"Iconic images" from the SNIA shared storage model

These slides are a subset of the images from the shared storage model that can serve as a set of "icons" that can be used in publicity material. **The "speaker notes" supply additional important commentary.**
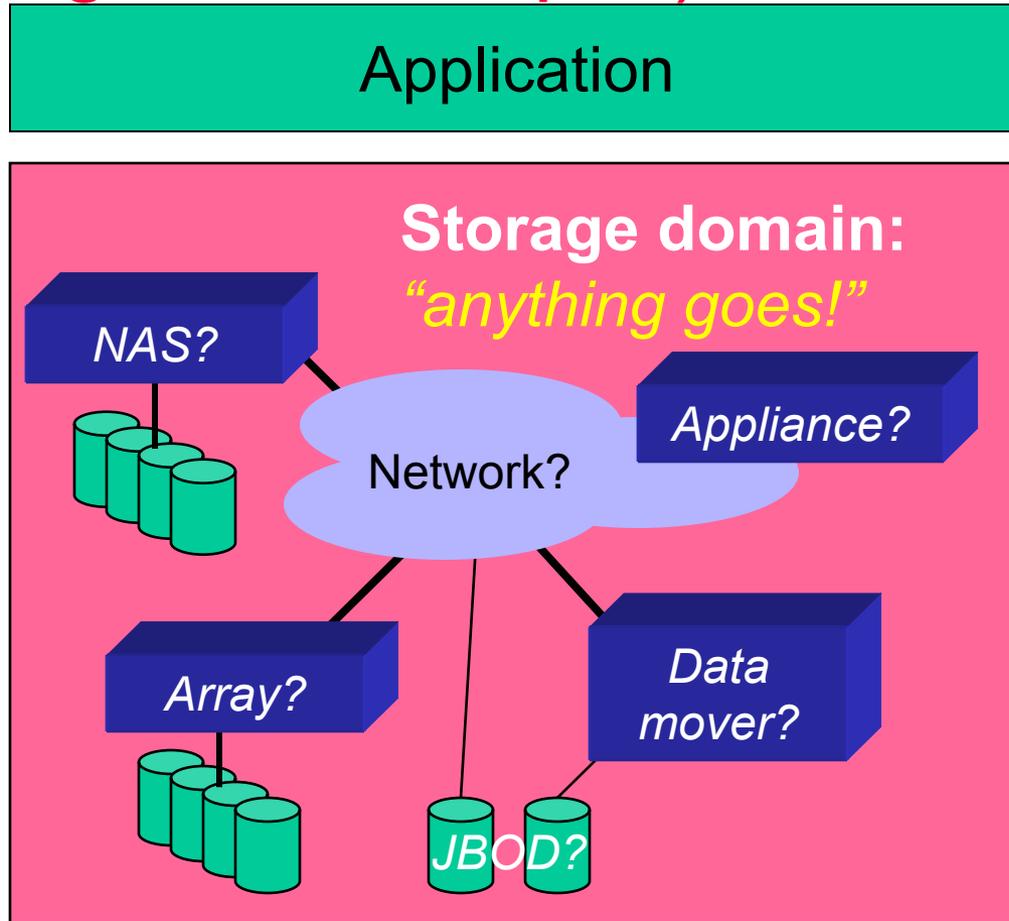
This revision:

• 2001-06-05 last content update

• 2003-04-13 last graphics update

Obligatory rubric

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- **See SNIA-SSM-colors.ppt for printing and color/graphics conventions.**

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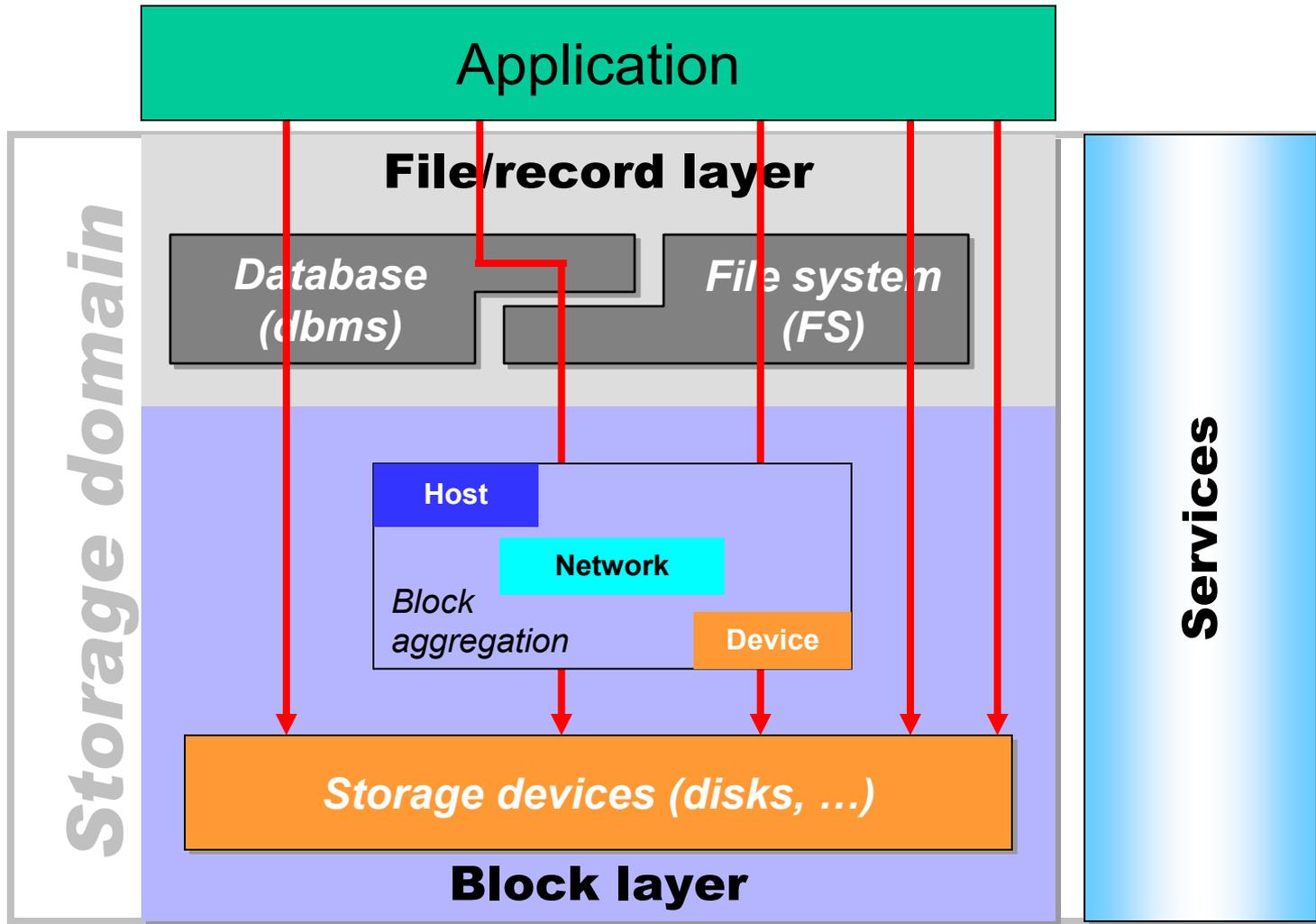Storage Networking Industry Association

Classic storage model
(a Negative Example!)

Application

Storage domain:
"anything goes!"

NAS?

Network?

Appliance?

Array?

Data mover?

JBOD?

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The SNIA storage model
Overview

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The SNIA storage model
Simplified functional partitioning

Application

1. Direct-attach
2. SN-attach
3. NAS head
4. NAS server

File/record layer

Host. with LVM and software RAID

Host. with LVM

Host

Host

LAN

NAS head

NAS server

← *Host block-aggregation*

SN

← *Network block-aggregation*

Block layer

Disk array

← *Device block-aggregation*

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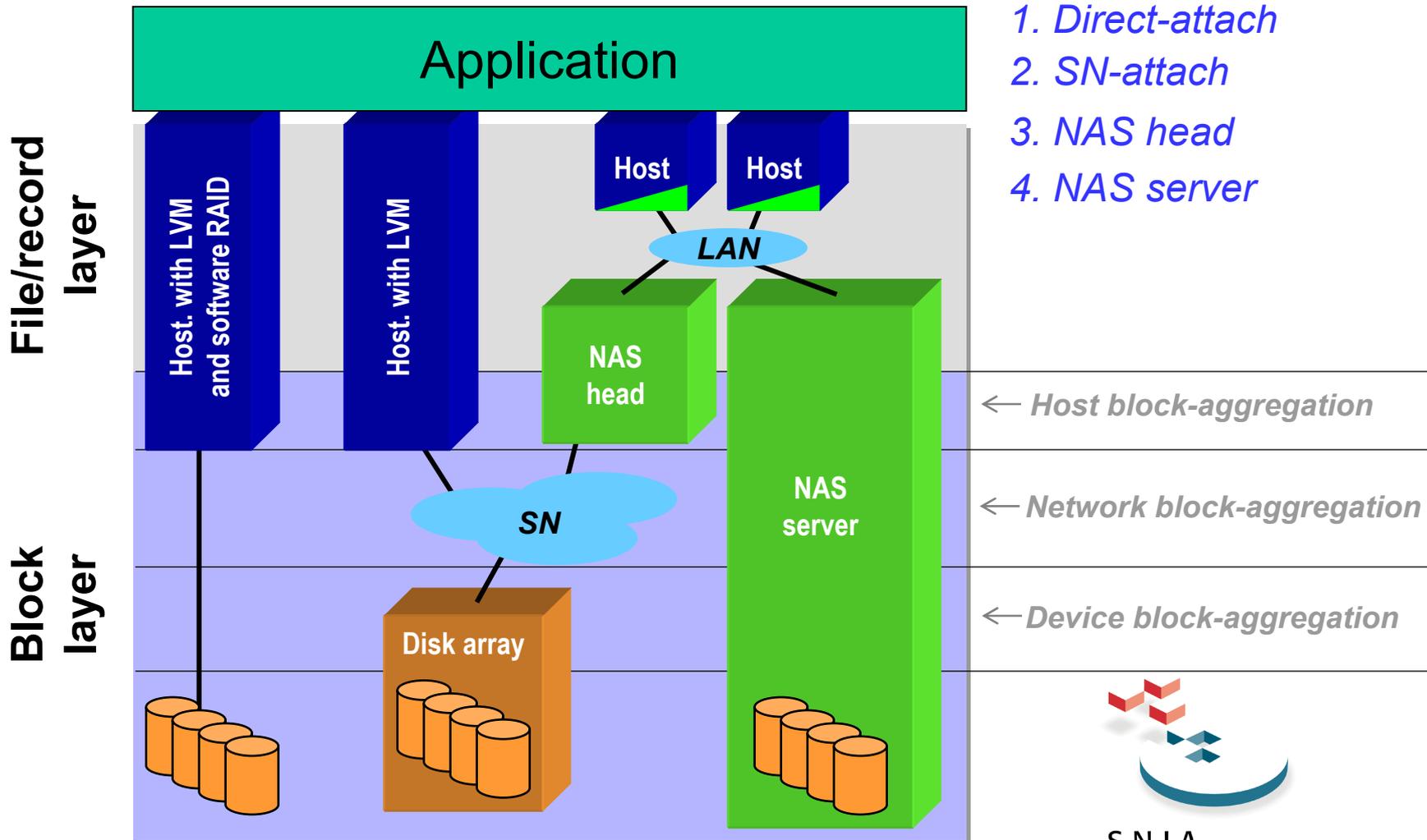
The SNIA storage model
Other aggregation models

Application

1. Block metadata

2. File metadata

3. SN appliance

File/record layer

Block layer

Host with LVM

Host

LAN

File metadata server

← Host block-aggregation

← Network block-aggregation

← Device block-aggregation

Aggregation appliance

SN

Block metadata server

Disk array

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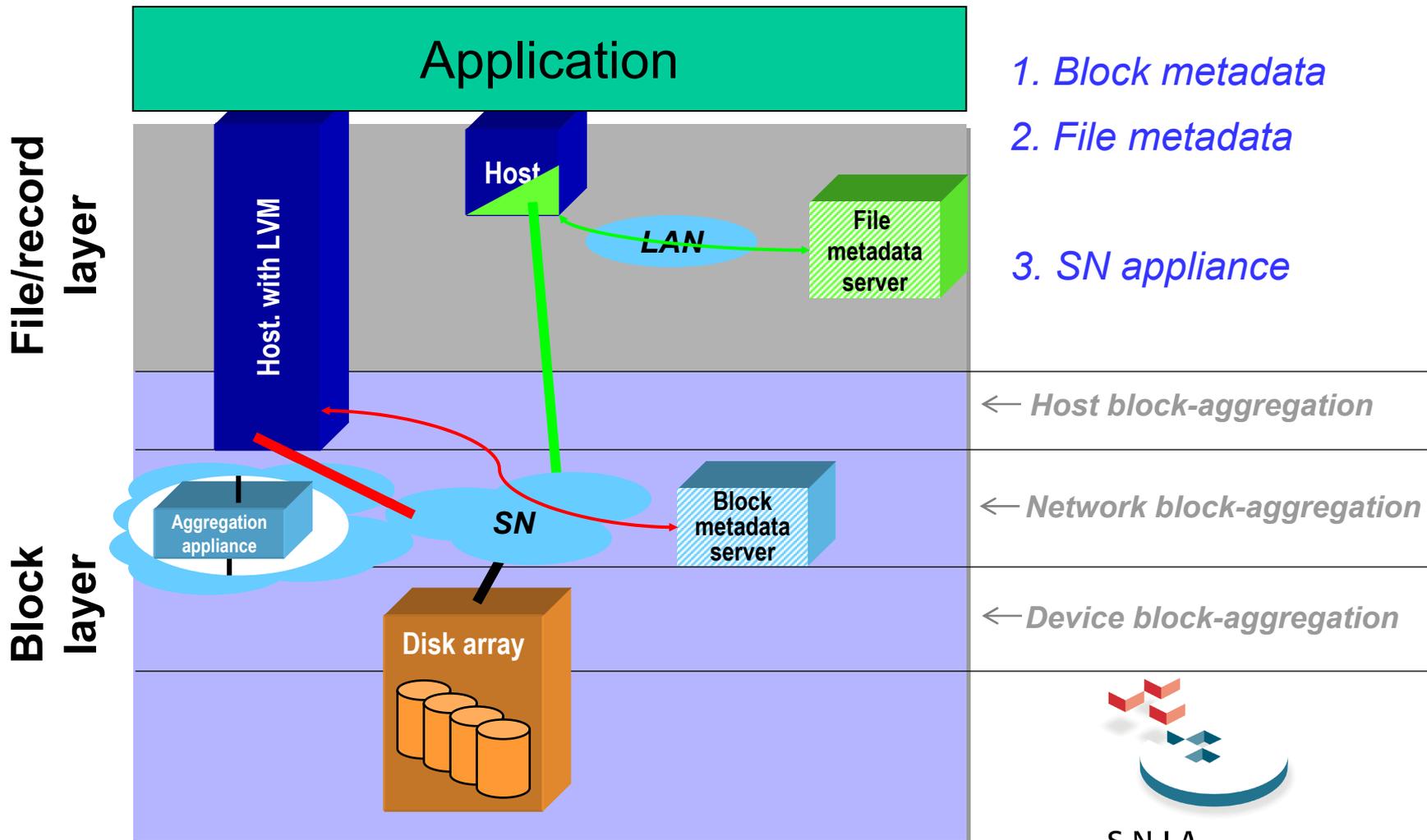
The SNIA storage model
Full function-partitioning view

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The SNIA storage model
Multi-site block storage

Functions: point-in-time copy, caching,
local & remote mirroring, …

Host-to-host

SN appliance

Device-to-device

Application

Application

File/record layer

Host. with LVM

Host. with LVM

WAN

← *Host block-aggregation*

SN

Aggregation appliance

Aggregation appliance

WAN

← *Network block-aggregation*

Block layer

Disk array

Disk array

WAN

← *Device block-aggregation*

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