

An In-depth analysis of the success of cisco in a business environment

Abstract: CISCO is a major participant in the networking infrastructure market. How can we determine the reasons and methods behind their success, and improve therein?

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Introduction:

Computer Information System Company or CISCO for short is one of the premier networking and networking equipment providers in the United States. It is a major competitor in the networking, internet infrastructure, and technology markets. For the networking component alone, which is just one of many different components of the company in 2020 the company reports a 50% market share of the wireless access point market, a 38% share of the industrial routers market, a 32% share of the layer 3 switches market, and a 24% share of the layer 2 switches market equally to approximately revenue of \$2.92 billion², while total revenue exceeds 50 billion. The company was created in 1984, and has grown massively since. Currently CISCO employs roughly 41,000 employees⁷. Although the company's products and services range, they are predominantly a networking and internet services company with a customer base ranging from individuals to midsize businesses⁴.

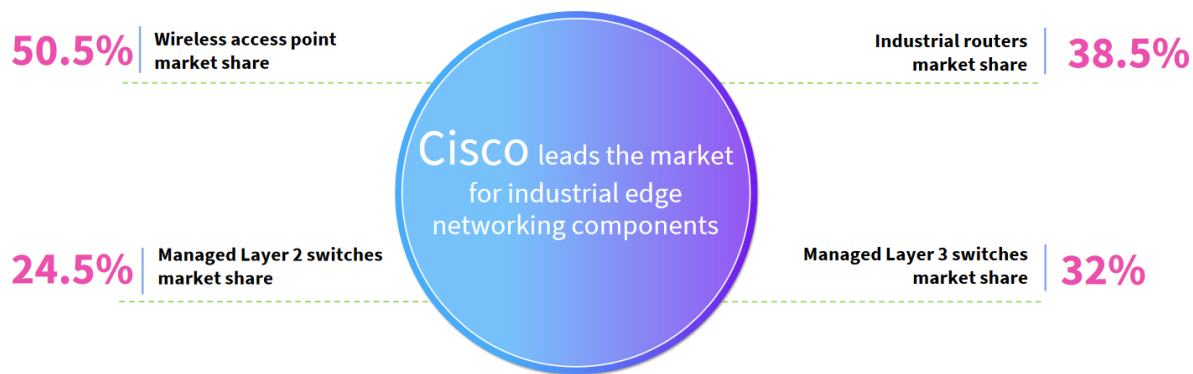


Figure 1: CISCO market shares²

Business Model:

Market Model:

CISCO has a wide range of customers from individual users to corporations of various sizes, both public and private, as well as government organizations. The company provides IT infrastructure to these various organizations. Aside from the usual practices of major corporations such as advertising on different platforms it also has a unique campaign called the Marketing Velocity⁵. The purpose of this campaign is to invite partners to engage with CISCO, and for the company to provide the partners with the best tools or services that cater to the specific needs of different potential clients. This campaign was designed to provide a side by side partnership between the two and to “accelerate sales, build a practice and enhance profitability”⁵.

Financial Model:

A majority of their revenue is generated from the products they sell. The products sold by CISCO can be roughly categorized into secure, agile networks; Internet for the future; collaboration; end-to-end security; optimized application experiences; and other products; . CISCO markets themselves as sellers of solutions. These products amounted to 36 billion in revenue over the course of 2021. As seen from the revenue table, while products hold a majority of the revenue for the corporation, it is not the only source of revenue. CISCO also provides services as an additional source of revenue. These services include system support and maintenance to the customer, and accounted for a total of 13.8 billion dollars in revenue for 2021, which amounts to approximately 28% of their total revenue³.

Revenue by New Product Categories
(in millions, except percentages)

	Q1'21		Q2'21		Q3'21		Q4'21		FY21	
	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%
Secure, Agile Networks	\$ 5,434	-16%	\$ 5,489	-2%	\$ 5,620	1%	\$ 6,179	9%	\$ 22,722	-2%
Hybrid Work	1,193	-9%	1,167	0%	1,220	3%	1,147	-2%	4,727	-2%
End-to-End Security	861	6%	822	10%	876	13%	823	1%	3,382	7%
Internet for the Future	942	-15%	931	-11%	1,249	30%	1,393	31%	4,514	8%
Optimized Application Experiences	153	16%	161	25%	170	30%	171	29%	654	25%
Other Products	3	-68%	3	-51%	5	-39%	4	-21%	15	-47%
Total Product	8,587	-13%	8,572	-1%	9,139	6%	9,716	10%	36,014	0%
Services	3,342	2%	3,388	2%	3,664	8%	3,410	3%	13,804	4%
Total Revenue	\$ 11,929	-9%	\$ 11,960	0%	\$ 12,803	7%	\$ 13,126	8%	\$ 49,818	1%

	Q1'20		Q2'20		Q3'20		Q4'20		FY20	
	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%
Secure, Agile Networks	\$ 6,506	4%	\$ 5,575	-8%	\$ 5,540	-14%	\$ 5,644	-18%	\$ 23,265	-9%
Hybrid Work	1,306	3%	1,164	-11%	1,181	-7%	1,172	-11%	4,823	-7%
End-to-End Security	816	22%	749	10%	778	7%	815	10%	3,158	12%
Internet for the Future	1,110	-23%	1,048	-7%	958	-19%	1,063	-2%	4,180	-14%
Optimized Application Experiences	132	27%	129	25%	131	21%	132	9%	524	20%
Other Products	9	-94%	6	59%	8	-23%	6	-63%	28	-84%
Total Product	9,878	0%	8,671	-6%	8,597	-12%	8,832	-13%	35,978	-8%
Services	3,281	3%	3,334	5%	3,386	5%	3,322	0%	13,323	3%
Total Revenue	\$ 13,159	1%	\$ 12,005	-4%	\$ 11,983	-8%	\$ 12,154	-9%	\$ 49,301	-5%

	Q1'19		Q2'19		Q3'19		Q4'19		FY19	
	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%	Amount	Y/Y%
Secure, Agile Networks	\$ 6,247	7%	\$ 6,047	9%	\$ 6,413	6%	\$ 6,852	9%	\$ 25,559	8%
Hybrid Work	1,272	16%	1,312	23%	1,273	8%	1,310	10%	5,166	14%
End-to-End Security	670	12%	684	21%	729	23%	738	16%	2,822	18%
Internet for the Future	1,449	21%	1,124	-9%	1,188	-2%	1,082	-13%	4,843	-1%
Optimized Application Experiences	104	72%	103	47%	108	39%	121	25%	436	43%
Other Products	148	-43%	4	-98%	11	-95%	15	-92%	178	-80%
Total Product	9,890	9%	9,273	6%	9,722	4%	10,120	5%	39,005	6%
Services	3,182	3%	3,173	0%	3,236	2%	3,308	3%	12,899	2%
Total Revenue	\$ 13,072	8%	\$ 12,446	5%	\$ 12,958	4%	\$ 13,428	5%	\$ 51,904	5%

Figure 2: CISCO Revenue by quarter³

Operational Model:

Originally the collaboration between CISCO IT and CISCO business was not as effective as they wanted. In order to improve this CISCO implemented a new operating model to improve collaboration efficiency between the different departments. The purpose of these changes as stated by CISCO itself was to “Adapt to rapidly changing business environments, support new business while maintaining stability, partner more closely with business units, focus and prioritize internal IT resources more directly onto these business priorities” In essence the purpose of this operation model was to improve communication and efficiency between IT and business. In order to do this the model takes information from products and feeds it back to IT, then IT is incorporated into all the steps for future releases⁶.



Figure 3: CISCO operation model⁶

Competitive Forces and Challenges:

The 5 competitive forces:

1. Rivalry of Competitors
2. Threat of Substitutes
3. Bargaining power of buyers
4. Bargaining power of suppliers
5. Threat of New Entrants

Rivalry of competitors:

Of the five competitive forces, what is considered the largest threat? The rivalry of competitors is the biggest challenge faced by CISCO. As seen from their revenue the networking industry has a lot of profit to be made. Currently as of 2022 CISCO owns a dominant 40% of the network infrastructure market, with its closest competitor Huawei at a mere 10%. Because CISCO is such a dominant force on the market it also has the most to lose, as competitors fight for more market share they will inevitably fight for a part owned by CISCO. Furthermore as business expand and technology advances this market is assured to grow, which will dilute the market share and force CISCO to compete for the growing market

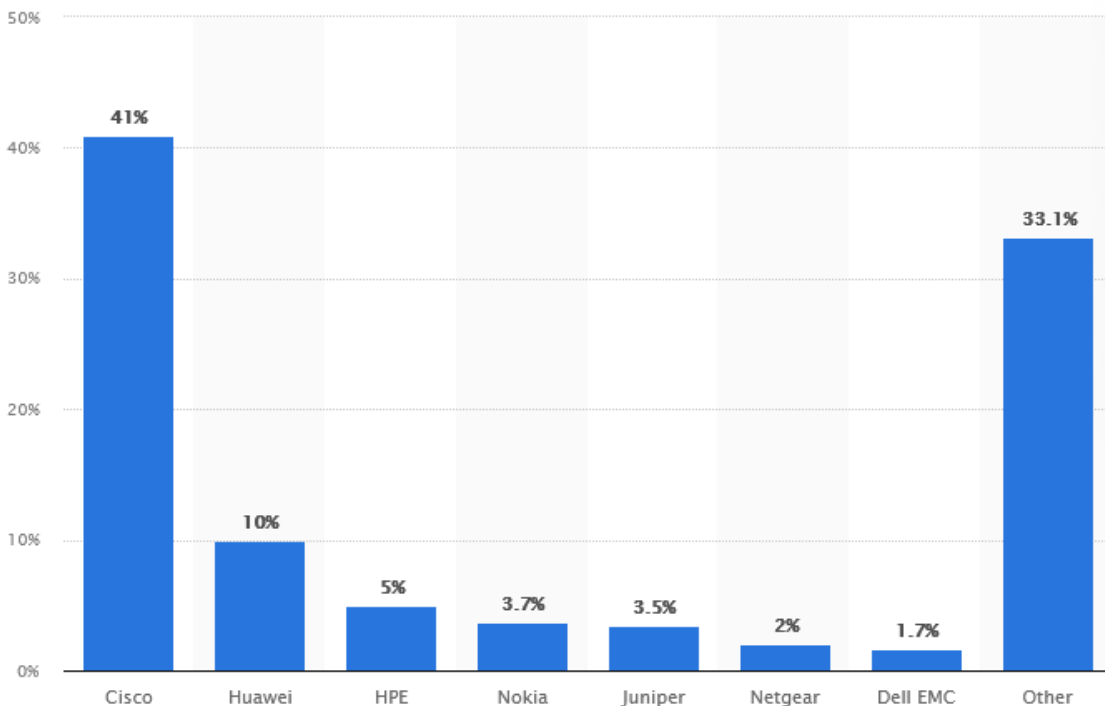


Figure 4: Overview of networking market⁹

Threat of substitute:

The threat of substitutes is considered to be between low and moderate, on a global scale this is closer to moderate, but domestically can be considered much lower. The crux of the issue is that while other companies can create similar products to CISCO such as routers and modems, CISCO has the field experience and resources to improve on these items making them more efficient, cheaper, and innovative. It is also capable of providing after sales services such as maintenance and technical support that smaller firms may not or can not¹.

Bargaining power of buyers:

The bargaining power of buyers is related to the rivalry of competitors. In essence CISCO is a company that provides networking services, while it dominates the market it is not the only option. Oftentimes when buyers are on the market looking for a certain product some things they take into consideration are price and convenience, so it is up to CISCO to bargain with or negotiate with potential buyers to show why their products should be purchased and not someone else's. Furthermore because CISCO not only deals with individuals, but also deals with corporations of different sizes the loss of any one organization can have a palpable effect on their revenue¹.

Bargaining power of Suppliers:

The bargaining power of suppliers is not very high. CISCO is the de facto overlord of the networking infrastructure market, due to its size it has to interact with multiple suppliers in order to assure production capabilities. Furthermore, because CISCO supplies a large number of products to the market, it can also be a very large customer to its suppliers, and there is the constant threat of losing an extremely lucrative client. Due to the varying quantity of suppliers, and how they all sell similar products it means that the cost of switching between suppliers is low. This means that while suppliers do have some bargaining power it is not a lot(For example increase cost of supplies vs cost of changing supplier)¹.

Threat of New Entrants:

CISCO faces a low risk of new entrants to the market because of a few reasons. Primarily is how capital intensive such a market is for new entrants, but not only that the technical requirements are also very high. The two fold difficulty of high capital and high skill creates a relatively difficult barrier of entry¹.

Competitive Strategies and Approaches:

Rivalry of competitors:

The biggest threat to the company is that of rival competitors. However these rival competitors can also be used to provide a major advantage to CISCO. Referring to the previous graph of market share while CISCO's single closest competitor is Huawei at 10%, a third of the market is still in the hands of smaller unknown companies, and many of these companies own less than 1% of the market share⁹.

The best course of action CISCO could take to strengthen its dominance over the market is the use of an alliance strategy, which it has done before when it created Vblock to block new entrants. However in this case it can consider all these small competitors that own a large percentage of the market. This is much easier than fighting with stronger individual competitors such as Huawei, if CISCO wanted to work together with Huawei it would face tougher negotiations because of how much market is owned by that company, but if it was to negotiate with smaller companies that own less than 1% it would have a much easier time, in other words it is much easier to fight for 1% 10 times than it is to fight for 10% 1 time.

Through slowly working together with all these smaller companies CISCO is able to slowly fight for or incorporate the market shares owned by said companies. This strategy of incorporating smaller companies will work because of two reasons, firstly CISCO is a major corporation with a huge backing of capital and skilled workers, along with a wide and intricate network of connections it can use these resources to help small competitors while being the final beneficiary in the end. The second reason is that these small competitors are often overlooked because they individually cannot be considered "key players" in this market, and because of this a lot of the interactions may be overlooked by corporate rivals.

Threat of substitutes:

The second largest threat to cisco is that of substitutes from other companies that may be cheaper or convenient for the consumer. At the end of the day CISCO is largely a supplier of networking infrastructure, and while there are not a lot of other corporations that produce the same product because of the difficulty of entry there are still others out there that can sell the same product at a lower cost. In order to beat the competition CISCO can choose a mix of innovation and differentiation. It is known that the yearly revenue of CISCO is in the billions, a small fraction of this could be used to fund and drive innovation³. It does not necessarily have to be a new product, but could definitely create better versions of current products, examples include more efficient protocols to create ironclad secure environments, more efficient routers and modems, because of CISCO's dominant position in the networking market it has the capital and skill necessary to create better products that can convince customers why they should buy a cisco router as opposed to a substitute. This combination of innovation to produce differentiation

will work because CISCO has the financial capability to innovate, and can afford the risk of failure, also as a leader of the networking industry it is in their best interest to create products that shine out in a crowd.

Business Model Evolution:

Contacting the little man:

As previously stated almost 30% of the entire networking infrastructure market is owned by small companies. These individuals take up less than 1% each. It is to CISCOs benefit to contact these often overlooked companies and provide them with support for a return. The range of support can range from introducing supplies or providing patents or even a platform to help these smaller businesses expand, but the key point is that CISCO must achieve benefits that outweigh the cost. These benefits include CISCO and the smaller business taking away market share from other competitors, expanding the market, or a downright acquisition of that business. These activities can also expand to include other companies that own a little more market share, for example Netgear. Netgear owns about a 2% market share so it is by no means a dominant force. It is well within CISCOs capabilities to advocate for Netgear, help expand its business while incorporating it within the CISCO infrastructure, and use it to fight against its competitors, thus allowing both Netgear and ultimately CISCO to benefit.

Lead and Innovate:

The purpose of routers, modems, and other networking infrastructure are well established, but this does not mean they can't be improved. Across any market different corporations usually sell similar or identical products. In order to stay competitive it is necessary to have higher quality or multi performing products that differentiate from its competitors. It is with this philosophy that CISCO should create a new branch for experimentation, and innovation. They will improve their products drastically to stand out from the competition, and they may have unexpected, but beneficial side products. This may also allow CISCO to expand the market with new products that only they have the patents to. It is well known that when transferring packets between different sources mistakes, losses, and even collisions are entirely possible. This is one aspect CISCO could improve to stand out.

Expanding Services:

A majority of revenue comes from sold products, approximately 70-80%. The remainder is revenue that comes from services. CISCO can expand upon its services. As technology improves the products sold by CISCO need to be replaced. Phone companies are very good at this and CISCO can do the same. It can offer reduced prices for returning purchased products, and these products can be recycled to lower production costs. Another service CISCO could provide is basic education and knowledge on their products, how it works and how to fix it. This would allow users to be confident with their product because they know more about it.

Best IT Supported Proposal:

The best proposal that would be extremely effective is to work with smaller individual companies that hold a majority of the market share. The reason for this is because there are many anti trust laws instituted, therefore making it progressively difficult for CISCO to obtain more market shares as their ownership of market shares increase. In order to work around this it is ideal for CISCO to support smaller companies, and help those expand into the market while retaining some benefits for itself.

IT plays a critical role in this proposal for a number of reasons. They are necessary to determine which companies to target and the current market conditions that would allow both sides to benefit. Another necessity of IT is for it to provide a platform for communication between the two entities, as the number and quality of relationships increase it is necessary for IT to facilitate communication, furthermore it is up to IT to make sure these communications are confidential and secure. Lastly it is up to IT to provide secure storage and easy access to information as more relationships develop between CISCO and the smaller companies.

Summary:

Cisco is a major player in the networking infrastructure market. The reason for their dominance is the quality of their products and their business model that gives it a competitive advantage over other businesses. It has the financial resources, human resources, and connections necessary to expand its control over the market, for this it must work together with smaller business to help influence the market, and reinvest its substantial capital into innovative and differential strategies.

Citations:

1. Adamkasi. (2022, November 7). *Porter's five forces of Cisco Systems*. Porter Analysis. <https://www.porteranalysis.com/porters-five-forces-of-cisco-systems/>
2. Ahrens, A. (n.d.). Industrial Edge Networking Components – 2020 - cisco. <https://www.cisco.com/c/dam/en/us/solutions/collateral/internet-of-things/omdia-industrial-edge.pdf>
3. Change in product categories & arr update - s2.q4cdn.com. (n.d.-a). https://s2.q4cdn.com/951347115/files/doc_presentations/2021/Q1FY22-Product-Categories-ARR.pdf
4. Cisco. (2023, May 5). *Products, solutions, and services*. Cisco. <https://www.cisco.com/c/en/us/products/index.html#~products-by-business-type>
5. *Cisco partner journeys*. Login. (n.d.). <https://ciscopartnerjourneys.com/en/us/login>
6. How Cisco IT improved development process with a new operating model(n.d.-c). https://www.cisco.com/c/dam/en_us/about/ciscoitwork/downloads/ciscoitwork/pdf/Cisco_IT_Case_Study_Operating_Model_presentation.pdf
7. “I am amazed and impressed at how much energy and passion our company exudes around the topic of flexibility.” Cisco. (n.d.). <https://www.cisco.com/web/about/ac227/ac222/employees/index.html>
8. Pereira, D. (2023, May 8). *Cisco Business Model - How Cisco Makes Money?*. Business Model Analyst. <https://businessmodelanalyst.com/cisco-business-model/>
9. Published by Statista Research Department, & 24, A. (2022, August 24). *Global: Enterprise network infrastructure market share*. Statista. <https://www.statista.com/statistics/1253345/enterprise-network-infrastructure-vendor-market-share-worldwide/>