The Decline of Northern Telecom

Northern Telecom (NT, later named to Nortel) was the AT&T of Canada. They were founded in 1880, 4 years after the invention of the telephone. For the first 80 years of their existence, they were the government approved (de facto monopoly) provider of telephone communications for all of Canada. During the early 1970’s they established international companies to provide telecommunication equipment to other countries.

The backbone of any telephone network is the switch. “The Switch” is the machine that gives a customer dial tone, routes calls, transmits the voice (or data), and keeps track of billing. By 1975 every major telephone company (telco) in Canada had purchased NT’s SP-1 switch, with 25% of sales going to independent telcos in the US.[[1]](#footnote-1) In 1976, Nortel created the world’s first fully digital switch. Canadian, international, and independent telcos bought them in droves. When AT&T was broken up in 1984, US telcos were freely allowed to buy NT switches. Sales skyrocketed.

By 1990 NT was the world’s sixth-largest telecommunications company, but their goal was to become the world’s leading supplier of telecommunications equipment by the year 2000 [[2]](#footnote-2). NT sold its products in more than 80 countries and operated 42 manufacturing plants. Its products include telephones, networks, wire and cable, telecommunications and transmissions systems, fiber-optic cable and equipment, and other equipment for both public and private communications networks.[[3]](#footnote-3) (Nortel recruited me in college in 1988 and had a job waiting for me in RTP, North Carolina upon graduation.)

Northern Telecom filed for bankruptcy in 2009.

Early in its existence, Nortel executives were engineers who worked their way up through the ranks. In the 1980’s they shifted toward hiring executives who came from business schools, with the attitude being that they would know better how to grow the business and take it to the next level. A prevailing B-school fad at the time was that manufacturing didn’t matter: it was all about intellectual property, marketing, and customer relationships. Manufacturing could be done by the lowest bidder. [[4]](#footnote-4) With their subsidiary Bell Northern Research (aka BNR, aka “Big Nerd Ranch”) handling R&D, manufacturing was transitioned out of Canada and the US, and subcontracted to a Chinese company Huawei. Eventually Huawei was also given the task of product engineering.

Although allegations of industrial espionage were never formally brought up, Chinese hackers were able to infiltrate NT’s corporate computer system, giving them access to NT’s product technology and marketing plans. [[5]](#footnote-5) At the time, NT’s main competitors were AT&T, Siemens, Ericsson, and Alcatel. Now the company they entrusted to be a contractor for them became a manufacturing giant, starting in Asia, and eventually spreading around the world.

**Porter’s 2nd force is the potential of new entrants into the industry.** NT thought that Huawei could just be a contract manufacturer, and that the development of superior technology would be enough to stave off competition. Little did they know they were actually enabling a new dominant competitor. In 2012, Huawei overtook Ericsson as the world’s largest manufacturer of telecommunications equipment.[[6]](#footnote-6) Today Huawei has yearly revenues of $180 billion.

As a regulated telecom provider in Canada, NT had a virtual monopoly status for providing equipment there. When AT&T was broken up in 1984, new markets opened up in the US. The “Baby Bells” were free to choose from any supplier, and they often chose NT for their technically superior products. NT could concentrate on R&D, turn that into products, and watch the sales pour in. The dot-com revolution came along, and NT rode that wave, selling tons of equipment to startups.

When the dot-com bubble burst in 2001, there was an oversupply in the market, and new competitors who had emerged to fill those needs were hungry to keep growing. NT was unprepared for this. The success they found through innovation and then selling to a built-in loyal market had evaporated.

**Porters’ first force is Competition in the Industry.** After finding success in a not-so-competitive environment of an oligopoly primarily based in North America, NT was not ready for full-fledged global competition with scores of competitors. Their strength was providing switches for landlines and data networks, and those markets were saturated.

When sales started going down, they became internally focused. In 2004, four executives were charged with accounting fraud for bringing forward revenue recognition and using cash reserves to make sure NT met Wall Street expectations. No new products were introduced between 2000 and 2008; instead customers were offered endless software upgrades. When customers inquired about new products, NT sales executives replied that they knew what was best for their customers. [[7]](#footnote-7) Restructuring and layoffs were happening. Customer requested modifications that were easily handled in the past were subject to an endless approval process.

Customers were concerned about NT’s management, finances, strategy, and technology. This was referred to as a “Black Cloud” that started to develop around 2002. [[8]](#footnote-8) NT did nothing to combat this, and customers lost the confidence in them. Customers were not willing to invest millions in new equipment that served as the backbone of their infrastructure when they didn’t feel NT would be around in a few years.

**Porter’s fourth force is the Power of Customers.** When your customers think there is a “black cloud” over your company, you do nothing to combat it, and there is hungry competition, they will speak with their wallets.

That is not to say the NT did not recognize the emergence of wireless technology. In the lab they had groundbreaking technology. In the early days of wireless development, there were competing standards: CDMA was the standard in North America, and GSM was used by the rest of the world. NT bet on their core market with CDMA and lost out on tremendous opportunity. [[9]](#footnote-9) The latest technology would involve building switches to handle wireless traffic.

Because of the “Black Cloud”, not only did their existing and potential customers not want to utilize NT for landline technology, they didn’t see a true commitment to wireless technology. The revolution was coming, and NT bet on the wrong technology, and their customers didn’t trust them for new technology either. In 2012 (after the bankruptcy filing), the Rockstar Consortium paid $4.5 billion for NT patents. They had the technology, but they had no strategy to bring it to market.

**Porter’s fifth force is the Threat of Substitutes.** Adapting to providing wireless technology was the next logical market, but NT didn’t see that until it was too late. Today it’s hard to imagine that an established telecommunications company with trail-blazing wireless technology couldn’t penetrate the wireless switch market. Where this technology could have been their lifeline, instead it was the nail in the coffin.

1. <https://www.encyclopedia.com/books/politics-and-business-magazines/northern-telecom-limited> [↑](#footnote-ref-1)
2. <https://www.encyclopedia.com/books/politics-and-business-magazines/northern-telecom-limited> [↑](#footnote-ref-2)
3. <https://www.encyclopedia.com/books/politics-and-business-magazines/northern-telecom-limited> [↑](#footnote-ref-3)
4. <https://www.assemblymag.com/blogs/14-assembly-blog/post/90631-did-outsourcing-and-corporate-espionage-kill-nortel> [↑](#footnote-ref-4)
5. <https://www.assemblymag.com/blogs/14-assembly-blog/post/90631-did-outsourcing-and-corporate-espionage-kill-nortel> [↑](#footnote-ref-5)
6. <https://en.wikipedia.org/wiki/Huawei> [↑](#footnote-ref-6)
7. <http://sites.telfer.uottawa.ca/nortelstudy/files/2014/02/nortel-summary-report-and-executive-summary.pdf> [↑](#footnote-ref-7)
8. <http://sites.telfer.uottawa.ca/nortelstudy/files/2014/02/nortel-summary-report-and-executive-summary.pdf> [↑](#footnote-ref-8)
9. <http://sites.telfer.uottawa.ca/nortelstudy/files/2014/02/nortel-summary-report-and-executive-summary.pdf> [↑](#footnote-ref-9)