

## 6. THE 4 ROLES OF SDWAN

SDWAN achieves your Objectives by fulfilling one or more of these following roles:

### STANDARDIZATION



This **ROLE** should be the starting point for all **SDWAN** solutions. The ability to deploy the same technology across all locations, regardless of the actual underlying infrastructure, is, after all, precisely what **SDWAN** is about.

### RESILIENCY



This **ROLE** focuses on both single-site and enterprise survivability. It often makes use of a provider gateway to keep operations alive, and is exponentially empowered by having at least two connections, per location, that are physically diverse (network, medium, pathway). The primary purpose of this **ROLE** is to aggregate the multiple links into a single, hyper-resilient network connection. The combination of multiple pathways and the aforementioned provider-side gateway allows **SDWAN** to manage a persistent inbound/outbound connection through conditions that cause traditional services to fail.

### OPTIMIZATION



Solutions that fill this **ROLE** are successful when they reduce the amount of transmitted data and/or provide the least possible delay between request and response. Policy-based traffic shaping (QoS/CoS) and various data reduction techniques are the most effective (and therefore common) features for this category.

### APPLICATION



This **ROLE** focuses solely on protecting the performance of a small selection of mission-critical applications (usually just one). This type of **SDWAN** will use many of the **FUNCTIONS** from the other three **ROLES**, but this **ROLE** is easily distinguished by its behavior to optimize a single application or service, at the expense of other data on the network and therefore a streamlined experience, lending itself to networks built around a single app or service (e.g. DaaS).

**KNOWING WHICH ROLES YOU WANT SDWAN TO FILL FOR YOUR ORGANIZATION IS ESSENTIAL TO MAKING THE RIGHT SELECTION.**

## 7. SDWAN FUNCTIONS

Core Parameters define the most fundamental aspects of all **SDWAN** solutions, and are always the first points to consider, no matter what **OBJECTIVES** or features are sought. Fault Tolerance decisions speak to the ability to withstand interference and interruptions, and are designed to keep connectivity open for normal behaviors. Performance decisions speak to the ability to optimize normal behaviors, and are designed to improve data flow, either through real-time responsiveness to changes in network conditions, reduction of data transmissions, or mitigation strategies for performance-affecting problems (latency, packet loss).

Some features may fall into multiple categories, while others may be so closely integrated that one may not make sense without the other.



- **CORE PARAMETERS** include 4 specific decisions, the first of which being whether it ought to be Premise or Cloud Based.
- **FAULT TOLERANCE** gives 5 specific **FUNCTIONS** to select from, including the level of Forward Error Correction that will be applied.
- **PERFORMANCE** consists of no less than 7 Functions to evaluate, such as Multi-Link Aggregation.
- **COST**, always a concern for a business, asks 4 important questions about your expectations, to ensure the right balance is found. Ultimately the question is: **Do you want to take on this burden yourself?**