



WAN Optimization Market CY 2013 Tracker

Asia-Pacific

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Executive Summary

Executive Summary

- The Asia Pacific (APAC) WAN Optimization Controller (WOC) market recorded a flat 5.0% growth on a YoY basis in 2013. Demand for the technology was fairly subdued given the relatively weaker business environment in the region, which affected enterprises' propensity to spend on IT. Moreover, the technology segment also faced growing competition from newer networking technologies such as Software Defined Networking (SDN). The market buzz surrounding SDN diverted enterprise attention away from WOC, with some enterprises adopting a wait-and-see attitude towards the long term viability and value proposition offered by both technologies.
- The relatively mature understanding that APAC enterprises had towards WOC technology meant that they were able to recognize the value that WOC offered in minimizing network performance inefficiencies and improving workforce productivity. Indeed, the direct impact that WOC had in creating business value for the enterprise also helped in justifying investments in the technology, since enterprise customers were able to see its Return on Investment (ROI) value.
- Service providers across APAC continued to invest in WOC solutions, with many of them looking to offer WOC-related services as part of their value-add on top of their traditional offerings. In many ways, the ability of WOC to reduce application latency and maximize bandwidth usage meant that service providers were also able to offer more value-add services such as security-related ones into their service bundle packages. SMB enterprises were also keen to adopt WOC via the services approach due to their budgetary and expertise constraints.
- Looking ahead, emerging technology trends such as Internet of Things (IoT) and Big Data are likely to hold great potential for WOC technologies. Moreover, with more enterprises looking to build their own private clouds, there may be a greater role for WOC to play in enabling these extended networks to constantly operate at optimal performance levels. The challenge is thus for WOC vendors to introduce more innovative capabilities into the solution to ensure it remains relevant in the long run.

Source: Frost & Sullivan analysis.

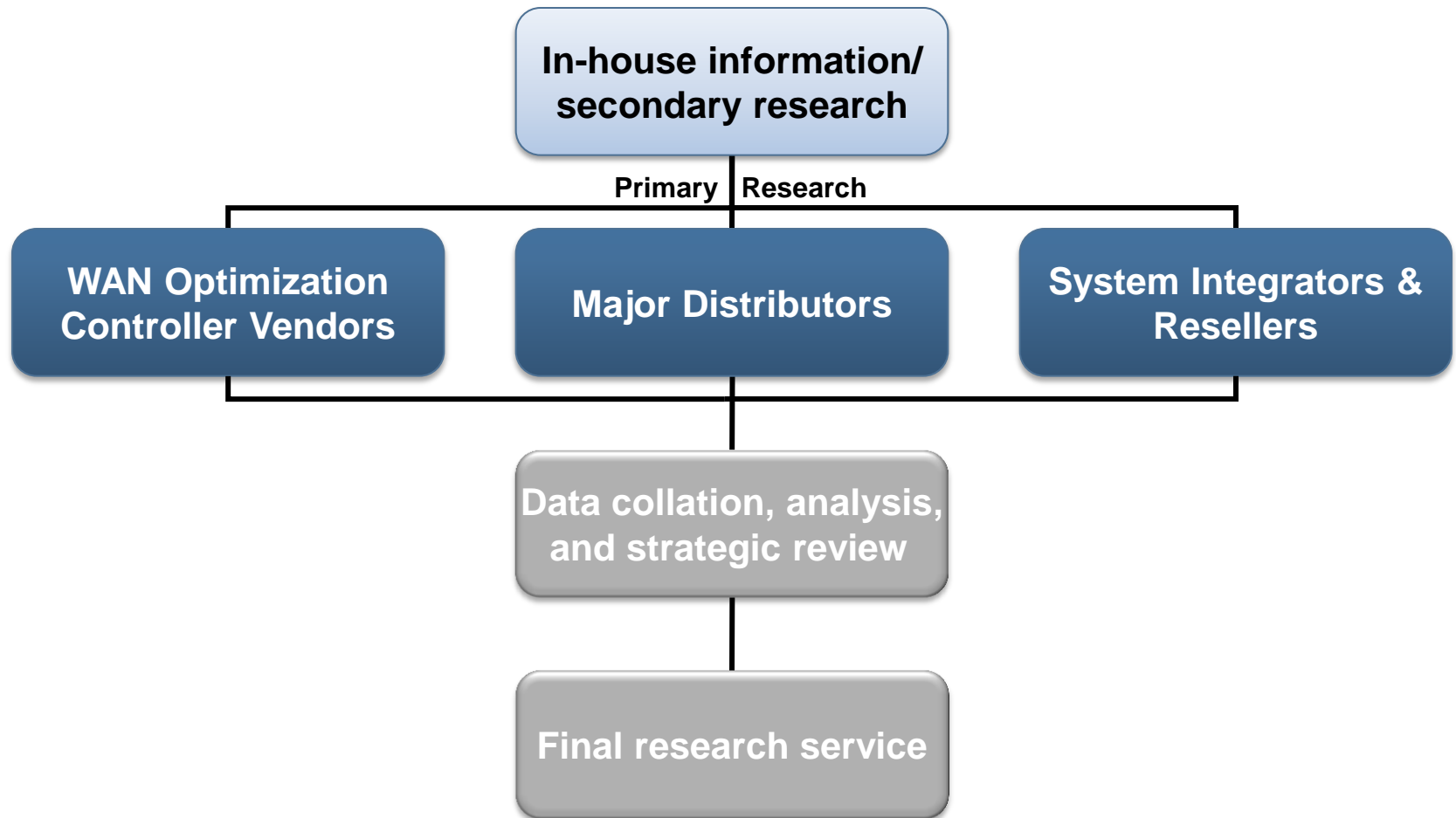
Market Definitions and Research Methodology

Research Objectives

This tracker provides an analysis of the total WAN Optimization Controller Market in the APAC region for 2013 (January to December 2013) period. It analyzes the market trends, vendor performance, vertical market splits, and enterprise size splits.

Research Methodology

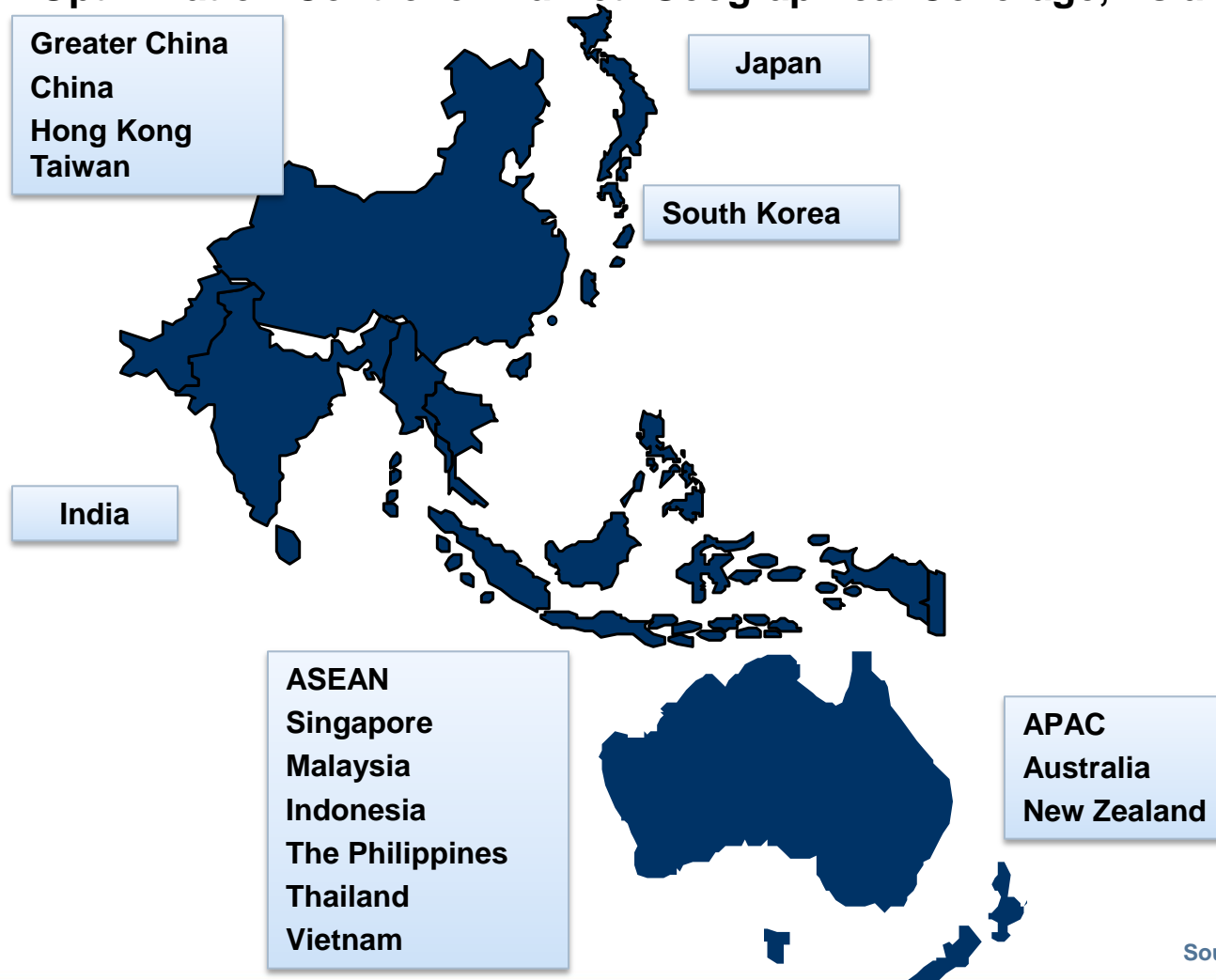
WAN Optimization Controller Market: Research Methodology, Asia-Pacific, 2013



Source: Frost & Sullivan analysis.

Geographical Coverage

WAN Optimization Controller Market: Geographical Coverage, Asia-Pacific, 2013



Source: Frost & Sullivan analysis.

Market Definitions

WAN Optimization Controller (WOC):

WAN traffic management controllers are appliances or software that enhance WAN performance by classifying, monitoring, and shaping WAN traffic.

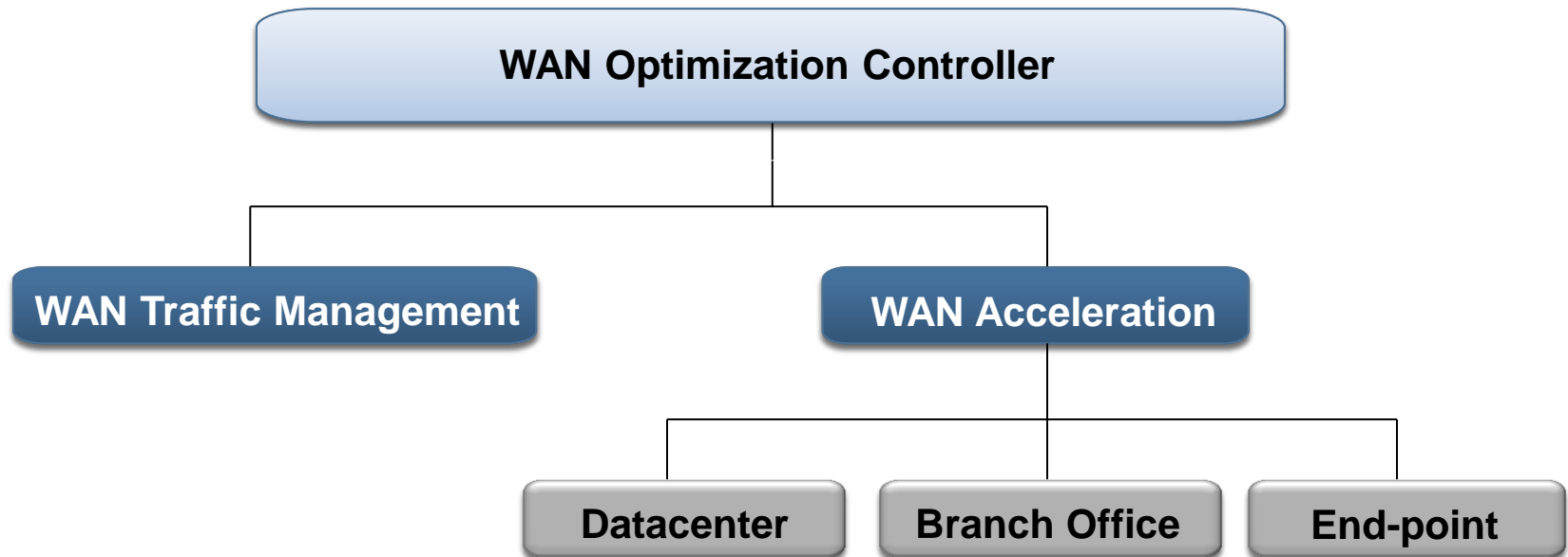
WAN acceleration controllers are symmetric appliances or software that are deployed in datacenters and branch offices or remote locations to enhance application and WAN performance. The controllers use techniques such as traffic shaping, compression, caching, and protocol acceleration to enhance performance. WOCs can be deployed at datacenters, branch offices, or end-points.

Source: Frost & Sullivan analysis.

Market Definitions

For the Purpose of this study, the WAN optimization controller market is segmented as follows:

WAN Optimization Controller Market: Technology Segmentation, Asia-Pacific, 2013

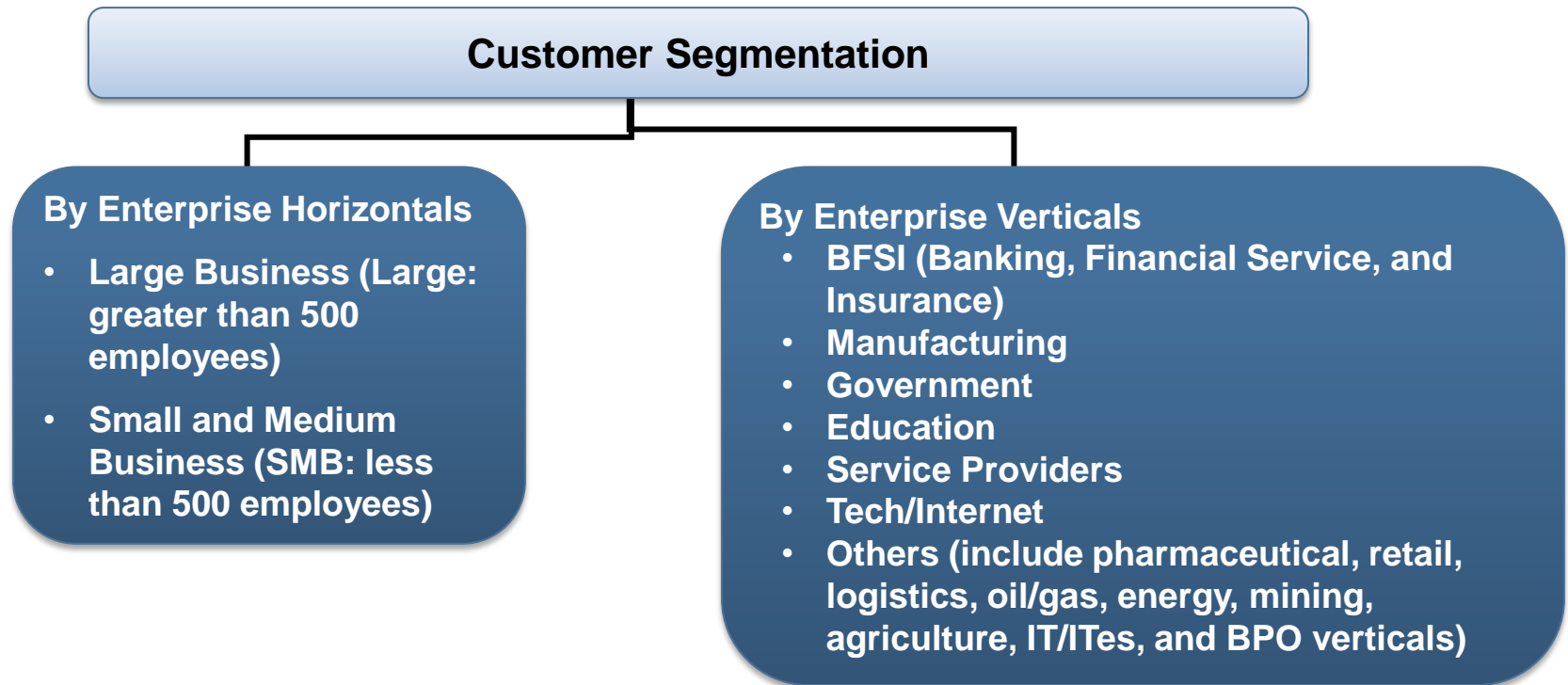


Source: Frost & Sullivan analysis.

Market Definitions

For the Purpose of this study, the WAN optimization controller vertical and horizontal segments are defined as follows:

WAN Optimization Controller Market: Vertical and Horizontal Segmentation, Asia-Pacific, 2013



Source: Frost & Sullivan analysis.

Assumptions

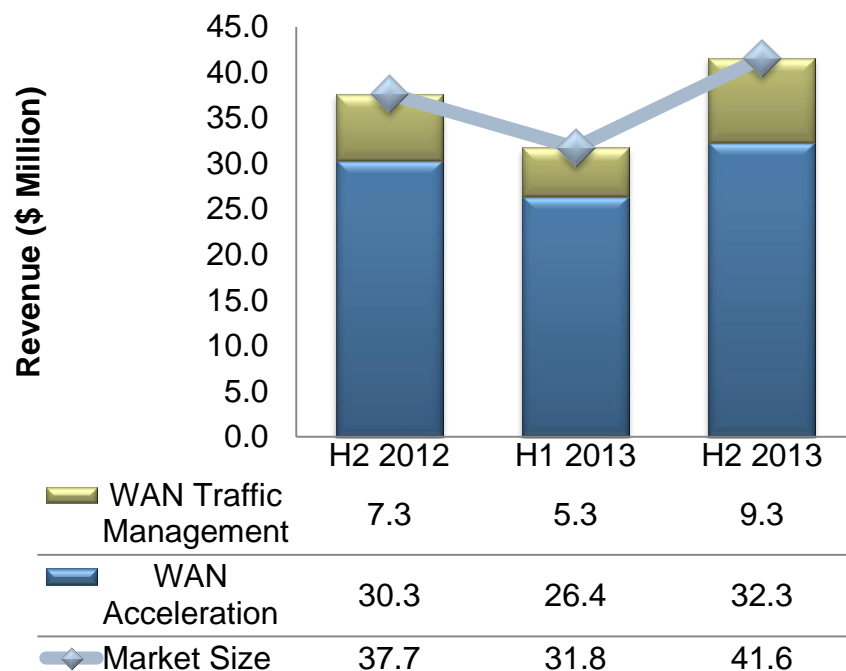
- All revenues are based on end-user prices that is, actual price paid by end users for the products. All revenues associated with system integration, maintenance, and other professional services attributes have been excluded from this analysis.
- Revenues are in United States Dollars, unless specified otherwise.
- The average channel mark-up is assumed to be between 30-40%.
- The research excludes WAN Optimization products that are focused exclusively on non-enterprise verticals (such as only Telecom-focused products).
- Appliances that offer limited functionality by offering these as non-core features on routers or other platforms are excluded from the study.
- Stand-alone WAN Link load balancers are excluded from this study. Only symmetric appliance deployments are considered in WAN acceleration revenues.

Source: Frost & Sullivan analysis.

Greater China WAN Optimization Controller Market 2013

Market Highlights

WAN Optimization market: Historical Market Performance, Greater China, H2 2012–H2 2013



WAN Optimization market: Market Growth, Greater China, 2013

Market Segment	Revenue Growth Rate (%)
	2013/2012
WAN Acceleration	2.5
WAN Traffic Management	18.5
Total	5.4

Note: All figures are rounded; the base year is 2013. Source: Frost & Sullivan analysis.

Market Highlights (continued)

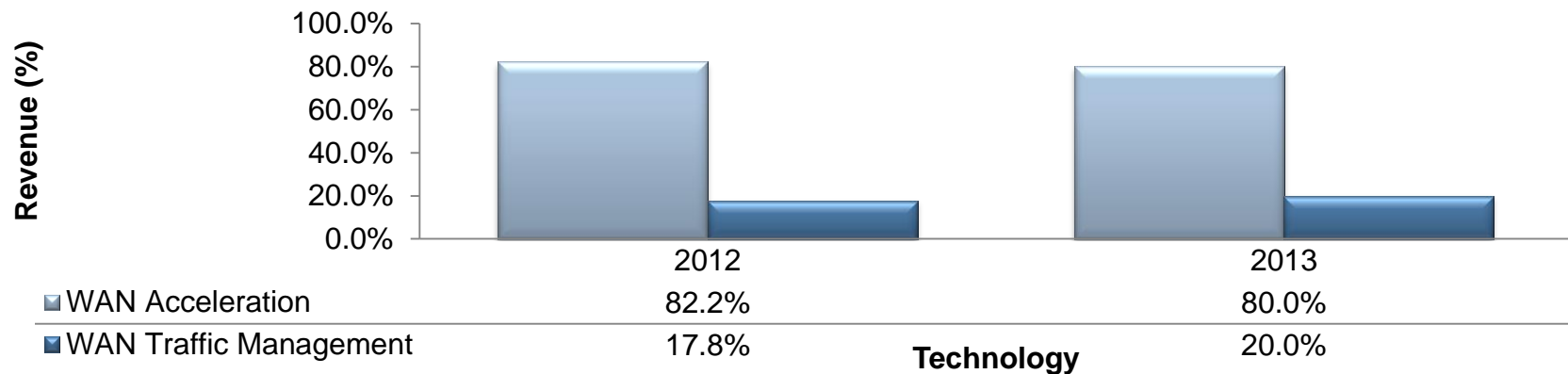
WAN Optimization market: Key Market Trends, Greater China, 2013

Market Overview	<ul style="list-style-type: none">• The Greater China WAN Optimization Controller (WOC) market registered a steady YoY growth of 5.4% in 2013. The growth clocked in the WOC market could be attributed to the recovery of the Hong Kong WOC market, which witnessed a YoY growth of 5.3% in 2013. In addition, the robust adoption of WAN traffic management solutions resulted in the segment recording a YoY growth of 22.0% in 2013.• With the trend moving towards datacenter consolidation and cloud computing, enterprises were increasingly focused on ensuring the security and efficiency of their IT setup, be it for data or applications. Hence, more enterprises were looking at WOC solutions to optimize and better secure the user experience in a private cloud setup.• The government vertical increased its spending on WOC significantly in 2013. With the new Chinese government putting more effort on the development of ICT in the country, the overall spending in ICT during the year rose. Another vertical experiencing a robust growth in WOC spending is technology/internet, which posted a YoY growth of 19.7%.
Market Drivers and Restraints	<ul style="list-style-type: none">• The growing enterprise drive towards cloud computing, in particular private cloud setups, saw many of them turn to WOC to optimize the performance levels of their network infrastructure. Moreover, with many Chinese enterprises looking to expand their business footprint beyond their home market, they were also looking at WOC to ensure their fast-expanding corporate networks were constantly operating at equitable and optimal levels.• The weaker business climate in the region did cause some enterprises to scale back on their IT expenditure, which inevitably affected their propensity to invest in WOC solutions.

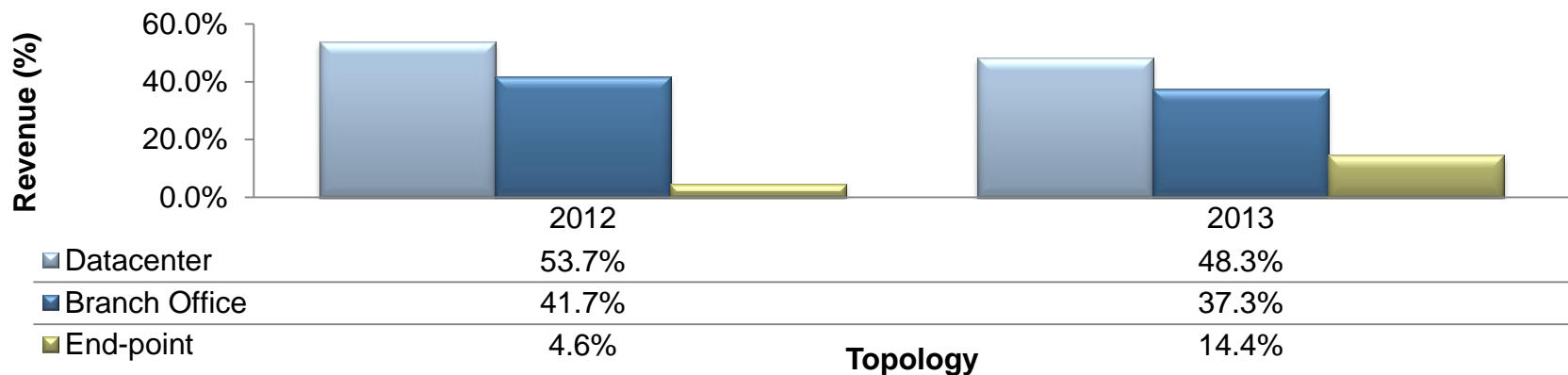
Note: All figures are rounded; the base year is 2013. Source: Frost & Sullivan analysis.

Market Highlights by Technology and Topology

WAN Optimization market: Technology Demand Analysis, Greater China, 2012 and 2013



WAN Optimization market: Topology Demand Analysis, Greater China, 2012 and 2013



A list of vertical abbreviation used can be found in [market definition slide](#). Note: All figures are rounded. the base year is 2013. Source: Frost & Sullivan analysis.

Market Highlights by Technology and Topology (continued)

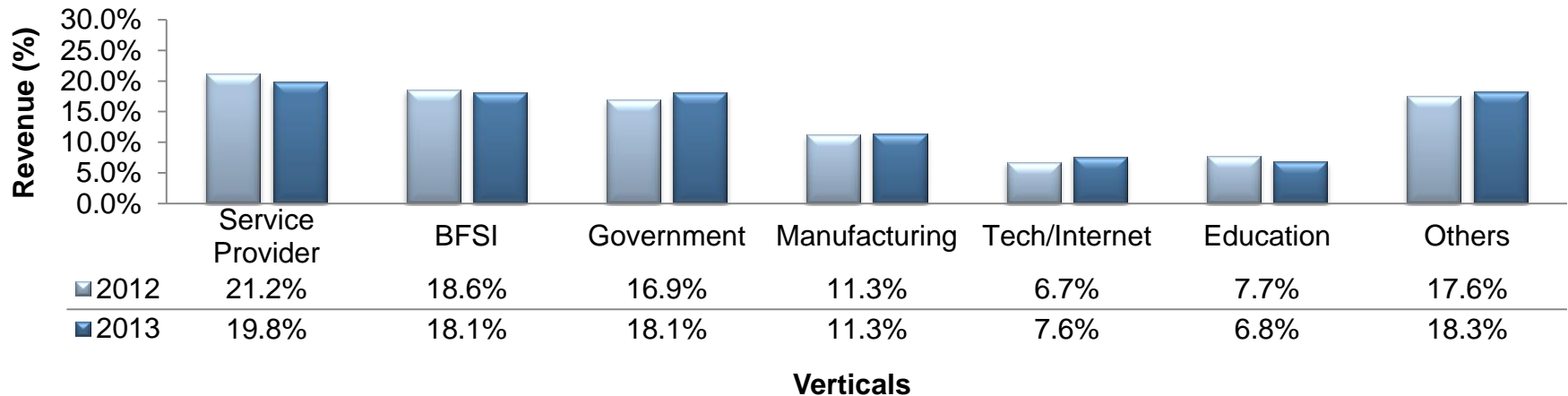
WAN Optimization market: Adoption Trends, Greater China, 2013

Technology Trends	<ul style="list-style-type: none">• WAN acceleration continued to dominate the WOC market in 2013, capturing a majority market share of 80.0%. The dominance of the technology segment is mainly fuelled by the steady demand and strong understanding and mindshare towards the technology. Trends such as datacenter consolidation, cloud computing and web-driven business processes are likely to drive growth of WAN acceleration solutions since the technology is able to optimize application performance and bring about a better user experience.• 2013 also witnessed more enterprises in the Greater China region attempt to control bandwidth usage in order to shorten the response time of critical applications and thus improve their performance levels. The gradual understanding and appreciation of the value proposition offered by WAN traffic management saw the segment capturing more market share in the WOC segment in 2013.
Topology Trends	<ul style="list-style-type: none">• The investment on the datacenter front continued to lead the Greater China WOC market in 2013, capturing a share of 48.3% of the market. However, with less sizable deals happening at the datacenters and branch offices, the market share of both topologies dropped in 2013.• In contrast, 2013 witnessed a robust growth for mobile/client WOC solutions, with the segment registering a 219.3% growth rate on a YoY basis. The strong take-up could be attributed to the rising adoption and influence of mobile devices in the enterprise environment, as well as more enterprises looking to empower these devices as an extension of their corporate networks.

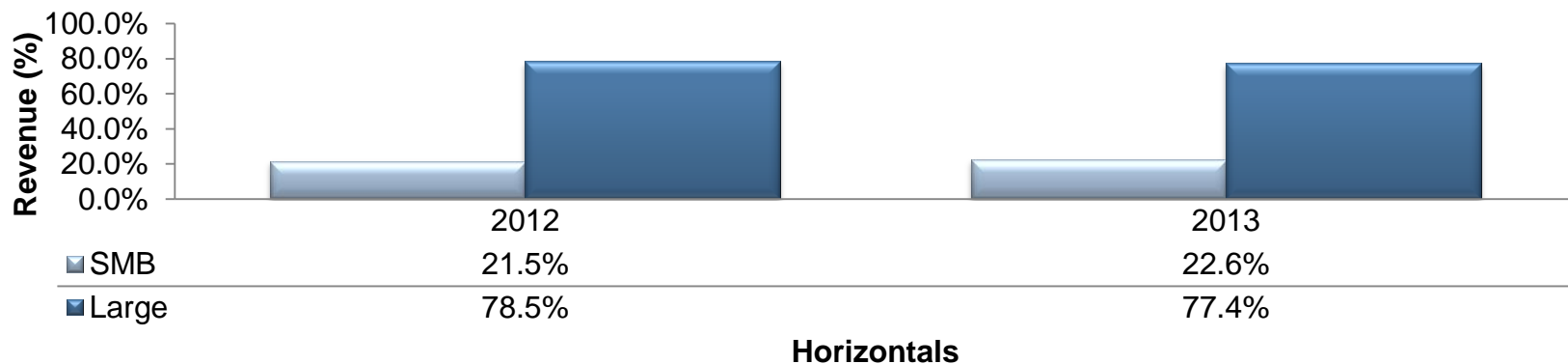
Source: Frost & Sullivan analysis.

Market Highlights by Horizontal and Vertical

WAN Optimization market: Vertical Demand Analysis, Greater China, 2012 and 2013



WAN Optimization market: Horizontal Demand Analysis, Greater China, 2012 and 2013



A list of vertical abbreviation used can be found in [market definition slide](#). Note: All figures are rounded. the base year is 2013. Source: Frost & Sullivan analysis.

Market Highlights by Horizontal and Vertical (continued)

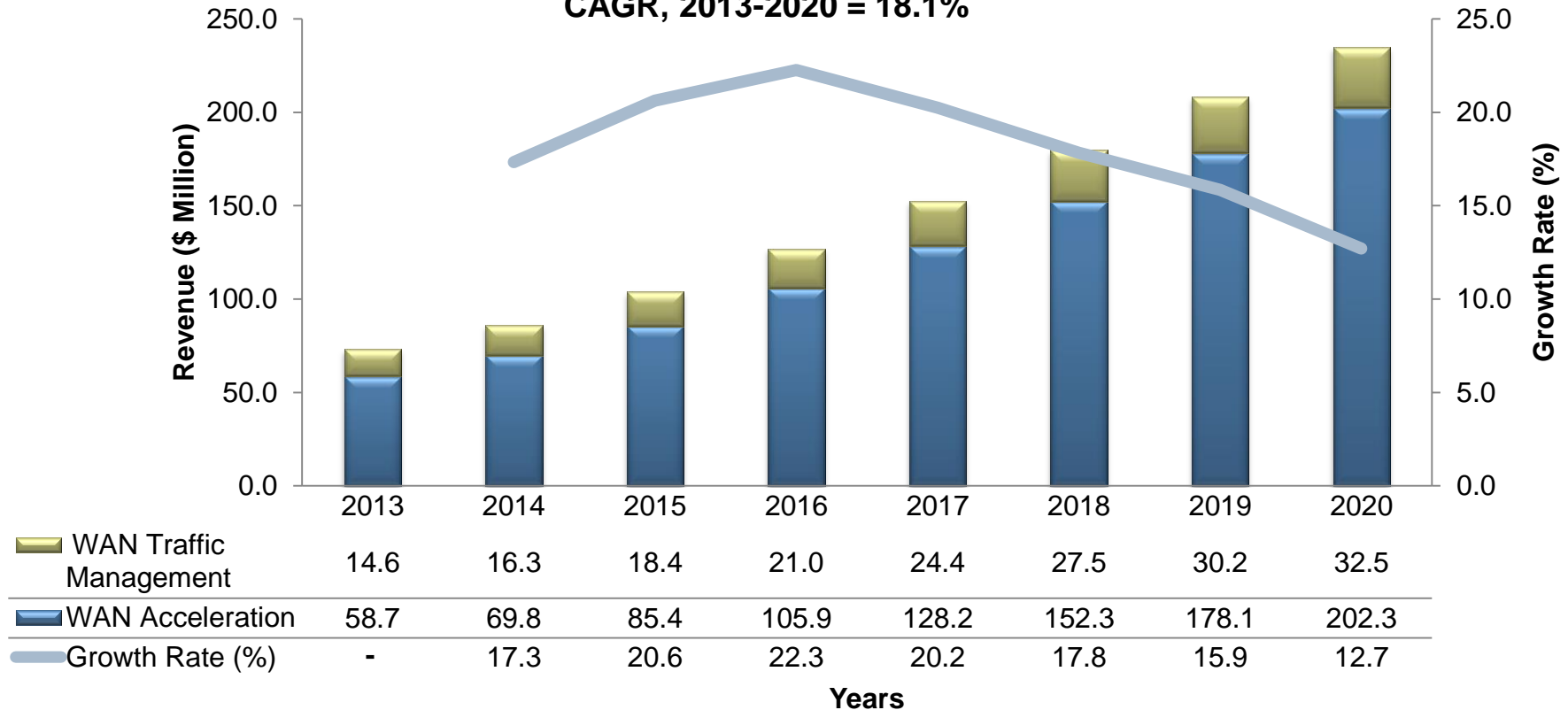
WAN Optimization market: Adoption Trends, Greater China, 2013

Top Vertical Trends	<ul style="list-style-type: none">• Revenue contributions to the WOC market from the BFSI and manufacturing verticals remained fairly consistent in 2013.• The service provider vertical remained the largest spender on WAN Optimization Controller(WOC) solutions in Greater China, accounting for 19.8% of the total share in the market. However, 2013 did witness a decline in the revenue contribution of service providers due to less sizable deals happening.• The government vertical increased the spending on WAN Optimization Controller(WOC), registering a healthy YoY growth of 12.9% in 2013. Governments in the Greater China region were all observed to be actively driving forth ICT development in their respective countries.• The tech/Internet vertical registered the highest YoY growth of 19.7% in the 2013 in the Greater China WOC market, expanding its share of 6.7% in 2012 to 7.6% in 2013.
Top Horizontal Trends	<ul style="list-style-type: none">• Large enterprises continued to dominate the WAN Optimization Controller(WOC) market. With economic exchanges and business activities becoming more frequent across the Greater China region, WOC solutions was used by large enterprises to aid in their network expansion and bring about greater efficiencies across the entire setup both domestically and regionally.• WOC spending from the SMB segment maintained its growth momentum with a YoY growth of 12.8% in 2013 due to growing awareness towards the technology in the region.

Source: Frost & Sullivan analysis.

Market Forecasts by Technology Segment

**WAN Optimization Market: Forecast by Technology Segment,
Greater China
CAGR, 2013-2020 = 18.1%**



Note: All figures are rounded. The base year is 2013. Source: Frost & Sullivan analysis

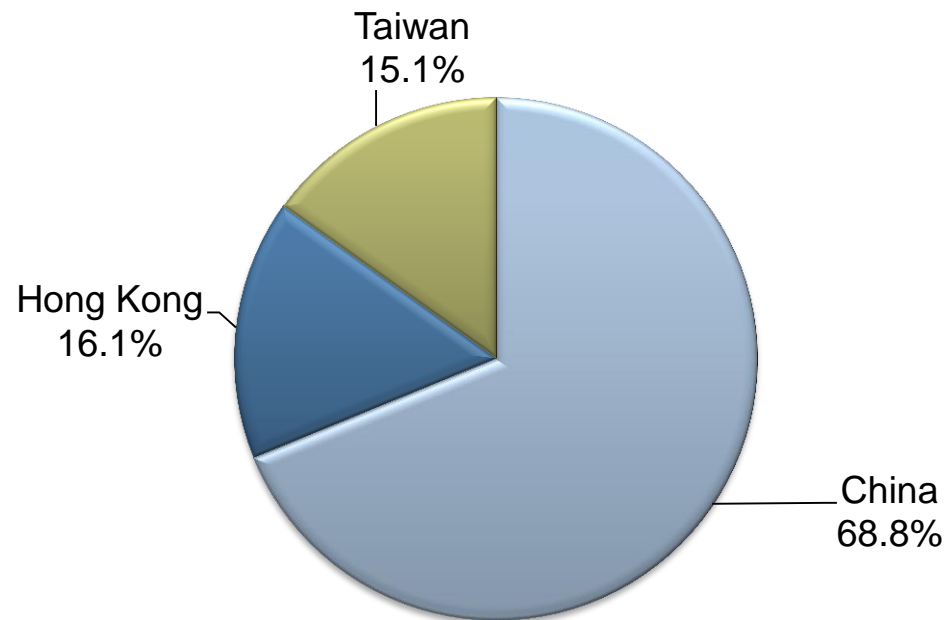
Market Forecasts by Technology Segment Discussion

- The Greater China WOC market is forecasted to grow faster in the next three years and reach its peak in 2016. The market is expected to reach a total market size of US\$ 234.8 million in 2020 with a CAGR of 18.1%. The Greater China WOC market is expected to exceed the ANZ WOC market to become the largest WOC market in the APAC region in 2020.
- With more enterprises in the Greater China looking to build their own private cloud setups, many of them are expected to be looking more closely at the security and efficiency levels of their IT infrastructure. The ability of WOC solutions to bring about greater application performance and provide more network visibility is also likely to appeal to enterprises hoping to optimize experiences for their users, be it employees or customers.
- Enterprises in Greater China were also observed to be looking at mobile devices as an extension of the corporate network. Hence, WOC capabilities are expected to be increasingly offered on these mobile devices as enterprises strive to empower them, and ensure the user will not have to deal with issues surrounding application latency on these devices. This will also allow enterprises to optimize user experiences regardless of which terminal they are accessing from.
- Nowadays, enterprises are committed to reduce costs. As such, in order to shorten the response time of critical applications in their setup, the WOC solution is also looking to incorporate more traffic management capabilities, so as to ensure optimal bandwidth usage and bring about higher levels of performance for the critical applications.
- With more SMB enterprises in Greater China also looking to gain the benefits associated with WOC technology, demand for managed WOC services in the region may prompt more WOC investments from the service provider vertical. The ability to outsource will be especially appealing to budget and resource constrained SMB enterprises.

Note: All figures are rounded. The base year is 2013. Source: Frost & Sullivan analysis

Greater China Country Analysis—Market Share

Market Share by Revenue
WAN Optimization Controller Market: Greater China, 2013



Note: All figures are rounded. The base year is 2013. Source: Frost & Sullivan analysis.

Greater China Demand Analysis by Country

China

- The Chinese WOC market maintained a steady performance, clocking a YoY growth of 5.6% in 2013. However, a strong rebound is expected in the coming year as the new government has come up with policies in 2013 to address the importance of ICT infrastructure. The WOC solution will be an important area of focus if the government wants to optimize the user experience and enhance the efficiency of applications.
- 2013 witnessed the government vertical increase its spending on WOC. With a new government coming into office, the need to facilitate more effective communications between the government and citizens boosted the adoption of ICT in general, including WOC technology. Under the guideline, the demand for WOC is likely to witness a continual increase in future.
- In addition, as adoption of cloud computing gradually moves into the SMB segment, the role of WOC as an important enabler for cloud setups is also gaining more awareness in China. Enterprises in China are keen to enhance operational efficiency levels by improving the performance of critical applications. As the mindshare and understanding towards WOC strengthens among the large enterprises, the impact of the WOC solution in improving overall business competitiveness and performance levels will also gain greater recognition.
- The rising adoption of mobile devices in the Chinese enterprise environment is also likely to generate greater demand for client/mobile WOC solutions in the long run. This is especially so as more Chinese enterprises embrace mobile computing and BYOD trends in the country.
- The China WOC is expected to reach a total market size of US\$ 164.9 million in 2020, riding on a CAGR of 18.4%.

Source: Frost & Sullivan analysis.

Greater China Demand Analysis by Country (continued)

Taiwan

- The Taiwanese WOC market recorded a flat growth in 2013, registering a growth rate of 4.3% on a YoY basis. Following its strong performance in 2012, the growth momentum did not continue in 2013 as enterprises tightened their budgets on ICT infrastructure due to the overall sluggish economic conditions.
- Nonetheless, Taiwanese enterprises were observed to be increasingly focused on enhancing user experiences on their corporate networks. As a result, many were looking to use WOC technology as a way to achieve optimal network performance levels and consequently, better application performance levels for their network users. With some enterprises also looking to build their own private clouds, they were also keen to view mobile devices as an extension of their corporate network, henceforth increasing the demand for mobile/client WOC solutions.
- Among the verticals, the government segment witnessed the fastest YoY growth rate of 13.4% in 2013 due to the completion of several sizable deals in the vertical. The tech/internet vertical maintained a steady growth of 6.2% on a YoY basis, as enterprises in the vertical wanted to enhance the efficiency levels for branch offices to gain access to data and applications consolidated at the datacenter.
- Riverbed maintained its leading position in the Taiwanese WOC market but did not register as strong a growth momentum as it had in 2012. The overall sluggish economic conditions remained as a key restraint to all vendors in the market.
- The Taiwanese WOC market is expected to reach a total market size of US\$ 35.6 million in 2020, hitting a CAGR of 18.1% in the process.

Source: Frost & Sullivan analysis.

Greater China Demand Analysis by Country (continued)

Hong Kong

- The Hong Kong WOC market recovered from the sharp decline in 2012, registering a YoY growth rate of 5.3% in 2013. The BFSI segment bounced back as a result of the gradual recovery of the global economy, recording a growth of 20.4% on a YoY basis in 2013.
- 2013 witnessed the recovery of the BFSI vertical. With the gradual recovery of the global economy and the Closer Economic Partnership Arrangement (CEPA) signed between China and Hong Kong, more business activities were observed to be happening in the BFSI vertical. The need to improve the overall efficiency of the IT setup drove forth the adoption of the WOC solution. However, the weaker Chinese economy did result in the growth potential of the WOC market being dampened.
- Among the verticals, the tech/internet segment showed the strongest growth rate of 62.0% on a YoY basis. This vertical maintained and even accelerated the growth momentum from 2012 as the need to improve efficiency levels at branch offices to access critical data and applications at the datacenter continued to increase in 2013.
- In Hong Kong, the SMBs were observed to be more forward thinking about the adoption of WOC solutions than their counterparts in China and Taiwan. With a growth of 14.4% on a YoY basis, the SMB segment increased its market share in the WOC segment in 2013. Large enterprises maintained a steady YoY growth rate of 6.2% in 2013.
- The Hong Kong WOC market is expected to grow at a CAGR of 16.5% during the forecast period, reaching a total market size of US\$ 34.3 million in 2020. The market is on its way to recovery and a stronger growth is expected in the coming year.

Source: Frost & Sullivan analysis.

Vendor Market Share – Overall

WAN Optimization market: Vendor Performance, Greater China, 2013

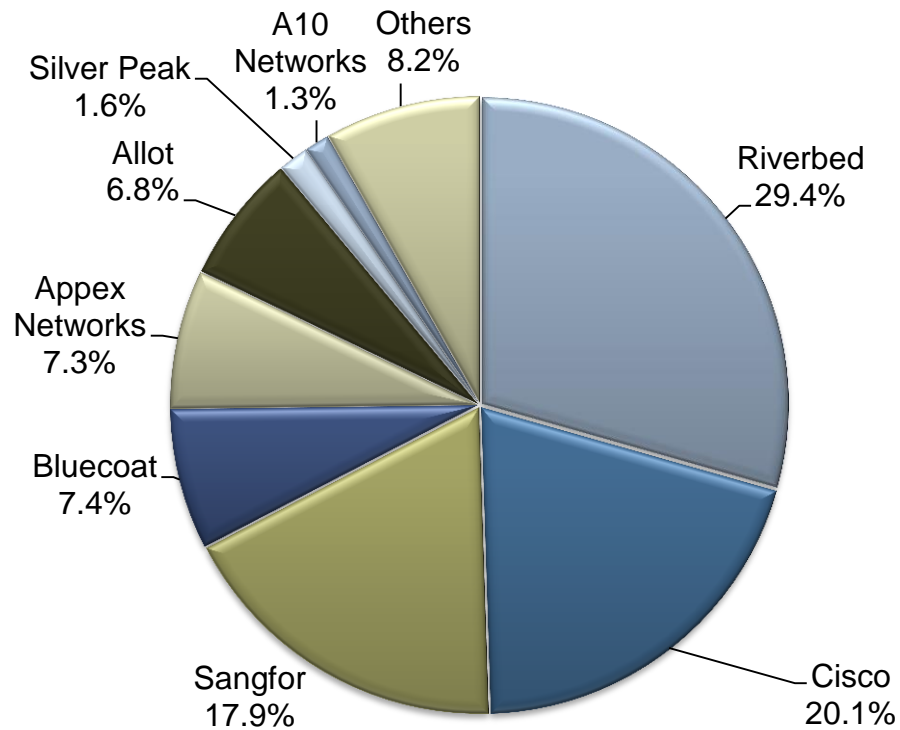
Vendor	Revenue (\$ Million)	Revenue Growth Rate 2013/ 2012(%)
Riverbed	21.6	(2.0)
Cisco	14.7	4.8
Sangfor	13.1	12.3
Bluecoat	5.4	8.3
Appexnetworks	5.3	23.3
Allot	5.0	6.2
Silver Peak	1.2	-
A10 Networks	0.9	5.3
Others	6.1	(12.6)

Others include F5, Exinda Networks, Juniper, Citrix and other small WAN Optimization vendors

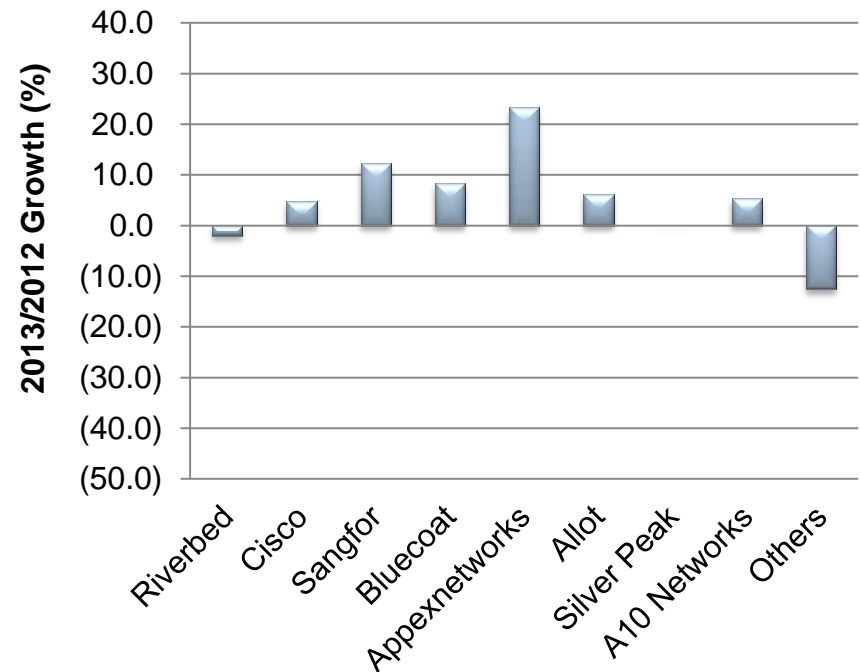
Note: All figures are rounded. the base year is 2013. Source: Frost & Sullivan analysis.

Vendor Market Share – Overall (continued)

WAN Optimization market: Company Market Share by Revenue, Greater China, 2013



WAN Optimization market: Vendor Growth Comparison, Greater China, 2013/2012



Note: All figures are rounded. the base year is 2013. Source: Frost & Sullivan analysis.

Competitive Highlights

WAN Optimization Controller Market: Key Strategies and Tactics, Greater China, 2012 and 2013

Vendor	Company Market Share by Revenue (%)		Remarks
	Overall		
	2013	2012	
Riverbed	29.4	31.7	<ul style="list-style-type: none">Riverbed registered a YoY decline of -2.0% in the Greater China region, which was mainly due to the contraction of its business in the Chinese WOC market. As the government vertical in China was the leading spender on WOC, the fact that Chinese government was relying more on Chinese local vendors had an adverse impact on Riverbed’s business in China. In contrast, Riverbed remained the market leader after clocking steady growth rates in the Hong Kong and Taiwan markets.
Cisco	20.1	20.2	<ul style="list-style-type: none">Cisco maintained a steady performance with a YoY growth rate of 4.8% in Greater China region. The fact that Cisco was neither specialized nor focused on the WOC market hindered its growth potential in the Greater China region. Nonetheless, Cisco still retained its position as the second largest vendor in the market due to its strong branding.

Note: All figures are rounded. The base year is 2013. Source: Frost & Sullivan

Competitive Highlights

WAN Optimization Controller Market: Key Strategies and Tactics, Greater China, 2012 and 2013

Vendor	Company Market Share by Revenue (%)		Remarks
	Overall		
	2013	2012	
Sangfor	17.9	16.8	<ul style="list-style-type: none">With a robust growth rate of 12.3% on a YoY basis, Sangfor surpassed Blue Coat to become the third largest WOC vendor in the Greater China Region in 2013. As a local Chinese vendor, Sangfor had the advantage to better understand the Chinese WOC market and was able to better fit the needs of the local customers. With more support expected to come from the Chinese government, Sangfor is on track to grow healthily in the upcoming years.

Note: All figures are rounded. The base year is 2013. Source: Frost & Sullivan

Appendix

Other Participants

Asia-Pacific

- Others in the WAN Acceleration market share include Juniper, Array and other small vendors.
- Others in the WAN Traffic Management market share include other small vendors.

ANZ

- Others in the WAN Acceleration market share include Juniper, F5 and other small vendors.
- Others in the WAN Traffic Management market share include other small vendors.

ASEAN

- Others in the WAN Acceleration market share include Citrix, F5 and other small vendors.
- Others in the WAN Traffic Management market share include other small vendors.

Greater China

- Others in the WAN Acceleration market share include Juniper, Citrix, Exinda Networks, Array and other small vendors.
- Others in the WAN Traffic Management market share include other small vendors.

Source: Frost & Sullivan research.

Other Participants

India

- Others in the WAN Acceleration market share include Citrix, Array and other small vendors.
- Others in the WAN Traffic Management market share include other small vendors.

Japan

- Others in the WAN Optimization Controller market share include other small vendors.

South Korea

- Others in the WAN Optimization Controller market share include other small vendors.

Source: Frost & Sullivan research.

Table of Acronyms Used

WAN Wide Area Networks

Source: Frost & Sullivan research.

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