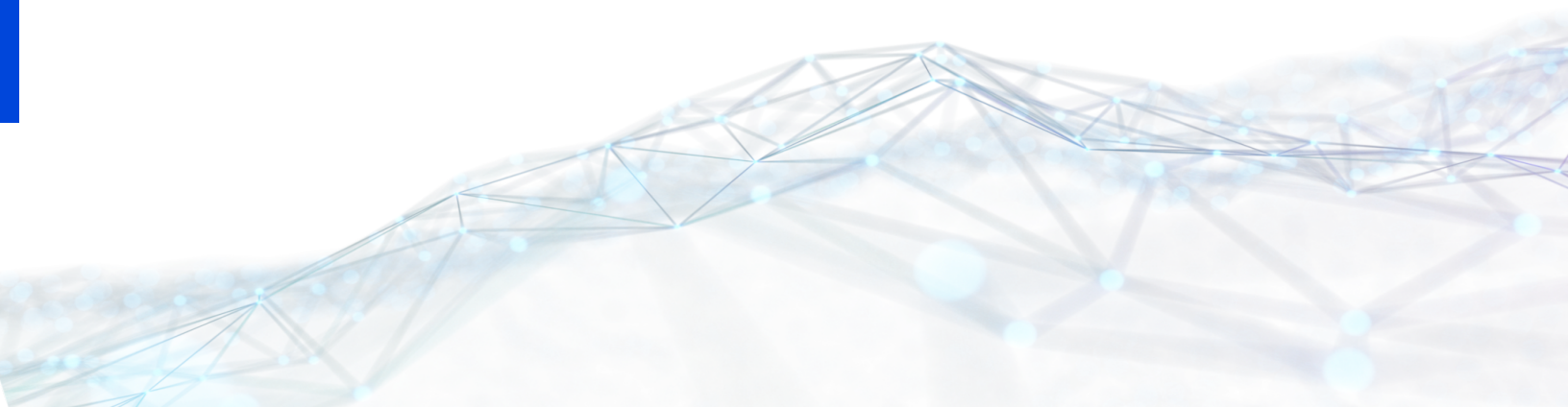




TIBCO BusinessConnect™ Container Edition

Concepts

Version 1.4.0 | June 2024



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Overview

TIBCO BusinessConnect™ Container Edition is a lightweight, sophisticated tool your company can use for business-to-business electronic commerce transactions that are deployed uniformly and consistently across container-based PaaS platforms. It enables the secure transmission of documents and messages between partners using disparate internal business systems.

You can containerize a TIBCO BusinessConnect application by using Docker. You can also run the Docker based TIBCO BusinessConnect application in a Kubernetes cluster on the cloud platform of your choice. To understand the concepts of TIBCO BusinessConnect™ Container Edition, you must be familiar with the following concepts:

- Docker concepts. See *Docker* Documentation.
- Kubernetes concepts. See *Kubernetes* Documentation.

BusinessConnect™ Container Edition Edition Features

BusinessConnect Container Edition is based on an orchestration framework and is scalable, lightweight, and supports widely accepted industry standards. Additionally, it also has a modernized user interface that makes the BusinessConnect components simple to configure and manage.

Modularity

TIBCO BusinessConnect Container Edition provides the benefit of modularity. Each module such as Admin Server, ConfigStore Management Server, Gateway Server, Interior Server, Poller Server, and AuditSafe can be deployed independently.

Scalability

TIBCO BusinessConnect Container Edition provides the benefit of independent, modular scalability. You can horizontally scale each module independently according to the workload.

Standards-based

TIBCO BusinessConnect Container Edition supports TIBCO BusinessConnect™ Container Edition - Services Plug-in (EZComm) and standard business protocols such as TIBCO BusinessConnect™ Container Edition - RosettaNet Protocol (RosettaNet) and TIBCO BusinessConnect™ Container Edition - EDI Protocol powered by Instream®.

Cloud Independence

TIBCO BusinessConnect Container Edition can run in most Docker-based Platform as a Service (PaaS) environments. You can deploy, monitor, and manage the application using a Kubernetes-based orchestration framework.

Key Concepts

This topic gives you a brief description of the terms that you may encounter when working with the product. To understand these basic concepts of TIBCO BusinessConnect Container Edition, you can go through the following key concepts:

Trading Partners:

Trading Partners are the participants involved in a business relationship to carry out business transactions between each other. TIBCO BusinessConnect Container Edition defines two types of trading partners: Hosts and Partners.

- **Host:** A participant who sponsors a trading community, where standardized business transactions occur between host and its trading partners. A host can be a retailer, a manufacturer, or any sponsor who creates a trading community.
- **Partner:** A participant who is outside the host's company and establishes business agreement with the host. For example, a partner can be a vendor, customer, or healthcare provider.

Trading Community:

Trading community is a conceptual domain within which business transactions occur between the host and its trading partners. TIBCO BusinessConnect Container Edition allows an enterprise to create a trading community, which consists of a host (the creator or sponsor of a trading community) and its respective partners.

Business Agreement:

Host and its trading partners are bound by a business agreement that includes detailed information, which the participants must agree upon before they exchange electronic documents with each other. The business agreement between host and partner must have information regarding the business protocols (inbound or outbound), the corresponding transport protocols, and operations. In TIBCO BusinessConnect Container Edition, the protocol-centric business agreement establishes a common method for exchanging business documents between the two participants.

Business Protocols:

Business Protocols are the standard methods used to exchange business documents between the participants. The host and the partner have to agree upon a common protocol before exchanging business documents or any operation in the transaction. This simplifies business transactions between the trading partners. For example, RosettaNet, EZComm, X12, and Gateway are the business protocols with their own specifications on how trading partners should send and receive business documents and its format.

Transport:

TIBCO BusinessConnect Container Edition supports HTTP, HTTPS, AS2_HTTP, AS2_HTTPS, EMAIL, AS1_EMAIL, FILE, FTP, FTPS, and SSHFTP transports to facilitate secured communication and transmission of the electronic documents between the participants. The type of the transport protocol depends upon the business protocols that are specified in the business agreement between the host and the trading partner.

Operations:

An operation is defined as the type of electronic document exchanged between the trading partners. The type of operation depends upon the business agreement established between the participants. For example, a typical B2B implementation manages operations such as purchase order, invoice, shipment status, and other types of operations with their respective number assignment.

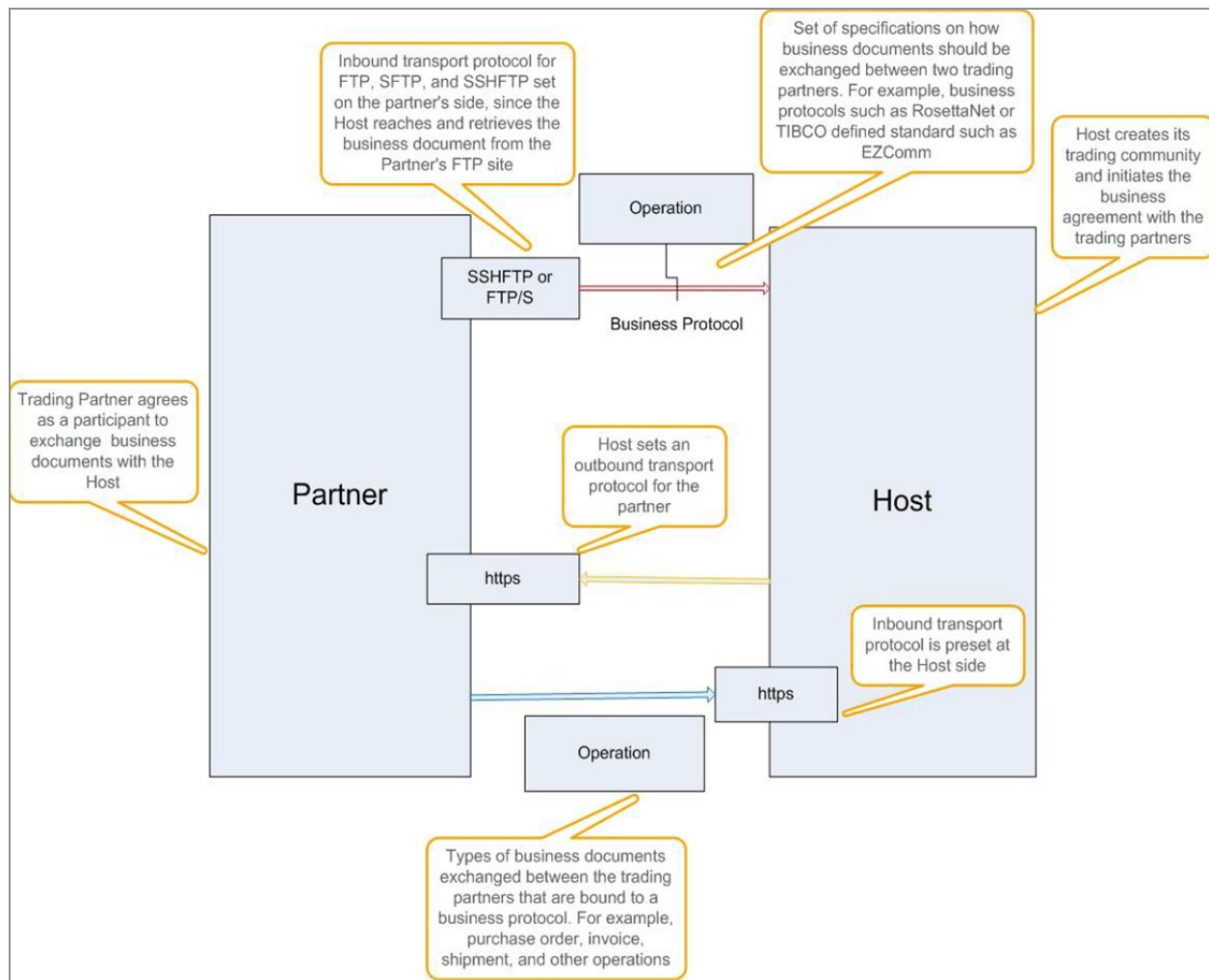
Private Process:

Private process refers to the internal processes within your company that exchange data through the TIBCO BusinessConnect Container Edition server. Typically, a private process includes sending or receiving B2B documents deeper into or from the host's internal applications, such as an ERP system, a claims adjudication system, and other systems.

Onboarding Process

The process of adding a trading partner to a host's community and creating the business agreement between the partner and the host is called the Onboarding Process. The following diagram illustrates the onboarding process in TIBCO BusinessConnect Container Edition:

Onboarding Process



- The arrows in the diagram represent the business protocols. Each type of business protocol has its own color. For example, the red arrow represents the RosettaNet protocol whereas the blue arrow represents the EZComm protocol.
- The business documents are exchanged between the host and the partner using the transport protocols such as HTTP/S and FTP.

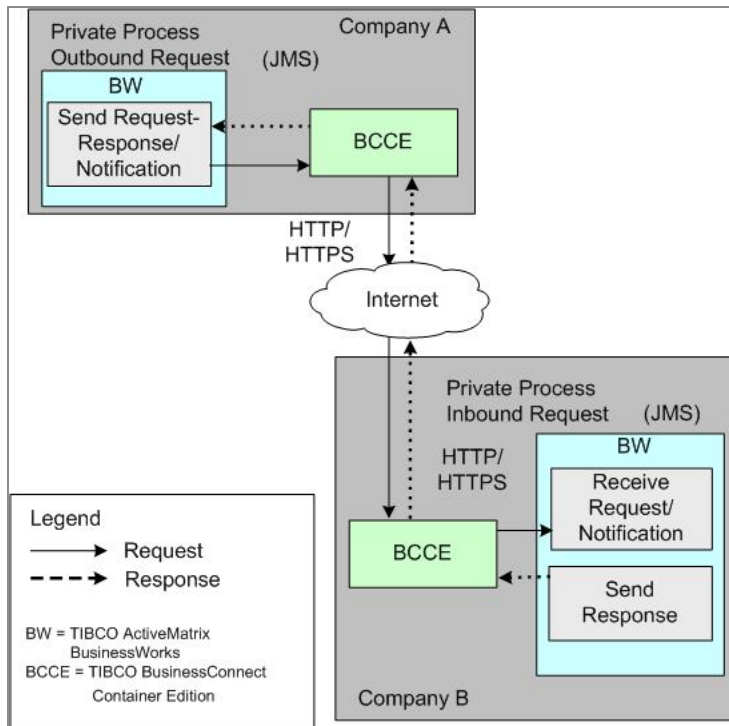
Private Process using TIBCO ActiveMatrix BusinessWorks plug-in for BusinessConnect

With TIBCO ActiveMatrix BusinessWorks Plug-in for BusinessConnect and TIBCO ActiveMatrix BusinessWorks, you can create process definitions that serve as private

processes for a TIBCO BusinessConnect Container Edition. TIBCO ActiveMatrix BusinessWorks can either send requests to TIBCO BusinessConnect Container Edition or receive replies from it.

The following figure illustrates TIBCO ActiveMatrix BusinessWorks operating in conjunction with TIBCO BusinessConnect Container Edition.

TIBCO ActiveMatrix BusinessWorks Communicating with TIBCO BusinessConnect Container Edition



Company A implements a private process in TIBCO ActiveMatrix BusinessWorks and uses the Send Request/Notification activity to invoke a pre-configured B2B operation on a TIBCO BusinessConnect Container Edition server. TIBCO BusinessConnect Container Edition in Company A sends the request to TIBCO BusinessConnect Container Edition server at Company B, which has a process definition with the Receive Request/Notification process starter.

This process definition receives the incoming request, processes it, and sends a response back to the TIBCO BusinessConnect Container Edition server using the Send Response activity. TIBCO BusinessConnect Container Edition then routes the reply back to the original requestor.

It is not necessary for TIBCO ActiveMatrix BusinessWorks to be used to implement the private process at both Company A and Company B. A different application can be used to send the request or receive the request. However, it is necessary for TIBCO

BusinessConnect Container Edition to be used at any site where TIBCO ActiveMatrix BusinessWorks is used to send or receive TIBCO BusinessConnect Container Edition messages.

You can use TIBCO ActiveMatrix BusinessWorks to build the private processes, specifically using the tool TIBCO Business Studio™.

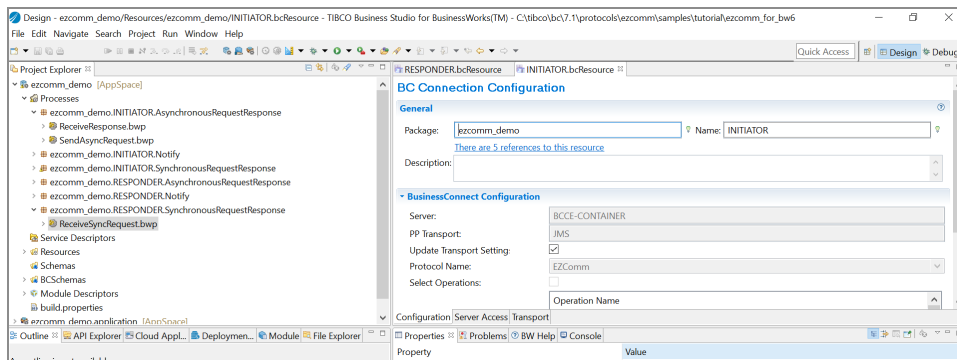
Using TIBCO Business Studio

TIBCO Business Studio is an easy-to-use GUI for configuring, designing, and testing TIBCO ActiveMatrix BusinessWorks projects. TIBCO Business Studio provides an integrated development environment including these components:

- Project directory
- Project resources
- Process design
- Activity configuration

You can use TIBCO Business Studio as a modeling tool to design business processes as a part of your business-to-business integration as shown in the figure below:

TIBCO Business Studio



TIBCO Business Studio is used in the design time environment for designing and testing business processes and to prepare documents for secure transmission over the Internet. It contains a number of native palettes, including the TIBCO BusinessConnect palette.

To learn more about these palettes and how to work with the application, see *TIBCO Business Studio User Guide*.

User Personas

You can create different user roles in TIBCO BusinessConnect Container Edition with reference to the user persons described in the following table:

Persona	Description
System Admin	<ul style="list-style-type: none">• Has sound technical knowledge.• Manages deployment of servers and underlying technical services.• Sets up the initial set of users and creates transport protocols.• Sets up system settings, Gateway server, all inbound transports, and database connectivity.
Application Admin	<ul style="list-style-type: none">• Manages initial and ongoing setup of key objects such as transport protocols, business protocols, and operation types.• Performs CRUD (Create, Read, Update, and Delete) operations on hosts and users.• Enables the business protocols and the operations that are shipped with TIBCO BusinessConnect.• Can view all the business transactions.• Does not have access to the users and roles.
Partner Specialist	<ul style="list-style-type: none">• Manages partners and business agreements between the host and the partner.• Performs the CRUD operations on the profiles of trading partners and business agreements using GUI.• Creates and assigns Outbound/Inbound transports for available Business Protocols.• Selects hosts and business protocols and binds operations to the selected business protocols.
Business User	<ul style="list-style-type: none">• Can view all the business transactions.

i Note: The Admin role, which is a default role with all the privileges, can add the other users and roles based on the personas.

Persona Involvement

To understand the involvement of user personas in TIBCO BusinessConnect Container Edition, see the following process flow:

Procedure

1. System Admin activates inbound transport protocols. For example, enables HTTP inbound protocol and creates HTTP Gateway Service.
2. The protocols are already installed and enabled for the hosts. Application Admin creates one or more hosts, configures the properties of the protocols, enables different operations, and pairs any operations that need to be coupled.
3. Partner specialist can perform the following tasks:
 - a. **CRUD Participant** : Creates partner, searches or edits partners from the already existing list.
 - b. **Certificates**: Uploads public certificates, which either are shared by the partner through emails or are uploaded by the partner themselves.
 - c. **Business Protocols**: Selects business protocols from ones made available by Application Admin, for example, EZComm and RosettaNet.
For the selected business protocol, onboarder fills the applicable properties, including the Partner Name as required by the business protocol.
 - d. **Transport Protocols**: Selects applicable transport protocols for receiving transactions from a list that has been enabled by the System Admin. For example, HTTPS, SFTP, AS2 protocols. For each transport protocol, an onboarder fills out a form, which includes properties of the transport protocol applicable to the partner.
 - e. **Business Agreement**: Selects which host to trade with and configures business agreement between the host and the partner.
Inbound: For each business protocol, if there are any secure FTP transports, the onboarder specifies the URLs and applicable protocol properties. This

enables the Host to retrieve the transaction from the partner's FTP server.

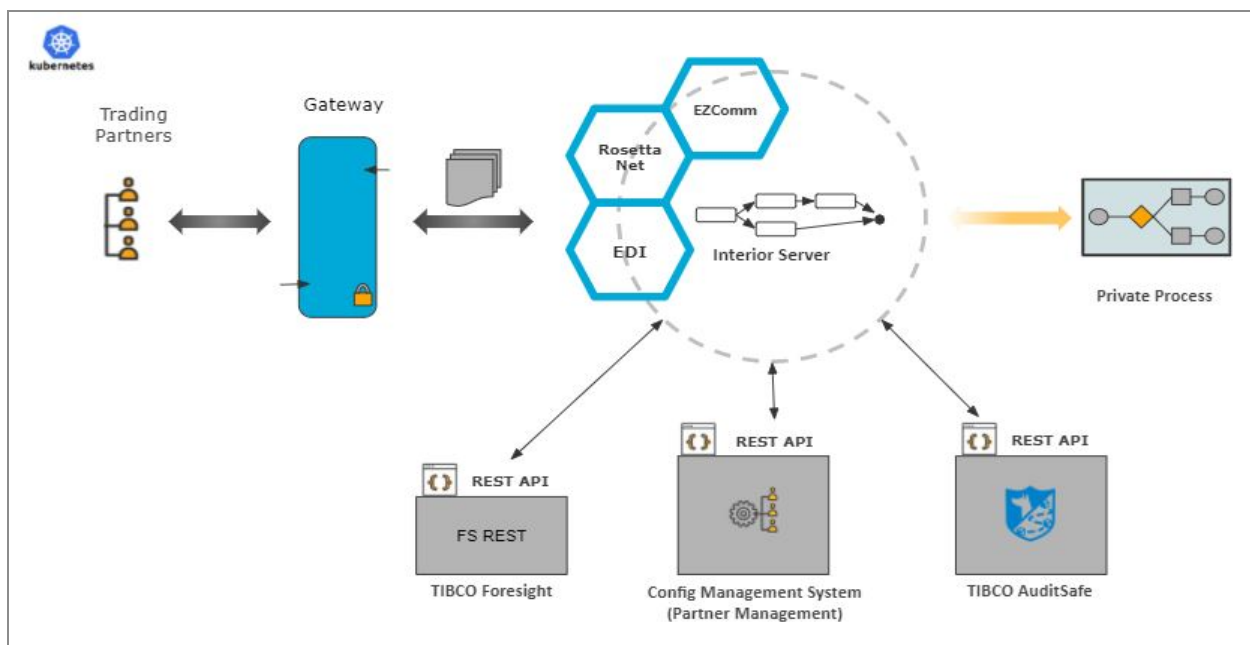
Outbound: For each business protocol, onboarder selects the applicable operation types.

TIBCO BusinessConnect Container Edition Components

TIBCO BusinessConnect Container Edition comprises the following components. Each component of TIBCO BusinessConnect Container Edition should run in a Docker container. To implement the different features of TIBCO BusinessConnect in the Docker environment, you must create a Docker image of each component. These component images run in their Docker containers and communicate with each other using the TIBCO Enterprise Message Service messaging system.

The following diagram shows different components in TIBCO BusinessConnect Container Edition and their interaction with each other:

BusinessConnect Container Edition Components



Gateway Server

Gateway Server is located in the demilitarized zone (DMZ), and functions as the front gate by receiving the inbound transactions from trading partners. Multiple Gateway Servers can work together for load balancing.

This server has several restrictions on the networks that it can access. It is used to host an HTTP gateway service, to receive B2B communications directly from the Internet with security features such as SSL and SSH. The firewall between the Gateway Server and the rest of your system protects against the threat of malicious communications. TIBCO BusinessConnect Container Edition Gateway Server is a standalone Java executable that is not dependent on TIBCO ActiveMatrix BusinessWorks. However, it still needs TIBCO Enterprise Message Service to communicate with the Interior Server. This server performs the following tasks:

- Receives inbound request through HTTP/S/CA transport protocols.
- Communicates with Interior Server using the TIBCO Enterprise Message Service message bus for inbound messages that are received.
- Allows trading partners to exchange messages using business protocols.
- Hosts HTTP service which supports HTTP, HTTPS, and HTTPSCA transports for document exchange.

Interior Server

Interior Server is the server on which TIBCO BusinessConnect Container Edition is installed on top of the other required TIBCO software products. Multiple Interior Servers can work as a cluster to achieve load balancing and fault tolerance. This server is located inside the company's firewall and performs the following tasks:

- Handles all messaging level activities, such as message packaging and unpacking, encryption and decryption, signature and verification, and so on, according to numerous transport and vertical business standards.
- Takes care of business level logic to be run by each individual protocol, such as document schema validation, business level acknowledgment generation, and so on.
- Communicates with Gateway Server and Poller Server using TIBCO Enterprise Message Service message bus for inbound messages.
- It also communicates with the AuditSafe server using REST APIs to post audit logs.

Poller Server

- Communicates with Interior Server using the TIBCO Enterprise Message Service message bus to receive inbound messages.
- Retrieves inbound requests from FTP and SFTP servers, Mail server, and shared file

directory.

- Includes both inbound and outbound pollers.

Admin Server

- Exchanges data with ConfigStore Management Server (CMS) using CMS REST API calls.
- Allows you to configure and manage BusinessConnect features like configuration of participants, operation editor, and business agreement.

ConfigStore Management Server

- Communicates with Admin Server and has access to the database.
- Performs CRUD operation on ConfigStore.

Configuration API Server

- Enables you to configure TIBCO BusinessConnect™ Container Edition settings without logging into Admin Server UI.
- Supports importing and exporting of configuration files.

Authentication Server

- Stores user information for both BusinessConnect Container Edition and AuditSafe
- Authenticates user login for both BusinessConnect Container Edition and AuditSafe

AuditSafe

- TIBCO BusinessConnect Container Edition saves audit logs to AuditSafe using the REST API.

- Allows you to view the chain of logs for a transaction and details for each log received, download payloads, configure views for the AuditSafe dashboard.

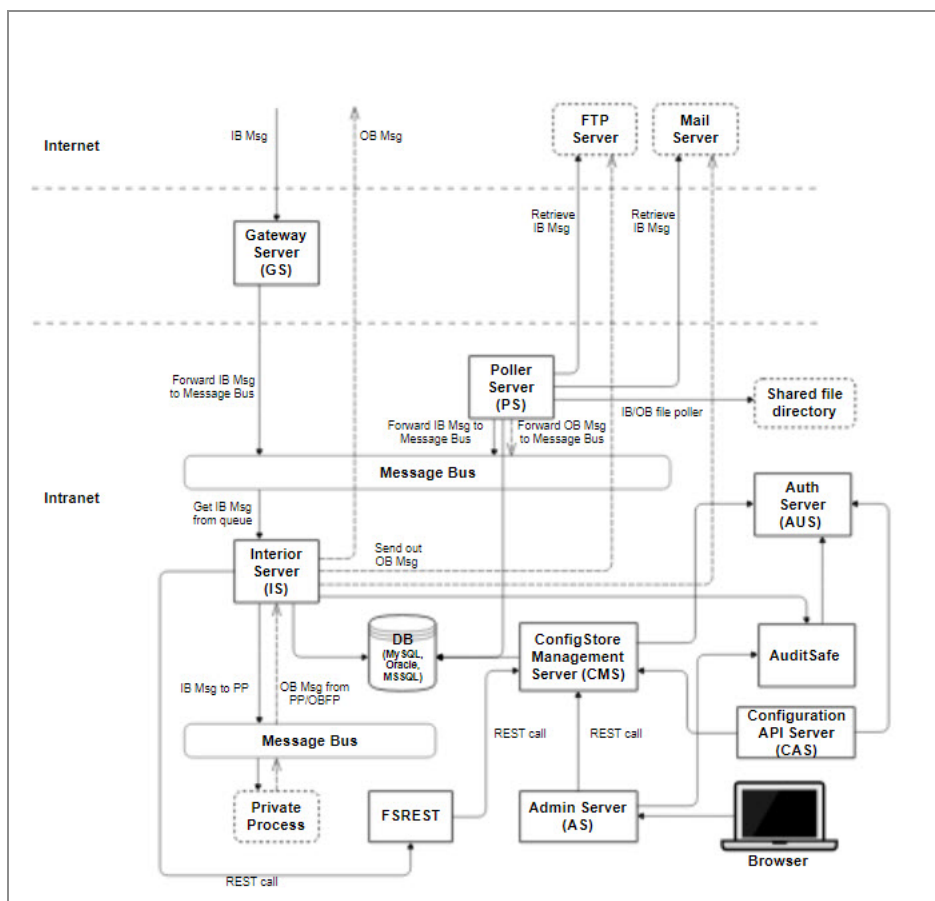
FS REST

- TIBCO Foresight^(R) REST API is a REST API providing EDI validation, response document generation, and translation services.

For detailed information, see *TIBCO Foresight^(R) REST API* documentation.

For detailed information of the components, see the following high-level architecture of TIBCO BusinessConnect Container Edition:

High-level Architecture



Database

This database contains the configuration information used and data logs created by the BusinessConnect Container Edition protocols, runtime data used by the BusinessConnect Container Edition server and protocols.

Communication Between the Servers

The TIBCO Enterprise Message Service™ is used by Gateway Server and Poller server to communicate with Interior Server for many purposes, such as the initial notifications when a Gateway Server is started, and the notification when a large message arrives from trading partners.

Additionally, TIBCO Enterprise Message Service is also used for transferring configurations necessary for starting the gateway services, such as the HTTPS server keys and so on. TIBCO Enterprise Message Service is also used for transferring small-size messages between the Gateway Server and Interior Server.

Interior Server sends inbound messages to the private process and gets the request messages from the private process using TIBCO Enterprise Message Service. Similarly, Poller Server forwards inbound messages to the TIBCO Enterprise Message Service message bus, which further sends a message request to the Interior Server.

The load-balancing feature of TIBCO Enterprise Message Service is used by Interior Servers, so the inbound traffic is load balanced between these servers.

Security Concepts

This topic gives you a brief overview on how TIBCO BusinessConnect Container Edition secures and protects your data.

Secure Communication Channel

TIBCO BusinessConnect Container Edition achieves secure communication by using HTTPS over SSL/TLS, FTPS over SSL/TLS, or SSHFTP over SSH, where the whole communication pipe is encrypted.

Authentication

Authentication is used to assure the identity of the partner with whom you are communicating. In a communication system, authentication is performed as a part of the handshake process to verify that the messages originate from their stated source. TIBCO BusinessConnect Container Edition authentication is based on X.509 SSL/TLS or SSH certificates.

Authorization

Authorization is the next step in achieving secure communication. It is used to check the configuration database and verify that the sender is authorized to perform the operations and receive certain responses. This is done through trading partner management, where permissions are set through binding the operations. After the sender of a message has been authenticated, TIBCO BusinessConnect Container Edition determines which operations the sender is currently allowed to perform by checking trading partner information in the repository. TIBCO BusinessConnect Container Edition uses repository information to determine how it responds to a message from the partner. In some cases, the partner may not be authorized to perform certain interactions. In order to conceal the information from unauthorized parties and to assure privacy of business data, TIBCO BusinessConnect Container Edition uses data encryption.

Message Encryption

To ensure only the intended recipient reads the data, the message is encrypted by converting plain text into cipher text.

Encryption also achieves privacy or concealing of information from unauthorized parties by using private and public keys combined with the secret key algorithms.

For example, the sender sends a message encrypted using the Public Key provided by the recipient and the recipient decrypts the message using its own Private Key.

TIBCO BusinessConnect Container Edition uses either PKI (Public Key Infrastructure) or OpenPGP for public and private keys.

In Public Key encryption, anyone can encrypt a message intended for a recipient, while only the intended recipient is permitted to decrypt such a message. The one who creates the ciphertext message cannot decrypt their own message since they do not have the private key. Only the owner of the matching private key can decrypt the message encrypted with a specific public key.

Digital Signatures

Confidentiality of the business data is protected using encryption whereas digest algorithms protect the data integrity. These algorithms are utilized by digital signature algorithms to provide authentication services.

Authentication using digital signatures is done using S/MIME authentication. It involves adding a digital signature to the outgoing message. Digital signatures bind information to the identity of its originator. They are used to provide data origin authentication and data integrity.

For example, a sender can use their Private Key to add a Digital Signature to a piece of data in order to assure the recipient that the piece of data is originating from the sender, and the partners who have the corresponding Public key can decode this signature.

The process of adding digital signature is contrary to the encryption process used in message and transport encryption.

For detailed information on the various security methods implemented in BusinessConnect Container Edition, see *TIBCO BusinessConnect Container Edition Security Guidelines, Security*

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Deployment

Each component of TIBCO BusinessConnect Container Edition is a service and all these services are deployed and run in the Kubernetes cluster.

The BusinessConnect Container Edition package contains most of the files that are required to build the Docker images for the BusinessConnect Container Edition components.

You are required to download only a few third-party library jars for building the Docker images for BusinessConnect Container Edition.

You must upload these Docker images onto the private Docker registry and properly set the properties after which the deploying script creates the secrets of Docker login, log4j2, certs, and mounted path and finally, deploy all the services of BusinessConnect Container Edition one at a time.

Fault Tolerance and Load Balancing

For fault tolerance and load balancing, the Docker-based TIBCO BusinessConnect application is run in a Kubernetes cluster.

This Kubernetes has multiple master nodes and worker nodes. To avoid any physical failure of the machine, all the BCCE service pods are allowed to run on the different nodes.

When any one of the pods fails, the new pod for the same service is started.

Also, the Kubernetes cluster is enabled with the load balancer for each service, which balances and manages several jobs and congestion caused due to these jobs.

Smart Routing

The messages in BusinessConnect Container Edition are routed to the private processes using any of the following types of routing:

- **Private Process Smart Routing:** This type of routing enables you to route preferred messages to the selected private process instances while other messages can be received and processed by the rest of the instances in the same or in the different TIBCO ActiveMatrix BusinessWorks projects.
- **Public Smart Routing** This type of routing uses a combination of configurable conditions and a predefined set of criteria to dispatch the workloads to the best fitting cluster for processing of messages received from trading partners. The Public Smart Routing component in BusinessConnect Container Edition does not support smart routing for messages received from the private processes (outbound messages).

BusinessConnect Container Edition allows you to define simple business rules to route messages to specific private processes. You can configure which messages should be routed to which private process instance using the Admin server through the Admin UI. You can also specify a set of business rules, such as to route all messages from the trading partner A to the host B towards the private process C.

Configuring Private Process Smart Routing for the TIBCO BusinessConnect Palette

When you select the checkbox **Use Smart Routing**, a text field named Smart Routing ID becomes visible and editable. By enabling this option on the shared resource, you can allow for the referencing event sources to use the specified smart ID value and inherit changes in the ID's value created on the given shared resource. If you want the specific event source to define its own Smart Routing ID, the checkbox **Shared Smart ID** must be cleared and an individual smart ID can be specified to take precedence over the ID (if any) on the referenced shared resource.

Public Smart Routing

BusinessConnect Container Edition 1.2.0 introduces the concept of public smart routing through which specific engines can be instructed to process messages that satisfy user-defined criteria. With this feature, you can use load balancing through the available IS engine to control inbound and outbound traffic at a high level.

Processing of Inbound Documents

In TIBCO BusinessConnect, the inbound documents from trading partners are received through inbound public transports that reside either in the Gateway engines, or on one of the interior runtime engines in the cluster behind the firewall.

Gateway Engines

Gateway engines host many services, which are also called public transports:

- HTTP/S is supported for almost all protocols. Many message packaging and delivery standards such as AS2, S/MIME, and SOAP are also based on HTTP/S and are supported.
- Inbound File Poller is only supported for limited protocols, such as EZComm and EDI.

i Note: For the HTTP/S, the Public Smart Routing component intercepts each incoming message and implements rule based logic in routing them to the internal clusters.

- FTP Server is protocol specific and does not support inbound document smart routing.
- SSH Server is protocol specific and does not support inbound document smart routing.

Rule Based Message Processing

Each transport type contains a set of fixed and known attributes available through the MIME headers, such as content type, content size, subject, URI, and so on. These attributes serve as the criteria to define rules and determine a designated unit for processing.

Here is how the messages are processed:

1. The Smart Routing component intercepts each inbound message and evaluates the corresponding list of attributes based on the transport type.
2. Based on the set of rules configured for each available cluster, the Smart Routing component derives a destination cluster and publishes an inter-component message that notifies the selected cluster.

If no rules are defined, the Smart Routing component is disabled by default, and the one and only one cluster always receives notification for each public inbound message.

The inter-component message essentially triggers the processing of the inbound message by the corresponding selected cluster.

Public Smart Routing for Inbound and Outbound Documents

There are two types of public smart routing:

- Inbound
- Outbound

For inbound, the user can define public smart routing rules on the UI to categorize inbound traffic based on the type of transport and other attributes like message, size, and so on. Each inbound rule defines a cluster of IS engines that load balances the traffic matching that rule.

Inbound messages that do not match any defined rule are processed by a special NO_MATCHING_RULE cluster. One inbound cluster can have multiple IS engine instances and one IS engine instance can be part of many inbound clusters. This is defined by a separate UI page, for instance, mappings where you can also control if the IS engine handles inbound traffic, outbound traffic, or both.

Since rules are currently not supported for outbound traffic, all IS engines enabled for outbound are part of a single implicit cluster and load balance all outbound traffic.

If more IS engine instances are started than what is defined in the mapping UI, they are defaulted to perform both inbound and outbound. For inbound, they belong to the NO_MATCHING_RULE cluster. This is also the default smart routing configuration for all IS engines in the absence of this feature, which is, when rules and mappings are not defined on the UI.

Once the rules are defined, the GS engine routes messages comply with those rules to the corresponding cluster queue and hence, it is required to have IS engines explicitly mapped

to those clusters in order to have enough IS engine instances run to satisfy all defined mappings. Similarly, it is also required to have at least one engine assigned for both inbound and outbound and also in the case of inbound at least one engine that is part of the NO_MATCHING_RULE cluster.

This is required to ensure that all traffic gets processed in the presence of smart routing rules and mappings. Similarly, if a cluster rule is deleted or disabled, it should be explicitly removed from any assigned instance mapping as traffic is not routed to this cluster. Also, any change in the public smart routing configuration requires a restart of the GS and IS engines.



Important: For this release, the smart routing is not supported for the SFTP, FTP/S, FILE, and EMAIL transports.

Example

The following example illustrates the above concepts,

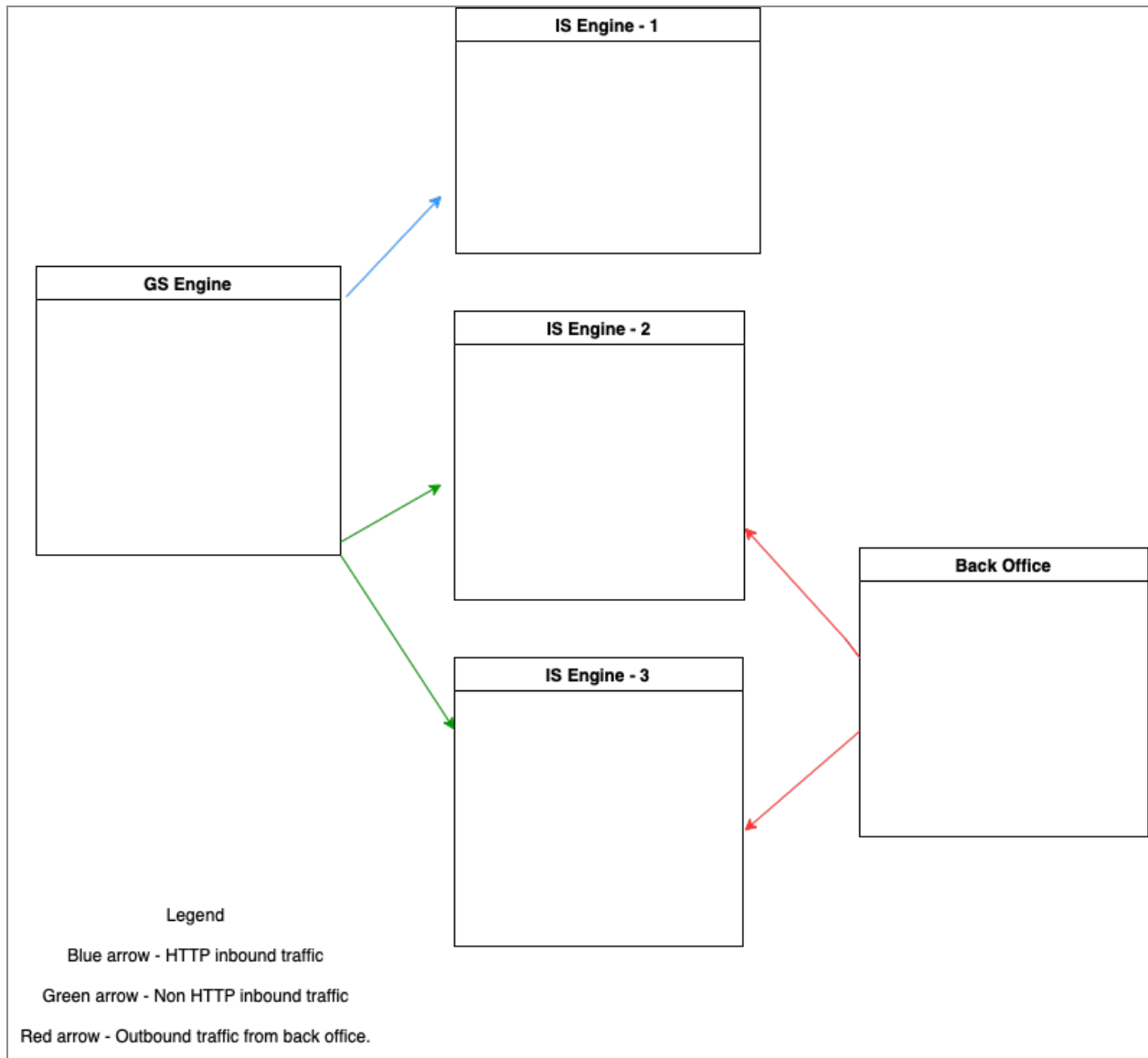
Consider HTTP_All, a public smart routing rule that has been defined that categorizes all traffic belonging to the HTTP transport type. The following mappings have been defined for the IS engine runtime instances.

Serial no Inbound Enabled Inbound Rules Outbound Enabled

1. True HTTP_All False
2. True NO_MATCHING_RULES True

Assume that the user starts 3 IS engine instances. The first IS engine, denoted as IS Engine - 1, grabs the configuration defined for serial no 1 and based on that, listens only for the inbound HTTP traffic. The second IS engine, denoted as IS Engine - 2, grabs the configuration defined for serial no 2 and handles all inbound traffic that does not match any defined rule(s). In this case, it is all non-HTTP traffic. Any subsequent IS engine instances, for example, IS Engine - 3, would follow the default settings to the standard configuration of handling inbound traffic for the NO_MATCHING_RULES cluster as well as outbound traffic. Effectively, all NO_MATCHING_RULES traffic is load balanced between IS Engine 2 and IS Engine 3. Since instance 2 was also enabled for outbound, all outbound traffic is load balanced between IS Engines 2 and 3. The cluster assignments for IS engines in this case are as follows:

Inbound
HTTP_All (1)
NO_MATCHING_RULES(2,3)
Outbound
Implicit(2,3)



TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the [Product Documentation website](#), mainly in HTML and PDF formats.

The [Product Documentation website](#) is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

The documentation for TIBCO BusinessConnect™ Container Edition is available on the [TIBCO BusinessConnect™ Container Edition](#) page.

How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our [product Support website](#).
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the [product Support website](#). If you do not have a username, you can request one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature

requests from within the [TIBCO Ideas Portal](#). For a free registration, go to [TIBCO Community](#).

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