



NTT Communications India Pvt. Ltd. Netmagic Solutions Pvt. Ltd.

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Abstract

NTT Communications India (NTT Com India) is a managed MPLS (multiprotocol label switching), network integration, and system integration company in India. It has headquarters in Delhi/Gurgaon and five other branches across India. Netmagic Solutions is a sister company of NTT Com India that joined the NTT Communications Group in 2012. It offers cloud, managed hosting, and datacenter services in India. The sister companies are working closely together to deliver the benefits of total ICT (information and communication technology) solutions to our customers in India.

Keywords: business in India, datacenter, cloud



1. Introduction

In 2003, NTT Communications (NTT Com) decided to establish a representative office to deliver its international circuits to mainly Japanese customers who were using NTT Com's circuits outside of India, and to establish new locations in India. In 2005, in order to handle the increasing demand in India for its international circuits, NTT Com established a 100% subsidiary, NTT Communications India (NTT Com India). Thus, the year 2015 was the 10th anniversary of NTT Com India, and in April 2015, a large celebration was held with customers in Gurgaon, which is close to Delhi, the capital city of India. As of December 2015, NTT Com India has six offices, including the Delhi/Gurgaon headquarters and branches in Mumbai, Bangalore, Chennai, Neemrana, and the newest branch in Ahmedabad, which was established in April 2015. NTT Com India has about 100 employees across India who deliver network integration (NI)

and system integration (SI) services mainly to Japanese/US/European multinational companies.

In 2012, to enhance the business in India, NTT Com acquired Netmagic Solutions (Netmagic), a cloud, managed hosting, and datacenter company based in Mumbai. Netmagic has a total of nine datacenters throughout India: two in Bangalore, one in Chennai, one in Noida (a satellite city of Delhi), and five in Mumbai, which together employ about 1000 staff. Netmagic has been recognized as an *operational excellence* managed service provider and recently built a new cutting-edge datacenter known as the Mumbai 5 Data Center (Mumbai DC5). This datacenter functions as Netmagic's headquarters and also hosts the NTT Com India Mumbai branch. NTT Com India and Netmagic provide an information and communication technology (ICT) single point of contact (SPOC) for customers through delivery of integrated NI, SI, cloud, managed hosting, and datacenter services (**Fig. 1**).

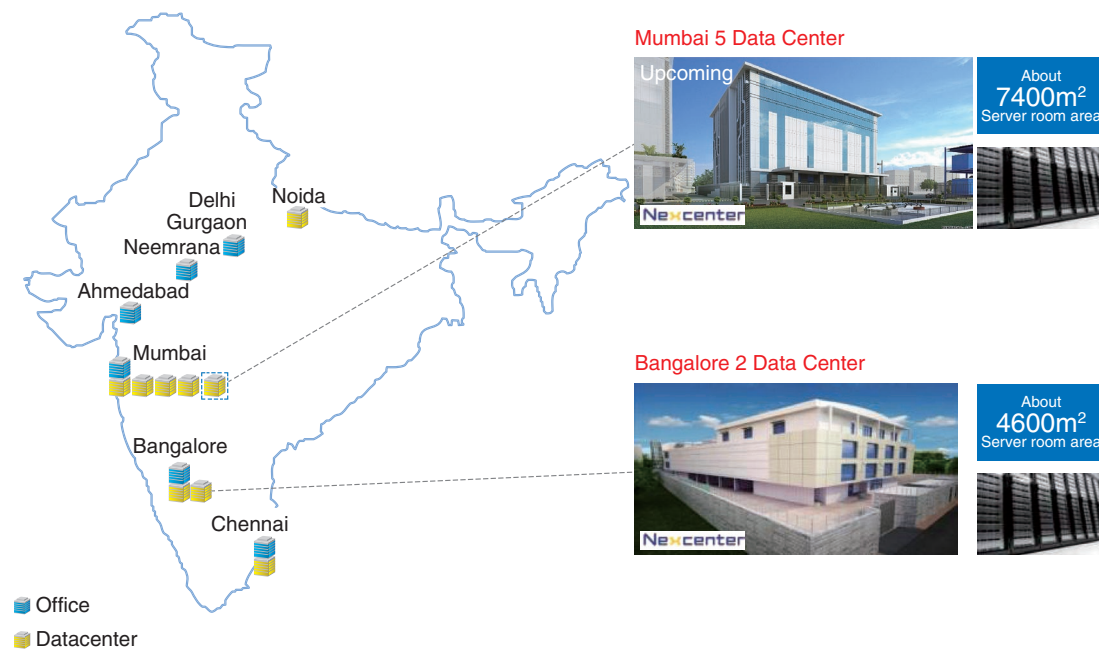


Fig. 1. NTT Com India offices and Netmagic datacenters.

2. Business overview

Many people recognize India as an information technology (IT)-business process outsourcing (BPO) destination country. There are several reasons for this, but it is mainly because there are many engineers who can speak English, and the time-zone difference is 12 hours from the US. Therefore, India can serve as a midnight IT factory for US companies to enhance round-the-clock agile software development or round-the-clock remote infrastructure management for critical ICT systems from India to the US. According to the CIA World Factbook, thanks to IT-BPO, the tertiary sector of industry in India was responsible for earning 57.6% of GDP (gross domestic product) even though population-wise it accounts for only 31% [1].

The NTT Group also recognizes India as a nation with huge ICT potential so has invested a lot in operations there. The NTT Group has seven major subsidiaries (major = owning more than a 51% share of the company), with more than 15,000 employees in India. NTT Com India/Netmagic promotes collaboration not only among five NTT Com subsidiaries (NTT Com India, Netmagic, Arkadin India, Emerio India, and Virtela India) but also with NTT DATA India and Dimension Data India, by enhancing cross-selling optimization. In July 2010, I was assigned as

Mumbai branch manager of NTT Com India, and in October 2014, was newly assigned to Netmagic. Consequently, this is my sixth year in Mumbai. More details on these two NTT Com subsidiaries in India are provided below.

2.1 NTT Com India

The main business focus of NTT Com India is NI such as router/switch/firewall settings, and SI such as server/other ICT item settings, for multinational companies in India. One of the most important action items for those multinational companies at the initial stage in India is to find the best ICT partner in India. Actually, in the early stage, multinational companies need to focus on their own core business, and it is difficult to handle ICT setup—a key item to establish a business in India—by themselves. NTT Com India can serve as a kind of representative chief information officer (CIO) for customers by offering an ICT SPOC function.

In particular, the low quality of access line circuits is a huge headache for all those multinational companies that enjoy high quality services outside of India. To satisfy those customers' needs, NTT Com India decided in 2015 to add one more core product, national long distance services in India, by which NTT Com India can deliver its own managed multi-protocol label switching (MPLS) services in India.

Some people say that it is not difficult to provide MPLS in India, and this can be true if operational quality is not a big issue. NTT Com is well known throughout the world as an MPLS provider with operational excellence, and high quality is its core competency. By bringing operational excellence skills from its global experience, NTT Com India can deliver global standard quality MPLS in India.

Incidentally, in Japan, telecom providers can deliver carrier services with another carrier's telecom equipment, but in India, in order to deliver carrier services, the provider must own its equipment. This means that in India, no one can simply resell carrier services the way that we can in Japan. By delivering its own MPLS service, NTT Com India can be a total ICT solution partner providing services including NI, SI, and MPLS with operational excellence.

2.2 Netmagic

Netmagic is one of the top three datacenter providers in India and also offers cloud computing and managed hosting. Netmagic has nine datacenters across India, and the latest one is the Mumbai 5 Data Center that was launched on October 28, 2015 (Photos 1 and 2). It is one of the largest datacenters in India and provides cutting-edge, high quality functionality. It was designed by NTT Communications and follows the quality criteria of Nexcenter, which is a global seamless service brand for NTT Com's datacenters.

Netmagic was established by Mr. Sharad Sanghi, the current managing director and chief executive officer (CEO), in 1998. One of the missions of his business is to provide operational excellence, which is the same as NTT Com. In 2011, in order to deliver datacenter/cloud service solutions to a US-based banking customer, NTT Com India formed a strategic alignment with Netmagic. One year after that, NTT Com decided to acquire Netmagic to expand its business in India, so the relationship between NTT Com India and Netmagic became stronger and tighter. At that time, I was the Mumbai branch manager of NTT Com India and decided to migrate my office to Netmagic headquarters in order to maximize the synergy of the two organizations. Now these two organizations can be considered as one team, NTT Com/Netmagic (Photo 3).

3. Five core products in India

In India, NTT Com/Netmagic offers five main core product portfolios: colocation, hosting, cloud computing, remote infrastructure management, and a



Photo 1. Opening ceremony of new cutting-edge Mumbai 5 Data Center.



Photo 2. Mr. Sharad Sanghi (left), CEO of Netmagic, and Mr. Motoo Tanaka (right), SVP of NTT Com and head of Nexcenter, at Mumbai 5 Data Center opening ceremony.

national long distance network (managed MPLS). (Fig. 2)

3.1 Colocation

Some people refer to colocation as *housing*, which means offering space, power, and air-conditioning for computers/servers with logical and physical security. To deliver high value for customers, Netmagic prepares redundant commercial power routes, redundant generators, and redundant UPS (uninterruptible power supplies), so that customers' servers never



Photo 3. Mr. Sharad Shangji (left), CEO of Netmagic, and Mr. Tetsuya Shoji (right), CEO of NTT Com, at Netmagic headquarters/NTT Com India Mumbai branch reception.

have power failures. As mentioned, NTT Com has the same datacenter quality criteria as Nexcenter, which defines those redundancy levels to deliver global seamless colocation services. All nine Netmagic datacenters follow these criteria, so customers can expect the same Nexcenter quality that is delivered outside of India from the NTT Com datacenter. Netmagic has five datacenters in Mumbai, two in Bangalore, and one each in Chennai and Noida. Therefore, our customers can choose one/some of them for their ICT engineers' convenience, or to maintain the fitness of their computer system architecture. Some customers choose a Mumbai datacenter as a primary site and a Bangalore datacenter as a secondary site. Other customers choose the Chennai datacenter as the primary site and the customers' captive server room in Delhi as a secondary site. Thus, NTT Com India/Netmagic offers flexible solutions.

3.2 Hosting

Hosting is a kind of service by which the service provider owns the ICT equipment such as servers and charges a monthly recurring fee to customers, in other

words, an OPEX (operational expenditure) model (the opposite of capital expenditure (CAPEX) model). In this model, customers can reduce several problematic issues, for instance, expensive equipment costs, because NTT Com India/Netmagic, as a large ICT provider, has strong price negotiating power with manufacturers. The more "standard" a model is, the lower the rate NTT Com India/Netmagic can offer the service at. In addition to the inexpensive costs for equipment, NTT Com India/Netmagic can offer high quality operational excellence at a reasonable cost because the NTT Com India/Netmagic operation team works everyday on those standardized models. Therefore, the team has the skills and expertise to manage and trouble-shoot the models. The skilled team can deliver value to our customers in the form of operational excellence.

3.3 Cloud computing

Cloud computing is an on-demand and pay-per-use based remote and virtualized computer service. In hosting, customers can choose items from a list of manufacturers. In contrast, in our cloud computing services, the customer can choose from a list of items such as CPU (central processing unit) power, memory size, and storage size, and via a consolidated website called the customer portal site, the customer can easily establish virtualized computers that are physically located inside NTT Com India/Netmagic datacenters.

We call the physical setup a grid, and NTT Com India/Netmagic has four cloud grids in India, in Mumbai, Bangalore, Chennai, and Noida. Customers can choose one or a combination of them to meet their needs. Again, NTT Com India/Netmagic can deliver flexible solutions to our customers. Some customers use our Mumbai cloud grid as web servers for their end customers and use the Bangalore colocation space for their database servers. Cloud computing can reduce some customers' problems. For instance, some e-commerce customers had to pay a huge amount of money for seasonally fluctuating computer resources such as peak traffic during the Thanksgiving sales season in the US or during Diwali (or Dipawali: a Hindu festival) in India. To adjust the peak resources, those e-commerce companies need to prepare maximum resources that are excessive for non-peak seasons. By choosing NTT Com India/Netmagic cloud services that offer the pay-per-use model, those customers can reduce much of the cost of their ICT investment.

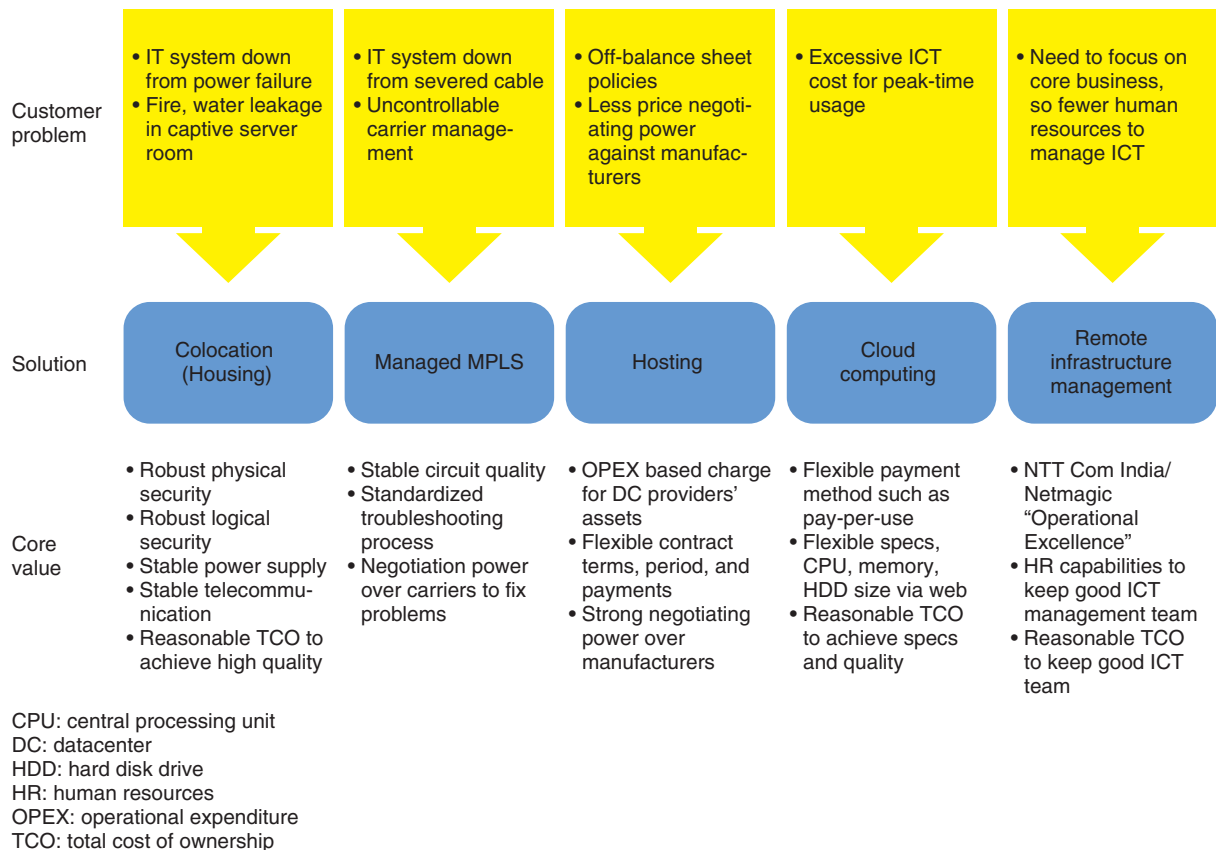


Fig. 2. Five core products in India.

3.4 Remote infrastructure management (RIM)

This service is a kind of BPO. NTT Com India/Netmagic offers *Remote monitoring for ICT equipment + Troubleshooting + Change management* as representative of IT management services for customers. RIM does not necessarily include colocation or cloud services, and NTT Com India/Netmagic is very flexible in offering the following combinations of services, or even other services, depending on customer requirements.

- 1) Colocation + hosting + RIM
- 2) Colocation + customer equipment + RIM
- 3) Customer server room + customer equipment + RIM

In India, NTT Com India/Netmagic is now focusing largely on RIM to eliminate customer problems. As I described, the ICT industry is one of the main business streams in India, so retaining good ICT engineers is a major headache for many non-ICT companies that are focusing on their core business and cannot invest a lot in ICT. As an ICT partner, NTT Com

India/Netmagic can be a kind of CIO representative for those non-ICT companies by maintaining an ICT equipment monitoring/management team that can be shared with other customers or dedicated to a particular company. Customers can opt for a shared RIM solution if they require a standardized and inexpensive solution. If customers need complex operations, NTT Com India/Netmagic can deliver dedicated RIM solutions. Again, NTT Com India/Netmagic is flexible enough to propose both solutions depending on the customers' requirements and conditions.

3.5 National long distance network service (NLD)—managed MPLS

This is a new service for NTT Com India. In December 2015, NTT Com India obtained approval to get a network carrier NLD license from the Department of Telecommunications in the Indian Ministry of Communications & Information Technology. With this license, NTT Com India can deliver managed MPLS across India. Before this service was launched,

NTT Com India/Netmagic was able to deliver data-center related services but could not provide MPLS, meaning that customers had to go to other carriers for it even if they preferred hosting in Netmagic's data-center. Some customers, in their RFP (request for proposal), state that "The provider needs to deliver both datacenter and MPLS services to eliminate demarcation issues when trouble occurs," and because of that, NTT Com India/Netmagic could not take part. With this managed MPLS, however, NTT Com India/Netmagic can offer its total ICT services to our customers, especially those who are expecting operational excellence for both datacenters and MPLS.

4. Next actions

NTT Com India/Netmagic will continue delivering one-stop ICT solutions by integrating five core products and providing them with operational excellence to customers. Operational excellence is not a one-time value but a primary long-term objective, so NTT Com India/Netmagic is working hard every day to increase value for its customers.

Reference

- [1] CIA World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/geos/in.html>

NTT Com India/Netmagic short column

Cricket, the most popular sport in India

In Japan, cricket is not a popular sport, but in India, it is by far the most popular one. We have a professional cricket league called the India Premier League (IPL), and professional players are stars with numerous fans all over the nation. On television there are several 24/7 dedicated cricket channels on which we can watch recent and past matches held in and outside India. On weekends and holidays, there are always a lot of young people playing cricket on fields or even on the road.

Of course, Netmagic/NTT Com India team members are also greatly interested not only in watching cricket games but also in playing them. We have our own Netmagic Premier League (NPL) that holds a tournament every year in February, with games on Saturday and Sunday. NPL is similar to the Sports Day events in Japan although not as casual. The team members are very serious, so two months prior to the NPL season, the team members start to practice with the goal of getting the winner's trophy. Because they take their playing very seriously, I, as a novice Japanese cricket player, cannot casually say, "Let me play" on NPL day. However, it is fun to watch the games, so every year I go to the event.

The origin of cricket is the same as that of baseball, so there are many similarities but also many differences. First of all, a team has 11 players, instead of 9 in baseball. There is a bowler instead of a pitcher, and a keeper instead of a catcher. The 9 fielders catch the cricket ball with their bare



The author (right) at an NPL game, wearing the same uniform as the players.

hands instead of with gloves.

The striker or batsman (instead of a batter), tries to hit the ball to get points. There are no fouls, so the striker can hit a ball 360 degrees around him/her. The cricket pitch (field) is oval, and there is a wicket, which is the set of three poles, or stumps, behind the batsman.

The striker is replaced when he is out. There are mainly three kinds of outs in cricket. The first one is *caught out*, in which the ball the batsman hit is caught directly by the fielder without bouncing on the ground. This seems to be the same rule as in baseball. The second one is *run out*, which is

similar to a *first base force out* in baseball, although there are some minor differences (not enough space to write them in detail here, but they can be found on a wiki site or elsewhere). The last one is a *wicket out*, which is totally different from baseball. As can be seen in the photo, the wicket consisting of three stumps is located behind the batsman. The bowler can get a wicket out if the ball hits the wicket and knocks a stump down. The batsman tries to hit the ball so as to prevent the bowler from knocking the wicket down. In this sense, the batsman is carrying out defense like a goal keeper in soccer, and the bowler is carrying out offense like a kicker in soccer. This is really interesting and totally different from baseball.

There are various ways to get points, referred to as a *run*, but for simplicity here, the batsman tries to hit the ball to keep from being out. If the ball is hit and reaches the field boundary without being caught by the fielders, the batsman gets four runs, which is kind of like reaching second base in baseball, and if the hit ball goes past the boundary without bouncing on the ground, the batsman gets six runs, similar to a homerun in baseball.

Under the original rules, it can take as long as five days (!) to complete a game, which is tough for professional sports. Therefore, the IPL now has a *20 overs rule* (1 over = 6 balls), that is, 120 balls for each match. Logically, the batsman can get 720 runs (6×120) at maximum, and the bowler can get 11 outs for 11 balls at minimum. Thus, the team can get somewhere between



At NPL 2015. Bowler (left) is about to bowl.



The batsman hits the ball.

0–720 runs, although in the IPL, the average is 100–200 runs each, and it takes around four hours to complete the game (still very long!). In the NLP, the game duration is shorter, about 30 minutes, to give many members the chance to play.

In India, people all over the nation enjoy playing or watching cricket in all seasons. Come to India to play cricket! It is fun!