



L to R: Ashwani Lohani, Railway Board; Vladimir A Finov, Russian Railways; Sergey Stolyarov, Russian Railways; Jean – Marc Fenet, Embassy of France in India; Som Satsangi, Hewlett Packard Enterprise; and Ahmad Shoaib Habibi, Embassy of the Islamic Republic of Afghanistan

Indian Railways mantra: Consolidation and growth

Experts talk about the future of Indian Railways

Vishwas Dass

Safety, security and punctuality are the three most important pillars of the Indian Railways, said **Manoj Sinha**, minister of state for communications (I/C) and minister of state for railways, at the 4th Railways Reforms & Governance Conclave 2018, organised by Governance Now and supported by ministry of railways.

The minister said that the railways is a huge organisation with over 13 lakh employees. Keeping this in mind, it will not run driverless trains, despite having the best of modern technology. “People



Manoj Sinha

should not lose their jobs”, he said.

Traffic congestion on major routes will reduce once the dedicated freight corridor becomes operational, he said. Sinha also briefed the audience about the work being done on Mumbai-Ahmedabad high speed train.

The Indian Railways is planning to have a modern signaling system and for this purpose several global companies were recently invited to share their technologies. “Top priority is being given to change the signaling system and adopt the modern one”, Sinha said.

The railways is also planning to utilise Internet of Things and machine-to-machine communication for improving safety, security and punctuality.



The national transporter is trying to have better Wi-Fi connectivity and wants to install CCTVs at a large scale. The minister said that, however, there are certain issues in modernising and redeveloping different stations. But these issues will be taken care of. As most countries are developing their rail stations as multi logistics hubs, India too is trying to emulate them. “Indian Railways can be transformed only through the adoption of technology”, he said.



Ashwani Lohani, chairman, Railway Board, underscored the need for cutting down hierarchy and feudal systems in the Indian Railways and building a corruption-free organisation.

Lohani said that the country is changing and the government is fully committed towards reforms, improvements and actions.

“There is a lot of difference in the way things are happening in the country now. Consolidation and growth is Indian Railways’s mantra but that has to take place on the back of the reforms. We are looking at reforms at a major way and trying to build an organisation that is based on integrity and is corruption-free,” he said.

The Indian Railways is a commercial organisation. It is perhaps the only organisation of its kind in the world which is commercial and run purely by the government, Lohani said.

In the last five-six months, the kind of authority delegated to the field employees would not have been possible in the last couple of decades. “The railways has made the field totally free from superior officers whose job is to give vision and direction to the organisation,” he said. The first phase of delegation of powers has been concluded. The second phase is going on and will continue until completed.

HE Shaida Mohammad Abdali, ambassador extraordinary and plenipotentiary, Embassy of Afghanistan in India, said that



Afghanistan is the missing link in terms of connectivity. Therefore, the government is trying to get this region well connected.

“Afghanistan is working on various railway systems and a number of other connectivity systems to ensure trade and transit through the country,” he said. Rail connectivity is an important priority of the Afghanistan government, the ambassador said. Historically Afghanistan did not have any internal or external connectivity because of its own problems. “The Asian Development Bank, the World Bank, the United States of America and Iran have committed to improve connectivity in the country”, he said.



Jean - Marc Fenet, minister - counselor and head, regional economic service, Embassy of France in India, said that India has one of the largest rail networks

spread across 66,000 kms, which is connected through thousands of stations. The railways in India is more than just a means of transport; it is an economic asset. “Trains in India serve as a futuristic means of transportation and carry huge number of passengers with minimum impact on the environment”, he said.

Having an efficient rail network with good quality coaches and station links is a critical issue to foster sustainable growth nowadays. To achieve this goal, investment is necessary and ambitious choices must be made.

The French railways is also facing a new set of challenges. “A new reform called national rail service has been introduced. It is currently being discussed in the French parliament”, he said.

The French people are deeply attached to railways as it provides services to four million passengers in major cities. “France is also facing challenges

regarding the maintenance of tracks and services. A big focus has been given on the development of high-speed trains,” he said.



Sergey Stolyarov, strategy director, RZD International LLC, Russian Railways, said that in 2001 structural re-

forms were undertaken in the Russian Railways with the objective to increase reliability, accessibility, safety of rail transport and improve the quality of transport services and nationwide economic development.

At present, the Indian Railways is facing some challenges. “In such a situation, the Russian Railways can exchange some good experiences with the Indian Railways,” he said. The major result of the reforms undertaken by the Russian Railways was the formation of competitive businesses which were transferred from RZD company to its subsidiaries in key areas such as operating freight, long distance and suburban passenger services, and repair and maintenance of coaches.



Vladimir A Finov, head of representative office in India, RZD International LLC, Russian Railways, said

that the Indian Railways is going through an important journey of reforms and development. “The delegation of authority to employees is very crucial”, he said.

The Russian Railways is very keen to help the Indian Railways in modernising and improving its infrastructure, Finov said. “Russian Railways is using integrated asset management system, which is based on big data. In India, trials of anti-collision device are going on in three places. Trespassing by humans, animals and vehicles on the railway track is not only common in India but in Russia too”, he said.



Som Satsangi, VP & GM, Enterprise Group and managing director India, Hewlett Packard Enterprise, said that from

the Indian and global IT companies' perspective, this is one of the best times in India for all the reforms that have been announced in various sectors.

Information technology will play a very important role in various fields of the Indian Railways like signaling, telecom, high-speed train, security surveillance and control management.

Hewlett Packard Enterprise is going

to play an instrumental role in the entire digital transformation and modernisation journey of the Indian Railways, said Satsangi. "The company's association with the Indian Railways is more than three decades old and it started when the railways decided to have a passenger reservation system," he said. HP Enterprise can have a partnership with the railways in three to four areas like Wi-Fi, Internet of Things, surveillance system, modernisation of enterprise resource planning (ERP), one Cloud system and artificial intelligence machine learning.

Amit Malik, managing director, public sector and services, Cisco India & SAARC, talked about the importance of passenger experience. He said



that the railways exists because of its passengers.

The railway stations are like smart cities as they consist almost all the elements of a smart city, he said. Talking about asset monetisation and how crucial it is, Malik said, "The railways has already started monetising its assets by redeveloping stations like Habibganj and Gandhinagar. The definition of a railway station is changing. It is no longer a station, it has transformed into a community hub".

He also talked about how important workforce modernisation is.

Panel Discussion

Attracting investments and strengthening infrastructure

Rajaji Meshram, Transport sector expert, said that the investments in the railways have gone up multifold in the past 4-5 years. However, the railways' share has gone down to 35 percent primarily because of the chronic underinvestment. "If you go through various five-year plans, you will find that the investment in road infrastructure was of a very large quantum. Four years back, the annual railway budget used to be around ₹55,000 crore, which has now crossed over ₹1 lakh crore", he said.

Rajiv Mehrotra, chairman & managing director, RITES Ltd, said there is a need to examine why Built Operate and Transfer (BOT) model could not pick up and how the railways is going to expand the infrastructure.

He said in the last three to four years, the railways has increased the pace of attracting investments and this momentum needs to be accelerated. "We need to get out-of-the-box solutions", Mehrotra said.

RS Khurana, chairman & managing director, Mumbai Railway Vikas Corporation, said the suburban



L to R: Kishore Arun Desai, NITI Aayog; SK Pattanayak, IRFC; Sanjay Gupta, Konkan Railway Corporation Ltd; ₹Khurana, MRVC; Rajaji Meshram, Transport Sector Expert; Rajiv Mehrotra, RITES; Jagannarayan Padmanabhan, CRISIL Infrastructure Advisory; and Gouri Thounaojam, PMI

railway is very typical and the network is huge, because of which the safety aspect has become very important.

The railways is planning to monetise the land available to get investments for enhancing the suburban network. "Mumbai has developed along the railway tracks ever since the first EMU DC train started its operations in 1925. The importance of local or suburban trains cannot be ignored", he said.

Recently, a comprehensive programme for the development of Mumbai suburban area has been proposed.

SK Pattanayak, managing director, IRFC, said that the IRFC since its inception in 1986 has been into railway financing. It started with the financial leasing of rolling stock assets in its first year of operation and today it is very much active in financial leasing domain, he said.



Incremental borrowing has gone up like anything. Today, the cumulative borrowing, which IRFC has done for the Indian Railways, is around ₹2.2 lakh crore. “This is further going to increase,” he said. The railways has fixed the target for the IRFC in the current year at around ₹55,000 crore.

Sanjay Gupta, chairman & managing director, Konkan Railway Corporation Ltd (KRCL), talked about how Konkan railway is an example of increasing investments and creating infrastructure. KRCL came into being in 1990 and for the first time the model of a joint venture between the beneficiary states and the union government was picked up. The equity holders of the corporation are the ministry of railways and the four states. “This is how the first investment was attracted,” he said.

Today, KRCL is running 30 trains from each way. Now, KRCL has reached

a stage where there is no scope left for the infrastructure expansion and more efforts are being made to attract investment for creating infrastructure.

Kishore Arun Desai, OSD, Economic Advisory Council to PM, NITI Aayog, said that the fundamental question which needs to be asked is whether the railways is a commercial entity or not. “We are apparently treating the railways for passenger businesses. About 70 percent of the total passenger revenue is under recovery, which means the railways is losing a huge chunk of its passenger revenue on account of social obligation,” he said. The railways is using freight as an instrument to make money and there are no political issues around the freight, he said.

Jagannarayan Padmanabhan, director and practice leader – transport and logistics, CRISIL Infrastructure Advisory, said the railways

has planned to garner an investment of ₹8.56 lakh crore over a period of five years.

There are enough provisions within the Indian Railways and it can go ahead with monetising its assets. “For ensuring a growth, you have to have the revenue”, he said. Around ₹25,000 crores can be raised if the transmission lines of the railways are monetised, he suggested.

Gouri Thounaojam, head – government relations, PMI, said that the project management ecosystem developed within the nodal ministry or PSU will not only mitigate risk but will also ensure implementation of the idea to execute projects effectively.

A total of 355 out of 1,304 railway projects were recently reviewed and 198 of them witnessed a cost overrun of ₹1.5 lakh crore, which is alarming. “It is the need of the hour to get the house in order”, she said.

Panel Discussion

Transforming railways via information & communication technology (ICT)



L-R: NK Goyal, CMAI; Nalin Bansal, NPCI; Kamal Kashyap, HPE; Dr R Badri Narayan, Indian Railways; Rahul Rishi, EY; Mukesh Nigam, CRIS; | PK Sikdar, Indian Railways; Rupinder Singh, Cisco; Himanshu Goyal, The Weather Company; and Sunil Kumar, IRCTC

Rahul Rishi, partner & leader – advisory services (digital government), EY, said modern signaling is going to transform the Indian Railways in the next few years. It is challenging to manage 20,000

trains and looking after the signaling system from the safety perspective.

PK Sikdar, executive director/signal development, Indian Railways, said signaling system is the backbone of rail operations. The railways want

to minimise human interference in the signaling system to increase the level of safety, as safety is of the utmost importance. “As we increase the speed, the role of signaling becomes more important”, he said.

Rupinder Singh, director systems engineering, Cisco India & SAARC, said that the Indian Railways has enormously improved upon itself in the last couple of years. It is going with the right strategy to leverage technology, optimise services, improve safety and monetise assets.

Train communication system is extremely important and the railways is still using the age old communication system. He hoped that the railways would soon opt modern communication system. On the asset part, he said that he was glad to see two stations – Habibganj and Ghandinagar – are being modernised by the railways.

Mukesh Nigam, managing director, CRIS, said for the past 15 years, such is the push towards digitisation that all other aspects of railway workings have been brought under this ambit. There has been two objectives of digitisation, which include a push towards customer delight as well. “Today a customer wants seamless service. The applications are in silos but as the technology has grown, we are heading towards integration of these applications”, he said.

Dr R Badri Narayan, executive director (C&IS), Indian Railways, said the railways chose to go with its own IT organisation to execute its applications and that was the time when CRIS came into being.

“I want to highlight the benefits of having a captive IT organisation. There was a time when Passenger Reservation System used to be with the CMC and the railways got into major contractual issues and could not take the project forward. Later, CRIS was pitched in for the project. Despite a lot of improvements, we find that for sustained IT

development it is good to have a captive organisation,” he said.

Kamal Kashyap, country manager, India – public sector sales, enterprise group, Hewlett Packard Enterprise, said the complexities which exists in the railway operations in India are unparalleled in many ways in terms of number of passengers and tracks. Indian Railways is a classical organisation because it has a huge manufacturing setup and a huge customer base.

“As an IT organisation, the company can bring in the cutting-edge technology. We have the understanding of technology and we can assist the railways to have a particular technology which is best suited for it. We have a whole lot of customised products for the railways”, he said.

Nalin Bansal, VP, RuPay contactless & new business, National Payments Corporation of India, said NPCI is fairly a young company which started around 10 years ago and was given a mandate by the RBI to set up domestic payment system.

Today, NPCI is a 1,000 people strong organisation. Everything that NPCI does is completely in-house. “It has helped in creating an ability to innovate and coming up with solutions relevant to the market”, he said.

NK Goyal, president, CMAI Association of India Limited, said there should be a balance in the way in which technology is used in the age of mass scale adoption of modern technology.

Sunil Kumar, GGM – internet ticketing, IRCTC, said that at present insurance cover is being given on the reserved tickets to passengers by the IRCTC. “If due to some unavoidable reasons, a passenger cancels his ticket, a certain amount of money gets deducted as a cancellation

fee. IRCTC is thinking to give insurance on cancellation fee to passengers to minimise their losses”, he said.

Himanshu Goyal, India business leader, The Weather Company, said that the company was founded 40 years ago in the United States of America and IBM bought it three years back. “We are forecasters at one end from Business to Consumer (B2C) perspective and we help our customers make better decisions,” he explained. The company provides services to major mobile handset companies, Facebook and other companies. The firm had also helped the government of Rajasthan to create Rajdharaa citizen App where people can get latest weather updates.

Presentation on security surveillance in Indian Railways by

Sumati Shandilya, DIG/MAC, Railway Protection Force, Indian Railways underscored the importance of safety and security. He said that it needs to function smoothly in a secured environment for the economic and social well-being of the nation and its citizens.

Railway network in India has undergone massive expansion in the recent years. While the length of route kilometres has not increased as much, the number of trains and volume of passengers have gone up manifold. The inherent structural weaknesses of the railway system like many entry/exit points, stoppages of trains in poorly secured roadside stations, lack of access control and unregulated crowd movement make it highly vulnerable, he said.



Presentation on digital signage for modern transportation by Manish Gundigara, vertical head-transportation, PSU & government, LG Electronics India Private Limited, said that the company is into different verticals like transportation,



corporate and BFSI. It also caters to the requirements of indoor and outdoor display spaces. “LG is targeting passenger

information system, outdoor displays, train management system, security surveillance system, CCTV NOCH centers and auto tracking signalling systems in the Indian Railways”, he said. LG has recently introduced foot over bridge display system.



Panel Discussion

Modern rolling stock in Indian Railways and introduction of high speed trains: The future of railways



L to R: Vijay Kumar, NHSRCL; Sudhanshu Mani, ICF Chennai; Rajesh Agrawal, MCF Raebareli; and Harsh Dhingra, Management Consultant

Sudhanshu Mani, general manager, Integral Coach Factory, Chennai, said that a lot of powers have been given to the general managers by the ministry. Recently, an in-principle decision was taken by the Railway Board to stop manufacturing conventional ICF coaches and switch to German LHB coaches.

“The target of manufacturing LHB coaches that the railways minister had given to us was an uphill task. The empowerment given by the minister and the chairman, Railway Board, is the main reason behind the three-fold increase in the production of LHB coaches in one year”, he said. Mani said the factory had to make 600 coaches within six months, but eventually it successfully succeeded to manufacture 1,111 carriages.

Rajesh Agrawal, general manager, Modern Coach Factory, Raebareli, said that when he joined the Modern

Coach Factory (MCF), the monthly carriage production was 50. The minister of railways Piyush Goyal wanted to scale it up from 500 coaches per year to around 5,000, which appeared to be a mammoth task. “Indian Railways is changing and tremendous spirit has been given by the new minister and the new CRB which has given a lot of empowerment to railway employees and officials,” he said.

In the last three months, MCF Raebareli has been able to double the monthly production. For the past two months, MCF is consistently manufacturing 100 coaches per month. “Last year, around 700 coaches were built and in 2018-19 we are eyeing on a target of manufacturing 1,500 carriages”, he said.

Vijay Kumar, executive director (rolling stock and workshop), National High Speed Rail Corporation Ltd, said the Mumbai Ahmedabad High Speed Rail (MAHSR) project was

sanctioned in 2017. The total route length is 508 kms with 12 stations in between including four stations in Maharashtra and eight in Gujarat.

“We will be getting the first set of the trains by 2022. NHSRCL is making efforts to commission the 50 km long stretch between Surat and Bilimora by August 2022”, he said .

Harsh Dhingra, management consultant & former chief country representative, Bombardier Transportation, said at present India requires four types of coaches such as the high speed coaches (which can run between 250-280 kmph), LHB coaches, EMU coaches and metro coaches. He lauded the move where a push was being given to the production of metro coaches. He said that if Indian Railways gets into production of metro coaches, there will be standardisation of metro carriages design. ■

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