zWAN sGR

SD-WAN sGR KEY BENEFITS

- Improves Network Performance by Prioritizing Business Critical Apps & Services & Data Steering
- Enhanced Security and Control with Network Data Flows and Data Encryption
- Simplify Network Infrastructure with SaaS Breakout & Avoid Data Backhauling

PRODUCT OVERVIEW

SD-WAN For Branch Offices & Datacenters

Many organizations operate from several dispersed branches or campuses. Traditional WAN's are struggling to keep up with the demand for bandwidth, prioritization of business critical applications and an ever growing utilization cloud based applications (SaaS apps) such as Office 365, Sales Force and collaborative tools such as Teams and Zoom. Traditional WAN networks are inherently complex to manage and slow to adapt to changes resulting in higher operational costs and increased security risk.

AmZetta Technologies delivers an SD-WAN solution that is simple to implement, manage and is highly adaptable. The AmZetta zWAN sGR for Branch easily scales to new edges of the corporate network and balances outstanding performance with reliability. The zWAN sGR solution additionally provides centralized control over the entire network footprint while simply integrating with your security and endpoint management solutions.

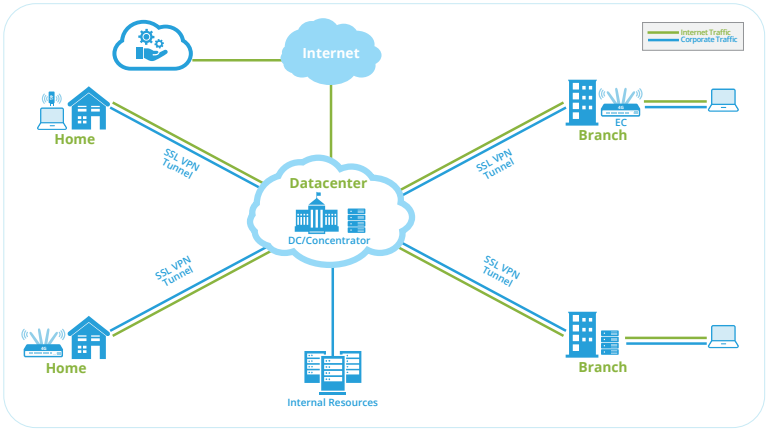


Figure 1: zWAN sGR in a Branch Environment

Advantages of SD-WAN For Branch Offices & Datacenters

The most common advantages of implementing an SD-WAN solution are Improved Network Performance, Enhanced Security, Reduction of IT Complexity, Increased User Activity Reporting and Cost Savings.

Features of AmZetta zWAN SD-WAN

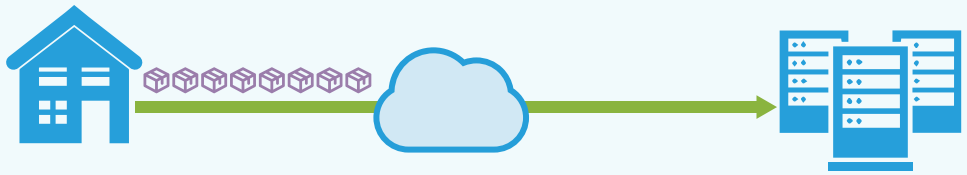
zWAN Director – Cloud Management

Once installed, the zWAN sGR will automatically onboard to the zWAN Director in the Cloud. The Director is responsible for provisioning and managing the zWAN sGR. Alerts from zWAN sGR are routed to the Director for action. Similarly, the Director collects activity logs and network traffic related data from all zWAN sGRs to generate dashboard displays for each zWAN sGR. The administrator can review alerts, view the dashboard, and review logs through the Director.

Multipath Connectivity

zWAN sGR utilizes the network port connections to set up multipath connectivity over the underlay network, generally comprising of broadband or LTE. Fig. 2 shows a system with just a single communication link. Fig. 3 shows a setup with multipath communication links. zWAN sGR can be configured to preferentially utilize one path over the other, i.e., in the event of a failure of the preferred path, a dynamic switch is made to the available path, for high availability.

Having multiple paths ensures that in the event of a path failure, an alternate path is available for transmission to continue uninterrupted.

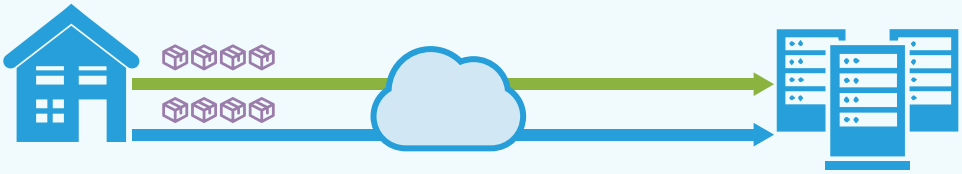


Single Communication Link, e.g.. Cable Modem All traffic flows through the single link

Figure 2: zWAN sGR Single Path Connectivity

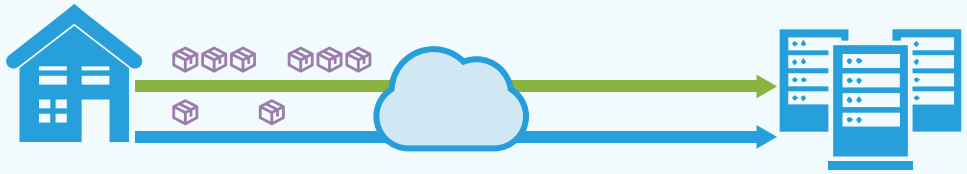
Load Balancing

Using Load Balancing, the load can be transmitted over multiple paths. The load distribution can be symmetric, when the load is equally distributed, or can be asymmetric when the load may be unequally distributed. Fig. 3 shows symmetric load on the two paths, whereas Fig. 4 shows asymmetric load balancing.



Multiple Connectivity - Load Balancing/Symmetric
Multiple Communication Links, e.g. Cable Modem and LTE
Traffic flows through both links in equal measure

Figure 3: zWAN sGR Load Balancing/Symmetric



Load Balancing/Asymmetric
Traffic flows in unequal measure 3:1 through the links

Figure 4: zWAN sGR Load Balancing/Asymmetric

Autoflow Control

zWAN sGR can be configured to make path selection based on underlay network characteristics such as latency, jitter, or packet loss. This means the network flow can be steered to go over the path with the least latency. The network characteristics are measured periodically so that in the event of a change, the flow will be routed through the best available path, avoiding latency, jitter and packet loss.

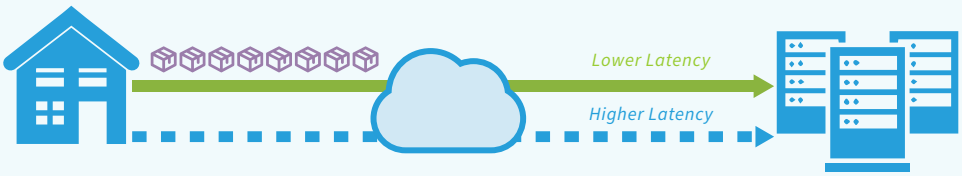


Figure 5: zWAN sGR Autoflow Control

Zero-Touch Provisioning

The zWAN sGR supports a secure true zero-touch provisioning. In order to onboard a zWAN sGR in a remote location the only skill required is the ability to install the zWAN sGR software application. The zWAN sGR is automatically provisioned and configured to operational status. The network administrator can setup rules and policies that will be automatically applied when a zWAN sGR is onboarded.

Deep Packet Inspection (DPI)

zWAN sGR analyzes encrypted network traffic through a process called deep packet inspection (DPI), and classifies the packets to identify the application transmitted through the network and the category the application belongs to. Each category can be either blacklisted (block) or whitelisted (allow). If an application falls in the blacklisted category, it will be denied network access and the flow will terminate. The path selection can also be based on the application or the category of application.

Application Prioritization

When bandwidth constraints exist, zWAN sGR can prioritize applications for transmission, thereby ensuring higher priority applications are transmitted and lower priority applications are transmitted only after the needs of the higher priority applications are met.

Bandwidth Augmentation

The available bandwidth can be augmented using network bonding, by combining more than one path to increase available bandwidth.

Report Generation

The zWAN sGR sends IPFIX data relating to the network traffic and syslog to the Director for further analysis and for dashboard display. Dashboard charts provide invaluable insights into user activities with zWAN sGR. The dashboard can show the number of packets by application transmitted over the network for a predefined period (i.e., 1-minute). display. Dashboard charts provide invaluable insights into user activities with zWAN sGR.

SaaS Breakout

The zWAN sGR can identify SaaS traffic deemed to be reputed and categorize it as such by using DPI and packet categorization techniques. zWAN sGR transmits such SaaS traffic directly to SaaS websites by the shortest available path, without sending the network traffic to the data center, thereby avoiding backhauling. In traditional networks, generally all network traffic gets sent to the data center for security reasons. With zWAN sGR, this unnecessary backhauling can be avoided.

Internet Breakout

The zWAN sGR can identify general internet traffic and categorize it. Such traffic is normally sent to the data center for security scans. This means that SaaS traffic, which in today's environment constitutes the bulk of the traffic for most enterprises, does not have to be subjected to deep security scans, thereby reducing security costs.

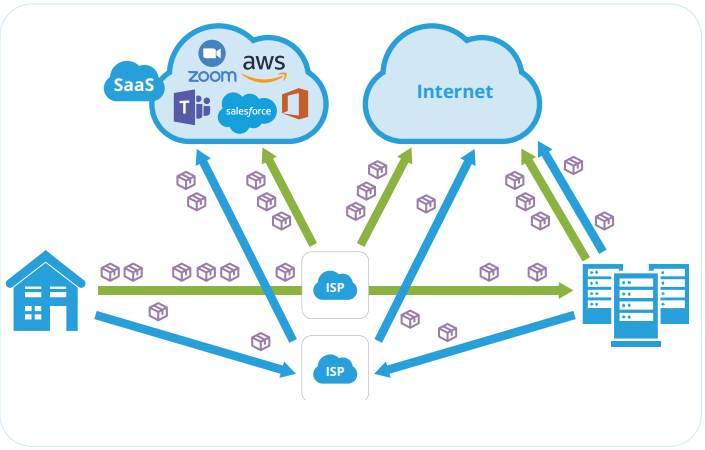


Figure 6: zWAN sGR SaaS Breakout / Internet Breakout

AmZetta zWAN Solution

The AmZetta zWAN SD-WAN solution provides organizations the following components:

zWAN sGR	zWAN Director	zWAN Report Generator
The zWAN sGR integrates with existing routers and modems to allow for a quick and simple installation into the network fabric. Once connected to router, the sGR's zero-touch provisioning means there is no setup to be done after connecting.	The zWAN Director is the centralized manager for all the zWAN sGR devices. IT Teams can onboard, manage and monitor all Work-From-Home users and their devices via the Director.	View live dashboard and reports that visualize the productivity of the Work-From-Home users. View the applications, websites and activities performed by the Work-From-Home users.

Conclusion

SD-WAN enhances application performance, user performance, reduces network expenses, unifies network connectivity and enables orchestration of application delivery across your network while enhancing network security. With zWAN sGR all users can have a secure and reliable connection from branch offices and home networks to the needed applications, data and services within the organization. Fast, secure, and being always connected are the key functions helping employees stay engaged, productive, and collaborating effectively.

How to Get Started?

AmZetta offers free 30-day evaluation with no obligation to purchase. Simply visit https://AmZetta.com/Eval and complete the Evaluation Form. An AmZetta Solutions Engineer will email you the sGR software download to get started in your evaluation.

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