

Monitoring Company Status on Single dashboard by using GRC

Sasi Kumar Gurumurthy, T. Siva Shankar, Niranjan Babu

Abstract -In this paper we are going to describe how to organize a company based records securely. The company contains several module such as audit, asset, policy and so on. Nowadays every company maintains their records using XL Sheet, So we need to enter our each and every data manually. This contains several setbacks such as litter of time, entering and recoup time also gets high, high manpower required, not secured and even we may also enter our data in wrong fields. Here this system provides full security of maintaining company relevant records and creating an application for maintaining company records by using fully role based access manner. In which only authorized user can access respective action and suppose unauthorized user trying to access someone's data at that point of time it sends an alert message to respective authorized user. Overall company status can be seen in an single dashboard and based upon that status we can act accordingly. Means each and every module such as asset, audit, policy and so on status can be monitored in a single dashboard at a same time.

Keywords- GRC, Dash board, Asset ,policy, Risk business continuity management, audit ,standards.

I. MOTIVATION

We propose this paper for mainly to security threats, in modern days we cannot protect our data so securely from hackers with help this approach we can respective users can access their data from anywhere and anytime with help of proper internet connection in a secured manner

II. INTRODUCTION

Here user can see the status of the company on single dashboard at same time. status can be differentiate into four different colors green is for working good, red is for critical, yellow is for normal, blue is of some data is required and based upon colors on the status we have to act. If you got into any critical status user can easily identify some risk as been occurred based upon that needful actions will be taken. The company contains several domains such as asset, audit, policy, risk, and patch etc., asset generally includes hardware, software and manpower. Hardware assets has cpu, processor and etc., and software assets contains what are software are being used in company. Each and every data user have to enter manually and instead of entering manually we are going to develop automated system. Currently every IT company are using several software to find assets so we are going write interconnection probe for asset software to our application.

Manuscript received on May, 2014.

Sasi Kumar Gurumurthy, is a M.Tech, student in School of Computing Science and Engineering, VIT University, Vellore, Tamil Nadu, India.

Niranjan Babu, is a M.Tech, student in School of Computing Science and Engineering, VIT University, Vellore, Tamil Nadu, India.

Siva Shankar, is a M.Tech, student in School of Computing Science and Engineering, VIT University, Vellore, Tamil Nadu, India.

Through this asset software we are collecting all list of software and hardware's assets and which will be directly stored in our database and user can know what is the latest version for installed software if newer version is available then remains us by using alerts. This latest software fetches information from main software center. So we no need to enter our data manually in assets data .In modern days every one likes automated system so that we trying to implement automated system manner.

Audit division has several drawbacks such as when, how and by what time audit program can be conducted . Here once you decide to conduct audit we can easily send audit message alert to particular group that we need to audit, and user. Policy management contains what are standards are being followed by the company. Business continuity management contains how to run a company without any interruption like natural hazards, fire accident, data crash and so on. Risk module contains how to face new risk, if the new risk is been occurred it can be handled before to rectify the risk to refer previous method or any other better method to follow. User have to check how many recommendation for solving the risk.

III. EXISTING SYSTEM

The company manages the data but not using automated system. Every data user have to enter manually in to database. It cannot access anywhere and only user can access that particular system. This process will take more amount of time to enter, wrongly enter the data, man power and data loss. Main drawback of this method is not secured and once we are login into the system any one can use, change the data. It is not role based access manner so that anyone can access any ones database. Accessing and retrieving of data is to slow and complex. Here in this existing system we are not following any standards and polices to run a company for developing an product.

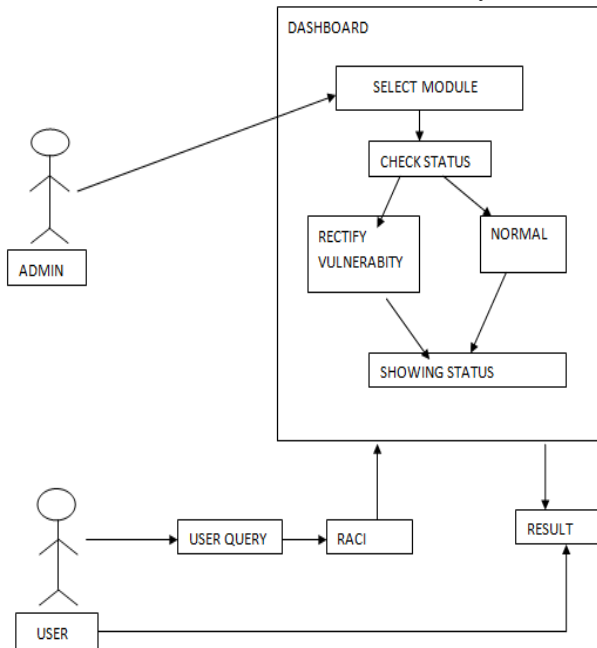
IV. PROPOSED SYSTEM

GRC contains to integrate several systems such as finance, security, audit and IT, etc to develop single framework to view the status of the system. Here we going to develop a automated application to manage a company in a secured manner and main goal is of role based access method so that only authorized user can access respective module. Authorized user can access the data anywhere any time without any delay, no data loss. User can easily identify any type of risk or problem happened in the system based on the coloring in dashboard. In our system only two roles admin and user. Admin having all rights to create, modify, delete, giving rights to user to access the data and another role is user is based on rights access the data, for instance audit module one user have rights to access, modify and delete but another user have rights to view the data. If some unauthorized user trying to access the someone's data it

automatically send an alert message to respective authorized user. This how we are going to propose our system.

V. SYSTEM ARCHITECTURE

A System Architecture is a conceptual model that defines the structure, behavior and more views of the system.



The above diagram shows overall functionality of the system. Admin can create a new user group and also giving role based access to user or group. Based on the role user can do the action say for example admin can read, write and execute the module but for some other user they can only see the status of the module and some user can only edit the content of the module. Admin or assigned particular authorized user can check the status of the module suppose if you get problem or risk it will be showing in red color particular module on dashboard and based on the problem user have provide solution. Once the error as been rectified system will run normally and user can write a query to access and retrieve the data from database.

This system also works based on RACI model. RACI contains Responsible Accountable Consulted and Informed. Responsible person who's in charge to complete a specific task and Accountable person who's in charge rights to sign off before start the task and Consulted person who before doing anything user have to consult to that particular person and Informed person who notify the status of task no need to consult the status of work.

The system contains several module Asset, Policy, Audit, Risk, Business Continuity Management and so on. Asset module contains several types of assets in IT company such as software assets, hardware assets, manpower, non IT equipment and so on. Nowadays every company maintaining asset database and this database user are entering their data manually such as what is the version of operating system employee are using, what is the RAM serial number and so on. This will create more complex drawbacks such as time consuming, high man power, not secured data and so on. So that we are planning to develop automated asset system this will automatically stores the assets which users will use in LAN network. In company there are several software's are using to find land devices say for instance lansweeper in windows and nessus in

Linux it will automatically collect the LAN devices and software's. so we are writing one probe called interconnecting our database to LAN asset tools this probe automatically fetches the data from that LAN asset software and this will stored in our database. User can easily access the asset database by using query.

Here one more feature also it automatically gives alert message to particular user what are the newer version software is available in software market. This newest version software information fetches from main software database center using probe.

Policy module contains how to run a company with some rules or following some standards. Here we going to describe the company what are the regulations, policy, contract, and controls are being followed. Regulations contains what are the ISO standards are being followed such as title of the risk, what kind of risk whether security risk, power failure risk and so on, effective date, end date, scope and applicability of this regulation and what is the organization name and so on. Policy contains mainly two categories common policy and company own policy. Common policy in the sense every company has following some common rules such as don't tell company secured information to anyone. Each and every company has some own policy such as don't park vehicles opposite the company please park in vehicles park area and everyone has to wear id card inside the company and so on. Contract database it contains maintaining the contract based database for example if company has signed any tie up with some other company, agreements. Business Continuity Module contains how to run a company without any interruption such as natural hazard, data crash, and so on. So that we are giving training user such as BCM Plan, BCM Risk, Crisis Management, Training and Testing. BCM plan contains how to protect our data for preplanning. BCM risk contains suppose any risk happened in the business user have to search best solution to rectify the risk using to refer risk database. If it's new risk user have to take good solution for that risk or problem. Trainer will training to user how to protect the data from data center. Every company protecting the data using RAID level it will increase RAID level depends on company economic.

Risk module contains how to identify, handle, and rectify the risk. If user find any new risk in company, first user have to check risk database whether this happened before or not if it's happened what was the solution before their used or new risk in the sense user have decide or plan to rectify the problem. Risk database generally contains title of the risk, description, effective data, end data, inherent risk, risk mitigation, residual risk, precondition and contributory causes and so on. Once you check the risk database depends on the recommendation user have to select better solution to rectify the problem. Risk contains several types of risks financial risk, software risk, hardware risk, and so on. Audit it checks overall functionality of the systems whether it been working in expected manner or not. In general audit management is several types such as pre audit, post audit during pre audit process audit will be conduct on the particular time in the specific user or group user. Post audit can be of once user complete the task the auditor will be checking the functionality of the system, silence audit this kind of audit will be happening in secured manner means no one knows when the this audit will be happening.

VI. CONCLUSION

By using this role based access model in organization one can easily overcome issues like security vulnerability and it also requires minimal amount of time to enter data into the database. Moreover it also integrate and controls, monitor and access company status in a single dashboard

REFERENCES

- [1] Racz, N. ; Tech. Univ. Vienna, Vienna, Austria ; Weippl, E. ; Seufert, A., Governance, Risk & Compliance (GRC) Software - An Exploratory Study of Software Vendor and Market Research Perspectives, 284 (5) (2011) 1–10.
- [2] Racz, N. ; Inst. of Software Technol. & Interactive Syst., Tech. Univ. Vienna, Vienna, Austria ; Weippl, E. ; Bonazzi, R, IT Governance, Risk & Compliance (GRC) Status Quo and Integration: An Explorative Industry Case Study, Services (SERVICES), 2011 IEEE World Congress on 4-9 July 2011.
- [3] Nissen, V. ; Dept. of Service Inf. Syst. Eng., Univ. of Technol. Ilmenau, Ilmenau, Germany ; Marekfa, W. Towards a Research Agenda for Strategic Governance, Risk and Compliance (GRC) Management - Vol. 2, No.1 pp.1 - 6
- [4] N. Racz, E. Weippl, and A. Seufert, "A process model for integrated IT governance, risk, and compliance management," Databases and Information Systems, Proc. of the Ninth International Baltic Conference (DB&IS 2010), Riga University Press, Jul. 2010, pp. 15570.
- [5] IT Policy Compliance Group, "2008 Annual Report. IT Governance, Risk, and Compliance," Retrieved 10 November, 2010, from <http://www.itpolicycompliance.com/pdfs/ITPCGAnnualReport2008.pdf>, 2008.
- [6] ISO/IEC, "38500 Corporate governance of information technology," 2008.
- [7] COSO, "Enterprise Risk Management Framework," Retrieved 5 July, 2010, from <http://www.coso.org>. 2004.
- [8] F. Caldwell, P.E. Proctor, and M. Nicolett, "EMC Buys Archer for Enhanced IT GRC Capabilities," Retrieved 23 May, 2010, from <http://www.gartner.com/DisplayDocument?ref=clientFriendlyUrl&id=1275214>. 2010.
- [9] N. Racz, E. Weippl, and A. Seufert, "A frame of reference for research of integrated Governance, Risk & Compliance (GRC)," Communications and Multimedia Security, 11th IFIP TC 6/TC 11 Int. Conf. (CMS 2010), Springer, Jun. 2010, pp.106-117.
- [10] C. McClean, "The Forrester Wave: Enterprise Governance, Risk, and Compliance Platforms, Q3 2009," Retrieved 7 July, 2009, from <http://img.en25.com/Web/OpenPages/Forrester-wave-ent-gov-risk-compl.pdf>. 2009.

Sasikumar Gurumurthy is an assistant professor (Sr.) in SCSE, VIT University, Vellore, Tamil Nadu, India. He received B.E Degree in Computer Science and Engineering from Kamaraj University, Madurai in 2003 and M.E Degree in Computer Science & Engineering from Anna University, Chennai in 2005. He has published more than 70 technical papers in international journals proceedings of international conferences. He is having more than 8 years of teaching Experience. He is a member of international professional associations like CSI, IAENG, AIRCC, MHRO and is a reviewer of around 2 international journals. He is currently doing his Phd in VIT University. His current fields of research interest include image processing, signal processing and bio-medical engineering.