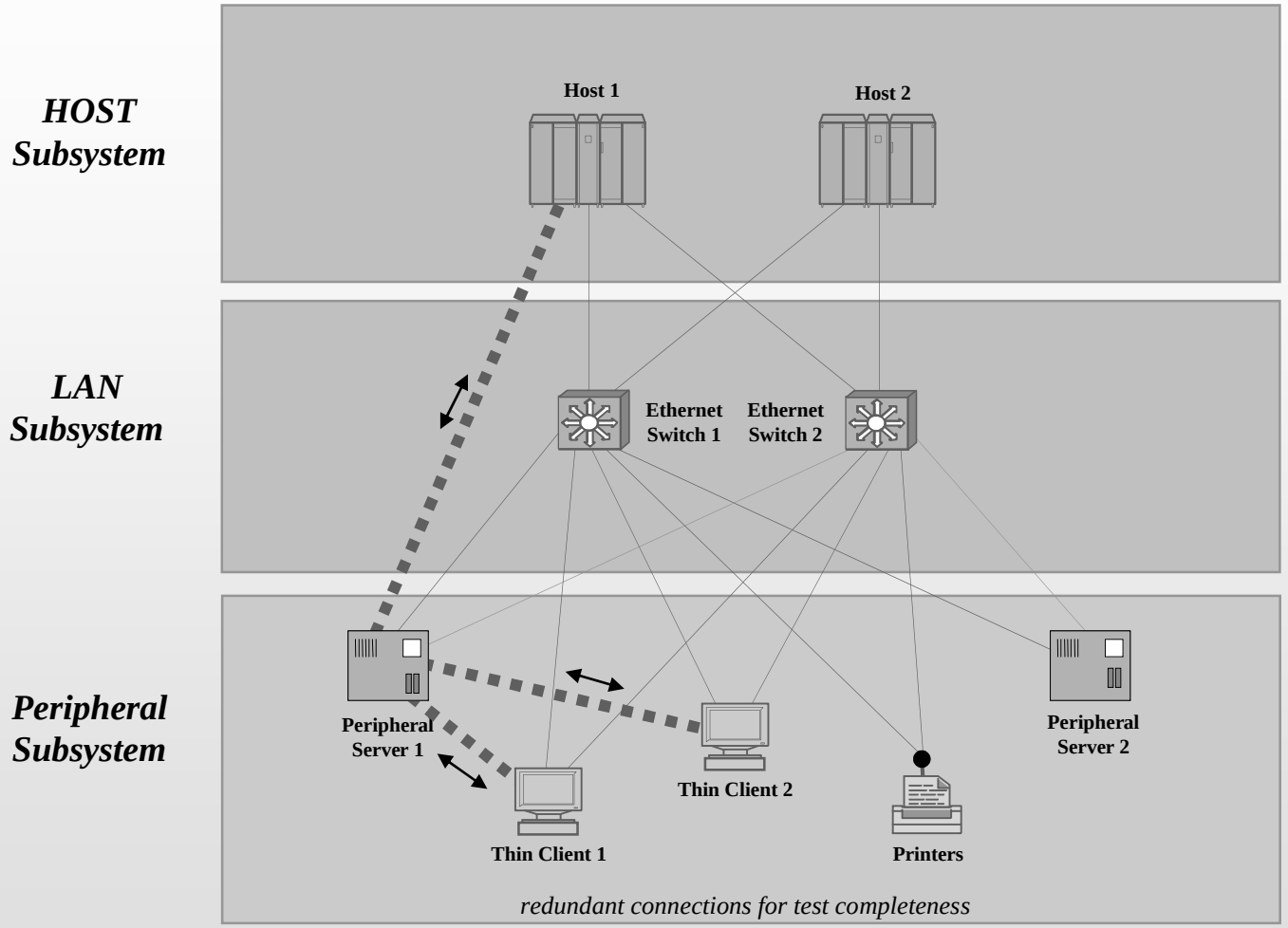
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (Host as a Client)

Step 5 Thin Client 2 Connected to Host Application



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

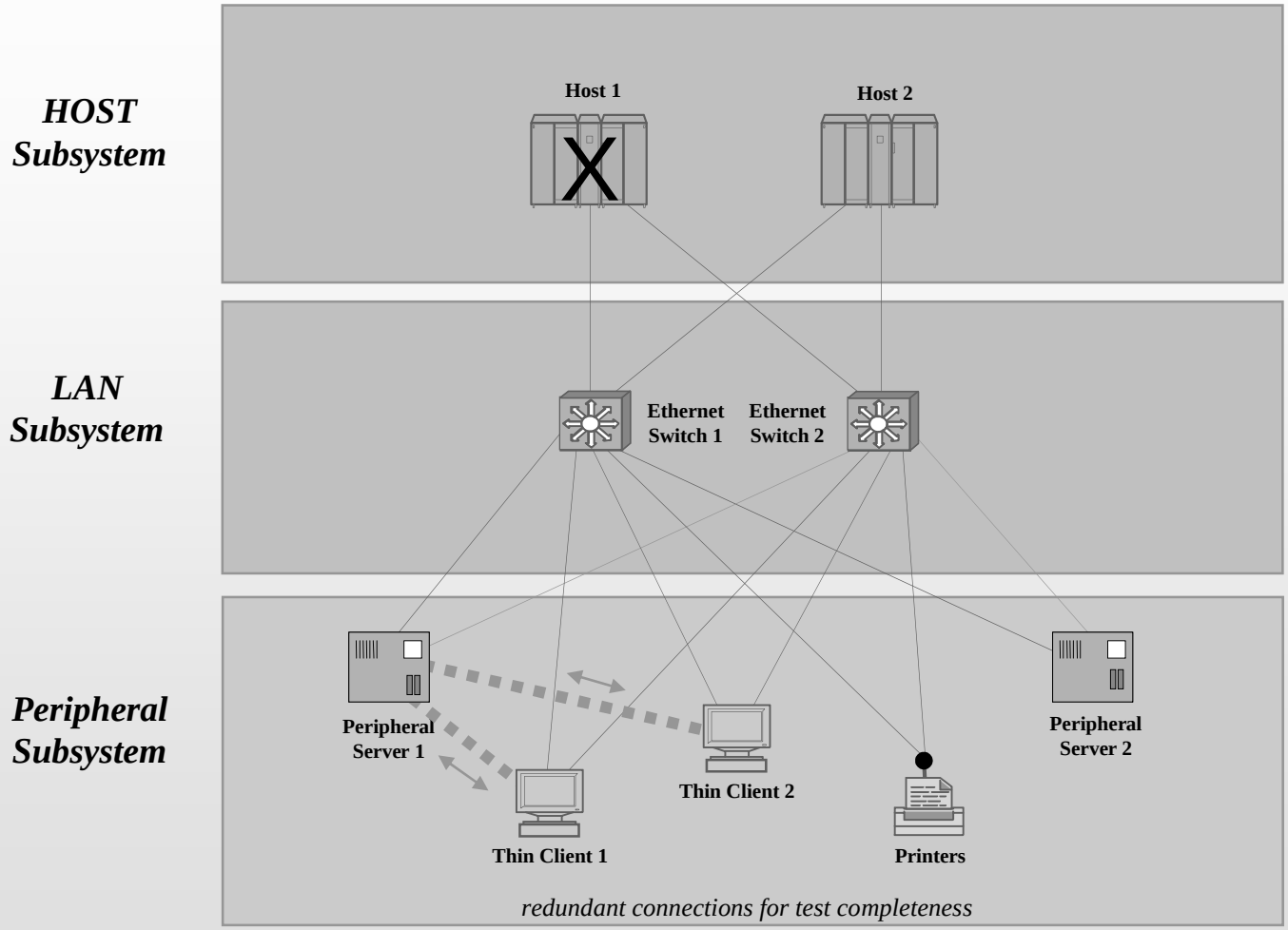
Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC (Host as a Client)

Step 6 Primary Host Switchover



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

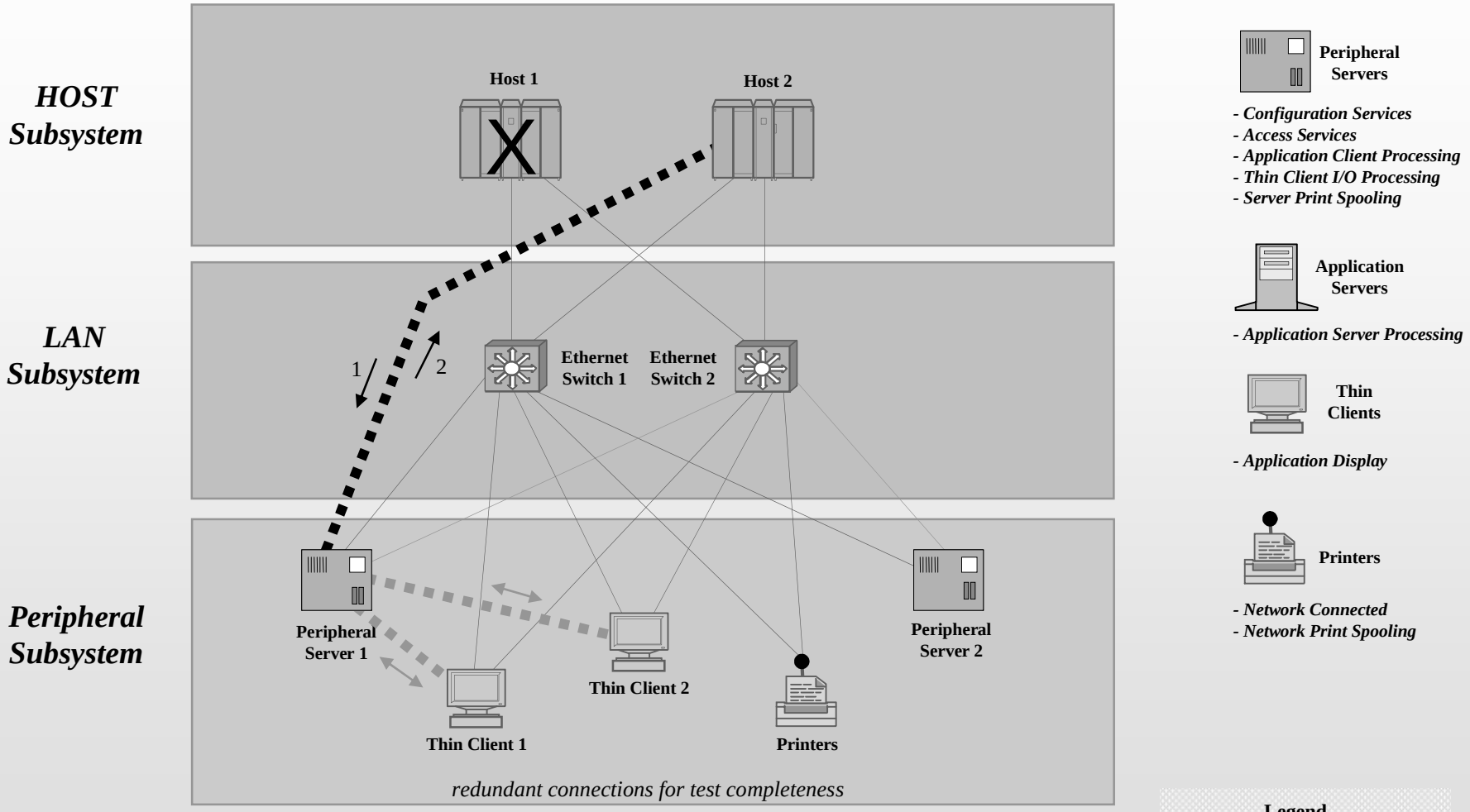
Legend

10/100 Ethernet

Logical Connection

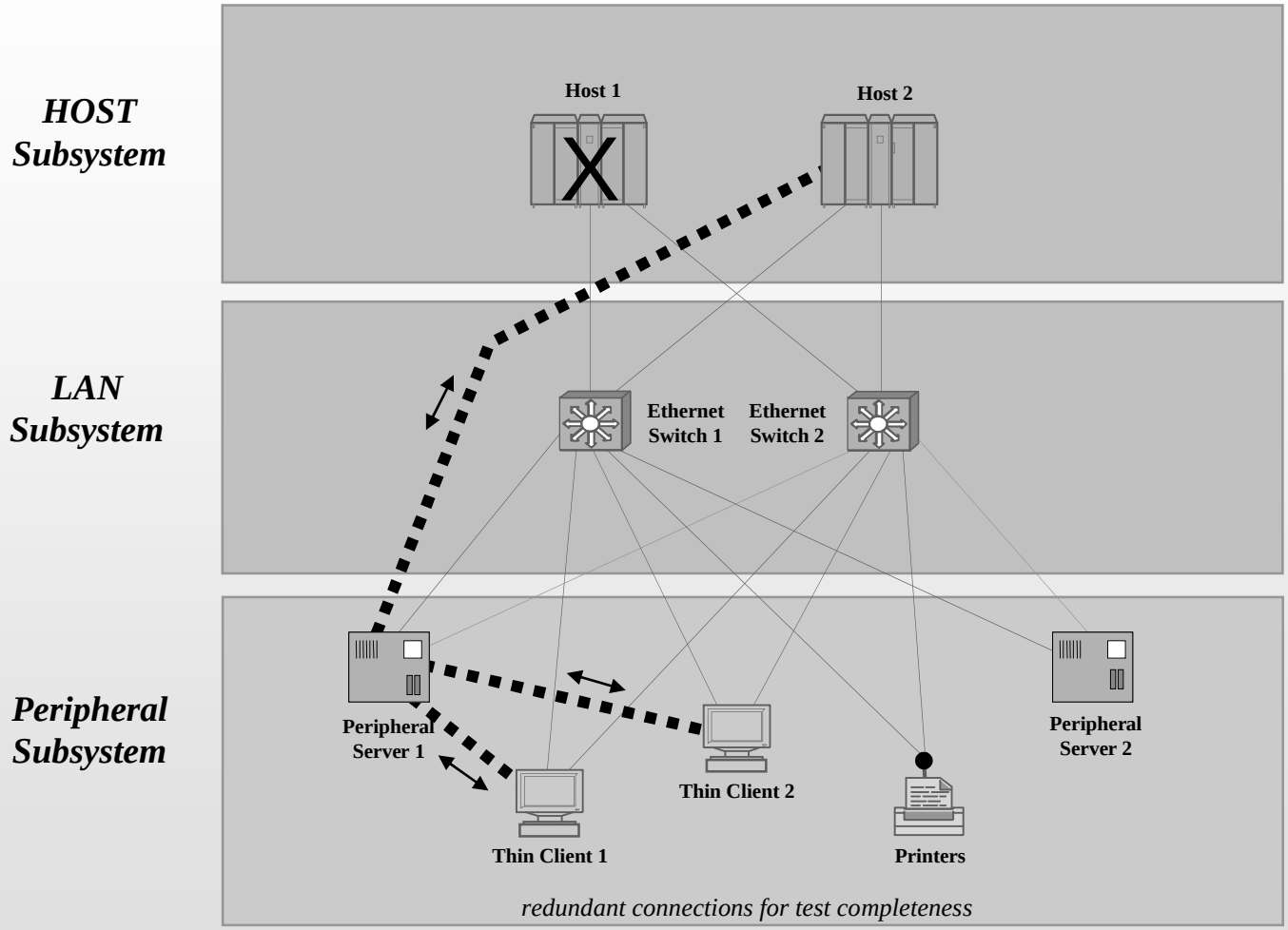
IVSS Peripheral Services POC (Host as a Client)

Step 7 Backup Host Logs on to Network via Peripheral Server



IVSS Peripheral Services POC (Host as a Client)

Step 8 Thin Clients Connected to Host Application



Peripheral Servers

- *Configuration Services*
- *Access Services*
- *Application Client Processing*
- *Thin Client I/O Processing*
- *Server Print Spooling*

Application Servers

- *Application Server Processing*

Thin Clients

- *Application Display*

Printers

- *Network Connected*
- *Network Print Spooling*

Legend

10/100 Ethernet

Logical Connection

IVSS Peripheral Services POC

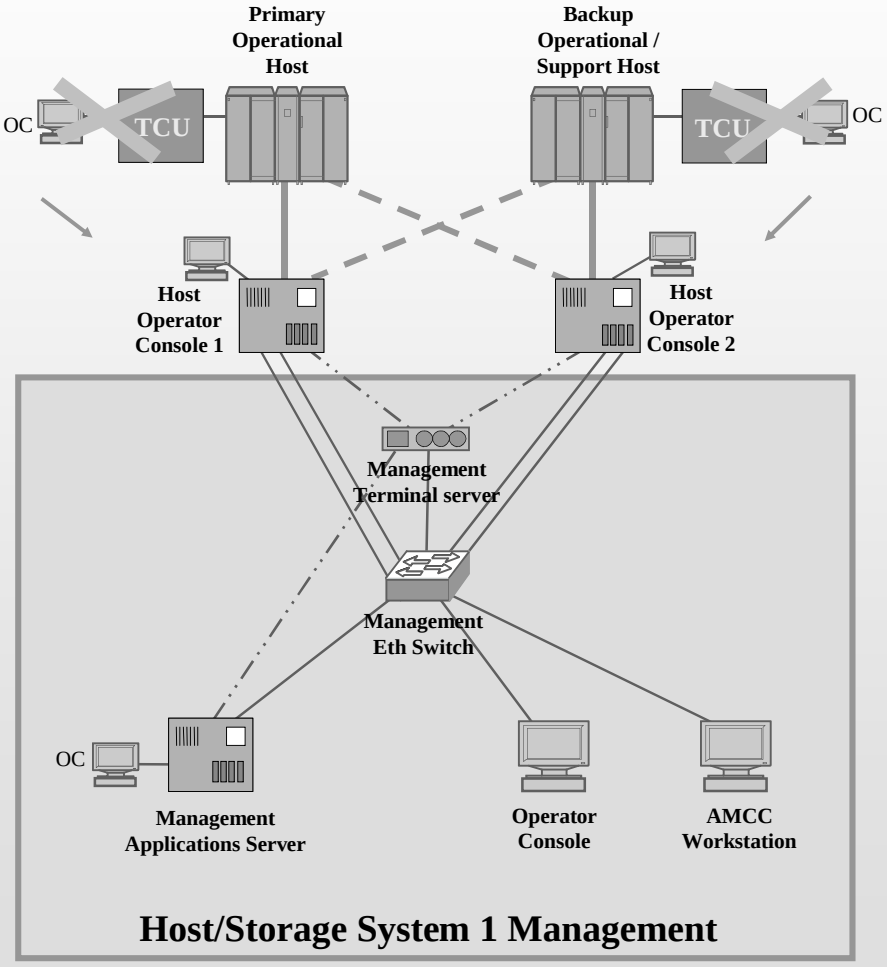
Operator Console Replacement Configuration w/LPAR Support

IVSS Peripheral Services POC

Operator Console Replacement POC Schedule

IVSS Peripheral Services POC

Operator Console Replacement Configuration w/LPAR Support



Legend

Ethernet

Serial

IVSS Peripheral Services POC

Remote Support of Thin Client

... under construction