responsiv

simple · effective · distinctive

Responsiv Cloud Integration Platform

RA001WI-PD

Product Description

Responsiv Cloud Integration Platform

Responsiv Cloud Integration Platform (RC-IP) is used to connect systems, allowing them to share data directly and in real-time. It is also used to create and expose APIs to make data and functions more widely available using consistent security, consistent protocols, and standardised data model.

The platform supports real-time, offline, publish-subscribe, point to point, and event integration using a standardised set of controls and single technology.

Improve business efficiency, reduce, or avoid operating costs, and avoid business risks associated with inconsistent data and variable demand.

This product description describes the key features, functions, and capabilities of the product or service. It is not intended to fully document the product or to provide support.

Audience

This description is for architects and technical specialists to give a high-level, brief description of the product or service. It is intended to be used to inform users of the broad functions and scope of capability. Refer to linked product documentation for details. Responsiv reserve the right to change the specification at any time and without notice.

Obligations

This document is not an offer or contract. Neither Responsiv nor you have any obligations or liability to the other unless our authorised representatives enter into a separate definitive written agreement. Terms included in this document are not binding unless they are included in such a written agreement.

Observations and recommendations in this document are based on our opinions, experience, and knowledge of the product. Responsiv makes no representation as to accuracy or fitness for purpose.

Underlying Software

This description is for a Responsiv product that is implemented using a combination of capabilities delivered by pre-existing products. References to those products and their documentation are required to improve understanding of the capabilities that are available and how to access them using the available tooling. Responsiv makes no claim that our product provides all documented features. If a feature is of particular interest, please seek clarification with Responsiv.

Responsiv provide and support all embedded software in this product. For a full list of copyright notices please contact Responsiv. Most components are protected by the Apache, IBM, or MIT licenses.

https://www.apache.org/licenses/LICENSE-2.0

https://opensource.org/license/mit/

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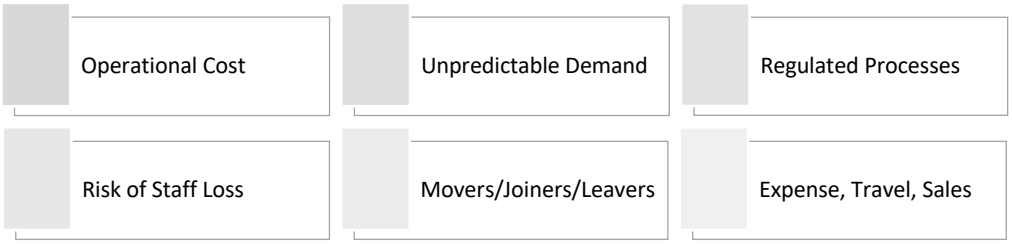
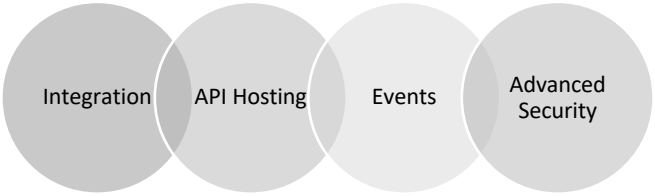
Service Overview

Responsiv Cloud Integration Platform (RC-IP) improves business efficiency, helps manage business risk, and reduces running costs. It helps organisations respond to **unpredictable demand** and loss of key workers. This platform can be used for a huge number of things (all at the same time).



Many businesses need to connect data from different sources, gather business insights, improve decision quality and efficiency, and share information around the enterprise. Typically, these challenges require many different products from different vendors. Graphical tooling and low-code configuration help address backlogs and improve consistency, supportability, and reduce developer learning time.



Integration

The Responsiv Cloud Integration Platform provides Enterprise Application Integration (EAI) workflows, API libraries, and Microservices that can detect changes to data inside applications and databases and reflect those changes across the enterprise. Information can be inspected, transformed, augmented, and validated between systems.

Integration patterns from publish subscribe, one to many, many to one, synchronous, asynchronous, request-response, fire and forget, and file transfer can all be integrated using the same technology and low-code configurations. Prioritise messages and develop event systems alongside file-oriented solutions. Use included connectors for database, Kafka, JMS, and enterprise system integration (SAP, MuleSoft, Salesforce, MS-Dynamics, and more). Built in functionality performs declarative parsing of inputs and outputs that can include RPC, Binary, Cobol, C, and varied code pages.

API Hosting

Responsiv Cloud Integration Platform can be used to expose data and functionality that is otherwise difficult to access. The APIs exposed in this way can be secured and deliver a consistent programming experience. The platform can be used as a dispatcher for change-data-capture events, allowing applications across the organisation to respond to changes in systems and databases.

Events

Responsiv Cloud Integration Platform handles events from Internet of Things (IoT) devices, change data capture (CDC), and from other real-time notifications. Events can be combined with enterprise data processing to deliver significant benefits from information sharing and applying AI to seek patterns.

Advanced Security - API and User Interface Protection

This Cloud Platform is protected by the RN0002C Responsiv Cloud Security Service, which is where API protections and user permissions are configured. Trust Interceptors can be configured to protect API access to services. The service also supports standard API protective protocols, including OAuth2, OpenID, JWT.

Accessing the Service

The service is hosted in Responsiv Cloud datacentres located in the UK and accessible over the public Internet or using optional dedicated MPLS[1] connections. Refer to Cloud Service Terms and Conditions for information about hosting providers.

Recommendation: An optional service preparation package is available to help you set up connections, share certificates for security, and mentor staff on the use of this platform (See Optional Services).

Public Connections

Public Connections are used by customers and users that are accessing the platform from the public, untrusted, internet. Most Responsiv Cloud Platforms do not allow public access.

Responsiv Cloud Platforms may be accessed from the public internet by routing the connection through your own firewalls and intrusion detection arrangements. This ensures that we see the connection as originating from an internal network, and responsibility for its protection is with your security defences. The only platform that allows direct access to the public Internet is the Responsiv Cloud API Platform.

User Connections

User Connections are used by staff and others to access the platform from your internal (semi-trusted) networks. User connections are tunnelled over encrypted, mutually authenticated virtual private networks (VPN), or transport layer security (TLS) connections. These connections are explicitly allowed through our firewalls from a named set of Internet Protocol (IP) addresses.

Responsiv Cloud Security Service intercepts all user traffic. Depending on how the service is configured, the user will be challenged for a security token, then for a username and password. The username and password is checked against the identity store, which can be local to the cloud or external in your own control.

Recommendation: To reduce the management overheads of setting up new users, and the risk of maintained privilege when they no longer require access, Responsiv recommends configuring external identity storage and/or federated trust.

Data Connections

Data Connections are used by systems inside your private network to connect to and from the cloud platform using specific protocols. Connections are tunnelled over encrypted, mutually authenticated virtual private networks (VPN), or transport layer security (TLS) connections. These connections are explicitly allowed through our firewalls from a named set of Internet Protocol (IP) addresses.

Administrative Connections

Administrative Connections are used by our administrators and by the Responsiv Cloud Console to allow administration of the platform, including patching and upgrades. These connections are not directly accessible to customers or from public internet connections.

Customer Place Connections

Each Responsiv Cloud customer is assigned their own "Customer Place".

This is a walled garden network environment that is private and secure and may span multiple physical locations. Customer places are protected by state-of-the-art firewalls, governance, and management practices. Responsiv Cloud Platforms are deployed or attached to the customer's place, creating a secure region of capabilities that can be connected. Responsiv Cloud Security Service is attached to each platform and to the Customer Place.

Platforms and Services deployed to the same Customer Place can be connected or clustered to deliver reliable and available business solutions. Platforms and Services deployed in separate customer places cannot be directly connected.

[1] See optional services

Features

Responsiv Cloud Security Service (RC-SS) supports fine-grained authorisation policies and combinations of access control mechanisms.

Integration Services

Integration applications can be configured to follow different architectural styles including Service Oriented Architecture (SOA), Micro Service Architecture (MSA), Event Architecture, Message Oriented Architecture, Point to Point, Publish Subscribe (Bus) Architecture, and distributed application Architecture.

Enterprise Application Integration (EAI) uses technology to connect applications to allow them to share data in real time. The Responsiv Cloud Integration Platform can be used to mediate and orchestrate EAI connections so that data can be transformed and shared one to many, many to one. Protocols used by one application can also be transformed to become compatible with another.

Integration styles including Service Oriented Architecture (SOA), Micro Service Architecture (MSA), Event Architecture, Message Oriented Architecture, point to point, Publish Subscribe (Bus) Architecture, and distributed application Architecture are all supported in a consistent programming model.

Responsiv Cloud Integration Platform is a dedicated connectivity/integration solution. Supports (TCP/IP, HTTP(S), Messaging, File Transfer, Database, SaaS) and integration (Request-Response, Publish-Subscribe, Datagram, Synchronous and Asynchronous). Parsing (REST, JSON, XML, Fixed, Binary). Tooling for integration, including Microsoft-Dynamics and SAP.

Integration services can be used by process applications that are deployed to the platform and by external systems that are suitably authorised.

File Handling

Managed File Transfer facilities are combined with a Data Flow Definition Language (DFDL) engine to read files and convert them to messages or API calls, or to pass on files in a different or enriched format. Files can be processed as a single “file context” or as separate records. In both cases the engine remembers where it is in the process and rolls back or continues after recovery in the case of a failure.

Database and Technology Integration

Technology adapters, including JCA, JDBC, ODBC, are provided out of the box.

Event Capture

Change Data Capture detects data that needs to be shared, extracts the data from the source system, and shares it with the target systems. RC-IP can manage situations when target systems move, are unavailable, or require special handling.

Data Accessibility allows RC-IP to present a set of consistent and simple to operate interfaces (API services) using message, HTTP, or many other protocols, and using micro service, SOA , RPC, Binary, and custom styles. Services can be protected using SAML assertions that are managed by the Responsiv Cloud Security Service. Data residing in different databases, mainframes, and file systems can be made available as easy to use APIs.

Event and communications handling using synchronous and asynchronous friendly tooling.

Internet of Things (IoT and SCADA)

Support for Manufacturers, Healthcare providers, Railways, and others who need to integrate enterprise systems with devices and robot management systems. Specific support for many esoteric and industry specific protocols, and capability to customise support for any gaps.

Device integration and enterprise integration are managed using the same tooling and low-code/no code programming model.

Enterprise Package Integration

Specific interrogative connectors are available for Salesforce, MS-Dynamics, SAP, and other enterprise platforms. These are used to quickly understand any customisations performed inside such packages and create robust bi-directional connections.

For specific connectors and connector development please refer to

https://explorer.automation.ibm.com and https://explorer.automation.ibm.com/assets/templates

RN0002C Responsiv Cloud Security Service

Responsiv Cloud Security Service is described in “RN0002C Responsiv Cloud Security Service”. It provides attribute-based access control (ABAC), which uses information about the subject rather than predefined roles to determine authorisation.

Role-based access control (RBAC), which uses predesignated roles to determine access to resources. User-based access control (UBAC), which assigns permissions to individual users, and Context and Time-based access control (CBAC).

Optional Services

Optional services are available to extend the capabilities or capacity of Responsiv Cloud Platforms and other products.

RK00017 Responsiv Consulting Service Preparation

Short duration fixed price consulting engagement to help new customers to (1) securely connect to Responsiv Cloud, and to get started with the Responsiv Cloud Service, or (2) to establish a managed service.

Migrating critical business process infrastructure is impactful to operations and must be done in a way to minimise unnecessary risks and unforeseen costs. Moving to Azure requires planning and preparation.

RK00017 / RK0007D Responsiv Consulting Remote Development and Responsiv Cloud Custom Platform

RK00017 Responsiv Consulting (Cloud Enablement), RK0007D Responsiv Consulting: IT Specialist

Project based remote development services to support existing projects with experience and skills, or to deliver a defined outcome. Services are charged by the hour and rounded to a full number of days per week, making this a very efficient way to develop solutions and to reduce your backlog.

Responsiv Cloud Custom Platforms are applications developed by Responsiv to your exacting specifications, and delivered as a service. The capital cost of development is reduced by including some of the cost in the first three years of subscription. All the benefits of SaaS with a custom solution.

Use this product to

- Develop custom processes and integrations
- Migrate from legacy technologies that have become too expensive or are no longer properly supported
- Support your move to cloud
- Mentor your team

RA002EH Responsiv Cloud Security Identity Store Expansion

Additional identity stores can be used to separate groups of users, for example customers, suppliers, and staff. The identity store includes an entitlement for a maximum number of registered users. Additional expansions can be used to add users to an existing store or to create a new store.

RA001RD Responsiv Cloud Connection Service

Create private, dedicated network connections between your systems and the Responsiv Cloud. Improve security, reliability, and performance. Remove the need for VPN and reduce the cost of data egress from Azure and other super-scale clouds. Establish connections from your existing WAN network, such as a multiprotocol label switching (MPLS) VPN, provided by a network service provider. A one-time connection applies.

RA00C1Q Responsiv Cloud Robot Service (Optional Adapter)

Responsiv Cloud Robot Service (Adapter Version) is a fully functional RPA capability that includes Natural Language Processing, document scanning, and the ability to access systems using human-oriented interfaces. The adapter version is configured to deliver data to the Responsiv Cloud Integration Platform, or to send data from the platform to your target of choice.

RA002BM Responsiv Cloud Backup Service

Responsiv Cloud Backup Service (RC-BS) uses backup agents on the cloud platform to backup user and data on a weekly rotation. The service performs a full back up each week, followed by incremental backups each day. Data is sent to a “backup repository” to be available if requested. Each backup is stored for thirty (30) days or until the available backup storage is exhausted.

The service includes up to 6 recoveries per year. This service protects against software and hardware failure, and logical corruptions while making data available for recovery. This service may be customised to allow selected databases to be recovered to a point in time.

RT00094 Responsiv Assist Flex Support

Responsiv Cloud Integration Platform is a supported and fully managed platform. Support can be extended to “float” across all the applications you deploy to the platform. The result is that we will handle problems with the platform and work with you to recover, repair, or work around problems in your applications.

Annual agreement that allows customers to make service requests asking for help with development, designs, problem resolution, and other mentoring and support subjects. You may request support with recovering from an incident, however this service does not offer and is not strictly suitable for incident response. (See Responsiv Assist Advanced Support).

This service allows Responsiv support to extend from the platform to include user applications and other aspects of your installation.

Responsiv Cloud Platforms

Responsiv Cloud Platforms is a term used to include all platforms provided by Responsiv from one or more of our cloud hosting locations, including Azure, IBM Cloud, and AWS. Responsiv Cloud Platforms are integrated with the Responsiv Cloud Security Service for role based, federated securty, and many can be clustered to deliver a datacenter as a service.

See website for details https://responsiv.co.uk/?s=Responsiv%20Cloud

Developer and Administrator Tooling

Responsiv Cloud Integration Platform Service provides low-code, graphical, and extended SQL options to describe your integration applications.

The Responsiv Cloud Integration Platform includes a wide range of tools to accelerate development of robust connections for both popular enterprise applications (SAP, MS Dynamics, etc) as well as niche systems. A wide range of integration styles can be accommodated from the common synchronous REST through to the asynchronous publish and subscribe. A console provides comprehensive management of all the components using advanced analytics, business rules and collaboration to drive more successful, optimised business outcomes.

Integration Development

Downloadable desktop integrated development environment (IDE) with features to develop, debug, and test integrations. Tooling includes graphical elements with drag and drop in a modern and intuitive layout, which requires no previous experience with programming languages in general. Features include distributed debugging and integration data inspection.

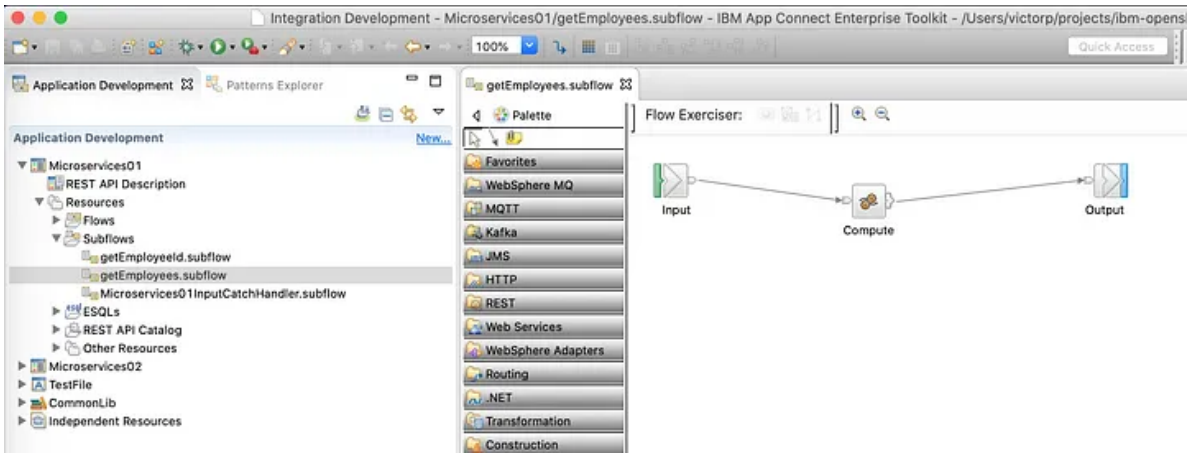


Figure 1; Integration Developer IDE illustration[2]

Developers use a low-code graphical development environment that allows them to move into Extended SQL, Java, and other languages that may be more appropriate for a particular problem, or that already exist and can be reused.

The illustration above shows an input node listening for messages arriving on a queue. The listener (input node) is configured to listen to the queue by adding the queue name and ticking a box to select how the flow will protect data in the event of a failure. The message is read and parsed into a standardised format for processing by the compute node.

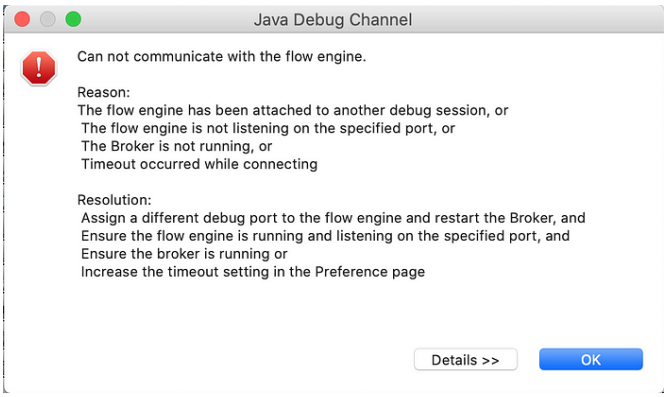
Standardised format means that the format of the input, which could be XML, JSON, Cobol Copybook, C-Header (fixed), or other) does not impact processing. The parser also deals with code page changes and big-little endian numeric.

The compute node can take many forms and perform work described using a graphical mapper or using a high-level programming language. The input message can be enriched with data from a database, file, API, or another message.

The output node is then used to write the message to one or more message queues, APIs, or other channels (See supported protocols).

Debugging is facilitated by a powerful debugger and error messages that are descriptive and useful.

The illustration is for Java. Other languages and no-code configurations are also supported.



[2] https://medium.com/@victorpaulo/debugging-ibm-ace-applications-using-kubernetes-c4b77d583907

Messaging Configuration

Browser based configuration of message queues, message security, and other messaging objects.

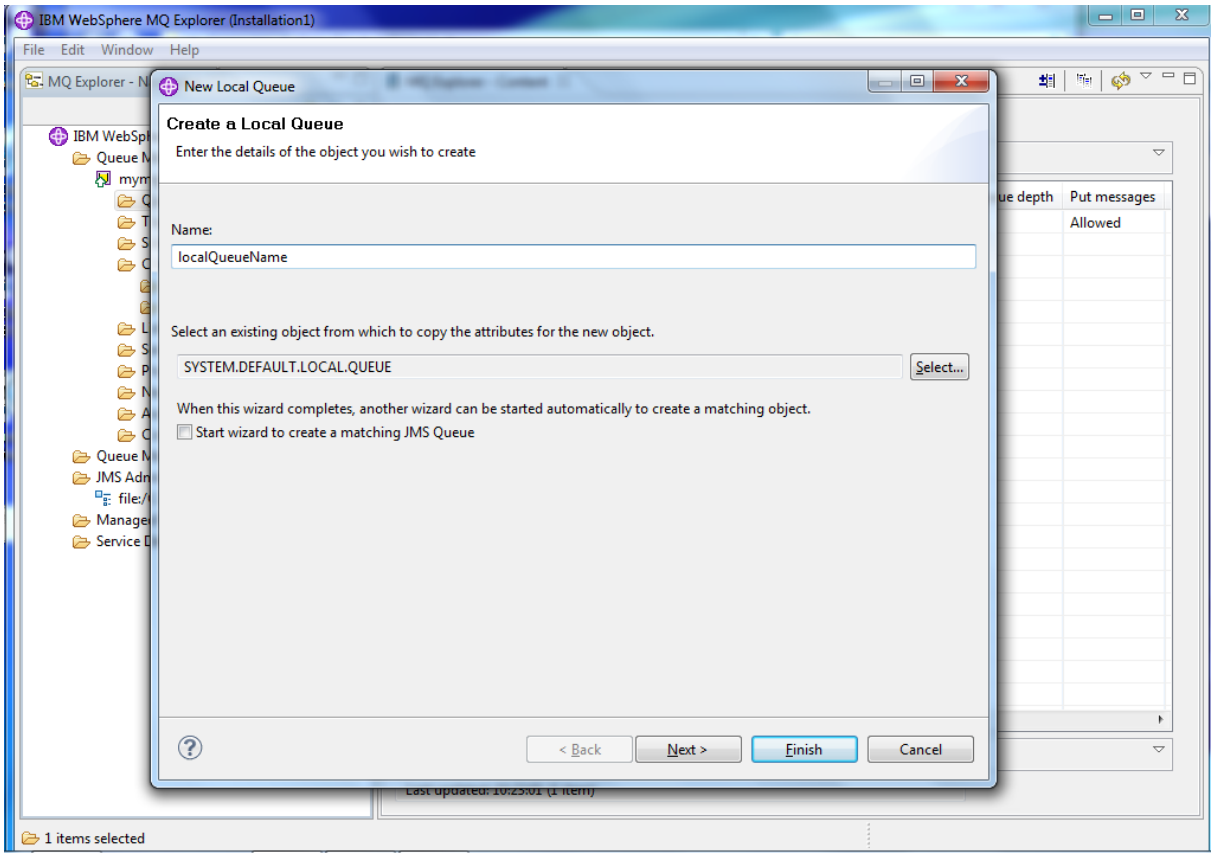


Figure 2; IBM MQ Queue Creation Dialogue[3]

IBM MQ is used in Responsiv Cloud Integration Platform to provide a fully functional XA transaction coordinator and resource manager. It provides efficient message handling but is not necessary for developers using HTTP and non-message-oriented protocols.

Performance and Tuning

You can change various aspects of your configuration to tune integration servers and message flows, and to monitor message flows and publish/subscribe applications. You can also send logging information to an Elasticsearch, Logstash, and Kibana (ELK) server, and view the data in a Kibana dashboard. Open Telemetry trace is supported for callable flows and MQ, HTTP, REST, and SOAP nodes on configured integration servers.

https://www.ibm.com/docs/en/app-connect/12.0?topic=software-performance-monitoring-workload-management

Responsiv Cloud Console Service

The service is configured using the Responsiv Cloud Console, which also provides access to the Responsiv Cloud Security Service to configure security arrangements and add local users (administrators).

[3] https://malalanayake.wordpress.com/tag/ibm-mq-client/

Supported Protocols

Connectors are used by Responsiv Cloud Integration Platform to interact with external applications and data sources. It is possible to develop custom connectors, however, there are many connectors provided out of the box.

Please note that the Responsiv Cloud Integration Platform does not warrant that all features and connectors are available from the Responsiv Platform.

Custom Connectors

Custom connectors are required to handle stateful dialogues and protocols that are not directly supported by the platform, for example, when integrating with a system developed in-house.

https://www.ibm.com/docs/en/app-connect/11.0.0?topic=connectors-overview

After you create a user-defined node for your connector, you can test it by adding it to a message flow in the IBM App Connect Enterprise Toolkit. You add a user-defined node for a connector in the same way that you would add any node to a message flow. You can use debugging and logging tools to ensure that the user-defined node is behaving as expected.

https://www.ibm.com/docs/en/app-connect/12.0?topic=connectors-testing-connector-in-app-connect-enterprise

You can connect through web services, or access data directly from a database to connect to applications. However, you can also use the connector framework to develop a connector for a specific application or technology. You can use the connector framework to build reusable connectors that are not already available, reducing the need to build these interactions manually every time you need them. A connector can encapsulate complex interactions that you would otherwise achieve by using multiple message flow nodes.

Provided Nodes and Connectors

Built-in nodes provided in the IBM App Connect Enterprise Toolkit are divided into two groups: Toolbox and Connectors.

https://www.ibm.com/docs/en/app-connect/12.0?topic=development-built-in-nodes

Toolbox Nodes

Toolbox nodes provide functions for transforming, manipulating, collating, and enhancing messages, creating subflows and callable flows, making decisions, controlling time-sensitive operations, and handling and reporting errors.

Control	Grouping	Routing	Security	Timer	Transformation
Callable flow	AggregateControl node	Filter node	SecurityPEP node	Scheduler node	Mapping node
CallableInput node	AggregateReply node	Label node	Subflows	TimeoutControl node	XSLTransform node
CallableReply node	AggregateRequest node	RouteToLabel node	Input node	TimeoutNotification node	Compute node
CallableFlowInvoke node	Collector node	Route node	Output node		JavaCompute node
CallableFlowAsyncInvoke node	GroupScatter node	FlowOrder node			ResetContentDescriptor node
CallableFlowAsyncResponse node	GroupGather node	Resequence node			
Error handling	GroupComplete node	Sequence node			
Throw node		Passthrough node			
TryCatch node					
Trace node					
Validate node					

Protocol Connectors

Connectivity nodes enable direct connections from applications and can be used to send direct requests to other application endpoints. They can also be used to connect to various subsystems including IBM MQ, files, and databases, to read and write existing application data, and to support protocols such as TCP/IP, MQTT, and HTTP.

Database	**File**	**HTTP**	**JMS**	**SOAP**
Change Data Capture node	FileInput node	HTTPAsyncRequest node	JMSInput node	SOAPInput node
Database node	FileOutput node	HTTPAsyncResponse node	JMSOutput node	SOAPReply node
DatabaseInput node	FileRead node	HTTPInput node	JMSReceive node	SOAPRequest node
DatabaseRetrieve node	FileExists node	HTTPReply node	JMSReply node	SOAPAsyncRequest node
DatabaseRoute node	FileIterator node	HTTPRequest node	JMSHeader node	SOAPAsyncResponse node
	FTEInput node	HTTPHeader node	JMSMQTransform node	SOAPEnvelope node
	FTEOutput node		MQJMSTransform node	SOAPExtract node
	IBM Sterling C:D			RegistryLookup node
	CDInput node			EndpointLookup node
	CDOutput node			
Email	**IBM ODM**	**REST**	**IBM MQ**	**CORBA**
EmailInput node	ODMRules node	RESTRequest node	MQInput node	CORBARequest node
EmailOutput node		RESTAsyncRequest node	MQOutput node	
		RESTAsyncResponse node	MQReply node	
		AppConnectRESTRequest node	MQGet node	
			MQHeader node	
			MQPublication node	
	TCPIP		**Kafka**	**IBM CICS®**
	TCPIPClientInput node		KafkaConsumer node	CICSRequest node
	TCPIPClientOutput node		KafkaProducer node	IBM IMS
	TCPIPClientReceive node		KafkaRead node	
	TCPIPServerInput node		LoopBack®	
	TCPIPServerOutput node		LoopBackRequest node	
	TCPIPServerReceive node			
			MQTT	
			MQTTSubscribe node	
			MQTTPublish node	

Enterprise Package Connections

Oracle JD Edwards	**SAP**	**Microsoft**	**Oracle Siebel**	**Salesforce**
JDEdwardsInput node	SAPInput node		SiebelInput node	SalesforceRequest (no discovery) node
JDEdwardsRequest node	SAPReply node		SiebelRequest node	
Oracle PeopleSoft	SAPRequest node			
PeopleSoftInput node				
PeopleSoftRequest node				
Discovery Nodes				
	SAP Ariba Request node			Salesforce Input node
	SAP OData Request node			Salesforce Request node
	SAP SuccessFactors Request node			Salesforce Account Engagement Request node
				Salesforce Marketing Cloud Request node

Connectivity (Discovery)

Discovery connector nodes are a subset of connector nodes that contain properties whose values are set through a process of connector discovery.

You can use discovery connector request nodes to connect to an application endpoint and issue requests to complete actions on business objects, such as creating a new contact. You can use the discovery connector input nodes to monitor an application endpoint for events and accept input when a specified event occurs.

To configure a discovery connector input or request node, you launch the Connector Discovery wizard from the property editor for the node in the IBM App Connect Enterprise Toolkit, set values for the discovered connector properties in the wizard, and then return the values to the node in the toolkit. The property values that you set in the Connector Discovery wizard are then visible on the tabs in the node property editor in the toolkit, where you can save them as part of the node configuration.

Microsoft

Microsoft Azure Active Directory Request node	Microsoft Dynamics 365 for Finance and Operations Request node	Microsoft Excel Online Input node	Microsoft Exchange Input node	Microsoft OneDrive for Business Request node
Microsoft Azure Blob Storage Request node	Microsoft Dynamics 365 for Sales Input node	Microsoft Excel Online Request node	Microsoft Exchange Request node	Microsoft Power BI Request node
	Microsoft Dynamics 365 for Sales Request node			Microsoft SharePoint Input node
	Microsoft Dynamics 365 for Finance and Operations Request node			Microsoft SharePoint Request node
	Microsoft Dynamics 365 for Sales Input node			Microsoft Teams Input node
	Microsoft Dynamics 365 for Sales Request node			Microsoft Teams Request node
				Microsoft To Do Request node

Cloud Providers

Amazon	**Google**	**IBM**	**Assorted**	**Developer Tool Integration**
Amazon CloudWatch Request node	Google Calendar Input node	IBM Cloudant Request node	Anaplan Request node	GitHub Input node
Amazon EC2 Request node	Google Calendar Request node	IBM Engineering Workflow Management Input node	Asana Input node	GitHub Request node
Amazon EventBridge Request node	Google Cloud PubSub Input node	IBM Engineering Workflow Management Request node	Asana Request node	Jenkins Request node
Amazon Kinesis Request node	Google Cloud PubSub Request node	IBM Maximo Request node	Box Request node	Jira Input node
Amazon RDS Request node	Google Cloud Storage Request node	IBM OpenPages with Watson Input node	Calendly Request node	Jira Request node
Amazon SES Request node	Google Contacts Request node	IBM OpenPages with Watson Request node	Confluence Request node	Magento Request node
Amazon SQS Request node	Google Drive Request node		Coupa Request node	MailChimp Input node
Amazon S3 Request node	Google Sheets Input node		Dropbox Request node	MailChimp Request node
	Google Sheets Request node		DocuSign Request node	Marketo Request node
AWS Lambda Request node	Google Translate Request node		Eventbrite Request node	
	Gmail Input node		flexEngage Request node	monday.com Input node
	Gmail Request node			monday.com Request node
			Shopify Input node	Oracle E-Business Suite Request node
			Shopify Request node	Oracle Human Capital Management Request node
			Slack Request node	
			Snowflake Request node	ServiceNow Input node
			Trello Request node	ServiceNow Request node
			Twilio Request node	Zendesk Service Input node
			UKG Request node	Zendesk Service Request node
			WordPress Request node	

Service Management

Responsiv manages this service, including active health monitoring, patching, upgrades, and general maintenance. The service is available 7x24.

Service Preparation

This service is prepared by adding it to a "Customer Place" and if needed, configuring the Responsiv Cloud Security Service and networks.

Service Level Agreement

is supported by Responsiv from our UK offices.

The service includes product/platform support only and is triggered by automated monitoring built into the platform or manually accessed from our website https://responsiv.co.uk/support-hub/support/.

The service level agreement (SLA) for Responsiv Cloud services (RL000F6 Responsiv Support Services Addendum v1.0) can be found here: https://responsiv.co.uk/wp-content/uploads/2023/11/TC-RL000F6-Aug2023-Responsiv-Support-Services-Addendum-v1-0.pdf. The SLA defines support available for the platform including support hours of availability, response times, severity level, Service Down definition, the claim process and other support information. Responsiv provides the Customer with the following availability service level agreement (SLA). Responsiv will apply the highest applicable compensation based on the cumulative availability of the Cloud Service as shown in the table below.

Upgrade and Patching Schedule

We expect to perform a single upgrade annually and to install security and critical patches efficiently as they become available. Patches are categorised as follows:

- Security – Patch specifically or including for a security flaw or weakness.
- Critical – Patch will be required to be applied before support attempts to resolve a problem.
- Optional – Specific function bug resolution. Optional depending on use cases.

Continuous Improvement

Responsiv does not commit to future development or support beyond our contractual obligations. Responsiv Cloud Platforms and Responsiv Cloud Services are continually developed and maintained.

New features may be provided as optional expansions to the base platform or may be installed as standard.

Format and Charging Measures

This product is available in the following formats:

- Responsiv Cloud Platform

This product supports charging by instance, registered users, and duration. Entitlements use a combination of charging measures that are appropriate to the intended purpose.

Architecture

The Responsiv Cloud Integration Platform is a cloud platform that can be connected to enterprise systems, allowing it to move data between systems and make data available through services and APIs.

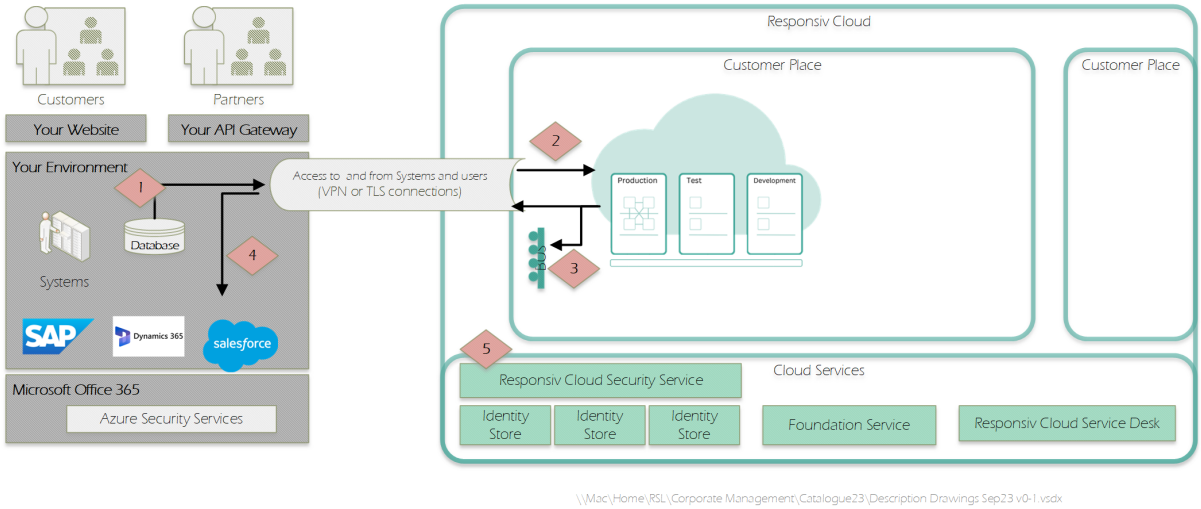


Figure 3; Illustrative overview of Responsiv Cloud Platforms

[1] Triggers on systems and databases, filesystems, email, API calls, and message products are used to start activity on the event-oriented integration platform. The event can be enriched, transformed, and pushed to a set of target destinations, re-published, or dropped.

[2] Integration Services

The integration platform uses an API layer to handle all connections with your systems and clouds. This creates a single point of control and policy enforcement. It also allows the integration software to be used to its fullest extent. Integration is developed on the IBM App Connect Enterprise (IBM ACE) software and is code compatible. Messaging services, including point to point, publish subscribe, and other patterns, is provided by IBM MQ Advanced.

[3] Integrations are made available as a consistent set of APIs (SOA, Microservices, etc)

[4] Connections to other clouds and Enterprise Systems. The platform can be connected to Azure queues and service bus as well as opensource Kafka and JMS based messaging. Many other protocols are supported.

[5] Cloud Services

The platform benefits from cloud services for security, management, monitoring, and service desk.

Artificial Intelligence (AI) and other extended functionality can be made available in a secure and managed way through the Responsiv Cloud Services.

Platform Structure

Responsiv Cloud Integration Platform is structured in three environments to allow independent upgrades and use.

Production

The production environment is configured with an "Integration cluster". Clusters provide mutual fault tolerance within themselves, and are configured to multi-path, allowing the entire environment to maintain service in the event of a component failure.

You deploy configuration changes to messaging objects, integration applications, and process applications to maintain their availability.

Development and Test Environments

Two independent environments that are available to allow user testing to continue independently of production operations and without interfering with development. Developed applications are typically promoted to user test and on to production.

Capacity

Responsiv Cloud Platform entitlements are made available based on a single measure (primary metric) to simplify purchasing and comparison with other cloud platform providers. Primary metrics used by Responsiv to size our Responsiv Cloud Platforms include concurrent or named users, rule executions per hour, transactions per hour, and volume of data. The primary metric is used to determine resource allocations for other measures to provide Customer with reasonable capacity to operate typical, reasonably efficient workloads, and dispersed usage profiles.

Specific workloads and peak usage profiles may cause the intermittently poor performance. Customer programming practices, for example high memory use, highly compute intensive work, or high latency API calls, may cause timeouts, memory exhaustion, or other instabilities. Responsiv make available expansion packs that can be used to add resources to Responsiv Cloud Platforms to reduce or avoid these problems. Responsiv Consulting provide subject matter experts to help you develop or refactor your applications to improve efficiency and reduce resource demand.

Organisations can use the platform to blend information and users to provide a 360-degree view of work.

Operational capacity can be increased without a proportional increase in staffing.

Departments that manually processes work collect metrics about the work that can be processed. Increasing available capacity by as little as 20% allows a team of five to deliver the capacity of six, saving salaries, desk space, and other costs. The approach more importantly allows the team to:

- Deal with unexpected demand (regardless of when the peak arrives) without additional costs.
- Improve customer service by improving responsiveness and accuracy.
- Generate information about the way work is completed for improved insight and audit.

Avoid recruitment cost and disruption.

Recruiting and sustaining a suitably skilled and experienced team, and matching team capacity to business demand is not simple. The undertaking can become an unwelcome distraction.

- Recruitment, training, retention, and employment costs
- Risk that in-house staff have a narrow set of experiences and reduced breadth of skills.
- Inhouse teams struggle to flex capacity and skills to match business priorities.

Development Service extends the benefits of Responsiv Cloud

Responsiv Cloud Integration Platform means that you do not need to be concerned with operating in your own datacentre and do not require maintenance skills for this technology in your infrastructure team. Our **Development Service** extends the benefits of Responsiv Cloud to include development, monitoring, and maintenance of integration and process applications that run on those cloud platforms.

Responsiv Cloud Integration Platform for Azure

Responsiv host Responsiv Cloud Platforms on dedicated cloud platforms located in secure data centres located in the UK. We recognise that some organisations that have large data volumes and for whom data movement optimisation is important.

Responsiv offer Responsiv Cloud Integration Platform as described in this description and located on Azure in a UK datacentre.

All Responsiv Cloud Platforms are actively maintained, monitored, and supported.

Access to expert resources who know your infrastructure, with options to efficiently access specialists for short periods of less than a day, or task for defined fixed price enhancements.

Related Products

This Responsiv Cloud Platform contains capabilities that are closely related to the following products and services.

IBM products, including support and subscription part numbers are listed here to help existing IBM customers to understand what this platform contains. Not all products listed are required to deploy these services.

E02AULL	IBM App Connect Enterprise Processor Value Unit (PVU) Annual SW Subscription & Support Renewal 12 Months
D56P3LL	IBM App Connect Enterprise Processor Value Unit (PVU) License + SW Subscription & Support 12 Months
E0N2MLL	IBM App Connect Professional Virtual Processor Core Annual SW Subscription & Support Renewal 12 Months
D1Q6BLL	IBM App Connect Professional Virtual Processor Core License + SW Subscription & Support 12 Months
E04NRLL	IBM App Connect Standard Processor Value Unit (PVU) Annual SW Subscription & Support Renewal 12 Months
D03S0LL	IBM App Connect Standard Processor Value Unit (PVU) License + SW Subscription & Support 12 Months
D20ZBLL	IBM Cloud Pak for Integration Virtual Processor Core License + SW Subscription & Support 12 Months
D20ZELL	IBM Cloud Pak for Integration Virtual Processor Core SW Subscription & Support Reinstatement 12 Months
E0ETHZX	IBM MQ for Non-Production Environment Processor Value Unit (PVU) Annual SW S&S Rnwl
D0ETIZX	IBM MQ for Non-Production Environment Processor Value Unit (PVU) LIC + SW S&S 12 MO
E0256LL	IBM MQ Processor Value Unit (PVU) Annual SW Subscription & Support Renewal
D55V1LL	IBM MQ Processor Value Unit (PVU) License + SW Subscription & Support 12 Months
E0Q2MLL	MQ Advanced High Availability Replica 100 Virtual Server Annual SW S&S Rnwl
D22VZLL	MQ Advanced High Availability Replica 100 Virtual Server LIC + SW S&S 12 MO
E0Q2LLL	WebSphere MQ Advanced 100 Virtual Server Annual SW S&S Rnwl
D22VVLL	WebSphere MQ Advanced 100 Virtual Server LIC + SW S&S 12 MO