# **IQSERVICE**

> IQService, also known as the Integration Service, is a native Windows service developed by SailPoint. It enables the Identity Security Cloud to interact with a Windows environment and access information available only through Windows APIs1.

This service is essential for managing various sources like Azure Active Directory, Active Directory, Microsoft SharePoint, and more2.(Microsoft tools)

**What is service?**

In the context of IQService, the term “service” refers to a software application or program that runs in the background on a computer or server.

**what is windows service means?**

A Windows service is a type of computer program that runs in the background on Windows operating systems. Unlike regular applications, Windows services do not have a user interface and can start automatically when the computer boots up, even if no user is logged in12. They are designed to perform specific tasks continuously or at scheduled times, such as managing network connections, handling system updates, or providing security feature

**what is native windows service means?**

A native Windows service refers to a service that is specifically designed to run on Windows operating systems. These services are built using the Windows API and are integrated deeply into the Windows environment. They can start automatically when the system boots, run in the background, and perform tasks without user intervention

**should we need to install the native window services separately?**

In most cases, native Windows services are pre-installed with the Windows operating system or come bundled with specific software applications.However, if you are developing a custom service or installing third-party software that includes its own services, you might need to install and configure these services separately

**>IQService needs to be installed separately**. It is not a native part of the Windows operating system but rather a component provided by SailPoint for integration with their Identity Security Cloud.

# IQSERVICE INSTALLATION

To install IQService, follow these steps:

**1.Download the Integration Service from SailPoint via a source that requires it.**

Go to Connections > Sources.

Select a source that requires IQService.

These include Azure Active Directory, Active Directory, HCL Domino (IBM Lotus Domino), Microsoft SharePoint Online, Microsoft SharePoint Server, and Windows Local.

**Note**

If you do not already have one of these sources in your Sources page, you do not need to install IQService.

**2.Unzip the downloaded IQService.zip archive into the created or desired location. For example:**

C:\SailPoint\IQService\

**3.Run the following command to install a Windows service named IQService.**

IQService.exe -i

The above command installs IQService with name IQService-Instance1 and at port 5050 (if available).

**4.To install IQService to communicate with Identity Security Cloud on non-TLS port only**

IQService.exe -i

The above command installs IQService with name IQService-Instance1 and at port 5050 (if available).

**5.To install IQService to communicate with Identity Security Cloud on TLS port only.**

IQService.exe -i -o <TLS Port Number>

The above command installs IQService with name IQService-Instance1 and given TLS port number.

**6.To install IQService to communicate with Identity Security Cloud on both TLS and Non-TLS port**

IQService -i -p <Non-TLS Port> -o <TLS port>

The above command installs IQService with name IQService-Instance1 and given TLS and Non-TLS Ports.

**7.Start the service either from the Services Applet or from the command line by running the following command**:

IQService.exe -s

**Should we need any server for installing iqservice?**

>Generally you don’t need a separate, physical server just for IQService. However, you do need a Windows machine (which could be a server or a workstation) where IQService will run.

>If the Windows machine where IQService is installed is shut down, IQService will not run

>To ensure continuous operation of IQService, the Windows machine needs to remain powered on and running. **If you need high availability**, you might consider setting up **IQService on a server** that is designed to run continuously or using redundancy strategies to ensure that the service remains available even if one machine goes down.

**HOW to achieve this?-->**

To ensure that IQService remains available even if one machine goes down, you can set it up on a server designed for continuous operation or use redundancy strategies. Here’s how you can achieve this:

>**High Availability Setup**

1.Install IQService on a Reliable Server:

Choose a server that is designed to run continuously, such as a dedicated Windows server or a virtual machine in a cloud environment. This server should have high uptime and be monitored for performance and reliability.

Note: Vm will also acts as server[A Virtual Machine (VM) can function as a server by using virtualization technology to create a software-based environment that mimics a physical server. and

window server(os+server software)

2.Configure Redundancy:

Secondary Instance: Install a secondary instance of IQService on a different machine. This secondary instance acts as a fallback and takes over if the primary instance fails1.

Load Balancing: Use a load balancer to distribute requests between multiple instances of IQService. This ensures that if one instance goes down, the load balancer can redirect traffic to the remaining instances.

**Steps to Configure Redundancy**

Install Primary IQService Instance:

Follow the standard installation steps to set up the primary IQService instance on your main server.

Install Secondary IQService Instance:

On a different machine, install a secondary instance of IQService. Use the same installation steps but ensure it is configured to act as a fallback.

Example command to install the secondary instance:

IQService.exe -i -n IQService-Instance2

**For IQ service installation should I use application server or other servers?**

For installing **IQService**, you should use a **Windows server** that meets the system requirements and has connectivity to the target systems you want to manage in the Identity Security Cloud1. While an application server like **Apache Tomcat** is designed to host web applications, IQService specifically requires a Windows environment to function properly.

**WINDOW SERVER**

Windows Server is a server operating system developed by Microsoft, designed for use in enterprise environments. Here are some of its primary uses:

**Active Directory:** It provides directory services for managing users, computers, and other resources within a network1.

**File and Storage Services**: Windows Server allows for centralized storage management, making it easier to share and manage files across the network2.

**Web Services:** It can host websites and web applications using Internet Information Services (IIS)2.

**Virtualization**: With Hyper-V, Windows Server supports the creation and management of virtual machines, allowing for efficient resource utilization2.

**Networking:** It offers various networking services, including DHCP (Dynamic Host Configuration Protocol) and DNS (Domain Name System), to manage IP addresses and domain names1.

**Application Hosting**: Windows Server can host enterprise applications, providing a stable and secure environment for business-critical software2.

**Security**: It includes advanced security features to protect data and ensure compliance with organizational policies3.

**> Window Server is OS or Server?**

Windows Server is indeed an operating system, but it is specifically designed to run on servers. Here’s a clearer explanation:

Windows Server: Operating System and Server

**Operating System:**

Windows Server is a group of server operating systems developed by Microsoft. It provides the necessary software environment to manage hardware and software resources on a server12.

**Server Role:**

When we refer to a “server” in this context, we mean a computer or system that provides services, data, or resources to other computers (clients) over a network. Windows Server operating systems are designed to run on these server machines, enabling them to perform various server roles such as hosting applications, managing databases, and handling network services23.

**Difference between windows and windows Server OS**

Microsoft designed Windows 10 for use as a desktop you sit in front of, and Windows Server as a server (it's right there in the name) that runs services people access across a network

**WHY IQ SERVICE FOR AD?**

IdentityNow (IDN) can’t directly interact with windows api or Active Directory (AD) due to several key reasons:

**Security Concerns:** Direct interaction with AD requires high-level permissions, which can pose significant security risks. Using IQService as an intermediary helps mitigate these risks by ensuring that only authorized and secure operations are performed.

**Complexity of AD Operations**: AD operations often involve complex protocols and APIs. IQService is specifically designed to handle these complexities, providing a streamlined and efficient interface for IDN to interact with AD.

**Access to Specific Attributes**: Some attributes in AD, such as those related to Terminal Services or Lync, can only be accessed through specific Windows APIs. IQService facilitates this access, ensuring that IDN can read and write the necessary attributes.

**Integration and Compatibility**: IQService ensures compatibility between IDN and AD by handling differences in protocols and data formats. This integration layer simplifies the communication process and ensures smooth operation.

**why we need IQservice for AD only for provisioning why don’t we need for aggregation**

IQService is primarily required for provisioning operations in Active Directory (AD) due to the specific nature of these tasks. Here’s why:

>**Provisioning Operations:** IQService handles complex tasks such as creating, updating, and deleting user accounts, which often require elevated permissions and access to specific Windows APIs12. These operations need a secure and reliable intermediary to ensure they are executed correctly and safely.

>**Access to Specific Attributes**: Certain attributes in AD, like Terminal Services and Lync attributes, can only be accessed through IQService2. This is crucial for provisioning tasks that need to read or write these attributes.

>**Security and Compliance:** Provisioning involves changes to user accounts and permissions, which can have significant security implications. IQService ensures that these changes are made securely and in compliance with organizational policies1.

On the other hand, **aggregation is primarily a read-only operation** where data is collected from AD without making any changes. **This process does not require the same level of access or permissions as provisioning.** Therefore,IQ service is not required