

# Vidyo Infrastructure

High-quality, secure video conferencing and collaboration platform

## Business Challenge

Video technology has rapidly become an essential part of workplace culture and customer engagement. IT professionals need an affordable, flexible, and secure infrastructure platform that allows them to quickly and efficiently bring video to their organization without breaking the bank.

Transform your enterprise with a secure and reliable HD-quality video platform

## Solution Overview

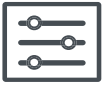
For organizations that want video collaboration capabilities but require those solutions to be implemented in their data centers, Vidyo's infrastructure provides an advanced and cost-effective video conferencing platform. From hardware appliances to software running in virtualized server environments, Vidyo's infrastructure delivers enterprise-grade video quality, healthcare-grade privacy, and industry-leading reliability.

Vidyo is powered by patented video routing core technology that delivers unparalleled quality in multiparty meetings, unmatched reliability over mobile, and no-hassle workflows for guests. Vidyo delivers the ideal platform for video-based healthcare, financial services, enterprise collaboration, customer engagement, and apps needing embedded video communication.

## IT Benefits

- **Easily scalable**  
Easily scale to your organization with availability in both standard and XL capacities as a physical server appliance or as a virtual appliance for VMware ESXi.
- **Meet enterprise and healthcare security standards**  
Leverage TLS, SRTP, H.235, and AES 128-bit encryption with healthcare-grade privacy.
- **Support interoperability**  
Third-party H.323 and SIP-based systems provide investment protection.
- **Count on superior performance**  
Dynamic adaptation technology over the internet and Wi-Fi means fewer dropped calls and support tickets.

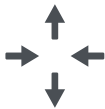
## Vidyo Infrastructure Components



## VidyoPortal

The VidyoPortal provides centralized administration, call signalling, authentication, directory services, and policy management.

- **Flexible configuration and management** of endpoints, infrastructure, software, and licenses
- **Automatic user provisioning** via LDAP/Active Directory, SAML, or web services API
- **Multi-tenant option** that allows you to serve up to 1,000 private-label tenants from a single infrastructure



## VidyoRouter

The heart of any Vidyo deployment, the VidyoRouter is a Selective Forwarding Unit (SFU) for handling real-time media for all calls while providing firewall traversal, dynamic bandwidth adaptation, and multiparty calls.

- **Outstanding quality** that supports native rate and resolution matching per endpoint, up to 4K resolution
- **Multipoint content support** that allows multiple participants to share content at the same time
- **Extremely efficient for large-scale deployments** with low cost of ownership and a small physical footprint



## VidyoGateway

The VidyoGateway provides an interface for H.323 and SIP-based systems to interact with the Vidyo platform, enabling integrations into existing real-time media infrastructure.

- **Enhanced capacity and resiliency** with clustering and high availability deployment options
- **Centralized web-based interface** to simplify administration, configuration, and maintenance
- **Support for content sharing and flexible layouts**, including gallery view, continuous presence, and active speaker



## VidyoInsights

VidyoInsights is a performance monitoring system and analytics tool available for on-premises and private cloud customers to verify and track VidyoPlatform infrastructure components (VidyoPortal and VidyoRouter), applications, and events.

- **Bring data together** under a seamless experience to help people troubleshoot, understand, and explore the data from infrastructure and all applications
- **Real-time system performance monitoring** to understand complex systems, applications, and infrastructure components
- **Easily filter, view, and export** dynamic online graphic displays of license consumption and server utilization, and Call Detail Records (CDR) tables



## VidyoReplay

VidyoReplay brings streaming and recording capability to video conferences, extending both the reach to any viewer and the time available to a viewer with on-demand playback.

- **Recording and webcasting** with optional PIN protection to secure live and recorded content
- **Export and edit** videos in standard MP4 format and integrate with third-party content management systems (CMS) and content delivery networks (CDN)
- **Browser-based player and library** with easy access from any device, including mobile

## Application Specifications

**Security (all products):** FIPS 140-2 compliant (cryptography kernel only), TLS, SRTP, HTTPS, SSL, AES

VidyoRouter	<b>Capacity:</b> 100 concurrent HD connections, or 150 concurrent HD connections (VidyoRouter XL)	
VidyoPortal	<b>Capacity:</b> Up to 10,000 users and 100 tenants, or expand with VidyoPortal XL for more than 10,000 users and 1,000 tenants	
VidyoGateway	<b>Protocols and Standards:</b> Video: H.264 SVC (UCIF mode 2s), H.264 AVC, H.263 Audio: G.711, G.722, Opus; Signaling: H.323 and SIP Data Sharing: H.239, BFCP; Encryption: SRTP, H.235 AES, and TLS Far-End Camera Control: H.224; Dialing: E.164, URI (H.323 Annex O and SIP URI) Firewall/NAT Traversal: RFCs 7362, 3581, and 5626	<b>Content Sharing:</b> Up to 1080p30  <b>Layouts:</b> Gallery view, continuous presence, active speaker
VidyoReplay	<b>Recording Capacity:</b> 6 HD/1080p concurrent recording sessions 12 HD/720p concurrent recording sessions 24 SD concurrent recording sessions 30 CIF concurrent recording sessions 50 audio-only concurrent recording sessions  <b>Streaming Storage:</b> Up to 300 concurrent viewers, 2,500 hours stored HD content at 1Mbps, 1,560 hours stored HD content at 1.6Mbps (default), 40 hours stored HD content at 1.6Mbps (Capacity figures are approximate and vary based on content type. More storage capacity possible using network-attached storage.)	<b>Streaming Protocol:</b> HLS streaming (mobile), HTTP/FLV streaming (PC)  <b>Export Format:</b> MP4, H.264, AAC

## Virtual Edition Requirements

**Hypervisor:** VMWare ESXi 6.5 or higher

**Host Server:** Intel-based servers with a Xeon CPU at 2.2GHz or faster, supporting Intel Sandy Bridge (or newer) architecture, with AES-NI and hyperthreading enabled, 1Gbps NIC

Product	Resource Allocation / Resource Reservation	Capacity				
VidyoPortal™ VE	<b>Allocation:</b> Minimum 2GHz CPU, 8GB RAM, 50GB <b>Reservation:</b> 8GHz, 8GB RAM	Up to 10,000 users Tenants: 1,000				
VidyoRouter™ VE 100	<b>Allocation:</b> 8 vCPU, 8GB vRAM, 100GB vDisk <b>Reservation:</b> 18GHz CPU, 6GB RAM	100 concurrent HD connections				
VidyoRouter™ VE 25	<b>Allocation:</b> 4 vCPU, 4GB vRAM, 100GB vDisk <b>Reservation:</b> 6GHz CPU, 4GB RAM	25 concurrent HD connections				
VidyoInsights	<b>Allocation:</b> 8vCPU, 16 GB RAM, 250 GB Disk <b>Reservation:</b> 18 GHz, 12GB	50 infrastructure components				
Product	Allocation	Concurrent Connections				
VidyoGateway™ VE		<b>1080p</b>	<b>720p</b>	<b>SD</b>	<b>CIF</b>	<b>Audio</b>
	2GHz, 2GB RAM	N/A	1	2	4	10
	4.4GHz, 2GB RAM	1	2	4	8	20
	8.8GHz, 6GB RAM	2	4	9	15	50
	12GHz, 8GB RAM	3	5	12	25	75
	20GHz, 12GB RAM	4	8	18	50	100
	25GHz, 15GB RAM	5	10	20	50	125
Product	Allocation	Concurrent Connections				
VidyoReplay™ VE		<b>1080p</b>	<b>720p</b>	<b>SD</b>	<b>CIF</b>	<b>Audio</b>
	19GHz, 8GB RAM	4	8	16	30	50
	9.5GHz, 4GB RAM	2	4	8	15	50

\* Displayed specs are for a cluster node only.

\*\* Virtual machine specs provided for general guidance. Please review the [VM provisioning requirements section of the administration guide](#) for more information.



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