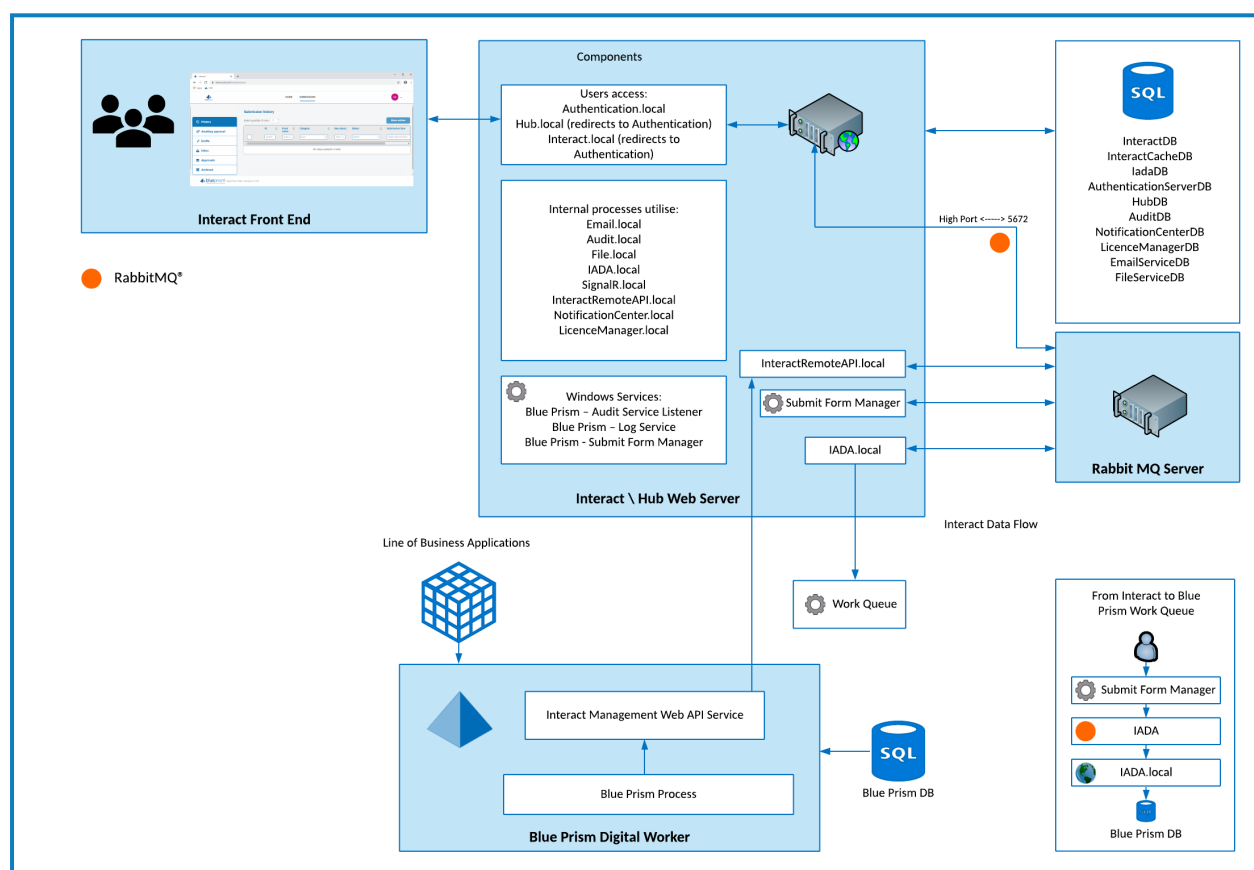


Interact 4.4 Infrastructure Overview

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
 - 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

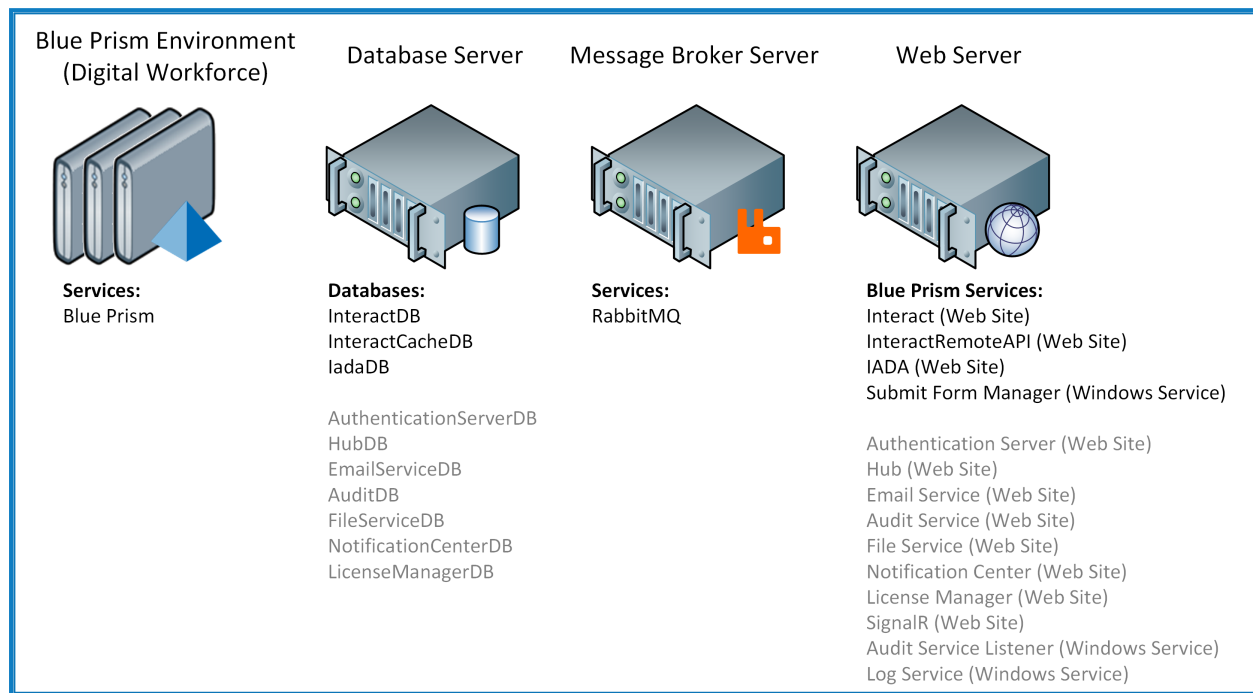
- Intel Dual Xeon Processor
- 8 GB RAM
- Windows Server 2016 Datacenter or 2019
- RabbitMQ 3.8.16 or 3.8.17
- For appropriate Erlang/OTP support, see [RabbitMQ Erlang Version Requirements](#)
- For appropriate operating system support, see <https://www.rabbitmq.com/platforms.html>

Web server

- Intel Dual Xeon Processor
- 8 GB RAM
- Windows Server 2016 Datacenter or 2019
- .NET Framework 4.7.2 – Installed by default on Windows Server 2019.
- 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.



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 Manager 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

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” 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](#).

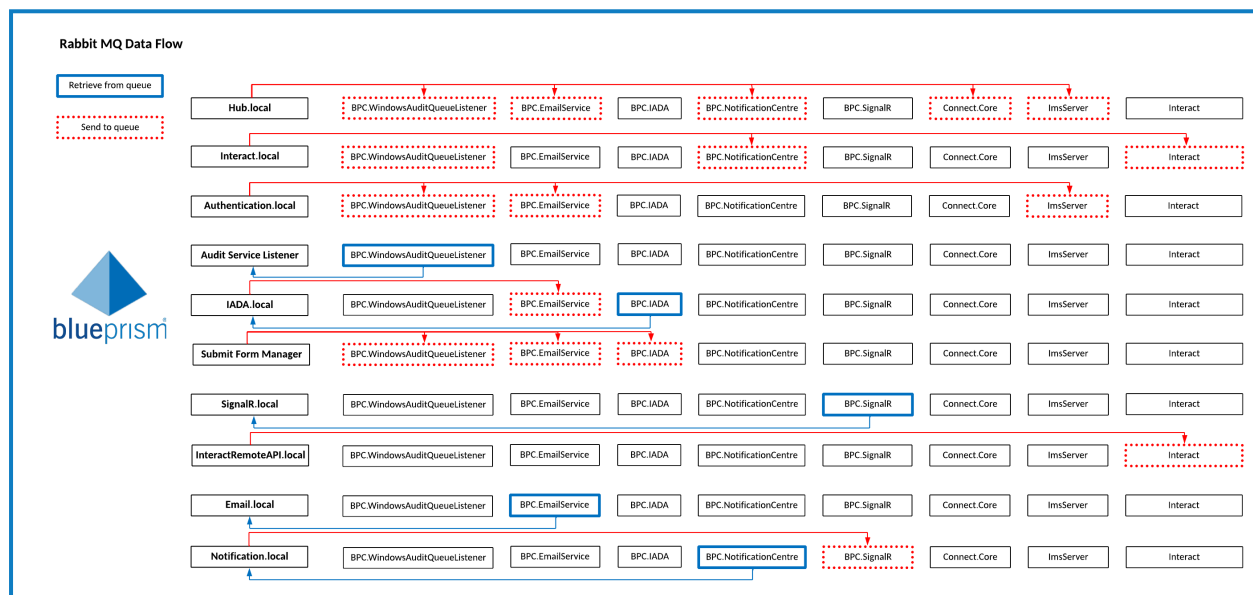
RabbitMQ use in Hub and Interact

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](#).

Queues overview

The following diagram and table illustrate where RabbitMQ® is used in Blue Prism Hub and Interact.



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.Windows AuditQueue Listener		BPC.Email Service		BPC.IADA		BPC.Notification Center	
	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.SignalR		Connect.Core (Hub)		ImsServer (Authentication Server)		Interact	
	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								
Notifications Center	✓							

Description of table

Queue

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

BPC.WindowsAuditQueueListener queue

Hub and Interact post objects to this queue.

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

BPC.EmailService 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.IADA queue

Submit Form Manager posts object to this queue.

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

BPC.NotificationCenter queue

Hub and Interact post objects to this queue about notifications.

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

BPC.SignalR queue

Notification Center posts objects to this queue to notify that an object has been sent.

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.

Connect.Core queue

Hub posts objects to this queue, broken down by [topics](#).

Authentication Server and Interact retrieve objects from this queue and update the appropriate data.

ImsServer queue

Hub posts objects to this queue, broken down by [topics](#).

Hub and Interact retrieve objects from this queue and update the appropriate data.

Interact queue

Interact Remote API posts objects to this queue, broken down by [topics](#).

Interact retrieves objects from this queue and updates the appropriate data.

Queue topics

Some of the queues use topics to break down the messaging further. These are displayed as additional entries in the Queues tab in RabbitMQ. Each of these topics can publish (P) or handle (H) messages. For example:

These are appended with Publisher or Handler	Connect.Core (Hub)		Interact		ImsServer (Authentication Server)		License Manager	
	P	H	P	H	P	H	P	H
AddEditUser (Create or update user)		✓		✓	✓			
AddedUsersFromAd (Create Active Directory user)		✓		✓	✓			
DeleteUsersFromAd (Delete Active Directory user)		✓		✓	✓			
UpdateUsersFromAd (Update Active Directory user)		✓		✓	✓			
DeleteUsers (Delete user)		✓		✓	✓			
MakeUserAlive (Activate user)		✓		✓	✓			
UpdateUserProfile (Update user profile)		✓		✓	✓			
CreateUpdateRoleMessage (Create or update role)	✓			✓		✓		
DeleteRoleMessage (Delete role)	✓			✓		✓		
AddEditBusinessProcessForm (Create or update business process form)	✓			✓				
AddFormVersion (Increase form version)	✓			✓				
RemoveLatestFormVersion (Remove form version)	✓			✓				
DeleteForm (Delete form)	✓			✓				
CreateUpdateEnvironment (Create or update environment)	✓			✓				
DeleteEnvironment (Delete environment)	✓			✓				
PluginsLicenseUpdated (Update plugin license)		✓		✓		✓	✓	

Network architecture

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

