

Private Networking with SGA (Public Cloud)

Customers using public cloud infrastructure can create a Frame account using Frame-managed networking, Private Networking with Streaming Gateway Appliance (SGA) so users can access the Frame workload VMs through the SGA. The Internet-accessible SGA serves as a reverse proxy for Frame sessions between the end users and their Frame workload VMs in the private network. The Frame workload VMs only have private IP addresses. For egress from the workload VMs to the Internet, these workload VMs are configured to communicate directly to the Internet through a NAT gateway in the public cloud infrastructure.

If users must access network resources on-premises or in a private network, a **private network connection** (e.g., VPN, direct connection, SD-WAN, VPC/VNET peering) with the appropriate routing must be implemented.

Customers who choose to create a Frame account in their own managed network where users will access the Frame workload VMs from the Internet through an SGA must follow the networking requirements defined below.

To ensure proper network communication to the Frame Platform there are two Backends available depending on which one should be used for the connection for services and VMs please refer to the corresponding networking requirements:

USE (located in the United states- Location AWS Datacenter Virginia)

DEU (located in European Union - Location AWS Datacenter Frankfurt)

FRP8 Networking (SGA 4)

FRP8 is a udp-based protocol for all communication between the end user and the Frame workload VMs.

Public IaaS - Private Networking with SGA 4 (FRP8)

Public IaaS - Private Networking with SGA 4 (FRP8)

The following table describes the required protocols and ports for Frame accounts using Private Networking with SGA 4 and FRP8.

Dizzion is in the process of migrating from *.nutanix.com to *.difr.com domain. For the time being, the additional difr.com domains will need to be whitelisted in addition to the existing nutanix.com domains. At a later time, once Dizzion has confirmed there is no dependencies on the nutanix.com domains, we will send out a communication notifying customers that all nutanix.com domains can be safely removed from your whitelist configurations.

IMPORTANT: For IMG Domains, Customers can whitelist new IMG difr domains but should NOT change SAML 2 configurations to use new difr.com domains. SAML 2 configurations should continue to use img.console.nutanix.com and img.frame.nutanix.com until further direction from Dizzion.

USE: Private Networking (Public Cloud) - Streaming Gateway 4

Source to Destination	Source IP address	Destination FQDN(s)	Protocol/port
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Workload VMs to Frame Platform	Public IP address	<ul style="list-style-type: none"> • api.use.difr.com • hub.deu.difr.com • logging.use.difr.com • downloads.difr.com • download.visualstudio.microsoft.com • gateway-external-api-downloads.console.nutanix.com • logging.console.nutanix.com • cch.console.nutanix.com 	tcp/443 (HTTPS)
Workload VMs to Frame Platform	Public IP address	<ul style="list-style-type: none"> • hub.use.difr.com • logging.use.difr.com • api.use.difr.com • cch.console.nutanix.com • logging.console.nutanix.com 	tcp/443 (HTTPS, WSS)
End user to Frame Platform	Public IP address	<ul style="list-style-type: none"> • use.difr.com • api.use.difr.com • img.use.difr.com • assets.use.difr.com • login.use.difr.com • logging.use.difr.com • downloads.difr.com • console.nutanix.com • img.frame.nutanix.com • img.console.nutanix.com • cpanel-backend.console.nutanix.com • terminal-prod.frame.nutanix.com • logging.console.nutanix.com • login.console.nutanix.com (for Frame IdP, if used) 	tcp/443 (HTTPS)
End user to Frame Platform	Public IP address	<ul style="list-style-type: none"> • api.use.difr.com • messaging.console.nutanix.com 	tcp/443 (HTTPS, WSS)
SGA VMs to Frame Platform	Public IP address	<ul style="list-style-type: none"> • hub.use.difr.com • ntp.ubuntu.com • api.snapcraft.io • cch.console.nutanix.com 	tcp/443 (HTTPS, WSS)
End user to SGA VM	Public IP address	<ul style="list-style-type: none"> • SGA VM-specific public IP address 	udp/3478 and tcp/3478

SGA VM to End user	Public IP address	<ul style="list-style-type: none"> End user-specific public IP address 	udp/49152-65535
SGA VM to Workload VM	Private IP address	<ul style="list-style-type: none"> Dynamic private IP address within VPC/VNET 	udp/4503-4509
Workload VM to SGA VM	Private IP address	<ul style="list-style-type: none"> SGA VM-specific private IP address 	udp/49152-65535

FRP8 Networking (SGA 4)

The following table lists the required protocols and ports for Frame accounts using Private Networking with SGA 4 and FRP8, specifically for organizations electing to use Dizzion's EU control plane.

DEU: Private Networking (Public Cloud) - Streaming Gateway 4

Source to Destination	Source IP address	Destination FQDN(s)	Protocol/port
Workload VMs to Frame Platform	Public IP address	<ul style="list-style-type: none"> api.deu.difr.com hub.deu.difr.com logging.deu.difr.com downloads.difr.com download.visualstudio.microsoft.com 	tcp/443 (HTTPS)
Workload VMs to Frame Platform	Public IP address	<ul style="list-style-type: none"> hub.deu.difr.com logging.deu.difr.com api.deu.difr.com 	tcp/443 (HTTPS, WSS)

Source to Destination	Source IP address	Destination FQDN(s)	Protocol/port
End user to Frame Platform	Public IP address	<ul style="list-style-type: none"> • deu.difr.com • api.deu.difr.com • img.deu.difr.com • assets.deu.difr.com • login.deu.difr.com • logging.deu.difr.com • downloads.difr.com 	tcp/443 (HTTPS)
End user to Frame Platform	Public IP address	<ul style="list-style-type: none"> • api.deu.difr.com 	tcp/443 (HTTPS, WSS)
SGA VMs to Frame Platform	Public IP address	<ul style="list-style-type: none"> • hub.deu.difr.com • ntp.ubuntu.com • api.snapcraft.io 	tcp/443 (HTTPS, WSS)
End user to SGA VM	Public IP address	<ul style="list-style-type: none"> • SGA VM-specific public IP address 	udp/3478 and tcp/3478
SGA VM to End user	Public IP address	<ul style="list-style-type: none"> • End user-specific public IP address 	udp/49152-65535
SGA VM to Workload VM	Private IP address	<ul style="list-style-type: none"> • Dynamic private IP address within VPC/VNET 	udp/4503-4509
Workload VM to SGA VM	Private IP address	<ul style="list-style-type: none"> • SGA VM-specific private IP address 	udp/49152-65535

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