

Subj: Recommendation of ICT Expert committees.

1. Ministry of Railways have constituted an expert committee under the chairmanship of Shri Sam Pitroda, on the usage of information and communication of technology in the railways for improving security, safety, services, productivity, efficiency and growth. In this connection, Railway Board letter detailing constitution of expert committee and Terms of Reference is placed at SN 1.
2. Committee has had five meetings and discussed various options to improve security, safety, convenience, productivity, efficiency and growth in Indian Railway based on the discussions. Chairman of ICT Expert Committee has submitted seven recommendations vide his recommendation note placed at SN 2.
3. The recommendations of the committee are listed as under:

Reco. (i):- Real-Time Train Information System

Implement real time train information system evolving from the SIMRAN project sanctioned by the Ministry of Railways and Ministry of Human Resource Development under the Technology Mission for Railway Safety, and developed by RDSO and IIT Kanpur. This project is currently successfully working on 42 trains. The platform that has evolved using this highly innovative effort should also extend the facility of information related to train running to external and internal users through the Internet, mobile phones, IVRS etc. The system should provide the following information to passengers on Real-Time basis:

- (i) Train Location.
- (ii) Train running position: i.e. whether the train is on time or if running late, by how much.
- (iii) Coach position in the train with respect to loco to help passengers to locate their coach easily.

Once established, this system is expected to receive a large number of SMSs for real time train information, which has the potential to generate revenues for Indian Railways by entering into revenue sharing arrangement with mobile service providers.

This system can be implemented in 18 - 24 months with an investment of Rs. 85 - 100 crores approximately.

(a) **Unreliability of GSM/GPRS model:**

RTIS propose use of both GPRS and MSS in conjunction for transmission of train location information from train to central server as against the MSS system alone, purposed by CRIS. Committee has deliberated this issue in detail and agreed to use both GPRS and MSS to enhance reliability and accuracy.

(b) **Impact of chronological asymmetry on train information system due to use of SMS for transmission of train location information from train to central server.**

RTIS does not propose use SMS mode for transmission of information for transmission of train location information from train to central server. As discussed in background note GPRS & MSS will work in conjunction. RTIS will use GPRS mode of communication from two GSM operators and wherever GSM coverage is not there the communication shall be through MSS. As such the issue of chronological asymmetry will not arise.

(c) **Alternative Platform for SIMRAN:**

SIMRAN proposes to provides Real-Time train location and train running position to passenger through internet, mobile phones, IVRS etc.. System proposed by CRIS does not provide this information but ETA based on manual intervention. This issue has been discussed in detail by SIMRAN sub-committee, and ICT Expert committee has taken sub-committee's report into consideration for recommending the implementation of RTIS.

Concern raised by IT Dte have been advised to and discussed with Chairman ICT Expert Committee also for helping him to take an objective view.

Project Implementation details:

- (i) **Nodal Dte.:** Telecom Dte.
- (ii) **Executing agency:** IRPMU
- (iii) **Mode of execution:** Advertised works tender
- (iv) **Budgetary requirement :** Rs. 85-100 Cr. The work would require inclusion in annual Budget 2010-11
- (v) **Source of funding:** Plan head -33-DF
- (vi) **Time frame to execute:** 24 months
- (vii) **Dedicated team composition:** Two SAG Officers and two supervisors from Telecom & one from Commercial & Electrical wings, RDSO & IIT/Kanpur.

Reduce paper less ticketing through mobile phones in both reserved and unreserved segments of passenger travel, with rewards or incentives. A communication between the transaction handling server and mobile phones or a similar mechanism should provide the passenger necessary authority to travel.

Implement reserved ticketing by June-2010 and unreserved ticketing in sub-urban areas of Mumbai and Chennai by September-2010. A background note on this enclosed as annexure E-2.

Project Implementation details:

- (i) **Nodal Dte.:** IT Dte.
- (ii) **Executing agency:** CRIS
- (iii) **Mode of execution:** Through advertised tender
- (iv) **Agency of Execution:** Will be finalised through advertised tender.
- (v) **Budgetary requirement :** A work for pilot implementation of unreserved ticketing through mobile phones in Mumbai and Chennai suburban sections has already been sanctioned at cost of Rs. 5.3 Cr. Therefore there is no immediate budgetary requirement for the unreserved segment.
Similarly, mobile phone ticketing for the reserved accommodation can be taken up as part of the Indian Railway portal application. Hence there is no immediate budgetary requirement for reserved segment.
- (vi) **Source of funding:** Plan head-17-Computerisation(no requirement of funds currently).
- (vii) **Time frame to execute:** June 2010 for reserved ticketing
Sept 2010 for unreserved ticketing.
- (viii) **Dedicated team composition:** One SA grade officer each from Southern , Western & Central Railway & one officer from CRIS needs to be dedicated
- (ix) **Other related issues:** Guidelines for allowing SMS/Mobile based ticket as authority to travel needs to be issued by Ministry of Railways.

Reco.(iii):- Unified Web Portal for Indian Railways:

Provide a unified Indian Railways Web Portal integrating all existing Indian Railway's Websites to provide all Railway related information through one comprehensive site. This would also have features like a Comprehensive Complaint Management System, Journey Planner, Retiring Room Booking as well as other facilities. It would also unify more than 35 Railway websites into one portal.

Proposed Implementation details:

- (i) **Nodal Dte.:** IT Dte.
- (ii) **Executing agency:** CRIS
- (iii) **Mode of execution:** Through advertised tender
- (iv) **Agency of Execution:** HP India has been selected through tender process and awarded this work.

- Source of Funding: Government computerisation.
- (vii) Time frame to execute: June 2010
 - (viii) Dedicated team composition: CRIS team is already nominated and one SAG officer each from zonal Railways/PU needs to be nominated.
 - (ix) **Other related issues:** Provision of a payment gateway will enhance the functionality and user-friendliness of the Indian Railway portal. Board's clearance is needed for the same.

Reco.(iv):- Broadband Connectivity to Panchayats:

Broadband connectivity to 50,000 Panchayats may be provided by RailTel Corporation of India Limited using its existing Optical fiber Network. The funds required for this connectivity would be available through the USO fund. This can be completed within 24 months. Besides Panchayats, this will facilitate broadband connectivity to schools, colleges, farmers, health units and small local business in rural areas. Connectivity should be provided to all 50,000 Panchayats by 2012. A background note on provision of Broadband connectivity to Panchayats is enclosed as annexure E-5.

Proposed Implementation details:

- (i) **Nodal Dte.:** Telecom Dte.
- (ii) **Executing agency:** RailTel
- (iii) **Mode of execution:** EOI followed by tender.
- (iv) **Agency of Execution:** Broadband operator/Wi-Max system provider/ Content providers.
- (v) **Budgetary requirement :** Rs. 9000-10000 Cr.
- (vi) **Source of funding:** USO fund and or MGREGA
- (vii) **Time frame to execute:** 24 months
- (viii) **Dedicated team composition:** Team of RailTel officers. Name suggested are Sh. R.K. Bahuguna, DNPM and Sh. Anshul Gupta, GGM/Mktg,
- (ix) **Other related issues:**

Reco.(v):- RailTel to explore Broadband Services on PPP basis

Take steps to exploit the huge information carrying capacity of OFC fibers owned by RailTel to provide Broadband connectivity by using suitable Radio technologies like Wi-MAX under a PPP arrangement. This can provide a world class network for Education, Health, Business and Disaster Management to increase the revenue of Indian Railways as well as help in the process of nation building. The scheme should take off by December-2010 by adopting a PPP Model. A background note on provision of Broadband services using RailTel OFC network on PPP bases is enclosed as annexure E-6.

Proposed Implementation details:

- (i) **Nodal Dte.:** Telecom Dte.
- (ii) **Executing agency:** RailTel
- (iii) **Mode of execution:** Through PPP model(Revenue Share) EOI followed by RFP to select partners.

Source of funding: RailTel shall bring its own capital, start with or which Private operator shall build Broadband network to earn revenue. It is proposed to have revenue share arrangement with year wise guaranteed returns. Partner shall bring its own capital.

- (vii) **Time frame to execute:** 12 months for launch in all five regions
- (viii) **Dedicated team composition:** Team of RailTel officers.

Reco.(vi):- OFC Network on balance 15000 RKM of Indian Railways

Need for availability of OFC at all the 7000 Railway stations is imperative. RailTel should provide OFC network on balance 15,000 RKM of Indian Railways through a PPP model / USO Fund to not only provide communication needed for Railway's use including for ticketing, train enquiries etc., but to also provide OFC Infrastructure to nearby towns and villages. A background note on provision of OFC network on balance 15,000 RKM is enclosed as annexure E-7.

Proposed Implementation details:

- (i) **Nodal Dte.:** Telecom Dte.
- (ii) **Executing agency:** RailTel
- (iii) **Mode of execution:** PPP model (Asset+ Revenue sharing)
- (iv) **Agency of Execution:** Passive infrastructure companies, TELCOS
- (v) **Budgetary requirement :** Total Project cost shall be Rs. 750 Crs(Approx). RailTel CAPEX is Nil
- (vi) **Source of funding:** Private Partner Capital, RailTel Contribution is in terms of long term leasing of ROW.
- (vii) **Time frame to execute:** 24 Months
- (viii) **Dedicated team composition:** Two officers from RailTel & one from Railways.
- (ix) **Other related issues:** Consultations with Ministry of Communication & IT are under way on USO funds utilisation.

Reco.(vi):- Rail TV Channel :

Set up a Railways Television Channel for improving the Railways brand, promoting tourism and for educating the public on safety, security and other rail related features through documentaries and innovative programming. This Channel will also help in dissemination of information related to train running including diversion / cancellation of trains, reservation availability and other information. The Channel besides increasing Indian Railway's reach across the length and breadth of the country, will also give updates regarding new policies, concessions and special trains etc. The Railways TV Channel can be set up in 18 months at a cost of around Rs. 20-25 crores. A background note on provision of Rail TV channel is enclosed as annexure E-4.

- (i) Nodal Dte.: Telecom Dte. for infrastructure services.
- (ii) Executing agency: IRPMU under N.O. Railway
- (iii) **Mode of execution:** Through advertised tender
- (iv) **Budgetary requirement :** Rs. 20-25 Crs.
- (v) **Source of funding:** PH- 64.
- (vi) **Time frame to execute:** 18 Months
- (vii) **Dedicated team composition:** Team suggested for implementation of RTIS will also implement this system with one nominee from PR & Commercial Dte.
- (viii) **Other related issues:** Details of the nature of content and institutional arrangements should be coordinated by the Commercial & Public relation department.

5. Other issues:

5.1 The Committee has also discussed the concept of green toilets in all the trains in the country to improve sanitation standards at railway stations. After discussions, the Committee has recommended trials of three green toilet technologies available in the market, covering one complete rake. The trials for the same will be completed by October-2010. The best technology should then be provided in all trains of the Indian Railways.

5.2. Various other issues under active consideration of the committee are e-signalling, modernisation of freight management system and safety at level crossing gates as well as for Railway men working on the tracks. The recommendation on these issues are likely to be finalised by March, 2010.

The recommendation submitted ICT expert committee are put for the consideration & approval of the Board please.

[Handwritten Signature]
4/2/10

**ED/TD
Member Secy.
ICT Expert Committee**

85
5/2

[Handwritten Signature]
4.2.2010

98-M2
4/2/10

7
12

- ML
- MT
- MM
- ME
- MS
- FC
- CRB

Committee and have perused the background notes in respect of the above recommendations as also the dissent note given by Mr. Director/CRIS in respect of Recommendation No.1.

My views are as follows:

Recommendation No. 1: Real Time Train Information System:

The ICT Expert Committee had been formed to go into the gamut of exploitation of the telecom facilities available with the Indian Railways system to improve earnings and performance of the Railways. If the Committee had been entrusted with the task of giving recommendation on real time information system, it would be in the fitness of things that C&IS Directorate, which has been dealing with the subject for more than two decades, had been associated with this exercise formally. It now appears that the Committee has taken a unilateral decision to make suggestions without taking the views of the user departments. I would hence like to give my suggestions as under:

1. Railways have developed a very robust computer application system of FOIS and even a better and stable system – COIS – under the aegis of CRIS. FOIS system is now tested for the last four years and has withstood the test of time with multifarious pressures put on it for generating managerial information which have helped the Railways in notching such a high growth in freight traffic.

2. We expect the same to happen with COIS. We have also got Control Office Application, with which the Control charting has been put on computer all over the Indian Railways for the last few months and the system is gradually settling. We also have a project for picking up train running information directly on the computer by using MSS technology, with the help of ISRO. We are very confident that this project will give us a foolproof arrangement of picking up train running time which could then be utilized for train forecast application, which is already available in Control Office Application.

3. In case we are deciding to have a parallel arrangement under the Telecom Directorate to give another prediction about the train running and forecasting, then we will not only be duplicating the whole process but would also engender confusion in the system. It will be in the fitness of things that we work in a uniform manner and decide to adopt only one process for train forecasting through computer.

M.L. may like to decide whether we should jettison our time tested control office application system in totality to go in for real time train information system through SIMRAN

Recommendation No 2 - Ticketing through Mobile Phones:

This recommendation is accepted in principle.

A project has been launched in the sub-urban corridors of Western Railway to check the efficacy of such an arrangement. It is understood that the Vendor identified by CRIS for this trial has just now been able to obtain Reserve Bank of India's clearances for engaging in such financial transaction. I am cautiously optimistic that the project would succeed. However every possible apprehension about revenue leakages arising out of imperfect implementation of any such scheme will have to be evaluated through such trials.

Before a target date for implementation can be considered only after evaluating the results of trial for a period of three months at least.

The feasibility of train reservations through mobile phones is linked primarily to the ability and willingness of the service providers in charge of credit/debit card payment gateways to accept commands generated through mobile phones. Technically, railways can provide software for a ticket to be generated based on commands given on mobile phone. A core group will be set up by the IT directorate to interact with the Indian Banks Association and with telecom service providers to draw up modalities for the same. This core group will give its report by April 2010.

Recommendation No 3 - Unified Web Portal:

Recommendation accepted.

Recommendation No 4 - Broad band Connectivity to Panchayats:

Recommendation accepted.

Recommendation No 5 - RAILTEL to explore broadband services on PPP basis:

Recommendation accepted.

Recommendation No 6 - OFC Network on balance 15,000 KMs of Indian Railways:

Recommendation accepted.

Recommendation no 7 - Rail TV Channel:

In principle, this recommendation is accepted.

However, the implementation process is visualized to be much more complex than what is mentioned in the recommendation. Unlike a news or entertainment channel which is broadcasted to all viewers across the coverage area, railway channel would be required to give location/region specific updates on availability of accommodation, status of train arrival etc. The viewers would obviously need to know the status of trains and availability of accommodation on trains locally. Therefore such information will be required to be filtered and shown as per local requirements in every major city and its satellite towns, which the present telecasting system does not cater to. Therefore, a working group comprising of IT, Telecom and Commercial Directorates will have to get itself on developing a technical architecture for such a scheme. This should be completed within a time frame of three months. Without a workable arrangement for live broadcast of information unique to every city, it is too premature to nominate an implementation agency.

Issues:

Toilets:

Comments since no Recommendations have been given.


Signalling:

Issue of signalling required for dealing with fog related reduced visibility is a subject discussed in detail at the Board level.

Modernization of Freight Management system:

It is an ongoing process and a very large number of sanctioned works are being implemented to achieve this.

I would expect that before any of these recommendations in respect of any of these items are finalized, senior officers in the Railway Board having domain expertise on each such activity should be associated with the deliberation and consultation process and the views expressed by them be given due weightage. The experience relating to SIMRAN project, wherein the domain experts on train control and command systems and on train arrival enquiry related processes were not at all associated with the deliberations, should not be repeated. ICT expert committee must include domain experts from all those fields relating to which deliberations are taking place.


9/2/10
M.T.
09.02.10

~~MLL~~

~~at np 10~~

~~lms~~
11.2.10

~~_____~~

7 made by ICT Expert Committee under the Chairmanship of Sanjiv Pillai and objected to recommendation No. 1 regarding Real-time Train Information System (RTIS). In the ultimate para of his note at NP-9, MT has suggested that all recommendations be discussed with senior officers in the Board, having domain knowledge. Issues raised are :

- (i) C&IS directorate should have been formally associated.
- (ii) COIS & FOIS platform are robust enough for managerial inputs
- (iii) The C&IS directorate would be pursuing a project with ISRO, using MSS technology & MT has confidence of its success.
- (iv) RTIS based predictions about train ETA may give rise to confusion.

2.0 We need appreciate recommendation for RTIS in the following perspectives :

(a) Board's sanction for RTIS (earlier SIMRAN)

Project was approved by the Board formally in 2003 (SN-3), under Technology Mission for Railway Safety (TMRS) after presentation made by RDSO & IIT/Kanpur, before the MoR & MHRD, for:

- Monitor every train for its location and speed based on which crossings could be scheduled.
- Provide Passenger Information System at stations.
- Help avoid accidents by alerting driver on approaching Un-manned level crossing, Bridges etc.
- Provide on real related information about the train to the Control.

(b) Successful pursuit in research by RDSO & IIT/Kanpur

IIT/Kanpur & RDSO have invested about 3 years research work in developing the system, putting it on trial on 42 trains & kept monitored by RDSO. Information Display was also tried onboard on one train for 3 months(SN 4). The website from which information can be accessed was also given by IIT/Kanpur during the discussions at www.simran.in. DG/RDSO MCDOs of Sept'06, Jan.'09 & Nov'09 to CRB contain information on SIMRAN & its performance (SN 5). The expenditure of about Rs.3 crore on this has been fruitful.

A print-out of train currently monitored is at SN-6.

(c) Reservation of CRIS and C&IS Dtes.

MD/CRIS is a member of the Expert Committee (He has indicated 3 points of dissent) GM/IT/CRIS, assisting the committee, gave presentations and discussed the IT applications including FOIS, COIS and COA developed by CRIS during different meetings. ED/C&IS had been co-opted as an observer from the second meeting of ICT Expert committee held on 10th Nov. 2009 and onwards. Committee has discussed

Item-wise remarks on MT's four observations are as under :

C&IS directorate & also the CRIS were associated by this committee. In fact, C&IS directorate have earlier been associated in the ED's Committee (SN-7) in which ED/C&IS had agreed, however GM/COA/CRIS dissented then.

FOIS project started in 1985. Presently, information on freight loads and wagons is manually entered at loading stations, and updates occur on inter-railway boundaries or major yards. COIS tracks coaches and passenger rakes at terminals based on manual data input. These systems as such will only provide virtual-time information. There is every reason to allow real time information to be used and disbursed, as early as possible, so that railways information system also inspire passengers' confidence.

There is no system of MSS to track train as of now. If trials are successful, these may address gaps in COIS, FOIS & COA for real time Information operational requirements. (RTIS already addresses these in its present version itself). There is, therefore, no real need to re-develop a satellite based real time system afresh.

As of today, information on predictive times though available, will not be provided to customers (Expected Time of Arrival). The system will convey train location and its running position i.e. whether the train is on time or if running late, by how much. COA is a strategic operational system and should rightly utilize inputs from RTIS.

Other advantages of RTIS

RTIS, as it has developed will also be a wide platform for other uses such as :-

Wireless Coach Information Display System

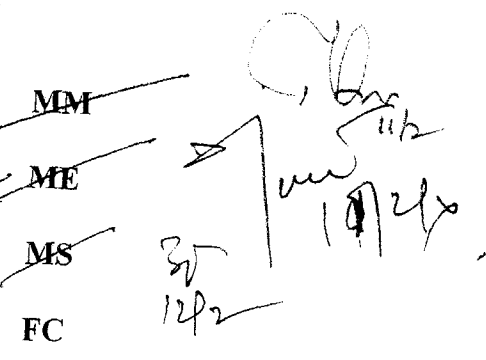
- On board loco diagnostic system and aids
- Unmanned level crossing gate warning System
- Trackman Warning System
- Once established, this system is expected to receive a large number of enquiries by SMSs for real time train information, this has potential to generate revenues for Indian Railways by entering into revenue sharing arrangement with mobile service providers and will also reduce burden on railways' existing enquiry system.

Telecom directorates in RDSO and in board are technically equipped with domain knowledge of communication requirements. ICT applications and implementing systems. No parallel IT infrastructure has been created by Telecom which continues to be the backbone for communication since inception.

MR vide para 33 of the Budget Speech (July 2009) had announced the setting up of the Expert Committee chaired by Shri Sam Pitroda and the

ML
 10.02.10

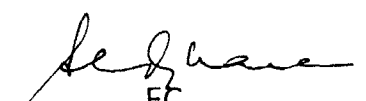
110/ML
 10/2
 648-MM
 11/2
 001-FC
 17/2
 172



CRB
 MR

1. In respect of the mobile phone ticketing, fool proof safeguards have to be taken to ensure that there will be no loss/ leakage of revenue and that payment by electronic currencies get realised and accounted for by the Railway without loss of time.
2. To the extent feasible, where real time information is being made available on media such as mobile phones, revenue sharing arrangements should also be explored to recover part of the cost of value added service being provided.
3. Structure of PPP (whether BOO, BOOT, etc.) and documentation for bids, for optic fibre works should encompass arrangements for revenue share for business opportunity offered, lease rental and safeguard of railway owned property, before entering into the venture.
4. With regard to the Real Time Train Information System, a project which collectively addresses (a) the needs and concerns of the rail users duly integrating the operational requirements, (b) safety aspects of railway working (c) which could be implemented within least time frame and at reasonable cost and (d) ensures a transparent system with a free-flow of accurate data to improve the image of Railways, should be the chosen for implementation.

- 13/10/10
 12/12/10


 FC
 12.02.10

CRB
 [MR]

by PFRD. The Government of India announced by Article 113 of the Budget Speech in 2009, the Expert Committee on 'usage of Information and Communication Technology (ICT) in the Railways' headed by Shri Sam Pitroda with members drawn from related fields both inside and outside Railways, was constituted in September 2009. The Committee aided and assisted by the sub-committees on various subjects, after detailed deliberations submitted its recommendations for immediate implementation of the following seven major initiatives:-

1. Real-Time Train Information System (RTIS)
2. Ticketing through Mobile Phone
3. Unified Web Portal for Indian Railways
4. Broadband Connectivity to Panchayats
5. RailTel to explore Broadband Services on PPP basis
6. OFC Network on balance 15000 RKM of Indian Railways
7. Rail TV Channel

In the Board, MT made certain observations on Real-Time Train Information System (RTIS). MT also made some suggestions on Rail TV Channel while agreeing 'in principle' with the recommendation. FC rightly observed that recovery of a part of cost of new services is to be attempted, besides securing the revenues so generated. Further, she observed that the RTIS option chosen should collectively address all relevant aspects in a transparent manner.

From the foregoing discussions at NP-1-12 and the documentation on file, I find that all the issues raised on proposed RTIS are adequately discussed and considered by the Committee before making the final recommendations. As regards the suggestions on implementation of Rail TV Channel, it can be seen that the said channel has much broader objectives and providing localized train/passenger information can form part of the refinement process during the course of its phased evolution.

The purpose and objective of constituting an Expert Committee of such high eminence is to examine all the issues relating to usage of technology and innovations in a comprehensive and unbiased manner in

... and ...
operational and safety issues would improve the reputation and public image of railways.

In view of the above, the Expert Committee's recommendations may be accepted. *pl.*

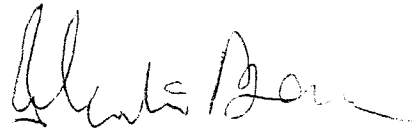
OSD/MR
110

[Signature]
CRB 14/2


MR



I find that there are divergent views amongst the Board Members on the recommendations. It would be appropriate that these are deliberated by the full Board and the case re-submitted.


(Mamata Banerjee)
MR 3/3/2010

~~CRB~~

 4/3/2010

ML

1-ml
5/2/10

After going through the observations made by ML, MT, FC and MM on the recommendations of the ICT Expert Committee and discussing some of the issues with Mr Sam Pitroda, Chairman of the ICT Committee, I suggest the following course of action for execution of the recommendations that are proposed to be accepted:

Recommendation (i) RTIS based on SIMRAN

Recommendation of the committee accepted.

One of the prime concerns of security and integrity of such train movement related timings during collection and dissemination stages was discussed with Mr Pitroda. For this full precaution will be taken, in consultation with concerned agencies, during design phase. This is best achieved by a single point control. Therefore, train timings collected through RTIS is to be integrated with Control Office Applications which will automatically transfer these timings to related applications (like NTES, PAM, FOIS etc). NTES will convert these timings into forecasted timings at subsequent stations for dissemination to public via internet, IVRS, mobile phones, station display boards etc.

Telecom and IT Directorate will jointly supervise the project and facilitate coordination between IRPMU, CRIS, ISRO etc for it's early implementation after acceptance by the user directorates (Commercial & Traffic Transportation).

Use of SIMRAN system for providing protection at level crossings, providing protection to gang-men working on the tracks etc has to be studied by a committee of representatives from concerned directorates and recommend whether information from this system can be completely relied upon or can be only indicative.

Time frame for execution: 24 months

Recommendation (ii) Ticketing through Mobile phones

Recommendation of the Committee accepted

Since most of the traveling public do not have access to JAVA enabled handsets, which provides a secure platform, possibility of ticketing through ordinary SMS based solution without compromising the apprehension of revenue leakage is being explored.

Time frame for execution: Reserved ticketing 3 months, Unreserved ticketing 8 months

Recommendation (iii) Unified Web Portal for Indian Railways

Recommendation of the Committee accepted and work has commenced

Time frame for execution: 3 months

Recommendation (iv) Broadband Connectivity to Panchayats

Recommendation accepted in principle. Requirement of fund (about Rs 10K crore) from external sources like NREGS and USO fund for Telecom is being arranged.

Time frame for execution: 24 months

Recommendation (v) RailTel to explore Broadband Services on PPP basis

Recommendation accepted in principle. This is being planned through PPP route, with floating an EOI followed by RFP for selecting a partner

Time frame for execution: 12 months

Recommendation (vi) OFC Network on balance 15000 RKM of IR

Recommendation accepted in principle. This is being planned under PPP (Asset & Revenue sharing) model.

Time frame for execution: 24 months

Recommendation (vii) Rail TV Channel

Recommendation of the Committee accepted in principle

Technical details of this project has to spell out, by a working group consisting of Commercial, PR, Telecom directorates, to show how the broadcast of programs, flashing of updates for passenger related information in multiple languages specific to cities/regions through a single channel can be done without resorting to time slotting method.

Time frame for execution: 18 months

Recommendations are put up for acceptance please.


CRB 10/11/10

MR

The proposal of CRB, on the recommendations of ICT Committee, at pp/27-28/n are accepted. It should, however, be ensured that a road-map indicating clear time-lines is drawn up urgently for taking the recommendations of the Committee to a logical conclusion. The details may be submitted to me within a fortnight.

(Signature)
(Mamata Banerjee)
MR

15/9/2010

10/CRB
15/9

~~CRB~~

Let us sit together on 16/9 and draw time-lines.

(Signature)
15/09/10

29/6-ML
16/9

ME

AM/Tele.

18/9.

- As discussed. - One page summary for each item, to be prepared
- (1) Time lines.
 - (2) Responsibility
 - (3) Action / Funds / Process.

To be discussed with CRB on 24/9/10. one page summary to accompany letter along with

~~ME~~

(Signature)
24/9/10
AM/Tele

726-ML
29/9.

AM/Tele.

- as discussed.
1. this AM IT. for items concerning IT de.
 2. Whp groups nomination.
 3. Budget proposals.

urgent action to be taken
Concerned departments to be advised for urgent
action on issues listed by field
a brief action report

(Signature)
27/9/10

RD/Tdp