

DDI: DNS + DHCP + IPAM

Three core network services run as one integrated system

The three components

DNS

Domain Name System — resolves names like server01.dc to IP addresses

DHCP

Dynamic Host Configuration Protocol — automatically assigns IP addresses

IPAM

IP Address Management — tracks and plans the allocation of the address space

Why the three belong together

- Consistent IP records across the network — assignment, DNS record, and DHCP lease always agree
- Fewer address conflicts and duplicate leases
- Faster troubleshooting from name to device
- Cleaner capacity planning for new subnets
- Auditable change history for compliance

Managed separately, DNS, DHCP, and IPAM drift out of sync: a device gets a lease IPAM never records, or a DNS entry points at a reclaimed address. Spreadsheet IP records fall behind reality within weeks — and incidents lose hours just confirming which device owns an address.

What DDI does not tell you

- The hardware health of the device behind the address
- Its configuration and change history
- Its physical location (cabinet, U position)
- The business service it supports

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Source: sensaka.com/resources/what-is-ddi

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