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Responsiv Cloud Connect Service

RA001RD-PD

Product Description



Responsiv Cloud Connect Service

Responsiv Cloud Connect Service (RC-CS) is a network facility that can be used to connect the Responsiv Cloud to other clouds, and to private data centres. The connection is created between the two points using virtual networking to create private connections that do not pass over the public Internet.

Private connections are used to reserve minimum bandwidth for improved predictability of latency and throughput. The network traffic is not visible from the public Internet, reducing attack surfaces and improving overall security.

- Responsiv Cloud Connect Service is available in various throughput reservations from 50Mb to 1Gb between a private datacentre and the Responsiv Cloud.
- Responsiv Cloud Connect Service is available between Microsoft Azure and Responsiv Cloud. This service is available as a shared service, or dedicated bandwidth.

Several editions of Responsiv Cloud Connect Service are available to provide VPN, Azure Direct, and Private Direct connections.

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 reserves 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 provides and supports 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/licenses/mit/>

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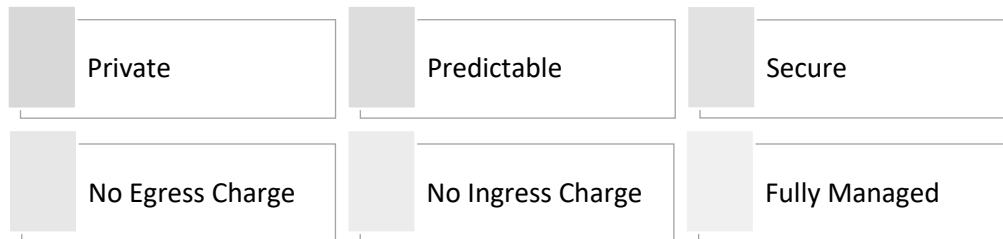
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Service Overview

Responsiv Cloud Connect Service (RC-CS) is a network facility that can be used to connect the Responsiv Cloud to other clouds, and to private data centres. The connection is created between the two points using virtual networking or private connections that do not passing over the public Internet.

Private connections are used to reserve minimum bandwidth for improved predictability of latency and throughput. The network traffic is not visible from the public Internet, reducing attack surfaces and improving overall security.

Responsiv Cloud Connect Services are available in various throughput reservations from 50Mb to 1Gb between a private datacentre and the Responsiv Cloud.



Private and Secure

All Responsiv Cloud Connect Services are secured by whitelisted Internet addressing, firewalls, and end to end mutually authenticated encryption.

Responsiv prevent network bridging by limiting the protocols and systems that are allowed to pass data across the cloud connection. This means that an administrator accessing the Responsiv Cloud Platform cannot detect or access systems that are on the other end of a cloud connection. You cannot see servers other than the bastion servers on the cloud side.

Bastion servers are any servers that are allowed to be seen or to see across the network.

Government Secure Networks

Responsiv Cloud is hosted in cloud facilities that are certified for government and NHS use.

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.

Predictable

Networks deliver demonstrably predictable performance with options to reserve bandwidth to further assure performance.

Data Egress and Ingress Charges

Responsiv do not charge for data ingress or egress from our cloud platforms. We operate a "reasonable use" policy for network bandwidth and data capacity (see terms and conditions).

Egress from Azure, IBM, and AWS clouds may incur overage charges if the base allowance is exceeded. Responsiv pass through overage charges. The overage charge is indicated in your entitlement.

Responsiv Cloud Connect Service is available in various throughput reservations from 50Mb to 1Gb between a private datacentre and the Responsiv Cloud. Responsiv Cloud Connect Service is available between Microsoft Azure and Responsiv Cloud. This service is available as a shared service, or dedicated bandwidth.

Fully Managed

All network connections to and from the Responsiv Cloud are fully managed and monitored. We offer a service preparation service to setup VPN connections; Direct Connection charges apply to physical connections.

All network connections (not VPN) are metered and monitored for quality and management purposes.

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 connections. Refer to Cloud Service Terms and Conditions for information about hosting providers.

Responsiv do not charge for data ingress or egress from Responsiv Cloud Platforms. We operate a “reasonable use” policy for network bandwidth and data capacity (see terms and conditions). Connections to public cloud platforms and services may incur data egress overage charges. Please refer to entitlement for details.

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.

Features

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

Responsiv Cloud Connect Service /VPN Edition

When Virtual Private Networks (VPN) pass across the public Internet their content is encrypted to make the contents safe. The traffic passing from place to place is visible to external parties, and the ports that are used to terminate the VPN are exposed to the public Internet.

Responsiv use mutually authenticated VPN connections to secure traffic between a single "Customer Place" and one or more white-listed Internet addresses (IP addresses). Connections from unlisted addresses are not allowed; even when the right certificates are used.

Responsiv Cloud Connect Service /Azure Direct

Connections to Azure servers and services can be connected using our private network connections that do not rely on the public Internet. Our private connections reserve minimum bandwidth for our use, leading to improved predictability of latency and throughput.

This feature connects to the UK Azure installations with a direct network and express route subscription to reduce or remove the cost of moving data in and out of the Azure cloud.

Private network traffic is not visible from the public Internet, reducing attack surfaces, avoiding denial of service attacks, and improving overall security.

<https://www.redcentricplc.com/hscn/public-cloud-connectivity-aws-azure/>

Responsiv Cloud Connect Service /AWS Direct

Connections to AWS servers and services can be connected using our private network connections that do not rely on the public Internet. Our private connections reserve minimum bandwidth for our use, leading to improved predictability of latency and throughput.

Private network traffic is not visible from the public Internet, reducing attack surfaces, avoiding denial of service attacks, and improving overall security.

<https://www.redcentricplc.com/hscn/public-cloud-connectivity-aws-azure/>

Responsiv Cloud Connect Service /Private Direct

Connections to servers in your private datacentre can be connected using private network connections that do not rely on the public Internet. Private connections reserve minimum bandwidth for our use, leading to improved predictability of latency and throughput.

Private network traffic is not visible from the public Internet, reducing attack surfaces, avoiding denial of service attacks, and improving overall security.

Responsiv Cloud Connect Service /Public Services

Connect your people and your citizens to the applications and data need wherever they may be. Redcentric can support you in the drive to streamline processes and services by seamlessly connecting your organisation to the secure public-sector networks, including Public Services Network (PSN) and the Health and Social Care Network (HSCN).

<https://www.redcentricplc.com/public-sector/psn/>

<https://www.redcentricplc.com/public-sector/hscn/>

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.

RT00094 Responsiv Assist Flex Support

Responsiv Cloud Automation 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 security, and many can be clustered to deliver a datacenter as a service. See website for details.

<https://responsiv.co.uk/?s=Responsiv%20Cloud>

Additional Connections

Connections can be arranged and installed to support high-speed, resilient, and dedicated networks between private data centres and public clouds that are located in the UK. The architecture shows how Responsiv Cloud is the natural hub with various data locations being spokes. It is also possible to connect spokes directly together.

Developer and Administrator Tooling

N/A

Supported Protocols

Connections support all protocols subject to firewall policies. Responsiv limit protocols to those that are used by Responsiv Cloud Platforms.

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

This service 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.

Format and Charging Measures

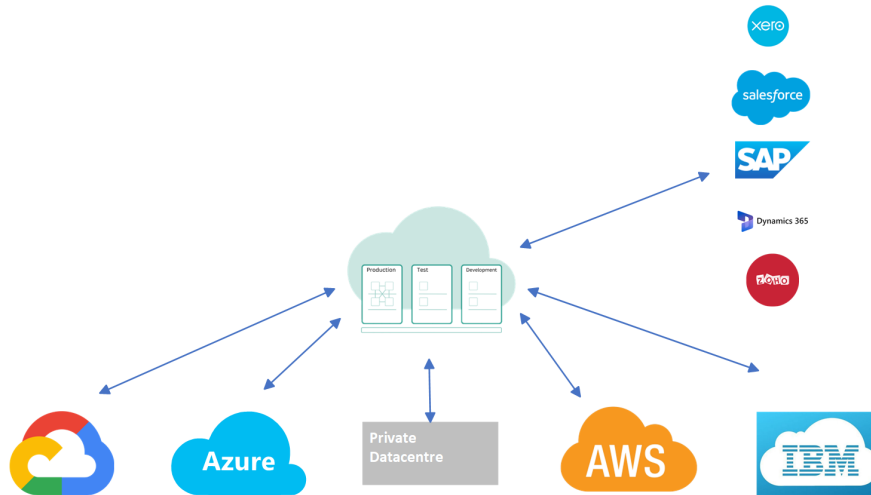
This product is available in the following formats:

- Responsiv Cloud Platform connection to other clouds
- Networking package (private use)
- Included with some Responsiv Cloud Platforms and Services.

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 Automation 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. The platform includes business process automation that can be accessed directly by users via a portal.



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Figure 1; Illustrative overview of Responsiv Cloud Platform Connectivity

All connections are bi-directional and connect between your customer place and the target cloud or datacentre. When Responsiv Cloud Integration is used to connect systems in two separate clouds, the connections can be through the Responsiv Cloud.

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

Redcentric Networks

At the heart of our network connectivity services is our dedicated MPLS core network, meticulously engineered for maximum availability and equipped with self-healing capabilities.

We provide an extensive array of business Internet access services designed to meet the diverse needs of our clients. Our network solutions offer the scalability and adaptability required to precisely deliver the right connectivity service for each location. Our customers have the flexibility to select from a spectrum of options, ranging from standard business broadband services suitable for home-based employees to dedicated 1Gbps Fibre Ethernet leased lines.

<https://www.redcentricplc.com/managed-services/networks/connectivity/>

Secure public cloud connections to Azure and AWS are available by request.

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.