SD-WAN CAPABILITY GUIDE

The 5 Tiers of SD-WAN:
Not All SD-WAN Is Created Equal

The term SD-WAN is used for products with very different capabilities, from basic multi-WAN routers to platforms with packet-level bonding and centralized orchestration.

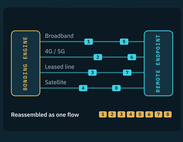
↑ Capability increases upward. **Each tier includes everything in the tiers below it.**

TIER 5 · MOST COMPREHENSIVE · LEVEL 5 / 5

Comprehensive SD-WAN

Bonding, Intelligence and Resilience

- **All Tier 1 to Tier 4 capabilities**
- Packet-level WAN bonding
- Single-flow bandwidth aggregation
- Packet loss mitigation
- Intelligent multi-link traffic distribution
- Centralized orchestration and security integration
- Web Filtering
- IDS/IPS



— Multiple connections working together as one resilient network.

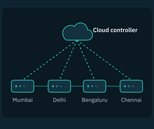
NETSENSE PRODUCTS · NetSense Edge Ultra · NetSense Edge Extreme

TIER 4 · Everything in Tiers 1–3, plus · LEVEL 4 / 5

Centrally Orchestrated SD-WAN

One Network, One Control Plane

- Centralized configuration
- Zero Touch Provisioning
- Secure branch connectivity
- Network-wide monitoring
- Centralized policy management



— Manage hundreds of branches as one network.

NETSENSE PRODUCTS · NetSense Edge Pro

TIER 3 · Everything in Tiers 1–2, plus · LEVEL 3 / 5

Application-Aware SD-WAN

Intelligent Path Selection

- Application identification
- Continuous link quality monitoring
- Dynamic path selection



— The network responds to application needs and changing conditions.

TIER 2 · Everything in Tier 1, plus · LEVEL 2 / 5

Policy-Based WAN

Traffic Follows Rules

- Policy-based routing
- Traffic prioritization
- WAN selection by destination or traffic type
- Administrator-defined routing rules
- Latency and packet loss awareness



— The network follows predefined policies.

NETSENSE PRODUCTS · NetSense Edge Lite Series

TIER 1 · The baseline · LEVEL 1 / 5

Basic Multi-WAN

Connectivity and Failover

- Multiple WAN connections
- Keepalive-based link monitoring
- Automatic failover
- Basic load balancing



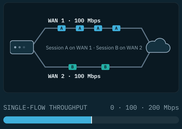
— Traditional multi-WAN routing, often marketed as SD-WAN.

THE KEY DIFFERENCE

Load Balancing vs WAN Bonding

Traditional Load Balancing

Two 100 Mbps connections distribute different sessions between two links.

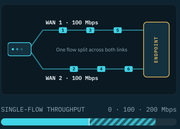


SINGLE-FLOW THROUGHPUT · 0 · 100 · 200 Mbps

Single flow generally limited to one WAN

True WAN Bonding

Two 100 Mbps connections can carry packets from the same flow across both links, with reconstruction at the remote bonding endpoint.



SINGLE-FLOW THROUGHPUT · 0 · 100 · 200 Mbps

A single flow can benefit from aggregated capacity, subject to network conditions and overhead

Variable gain. Two 100 Mbps links do not always deliver 200 Mbps of usable throughput.

INDUSTRY STANDARDS NOTE

MEF has published SD-WAN service standards, including MEF 70.2. However, there is no universally enforced minimum feature set that every product marketed as SD-WAN must implement.

These five tiers are an independent capability-based classification, not an official MEF standard.

Don't Buy the SD-WAN Label. Understand the Capabilities.

From basic failover to intelligent WAN bonding, the difference is in what the network can actually do.

NetSense CYBERSECURITY

NetSense CyberSecurity | Secure Connectivity. Intelligent Networking.