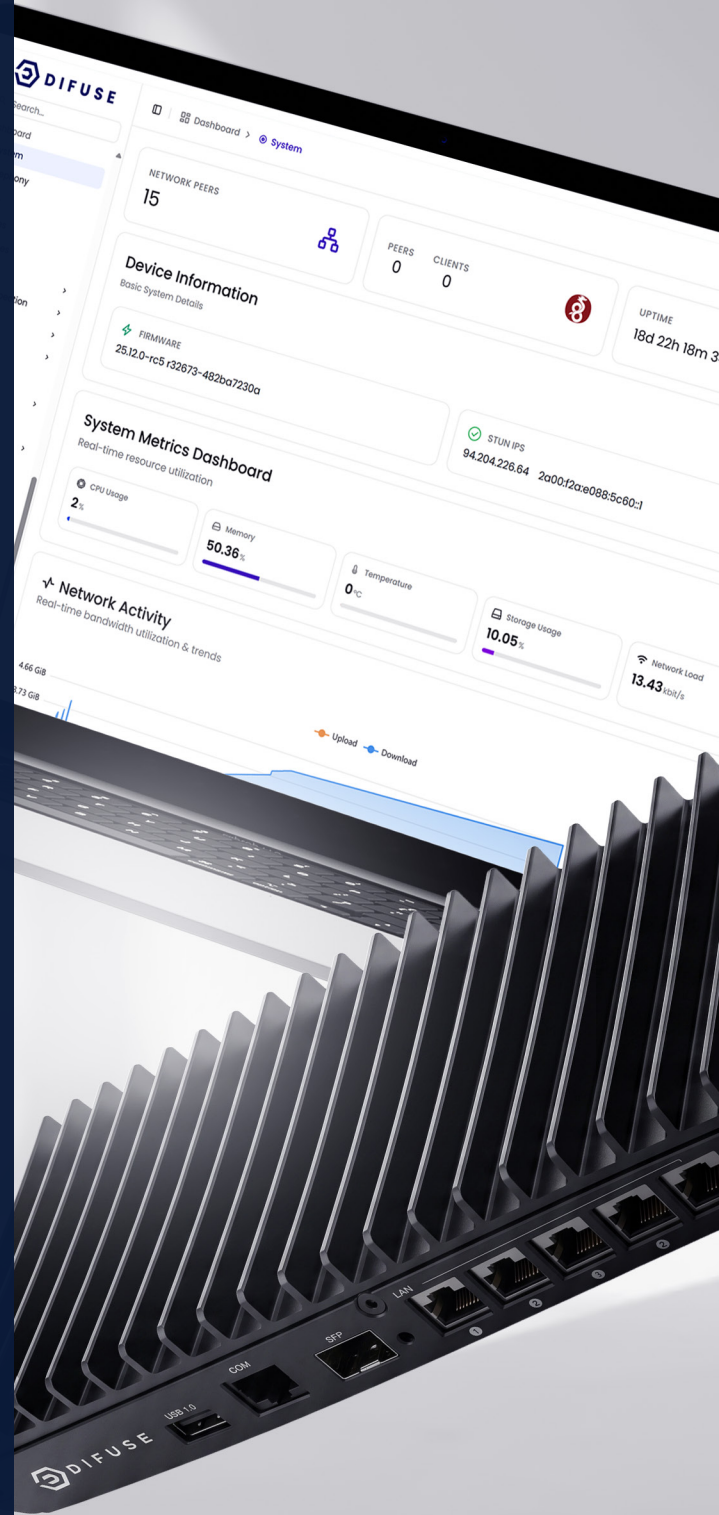




SMART NETWORKING,  
DIFUSED.

# Consolidate Your Network. Simplify Your Operations.



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# Introduction

Difuse is a converged Multi-Service Business Gateway that replaces your router, firewall, VPN appliance, and PBX with a single managed device. One box. One dashboard. One support contract.

Purpose-built for businesses that need enterprise-grade networking without the enterprise overhead, Difuse runs DifOS, our purpose-built network operating system, across every hardware model and virtual deployment.



## What is a DMSBG?

A Difuse Multi-Service Business Gateway (DMSBG) integrates four critical network functions into one hardened appliance:

- PBX/Telephony, with full SBC and SIP trunk support
- Stateful firewall with deep packet inspection and application filtering
- IPsec and WireGuard VPN for site-to-site and remote access
- **Network services:** routing, web filtering, GeoIP, policy-based routing, DynDNS



Available as physical appliances for three business sizes, and as a virtual machine for existing infrastructure deployments.

## Why Difuse



Replaces 4 or more separate network appliances



Single management interface across all functions



Compatible with major GCC and India carriers including STC, Du, e& (Etisalat), Jio, Airtel, and BSNL



Full capability on every unit



Complimentary DynDNS per device



One year signature updates included.



## About Difuse

Difuse is a product of Iridia Solutions Private Limited, a technology company focused on converged networking and unified communications. Difuse hardware and software is developed entirely in-house, with engineering and support teams based in India and the UAE.

## Our Products

Integrated devices and virtual deployments, all running DifOS.

### DMSBG 50

The right fit for small businesses and branch offices.



The DMSBG-50 brings the full Difuse feature set to compact environments. Handles up to 30 data users and 100 SIP endpoints with a single SIP trunk, in a desktop form factor that fits anywhere

30 data users / 100 SIP endpoints

1x GbE WAN, 4x GbE LAN

1 SIP trunk

Full PBX, firewall, VPN, DPI

### DMSBG 100

Built for growing teams that need more headroom.



The DMSBG-100 steps up capacity for mid-market operations. Dual WAN with 5G/LTE failover keeps connectivity up even when your primary link drops. Supports up to 100 data users and 500 SIP endpoints across two SIP trunks.

100 data users / 500 SIP endpoints

2x GbE WAN with 5G/LTE failover

4x GbE LAN

2 SIP trunks

Full PBX, firewall, VPN, DPI

## DMSBG 300

Enterprise capacity for multi-site and high-availability deployments.



The DMSBG-300 is built for organisations that cannot afford downtime. High-throughput 10G networking, 5G/LTE failover, and support for up to 500 data users and 2,000 SIP endpoints across five SIP trunks.

500 data users / 2,000 SIP endpoints

1x 10G SFP+/RJ45 WAN with 5G/LTE failover

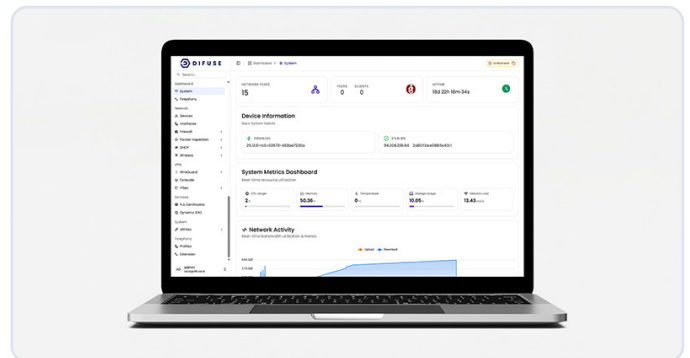
4x 2.5G LAN + 1x 10G LAN

5 SIP trunks

Full PBX, firewall, VPN, DPI

## VM EDITION

Deploy Difuse on infrastructure you already own.



The Difuse VM edition brings the complete DMSBG feature set to virtual environments. Run it on your existing hypervisor or install it directly on bare metal. Full feature parity with hardware appliances.

Supported hypervisors: VMware ESXi, Proxmox VE, Microsoft Hyper-V, KVM

Bare-metal install on x86-64 hardware

Available as a free trial or production licence

Capacity defined by licence tier

Full PBX, firewall, VPN, DPI

### SOFTPHONE

# Free, Open and Polished Softphone



Difuse Phone is a fork of linphone, tailored for simplicity and deep integration with Difuse products, along with support for other 3rd party SIP providers. It pairs the mature C++ VoIP core of the linphone SDK (liblinphone, mediastreamer2, belle-sip) with a modern Kotlin UI and a custom Go backend.

## What's Different



### ML-Powered QR Scanner

The upstream's outdated QR scanner is replaced with a Google Machine Learning Kit + CameraX barcode scanner. QR codes encode JSON blobs containing PBX credentials (username, password, host, transport), allowing one-tap device provisioning with 0 lag.



### Sentry: Built In-House. Built to Scale.

Most softphones rely on the PBX to stay awake and handle incoming calls. That works on a desktop. On a mobile device, it drains the battery and breaks the moment the app goes to the background.

Sentry solves this. It is a purpose-built push gateway, developed entirely by the Difuse engineering team, that sits between your PBX and your mobile users. When a call comes in, Sentry wakes the device instantly via the platform's native push system, the same infrastructure that delivers messages on iOS and Android, and bridges the call through without the user needing to do anything.

The result is a mobile calling experience that behaves like a desk phone: reliable incoming calls, no missed calls due to the app being in the background, and no impact on battery life. Sentry is designed to support over 100,000 concurrent users and is open-source under the AGPL licence, meaning there is no vendor lock-in and the code is auditable.



### C++ at the Core

The app inherits the entire linphone SDK minus the bulky parts - a battle-tested C/C++ stack including liblinphone (SIP/registration), mediastreamer2 (audio/video codecs, echo cancellation, jitter buffer), and belle-sip (SIP parser/transaction layer). All media processing, codec negotiation, and real-time audio streaming runs through this native C++ layer, bridged to Kotlin via the SDK's JNI bindings.



### Optimized for Calling

The experience is streamlined for voice and video calling with a custom dialer, a refined theme, and pre-configured SIP login UX flow that gets users connected faster.

# Product Comparison

All models run DifOS with the same feature set. Capacity scales with the hardware.

	DMSBG-50	DMSBG-100	DMSBG-300	VM EDITION
<b>Data Users</b>	Up to 30	Up to 100	Up to 500	Licence-defined
<b>SIP Endpoints</b>	100	500	2000	Licence-defined
<b>SIP Trunks</b>	1*	2*	5*	Licence-defined
<b>WAN</b>	1x GbE	2x GbE	1x 10G SFP+/RJ45	Per VM config
<b>LAN</b>	4x GbE	4x GbE	4x 2.5G + 1x 10G	Per VM config
<b>5G/LTE Failover</b>	No	Yes	Yes	N/A
<b>Hypervisors</b>	N/A	N/A	N/A	VMware, Proxmox, Hyper-V, KVM
<b>Bare Metal Install</b>	N/A	N/A	N/A	Yes
<b>Operating System</b>	DifOS 3.0	DifOS 3.0	DifOS 3.0	DifOS 3.0

All hardware models include a **1-year warranty extendable to 3 years**. One year signature updates included. Can be renewed for one or three years.

\*(Additional SIP trunks available at extra charge. Contact us for licensing options.)

TELEPHONY

# Enterprise calling. Zero compromise.

A fully loaded PBX built on FreeSWITCH, with inbuilt SBC, any-provider SIP trunks, and every endpoint type your team needs, all managed from one dashboard.



### Full-Feature PBX

Auto-attendant, call queues, ring groups, call recording, hot desking, voicemail transcription, barge and whisper. Every feature your operation needs, no licence add-ons.



### Session Border Controller

Inbuilt SBC enables seamless interoperability with Microsoft Teams, cloud contact centres, and PSTN bridging, without external appliances.

Compatible with: MS Teams PSTN Bridge Cloud CC



### SIP Trunk Ready

Connect any SIP provider or bring your own trunk. Compatible with major carriers across the GCC and India. No locked-in contracts.

Includes: STC Du e& (Etisalat) Jio Airtel BSNL Twilio & more



### Visual IVR + AI Receptionist

Design call flows visually. Deploy an AI receptionist that handles greetings, routing, call summaries, and sentiment analysis.

Inbound call handling and routing

AI receptionist with natural language greetings

IVR menus with drag-and-drop flow builder

Ring groups and agent answered queues



### Every Endpoint, Supported

Hardware phones, soft clients, and browser-based WebRTC. Connect your team however they work, wherever they are.

#### Softphone

Windows, Mac, iOS, Android

#### Hardware Phone

Yealink, Cisco, Grandstream, Fanvil, Snom, Polycom, Avaya, and any SIP-compatible device

#### WebRTC

Any browser, zero install

## FIREWALL & SECURITY

# Threats stopped before they start.

Stateful inspection, deep packet analysis, web content filtering, and GeoIP controls. Enterprise security built in, not bolted on.



### Real-Time Intrusion Prevention

Automatic IP banning on authentication failures, port scan detection, malware C2 blocking, and DNS hijack prevention. Live threat dashboard with active event feed.



### DifGuard

*Active threat intelligence for DPI and application filtering.*



### Deep Packet Inspection & Application Filtering

Gain full application-layer visibility across your entire network. Identify, throttle, or block any application regardless of its port or encryption method.

#### Behavioral Identification

Detect applications based on actual behavior, not just standard port numbers.

#### Granular Control

Create custom per-application policies to allow, block, or throttle bandwidth.

#### Encrypted Traffic Inspection

Inspect TLS-encrypted traffic securely via a transparent proxy

#### Real-Time Analytics

Monitor network activity as it happens via a live application traffic dashboard.



### Web Filtering

Enforce content policies instantly across your network with zero latency. Block specific categories of websites during custom windows—such as restricting social media during work hours, or blocking high-risk content entirely.

#### Comprehensive Categories

Pre-sorted lists including Malware Domains, Phishing, Adult Content, Gambling, Social Media, and P2P/Torrents.

## What's Different

To ensure your defenses remain effective against new tactics, **DifGuard** provides active threat intelligence for your Deep Packet Inspection and application filtering engines.

This annual subscription delivers continuous updates directly to your Difuse device, ensuring your policies are enforced against the very latest protocols, evasive applications, and newly registered malicious domains.

WHAT DIFGUARD DELIVERS	WHAT HAPPENS WITHOUT IT
<ul style="list-style-type: none"><li>• Daily-updated DPI and application signatures.</li><li>• Live web filtering category feeds covering malware and phishing.</li><li>• Evolving protocol updates for accurate app identification.</li></ul>	<p>Your existing DPI and web filtering policies remain in place and active, but your databases will no longer receive signature updates—leaving you exposed to newer threats.</p>

*\*Without an active DifGuard subscription, DPI and application filtering remain in place but signatures will not receive updates. Contact us for per-device annual pricing.*



### Identity-Aware Access

Integrate with Active Directory or LDAP so firewall rules and VPN access follow your users, not their IP addresses. MFA ready.

## VPN

# Connect anything, secure everything.

Industry-standard IPsec for site-to-site links and WireGuard for remote workers. Both protocols, one appliance.



### IPSec VPN

Time-tested and universally compatible. Connects branch offices, data centres, and partner networks with AES-256 encryption and IKEv2 key exchange.

- IKEv1 and IKEv2 support
- AES-256-GCM encryption
- Multi-vendor interop: Cisco, Fortinet, Palo Alto
- XAUTH and certificate authentication
- Dead peer detection and auto-reconnect



### WireGuard VPN

Modern, minimal, and fast. Smaller attack surface and dramatically higher throughput than OpenVPN or L2TP.

- ChaCha20 + Poly1305 encryption
- Sub-100ms roaming reconnect
- Split tunnelling via policy routing
- QR-code peer provisioning



### Failover & HA

5G/LTE WAN fallback keeps VPN tunnels alive when your primary link drops. Automatic failover in under 30 seconds.

5G/LTE Failover

Dual WAN

# Advanced Technologies



## Policy-Based Routing

Route traffic selectively across multiple WAN interfaces by domain, subnet, or application. Optimise performance without compromising security.



## GeoIP Filtering

Free daily-updated GeoIP lists integrated directly into firewall rules. Restrict or permit traffic by country with no third-party subscription.



## Custom Interfaces

Create virtual network interfaces that connect to SIP trunks, SBCs, and other network-based devices. Combine with policy-based routing for complex multi-path topologies.



## Free DynDNS

Every Difuse device includes a complimentary dynamic DNS domain (<host>.difusedns.com) with sub-30-second propagation. Reliable remote access at no additional cost.

# Support & Maintenance



## Hardware Warranty

All DMSBG appliances include a **standard 1-year warranty, extendable to 3 years.**

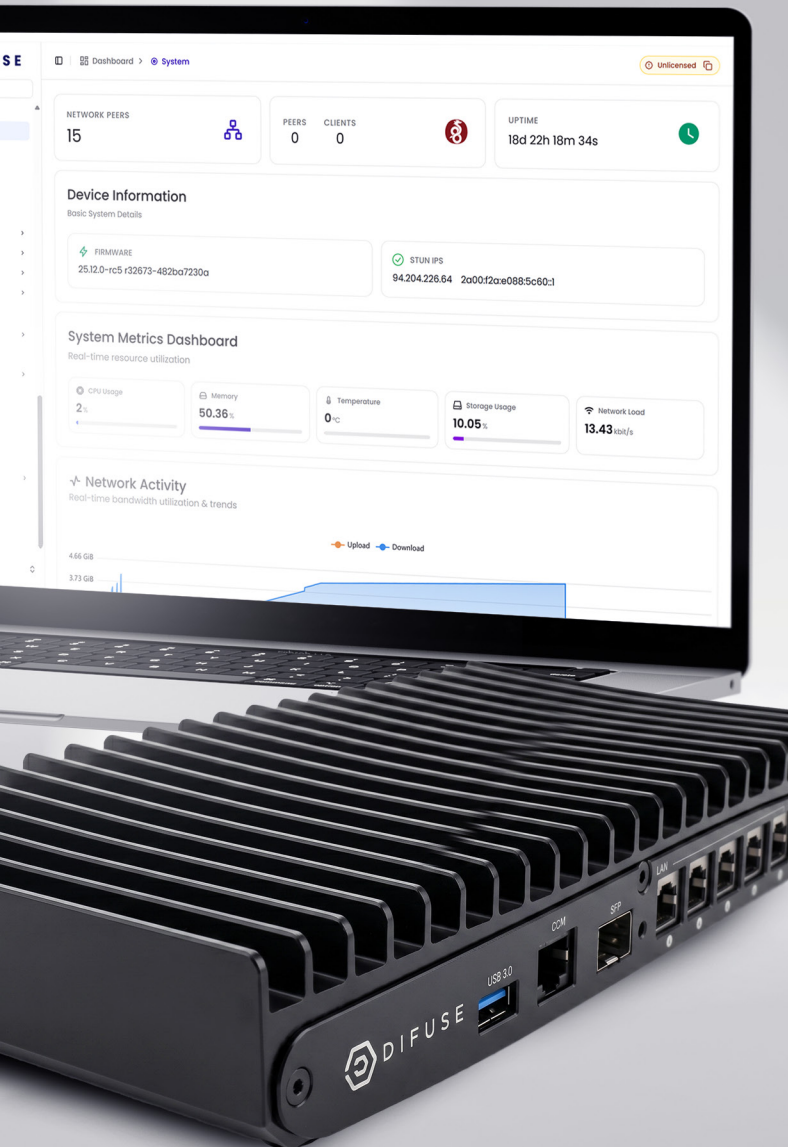


## Software Updates

One year signature updates included. Can be renewed for one or three years. Two release branches are available:

- **Stable:** production-tested, recommended for live environments
- **Testing:** early access to new features, more frequent releases

*\*Softphone clients for Windows, Mac, iOS, and Android require a separate per-user licence. Contact us for pricing*



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