



TECHSUMMIT19

BARRACUDA TECHNICAL SUMMIT

Large scale deployments



Zero-touch deployment



Large scale rollouts

Everyone can use it

Everyone can benefit

All you need is:

- Control Center (CC)
- CloudGen Firewall or
- Cloud Generation Firewall for IIoT/ICS
- BCC account

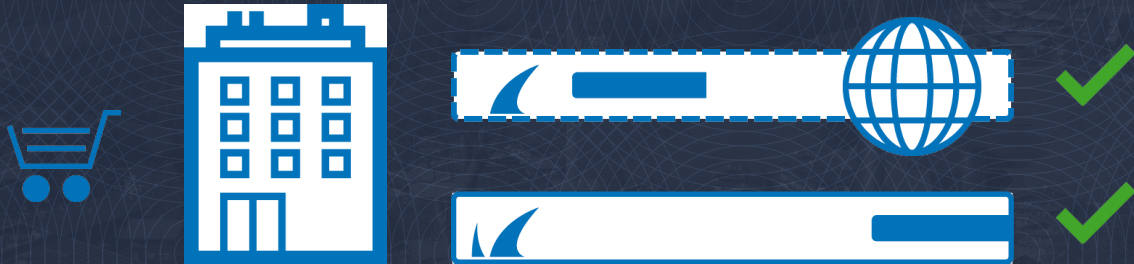
No extra costs involved



Two sides of a coin

Headquarters

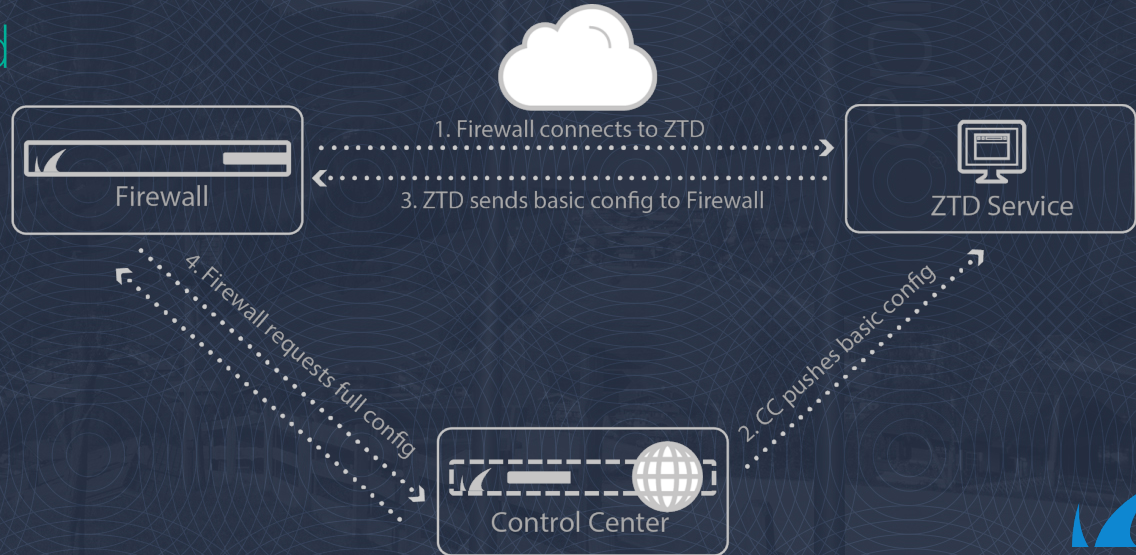
- Order the appliance
- Let Barracuda take care of shipping the box to its final destination
- Create the box' configuration on the CC
- Link / Push the configuration to Barracuda ZTD service



Two sides of a coin

Branch Office

- Connect the appliance to your network (or at least to the internet)
- Firewall polls the configuration and applies it
- Connection to the CC is established
- Firewall is CC-managed



Security aspects - Data location

Firewall Control Center (CC) holds the full configuration

- Full configuration is never sent to the ZTD service
- Security-sensitive full configuration is only sent directly between CC and box
- Redirection information is one-time

What does ZTD push to the box?

- The entry point for the VPN connection
- The FWCC' public key
- The box' ephemeral private key
- The network configuration to connect to the VPN entry point



Security aspects – Trust relationships

ZTD service with BOS

- Internal API only (API key + whitelist), access to the box' keys

ZTD service with Firewall Control Center

- User/admin authenticates with portal account

ZTD service with CloudGen Firewall

- Manufactured keys verified by ZTD service
- Certificate validity of service verified by box



Box assignment

Automatically

- Barracuda Cloud Control (BCC) account will be automatically used if ZTD order has been "checked"

Manually

- Use the linking code to reclaim the firewall and assign it to your account
- Linking code locations
 - On the Quick Start Guide enclosed with the delivery
 - On the invoice sent by Customer Services



Misconfiguration

PAR file pushed to the CC is misconfigured

- The firewall cannot reach the CC
- Fallback is initiated

Fallback

- Delete downloaded PAR file
- Contact ZTD service again to fetch "new" PAR file
- Loops until getting a working PAR file

A "new" PAR file needs to be pushed from the CC

- Any PAR file retrieved from ZTD service can only be used once



Refurbish

Requires a firewall shipped with 7.1 or higher

Reset the firewall using Firewall Install

- Factory default, no PAR file applied

Prepare the linking code

Verify box being linked to the correct ZTD account

Start the ZTD process



Redeployment

Automatic redeployment of an already successfully deployed unit



How does it work?

- Globally or per Range/Cluster
- Using same matching criteria (like external IP)
- Feature enable on CC and on Account (by Support)

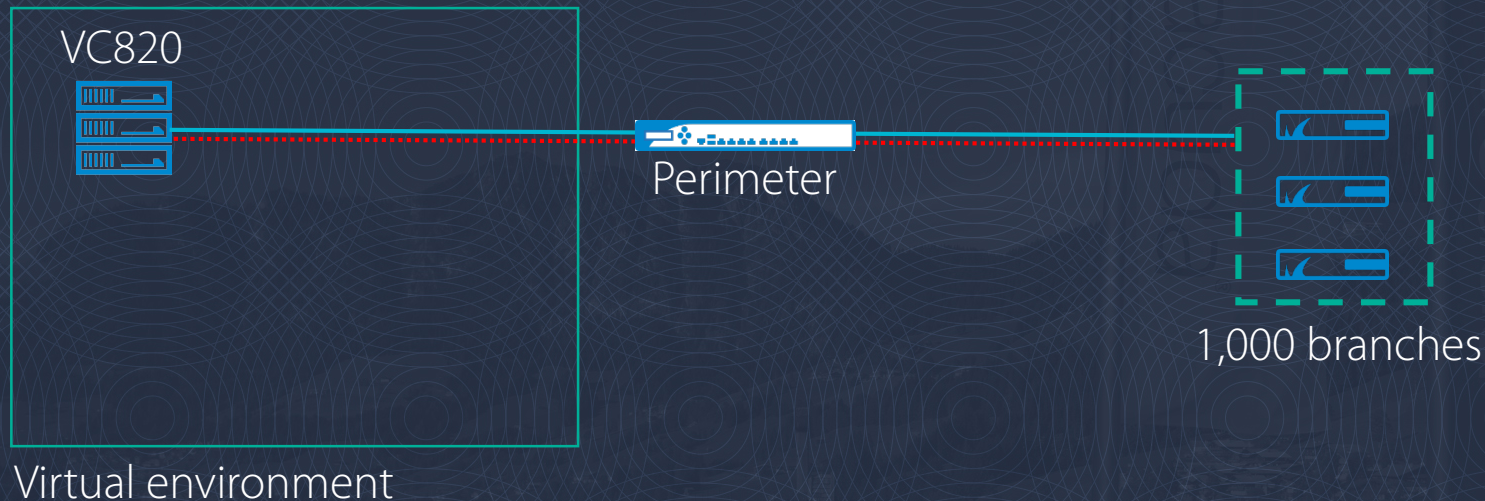
ZTD Redeployment	<input checked="" type="checkbox"/> on	<input type="button" value="v"/>	<input type="button" value="i"/>
Enable ZTD Redeployment globally	<input checked="" type="checkbox"/> off	<input type="button" value="v"/>	<input type="button" value="i"/>



Control Center split



Split CC (Standard setup: 1,000 boxes)



Split CC (Large Scale: 2,000 boxes)

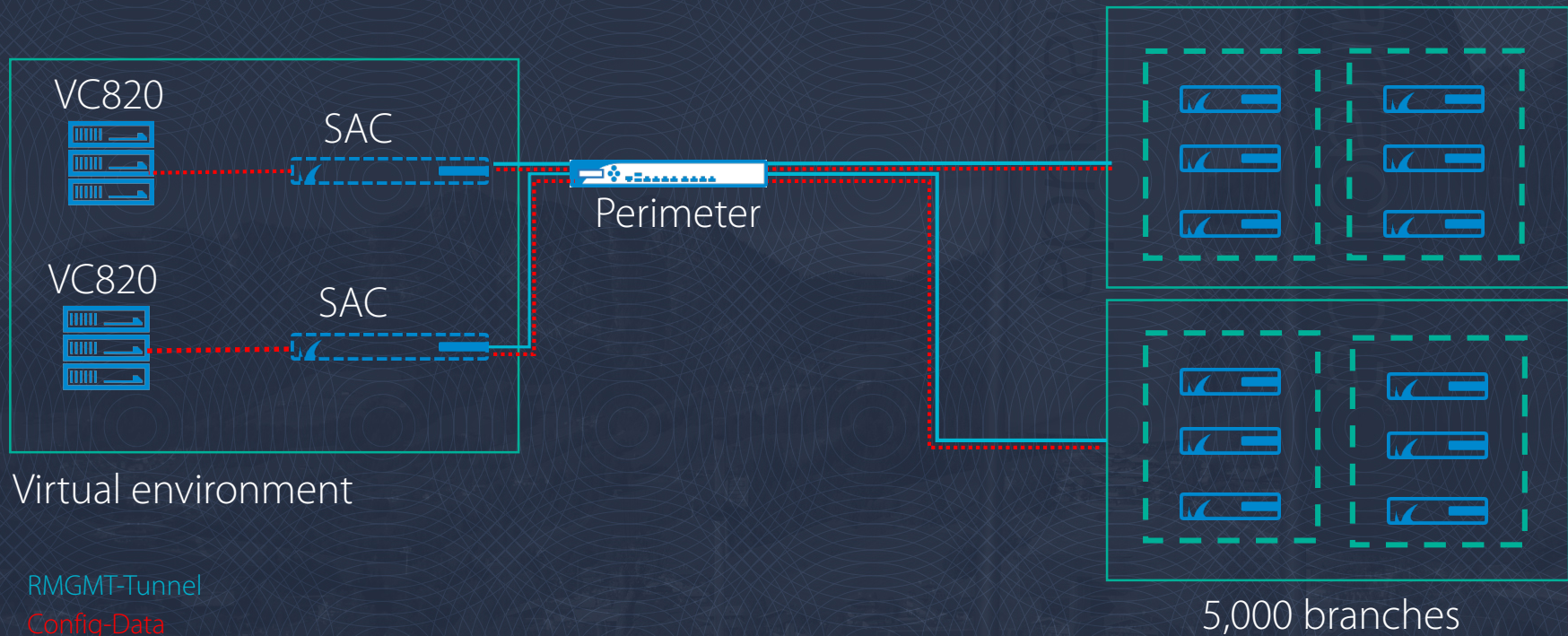


RMGMT-Tunnel

Config-Data



Split CC (Large Scale: 5,000 boxes)



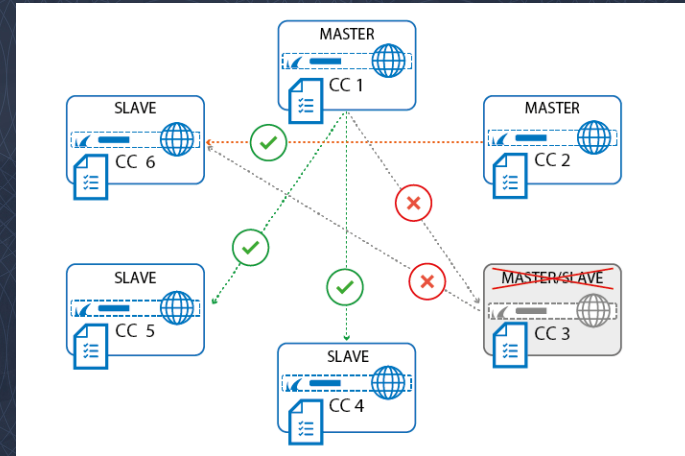
Relationship

The master is the master is the master

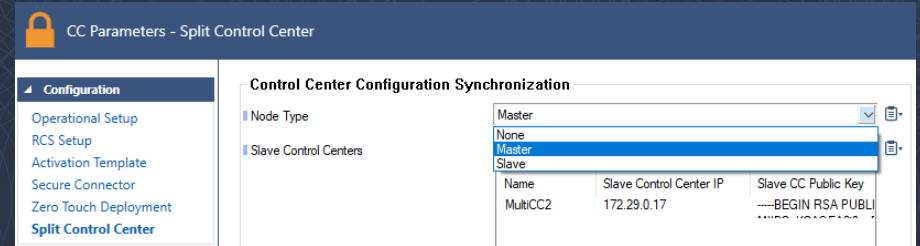
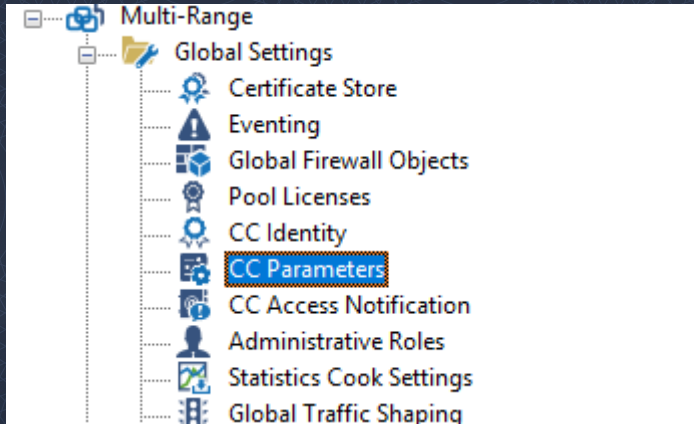
A master will never be a slave

A slave will have only one master

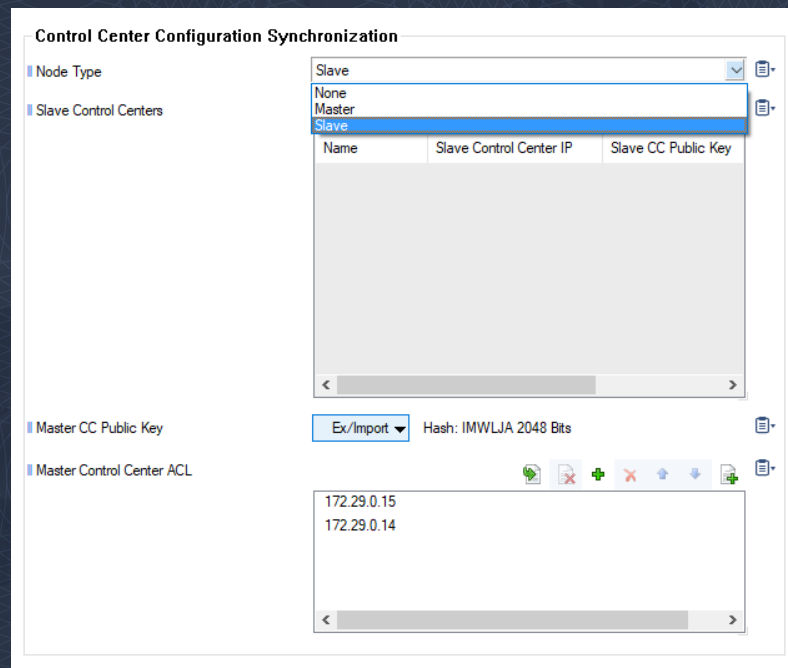
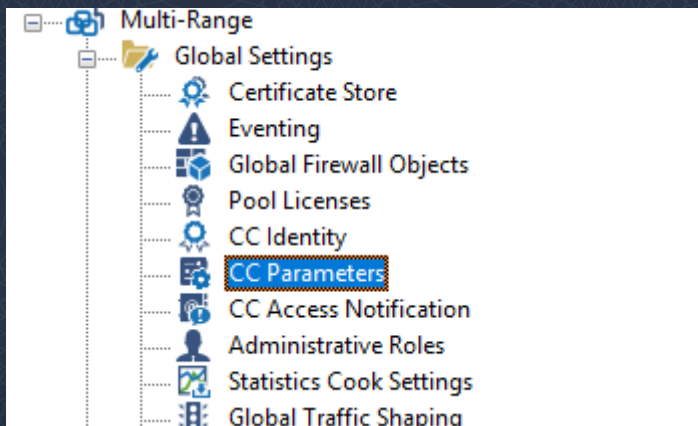
The master will override every synced configuration of a slave CC



Master setup



Slave setup



Node synchronization

Slave Control Center Settings

Slave Control Center IP: 172.29.0.17

Slave CC Public Key: Ex/Import Hash: CDEKVV 2048 Bits

Synced Configuration Nodes

Source Node Path	Source Node Name	Destination
zrepo/*	*	
0settings	fwobj	
1/zrepo/*	*	

Note: The CC public key for the slave must be configured on the 'CC Parameters/Split Control Center' page.

Note: Create an access rule on the Host CC Firewall of the slave Control Center to allow UDP 810 traffic from the master.

Configuration node definitions for synchronization

Source Node Path: zrepo/*

Source Node Name: *

Configuration node definitions for synchronization

Source Node Path: 0settings

Source Node Name: fwobj

Configuration node definitions for synchronization

Source Node Path: 1/zrepo/*

Source Node Name: *

Configuration node definitions for synchronization

Source Node Path: 1/Cluster1/0settings

Source Node Name: fwobj



Filetypes to sync

What can be synced?

- .conf files
- .fwobj files
- folders/repositories

What cannot be synced?*

- .db files
- .dbconf files

* Not yet



NEVER DO!!!

Configuration node definitions for synchronization

Source Node Path



Source Node Name



Configuration node definitions for synchronization

Source Node Path



Source Node Name

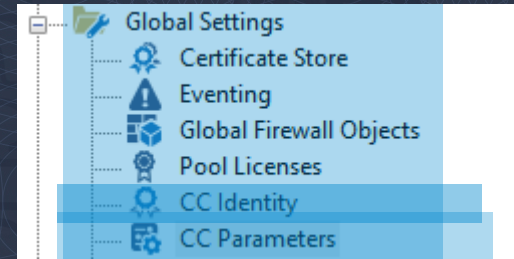


Configuration node definitions for synchronization

Source Node Path



Source Node Name



Synchronizing Firewall Control Center units

Recommended	Node Type	Comment
Yes	Global Firewall Objects	Global Firewall Objects already carry information that is shared commonly on managed firewalls.
Yes	Firewall Objects in Ranges/Clusters	Firewall Objects in Ranges or Clusters also hold information for grouping purposes.
Yes	Repositories	Repositories already concentrate functions of configurations in Control Centers and therefore are well suited for synchronizing.
No	VPN tunnels	VPN tunnels configurations must be treated special via a VPN hub because they are treated differently on all slave CCs.
No	Services	Services are not suited for sharing because a box is always bound to its own Control Center.





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Azure vWAN

Microsoft Azure and Barracuda Partnership

1st

Microsoft Azure Certified
security solution provider

4M

Hours of Barracuda VM
consumption per month

2,000+

Customers deployed in
production in Azure

Microsoft Partner of the Year
2016 Winner

Microsoft Azure Certified ISV
Solution Award

Buy and Deploy Using Azure Marketplace

- Top performing ISV in Azure Marketplace
- First security appliance in Azure Marketplace
- Flexible pricing models:
 - Bring-Your-Own-License (BYOL) and Pay-As-You-Go (PAYG)
- Customer self-service tool for configuration and deployment

Recent Customer Wins



Microsoft Global Network

Microsoft
Global
Network

54 AZURE
REGIONS

100K+ MILES OF FIBER
AND SUBSEA CABLES

140+ EDGE
SITES

200+ EXPRESSROUTE
PARTNERS

Three elements of a CloudGen Firewall



Protect



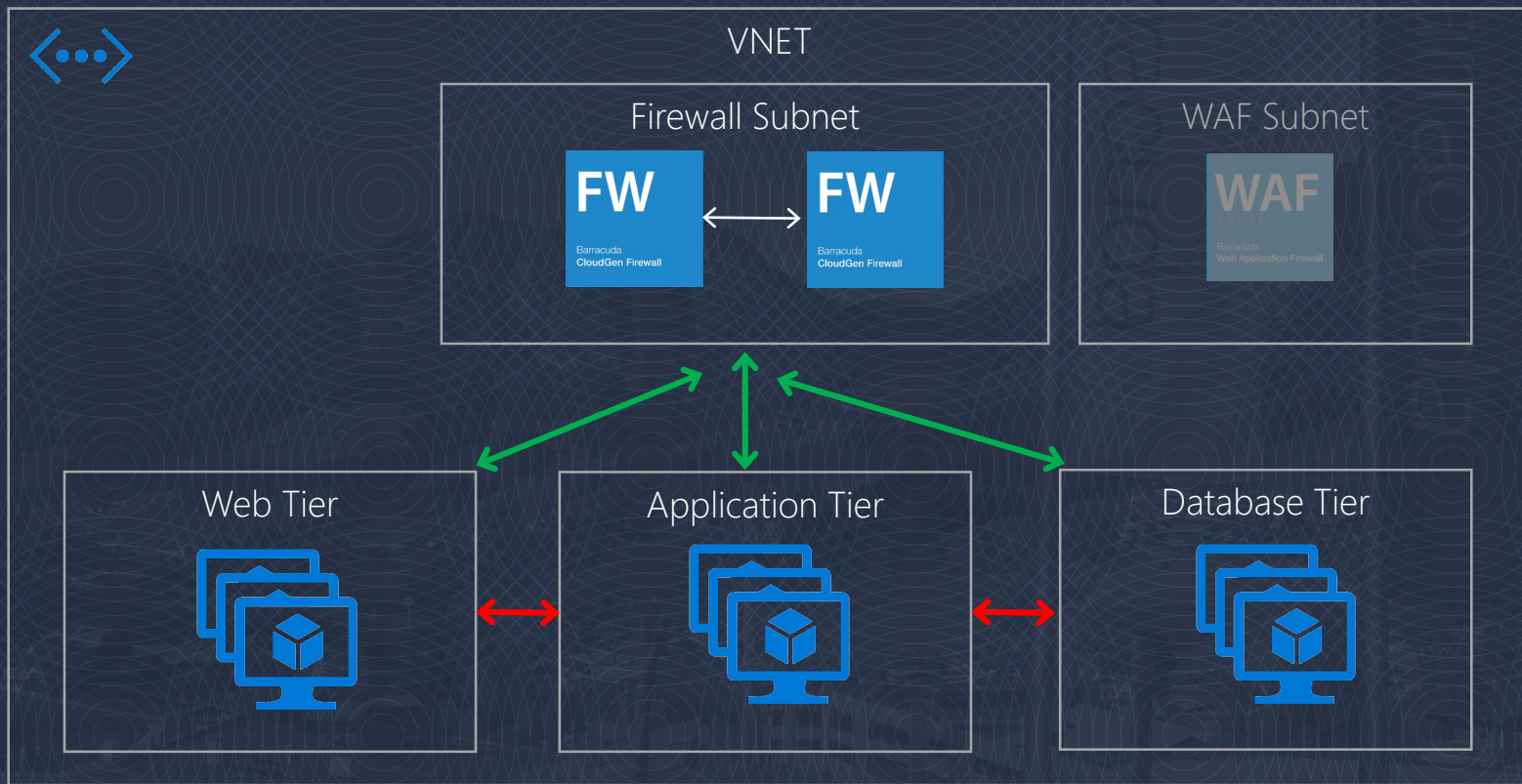
Connect



Automate



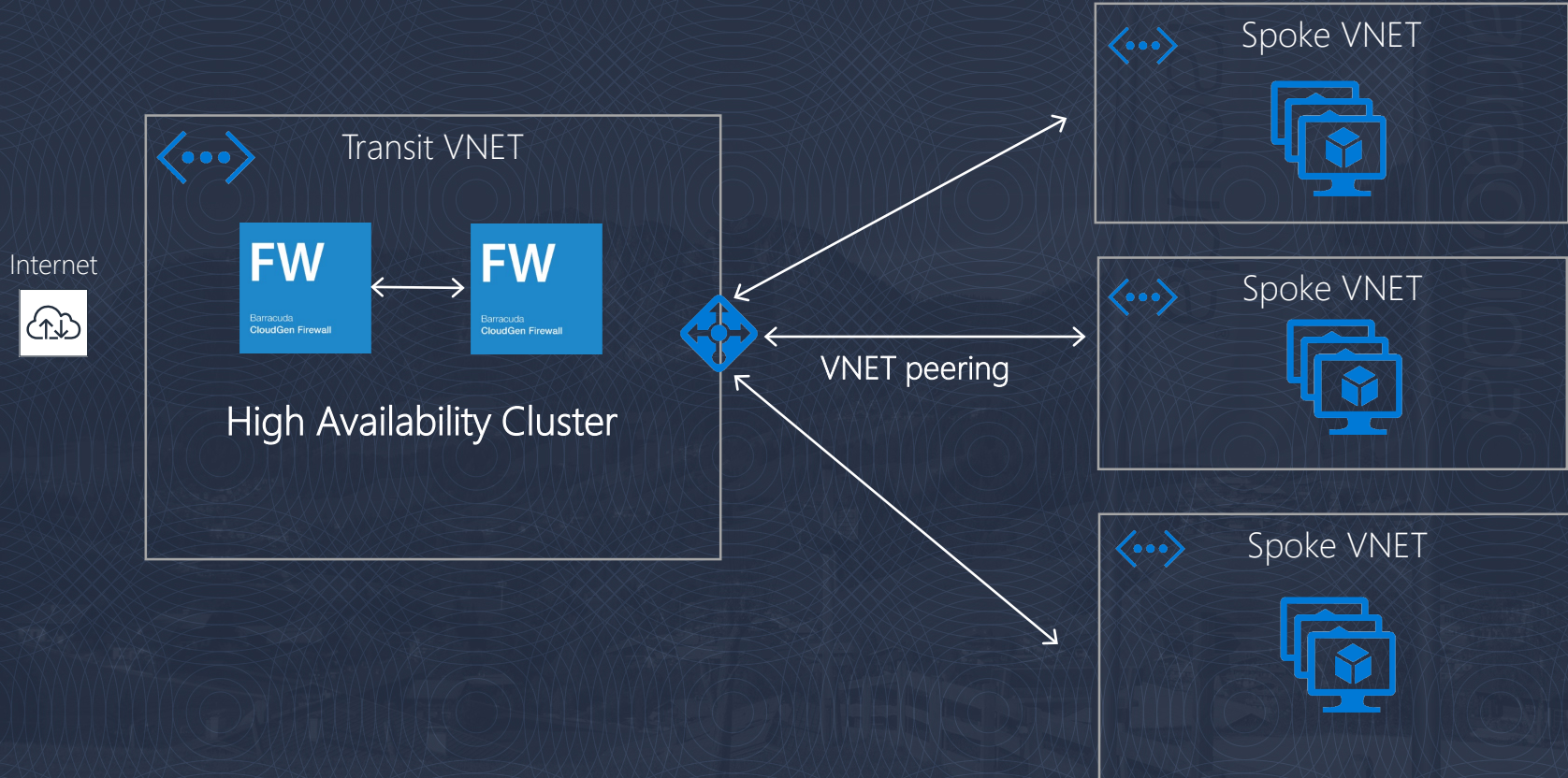
Reference architecture - Single VNET



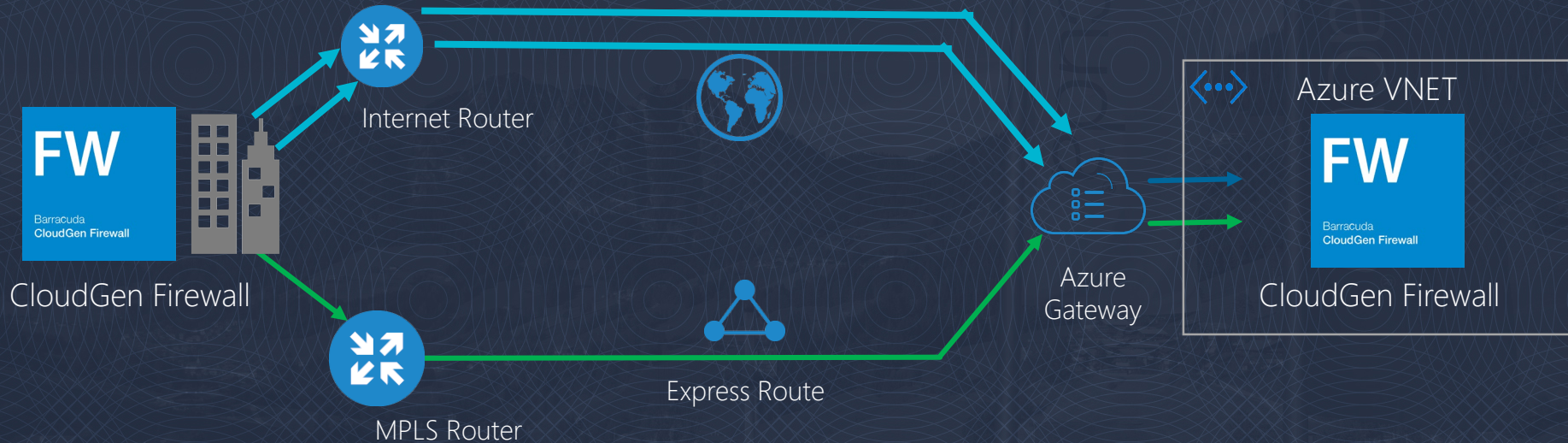
Reference architecture - Edge Firewall



Reference architecture - Transit VNET



Reference architecture – SD-WAN



Azure Virtual WAN

Barracuda official connectivity partner for Virtual WAN

Azure-managed connectivity using
the Microsoft global network



**Microsoft
Ignite**

Orlando, FL
September 24-28, 2018



Azure Virtual WAN

Managed virtual networks and VPN gateways

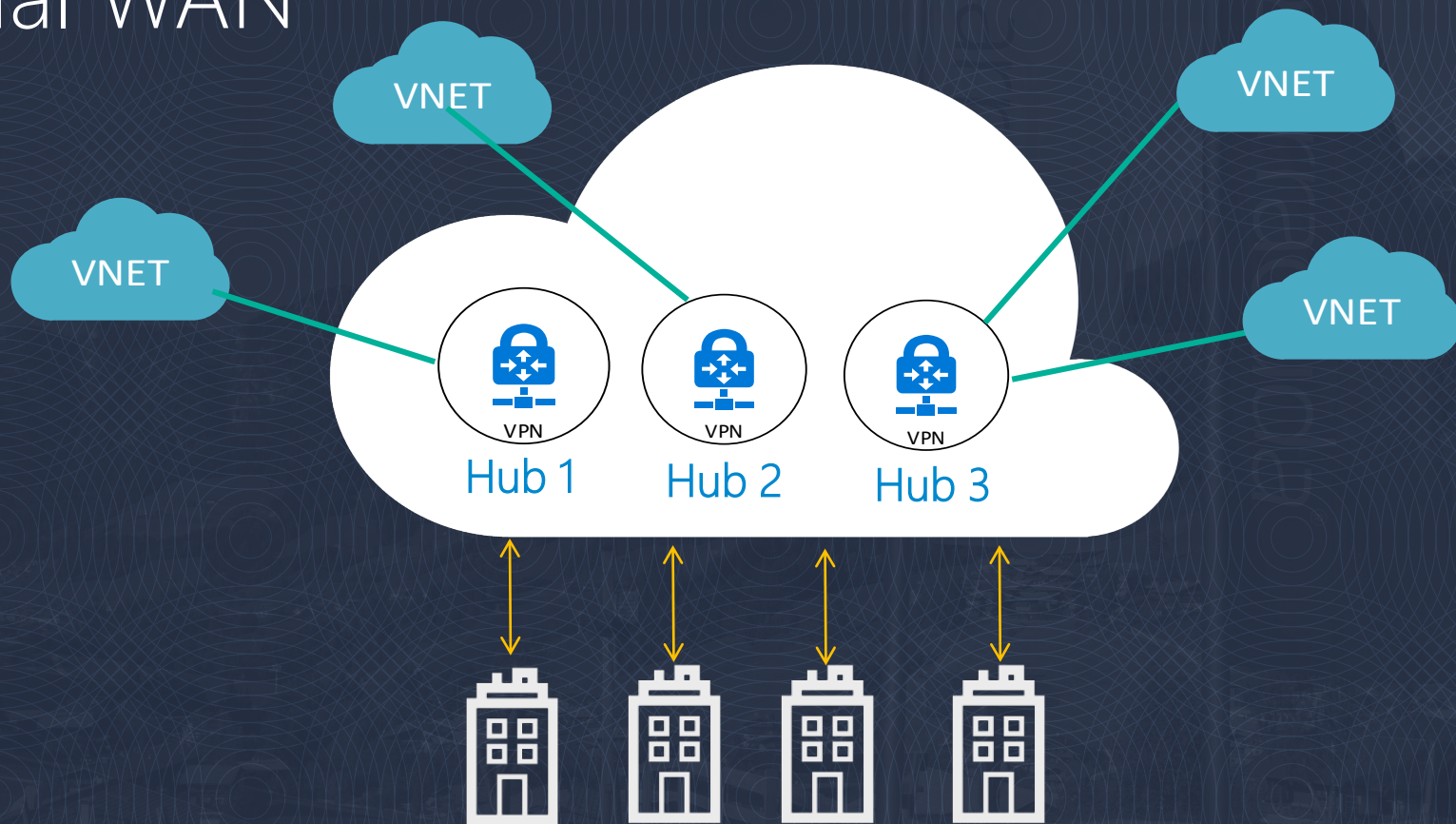
Automated connectivity from CloudGen Firewall

Branch-to-branch and branch-to-cloud

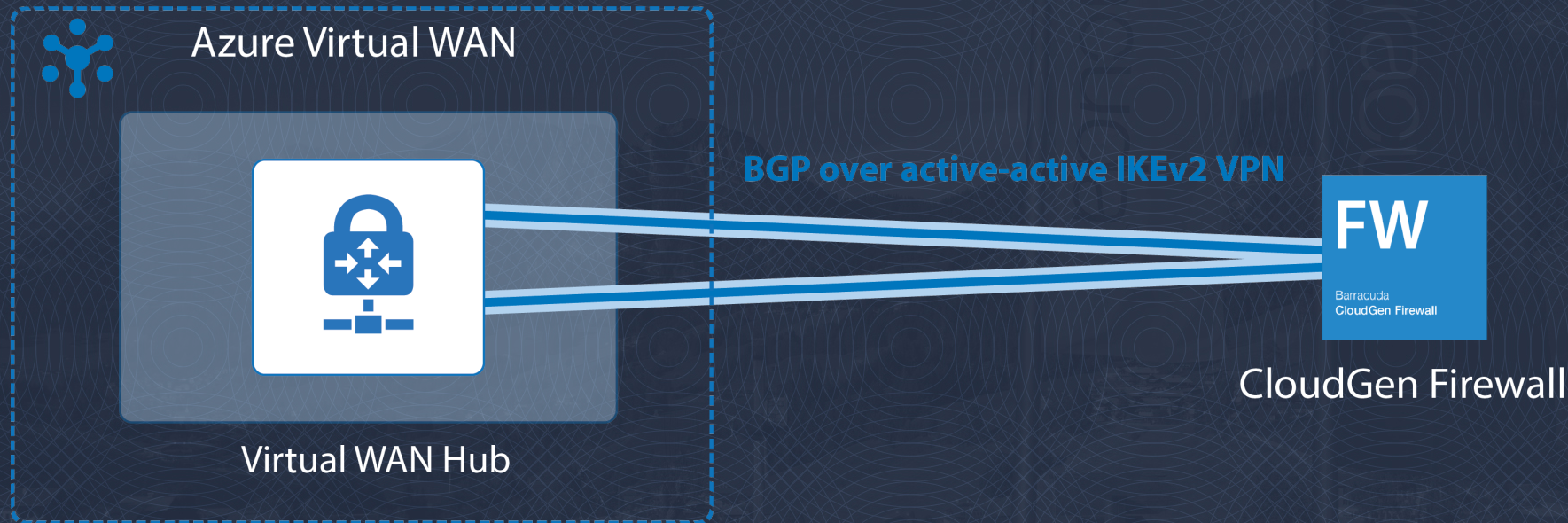
Optimal routing and performance from Microsoft Global network



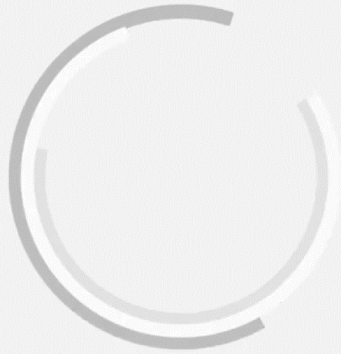
Virtual WAN



Virtual WAN Setup



Virtual WAN Demo (7.2.3 + Patch)



Virtual WANs - Microsoft Azure

portal.azure.com/?microsoft_azure_network_vwanconfigo365=true#blade/HubsExtension/BrowseResourceBlade/resourceType/Microsoft.Network%2FvirtualWans

Search resources, services, and docs (G+)

felix@cudazure.onmic...
CUDAZURE

Microsoft Azure

Create a resource

Home

Dashboard

All services

FAVORITES

Resource groups

All resources

Virtual WANs

Route tables

Azure Active Directory

Virtual networks

Public IP addresses

Virtual machines

Recent

Virtual machines (classic)

Monitor

Security Center

Advisor

Firewalls

Subscriptions

Home > Virtual WANs

Virtual WANs

cudazure

+ Add

Edit columns

Refresh

Assign tags

Subscriptions: NGEneeringTeam

fbu-vwan


All resource groups

All locations

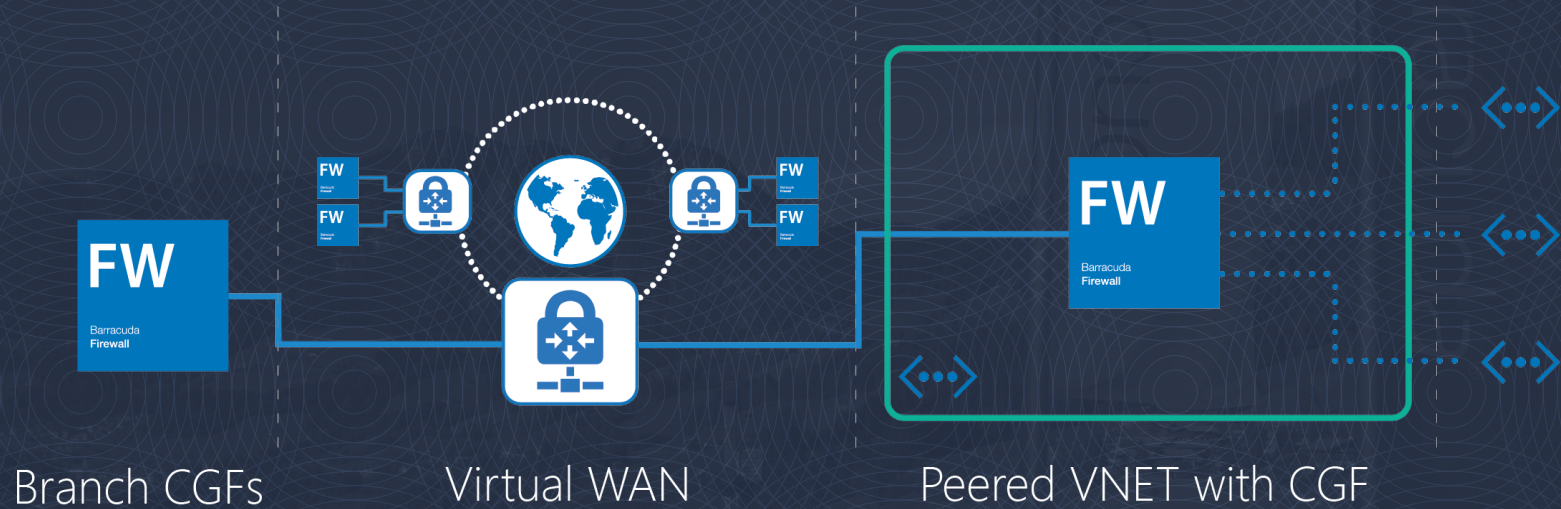
All tags

No grouping

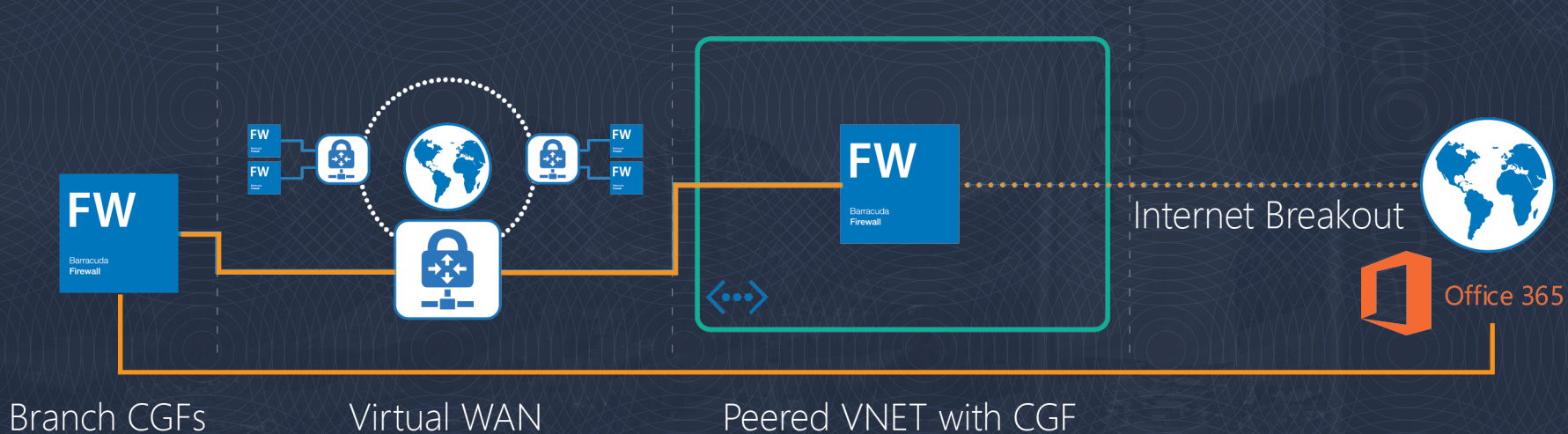
1 items

<input type="checkbox"/>	NAME ↑↓	TYPE ↑↓	RESOURCE GROUP ↑↓	LOCATION ↑↓	SUBSCRIPTION ↑↓	
<input type="checkbox"/>	 fbu-vwan-ne	Virtual WAN	fbu-vwan-ne-rg	North Europe	NGEneeringTeam	...

CloudGen Firewall combined with Virtual WAN



Office365 Policy for Virtual WAN



Summary of native connectivity options

Connecting to Azure Network

- Internet direct
- Internet VPN
- Azure ExpressRoute

Transit routing between Azure ExpressRoute and VPN

- Azure Virtual WAN

Multi Cloud Connectivity

- Internet: Virtual WAN
- Dedicated: Azure ExpressRoute



Thank you

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