# Interact 4.7 Infrastructure Overview

This data sheet provides technical guidance regarding the specification and configuration of environments for Blue Prism Interact. It is intended as a guide for indicative sizing and configuration; however, each environment will vary depending on the profile of the Blue Prism® implementation.

About Interact

Blue Prism Interact is a web interface that acts as a bridge between human and Digital Workers — allowing for both collaboration and interaction. Accessible via a browser on any computer or mobile device, the customizable Interact web interface lets organizations expand the addressable use cases for automation from front-office to back-office.
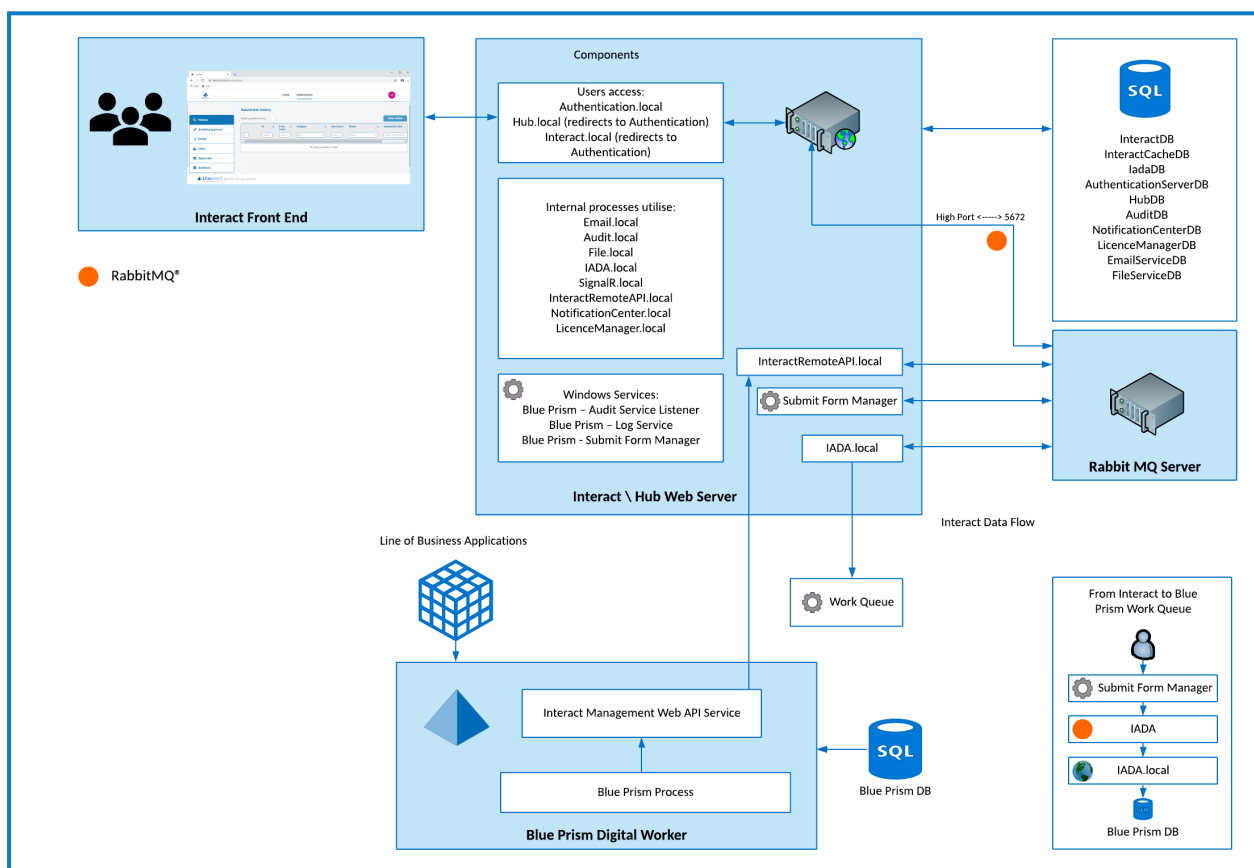
Further information and resources

More information about Interact can be found in the online help:

- Installation prerequisites
- Network ports
- Software requirements and SQL permissions
- Interact installation guide
- Interact user guides

Minimum requirements

Runtime Resource

Please refer to the minimum requirements in the installation guide for the version of Blue Prism that you have installed. Visit the Blue Prism help for more information.

Database server

- Intel Quad Xeon Processor
- 8 GB RAM
- SQL Server:
    - 2016, 2017 or 2019 (64-bit) – Express, Standard or Enterprise editions

        ✏ SQL Express editions are only appropriate for non-production environments, such as for the purposes of proof of concept exercises.

    - Azure SQL Database – A minimum of 100 eDTUs are required during installation. This can be lowered to 50 eDTUs following installation.
    - SQL Server on Azure Virtual Machines
    - Azure SQL Managed Instance
- For appropriate operating system support, see:
    - SQL Server 2016 or 2017:
      https://docs.microsoft.com/en-us/sql/sql-server/install/hardware-and-software-requirements-for-installing-sql-server?view=sql-server-ver15
    - SQL Server 2019:
      https://docs.microsoft.com/en-us/sql/sql-server/install/hardware-and-software-requirements-for-installing-sql-server-ver15?view=sql-server-ver15

Message Broker server

- Intel Dual Xeon Processor
- 8 GB RAM
- Windows Server 2016 Datacenter or 2019 or 2022
- RabbitMQ 3.9.22 to 3.10.7, or 3.11.9 to 3.11.10
- Erlang/OTP 24.x or 25.x – The version of Erlang that you require is dependent on the RabbitMQ version you intend to use.

    For appropriate Erlang/OTP support, see RabbitMQ Erlang Version Requirements.

    For appropriate operating system support, see https://www.rabbitmq.com/platforms.html.
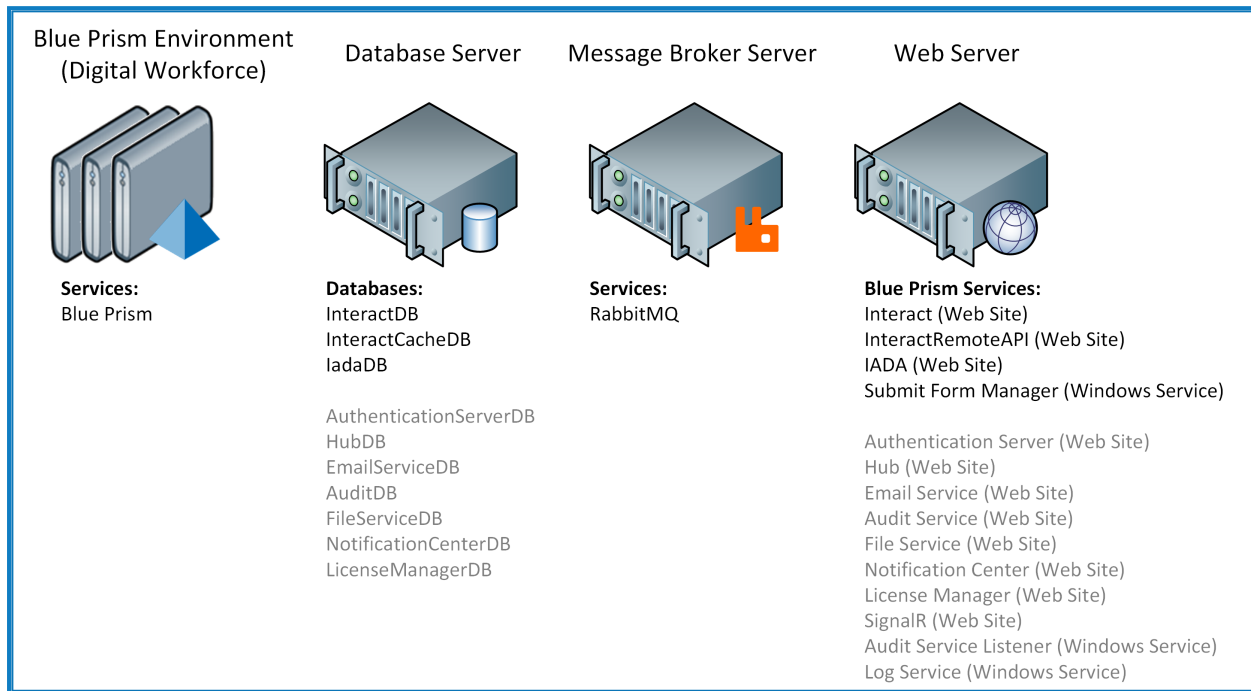
Web server

- Intel Dual Xeon Processor
- 8 GB RAM
- Windows Server 2016 Datacenter or 2019 or 2022

- .NET Framework 4.8 – Installed by default on Windows Server 2022.
- IIS 10.0
- Prerequisites as detailed in the installation guide

Implementation profile

The following diagram shows the components used in a Blue Prism Interact implementation.

Blue Prism Environment (Digital Workforce)	Database Server	Message Broker Server	Web Server
Services: Blue Prism	**Databases:** InteractDB InteractCacheDB IadaDB AuthenticationServerDB HubDB EmailServiceDB AuditDB FileServiceDB NotificationCenterDB LicenseManagerDB	**Services:** RabbitMQ	**Blue Prism Services:** Interact (Web Site) InteractRemoteAPI (Web Site) IADA (Web Site) Submit Form Manager (Windows Service) Authentication Server (Web Site) Hub (Web Site) Email Service (Web Site) Audit Service (Web Site) File Service (Web Site) Notification Center (Web Site) License Manager (Web Site) SignalR (Web Site) Audit Service Listener (Windows Service) Log Service (Windows Service)

> Items in gray text are installed as part of the Blue Prism Hub installation process.

A Blue Prism Interact implementation consists of a database server coupled with any number of Runtime Resources, a Web Server and a Message Broker server.

The components perform the following functions:

- **Blue Prism Environment** – The standard Blue Prism Environment which hosts Blue Prism Runtime Resources that run automated processes against target applications, often referred to as the robots.
- **SQL Server Database** – A centralized repository that holds Interact forms.
- **Message Broker Server** – A physical or virtual machine with the RabbitMQ message broker software enabling applications, systems, and services to communicate with each other and exchange information.
- **Web Server** – A physical or virtual machine which provides IIS capabilities for the Blue Prism components, Authentication Server and Hub.

It is common for most components to be deployed into a production strength virtual infrastructure, for pilot or proof of concept projects a server infrastructure is required as the applications are only supported under a server operating system.

Web server components

Submit Form Manager

This component is used to act as the "middle-man" between Interact and where the form will be submitted to. For example, if the form submission needs approval before being sent to the work queue, the Submit Form Manger will place the submission into the Interact Approver's "Approval" folder. Another example, if a submission is configured to go straight to the work queue, the Submit Form manager will pass the submission to IADA.

IADA

This component will place the submission into a work queue in an XML format.

Interact Remote API

This component allows the Digital Worker to cooperate with the Interact APIs (i.e. Create Form Submission).

Email Service

This component is used when emails need to be sent out to users. SMTP settings in Hub are used to setup this component.

Audit Service

This component is used to retrieve Audit information from the Audit database and display the information within the Audit page in Hub.

Audit Service Listener

This component is used to "listen out" for any audit event triggers, it will then pass this information to the Audit database.

SignalR

This component is used to display elements within an Interact form in real-time.

License Manager

This component is used to monitor licenses that have been uploaded through Hub.

Notification Center

This component is used to store and manage notifications for Hub and Interact.

Log gatherer service

This Windows service removes old product logs from each web server component (Hub, Interact, Authentication Server , Audit Service, Audit Service Listener, Email Service, Log Gatherer Service, IADA, Interact Remote API, SignalR, Submit Form Manager). This service is scheduled to do so on the 7th of every month and the logs are moved to C:\Program Files (x86)\Blue Prism\ArchivedLogs.

You can change the archived log folder path and scheduler date within appsettings.json – "ArchivedFolder" in C:\Program Files (x86)\Blue Prism\Log Service (default), will allow you to change the archive path and "DayOfMonth" will allow you to change the scheduler date.

Log gatherer service

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You can change the archived log folder path and scheduler date within apppsettings.json – "ArchivedFolder" will allow you to change the archive path and "DayOfMonth" will allow you to change the scheduler date.

Distributed cache database

This database is used as our caching mechanism and is used to store user session details, license details, and retired user data. The Distributed cache database is architected using Distributed SQL Server Cache.

RabbitMQ use in Hub and Interact

> 🖊 The queues referred to in this section relate to RabbitMQ queues and not to Blue Prism work queues.

The Blue Prism Hub platform uses quorum queues in RabbitMQ, which enable the use of high availability environments. Classic queues are not supported in these types of environments. For more information, see the RabbitMQ documentation on quorum queues.

The following diagram and table illustrate where RabbitMQ® is used in Blue Prism Hub and Interact.
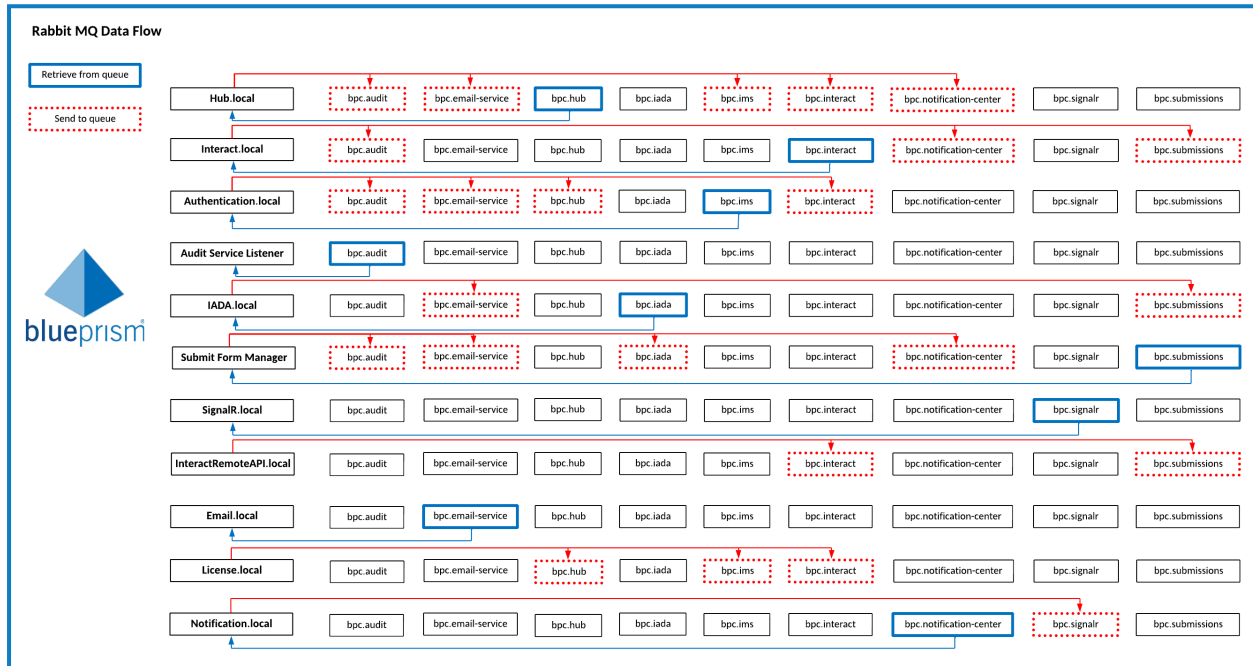
> 💡 For a better view of this diagram, see the online documentation.

Due to the number of columns, this table is split into two to aid viewing in this PDF. To view the complete table, click here.

Part 1:

Components	Queues									
	bpc.audit		bpc.email-service		bpc.hub		bpc.iada		bpc.ims	
	P	H	P	H	P	H	P	H	P	H
Hub	✓		✓			✓			✓	
Interact	✓									
Authentication Server	✓		✓		✓					✓
Windows Audit Queue Listener		✓								
Windows IADA			✓					✓		
Windows Submit Form Manager	✓		✓				✓			
Windows SignalR										
Windows Interact Remote API										
Windows Email Service				✓						
License Manager					✓				✓	
Notification Center										

Part 2:

Components	Queues							
	bpc.interact		bpc. notification-center		bpc.signalr		bpc. submissions	
	P	H	P	H	P	H	P	H
Hub	✓		✓					
Interact		✓	✓				✓	
Authentication Server	✓							
Windows Audit Queue Listener								
Windows IADA							✓	
Windows Submit Form Manager			✓					✓
Windows SignalR						✓		
Windows Interact Remote API	✓						✓	
Windows Email Service								
License Manager	✓							
Notification Center				✓	✓			

Description of table

- **P = Publish/Send** – Posting an object to a queue.
- **H = Handle/Listen** – Retrieving an object from a queue.

bpc.audit queue

Hub and Interact post objects to this queue.

Audit Event Listener retrieves objects from Hub and Interact to store audit events into the Audit database.

bpc.email-service queue

Hub, Interact, and Submit Form Manager post objects to this queue.

Email Service retrieves object from this queue so it can send emails to the relevant users.

bpc.hub queues

Authentication Server and License Manager post objects to these bpc.hub queues:

- add-hub-users-from-ad-message
- create-update-hub-user-message

- delete-hub-user-message
- delete-interact-user-from-ad-message
- license-info-updated-message
- make-hub-user-alive-message
- register-external-service-message
- update-hub-user-profile-message
- update-hub-users-from-ad-message

Hub retrieves objects from the queues and updates the appropriate data.

bpc.iada queues

Submit Form Manager and Hub post objects to these bpc.iada queues:

- create-environment-connection-message
- delete-environment-connection-message
- iada-queue-message

IADA retrieves objects from the queues so it can place submission data into work queues.

bpc.ims queues

Hub and License Manager post objects to these bpc.ims queues:

- create-update-ims-role-message
- delete-role-ims-message
- license-info-updated-message

Authentication Server retrieves objects from this queue and updates the appropriate data.

bpc.interact queues

Hub, Authentication Server, License Manager and Interact Remote API posts objects to these bpc.interact queues:

- add-interact-users-from-ad-message
- create-update-business-process-form-message
- create-update-environment-message
- create-update-interact-role-message
- create-update-interact-user-message
- delete-environment-message
- delete-form-message
- delete-interact-role-message
- delete-interact-user-message
- delete-interact-user-from-ad-message
- increase-form-version-message
- license-info-updated-message
- make-interact-user-alive-message
- remove-latest-form-version-message

- update-interact-user-profile-message
- update-interact-users-from-ad-message

Interact retrieves objects from the queues and updates the appropriate data.

bpc.notification-center queues

Hub, Interact and Submit Form Manager post objects to these bpc.notification-center queues:

- announcement-message
- hub-notification-message
- interact-notification-message

The Notification Center retrieves objects from the queues and stores the notification in the Notification Center database.

bpc.signalr queues

Notification Center posts objects to these bpc.signalr queues:

- hub-update-counter-of-new-notifications
- interact-update-countrer-of-new-notifications
- signalr-message

SignalR retrieves objects from this queue and pushes a message to Hub or Interact to notify the user that a new notification has been added.

bpc.submissions queues

Interact and Interact Remote API posts objects to these bpc.submissions queues:

- iada-queue-message-fault
- submit-form-message

Submit Form Manager retrieves objects from this queue so it can then determine where to place the submission.

Network architecture

The following diagram gives an overview of a typical Blue Prism Hub and Interact network architecture.