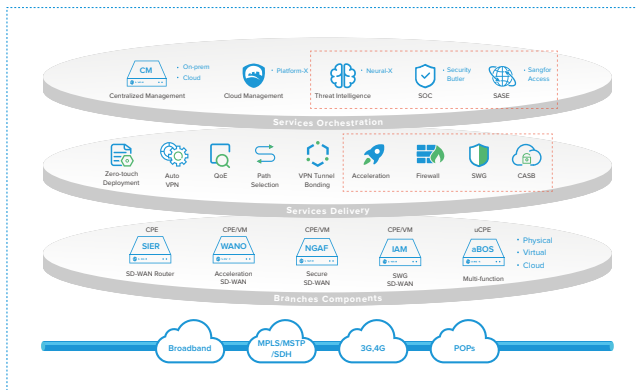# Sangfor SD-WAN
Best Practice for Sales

CONTENTS

What is Sangfor SD-WAN?

SD-WAN is an acronym for software-defined (SD) networking in a wide area network (WAN). SD-WAN simplifies the management and operation of a WAN by decoupling (separating) the networking hardware from its control mechanism.

Sangfor SD-WAN is based on Sangfor's leading VPN technology, integrated security, WAN optimization and superior virtualization technology products, designed in an effort to build a 5S branch access network for enterprises and make IT architecture simple, smart, secure, speedy and scalable.

Simple		Secure	
	• Email Deployment		• Transmission Encryption
	• Auto VPN		• ACL
	• Full Visualization		• IPS/IDS
	• Unified Management		• APT/Anti-Virus
	• Business Orchestration		• WAF
Smart	• Link QoE Detection		• Web Filtering
	• Dynamic Path Selection		• Access Control
	• Automatic Fail-over	**Speedy**	• Application Acceleration
Scalable	• NFV Deployment on Demand		• Data Reduction
	• Elastic Performance		• Link Optimization
			• VPN Tunnel Bonding

Sangfor SD-WAN Family

Core Edge Component Introduction

Category	Features / Component	SIER	NGAF	WANO
Common SD-WAN	Email Deployment	√	√	√
	Select Optimal Path for Critical Apps	√	√	√
	Session Level VPN Tunnel Bonding	√	√	√
	Packet Level VPN Tunnel Bonding			√
	Path Selection Based on Bandwidth	√	√	√
	Automatic Fail-over	√	√	√
Management	Support Central Manager	√	√	√
	Support Platform-X		√	

Category	Features	Component	SIER	NGAF	WANO
Security	Level 4 Stateful Firewall		√	√	√
	Application Access Control		√	√	√
	Application Bandwidth Management		√	√	√
	HTTP Web Filtering		√	√	√
	HTTPS Web Filtering		√	√	
	IPS/IDS			√	
	Anti-virous			√	
	WAF			√	
	Linked with Engine Zero			√	
	Web Filtering Linked with Neural-X		√	√	
	Full Functions Linked with Neural-X			√	
	Linked with Cyber Command			√	
	Linked with EDR			√	
Optimization	Byte Cache				√
	Compression				√
	Pre-fetching				√
	Packets Loss Optimization		√		√
Other	Embedded 3G/4G		√		
	Embedded WIFI		√		

| **Scenarios**

| 01 | **Hybrid WAN** |

Target User	◎ Conglomerates, BFSI (excluding top 3 banks) and distributed manufactory, constructional engineering，energy ◎ Multi-level Government, Mall, Super market
Driving Force	◎ Increased traffic speed and capacity but with increased cost of leased line/MPLS/Metro-E bandwidth ◎ Business interruption due to single WAN link failure or slow fail-over of multiple WAN links ◎ Manual fail-over complicates network management difficulties ◎ Utilization capabilities are low due to the inability to use multiple WAN links
Component Suggestions	◎ Full security solution: NGAF + Endpoint Secure + Platform-X + Security Butler + Neural-X ◎ Hybrid solution: NGAF/SIER/WANO/IAG + CM

01 〈 Hybrid WAN

Solution	○ Hybrid WAN links: Internet VPN replaces all or part of a leased line/MPLS/Metro-E links to reduce WAN investment and increase bandwidth ○ Sangfor SD-WAN provides dynamic path selection (business & internet traffic separation and critical app traffic guaranteed to run on the best quality WAN link), automatic and undetectable fail-over based on link QoE (packet loss, latency, jitter) and VPN tunnel bonding to balance traffic on all WAN links
Success Scenario	○ NISSAN China, KOPERASI NUSANTARA

02 〈 WAN Acceleration

Target User	○ Conglomerates, BFSI (excluding top 3 banks), farming and mining operations in remote areas, island or remote locations with limited internet and multi-level government or organizations with a leased line/MPLS/Metro-E/VSAT link

02 | WAN Acceleration

Driving Force	◉ Organizations only capable of using leased line/MPLS/Metro-E/VSAT link with limited bandwidth and high OPEX, where end users need increased bandwidth and decreased cost ◉ RTO/RPO in DC-DRC scenario not meeting end user' requirements including decreased RTO/RPO ◉ Those experiencing constant user complaints, where poor application experience regularly influences office efficiency and business productivity
Component Suggestion	◉ WANO + CM (option)
Solution	◉ Transparent mode deployment & hardware bypass with no effect on the current network ◉ Application acceleration improves application speed, data reduction improves link throughput, link optimization improves link quality and bandwidth management guarantees core business traffic
Success Scenario	◉ BNI, BSN, UCPB, LIPPO, Felda

03 Large-Scale Small Footprint Locations

Target User	◉ Retail chain stores, logistic distribution sites, gas stations, ATMs and national government regional offices.
Driving Force	◉ Limited IT budget for small footprint locations with end users expecting a multi-functional, integrated and cost-effective solution ◉ Situations where the end user needs to simplify deployment and management ◉ Core business systems (order systems, POS, ERP) require high network availability
Component Suggestion	◉ SIER+CM

03 Large-Scale Small Footprint Locations

Solution	◎ Email deployment and auto VPN make it possible for anyone in s branch office to deploy and support newly opened branches
	◉ Unified management, centralized alerts and clear visualization simplify management and operations
	◎ Supports Hybrid WAN to improve network reliability
	◉ Integrated 3G/4G and WIFI solution decrease management difficulties
	◎ Advanced packets loss reduction technology optimize VOIP and order system experience
Success Scenario	◎ JD Logistic, FamilyMart
	◉ LG Life, SF Express

04 **Global Network**

Target User	○ MNC or large organization with multi-national ○ locations and purchase in local region
Driving Force	○ Poor quality (high packets loss, high latency, high jitter) of global internet ○ Expensive global MPLS and long provision cycle ○ Hard to deploy and manage due to lack of local IT staff
Component Suggestion	○ WANO/vWANO +CM (option)
Solution	○ Cloud POPs build backbone network to solve global networking issues ○ Hybrid WAN + Acceleration + Quickly Deployment + Centralized Management
Success Scenario	○ China Aviation Oil, GS E&C

| Pitch

Opening Question:

Question 1:
May I know your short-term and long-term business strategy, and whether current IT architecture can keep up with your business changes?

Answers:

- Digital transformation, more business will be conducted online.
- Business is going to move to the cloud
- Open more branches quickly to grab the market opportunities
- Reduce costs and improve user work efficiency

Question 2:
Tell me about any business challenges you currently have?

SD-WAN Opportunity Answers:

- Users often complain about the slow speed of critical applications
- Data backup and recovery is slow with data unavailable to users in real-time
- Links are often interrupted
- Manual fail-over
- Difficulty managing many branches simultaneously

Question 3:

Give me an idea of the structure of your company and any plans for new branches?

SD-WAN Opportunity Answers:

- 1* Data Center

- 1* Disaster Recovery Center

- 1* Cloud Data Center

- 10* Large, Mid-Sized or Small Office

* If no branches and no DC-DRC, there is no SD-WAN opportunity

Question 4:

• May I know your current connection method between branches and HQ? What type and number of links do you use? what is the bandwidth cost for each location?

• Do you have any plans to upgrade bandwidth?

Answer:

Data Center has 2 links
- 1 * internet , 20Mbps/40USD/Month
- 1 * MPLS, 4Mbps/400USD/Month

Small office has 1 links
- 1* internet , 10Mbps/20USD/Month   * Used for sizing

Question 5:

May I know your business between branches, datacenters and DC to DRC's?

Answer:

• Branch users often use XXX application for XXX business

• DC-DRC use XXX backup and recovery software for synchronization

Question 6:

How do branch users access the internet? Is it local direct access or access via a data center?

Answer:

• Directly local internet access -> (Hybrid WAN + local security solution)

• Internet access via data center or no internet access -> (WAN acceleration + security in datacenter solution)

Q&A

Question 1: Is Sangfor SD-WAN stable?

Answer:

• Sangfor SD-WAN is based on Sangfor VPN technology. Sangfor is the #1 Chinese VPN vendor for the past 10 consecutive years with more than 2,200 customers using SD-WAN for their branch network access.

• Sangfor's largest SD-WAN project to date is with JD Logistics with over 10,000+ distribution sites.

Question 2: What values can Sangfor SD-WAN deliver to your business?

Answer:

• Reduced WAN investment, improved business reliability and quick deployment help new branches get online quickly, reduce deployment costs and simplify branch management.

• In addition, customers can boost acceleration to improve the user application experience and enhance full security protection and high scalability, simplifying the network architecture and making it smarter, more secure speedy and scalable.

Question 3: Why choose Sangfor SD-WAN?

Answer:

• Only Sangfor integrates full acceleration features, full security functions and high scalability features into SD-WAN solution.

• One centralized management platform manages all Sangfor network devices.

• Sangfor SD-WAN supports VPN tunnel bonding (packet level load balancing) and is more suitable for multiple narrow bandwidth links scenarios.

Question 4: Why Sangfor is not in the Gartner WAN Edge Magic Quadrant?

Answer:

• Gartner WAN Edge MQ has a critical requirement on customer number in different continent, Sangfor SD-WAN technology full meet their technical requirements but Sangfor focus on APAC market, don't have so many customer in other continent.

• But with the development of Sangfor EMEA, Sangfor access to Gartner WAN Edge MQ just a time issue.

Competition Strategy

General Advantages

1. Sangfor has a strong totally solution capability in security, acceleration and virtualization

2. Sangfor secure SD-WAN integrates Endpoint Security, Platform-X, Neural-X, Engine Zero and IR (Incident Response) can provides a full security solution to protect customer's business.

3. Sangfor has a strong service capability in customization, online service and local support.

VS. Fortinet

1. Sangfor SD-WAN has full acceleration solution to improve user application experience

2. Fortinet does not support VPN tunnel bonding, meaning decreased link bandwidth utilization

3. Sangfor ES integrate with NGAF, can provide close-loop malware protection capability

4. Sangfor Platform-X supports branches management and secure events operation in the same component.

VS. Cisco

1. Sangfor secure SD-WAN has advanced security capability, Cisco has limited security capability in Meraki and none in Viptela

2. Sangfor has Endpoint Secure linked with NGAF solution and IR service. Cisco doesn't have

3. Sangfor supports one management platform to manage different products

VS. Riverbed

1. Riverbed security relies on a third-party vendor's solution

2. Riverbed requires two centralized management platforms, SteelConnect Manager and SteelCentral Controller, to manage their SteelConnect (SD-WAN) and Steelhead (WANO) series

3. Riverbed does not support video conferencing optimization

VS. Peplink

1. Peplink lacks a security solution

2. Sangfor SD-WAN has full acceleration features to improve user application experience

3. Sangfor SD-WAN is more adaptable to your current network, supporting single arm and bridge mode deployment, and not requiring huge and costly network changes or upgrades.

Case

01 **Hybrid WAN – NISSAN**

Customer Overview

NISSAN has more than 1,000 dealerships and service centers in China, bearing the primary responsibility for sales and service. Nissan is a name people know and trust. Until recently, each Nissan service center had their own file servers storing customer and vehicle information and the center managers were required to regularly participate in online meetings via VIOP. Customers were also provided with an internet connection while visiting the center in an effort to provide better and more comfortable service.

Pain-Points

1. Poor VOIP quality negatively affected the daily tasks required of managers.
2. Customer internet access was unregulated, such as porn video, fishing website.
3. File servers up to internal and external threat.
4. Lacked local IT staff able to manage network devices and servers.

01 ⟨ **Hybrid WAN – NISSAN**

Solution

• Each dealership and service centers deployed 2 internet broadband + aBOS (vNGAF + file server virtual machine)

• Data center: CM

Values

• Business continuity: VOIP traffic dynamicly allocated to the best quality link for better quality transmission. If a link is down, traffic automatically and inperceptably fails-over to a new link.

• Security and regulations: vNGAF sets 3 independent zones for servers, staff and customers, protecting the servers and user security while intercepting illegal traffic.

• vNGAF + virtual machine all-in-one solution delivery with centralized and simplified operation maintainence and management, reducing OPEX costs.

02 **WAN Acceleration – Maybank Philippines**

Customer Overview

Maybank is Malaysia's largest bank and one of the largest banks in Southeast Asia, with total assets exceeding US $165 billion and a net profit of US$1.75 billion (2015). Maybank Philippines has an extensive network of 79 branches which are strategically located in key cities national wide. These branches provide a wide range of financial products and services to meet the needs of the retail and business segments.

Pain-Points

Maybank Philippines were using 10Mbps of bandwidth and IBM Mimix to synchronize banking data between Carmona and the Manila HQ. Because of limited bandwidth, costly MPLS bandwidth and daily synchronizations from 0AM to 12PM, the latest data was unavailable to staff at start of business each day.

The connection speed between HQ and branches like the Legaspi Tower was very slow, affecting office efficiency for all those in need of access to core banking systems (i.e. image checking systems, collection systems, GDS, LOS, online branch reporting and anti-money laundering systems).

02 ⟨ **WAN Acceleration – Maybank Philippines**

collection systems, GDS, LOS, online branch reporting and anti-money laundering systems).

Solution

• WANO (data reduction, application acceleration, link optimization)

Values

• IBM Mimix data reduced 90% and synchronization time reduced from 24hs to 6hs

• Image checking system upload time via VSAT link reduced from +1000s to 10s

• Average core banking system traffic data reduced 70% and speed improved 3-10 times

• Reduced MPLS bandwidth upgrade cost

03 **Large-Scale Small Footprint Locations – FamilyMart**

Customer Overview

FamilyMart is Japan's second largest chain convenience store behind 7-Eleven. There are now 24,243 stores spread throughout Japan, China, Philippines, Thailand, Vietnam, Indonesia and Malaysia. FamilyMart branches depend on retail ERP and POS system with all servers housed in a data center.

Pain-Points

With no IT staff in stores, deployment and management of all branch network needs is complex.

Branch business is highly information-based, requiring high-availability WAN.

Solution

• SIER+CM

03 ⟨ **Large-Scale Small Footprint Locations – FamilyMart**

Values

• Quick deployment without the need for IT engineers to support quick business expansion.

• Unified policy and visualization alarms simplify management and operations.

• Hybrid 4G and broadband improve business reliability.

• Stateful firewall and data encryption guarantee POS data security.

04 ⟨ **Global Network – DaeSang**

Customer Overview

Daesang Corporation was established in 1956 with pure S.Korean domestic capital and technology, putting emphasis on their vision of considering today and innovating tomorrow. Daesang strives to create happiness through the production of healthy food and a health food culture. The have spent 60 years as one of the world's top 3 fermentation companies and the best general food company in Korea.

04 **Global Network – DaeSang**

Pain-Points

Daesang's business is distributed across Korea, Indonesia, China, Japan, Philippines, Vietnam, Myanmar, Thailand, Russia, the USA and Europe. Their worldwide subsidiaries use a VPN to connect to the Korean data cent via 3G/4G, xDSL and PPPoE, making the speed of production and office applications very slow, seriously affecting work productivity.

Values

Accelerates production and office applications, giving users streamlined access to the Korean based data center.

Guarantees critical app traffic bandwidth while maximizing bandwidth value.

Reduces data while decreasing the cost of international bandwidth.

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