

atmosphere'22

BELGIUM

Application-aware SDWAN

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Aruba Secure WAN Edge Portfolio

Current Aruba Portfolio

Aruba EdgeConnect
(Silver Peak)



Aruba SD-Branch



Aruba IAP/RAP



Aruba VIA



New Name

EdgeConnect Enterprise



EdgeConnect SD-Branch



EdgeConnect
Microbranch



EdgeConnect Mobile



Aruba Secure Wan Edge Portfolio

Data Center and Branch App & Services



Cloud Hosted Apps and Services (IaaS)



Central/
Orchestrator



EdgeConnect Mobile

Mobile Users



EdgeConnect
Microbranch

Home Users



EdgeConnect
SD-Branch

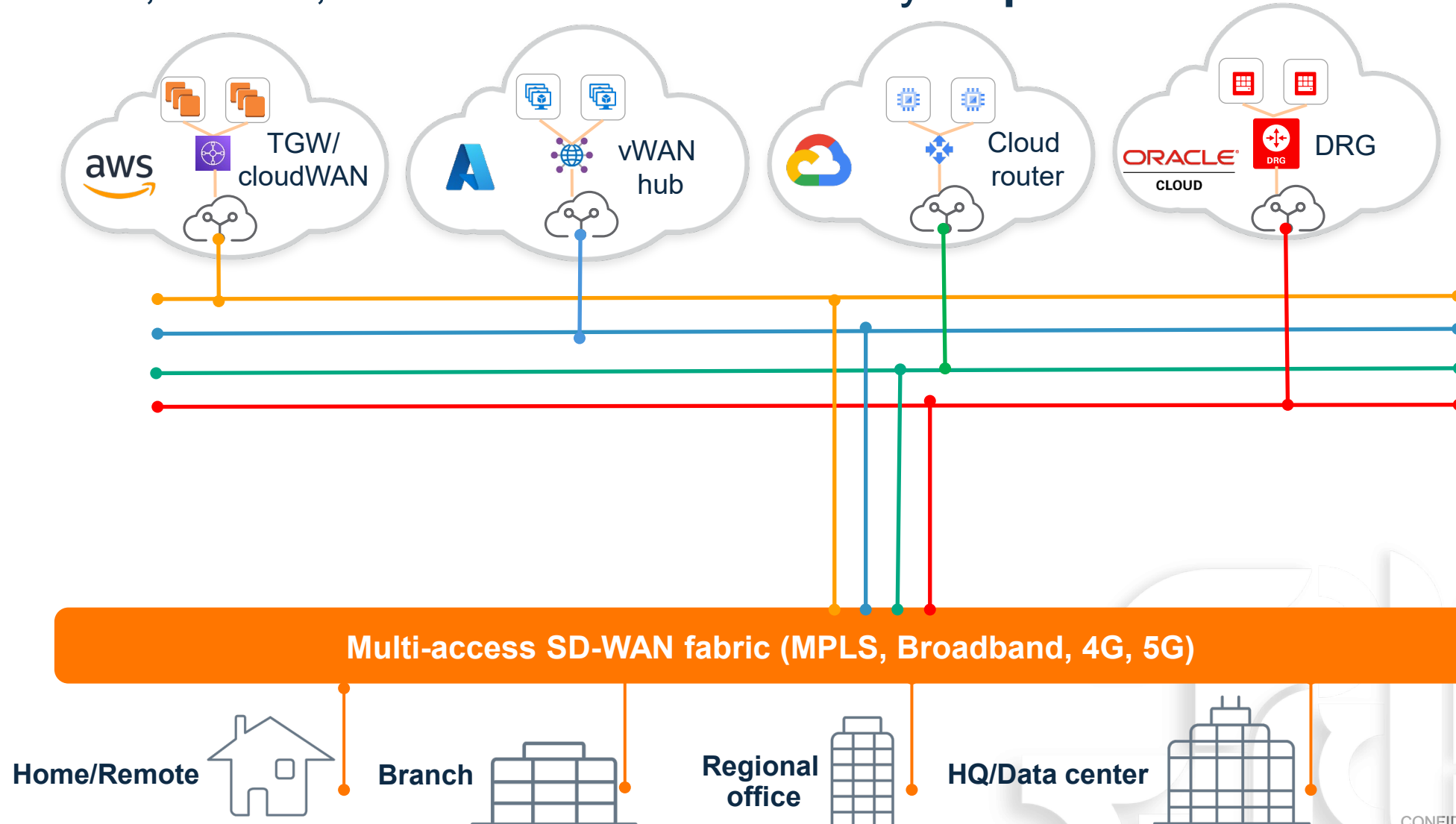


EdgeConnect
Enterprise

Branches, Campuses, Datacenters and Cloud

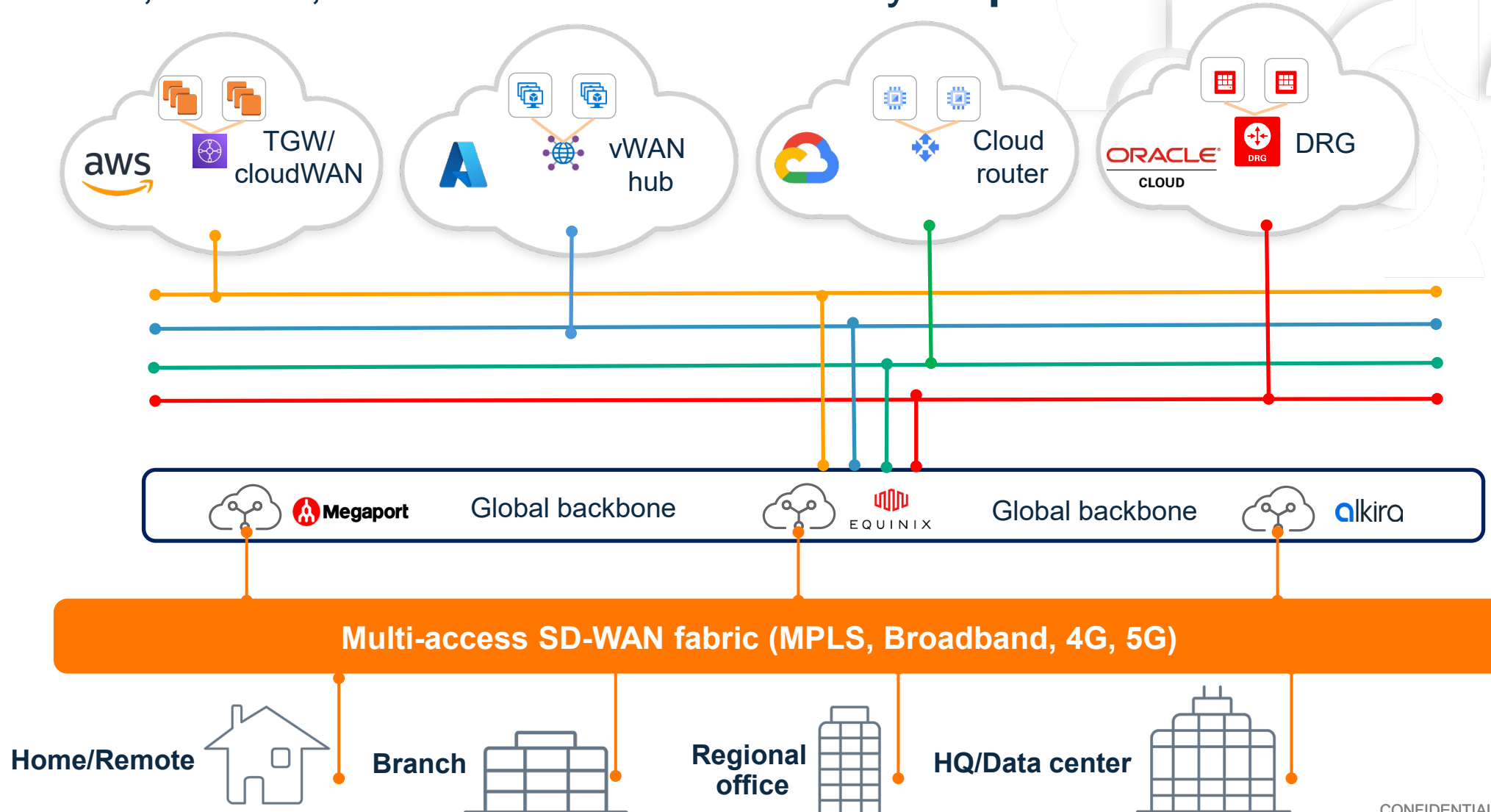
Multi-cloud networking with Aruba EdgeConnect

Flexible, secure, SD-WAN cloud connectivity - **Option 1**



Multi-cloud networking with Aruba EdgeConnect

Flexible, secure, SD-WAN cloud connectivity - Option 2



Aruba Secure WAN Edge Portfolio

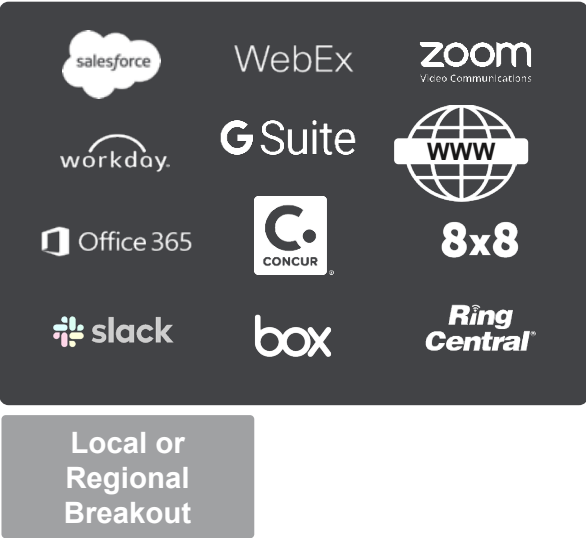
Data Center and Branch App & Services



Cloud Hosted Apps and Services (IaaS)



SaaS, Cloud Based Services



Central



EdgeConnect Mobile

Mobile Users



EdgeConnect Microbranch

Home Users



EdgeConnect SD-Branch

Branches, Campuses, Datacenters and Cloud



EdgeConnect Enterprise



SaaS Express

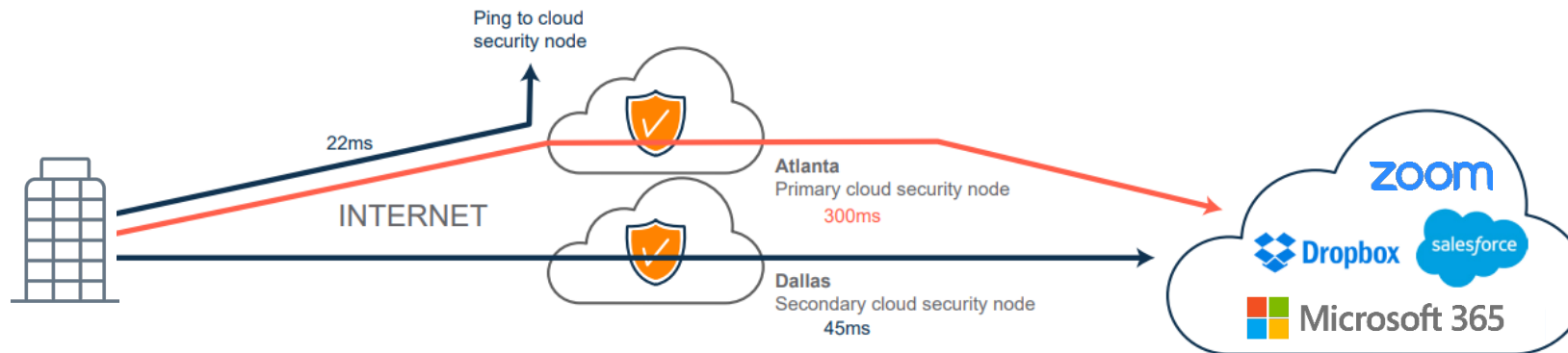
Best SaaS path every time

 Microsoft 365
Networking Partner



Scenario 1

SaaS Express uses synthetic polling reinforced by actual packet observations to continuously identify the best path to reach a given SaaS application



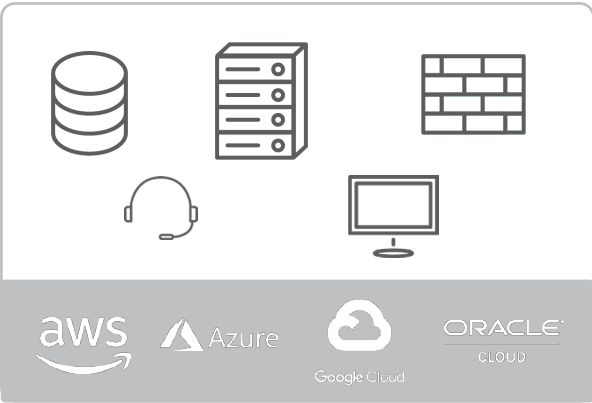
Scenario 2

Aruba Secure WAN Edge Portfolio

Data Center and Branch App & Services



Cloud Hosted Apps and Services (IaaS)



SaaS, Cloud Based Services



Central



EdgeConnect Mobile

Mobile Users



EdgeConnect
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EdgeConnect
SD-Branch

Branches, Campuses, Datacenters and Cloud



EdgeConnect
Enterprise



Orchestrated Cloud Security Integration

One-Click Cloud Security Integration

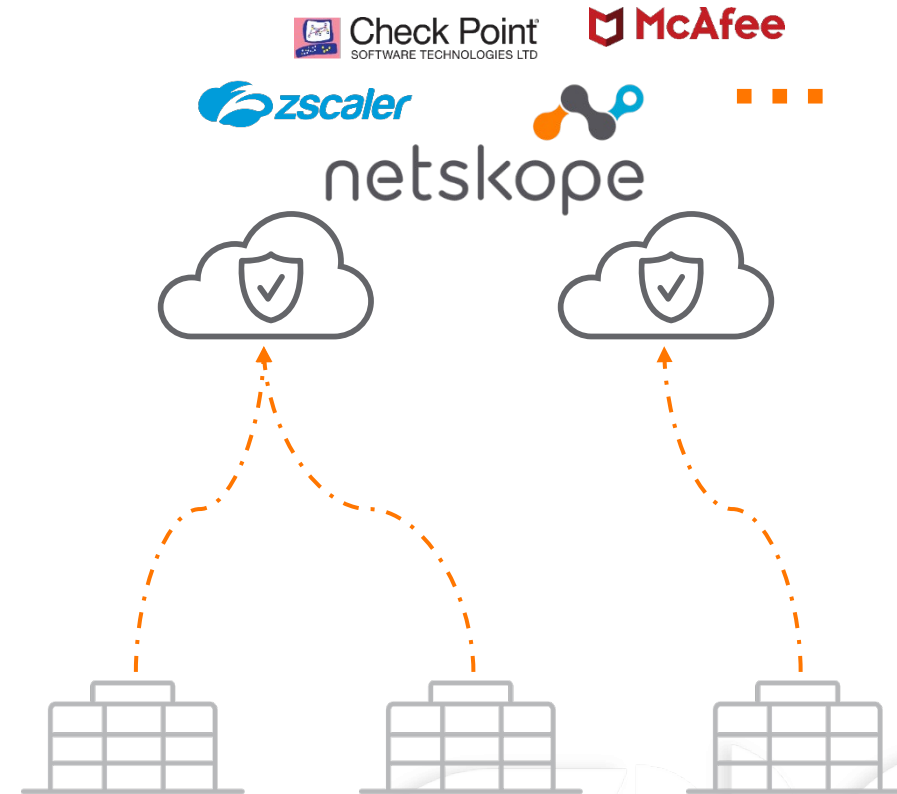
- Orchestration to create and define locations in the cloud security provider

Find the nearest Cloud Security Edge

- Geo-location of nearest cloud security edge to optimize traffic path

Policy-based enforcement

- Role/application-aware routing policies enable more granular integration



Reduce deployment time

- Cloud Security integration deployed from a central point. No manual overrides needed.

Optimize traffic flow

- Send traffic through the nearest node

Only send the necessary traffic

- Real-time traffic or traffic from non-critical users (guest) can selectively be routed through the local-breakout

Aruba Secure WAN Edge Portfolio

Data Center and Branch App & Services



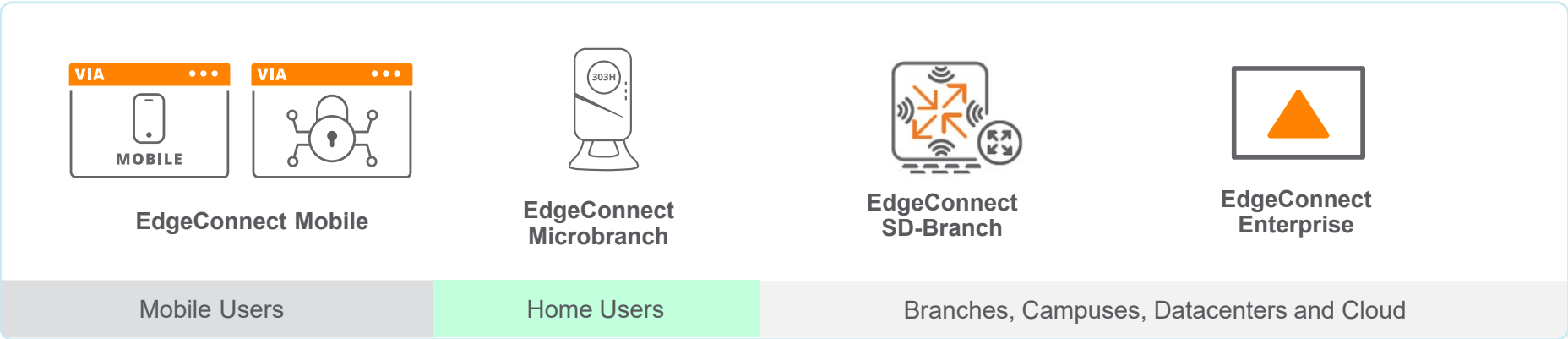
Cloud Hosted Apps and Services (IaaS)



SaaS, Cloud Based Services



Secure, Optimized, Protected SD-WAN Fabric



Unified Branch Security



App-user aware firewall



Deep packet inspection



Endpoint Profiling



Intrusion detection & prevention system



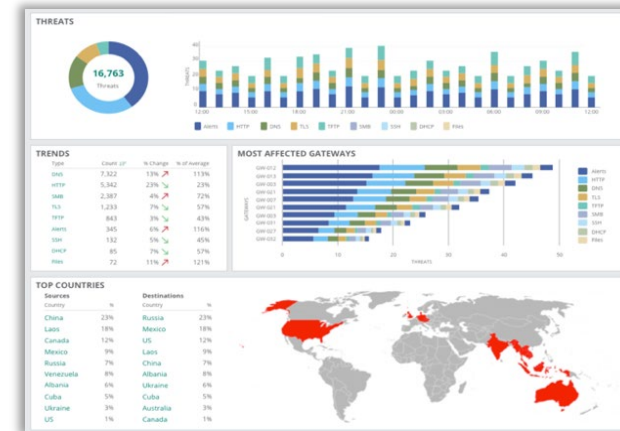
Web content & URL filtering



Zero Trust – Dynamic Segmentation



VRF – Advanced Segmentation



Threat visibility

- Threat trending over time
- Overlay with app/user launch and network direction
- Threat source and impact

Policy-driven enforcement

- Out of box IDS / IPS policies
- User defined whitelisting
- False positive management flow
- Segmentation (Dynamic & VRFs)

ICSA Secure SD-WAN Certification

Aruba EdgeConnect SD-WAN has earned ICSA Labs Secure SD-WAN certification based on a comprehensive and robust set of SD-WAN functionality and platform security requirements

– ICSA Labs Secure SD-WAN certification requirements include:

- **Advanced SD-WAN features**
- **Native support (or via service chaining) for advanced security functions**
- **Encryption of sensitive data**
- **Network-wide policy enforcements**
- **Security events logging**



ICSA Labs provides third-party testing and certification of security and health IT products, as well as network-connected devices, to measure product compliance, reliability and performance.

- ✓ Simplify network architecture by replacing branch firewalls with Aruba EdgeConnect Enterprise
- ✓ Use a secure SD-WAN solution certified by a recognized global, third-party organization

EdgeConnect Secure WAN Edge

Right-sized based upon use case and location

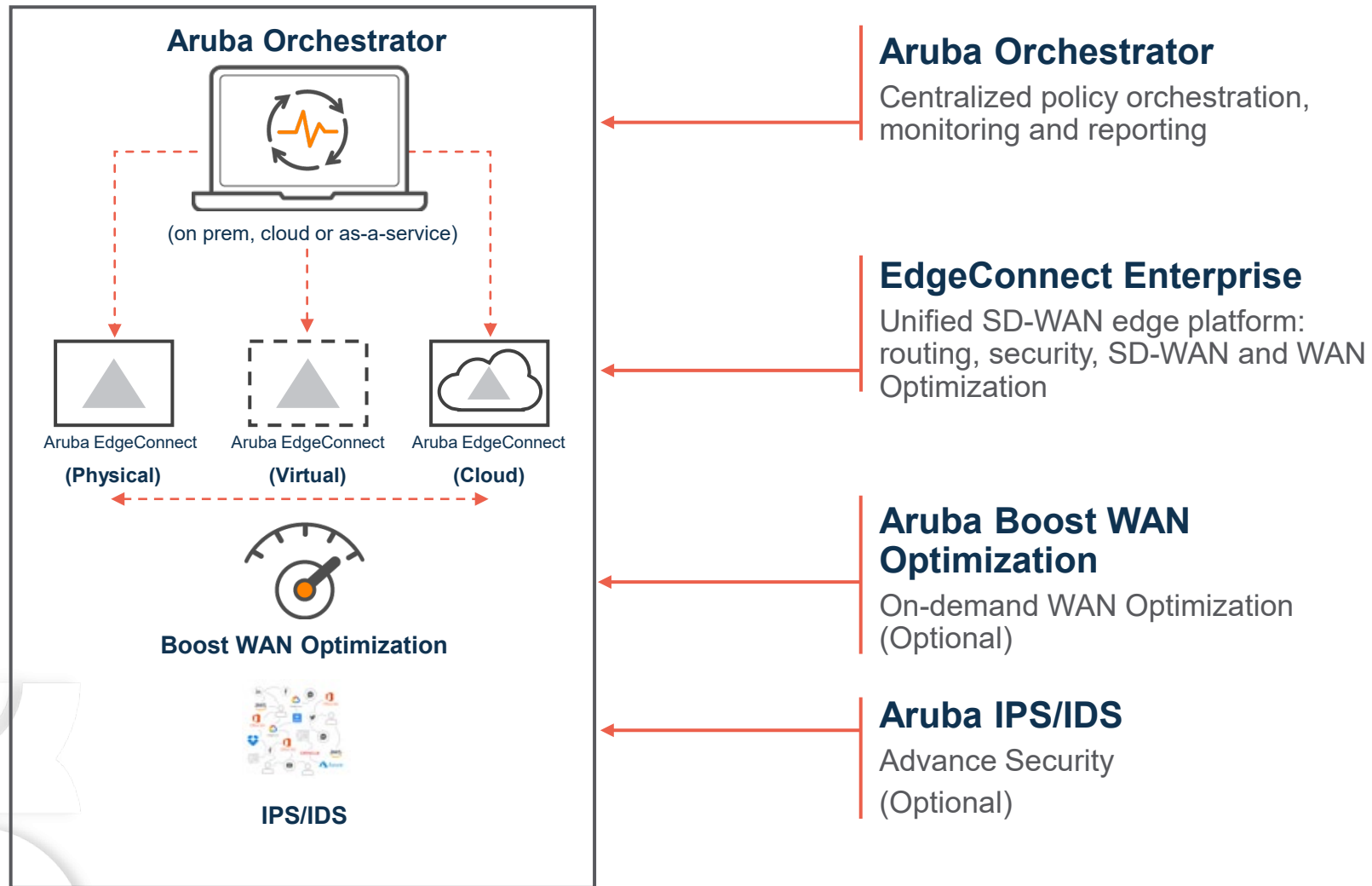


EdgeConnect Enterprise

- **Advanced SD-WAN with Business Intent Overlays**
- **Max network and app performance**



EdgeConnect Enterprise - Architecture



Aruba Orchestrator



Type Single Tenant Or <u>Global Enterprise (Multi-Tenant)</u>	Small Up to 50 Appliances	Region United States Frankfurt	Term 1 Year 2 Years 3 Years 4 Years 5 Years
	Medium Up to 200 Appliances		
	Large More than 200 Appliances		

Orchestrator-as-a-Service

On-Premise, Private Cloud, IaaS

Orchestrator license is included with EdgeConnect subscription. No SKU required for on-premises Orchestrator.

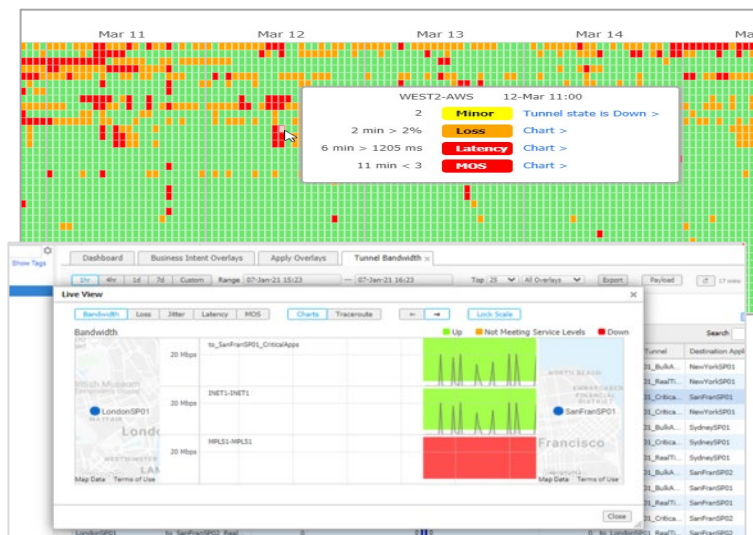
OR

Orchestrator As-a-Service

Fully hosted by Aruba as-a-service. Single tenant is the most frequently used.

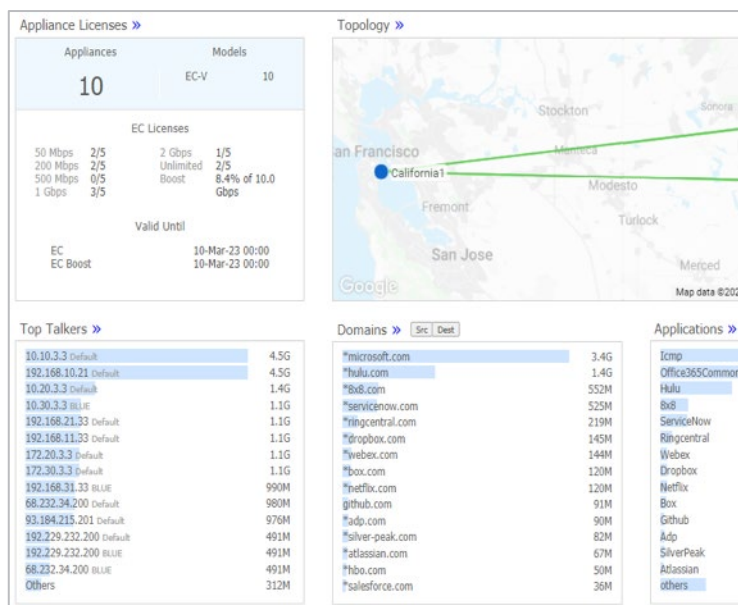
Automation with Application/Network Visibility

Real-time Health Map



- Network health is visualized in real-time and correlated across all locations. Alarms, network health and configuration issues are all easily diagnosed

Dashboard



- Comprehensive dashboard highlights key network and application attributes, and places focus on critical issues

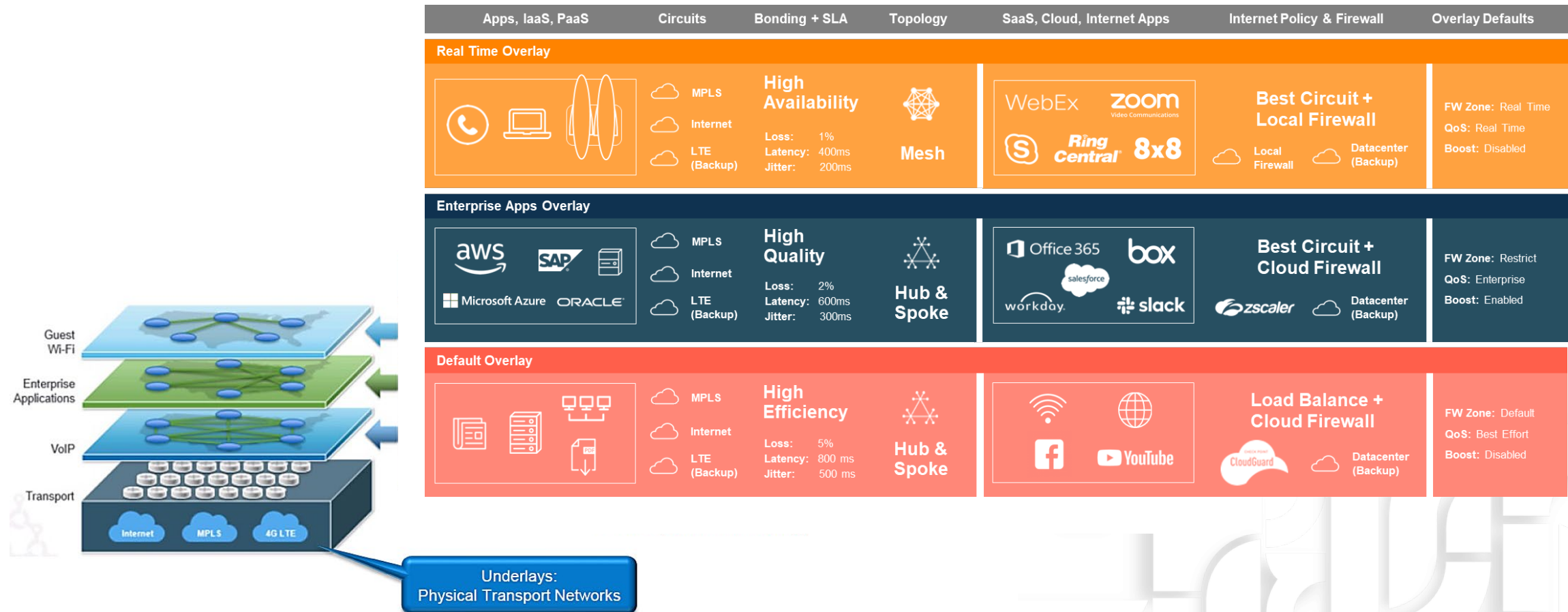
Connection Level Visibility

Application	Proto	Se	IP1	Port1	IP2	Port2	Inbound Bytes	Outbound Bytes	St	Info
ulu	tcp	D..	192.168.11...	39020	www.hulu...	443	1.8M	65K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	38872	www.hulu...	443	2.6M	50K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	35272	www.hulu...	443	2.1M	47K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	35374	www.hulu...	443	1.6M	26K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	34984	www.hulu...	443	1.2M	20K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	35766	www.hulu...	443	806K	17K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	49716	www.hulu...	443	358K	10K	15..	ThirdParty_Zsc
ulu	tcp	D..	192.168.11...	49822	www.hulu...	443	178K	6K	15..	ThirdParty_Zsc
apple	tcp	D..	192.168.11...	54962	www.apple...	443	75K	4K	15..	ThirdParty_Zsc
loud	tcp	D..	192.168.11...	58374	www.icloud...	443	58K	3K	15..	ThirdParty_Zsc
netflix	tcp	D..	192.168.11...	36184	www.netflix...	443	56K	3K	15..	ThirdParty_Zsc
potfy	tcp	D..	192.168.11...	43286	www.spotify...	443	49K	3K	15..	ThirdParty_Zsc
facebook	tcp	D..	192.168.11...	40564	www.facebook...	443	40K	3K	15..	ThirdParty_Zsc
ypeForBusine	tcp	D..	192.168.11...	33354	www.skype...	443	8K	2K	15..	ThirdParty_Zsc
ncursolutions	tcp	D..	192.168.11...	35682	www.concu...	443	7K	5K	15..	ThirdParty_Zsc
bo	tcp	D..	192.168.11...	44272	www.hbo.c...	443	7K	2K	15..	ThirdParty_Zsc
Office365Comm	tcp	B..	192.168.31...	50500	www.micro...	443	5K	1K	15..	Passthrough_LT
ypeForBusine	tcp	D..	192.168.11...	33288	skype.com	443	5K	3K	15..	ThirdParty_Zsc
otop-dhcp	udp	D..	172.30.0.20	68	172.30.0.1	67	4K	6K	15..	Passthrough_MP
otop-dhcp	udp	D..	172.20.0.1	67	172.20.0.10	68	4K	0	15..	pass-through
















- Flow level statistics give total visibility into every connection on the network providing total visibility and control of applications and users

Business Driven SD-WAN Policies

Business Intent Overlays (BIOs) are logical networks that are individually customized to your applications and requirements within your network

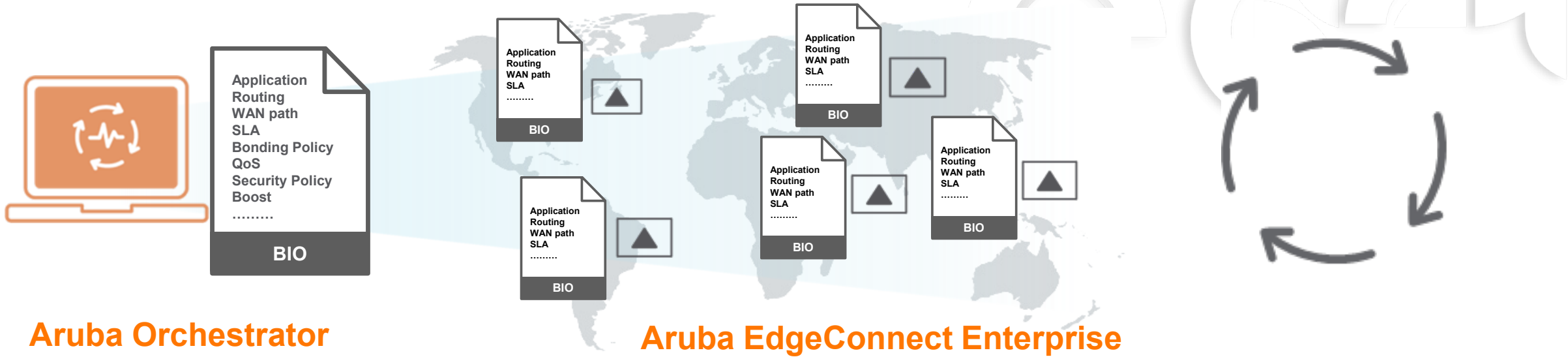


Business Driven SD-WAN Policy's

Apps, IaaS, PaaS	Circuits	Bonding + SLA	Topology	SaaS, Cloud, Internet Apps	Internet Policy & Firewall	Overlay Defaults
Real Time Overlay						
	<ul style="list-style-type: none"> MPLS Internet LTE (Backup) 	High Availability Loss: 1% Latency: 400ms Jitter: 200ms	 Mesh		Best Circuit + Local Firewall  Local Firewall  Datacenter (Backup)	FW Zone: Real Time QoS: Real Time Boost: Disabled
Enterprise Apps Overlay						
	<ul style="list-style-type: none"> MPLS Internet LTE (Backup) 	High Quality Loss: 2% Latency: 600ms Jitter: 300ms	 Hub & Spoke		Best Circuit + Cloud Firewall   Datacenter (Backup)	FW Zone: Restrict QoS: Enterprise Boost: Enabled
Default Overlay						
	<ul style="list-style-type: none"> MPLS Internet LTE (Backup) 	High Efficiency Loss: 5% Latency: 800 ms Jitter: 500 ms	 Hub & Spoke		Load Balance + Cloud Firewall   Datacenter (Backup)	FW Zone: Default QoS: Best Effort Boost: Disabled

A Completely Automated Approach

– Standardize, Templatize & Automate Provisioning



1

Create Business Intent Overlay (BIO)

2

Push and Maintain Policies Globally

3

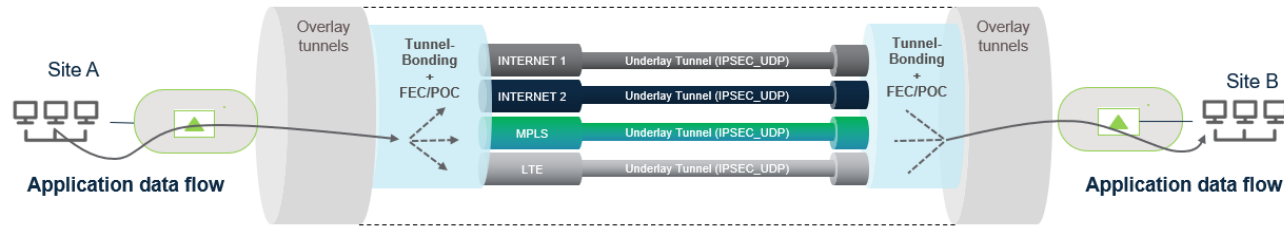
Continuously Monitored and Updated

Best Performance Over any Condition

Provides private-line-like performance over the public Internet

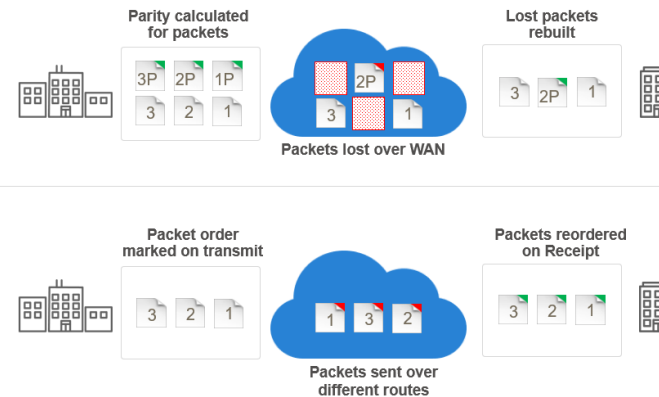
WAN Link bonding

- Packet-based load sharing
- Constant monitoring
- Zero second failover



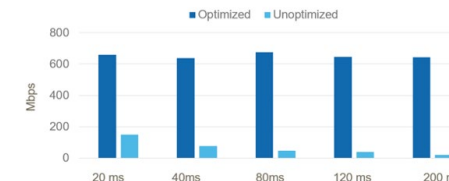
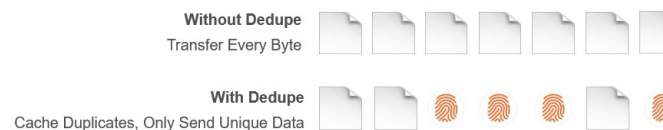
Path conditioning

- **FEC** (Advanced packet loss correction)
- **POC** (Packet order correction)



WAN Opt (Boost)

- **TCP Acceleration**
- **Data Reduction**



Advanced Segmentation

- Establish granular policies across the network; reduce attack surface
- Configure microsegments: separate business entities share the same applications and WAN infrastructure
- Eliminate overlapping IP address conflicts - no service disruptions

Business Entity #1

Business Entity #2

Business Entity #3

Internet

Voice

ERP

Video

Overlays & Breakout Policies for VRFs

Segment Name

Segment Name	Internet	Voice	Oracle		Video
Default	Include	Include	Skip	Skip	Skip
Business Entity #1 (VRF1)	Include	Include	Include	Skip	Include
Business Entity #2 (VRF2)	Include	Include	Skip	Skip	Include
Business Entity #3 (VRF3)	Skip	Include	Include	Include	Skip

Save

Cancel



EdgeConnect Enterprise – Out of the box

Ready for use after installation. Only a few adjustments needed. Only customer specific details needed. Standard applications are already there, mapped according to many years of experience.

Simple to manage, no advanced skills to add/change policy's, just drag and drop. Reduced OPEX

Visibility, all information in one place. All flows in the fabric can be seen in real time. Built in reports.

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Thank you !

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EdgeConnect Enterprise

DEMO

EdgeConnect Demo Topology

