

भारत सरकार / GOVERNMENT OF INDIA रेल मंत्रालय / Ministry of Railways दक्षिण रेलवे / Southern Railway

प्रधानकार्यालय/ Headquarters Office, Planning Branch, चेत्रे - 600 003/Chennai - 600 003.

No.G.275/WSSR-012021/2020-21

Dated: 30.12.2020.

PFA / HQ

 $\mbox{Sub}:\mbox{ Work study to review the Staff Strength at SRITC (EDPM / O / MAS)}$

HQrs.

Ref: (1) SDGM's D.O. letter No.G.275/WSSR - 2020-21 dated 10.06.2020.

(2) Dy.CAO/G letter No. P.532/Admn/Gaz/Nomination dated 28.06.2020.

A work study on the above subject was conducted by Headquarters Planning Branch and a report on the same is attached.

As the report is to be finalized within eight weeks, it is requested to take expeditious action and advise this office in this regard.

A copy of the work study report may be given to organized labour.

This has the approval of SDGM.

(D. JAYARAMAN)

Dy. Chief Planning Officer for Senior Deputy General Manager.

Copy to: Dy.CAO/G/HQ

(Encl: One copy of the study report)

The Director (E&R)/Rly.Bd/NDLS for information.

(e - copy of the study report)



WORK STUDY TO REVIEW THE STAFF STRENGTH AT SRITC/MAS

SOUTHERN RAILWAY

PLANNING BRANCH

G.275/WSSR - 012021/2020-21

WORK STUDY TO REVIEW THE STAFF STRENGTH AT SRITC/MAS

STUDIED BY

WORK STUDY TEAM
OF
PLANNING BRANCH

DECEMBER 2020

ARAR.

(i)

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(i) ACKNOWLEDGEMENT

The work study team acknowledges the valuable guidance and co-operation rendered by EDPM, AEDPM/MAS (Co-ordinating Officer), SEs (Co-ordinating Supervisors) and other staff of SRITC in completing the study in time.

(ii) TERMS OF REFERENCE

Annual programme of work studies approved by SDGM for the year 2020-21.

(iii) METHODOLOGY

The following methodology has been adopted while conducting the study.

- 1. Collection, compilation and analysis of statistical data.
- 2. Field Observation of the present working system.
- 3. Interaction with Officers and SE/JEs of the unit...
- 4. Application of 'need basis' concept in assessing the manpower requirement in conformity with the Web based information Systems.

ARAR.

(iv)

SUMMARY OF RECOMMENDATIONS

Recommendation No 1:

8 posts of SE (IT) in PB 9300 – 34800 and GP 4600 is found to be excess to the requirement, may be surrendered and credited to the vacancy bank.

(8 posts)

Recommendation No 2:

13 vacant Posts of JE (IT) in PB 9300 – 34800 and GP 4200 is found to be excess to the requirement, may be surrendered and credited to the vacancy bank.

(13 posts)

(TOTAL - 21 POSTS)

SKSK

1.0 INTRODUCTION

- 1.1 The Southern Railway Information Technology Centre, SRITC is a nodal computer centre of Southern Railway headquartered at Chennai with satellite computer centres at various other places such as Madurai, Trichy, Palakkad and Thiruvananthapuram to cater to the Information Technology needs of the respective divisions.
- 1.2 SRITC hitherto known as the Electronic Data Processing Centre (EDP) acquired this new name on 05.06.2007 in tune with the changing role of the department from that of an electronic data processing centre to Information technology centre. SRITC has its roots in the organisation that was originally started in 1964 to cater to the fast growing IT needs of various departments of Southern Railway.
- 1.3 Presently, SRITC acts as a bridge between CRIS and the Railway, as most of the applications are being developed by CRIS, the latest being the IPAS. The aim of the centre is to provide seamless coordination to enable different user departments to implement and address user queries on various digital projects brought out by Railway Board.

1.4 **FROM THE ARCHIVES:**

The computer used during 1964 was an IBM 1401 mainframe. This was a second-generation computer and the language used was 'AUTOCODER', similar to machine language. The data and program coding were fed to the computer through punched cards.

In 1986, when the IBM mainframe became obsolete, a new computer system was installed. This new system comprised of ICIM 6060 mainframe using the then high-level language COBOL.

The data entry and program coding were through keyboard. Magnetic spool tapes and huge sized hard disks were used for processing and storing the data. The operating system used was TME (Transaction Machine Environment) and the RAM size was only 2MB.

In 1996, with the advent of new high capacity miniature devices, the ICIM mainframe system was replaced by the HP E45 machines. The operating system used is HP-UNIX and the language is Micro Focus COBOL. High capacity Disk stations and miniature Digital Audio Tapes are used to store and retrieve data.

In the year 2000, the administration undertook a paradigm shift in computing, which resulted in the present setup. The conventional programming in COBOL is being switched over to 4GL environment. RDBMS was introduced and ORACLE is used as back end server and D2K is used as the front-end tool.

There is a separate system for RDBMS with SUN E450 machines with clustering and a 360GB Raid box with RAID-0 and RAID-5 storage. Many more new applications have been introduced in ORACLE and the modules running in COBOL have been migrated to RDBMS.

The SRITC has an exclusive networking system called ROLIN (Rail On LINe) linking Southern Railway Headquarters, Chennai Division, MMC and Perambur offices. The other divisional computer centres are linked through Railnet. SRITC has well trained staff in Database Administration, System & network Administration as also Programming.

1.5 As on date, SRITC is equipped with 3 servers having different roles with the latest addition of Database being MySQL.

- 1.6 The organisation comes under the administrative control of PFA/SR. The functional head of SRITC is EDPM assisted by AEDPM who in turn by SEs of respective sections.
- 1.7 An attempt has been made in the subsequent chapters to assess the workload in commensurate with the existing workload and the salient features involved in the Web based Information System.

RARAR

2.0 **PRESENT SCENARIO**

2.1 Aims and objectives of SRITC

- ✓ Analysis, Design, Development and Maintenance of Software.
- ✓ Development & Maintenance of Application softwares for incorporation of rules and regulations as directed by Railway Board from time to time.
- ✓ Maintenance of Network at SRITC/MAS
- ✓ Data mining from old format data (Legacy and RDBMS)
- ✓ Maintenance and Monitoring work of System Administration, Network Administration, IT Security Administration and General Administration.
- ✓ Maintenance of servers and legacy data of 20 years
- ✓ Development of web portal for packages pertaining to Budget, Cash & Pay, Traffic, SR digitization of Gazetted officers etc.)
- ✓ Co-ordination with user departments (User Support) for smooth running of applications.
- ✓ Training of user departments for update knowledge of Software and Technology.
- ✓ Implementation of Railway Board Policy regarding Information Security Procedure Manual and Software development and co-ordinating with all divisions, HQrs, Construction, Workshops and Zonal.
- ✓ Technical Clearance for Procurement of Software/ Hardware to user departments.
- ✓ Co-ordination with users of IPAS from the year 2016.
- ✓ Co-ordination of AMC contracts agreement and renewal for hardware and Networks.
- ✓ Implementation of Judicial Order.
- ✓ Making paperless office by implementing e-office.

2.2 **Applications:**

The following applications are running at SRITC on ORACLE 8i / Developer 2000 (D2K) platform and COBOL languages on legacy systems. Presently MySQL as Database and PHP page as Front end. SRITC is catering to HQ, Chennai Division and Perambur workshops.

- > PRIME, AFRES
- > FAS
- > PAS
- ➤ WGR/Labour Summary for LW/PER & S&T/PTJ

2.3 Staff Strength:

| SI No | Category | Pay Band | Grade Pay (Rs.) | S | Α | V | E |
|----------|------------------|------------|--------------------|----|----|----|---|
| 1 | Sr.Engineer (IT) | 9300-34800 | 4600 | 35 | 27 | 8 | 0 |
| 2 | Jr.Engineer(IT) | 9300-34800 | 4200 | 17 | 11 | 6 | 0 |
| | TOTAL | | | | | 14 | 0 |

2.4 Staff Deployment:

| Sections | SE | JE | Total |
|--|----|----|-------|
| General Administration Section | 3 | 1 | 4 |
| Infrastructure Section | 2 | - | 2 |
| Network section | 2 | - | 2 |
| Console Section | 2 | 1 | 3 |
| Database Administrative Section | 1 | 1 | 2 |
| IPAS (PRIME Section) | 3 | 3 | 6 |
| IPAS (AFRES section) | 9 | 2 | 11 |
| Technical Clearance Section | 2 | - | 2 |
| Passenger Accounting System (PAS) | 2 | 1 | 3 |
| Freight Accounting System (FAS) | 1 | 1 | 2 |
| Workshop General Register (WGR) & Labour | - | 1 | 1 |
| Summary Section | | | |
| TOTAL | 27 | 11 | 38 |

2.5 Guidelines for the working of SRITC:

In order to ensure the monitoring of IT Security and the Physical security of Data centre as also the holding of Assets, the Railway Board has laid down action points on key items as per IR ICT Security Policy 2019 vide RB Letter No. 2019/RBCC/7/7/Policy implementation dated 09/01/2020, in which it is directed to form a security team at each unit/department and has recommended an Security Manager, Incident Response Team and monitoring and Implementation teams. The functions, duties and responsibilities of the Information Technology centre are detailed under the head `Information Security Section`.

2.6 Presently, the Sections of SRITC/MAS is broadly classified as

- General Administration Section
- Infrastructure Section
- Network Section
- Console Section
- Database Administration Section
- ➤ IPAS (PRIME Section)
- > IPAS (AFRES Section)
- Passenger Accounting Section
- Freight Accounting Section
- Technical Clearance Section
- Workshop General Ledger Section

2.7 GENERAL ADMINISTRATIVE SECTION:

- Receipt and Despatch of letters and files received from and sent to various departments.
- Maintenance of Attendance Registers and Leave particulars.
- Issue and accountal of Privilege Pass/PTO, RCP and the like for SRITC staff.
- Preparation and forwarding of Landline & CUG bills.
- o Preparation of Revenue Budget Estimate of SRITC.
- Maintenance of T&P Register, Periodical review and disposal.

- General correspondence with other departments pertaining to SRITC matters.
- Maintenance of Books Library at SRITC.
- Maintenance of Imprest cash and passing of related bills.
- Dealing of all types of staff matters pertaining to Establishment.
- Preparation of MCDO statements with regard to SRITC.
- Procurement of all types of stationery items to upkeep the office.

2.8 INFRASTRUCTURE SECTION:

- a. Procurement of Computer hardware, peripherals & consumables by placing NS indents on Stores (Now through GeM) which involves processing for Administrative approval, obtaining finance concurrence, Sanction and forwarding of Suppliers bill in IPAS for payment.
- b. Maintenance of PCs, Servers, Printers and UPS available in the office of EDPM by coordinating with the respective AMC providers.
- c. Processing of AMC for Desktop PCs and Printers, Line printers, Servers and Online 30KVA UPS (1 Numeric and 1 POWER-ONE) by calling for quotations from OEM.
- d. By initiating tenders, which involves many stages like approval, concurrence, sanction and other related jobs such as Issue of LOA, obtaining of PG, vetting of draft agreement, genuineness of BG etc.
- e. Maintenance of registers for Hardware, Consumables, Indent, Agreement and Bills.
- e. Coordinating with Stock verifiers/Audit.

2.9 NETWORK SECTION:

- 1. Maintenance and troubleshooting of Network and related equipments by ensuring uninterrupted connectivity between Database/Application servers and other systems provided in this office.
- 2. Allotment and management of IP addresses allotted to machines available in this office.

2.10 CONSOLE SECTION:

- a. Startup and Shutdown of Database/Application servers stationed in this office which are connected to Cash office, Accounts/PER, Fuel accounting/Mechanical branch etc.
- b. Co-ordinating with AMC providers for attending faults/failures of UPS and Line printers.

2.11 TECHNICAL CLEARENCE SECTION:

Accordance to Technical clearance for procurement of Servers, PCs & peripherals and related software by various departments in Headquarters, Workshops, Construction units and extra divisional offices

2.12 DATABASE ADMINSTRATION SECTION:

Details of Servers maintained at SRITC/MAS

| SI. | Server Model & | Role |
|-----|---------------------------------------|---|
| No | Name | |
| 1 | FUJITSU-M10-1 (1) SRITC-DB-SERV | Oracle 8i Database Server for 15 Databases |
| 2 | FUJITSU-M10 -1 (2) SRITC-APPL-SERV | Oracle 11g Database Server, MySQL Community Server 5.6.34 (GPL), FTP Server for File sharing, Samba File Server for Oracle 8i Client and Application Development |
| 3 | HCL-IGL-4700-PS SRITCOEL73 | Apache Server, PHP Application Server, SRITC/MAS Website and Oracle 8i DB External Hard Disc, Backup Server |

- Maintenance of PRIME & AFRES databases for Querying and Reporting purposes which includes Traffic Accounts, Cash & Remittance in Bank which are yet to be migrated to IPAS.
- Maintenance of MySQL Database for WEB Development, SRITC Website & FTP site to share information with Accounts department and other IT centres of Southern Railway.
- Initiation of Database full back up on every first and third Friday of the month and incremental backup every day at 15.00 hrs. and copying of generated backups to External hard disk connected to HCL-IGL-4700-PS
- Initiation of MySQL Database full back up on every day at 10.00 hrs. and copying to external hard disk connected to HCL-IGL—4700-PS.
- Copying of all generated Backups to Tape Media connected to
 FUJITSU M10-1 (1) Server on last Friday of the month.
- Rendering of Expertise/assistance to other IT centers of Southern Railway and Accounts offices for configuring of Servers and installation of Oracle Software.

2.13 PASSENGER ACCOUNTING SECTION:

- ✓ Collection of data from CRIS/Chennai, Data cleaning, validation and summary creation for UTS & PRS.
- ✓ Generation of Various Summary reports like PS-90, PS-67, PS-92, PSU-8
 & ADMU-8, PSSC and PS-940. Of PCT from SAO/T/TPJ
- ✓ Receiving of summary file of PCT from SAO/T/TPJ and printing of station wise classification for circulation to respective stations.
- ✓ Receiving of Ticket Indent File from SAO/T/TPJ and printing of Ticket Stock position and summary of Indents for circulation to respective stations.
- ✓ Receiving of PWB twice a year and consolidation of data for generation of statements viz., PWB3, PWB4 and PWB5.
- ✓ This section is equipped with Web based information called PETMIS i.e.,
 Passenger Earnings and Traffic Management Information System.

- ✓ Development Environment is MySQL as Database and PHP page as Frontend.
- ✓ Development and Maintenance of Web based Budget Analysis and stage wise monthly cash authorization.
- ✓ Maintenance of legacy data pertaining to Passenger Earnings and Traffic from the year 2009 to date.
- ✓ Co-ordination with GST cell for data cleaning before reconciliation of data
- ✓ Co-ordination with users for capturing of Class-I officers data in HRMS.
- ✓ Extraction of data from IPAS with reference to COVID19 expenditure.

2.14 FREIGHT ACCOUNTING SECTION.

- Collection of FOIS data from Traffic Accounts in Text for Validation and used as Input for processing in Oracle.
- o Processing and generation of 7A & 7B reports.
- Generation of Other reports like ST8, ST10, Paid statement, MPA and cumulative statements.
- Transfer of data in the Railway Board format to Centralized Apportionment System done through Traffic Accounts for onward transmission to RITES.
- Transfer of monthly summary (PAIRCOMSUM) and Cumulative summary (PAIRCOMCUM) data to Operating department.
- Maintenance of legacy data pertaining to Goods Earnings and Traffic from 2009 to date.

2.15 WORKSHOP GENERAL REGISTER & LABOUR SUMMARY SECTION:

- Processing of labour summary /WGR for EWS/AJJ and S&T/PTJ
- Coordinating with users for data entry in Tally sheets
- Monthly updation of Average Hourly Rates.
- Periodical updation of ONCOST details.

- Generation of monthly reports pertaining to labour
- Updation of Co-ordination Master.
- Porting Stores data given by the user.
- Porting Workshop Incentive Bonus data.
- Porting Labour summary data.
- Porting WGR supplementary data from FTP sites.
- Generation of validity listings, ARD & Processing
- Generation of Monthly Reports.

2.16 INFORMATION SECURITY SECTION:

- Monitor controls and access to the systems
- Maintain logs
- Maintain User Accounts
- > IT Security Administration and Monitoring
- System and Network Administration
- Application Development
- General Management
- Physical Security
- Access Control Section
- Business Continuity Plan
- Application Security
- Network Communication security
- Security Incident Response Management Team

2.17 **IPAS (PRIME)**:

Generation of Exception reports viz., IT recovery, as drawn earnings/recovery, Previous years Form 16, Water and Electricity charges etc., from the legacy data maintained in PRIME database pertaining to Workshops/PER & AJJ, RPF and Extra divisions from the Bill Units on request by the Users.

- Maintenance of files, registers and correspondence with Users regarding PRIME database enquiries.
- Digitisation of SRs done for Gazetted/Non Gazetted staff of HQ,
 Traffic Accounts and Construction units of Accounts department.
- Creation of Operation Manual for the Web Projects developed in this section.
- Coordination and assistance provided to RPF department for the yearly conduct of computer Awareness Exam for RPF Personnel.
- Deployment of Projects developed at SRITC in the web portal.
- o Facilitating porting of Quarters related data in to IPAS database.
- Periodical analysis of Pay elements, TA, Pension related data etc., are done on requests from Workshops/PER, AJJ and RPF department.
- Updation of Officer's details in Gazetted HRMS data in coordination with the users of field units.
- Reconciliation of HRMS data to that of IPAS database.
- Generation of Exception queries and status reports from IPAS on Service requests and submitted to every month.
- Correspondence related with Users regarding IPAS activities such as creation of User's ID and deactivation, Roles enabled, BU permission, EPPO rectification etc.
- Necessary customisation as per the needs of the User department
 with regard to DAK Module for R&D section at the office of PFA.

2.18 **IPAS (AFRES):**

Internal Check, Books & Budget:

- a. Preparation of MCDO with regard to the number of Bills passed per month.
- b. Pay mode wise details (count) to Expenditure section/HQ
- c. Extraction of data from IPAS tables to arrive at the Actual

 Expenditure of the bills and reports generated as requested by

 Budget section and other user departments.
- d. Division wise Actuals & Plan head wise details pertaining to Mechanical department is forwarded to the concerned Budget section after processing of Account current.
- e. CO7 wise and JV wise bill details are given to Audit on request every month.
- f. C&R processing is done and reports re given to Books section and Statistical branch at the end of the Financial year and also Department/Demand/Head/AU wise for the month and upto the month (FA760 format) is given to Books section and Audit.
- g. Details generated and made available as per User's request in respect of
 - i) Pending Bill status
 - ii) Actuals for a given month for SR as a whole (AU, Demand / PU wise)
 - iii) Bills passed for any party from a Particular Accounts Office.
 - iv) Cheque details of any party as to if payment has been made.
 - v) Details of LIC payments made through SSS of any employee given to LIC on request.

vi) Extraction of Data from Agreement master to arrive at the liability register.

Cash & Pay:

- Porting of MCR data (Cash & Cheque) from IPAS to AFRES for HQ
 TVC & PGT Cash offices for further process.
- Additional reports are developed by taking data from IPAS with regard to Cash Book.
- PMR data (HQ, PER & MAS division) is ported into AFRES database every week.
- Periodical updation of Master tables in respect of Station Codes,
 Bank codes etc.
- Assisting in the modification of Forms and Reports in the Cash & Pay module, Trouble shooting for all the divisions.
- Consolidation of POS data of all the divisions and forwarding to HQ to generate reports for onward transmission to Railway Board.

Traffic Accounts:

Maintenance and troubleshooting is done for the following sections of Traffic Accounts in AFRES.

- i) Cash & Voucher
- ii) Balance Sheet
- **iii)** Error Advice (Outstanding section)
- Modification of existing forms and reports done for all the above modules as per the User's requests.
- Updation of Station Master when new stations are opened for Traffic.
- HRMS data entry and corrections being done for Gazetted staff of PGT, MDU,TVC & MAS.
- Assisting in Penscroll module in consolidation of the files given Bank-wise and also in inserting data into the required table for viewing in PHP.
- Extraction of PRS/UTS data using the IPS address allotted by the CRIS consolidated with the Fright earnings to get total earnings (division wise and SR as a whole) for uploading in the SRITC website.

- Details of pending bills (CO6 and Allocation wise) extracted from IPAS in Excel format of all divisions of SR for uploading in the SRITC website.
- Sundry details extracted from IPAS in Excel format and forwarding to Traffic Accounts every month.

Pension Portal:

- The Pension scrolls transferred by different banks which are in different file formats such as Excel, Text, RAR Zip file etc. are merged in an uniform format in My SQL database.
- Monthwise list of retirees for whom PPO are generated and despatched to various Banks for making pension payment with provision for Capturing details like Receipt date, Speed Post No. of despatch of PPO.
- Bank wise Pension Commencement summary generated for all NR and ONR cases to monitor performance of Banks.
- Bankwise Pension Commencement details showing the details of the retirees to whom Pension Payment has been commenced and yet to be commenced.

E-Pension, e-scroll, POS & RIB:

Railway debit scrolls of February 2020 received from all Banks are being compared with the Pension Master- Pre 2016 revision data extracted from ARPAN Frontend, Post 2016 data extracted from IPAS database and Exception reports (Tallied, Untallied and Unmatched) generated for reconciliation.

ICF Pre 2016 data received from AFA/Settlement /ICF also incorporated with the consolidated master for comparing their debit scrolls.

POS:

PRS and UTS Data from CRIS site is compared with the Bank scroll every month. Exception reports are given to Books and Traffic Accounts for reconciliation

RIB:

 Posting of Cash office data (DRC and ODRC) of PGT, TVC and TPJ divisions completed upto May 2020.

- Matching of debit data (cash office data) and credit data (Bank data) Ist
 run completed upto December 2019. Final run completed upto July 2019.
- DHR Report for the 2019-20 generated during May 2020.
- Penal interest files generated for the halfyearly periods of 042018-19 -092018 and 102018-032019 during June 2020. For the next half year period of 042019-092019 is under process.

Provident Fund, Engine & Fuel:

- 1. *PF System*: Reference to legacy data is made available for settlement cases as per User's request. Assistance is given to refer to old data to the relevant offices i.e., HQ, MAS and PER in cases of request.
- 2. *Fuel Accounting System*: Modifications and enhancements to the programs are provided in Fuel Accounting Module developed and hosted at SRITC for Mechanical department which is connected to fourteen depots of Southern Railway as and when warranted. Remote assistance is also provided in the installation of software in case of crashing of the machines at depots.
- 3. Leave Maintenance system: This Module is developed and run at SRITC and Modifications/enhancements carried out as per the requirement of General Administration section.
- 4. *Engine Overhauling Expenses*: A module developed and maintained for the use of Accounts Office/PER in which the overall expenses incurred for overhauling/repair of the Locomotive engines is calculated and report sent to the concerned Railway to which the Engine belongs for accounting Purpose.
- 5. *Operating Statistics (Engine Module):* Maintenance of Engine Module. The data received from GMST/TPJ in Excel format is converted to SQL format and ported into Oracle database doe processing. After processing, Statistical office uses the data and generates various reports. New forms and reports are developed as per the requirement of Statistical department.

3.0 CRITICAL ANALYSIS

- 3.1 Indian Railways is surging ahead through independent development of a plethora of application packages, over the past few decades, such as AFRES, PRIME, ARPAN and the latest being IPAS, a paradigm in the efficiency. The integration of various functions resulted in the elimination of redundancies and in turn reduced the time taken particularly in the areas of preparation of salary bills, maintenance of PF Accounts and Reconciliation, Passing of Suppliers' bills generated by contractors, Imprest card to holders etc.
- 3.2 In order to achieve better efficiency, safety and security, the IPAS application is exercising consistent upgradation to pave way for real time access to financial and fiscal discipline and also HR activities.
- 3.3 IPAS, acronym for Integrated Payroll & Accounting system, a portal of AIMS developed by CRIS is one of the latest advancements in the Accounting reforms with two modules viz., HR and Finance. HR module comprises of Employee profile, Pay roll, Service record, Seniority, Leave, Settlement, TA, Quarters & Electricity, Cadre and Loans and Advances whereas Finance module includes Internal check, Books, PF, Pension, Cash &Pay, Suspense and Budget. This is a single window access to information and services.
- 3.4 Even though the core design of IPAS application is same as design of PRIME/AFRES, IPAS have more advantages over PRIME/AFRES with regard to functional, Technical, Security and interface with other applications.

Some of the key advantages are listed below.

- Centralized architecture for real time information of any level whether macro or micro levels.
- Uniform application for compliances of any rules /circulars of Board such as Arrears/Bonus etc.

- Web based application.
- High availability servers in case of failures.
- Centralized maintenance and management of infrastructure.
- Disaster recovery.
- Role based access to the end user backed by Audit trails to monitor the changes made by any user.
- Non dependency on outside IT companies for software maintenance as CRIS is well equipped with their own software professionals as is being done on other applications similar to PRS/UTS/NTES, FOIS/ICMS, PMS, TMS/TDMS, AIMS/RSMS etc.
- > Single Database to avoid duplication of works of Personnel and Accounts staff.
- ➤ Integration of Account modules with other applications such as Traffic account with PRS/UTS/FOIS earnings; MMIS with Stores bills enabling cheques through IPAS.
- Work Registers Module with IRPSM to monitor Plan Head wise/Workwise applications.
- > RBCS with IRPSM and Work register module to enable Budget estimation and reviews.
- > All the servers have been clustered to run in Fail-over mode. The load will be shifted to Cluster server.
- > Enabling of a common application to all railways.
- 3.5 The facts and figures once entered at the Executive department level, need not be captured again at Accounts branch is one of the major benefits of application package and only internal check remains.

- 3.6 Consequent upon the implementation of IPAS after merging of AFRES & PRIME into a single database, a dire need of detailed analysis of various activities performed by SRITC becomes inevitable and the same is attempted in the subsequent Paras.
- 3.7 The functions of SRITC could be broadly classified as
 - Development in the existing software applications as per the request of Users.
 - Maintenance of Application software packages.
 - Processing of Statistical reports to various departments viz., Statistical,
 Traffic Accounts, Cash & Pay offices, and Accounts Office/PER and
 Accounts/HQ duly incorporating Modifications if any and Enhancements as
 and when required by the Users.
 - Database management, Security Management etc.
 - General Administration.
- 3.8 Some of the main software applications in use at SRITC are
 - PRIME
 - AFRES
 - PAS
 - FAS
- 3.9 The number of Sections in SRITC is 11 excluding Information Security section and the work is being performed at the sections and the staff deployment are discussed in the following paragraphs under the respective Headings.

3.10 **General Administration Section:**

Total number of staff working in SRITC is 38 and 2 Officers.

The main activities of the section are Receipt and Despatch of letters (5 letters on an average per day), Maintenance of T&P, Issue of Pass/PTO, Preparation of Landline & CUG bills (Land line-2 Nos.; CUG-24 Nos), Maintenance of leave particulars and general upkeep of the office.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 3 | 2 | 1 |
| JE | 1 | 1 | 0 |
| Total | 4 | 3 | 1 |

3.11 **Infrastructure Section:**

The main activities of this section is procurement of computer hardware and peripherals by placing NS Indents on GeM and related correspondence, Maintenance of PCs, Servers, UPS etc, Processing of AMC for the 2 UPS, Line printers and Servers.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 2 | 2 | 0 |
| JE | 0 | 0 | 0 |
| Total | 2 | 2 | 0 |

3.12 **Network Section:**

The main activity involved in this section is ensuring Networking connectivity between Database/Application Servers and other systems available in this office and allotment of IP address to the machines of this office.

On observation, it is understood that the Servers are connected through Railnet and maintained by Railnet staff (Earlier it was ROLLIN)

Considering the importance of connectivity in Networking, the existing number of staff can be continued as such.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 2 | 2 | 0 |
| JE | 0 | 0 | 0 |
| Total | 2 | 2 | 0 |

3.13 Console Section:

This section works in two shifts i.e, 07.00-14.00 and 14.00-21.00 hrs.

The activities involved in the section are Start up and Shut down of Database/Application servers, Co-ordinating with AMC providers in case of failure of UPS & Line printers, printing of salary bills for RPF staff of HQ and MAS division, and Engine tabulations for GMST/MAS & TPJ.

Considering the nature and timings involved, the number of existing staff can be continued as such.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 2 | 2 | 0 |
| JE | 1 | 1 | 0 |
| Total | 3 | 3 | 0 |

3.14 **Database Administration Section:**

- This section caters the smooth running of 4 servers provided in the office viz., DB Server, Application cum File Server, WEB Server (Apache and PHP) & Standby WEB Server)
- Maintenance of 16 Databases in the Database Server and MySQL Community Server in the Application Server.
- ❖ Oracle Incremental back and MySQL database backup is done on daily basis and Oracle complete backup on every first and third Fridays. Tape backup is also done as a safety measure on the last Friday.
- In addition, monitoring of Database Space Usage, Server Diskspace usage, Oracle and MySQL logged on users list and other usage details are monitored frequently.
- Online support/assistance/expertise to other IT centres on requirement.

Considering the need of continuous monitoring and the importance, the existing number of staff can be continued as such.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 1 | 1 | 0 |
| JE | 1 | 1 | 0 |
| Total | 2 | 2 | 0 |

3.15 **IPAS (PRIME):**

On observation, it is inferred that the Data Input and Processing is done by the Users of PRIME related sections after implementation of IPAS from 1st of April 2016. The work of SRITC is limited to Trouble shooting, maintenance and development in the existing Software.

The main job of the section is consolidation of data obtained in various Text forms is ported to Oracle and generation of various reports like Exception reports etc.

Moreover, most of the jobs involved in the section are seasonal and the PRIME application has already been stabilised and no effort is required on a day-to day basis.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 3 | 3 | 0 |
| JE | 3 | 2 | 1 |
| Total | 6 | 5 | 1 |

3.16 **IPAS (AFRES):**

The main functions of this section are:

- Maintenance of Existing Forms & Reports
- ❖ Development of New Forms & Reports as per User`s request.
- Trouble Shooting & Validation of Forms Reports as per User's request.
- Continuous enhancements in the Modules pertaining to AFRES with regard to Books & Budget, Cash & Pay, Traffic Accounts, Pension e-scroll etc.
- Modifications and development in Engine Module implemented in GMST/MAS & TPJ.

SRITC caters to the requirement of Statistical, Traffic Accounts, and Commercial (Passenger & Freight Marketing) and Operating departments.

It is observed that some of the jobs are seasonal and is performed for a limited period.

Moreover, it is understood that separate softwares are in the Pipeline for Traffic Accounts, Workshop Accounts & Miscellaneous Electronic Receipts. Only Coordination work is needed.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 9 | 5 | 4 |
| JE | 2 | 2 | 0 |
| Total | 11 | 7 | 4 |

3.17 **Technical Clearance:**

The section accords Technical clearance for the procurement of Servers, PCs, and Computer Peripherals & Softwares for the use of various departments in HQ, Workshops, Construction/MS and extra divisions.

Approximately 200 proposals are cleared in a year i.e., 17 proposals in a month.

Staff Deployment Vs Requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 2 | 2 | 0 |
| JE | 0 | 0 | 0 |
| Total | 2 | 2 | 0 |

3.18 **Passenger Accounting System:**

Data cleaning, validation and summary creation of UTS & PRS data captured from CRIS in Text form is ported to Oracle and generation of various summary reports for the use of Stakeholders viz., Traffic Accounts, Statistics, CCM/PM and PCOM on Monthly basis. Approximately 20 - 30 reports per month are generated.

Likewise, Consolidation of PWB input received twice in a year i.e., April-Sep and Oct-Mar and three types of Reports are generated.

Development and maintenance of Budget Analysis System.

Extraction of data from IPAS with regard to COVID19 Expenditure.

Web based information in the name of PETMIS is implemented in the area of PAS and the section is limited to porting of Data to oracle so also the Budget. This enables Information analysis at decision making levels for various reviews.

Staff deployment Vs requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 2 | 2 | 0 |
| JE | 1 | 0 | 1 |
| Total | 3 | 2 | 1 |

3.19 **Freight Accounting System:**

Data cleaning, Validation and summary creation of the data captured From FOIS every 10 days and generation of various types of reports. Transfer of Monthly and Cumulative summary to Operating department AIRCOMSUM & PAIRCOMCUM).

Approximately 50 reports are generated and uploaded in SRITC for the use of various stakeholders.

Staff deployment Vs requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 1 | 1 | 0 |
| JE | 1 | 1 | 0 |
| Total | 2 | 2 | 0 |

3.20 **Workshop General Ledger Section:**

The section deals with the Processing of Labour summary/WGR for EWS/AJJ and S&T/PTJ. The main activities include Monthly updation of Average Hourly rates, Periodical updation of ONCOST details and generation of monthly reports.

Also, Porting of Stores data, Workshop Incentive, Labour summary and Supplementary data is being done and generation of reports on Monthly basis.

Staff deployment Vs requirement:

| Category | Actual | Requirement | Surplus |
|----------|--------|-------------|---------|
| SE | 1 | 1 | 0 |
| JE | 0 | 0 | 0 |
| Total | 1 | 1 | 0 |

Note:

In order to ensure optimum utilization of the existing manpower, the study team is of the opinion to merge some sections so as to right size the manpower. The staff working in Console section needs to be imparted adequate training in Networking.

The following sections are proposed for merging so that 3 SE posts will become surplus.

- 1. Technical clearance & Infrastructure sections
- 2. Console & Network sections
- 3. Freight Accounting Section & IPAS (AFRES) Section

3.21 Overall Summary of Section wise Actual Vs Requirement:

| Section | Actual | Requirement | Surplus |
|------------------------------------|--------|-------------|---------|
| General Administration | 4 | 3 | 1 |
| Infrastructure/Technical clearence | 4 | 3 | 1 |
| Network/Console | 5 | 4 | 1 |
| Database Administration | 2 | 2 | 0 |
| IPAS (PRIME) | 6 | 5 | 1 |
| IPAS (AFRES)/FAS | 13 | 8 | 5 |
| PAS | 3 | 2 | 1 |
| WGR | 1 | 1 | 0 |
| TOTAL | 38 | 28 | 10 |

3.22 **Sanction Vs Requirement:**

| SI. No. | Category | Sanction | Actual | Requirement | Surplus |
|------------|----------|----------|--------|-------------|---------|
| 1 | SE (IT) | 35 | 27 | 24 | 11 |
| 2 | JE (IT) | 17 | 11 | 4 | 13 |
| | TOTAL | 52 | 38 | 28 | 24 |

<u>CHAPTER – IV</u>

4.0 PLANNING BRANCH REMARKS ON CO-ORDINATING OFFICER'S VIEWS:

Co-ordinating Officer's views were received vide EDPM/MAS letter No. SRITC/Workstudy2020/Vol.I dt. 29.09.2020 and the remarks of the Planning Branch on the co-ordinating officer's views are given below.

4.1 **CO-ORDINATING OFFICER'S VIEWS (Para No.3):**

SUMMARY OF MAN POWER AVAILABLE / REQUIRED FOR EACH SECTION

| SECTION | MANPOWER REQUIRED | Available Man power | Addl. Manpower Required | Total Manpower hours available |
|-----------------------------------|---------------------------------|---------------------------|---|--|
| General Admin | 1 SE , 4 JEs = 5 | 5 | 1 * 8 = 8 Monthly 8* 25 = 200 hrs | 5 * 8 = 40 Daily Monthly 40 * 25 = 1000 hrs |
| AFRES | 6 SEs, 3 JEs = 9 | 9 | 3 * 8 = 24 Monthly 24*25=600 hrs | 9 * 8 = 72 Daily Monthly 72 * 25 = 1800 hrs. |
| PRIME | 3 SEs, 3 JEs = 6 | 6 | Nil | 6 * 8 = 48 Daily Monthly 48 * 25 = 1200 hrs |
| Infra Structure | 1 SE ,1 JEs = 2 | 2 | 1 * 8 = 8 Monthly 8* 25 = 200 hrs | 2 * 8 = 16 dailly Monthly 16 * 25 = 400 hrs. |
| IT Security Administration | 1 SE, 1 JE = 2 (5 * 2 = 10)) | 9 | Nil | 9 * 8 = 72 Daily Monthly 72* 25 = 1800 hrs. |
| System Administrator | 1 SE , 1 JE = 2 | 2 | 1 * 8 = 8 Monthly 8* 25 = 200 hrs | 2 * 8 = 16 Daily Monthly 16 * 25 = 400 hrs. |
| NETWORK Administration | 1 SE , 1 JE = 2 | 2 | 1 * 8 = 8 Monthly 8* 25 = 200 hrs | 2 * 8 = 16 Daily Motnhly 16 * 25 = 400 hrs. |
| Freight Accounting System | 1 SE , 1 JE = 2 | 2 | 1 * 8 = 8 Monthly 8* 25 = 200 hrs | 2 * 8 = 16 Daily Monthly 16 * 25 = 400 hrs. |
| Passenger Accounting System | 2 SEs , 1 JE = 3 | 3 | Nil | 3 * 8 = 24 Daily Monthly 24 * 25 = 600 hrs. |

| CONSOLE STAFF | 2 SEs, 1 JE = 3 | 3 | 1 * 8 = Monthl hrs | = 8 y 8* 25 = 200 | 3 * 8 = 24 Daily Monthly 24 * 25 = 600 hrs. |
|---------------------------|------------------------|------------------------|--------------------------|--|---|
| IPAS | 3 SEs, 2 JEs = 5 | 5 | Nil | | 5 * 8 = 40 Daily Monthly 40 * 25 = 1000 hrs. |
| Leave Reserve staff | 12.5 % as per Rly. Bd. | 36 * 12.5 = 4.75 | NIL | | 5 * 8 = 40 Daily Monthly 40 * 25 = 1000 |
| Stan | | Approx 5 | | | hrs. |
| | Total | 54 (36 **) | Total 9 man | 1800hrs. per month. power required | Total 11,000 hrs. Per month. |

^{**} Due to retd. VR only available manpower in SRTC is 36

There is a need in additional manpower to maintain and monitor the existing application software, Databases, Network and other IT related PROJECTS, HRMS, Service Records DATA ENTRY, WAMS, TAMS, E-PASS/PTO and other activities related to SRITC performed as per the work study due to volume of staff retired and VR.

| IT Related | No. of SEs/JEs | Man power required |
|-------------------------------|-----------------|--|
| projects | | |
| HRMS | 1 SE and 1 JE | 2 * 8 = 16 Daily, Monthly 16 * 25 = 400 hrs. |
| Service Records DATA ENTRY | 1 SE and 1 JE | 2 * 8 = 16 Daily, Monthly 16 * 25 = 400 hrs. |
| WAMS | 1 SE and 1 JE | 2 * 8 = 16 Daily, Monthly 16 * 25 = 400 hrs. |
| TAMS | 1 SE and 1 JE | 2 * 8 = 16 Daily, Monthly 16 * 25 = 400 hrs. |
| E-PASS/PTO | 1 JE | 1 * 8 = 8 Daily, Monthly 8 * 25= 200 hrs. |
| Total | 4 SEs and 5 JEs | 1800 Hours |

PLANNING BRANCH REMARKS:

Total man-hours/month arrived by EDPM/MAS - 10,600/month Number of manhours/year - 10600x12 - 1,27,200/year Number of man-hours /year as stipulated by DoPT - 1900/year Number of staff required by EDPM/MAS - 1,27,200/1900 = 66.9 say 67 staff

From the above data, if calculated on the basis of the given Man hours, the requirement of staff will be 67 which could not be acceptable i.e., 15 posts over and above the present sanction of 52.

Moreover the additional manpower required by EDPM/MAS for HRMS and SR Data entry is not agreed to as the activities are one time measure.

4.2.CO-ORDINATING OFFICER'S VIEWS (Para No. 4)

The following are the detailed activities performed section-wise in this office during the year 2020 along with the respective staff strength.

JOB DONE DURING COVID PERIOD FROM 25-03-2020 TO TILL DATE

Scanned Cash Receipts received from stations posted in Google drive was downloaded and data punched in Excel format and consolidated to give the station earnings for accountal purpose. It was done for one month and took two to three hours per day (depending on the volume).

Emergency Team was created for user requested IT assignments and this job was also done on Work From Home basis. Details regarding pay,DA,HRA, OT,TA and other earnings of employees were furnished for the last three financial years. (two to three hours).

HRMS data for Gazetted Officers were entered, uploaded and reconciliation of data carried out for correctness of data and the assignment on hand was Completed successfully.

IPAS monthly statements were prepared for onward transmission to Rly. Board.

MCDO Statements for March and JULY 2020 were completed and sent to Admin Section pertaining to PRIME activities and AFRES activities. (each month – one or two hours).

Liability Register:- Allocation wise details of agreements made with parties using CO-6 particulars and details of Agreement Value, Passed Amount, Balance Amount given as per user request.

Department wise details pertaining to PU-32 for the above agreements extracted and given till date along with BGSL for the year 2020-2021 for PU-32, as per user request.

March 2020 actuals demand wise, minor head wise, sub head wise, detail head wise details for Revenue and Capital demands extracted in excel format and given to books section after tallying with Account Current Reports.

FA760 details (Actuals) for March 2020 pertaining to SRY and all accounting units given to books section for C&R Processing.

For Capital demands, Planhead wise, PU wise details (FA850) for Mar'2020 actuals extracted from IPAS and report developed using web technology and given to Budget section in Excel.

Pending Bill Details for bills from 1st January till date has been extracted and given in as per user request.

Allocation details for MSME bills extracted and given as excel report as requested by use, also uploaded on our SRITC website.

Department wise particulars for mechanical department (FA780) for the month of March and April'2020 given to mechanical budget section in Excel format (Monthly Report).

Monthly actuals demand wise, minor headwise, subhead wise, PU wise for Revenue demands and Source of Fund wise, planhead wise for Capital demands extracted and given to users in the form of FA760 (Demand, minor head, subhead, PU wise amount and cum.amt), FA800 (Demand, Sub head, PU wise, cum.amt) FA 820 (Demand, PU wise, cum.amt) Reports.

Debit, Credit details for Plan Head 41 for the month of March and June'2020 given to Mechanical Budget in Excel format (monthly report).

Bill details and JV details extracted in excel format for the month of March'2020 and June'2020 to be given to Audit(Monthly Report).

Paymode wise bill details extracted and given to HQ-Expenditure for March'2020 and JULY'2020.

Missing party names and other details extracted from IPAS for GST Excel report furnished by user for the month of Oct'2019.

SRITC portal was revamped with new added features and latest design.

PLANNING BRANCH REMARKS:

The activities mentioned above have already been taken into account while calculating the manpower requirement.

4.3 CO-ORDINATING OFFICER'S VIEWS (Para No. 5)

LEAVE RESERVE STAFF:

Due to Covid-19 periods Co-morbid staff are more than half of the strength of the SRITC staff are work from home through Whatsapp, E-mail, Railnet and e-office linked with Forti Client software.

Provision of leave reserves for various categories

| | Categories | Percentage provision |
|----|---|----------------------|
| 1. | Operating staff requiring replacement even for short periods for normal working – (Group 'C') | 16-2/3% to 30% |
| 2. | Operating staff requiring replacement even for short periods for normal working – (Group 'D') | 16-2/3% to 30% |
| 3. | Loco Running staff of all grades. | 15% to 30% |
| 4. | Guards Grade 'C' | 15% to 30% |
| 5. | Commercial staff, Inspectorial or supervisory staff and such staff of all departments as require replacement even for short periods for smooth and efficient working. | 15% to 25% |
| 6. | Group 'D' staff of commercial and other Departments as require replacement even for short periods for smooth and efficient working | 15% to 25% |
| 7. | Office clerks, Workshop staff and such staff of all Departments, who need not be replaced for short periods – Group 'C' and skilled | 12.5% |
| 8. | Group 'D' and semi-skilled. | 12.5% |
| 9. | Unskilled and other categories for whom substitutes can be engaged. | 12.5% |

PLANNING BRANCH REMARKS:

There is no practice of providing LR for Office staff working in Administrative offices, for the reason that there is no need of repalcement of staff even for a short period and there is no post as LR Clerk as is being operated in Openline viz., LRSM, LRCC & Running staff.

However, the Co-ordinating Officer's views of providing LR is conceded to, as the Office of the Sr.EDPM is different from other Administrative offices which comprises of some sections like Database Administration, Networking and Console which requires continuous monitoring.

Hence, provision of LR @ 12.5% is allowed in the revised recommendations as required by the Co-ordinating Officer.

CO-ORDINATING OFFICER'S VIEWS (Para No. 7)

JUSTIFICATION FOR SURPLUS POST WORKLOAD IN SECTION

SECTION WISE COMPARISON SUMMARY AND REMARKS

| Dy.CPLO REMARKS | | | SRIT(REMA | C OFFICI ARKS | ERs/STA | FF | REMARKS | |
|-----------------|---------------|-----------------|---------------|------------------|----------|-----------------|----------------------|---------------------------|
| | General Admin | | | | | | | |
| Desig | Actual | Requir ement | Surplus | Desig | Actual | Requir ement | Surplus/ Shortage | |
| SE | 3 | 2 | 1 | SE | 3 | 3 * | 0 | Remarks offered below (i) |
| JE | 1 | 1 | 0 | JE | 1 | 1 | 0 | 56.611 (1) |
| | | | | Infrast | tructure | 9 | | |
| SE | 2 | 2 | 0 | SE | 2 | 2 | 0 | Justified |
| JE | 0 | 0 | 0 | JE | 0 | 0 | 0 | |
| | | | | Net | work | | | |
| SE | 2 | 2 | 0 | SE | 2 | 2 | 0 | |
| JE | 0 | 0 | 0 | JE | 0 | 0 | 0 | Justified |
| | | | | Cor | nsole | | | |
| SE | 2 | 2 | 0 | SE | 2 | 2 | 0 | 1 |
| JE | 1 | 1 | 0 | JE | 1 | 1 | 0 | Justified |
| | | | | D | BA | | | |
| SE | 2 | 2 | 0 | SE | 1 | 1 | 0 | |
| JE | 0 | 0 | 0 | JE | 1 | 1 | 0 | Justified |
| | | | | PR | IME | | | l |
| SE | 3 | 3 | 0 | SE | 3 | 3 | 0 | Remarks offered |
| JE | 3 | 2 | 1 | JE | 3 | 3* | 0 | below (ii) |
| | | | | AF | RES | | | |
| SE | 9 | 5 | 4 | SE | 9 | 9 | 0 | Remarks offered |
| JE | 2 | 2 | 0 | JE | 2 | 2 | 0 | below (iii) |
| | | <u> </u> | Te | echnical | Cleara | nce | | |
| SE | 2 | 2 | 0 | SE | 2 | 2 | 0 | c. I |
| JE | 0 | 0 | 0 | JE | 0 | 0 | 0 | Justified |
| | | | | P | AS | | | |
| SE | 2 | 2 | 0 | SE | 2 | 2 | 0 | Remarks offered |
| JE | 1 | 0 | 1 | JE | 1 | 1 | 0 | below (iv) |
| | FAS | | | | | | | |
| SE | 1 | 1 | 0 | SE | 1 | 1 | 0 | Justified |
| JE | 1 | 1 | 0 | JE | 1 | 1 | 0 | |
| | | | | | GR | | | |
| SE | 0 | 0 | 0 | SE | 0 | 0 | 0 | Justified |
| JE | 1 | 1 | 0 7 | JE | 1 20 | 1 | 0 | Jasanca |
| Total | 38 | 31 | / | | 38 | 38 | 0 | |

i) ADMINISTRATION SECTION:

Of the actual 4 number of staff, one SE/IT has retired in July 2020. However the section requires 4 staff members to function without hassle. Railway Board recently has directed all files of any Office of IR should be digitized and made available in the e-Office platform. Currently the work is being initiated, and this will incur additional manpower for completion.

ii) PRIME SECTION:

Though PRIME is not functionally updated or in use post implementation of IPAS, it is worthwhile to note that it is utilized as source data for many modules of IPAS and also referred as Legacy data for staff related matters by the Administration. Quarters and Electricity module in IPAS is still in progress and the staff of PRIME section are coordinating the same. And the new HRMS module is a centralized version of PRIME. Hence new projects are taken up with regard to the HRMS module like data porting for all the Gazetted Officers of Southern Railway, coordination with CRIS team for user access privileges and HRMS reconciliation with the IPAS database is in progress.

iii) AFRES / FAS:

Currently IPAS is not implemented 100% in Southern Railway. There are modules like Cash and Pay, RIB, E-Suspense, G-suspense etc that are in the process of implementation. Coordination with the User department and CRIS Team on a daily basis, user access provision, seamless transition between AFRES and IPAS is to be ensured.

Apart from IPAS, other modules of CRIS are also in the process of implementation.

Example – TAMS- Traffic Accounts and Management System, which are priority projects of Railway Board are being implemented. Considering the increased work load, at times even the staff of other sections are utilized to carry out the activities within the deadline.

iv) PAS:

Passenger Accounting System is a section that primarily generates reports from PRS/UTS section originating passengers, Station Earnings, count, RTI query, vigilance query, various customized reports etc. Initially the work was only to generate reports as per user requirements. However recently there are more number of RTI applications pertaining to the above data and as and when the Parliament is in session there are questions raised which need customized report generation. Hence staff in this section is justified and surrender is not feasible.

Current deployment of staff members in various sections are summarized in the below table:

| Sections | SE | JE | Total |
|---|----|-----|-------|
| General Administration Section | 3 | 1 | 4 |
| Infrastructure Section | 2 | 020 | 2 |
| Network section | 2 | | 2 |
| Console Section | 2 | 1 | 3 |
| Database Administrative Section | 1 | 1 | 2 |
| IPAS (PRIME Section) | 3 | 3 | - 6 |
| IPAS (AFRES section) | 9 | 2 | 11 |
| Technical Clearance Section | 2 | | 2 |
| Passenger Accounting System (PAS) | 2 | 1 | 3 |
| Freight Accounting System (FAS) | 1 | 1 | 2 |
| Workshop General Register (WGR) & Labour Summary Section | | 1 | 1 |
| TOTAL | 27 | 11 | 38 |

PLANNING BRANCH REMARKS:

After the implementation of IPAS and other web based applications in the pipeline such as WAMS, TAMS etc, which is being maintained by CRIS, it is observed that the present workload of SRITC has been reduced to a larger extent.

4.4 CO-ORDINATING OFFICER'S VIEWS(Para 8)

Also, with reference to your office letter No.G275/WSSR-012021/2020-21 dated 08/09/2020, the remarks offered is noted.

However the following remarks are offered as reply to the earlier points:

1. In tune with the developments that is taking place in the IT field all over, this office also is keeping pace with the same.

- As regarding the merger of Technical Clearance and Infra Section, in Para 3 (a), it needs to be mentioned that both are technical in nature and require in depth study for execution of jobs. Time required for each case may vary widely and cannot be quantified. Hence, separate sections are maintained.
- 3. With regard to the merging of Console Section and Network Section, in Para 3 (b), it is already under consideration.
- 4. Para 3(c), suggests the merger of FAS with IPAS (AFRES), in comparison with PAS. Like PAS, FAS is also a sensitive section, dealing in Revenue aspect. Furthermore, many queries including RTI, regarding Freight movement and revenue between various pair of points are often received. Since, this need to be addressed urgently, a separate section is being maintained for administrative reasons. Moreover, FAS section staff are being utilized for other activities also.
- 5. The scope of work for this office in the near future is not only limited with the maintenance of Legacy data or extraction of reports from various platforms. Railway board is focusing more on the strengthening of data security infrastructure and maintenance of the same. For instance a new team is formed for this purpose and this office is the process of implementing the policy. This is an ongoing work and staff will be required in a dedicated manner.
- 6. Since SRITC/MAS is the coordinating the unit for all the other IT centres in this Railway, any failure in infrastructure or otherwise, will be immediately supported by the staff available on board. For instance, in the month of August 2020, a database failure was encountered in Salem division. And the data was to be immediately backup and the server was to be made available for end users. This office made the server available in a day's time backing up the server and made the applications running available for the end user.
- 7. In a move to make the office paperless, Railway board has issued directions to digitize all files held in any office in Indian Railway. Hence in order to comply with the Board directions, staff members are required since it is a completely manual work and an ongoing process.
- 8. Also there are few modules that are to be implemented in IPAS. Cash office station earnings module was implemented in August 2020. In a similar way, the PAY module, RIB, Quarters and Electricity, WAMS are in the pipeline to be implemented subsequently.
- 9. In addition to IPAS, there are additional applications like TAMS, MeRS which are being implemented from scratch. Though concerned executive are the actual users, since data is either migrating from IPAS or from AFRES, backend activities are be carried out by this office, to enable smooth functioning of the

system. For instance, TAMS is a Traffic Accounting Management System, wherein data is captured from IPAS. Since data entry is done only from January 2020 by the TA users, reconciliation and continuous monitoring for accurate data is to be ensured by the staff of this office.

10.In addition to facilitating the users on the implementation of new applications/modules, it is a prime necessity to also train staff of this office and other users on the new works that are introduced.

The following table contains the surrender of post as proposed by SRITC:

| Surrender of post | Remarks |
|-------------------|---|
| SE/IT | Nil Surrender, the vacant posts will be utilised for further promotions of JE/IT |
| JE/IT(Promotion) | 6 Nos. of vacant posts of JE/IT arising due to promotion (in process) of the senior most JE/IT. |
| JE(Direct Quota) | Direct quota of 7 No. of posts may be the survival of SRITC near future. To fill up the post with youngsters and having knowledge of latest software and hardware. Surrender of these posts will adversely affect the ability to learn and implement new technologies and the future delivery of IT services or Southern Railway in the long run. This post Not to besurrendered. |
| Total Surrender | SE/IT - 0, JE/IT-6, JE/IT (DR) - 0 |

PLANNING BRANCH REMARKS:

Noted the above points. Necessary training of staff may be planned for the implementation of new Applications and modules. It is observed during the field visit that the manpower utilisation can also be improved to meet the additional requirements. Also it is reiterated that, as per the directions of the Railway Board, the existing manpower has to be optimised by way of judicious planning like merging of sections wherever feasible.

Revised Sanction Vs Requirement:

| SI. No. | Category | Sanction | Actual | Requirement including LR @ 12.5% | Surplus |
|------------|----------|----------|--------|----------------------------------|---------|
| 1 | SE (IT) | 35 | 28 | 27 | 8 |
| 2 | JE (IT) | 17 | 4 | 4 | 13 |
| | TOTAL | 52 | 32 | 31 | 21 |

CHAPTER- V

5.0 FINANCIAL SAVINGS

5.1 If the recommendations made in the study report is implemented, the annual recurring financial savings will be as follows:

| SI. No. | Category | Grade pay Rs. | No.of posts | Money value Rs. | Annual savings Rs. |
|------------|----------|------------------|----------------|-----------------------|-----------------------|
| 1. | SE (IT) | 4600 | 8 | 1,09,571 | 1,05,18,816 |
| 2 | JE (IT) | 4200 | 13 | 86,463 | 1,34,88,228 |
| | TOTAL | | | | 2,40,07,044 |

ANNEXURE-I

ABBREVATIONS USED IN THE REPORT

| <u>SI.</u> No. | <u>ACRONYM</u> | <u>EXPANSION</u> | |
|-------------------|----------------|--|--|
| 1 | AEDPM | Assistant Electronic Data Processing Manager | |
| 2 | AFA | Assistant Financial Advisor | |
| 3 | AFRES | Advanced Finance & Railway Earnings and | |
| | | Expenditure System | |
| 4 | AJJ | Arakkonam | |
| 5 | AMC | Annual Maintenance Contract | |
| 6 | ARD | Addition Revision Deletion | |
| 7 | ARPAN | Advanced Railway Pension Access Network | |
| 8 | AU | Accounting Unit | |
| 9 | BG | Bank Guarantee | |
| 10 | BU | Bill Unit | |
| 11 | CCM/FM | Chief Commercial Manager/Freight Marketing | |
| 12 | CCM/PM | Chief Commercial Manager/Passenger Marketing | |
| 13 | CO | Cash Order | |
| 14 | COVID | Corona Virus Disease | |
| 15 | CRIS | Centre for Railway Information System | |
| 16 | CRN | Cash Remittance Note | |
| 17 | CUG | Closed User group | |
| 18 | DB | Data Base | |
| 19 | Dy COM | Deputy Chief Operations Manager | |
| 20 | EDPM | Electronic Data Processing Manager | |
| 21 | EPPO | Electronic Pension Pay Order | |
| 22 | EWS | Engineering Workshop | |
| 23 | FA&CAO/T | Financial Advisor & Chief Accounts Officer/Traffic | |
| 24 | FTP | File Transfer Protocol | |
| 25 | GMST | General Manager Statistical | |
| 26 | GST | Goods & Services Tax | |
| 27 | HQ | Headquarters | |
| 28 | HRMS | Human Resources Management System | |
| 29 | ICT | Information & Communication Technology | |
| 30 | ID | Identity | |
| 31 | IP | Internet Protocol | |
| 32 | IPAS | Integrated Payroll and Accounting System | |
| 33 | IT | Income Tax | |
| 34 | JE | Junior Engineer | |
| 35 | LIC | Life Insurance Corporation | |
| 36 | LOA | Letter of Acceptance | |
| 37 | MAS | Chennai | |
| 38 | MCDO | Monthly Confidential Demi Official | |
| 39 | MCR | Miscellaneous Cash Receipt | |

| 40 | MDU | Markon: | |
|----|------------|---|--|
| 40 | MDU | Madurai | |
| 41 | MERS | Miscellaneous Electronic Receipt System | |
| 42 | MySQL | My Structured Query Language | |
| 43 | NR | Normal Retirement | |
| 44 | OEM | Original Equipment Manufacturer | |
| 45 | ONR | Other than Normal Retirement | |
| 46 | PAIRCOMCUM | Pair Com Cumulative | |
| 47 | PAIRCOMSUM | Pair Com Summary | |
| 48 | PC | Personal Computer | |
| 49 | PCCM | Principal Chief Commercial Manager | |
| 50 | PCOM | Principal Chief Operations Manager | |
| 51 | PER | Perambur | |
| 52 | PETMIS | Passenger Earnings and Traffic Management | |
| | | Information System | |
| 53 | PFA | Principal Financial Advisor | |
| 54 | PG | Performance Guarantee | |
| 55 | PGT | Palakkad | |
| 56 | PHP | Hypertext Preprocessor | |
| 57 | PKM | Passenger Kilometre | |
| 58 | PMR | Pay Master | |
| 59 | POS | Point of Sale | |
| 60 | PPO | Pension Pay Order | |
| 61 | PRIME | Payroll and Related Independent Modules | |
| 62 | PRS | Passenger Service Centre | |
| 63 | PU | Primary Unit | |
| 64 | PWB | Parcel Way Bill | |
| 65 | RAR | ZIP file | |
| 66 | RDBMS | Relational Database Management System | |
| 67 | RIB | Remittance Into Bank | |
| 68 | RITES | Rail India Technical & Economic Service | |
| 69 | RPF | Railway Protection Force | |
| 70 | RTI | Right to Information | |
| 71 | SAO/T | Senior Accounts Officer/Traffic | |
| 72 | SE | Senior Engineer | |
| 73 | Sr.DCM | Senior Divisional Commercial Manager | |
| 74 | SRITC | Southern Railway Information Technology | |
| | | Centre | |
| 75 | TAMS | Traffic Accounts Management System | |
| 76 | ТРЈ | Tiruchchirappalli | |
| 77 | TVC | Thiruvananthapuram | |
| 78 | UPS | Uninterrupted Power Supply | |
| 79 | UR | Unreserved | |
| 80 | UTS | Unreserved Ticketing System | |
| 81 | WGR | Workshop General Ledger | |
| 01 | 11010 | Tronshop delicial Leager | |