consoleconnect

The definitive enterprise **connectivity guide**

For network engineers and network architects

The internet was not made **for enterprise workloads**

With over 175 zettabytes of data expected to be shifted in and around enterprise networks by 2025, data centres, both public and private, will continue to play a vital role in the hosting, computation, and management of information. An even more critical role will be played by the networks that connect these data centres together and to the organisations that rely on them.

The traditional public internet, no matter what innovations are promised, is not a private MPLS network. It cannot guarantee any sort of latency, jitter, or control over the path from source to destination. Not only that but enterprises face an ever-growing number of network security risks, such as DDoS attacks. This makes the internet an entirely unsuitable way for enterprises to connect to their private data centres and public cloud assets.

Similarly, adding multiple Dedicated Internet Access (DIA) lines to your enterprise network is not necessarily going to get you the cloud-friendly structure or cloud-optimised performance that you might be looking for.

There's also the hybrid infrastructure question. The widespread adoption of public cloud-based applications and services has resulted in a public/private mix and introduced a new and most challenging dynamic - the need to connect corporate data centres directly to assets in the cloud.

Historically, MPLS has been the go-to connectivity type.

Although MPLS is the workhorse of the WAN, it can struggle to adequately support the highly flexible nature of the public cloud because it needs a pre-configured termination point and end-to-end bandwidth management. This is easily done in the corporate data centre and sufficed when heavy applications were all backhauled through a managed network to a central site, but since the public cloud is owned and operated by other organisations, deploying appliances is not an option and neither is managing the bandwidth on other organisations' networks. Or it wasn't until recently...

Matching cloud agility **with console connect**

This is where Console Connect comes into its own, allowing your network connectivity to match the agility of a cloud network or service by scaling up and down and moving around various workloads using your own separate and dedicated MPLS network.

Think of it as MPLS without the downsides. MPLS can be quite the behemoth - very capable but very slow moving. As a result, the network operations team tends to buy exactly the capacity they need over a multi-year term, without any form of buffer for future traffic demand. They will then use hierarchical application and service rules to ensure critical traffic is prioritised.

This means that MPLS typically brings with it a cost that runs for years, after which an enterprise may or may not renew. But the level of connectivity or capacity acquired may be plain wrong for a long period of time. The same is true of flexibility - companies probably don't need to be flexing bandwidth all the time, but every so often they need to adjust their capacity.

Driven by the power of SDN, with a level of flexible capability missing from the internet, Console Connect makes an MPLS network easier on the budget because you're only paying for what you are using.

Example: Data backup

A multinational enterprise wants to connect its Johannesburg data centre to its Sydney data centre at 1Gbps to perform data backup throughout the week. It can increase to the bandwidth it needs for that one week, before returning to 100Mbps to meet its normal traffic level requirements. Console Connect gives the enterprise exactly that flexibility, in a click "on" click "off" style.

A growing appetite for **temporary connections**

Demand for high capacity access to data centres is often temporary. Let's say you need to get access to a SaaS provider for a couple of weeks to run certain accounts or functions. If you were to do this over a static enterprise WAN it could be difficult, especially if you do not have a presence in the data centre required. This is where Console Connect really starts to shine, as a form of short term connectivity that might just be needed for a couple of hours, days or weeks. Furthermore, connections are a seamless extension of your existing MPLS network and when no longer required, you can scale the service back down or even disconnect it completely.

The beauty of Console Connect is that you are running this connectivity on an MPLS network and what you're getting is the vast majority of advantages of a dedicated MPLS network, but with more agile capabilities.

The reason Console Connect is able to get things done a lot faster is that it takes care of all of the activity 'behind the curtain' on your behalf. Using Console Connect's own MPLS network, Console Connect applies a layer of abstraction to set up and tear down dedicated connections on that network using SDN. Console Connect takes a lot of the problems away from connecting data centre to data centre and allows you to scale up your bandwidth between data centres in near real-time.

Example: Rendering large volumes of video content

A digital media company that creates its own video content needs to connect its office in London, where it creates the raw footage, to a server farm in a data centre in the US. The company has a very large volume of data to shift, so using Console Connect, they spin up a 1Gbps connection for a few weeks to transfer all the data from London to the US. Then they scale the connection back down for a few weeks while the videos are rendered at the US server farm. When the videos are finished, the company can scale the bandwidth back up to transfer the data back and then dial it down once again to something more appropriate for the day-to-day.

With a dedicated link set up over Console Connect, your public cloud instance will effectively appear as an additional site on your IP VPN, extending private connectivity all the way to the cloud service. As a result, your public cloud asset essentially becomes an extension of your WAN and data centre. The dedicated MPLS connection ensures that no data to or from the public cloud passes over the public internet. This also means you benefit from consistent throughput and latency, making it an excellent option for rapid data backup and recovery.

Resilience **is key**

Console Connect delivers a simple-to-deploy, flexible and affordable way to connect to cloud-based applications, partners, IT infrastructure and the world's major cloud hosting services. The network's global reach spans over the majority of countries and interconnects hundreds of data centres, leveraging the MPLS network, which is physically separate to the public internet and features an uncontended, highly resilient and redundant core network with multiple low-latency paths between countries.

While you may understand that you have an MPLS link from your data centre to any point into the network, understand that the rest of the MPLS network that Console Connect sits on means you have a layer of redundancy that can only offered by an international carrier. It's not just a fixed point-to-point connection.

What Console Connect gives you is a connectivity mechanism between data centres and private and public clouds. It acts like an exchange between these assets, or your own personal Ethernet cable strung between, for example, a data centre in London and a data centre in New York, by way of the public clouds that are present in those locations. This enables you to run a seamless multi cloud and hybrid cloud strategy at the same time. This means you can keep sensitive work in a private data centre and then connect that up to other offices, your corporate LAN or into a public cloud such as Amazon Web Services (AWS).

Console Connect enables you to do all of this rapidly and under your own control. The days of knowing that you need to order an upgrade link for a couple of hundred Mbps and calling your account manager are over.

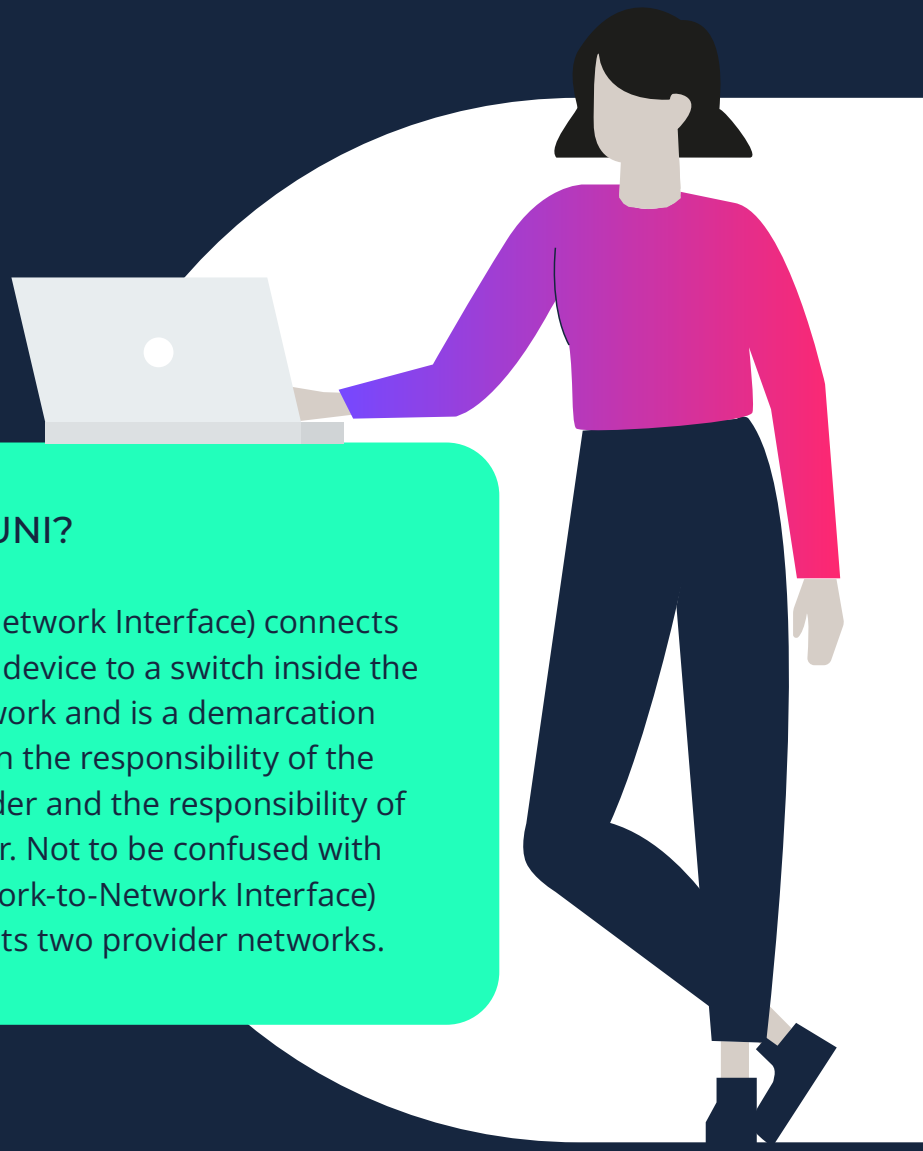
It used to be that you would make the call, they will send you an order to sign, and then you will get your people to countersign and then you're looking at four or five weeks from your need date to being able to actually implement it.

Having to wait four to five weeks to scale your network is no longer a problem engineers have to worry about. With Console Connect this also has commercial implications, because every minute that you don't have to run your increased bandwidth is a minute you can dial it back down and avoid paying for it. The live pricing calculator lets you price up connectivity instantly.

How to connect to **Console Connect**

Console Connect abstracts much of the complexity of connectivity and uses its network to connect to data centres around the world. All you need is an on-ramp to any one of the on-ramp data centres.

Using an SDN-powered orchestration layer, Console Connect sets up UNI-to-UNI Ethernet interfaces between multiple points. Let's say you've ordered 1Gbps in capacity and you have a port in London, another in Johannesburg and another in New York. You can then string a 100Mbps link between London and Johannesburg, a 100Mbps link between London and New York and the remaining 800Mbps between Johannesburg and New York. As long as you don't go over the 1Gbps port capacity, you're able to use that bandwidth however you want - it's a separate dedicated MPLS network within your own.



What is a UNI?

A UNI (User-Network Interface) connects a user access device to a switch inside the provider network and is a demarcation point between the responsibility of the service provider and the responsibility of the subscriber. Not to be confused with an NNI (Network-to-Network Interface) which connects two provider networks.

Dedicated connectivity **to the public cloud**

As well as being able to create your own connection points between assets, each major cloud provider also has its own flavour of dedicated internet-bypass connectivity, directly accessible on Console Connect.

Naturally, each of the direct connection services for public clouds has its own terminology, but they all do the same thing - connect you directly to their cloud services. AWS has Direct Connect; Google Cloud has Google Cloud Interconnect; and Microsoft Azure has ExpressRoute.

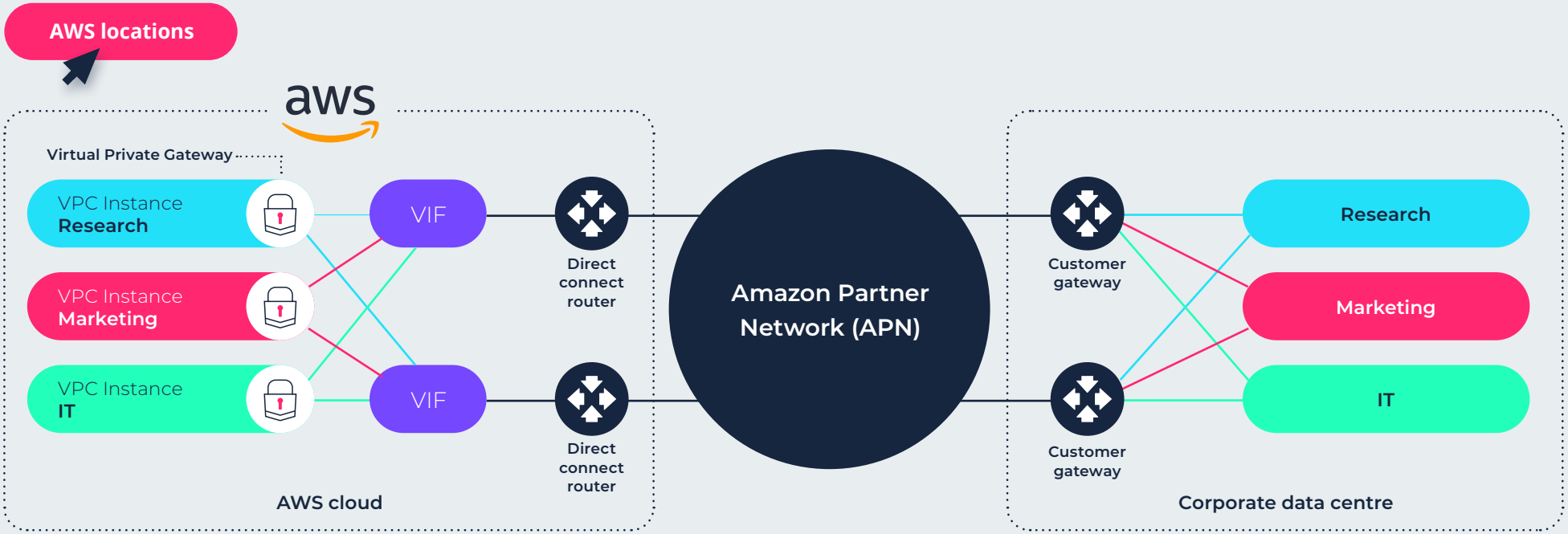
Directly connect to major cloud platforms, including Amazon Web Services, Microsoft Azure ExpressRoute, Google Cloud Platform, IBM Cloud and more, from any of our growing number of **data centre locations** in 50+ countries.

See the video on how Console Connect enables your connectivity to the cloud.

Connect to **Amazon Web Services (AWS)**

The AWS Direct Connect locations listed below are the colocation facilities where the interconnects are provisioned.

Maximise the potential of your AWS instance with Console Connect. Get real time access to low-latency and secure direct connectivity from Console Connect's leading MPLS network, which spans more than 150 countries around the globe.



AWS Direct Connect detailed view

Connect to **Microsoft Azure**

The Microsoft Azure locations listed below are the colocation facilities where the interconnects are provisioned.

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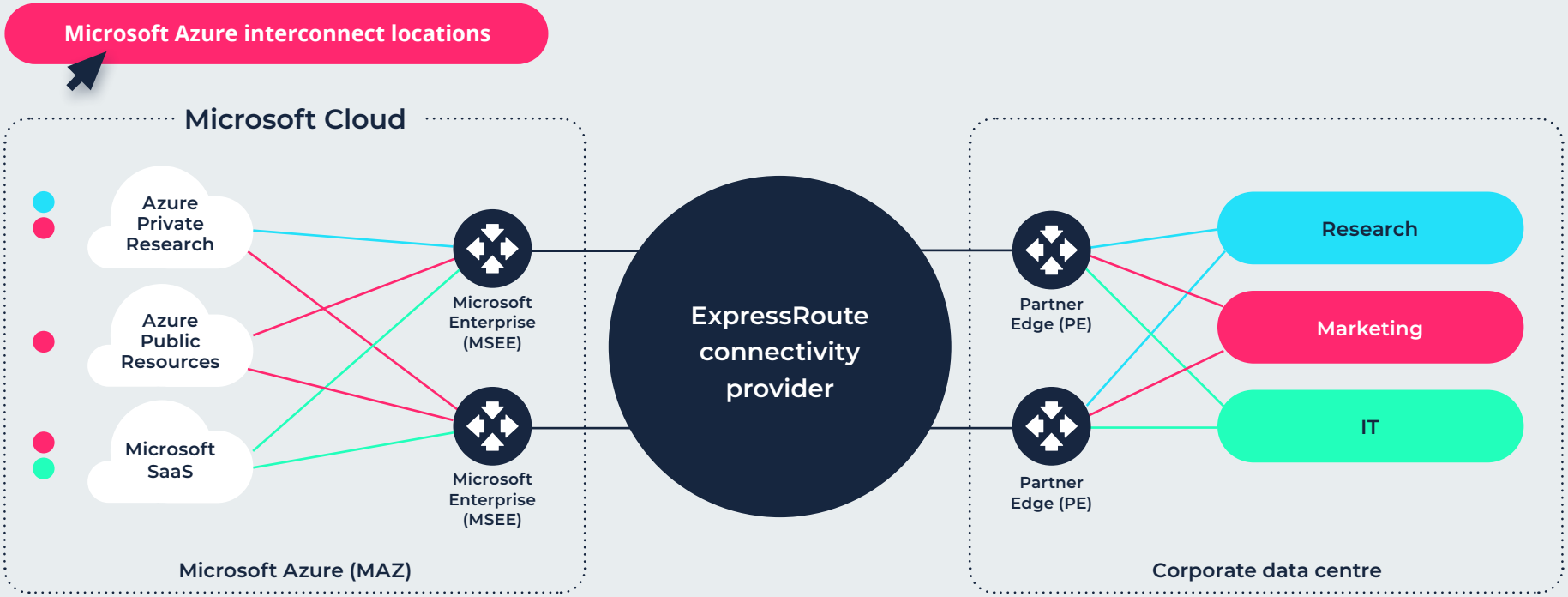

Azure ExpressRoute Interconnection Model

Connect to **Google Cloud**

The Google Cloud locations listed below are the colocation facilities where the interconnects are provisioned.

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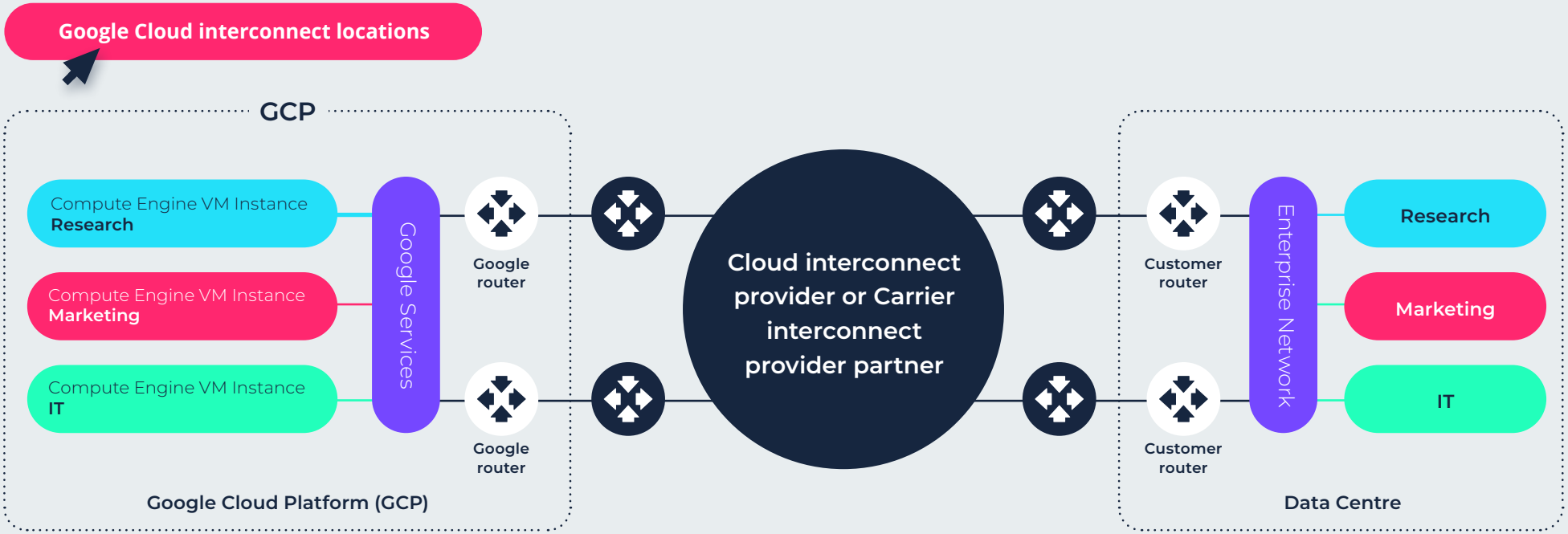

The Redundant Google Cloud Interconnect Model

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How do I **sign up?**

- Take control
- Cut complexity
- Make interconnection effortless

Easy as a click! Try it for free:
Register now

Australia
Level 3 | 200 Mary Street | Brisbane QLD 4000 | Australia

United Kingdom
7/F 63 St. Mary Axe | London EC3A 8AA | UK

France
2/F 16 rue Washington | 75008 Paris | France

Greece
340 Kifisias Avenue/340 Olimpionikon | Neo Psychiko 154 51 | Athens | Greece

Germany
Schillerstr. 31 | 60313 Frankfurt/M. | Germany

United States
475 Springpark Place | Suite 100 | Herndon | VA 20170 | USA

Singapore
6 Temasek Boulevard | #41-04A/05 | Suntec Tower Four | 038986 | Singapore

Hong Kong
20/F, Telecom House | 3 Gloucester Road | Wan Chai | Hong Kong

Japan
3/F Marunouchi Mitsui Building | 2-2, Marunouchi 2-chome | Chiyoda-ku | Tokyo 100-0005 | Japan

South Africa
Building 12 | 1 Woodmead Drive | Woodmead | Johannesburg 2191 | South Africa

UAE, Dubai
Office 504 & 505 | Level 5 | Arjaan Business Tower | Dubai Media City | Dubai

Have other questions we didn't cover?

Join our community of experts.

www.consoleconnect.com
Talk to us: sales@consoleconnect.com