

**Technical datasheet**  
**Advanced Image Insights**

# DICOM gateway, HealthSuite Adapter and AcceptReject Tool Proxy deployment on Windows Systems

- DICOM Gateway – to handle data transit between point-of-care systems and the cloud store.
- HealthSuite Adapter (HS Adapter) – to manage launch requests for Advanced Visualization applications.
- AcceptReject Tool Proxy (ART Proxy)– to manage launch requests for the Accept/Reject tool.

Below are the required system details.

## System requirements

### Hardware requirements

#### Operating System

- Windows 11 (latest version)
- 64-bit (x64) architecture

#### System Configuration

- vCPU: 12 virtual CPUs total
  - DICOM Gateway : 8 vCPU
  - HealthSuite Adapter : 2 vCPU
  - AcceptReject Tool Proxy : 2 vCPU
- Memory: 20 GB RAM
  - DICOM Gateway : 16 GB RAM
  - HealthSuite Adapter : 2 GB RAM
  - AcceptReject Tool Proxy : 2 GB RAM

#### Storage

- Minimum 500 GB HDD
- Storage layout
  - System Drive: Minimum 50 GB available disk space in C drive for installation
  - Data Drive: Recommended dedicated drive for data and log storage  
Minimum **100 GB**, scalable based on imaging workload and expected data volume

## Security

- BitLocker: Optional - Enable if disk encryption is required by site
- RSA Key: 2048-bit RSA key required for de-identification and re-identification processes

## Software Requirements

- PowerShell: Version 5.1 or later, with administrative privileges
- .NET Framework: Version 4.8 or later
- Network Access: Active internet connectivity is required
- Time Synchronization: A properly configured and reliable time-sync setup is required
- The required whitelisted ports must be enabled
  - HTTPS 5001 (For inbound service access for HS Adapter)
  - HTTPS 5002 (For inbound service access for ART Proxy)

## Network requirements

### Internet Connectivity

Reliable internet connectivity is required for communication with cloud services and endpoints.

- Recommended bandwidth: 1 Gbps
- Latency requirements:
  - Recommended: <30 ms
  - Acceptable: Up to <100 ms

### Time synchronization setup

The system must have a properly configured time-synchronization mechanism to maintain accurate timestamps and ensure secure communication with external services.

- Configure Windows Time Service (w32time) to sync with reliable NTP servers.
- Verify that the system time remains accurate and consistently synchronized.
- Time drift should be minimal (**less than 5 minutes**) to support proper authentication and service communication.

# Firewall and Network Configuration

## Whitelisted URLs

The following URLs must be whitelisted in the firewall and proxy settings to ensure proper operation of the DICOM Gateway, HealthSuite Adapter, and AcceptReject Tool Proxy.

Important: Replace the placeholder endpoints below with the actual regional deployment endpoints provided at the time of deployment .

### Core service endpoints

- AIO Endpoint: `https://{aio_regional_endpoint}`
- DICOM Store Endpoint: `https://{dicomstore_regional_endpoint}`
- Data Management: `https://{dicomstore_regional_endpoint}`
- QIDO: `https://{dicomstore_regional_endpoint}`
- Config: `https://{dicomstore_regional_endpoint}`

### Authentication and monitoring

- IAM Endpoints: `https://{iam_regional_endpoint}`
- Observability Endpoint: `https://{observability_regional_endpoint}`

### Cloud storage and imaging services

- S3: `https://s3.{awsregion}.amazonaws.com`
- AHI Endpoint: `https://medical-imaging.{awsregion}.amazonaws.com`
- AcceptReject Tool Cloud Gateway: `https://{acceptreject_regional_endpoint}`

## Port Requirements

### Outbound Ports

Port	Protocol	Purpose	Direction
443	HTTPS	Secure communication with cloud services	Outbound

### Inbound Ports

Port	Protocol	Purpose	Direction
11112	TCP	DICOM C-STORE operations	Inbound

5001	HTTP	HealthSuite Adapter application launch request	Inbound
5002	HTTP	AcceptReject Tool Proxy launch request	Inbound

## Internal Ports (DICOM gateway services)

Port	Service	Purpose
48080	Store Service	DICOM Store HTTP endpoint
48081	Export Service	DICOM Export HTTP endpoint
48082	Upload Service	DICOM Upload HTTP endpoint
Port	Service	Purpose
48084	HL7 Forwarder	HL7 Forwarder HTTP endpoint
4317	Grafana Alloy	OpenTelemetry gRPC collector
4318	Grafana Alloy	OpenTelemetry HTTP collector

## Proxy Configuration

If the environment uses a proxy server, ensure that the following environment variables are configured at the system level so that all DICOM Gateway services and related applications can use them.

Important: Configure proxy settings under System Properties → Environment Variables → System variables (not under user-level variables) to ensure all services have access.

### Required Environment Variables

- `http_proxy`: HTTP proxy server URL
- `https_proxy`: HTTPS proxy server URL
- `no_proxy`: Comma-separated list of hosts that should bypass the proxy

### Example Configuration

- `http_proxy=http://proxy.company.com:8080`
- `https_proxy=https://proxy.company.com:8080`
- `no_proxy=localhost,127.0.0.1,*company.com`

## Security Considerations

### Certificates

- RSA Key Requirement: 2048-bit RSA key must be configured for de-identification and re-identification features
- Certificate Files: For de-identification and re-identification features, workflows .pfx certificates without passwords

### Security requirements

- BitLocker Encryption: Optional. If disk encryption is mandated by site policy or compliance standards, BitLocker must be enabled on all drives to ensure data security.
- Disk Encryption: Full disk encryption is required if sensitive medical data must be protected.
- Administrative Privileges: Administrative privileges are required for service installation and configuration.
- Directory Access: Read/write access must be granted to the installation directory.
- Service Permissions: Sufficient permissions must be available to create, configure, and manage Windows services.

## Amazon AppStream 2.0 Client Specifications

The [Amazon AppStream 2.0](#) client is a native application used to stream desktop applications from AWS to a local machine.

### Windows Client

- Operating system - Windows 11 (64-bit)
- Microsoft Visual C++ 2019 version 14.20.xx Redistributable or later.
- RAM - 2 GB minimum
- Hard drive space - 200 MB minimum
- Edge browser

Local administrator rights - Used if you want to install the WorkSpaces Applications client and USB driver for USB driver support.

## Hardware Requirements

- **Display:**
  - Supports up to two monitors (up to 2 at 6K resolution)
  - Supported scaling factor is 100%
- **Peripherals:** Support for USB devices (printers)

## Network

- **Bandwidth:** Recommended is 5 Mbps per user session
- **Latency:** Recommended up to 30ms to the deployed region
- **Protocols:** Uses HTTPS (Port 443) for communication and management