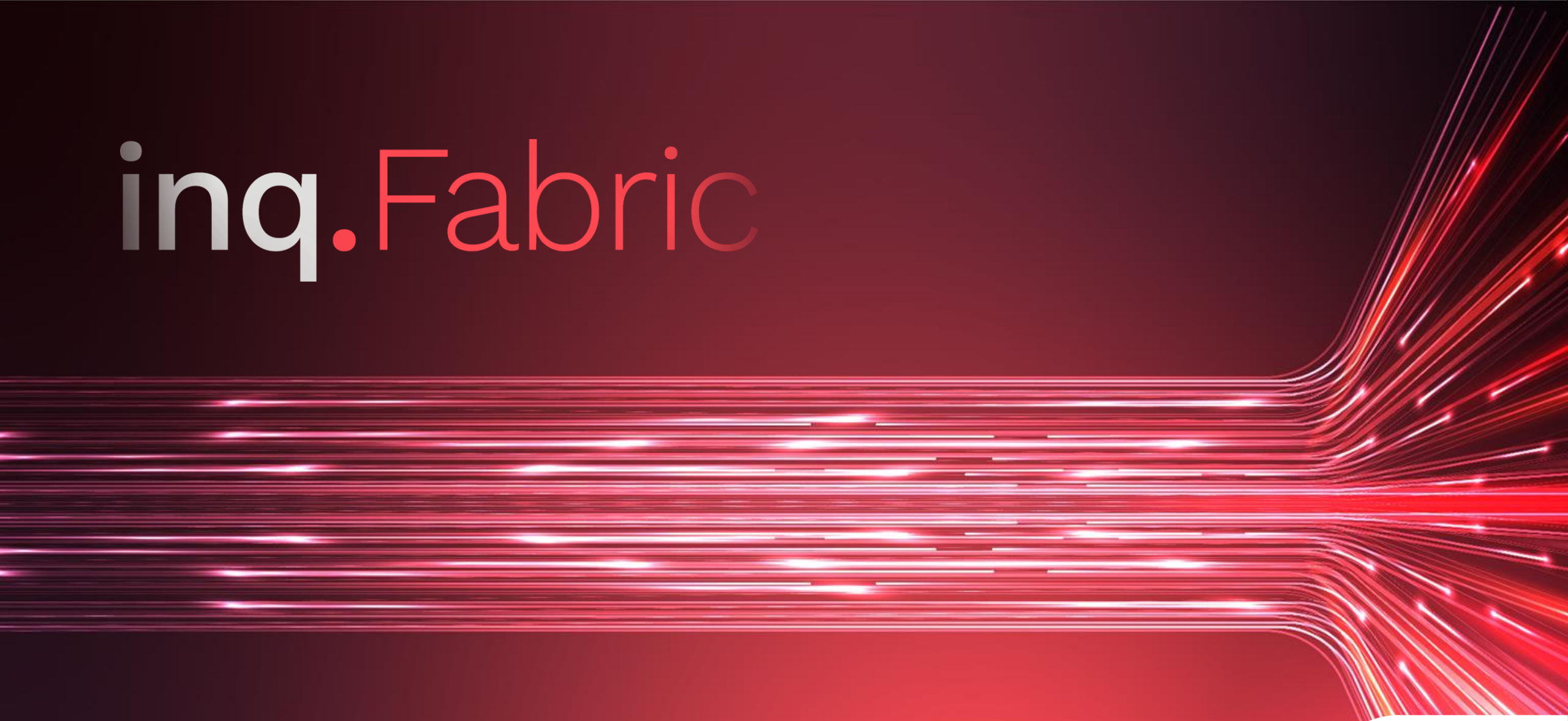
inq.Fabric

Simpler. Seamless. Solutions.



Meet the Presenter

Goodall Salima

Solutions Architect

BSc Computer Science

MSc Innovation

What is inq.Fabric?

inq. Fabric is a Software Defined Cloud and Data center Connectivity solution delivering automated provisioning and routing. We isolate traffic from the public internet and deliver stringent privacy and security policies required by today's businesses.

PORT

How does it work?

PoP Locations

- **10 Initial locations** (Johannesburg, Cape Town, Botswana, Malawi, Zambia, Kenya, Nigeria, Cameroon, CIV, UK)
- **Locations** classified into Regions, Countries/State/Provinces and Data centers
- **Regions:** Africa North, Africa West, Africa East, Africa South

PORT

How does it work?

Capacity

Currently, we are offering 1GB Port with plan to support 10GB ports in future. This resource will be available in all PoP locations listed

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Products

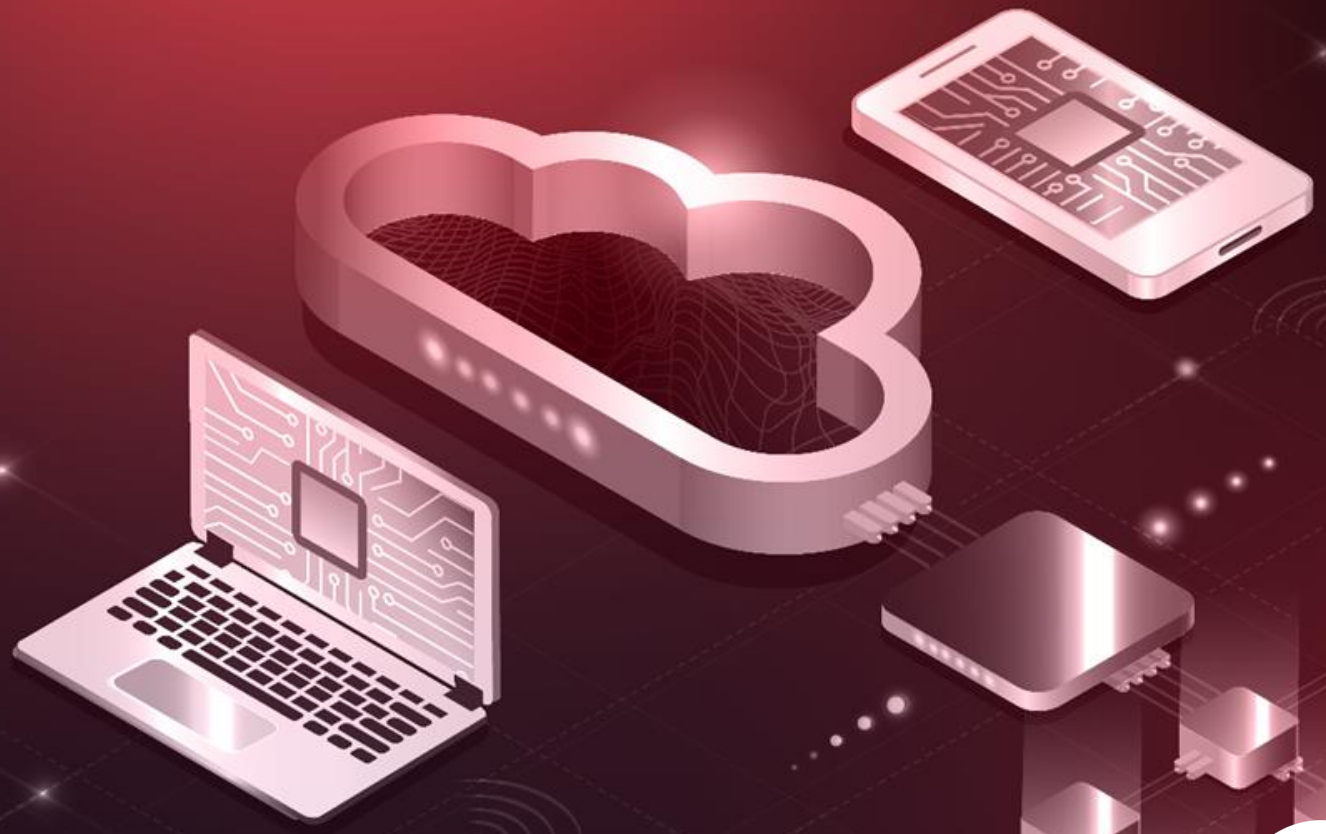
Cloud Connectivity

Hybrid Cloud Connectivity

Connecting on premises private infrastructure to either own private cloud or public cloud

Multi Cloud Connectivity

Connecting customer cloud applications to multiple cloud service providers



Data Centre Connectivity

Data Centre Connectivity

Direct connectivity to independent Data Centres across the globe delivered on a dedicated network

XaaS Connectivity

Direct connectivity to pre integrated XaaS providers delivered on a dedicated network

Why now?

inq. is positioned to overcome the African Barriers by offering the SDN Fabric.

Lack of Skills

inq. offers SDN Fabric products that do not require engineering expertise to launch complex technologies

Insufficient Investment

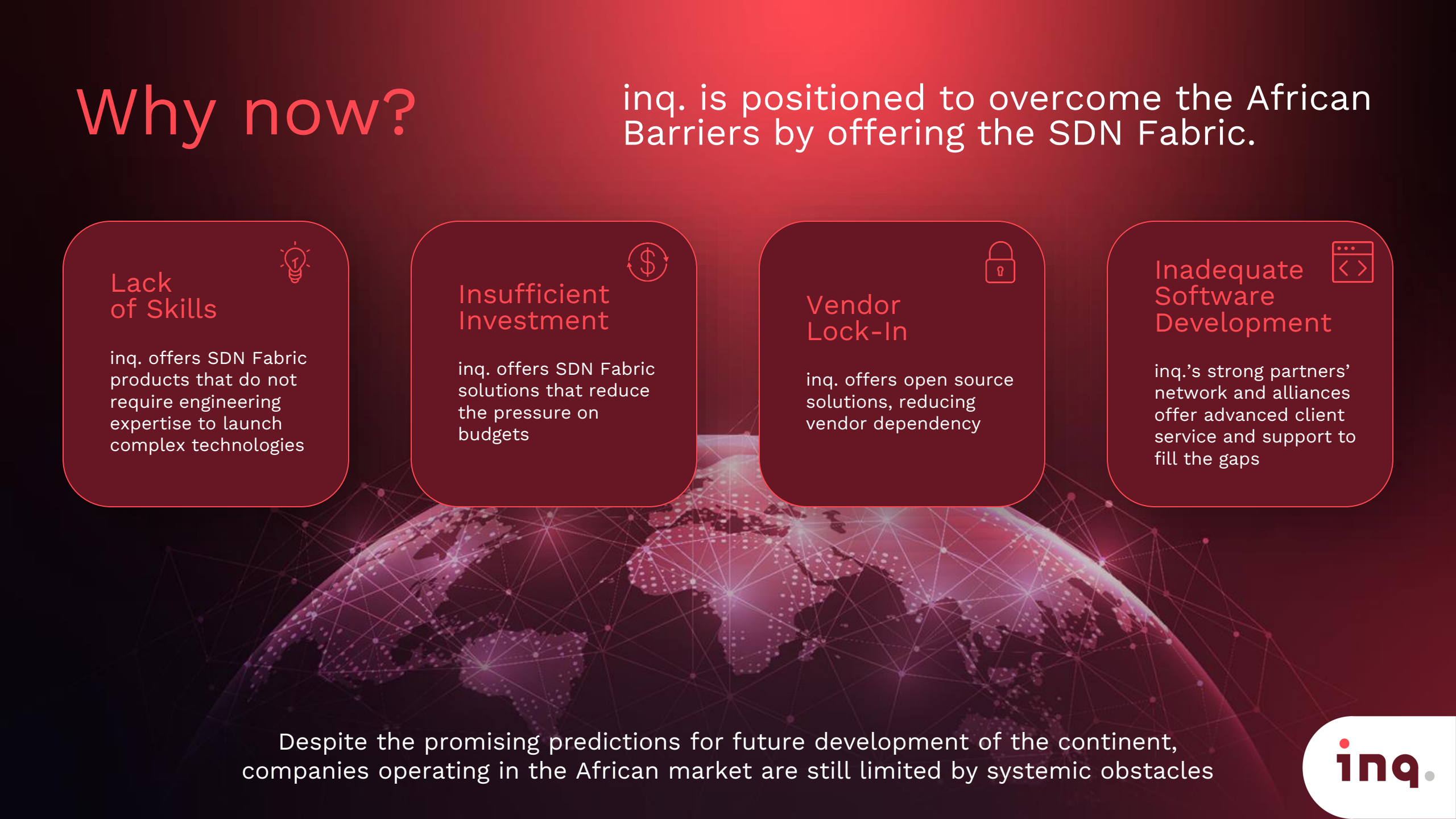
inq. offers SDN Fabric solutions that reduce the pressure on budgets

Vendor Lock-In

inq. offers open source solutions, reducing vendor dependency

Inadequate Software Development

inq.’s strong partners’ network and alliances offer advanced client service and support to fill the gaps



Despite the promising predictions for future development of the continent, companies operating in the African market are still limited by systemic obstacles

Value Proposition

Network as a Service (NaaS)

For multi cloud connectivity to AWS, Microsoft Azure, GCP and to other cloud providers.

Enterprise DC to DC connectivity.

Performance

Low latency private connections.

Lower TCO

due to reduced connectivity prices and operations

Security

bypass public internet and reduce security threats

Full SLA

covering availability management and monitoring, troubleshooting, etc.

Single Unified Interface

through the inq. Control Platform

Target Client Profile

Multinationals with branches in Africa of independently owned franchises

Global Multinationals
requiring reach into Africa

Cloud Connectivity
Customers with multiple branches and workloads in the cloud

Qos and Performance
Multinationationals requiring QoS of specific applications

Verticals
As an overlay hyperconnectivity, its applicable to customers in all verticals

Benefits

Lower TCO

due to reduced connectivity prices and operations

Performance

Improved User experience (low latency)

Secure

bypass public internet and reduce security threats

Manage Connections

due to reduced connectivity prices and operations

Reduced Risk

lowers human error

Efficient

Shorter time to service

Thank you

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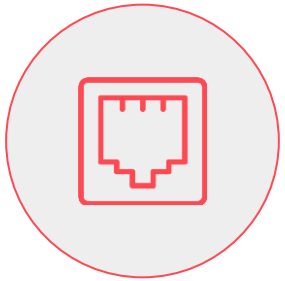
Software defined cloud interconnect solution
delivering automated provisioning and routing

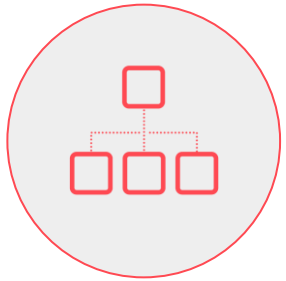
inq.

inq.Fabric Resources



Port

Fabric Cloud Router (FCR)



Connection (FXC)

PORT

How does it work?

1

Clients select the PoP Location (Region - Data center), select Port Capacity and Order the Port. If Port is available in selected PoP, a PDF will be downloaded which specifies the Port details for clients to physically connect from their existing infrastructure/on-premises

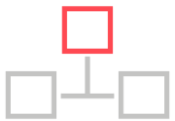
2

Once the physical connection is done, Port will become Active which is ready for adding FXCs to other resources

PORT

How does it work?

3



Each Port will have VLANs 2-4093 available for its connections. Every connection on a port will be delivered as a VLAN to the user. VLANs are locally significant to the Port

4

While ordering the port, clients can select High-Availability to have redundancy. In this case, two physical connections will be made from their on-premises to the PoP with LACP trunk

PORT

Detailed States

Action	Deployment State	Operational State
1. Customer Click on Create Port	Provisioning	Inactive
2A. Backend has ports available, Automation gives success and generate LOA S3 Link	Provisioning > Deployable	Inactive
- If 2A succeeds, Customer downloads LOA, and send email to support team for physical connection from their office.	Deployable	Inactive
- Support team makes physical connection and send email to Dev team to activate the port. It is Manual state change.	Deployable > Deployed	Active
2B. Backend has NO ports	Provisioning > Error	Inactive

FCR

How does it work?

PoP Locations

- 3 locations (Johannesburg, Kenya, Nigeria) out of 10 will be designated as Role: Gateway in the backend. These will be closer to Cloud exchanges, IP transit

1. Clients will select the FCR Location (Region->Data center) among the 3 locations and Order the FCR.

2. FCR is logically a VRF on virtual routing infrastructure. FCR resource will be available immediately for use.

3. With FCR, clients can build the hierarchical networks like Hub-Spoke as per their need.

CONNECTION/FXC

How does it work?

Following FXCs are possible in the portal

- Port → Port
- FCR → FCR
- Port → FCR
- Port → Cloud (Hybrid Cloud)
- FCR → Cloud (Multi-Cloud)
- Port → XaaS (Meet Me)

Each Connection/FXC can be of type Standard or Premium

Standard: We use regular Internet (with security) to move traffic between resources. Low cost, will work for specific apps that needs connectivity like DC backup. Best effort.

Premium: We use Private network Infrastructure to move traffic between resources. More cost, SLA backed, will work for business critical apps.

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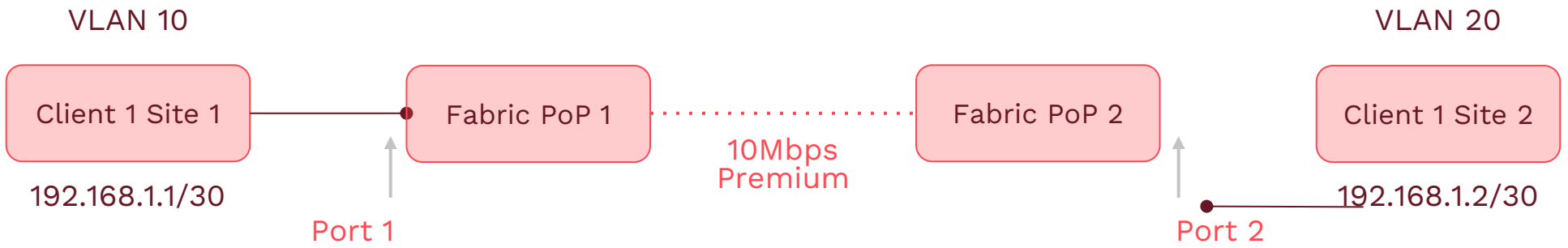
Connections

CONNECTION
Port to Port (1 P2P Link)

Use case

Clients can have Layer 2 (Point-to-Point) connection between different sites



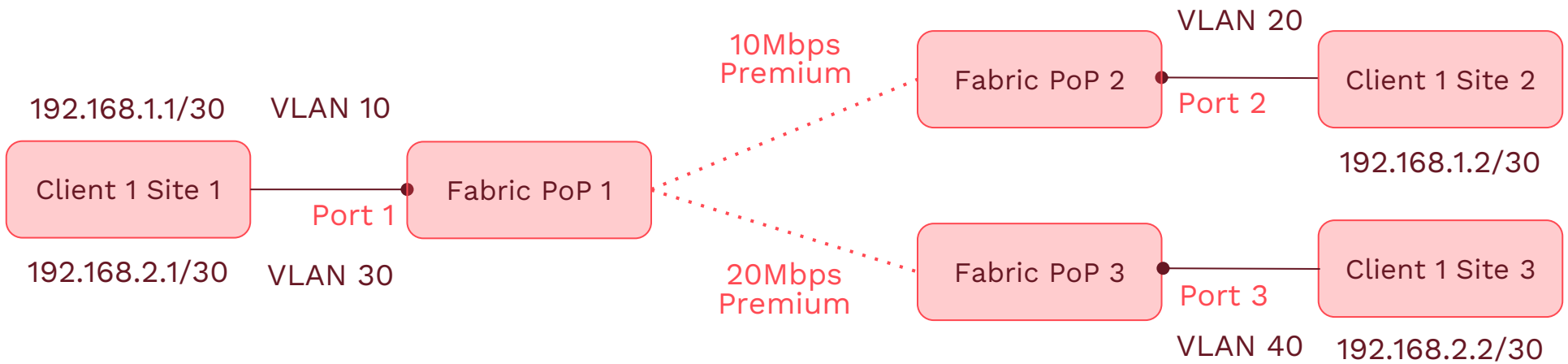
Steps

1. Client will order Port in PoP1.
2. Client will order Port in PoP2.
3. Client will Add new connection with source as PoP1 and destination as PoP2 by specifying parameters like Bandwidth, link-type (standard or Premium). Optional VLANs can be specified at both ends.
4. In case of Premium link-type, clients will be displayed with SLA and other redundancy options available.
5. Once clients clicks on Submit, subject to Bandwidth availability, a new virtual link will be created between two locations.
6. Clients can configure same Layer 2 subnet across both locations. This will ensure clients can manage their own routing or dedicated circuits between branches to HQ.

CONNECTION
Port to Port (2 P2P Link)

Use case

Clients can have Layer 2 (Point-to-Point) connection between different sites



Steps

1. In addition to previous use case, client wants to add one more P2P link between PoP1 and PoP3.
2. Client will order a port in PoP3.
3. Client will order a new connection with source as PoP1 and destination as PoP3 with parameters of choice.
4. A new virtual connection will be created between these locations. This connection will have its own subnet.
5. Since each virtual connection on a port will have its own VLAN assigned from a pool of VLANs 2-4093, technically 4092 connections are possible per port.
6. As seen above, each P2P link can have 2 different VLANs at either end as per design/availability but however will be on same logical Layer 2 segment with same subnet IP at either end per P2P.

CONNECTION
FCR to FCR (Single)

Use case

To interconnect VRF (logical routers) between different sites

Steps

1. Client will order FCR in PoP1.
2. Client will order FCR in PoP2.
3. Client will Add new connection with source as FCR1 and destination as FCR2 by specifying parameters like Bandwidth, link-type (standard or Premium).
4. In case of Premium link-type, clients will be displayed with SLA and other redundancy options available.
5. Once clients clicks on Submit, subject to Bandwidth availability, a new virtual link will be created between two FCRs.
6. Clients can configure same Layer 2 subnet across both FCRs.
7. We can add BGP peer on the connection to establish BGP Peering and exchange of Routes between FCRs.

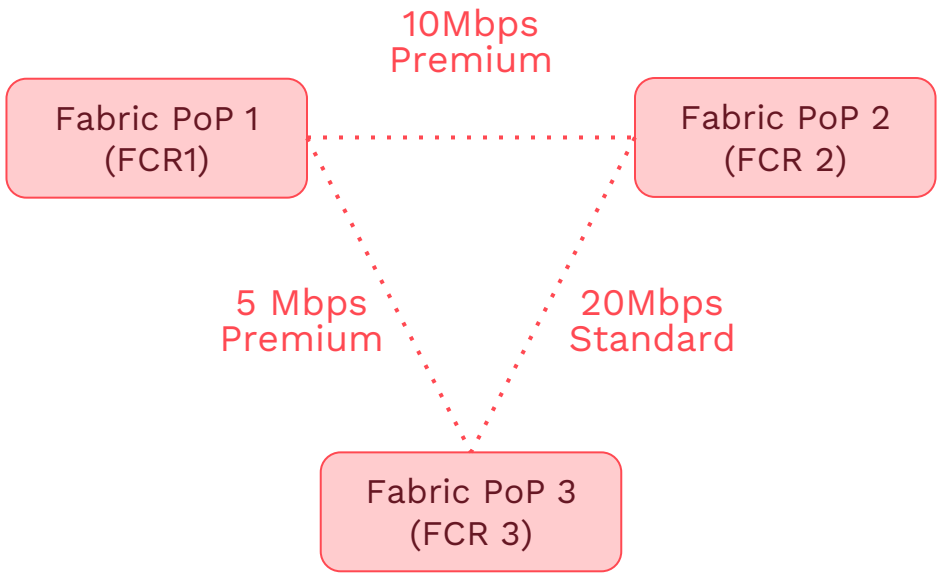
CONNECTION
FCR to FCR (Triangle Topology)

Use case

To interconnect VRF (logical routers) between multiple sites as per requirement

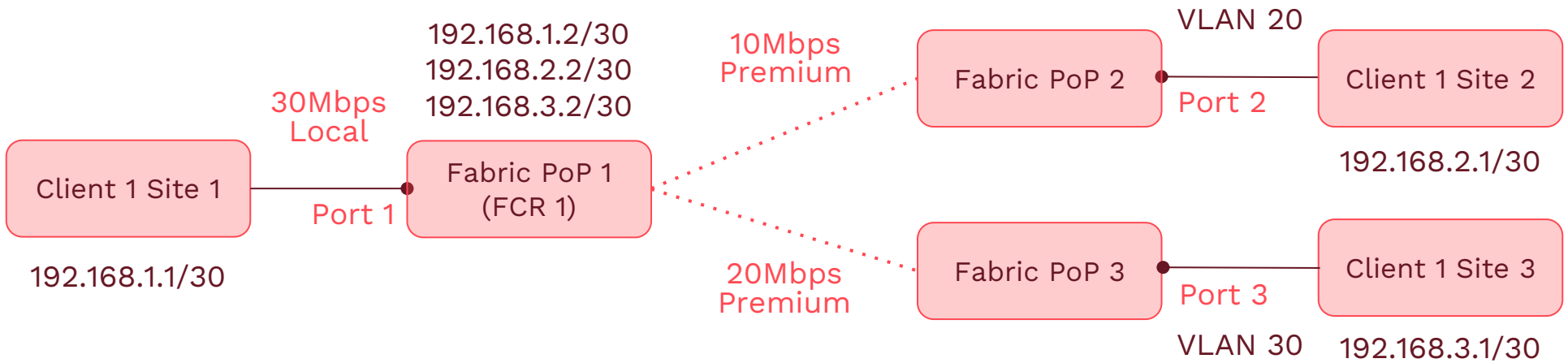
Steps

1. Client will order FCR in PoP3.
2. Client will Add new connection with source as FCR1 and destination as FCR2 by specifying parameters like Bandwidth, link-type (standard or Premium).
3. Client will Add new connection with source as FCR1 and destination as FCR3 by specifying parameters like Bandwidth, link-type (standard or Premium).
4. Client will Add new connection with source as FCR2 and destination as FCR3 by specifying parameters like Bandwidth, link-type (standard or Premium).
5. In case of Premium link-type, clients will be displayed with SLA and other redundancy options available.
6. Once clients clicks on Submit, subject to Bandwidth availability, a new virtual link will be created between two FCRs.
7. We can add BGP peer on the connections to establish BGP Peering and exchange of Routes between FCRs.



CONNECTION
Port to FCR

Use case
To enable Layer 3 routing between sites



Steps

1. Order Ports in PoP1, PoP2, PoP3.
2. Order FCR in PoP1.
3. Order connection between Source: Port1 to Destination: FCR1 with bandwidth, link-type parameters, subnet.
4. Order connection between Source: Port2 to Destination: FCR1 with bandwidth, link-type parameters, subnet.
5. Order connection between Source: Port3 to Destination: FCR1 with bandwidth, link-type parameters, subnet.
6. We can add BGP peer on the connections to establish BGP Peering and exchange of Routes between Client sites and FCR.
7. All 3 sites are now connected via Layer 3 routing.

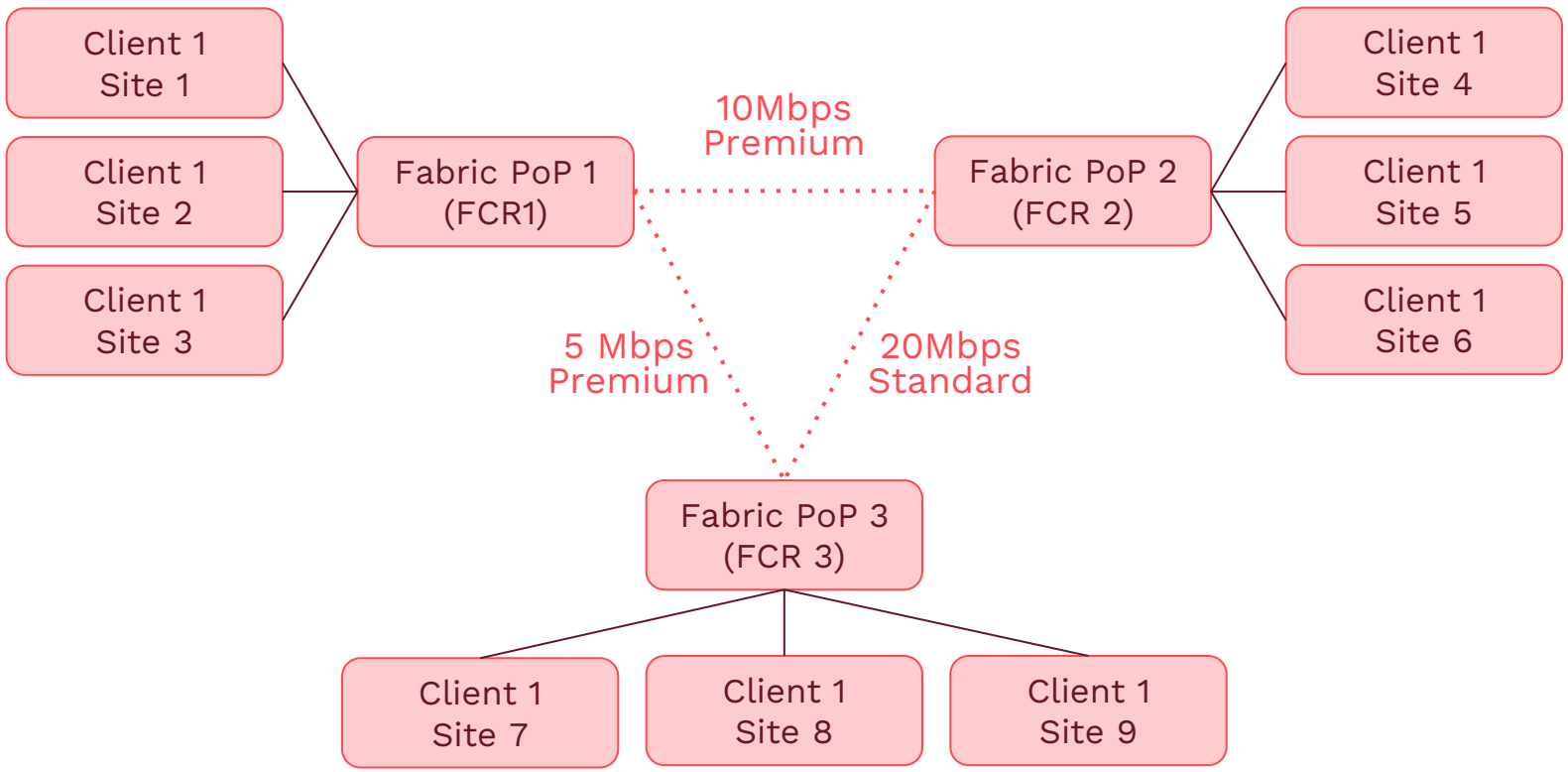
CONNECTION
Port to FCR (Large Topology)

Use case

Hierarchical Routing between multiple sites across different geographies

Steps

1. In case of multiple sites and routing requirements, clients can order FCRs, Ports and order connections between FCRs and Ports as per their needs.
2. Example: FCR1 is in Johannesburg, FCR2 in Nigeria, FCR3 in Kenya. All Client sites closer to these locations can create Port-FCR connections to the nearest FCR.
3. On each link BGP can be established so that routes are exchanged end-to-end within the client context.
4. Each client VRFs are isolated and hence end-to-end security and isolation is possible.



CONNECTION
Port to Cloud (Hybrid Cloud)

Use case

Clients can have Layer 2 (Point-to-Point) connection between site and cloud

Steps

1. Client will order Port in PoP1.
2. Client will Add new connection with source as PoP1 and destination as Cloud (Ex: AWS) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
3. In case of Premium link-type, clients will be displayed with SLA and other redundancy options available.
4. Once clients clicks on Submit, subject to Bandwidth availability, a new virtual link will be created between site and cloud.
5. Clients can configure same Layer 2 subnet across site and cloud. This will ensure clients have dedicated circuits between site and cloud.

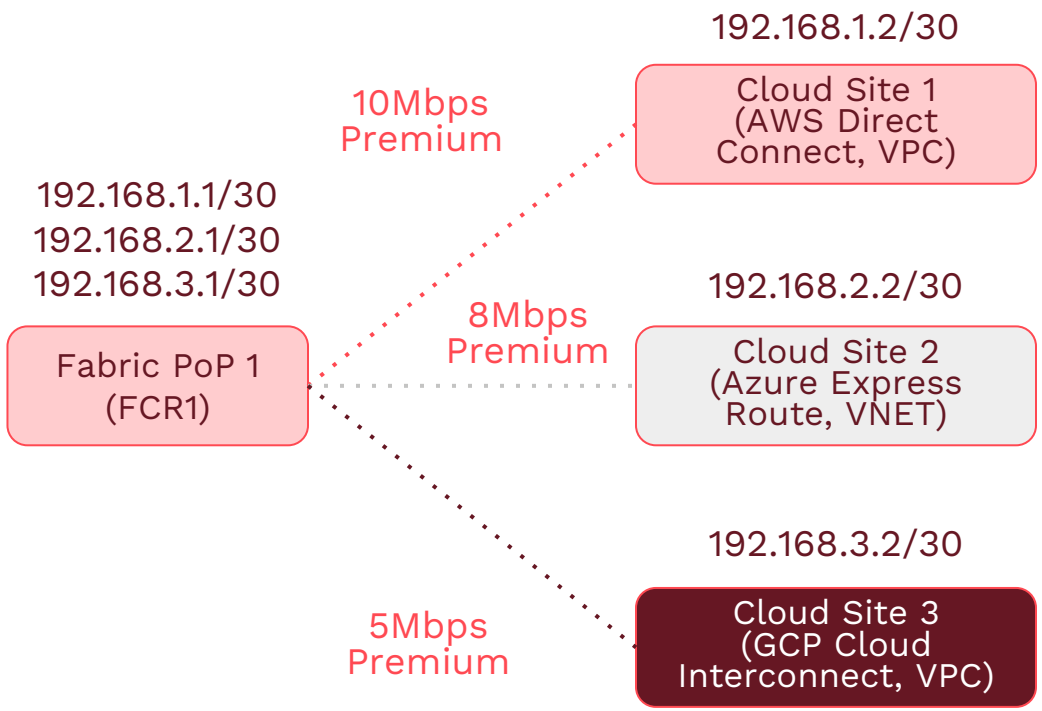
CONNECTION
FCR to Multi-Cloud Connectivity

Use case

To interconnect VRF (logical routers) between multiple sites as per requirement

Steps

1. Client will order FCR in PoP1.
2. Client will Add new connection with source as FCR1 and destination as Cloud (Ex: AWS) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
3. Client will Add new connection with source as FCR1 and destination as Cloud (Ex: Azure) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
4. Client will Add new connection with source as FCR1 and destination as Cloud (Ex: GCP) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
5. This will enable Layer 3 routing between all clouds via the FCR providing low latency and reliable connectivity.



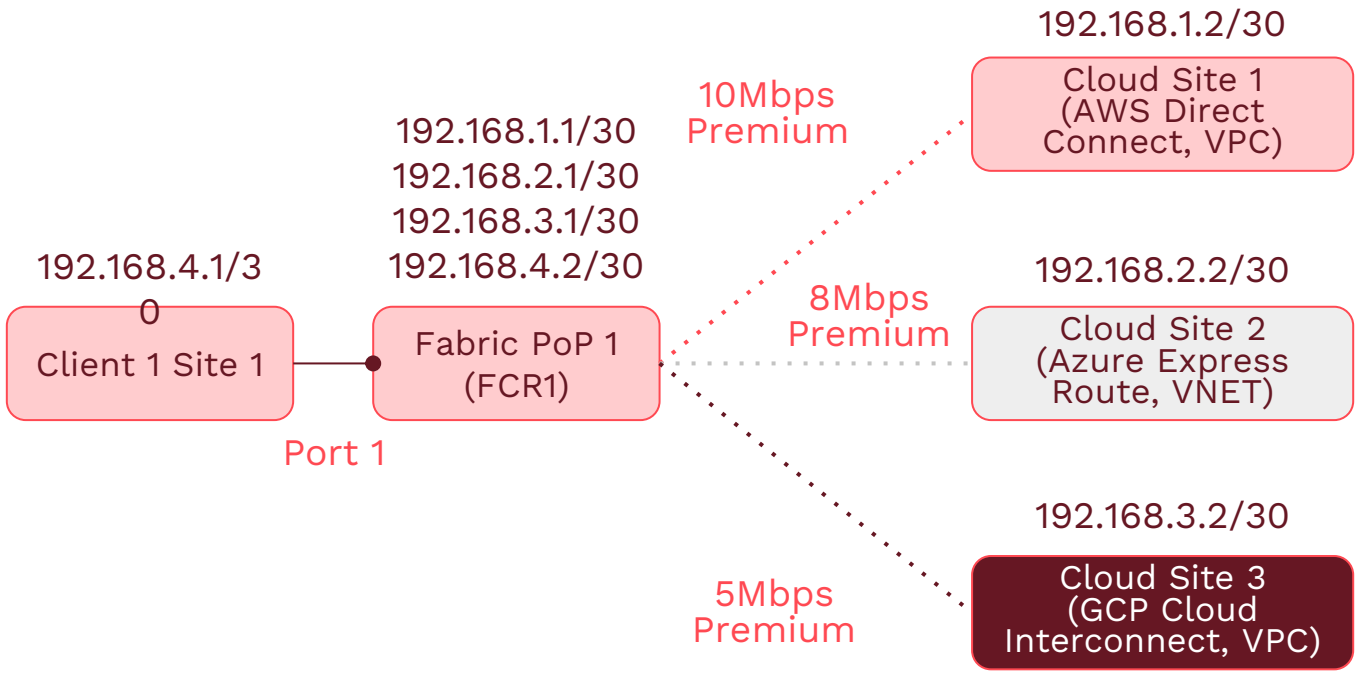
CONNECTION
Hybrid and Multi-Cloud Connectivity

Use case

Clients can have routing between Port, FCR and Multiple clouds

Steps

1. Client will order Port and FCR in PoP1.
2. Client will Add new connection with source as Port 1 and destination as FCR1.
3. Client will Add new connection with source as FCR1 and destination as Cloud (Ex: AWS) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
4. Client will Add new connection with source as FCR1 and destination as Cloud (Ex: Azure) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
5. Client will Add new connection with source as FCR1 and destination as Cloud (Ex: GCP) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
6. This will enable Layer 3 routing between all clouds, Client site and Cloud via the FCR providing low latency and reliable connectivity.

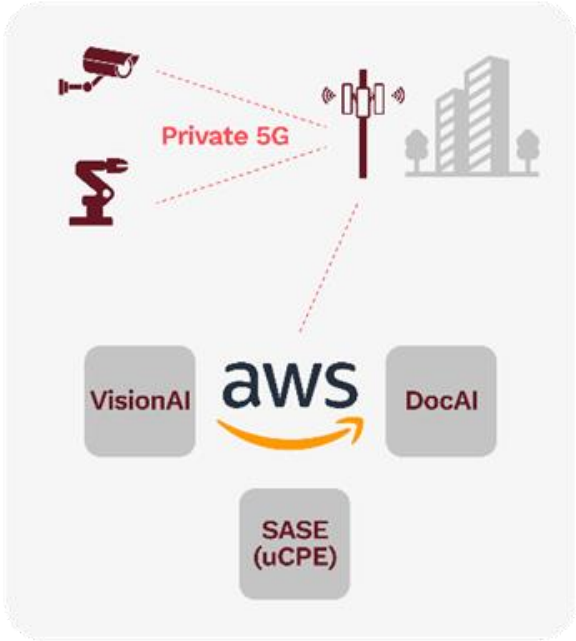


CONNECTION
Port to XaaS (MeetMe)

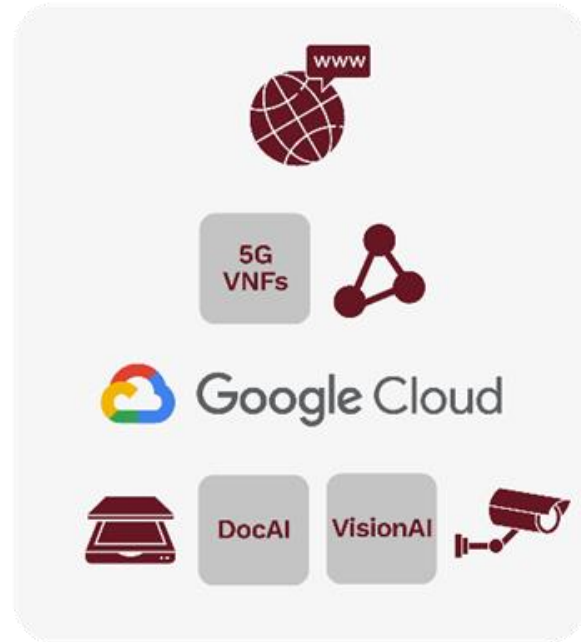
Use case
Clients can access XaaS connectivity on Fabric

Steps

1. Client will order Port in PoP1.
2. Client will Add new connection with source as PoP1 and destination as Cloud (Ex: AWS) by specifying parameters like Bandwidth, link-type (Premium). VLANs can be specified at client end.
3. In case of Premium link-type, clients will be displayed with SLA and other redundancy options available.
4. Once clients clicks on Submit, subject to Bandwidth availability, a new virtual link will be created between site and cloud.
5. Clients can configure same Layer 2 subnet across site and cloud. This will ensure clients have dedicated circuits between site and cloud.

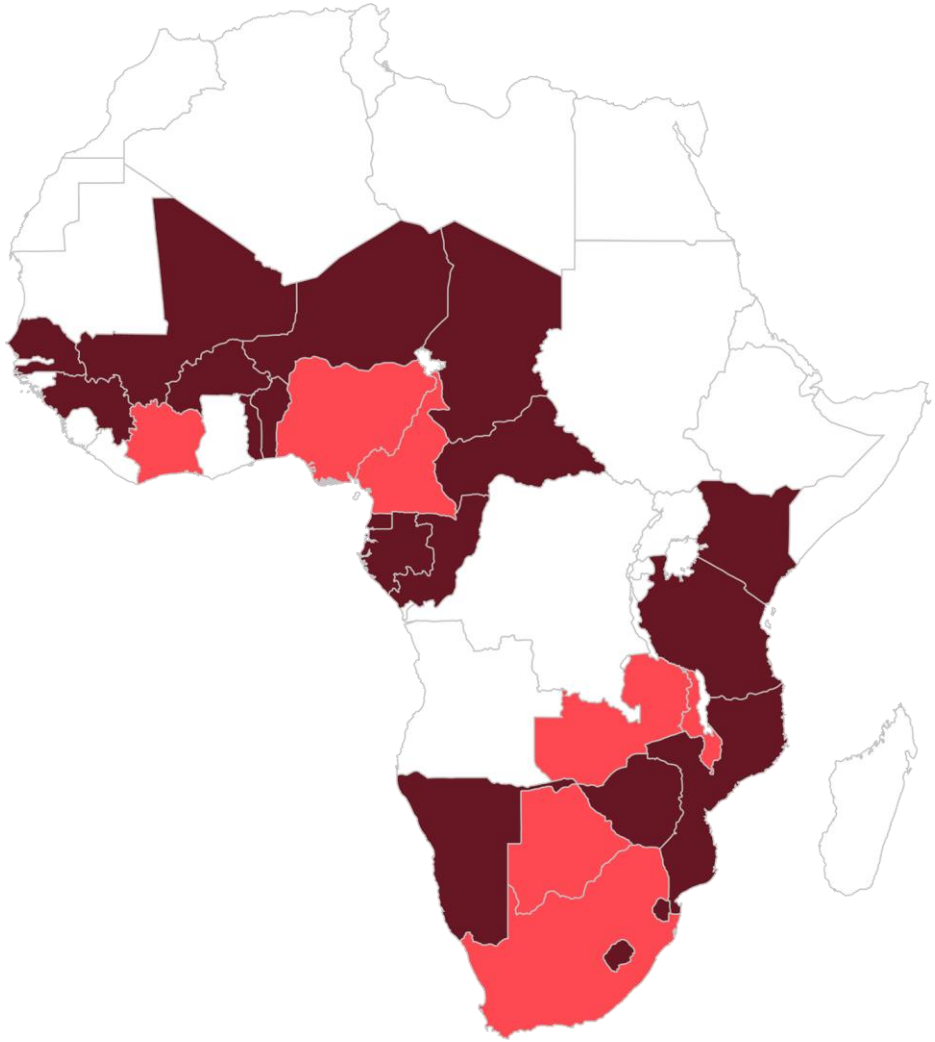


Fabric (API based High-Performance Enterprise Multi-Cloud Connectivity)



Indirect

- **Namibia**
  - Internet Namibia
  - Witel Namibia
- **Gabon**
  - GBM
  - Solsi
- **CAR**
  - Telecel
  - Moov
- **Congo**
  - Congo Telecom
  - nGVA
- **Chad**
  - Albideynet
  - Prestabist
- **Tanzania**
  - Echotel
  - Netsolutions
- **Burkina Faso**
  - Netforce
  - SANCFIS (ex ALINK)
- **Equatorial Guinea**
  - IPX EG
- **Guinea**
  - VDC
- **Benin**
  - Trinet
  - Communication
- **Kenya**
  - Nafron
  - Technologies
- **Mali**
  - Afribone
- **Zimbabwe**
  - Dandemutande
- **Eswatini**
  - Commit Consult



Direct

- South Africa
- Botswana
- Zambia
- Malawi
- Nigeria
- Cameroon
- Ivory Coast

Go to Market Channels

Direct

Direct in all the countries we have Operations (SA, Botswana, Zambia, Malawi, Cameroon, Nigeria and Cote d'ivore)

Indirect

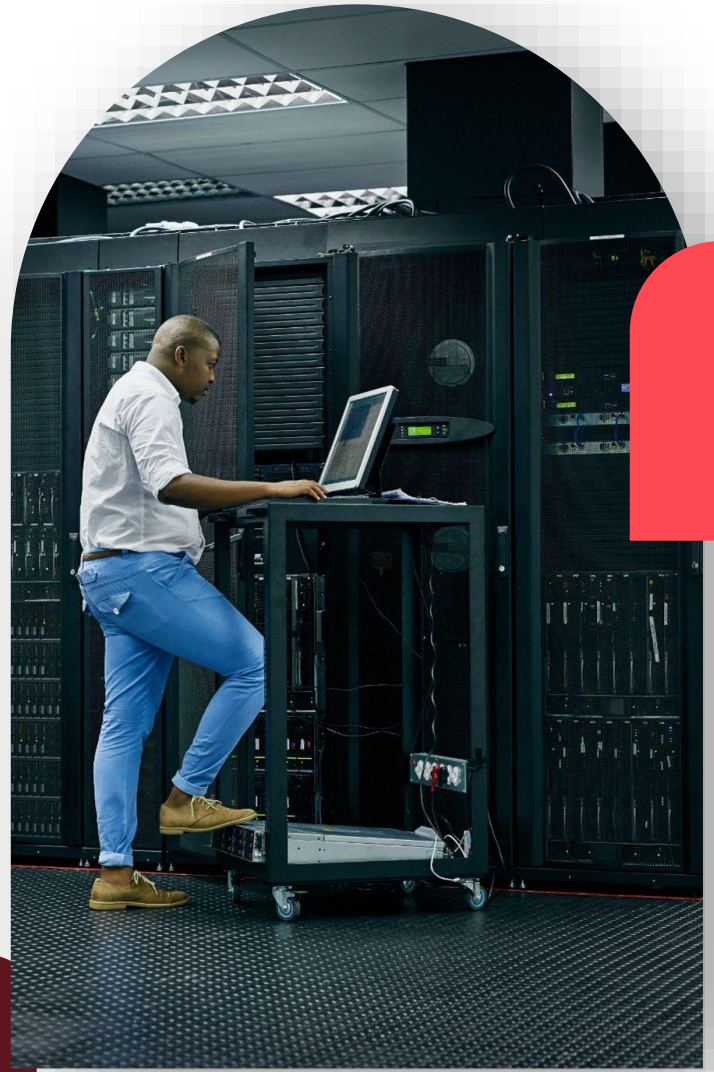
Indirect in all the adjacent markets to our countries of operations (Shown in coming slides)

Strategic Partnerships

Global service providers requiring reach into Africa PoPs and Branches

Why now?

- MNCs need a single partner rather than different pieces, how do we leverage?
- Connectivity prices are dropping; How do we diversify?
- Many Data Centers being built across continent, how do we take advantage of this?
- Multi-Cloud Connectivity
- Interconnect our PoPs and expand > inq.Fabric
- How do we leverage our Partners for last mile
- inq. is superior in the Digital space but how do we bundle with connectivity?



inq.Fabric Canvas

Key Partners

- Bandwidth wholesalers
- MNA technology vendors (MSFT, AWS, etc.)
- Open source software ecosystem

Key Activities

- Application Dev
- Continuous technology portfolio development
- Marketing and GTM

Key Resources

- Internet bandwidth
- Data Centre Hosting (PoP)
- inq. Marketplace library

Values Propositions

- Network as a Service (NaaS) for multi cloud connectivity to AWS, Microsoft Azure, GCP and to other cloud providers
- Lower TCO, due to reduced connectivity prices and operations
- Performance Low latency private connections
- Security bypass public internet and reduce security threats
- Full SLA covering availability management and monitoring, troubleshooting etc
- Single Unified interface through the inq. Control Platform

Customer Relationships

- Direct 1:1 relationships
- Indirect
- Self service platform

Channels

- Direct sales
- Channel partners
- inq. Market Place

Customer Segments

- SA Multinationals
- Global Multinational
- Regional multi branches

Cost Structure

- Hosting
- Software development
- Bandwidth (wholesale)
- Technology costs (license)

Revenue Streams

- Subscription (Port)
- Installation charges
- Rebates