

ELLYPUNK

Yuki Time

WEEKLY DIGEST

31 August - 6 September 2026



This week

31 August - 6 September 2026

Available archived editions, in their original date order.

WEDNESDAY / 2 September 2026

Yuki Time: Virtual Servers

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Yuki Time: Why RAID Is Not a Backup

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Yuki Time: Switches vs Routers: Follow the Packet

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ELLY CORP

Yuki Explains: Virtual Environments

How one physical server can act like many computers.



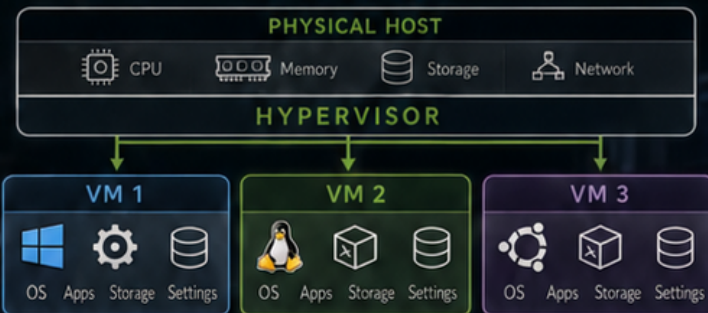
1

A virtual environment lets one physical machine run several separate virtual computers.



2

Each virtual machine gets its own operating system, apps, storage, and settings.



3

They share the same hardware, but each VM stays isolated, so problems in one usually do not wreck the others.



4

Why use them? Better hardware use, easier testing, faster deployment, and simpler backup or recovery.

Efficiency



More done with the same hardware.

Testing



Safe spaces to test without risk.

Speed



Spin up environments in minutes.

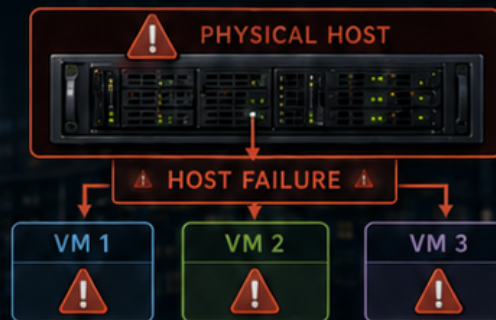
Recovery



Easier backup and restores.

5

Just remember: if the host has a problem, several VMs can be affected, so redundancy and backups still matter.



Best Practices

- ✓ Redundant hardware
- ✓ Regular backups
- ✓ Monitoring & alerts
- ✓ Test restores



One real server. Many virtual machines.
Flexible, efficient, manageable.





ELLY CORP

Yuki Explains: Why RAID Is Not a Backup

Hardware & Infrastructure • Intermediate • 04 Sep 2026

A two-drive
RAID 1 example



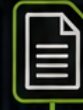
1 WHAT A MIRROR DOES



RAID 1 writes
the same data
to both drives.



Working data



Drive A



Drive B

Two drives. One mirrored volume.

2 WHEN ONE DRIVE FAILS



If one drive fails,
the other can keep
the data available.



Drive A: **failed**



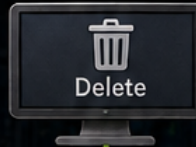
Drive B: **available**

Replace the failed drive and rebuild the mirror.

3 WHEN A FILE IS DELETED



Delete a file
by mistake? That
change reaches
both drives.



Drive A



Drive B

Mirroring does not keep an earlier version.

4 KEEP A WAY BACK



A separate backup
lets you restore
a saved version.



Restore

Backup



- ✓ Keep versioned backups
- ✓ Keep a copy off-site
- ✓ Protect a copy offline or immutable
- ✓ Test restores



RAID helps with drive failure. Backups give you a recovery path.





YUKI TIME

Switches vs Routers

Follow the Packet

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Our IPv4 lab: one subnet per LAN.

Subnet = a group of IP addresses.

Here, /24 means 255.255.255.0: the first three numbers identify the subnet.

1 SAME SUBNET: STAY LOCAL

LAN A • 192.168.10.0/24

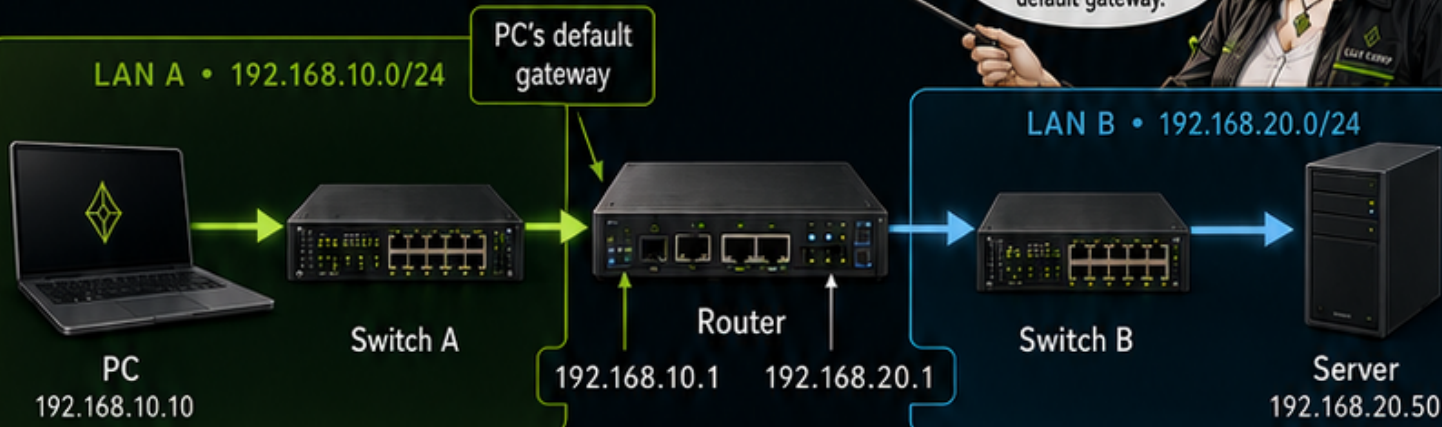


Both addresses share this /24 subnet. The data stays on this LAN.

No router is needed for this local path.

2 DIFFERENT SUBNET: USE A ROUTER

For this other subnet, the PC sends the packet to its default gateway.



The router checks the destination IP address and forwards toward LAN B.

Simple setup: correct routes, traffic allowed, no special host routes.



LAYER 2 SWITCH

Moves Ethernet frames within a LAN using destination MAC addresses.



ROUTER

Moves IP packets between networks using a routing table.



An Ethernet frame carries the IP packet across a local link. A MAC address identifies a network interface on that link.

⚠ One box can do both: Layer 3 switches can route, and home routers often combine several roles.



Same subnet? Local path.
Different subnet? Routed path.



Sources: Cisco networking documentation • Microsoft Learn