MINISTRY OF FINANCE

CHAPTER: III

National Insurance Company Limited, New India Assurance Company Limited and United India Insurance Company Limited- Southern Region

IT controls in Genisys

Highlights

Weak logical access controls resulted in multiple user IDs, existence of IDs for resigned and transferred employees and too many system administrators.

(Para 3. 5.1.1 & 3.5.1.2)

There was inadequate daily and weekly backup of data.

(Para 3.5.1.3)

Lack of proper input controls resulted in accepting business from agents who did not hold valid licence.

(Paras 3 5.2.2)

Inadequate process control led to irregular grant of 'No Claim Bonus'.

(Para 3.5.3.1)

Absence of proper change management controls resulted in short collection of Service Tax of Rs.91.72 lakh in UIIC.

(Para 3.5.3.3)

As Genisys did not have the provision to capture the details of deposits relating to Motor Accident (MACT) there was poor control over deposits in court of appeal in MACT cases.

(Para 3.5.4.1)

Lack of proper input controls in the operating offices led to inaccurate provision for third party claims.

(Para 3.5.4.3)

3.1   Introduction

3.1.1 National Insurance Company Limited (NIC), New India Assurance Company Limited (NIA) and United India Insurance Company Limited (UIIC) are engaged in non-life insurance business (Fire, Marine and Miscellaneous Insurance). Assessment, collection of premium, issue of policies and settlement of claims are critical to their business. The Companies implemented Genisys, a software developed by CMC Limited, in their operating offices across the country. Genisys facilitates the operating offices in carrying out their business of processing of underwriting, claims settlement and preparation of trial balance etc. within the framework of laid down policies of the Companies as well as generation of reports for various statutory authorities.

3.1.2 Genisys runs on client server architecture in Local Area Network (LAN) for which all the operating offices are provided with

(i)   Pentium based computer system with Windows 2000 operating system in UIIC and NIC and UNIX operating system in NIA for server and clients as hardware platform; and

(ii)   Oracle database at back end and Developer 2000 at front end as Relational Database Management System (RDBMS).

3.2   *Scope of Audit*

3.2.1 The scope of audit included examination of the contract with CMC for the use and implementation of Genisys. The audit involved:

(i)   Review of general IT controls with special reference to physical and logical access controls, business continuity and data integrity; and

(ii)   Review of application controls with special reference to underwriting, claims, accounting and reporting

in the three Companies.

3.3   *Audit Objectives*

(i)   Review of general controls to check the existence and the efficacy of the implementation of

- Procedures, instructions and guidelines to provide and secure effective and efficient operation of computer facilities; and

- Plans to resume processing in the event of failure of computer operations;

(ii)   Review of Application controls to check whether :

- Guidelines issued by Insurance Regulatory and Development Authority (IRDA)/Tariff Advisory Committee (TAC) and Management were properly built into the system and correctly adhered to.

3.4   *Audit Methodology*

3.4.1 In 85 Operating offices (28 out of 447 offices from UIIC, 26 out of 129 offices from NIC and 31 out of 297 offices from NIA) selected from five Regions (Chennai, Coimbatore, Hyderabad, Bangalore and Kochi), data was extracted and analysed using SQL* Queries. The data was analysed with reference to tariff and guidelines/directions issued by IRDA, TAC and the Management. The exception reports generated were discussed with the Management. The problems reported by the operating offices through PROMPT (a software for registering the complaints on Genisys to be taken up with software provider through Management Services Department) and action taken thereon were also reviewed for ascertaining the effectiveness of Genisys.

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* *Structured Query Language*

3.5   Review of IT controls

3.5.1   General controls

3.5.1.1 Access control

A review of access controls in the operating offices of all the three Companies revealed that:

(i)   Users were given multiple user ID to access Genisys;

(ii)   User IDs assigned to staff who had resigned/transferred were not disabled;

(iii)   There was no control over the length of the user ID and password;

(iv)   The password validity period did not have any significance since the user could extend the period on its expiry without changing the password; and

(v)   The system allowed cancellation of the policy issued on the same day by any user without proper authorisation.

NIA stated (December 2006) that the number of IDs for users was restricted to one. The control on the length of user ID and the validity of password were restricted in the Version 6.3, which was under implementation in the operating offices. The deficiency would continue till Version 6.3 was loaded in all the operating offices and stabilised.

3.5.1.2 System Administrator

In the Genisys environment, the System Administrator (SA) was authorised to access the System Administration module and perform its functions. SA enjoyed the highest privilege in the system. Ideally only one user should be given the privileges associated with SA. Audit, however, observed that in Genisys, there was no control on the maximum number of users to be given these rights.

The number of users with SA power ranged from 2 to 26 in UIIC, 4 to 31 in NIC and 2 to 44 in NIA at different periods. This resulted in complete dilution of the privileges, as too many users were given these privileges and had access to key menus of the System Administration module. The key menus included important functions like creation of users, grant and/or withdraw user permission, enable and/or disable users and master data maintenance. It was noticed that any user with SA power could change the password of others even without knowing their old password. Thus, the system was vulnerable to manipulations.

NIA accepted the observations and stated (December 2006) that the number of users with SA privileges had now been restricted to three.

3.5.1.3 Business continuity

There was no documented and tested business continuity plan detailing the back up and recovery procedures in any of the Companies. Responsibility was not assigned to any one for taking backup of data. There was no offsite storage of backups. Retrieval of data from backup had not been tested in any of the operating offices.

The backup log file for the period November 2003 to January 2006 was not available in any of the 31 operating offices of NIA selected for review and hence the same could not be

analysed. This indicated that the log files relating to this period were either deleted or were not archived.

The daily backup log downloaded from the system revealed that backup was taken for less than 100 days in seven operating offices of UIIC (2004-05) and 15 operating offices of NIC (2005-06). The weekly log file indicated that backup was taken for less than 30 weeks in five operating offices in UIIC and 15 operating offices in NIC for the same period. IT security policy adopted by the NIC Board (October 2005) was not specific about back up procedures.

UIIC admitted that this was an area of concern. Even though proper instructions were given regularly regarding taking backup of data by UIIC and NIC, it was noticed that no mechanism was in place at regional offices to monitor the backup activities.

NIA stated (December 2006) that standing instructions to take daily backup and to keep the backups at a secure offsite location were given to all operating offices. The reply was not tenable as despite the standing instructions the log files were not available.

3.5.2 Application controls

3.5.2.1 Input control

Input controls ensure that the data received for processing are genuine, complete, accurate and properly authorized and data are entered accurately, in time and without duplication. Controls over input are vital to the integrity of the system. The deficiencies observed were as below:

3.5.2.2 Lapsed licences of agents

According to Regulation 8 (ii) (a) of IRDA (Licensing of Insurance Agents) Regulations, 2000, no insurance agent shall solicit or procure insurance business without holding a valid licence. It was noticed that in Genisys only a warning message was being displayed on the input screens, while booking of business against an agent whose licence had lapsed and the system allowed the booking of business against such agents.

Data analysis revealed that 18592 policies in 12 operating offices of UIIC, 1780 policies in two operating offices of NIC and 16150 policies in 29 operating offices of NIA were booked through agents whose licences had expired.

It was informed (NIA and NIC) that the agency commission in respect of the agents whose licences had lapsed, was not released till the licences were renewed. This was not correct as the acceptance of business against lapsed licence of an agent itself was a violation of the Regulations.

3.5.2.3 Survey by surveyors whose licence had expired

Genisys allowed appointment of surveyors holding a licence under the Surveyors and Loss Assessors Regulations-2000. It was found that surveyors could be appointed even if they did not hold a valid licence. The system provided just a warning message in such cases but the same could be ignored and over ridden. In 11 operating offices of UIIC, 389 survey works were given to surveyors whose licenses had expired. UIIC stated that the operating offices were being advised to do the needful immediately.

3.5.3 Process control

Process controls should ensure that all the valid data has been properly processed without repetition. The deficiencies observed were as below:

3.5.3.1 Absence of control on no claim bonus on motor policies

General Regulation 27 of Indian Motor Tariff, applicable from 1 July 2002, specified that No Claim Bonus (NCB) could be earned only in the Own Damage Section of policies. The insured becomes entitled to NCB only at the renewal of a policy after the expiry of the full duration of 12 months without any claim.

A review of data from Genisys indicated that in the case of claims arising during the policy period but registered subsequent to the renewal of the policy, the NCB allowed was not recovered or adjusted while settling the claim. This resulted in loss of revenue amounting to Rs.4.51 lakh in 15 operating offices of NIC and Rs.5.20 lakh in 26 operating offices of NIA between July 2002 till Audit was conducted in 2006. Considering that there are a few thousands operating offices of the three Companies using Genisys, this lapse of non-recovery of NCB would count as a major source of leakage of revenue.

NIA stated (December 2006) that such cases were accounted manually and adjusted at the time of claim payment. Such manual interventions in adjusting the NCB paid in excess, could be avoided by providing built in controls in the software.

3.5.3.2 Change management controls

Change Management Control ensures that standardised methods and procedures are used for efficient and prompt handling of all changes to minimise the impact of change-related incidents upon service quality, and consequently improves the day-to-day operations of the organisation. The following deficiencies were, however, observed during the review.

3.5.3.3 Short collection of service tax

Service tax revision from five to eight *per cent* and then to 10.2 *per cent* was implemented with effect from 14 May 2003 and 10 September 2004 respectively. There was, however, delay in loading the Genisys patches in all the operating offices.

The consequent short collection of service tax to the extent of Rs.91.72 lakh for all operating offices for 2003-04 and 2004-05 had to be borne by UIIC. The short collection in respect of NIA worked out to Rs.4.92 lakh and 1.18 lakh respectively for 2003-04 and 2004-05 in 28 operating offices. NIA stated (December 2006) that they would explore the possibility of making necessary provisions in the software for a service tax rate master to resolve the above problem.

3.5.4 Design deficiencies

3.5.4.1 Appeal court deposits

According to Section 173 of the Motor Vehicles Act, 1988 (MV Act) an appeal against any award of a Claims Tribunal would be entertained provided Rs.25000 or 50 *per cent* of the amount so awarded which ever is less, is deposited in the manner directed by the High Court.

Genisys did not have the provision to capture separately the details of deposits relating to Motor Accident Claims Tribunal (MACT) appeal cases made by the Company, which would facilitate better monitoring of the cases.

UIIC stated that the matter had already been taken up with CMC to make suitable modifications to the system. NIC replied (August 2006) that if the appeal court deposits were properly entered as 'interim payments' into Genisys, proper control could be exercised. NIA stated (December 2006) that provision was available in the software for making such payments and adjusting the same as "on account payment" against a particular claim while making payment. However, no such provision was observed in Audit. In practice, while settling the claim after final award by the Court, the deposits were picked up manually from the individual (manual) files and adjusted in the final payment of claims. Thus, the settlement of claims was being done manually and the system could not be utilised to monitor the appeal court deposits.

3.5.4.2 Underwriting module

(i) Cheque realisation date

According to Section 64 VB of the Insurance Act, premium for any insurance cover should have been received on or before the actual date of commencement of risk. When premium is paid by cheques, Genisys did not have the provision to capture their date of realisation and the same was monitored manually. A test check in one office of UIIC revealed that 23 out of 41 cheques were realised belatedly (by two months to seven months) and 18 cheques (deposited between 10 May 2005 and 17 October 2005) were yet to be realised (June 2006). UIIC replied that as the present architecture of Genisys did not have the provision to electronically update the details, it was coordinating with the banks to get the details at regular intervals.

(ii) Motor third party loading

While underwriting motor policies, Genisys calculated third party loading premium taking into account factors such as nature of goods carried, permit, types of road, driver's age, experience and educational qualification, total number of previous claims, etc.

Check of data entry screens in UIIC revealed that the software allowed change in the system-calculated amount. UIIC replied that flexibility was provided to take a commercial decision with regard to loading for special clients. The reply was not acceptable as motor insurance cannot be transacted outside the purview of the Indian Motor Tariff (IMT) and commercial deviations in this regard were in violation of IMT.

3.5.4.3 Accounts module

Provision for outstanding MACT claims

Motor Third Party Claims Office (MTPCO) in insurance companies handled the third party claims. These offices were not using Genisys. Instead they had developed a programme in Microsoft Access and later the required data was fed in Genisys manually. At UIIC, Chennai, the MTPCO handling the cases of third party claims in and around Chennai, communicated the provisions on outstanding claims as on 31 March every year to the

operating offices for incorporation in their accounts. The interest in respect of outstanding claims was calculated through interest module in various operating offices, after manually entering data relating to outstanding claims in Genisys. Lack of proper input controls in the operating offices resulted in inaccurate provisions in basic estimate due to typographical errors or omission, non-provision of interest thereon and non-provision of incidental expenditure like legal fee, surveyor/investigator fee etc. vitiating the profitability of the operating offices. A check of data downloaded from MTPCO and provisions made in various operating offices indicated the following:

(i)   Non-provision of incidental expenditure of Rs.2.85 crore in one Regional Office[*] (2003) and interest of Rs.95.81 lakh in three operating offices[♠] (2004).

(ii)   Short provision of Rs.27.67 lakh towards outstanding claims and Rs.8.23 lakh (in 38 cases) towards interest

(iii)   Excess provision of Rs.36.71 lakh towards outstanding claims and Rs.10.68 lakh (in 40 cases) towards interest

UIIC replied that the matter had already been taken up with CMC to provide necessary data import facility from Third Party Cell. However, no such facility had been provided so far (July 2006).

The same risk also existed in NIC and NIA, since the procedure followed was the same.

3.5.4.4 Other design deficiencies

(i)   The system did not have provision to capture the details/certification of installation of Fire Extinguishing Appliances (FEA), which was vital for deciding the FEA discount resulting in deficient audit trail.

(ii)   As against the IRDA's instruction of varying percentages (zero to seventeen and a half) of agency commission, the system allowed only the maximum percentage denying exercise of delegated powers to the heads of operating offices of allowing lower agency commission to effect economy.

(iii)   The system did not have provision to capture the details of subrogation rights resulting in deficient audit trail

(iv)   There was no provision in the system to merge the database of the offices which were merged as an economy measure. As such integrity of data could not be assured in such cases.

(v)   The system did not have provision to capture and ensure the approval by Regional Office or Head Office in respect of provisional policies.

NIA stated (December 2006) that the need for capturing the above information would be examined.

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[*] *Regional Office, Chennai.*
[♠] *Warangal-BO, Tirupati-Nagari and Renigunta BOs*.

3.6   Conclusion

United India Insurance Company Limited (UIIC), National Insurance Company Limited (NIC) and New India Assurance Company Limited (NIA) are engaged in non-life insurance business (Fire, Marine and Miscellaneous Insurance). Assessment, collection of premium, issue of policies and settlement of claims were critical to their business. These operations were being conducted through Genisys. Deficiencies in access control, input control and business continuity planning made the system vulnerable to manipulations, errors and nonconforming to the relevant provisions of rules and regulations. The design deficiencies led to incorrect provisioning of claims and interest apart from contributing to non-integration of the data among all operating offices leading to manual interventions in data entry. Genisys was being used by the three insurance companies but continued with the deficiencies brought out above.

3.7   Recommendations

- In the areas of access control and business continuity plan, the Companies should evolve suitable security policies with clearly defined procedures and responsibilities. Its implementation by the operating offices should be closely monitored by Head Office.

- Directions, instruction and guidelines issued by IRDA, TAC and the Head Offices of the Companies should be incorporated into the system.

- Necessary modifications to the software may be made in respect of the deficiencies relating to input controls, application controls and process controls pointed out in Audit.

The matter was reported to the Ministry in December 2006; reply was awaited (December 2006).