

Survey on the Robotic Process Automation for Client Data Security

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Abstract - All the companies require Enterprise resource planning (ERP) for all type of business they do. In an organization, it's obvious that when human is involved, there will be an error in any process. As a result of this errors the end customer might face one or the other problem and in turn it will affect business in amending those errors. Hence, to provide a better and faster services companies are shifting from manual to automation called Robotic Process Automation (RPA). The main objective is to provide an understanding to the uniqueness and merits of the RPA system in the companies and the after effect. Along with the quality, RPA offered much more advantages like Cost advantage, Faster processing and Direct Business Benefit.

Key Words: RPA, System1, SHA1, Hash Code, Client Security

1. INTRODUCTION

The focus of this paper is on automating the client data systems, keeping in mind the business areas where the Human Resources are needed. It's obvious that there is a chance of making errors in any process, when human is involved. To avoid the errors and speed up the process, one should automate the processes using robots. It's nothing, but a program trained to do repetitive tasks with high speed and accuracy. So, the result will be error free and done with high accuracy. Client security hash automates the process of generation of hash code that is used for securing the client data. The proposed system aims in reducing the workload and time while generating the hash code for every client of this organization. Client data should be replaced with some unique hash code for security purpose. If a human does the generation of hash code for all the clients, then it would take months to update all the client data. So, Robotics process automation tool is used for automating this process, that would take minimal time as compared to human. Software robot does all the work in less time and accurately. The purpose is to get an error free process in an organization. The implementation should create a unique feature for all the organization to secure their client data. Administrator of organization can just monitor the robot while updating the client data. Robot does the critical work effectively by just taking minimal time that depends on the network connection of the organization.

2. LITERATURE SURVEY

The software-based technique that has been growing in the current days is the intelligent automation methods. As per capability of the automation there is no proper reference with the capabilities, different ideas, the terms and technology and then related to the types. The main is to promote the consistency and clarity with the employees of different packages, which is based on intelligent automation method. It

defines and represent different kind of agreements of the trade participants of various panels [2].

UiPath uses 'Adaptive Algorithm' which makes UiPath a best suitable automation tool and it helps to automate all type of business [3].

The software and computer applications has becoming the fast-growing trend which is increasing to build and run not just a single hardware but also concentrating on multiple hardware and helps in the interaction with the other systems. The development process checks with the refinement of systems that are interactive not only consider the transformation with the specifications of models with single to multiple implementations with the difference in interactive of system. So, with this kind, changing the requirements and development of user interface becomes the challenging, the way to resolve these kinds of problems is to extend the refinement of the notion. This focus on vertical refinement that pairs with the interface which supports for multi development [6].

The phishing has been the serious issue for various users in internet every year, security has been the pillar for the development to protect from these kinds of problems. This focus on stopping the attacks happening on web applications over the internet based on individual users, number of replicated copies becomes more complicated problem for the attacker retrieve the information and make the user aware of that not to click or go through some appearing sites showing on the web applications, these pages are created in a fake way and deployed them over the different sites. This method has been tested with user in the domain of banking and it helps the user to detect these kinds of fake sites and guides to the correct following path [7].

3. RPA BACKGROUND

Automation is the future for organizational processes. Robotic Process Automation (RPA) is the solution for software automation in various domains like IT, Finance and accounting, Supply chain and so on [4].

Many Multinational companies uses Robotic Process Automation in their day to day tasks such as Deloitte, Capgemini, Accenture, Genpact and many more. They use Robotic Process Automation for its accuracy, reliability, consistent outputs with high productivity rates. The application of RPA is vast, and RPA is spread in all area of work. The few applications can be listed as, Healthcare field uses RPA in various roles like patient registration and billing. The companies apply RPA on various departments like Human Resource for new employee joining formalities, Payroll process and Hiring shortlisted candidates, Insurance for Claims Processing and Clearance and Premium Information. Manufacturing and Retails for Bills of materials and Calculation of Sales. Infrastructure for Issues Processing and Account setup and communication. Telecom industries uses for Service order management and Quality Reporting. Travel and Logistic agencies use for the purpose of Ticket booking and Passenger details maintenance and Accounting. Banking and Financial Services uses for Cards activation and Frauds

claims. Government uses for License Renewal and change of Address. Customer Services uses for Answering Customer calls and for most frequent functionalities. Revenue forecasting use for automatically updating financial statements to predict revenue forecasting and Automated report generation of employee details, billing, payments, transactions of any kind and the reports which need to be recorded.

Robots can be trained with some configuration to enter the data, send and read emails, to find unique features and opening a file or a pdf [1].

4. IMPLEMENTATION

The client data can be secured using hash automation. The proposed implementation for securing the client data can be automated using hash code. Client security hash automation is a process that automates the task of hash code generation for all the clients of an organization. The process starts by taking the confidential data of all the clients of the organization and generate hash code for each client. Hash code is generated by a specific website that is monitored and controlled by the software robot. The software robot takes care of each unique hash code generated for the clients. The System1 Online website contains all the client information and the SHA1 online produces the hash code depending on the client data given as shown in the Fig-1.

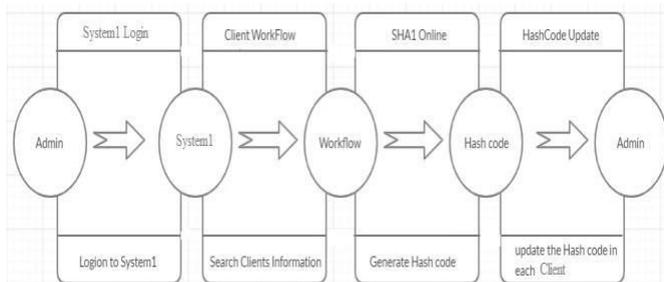


Fig -1: shows the overview of the client data security using RPA

System1: the application that stores all the person information and the process submitted to each person. It includes personal data that a company does not reveal of outside organization.

SHA1 Online: It is a website that generates hash codes for any specific data that is given. It converts a dictionary string to a hash code that is hardly recognizable.

Once hash code gets generated it gets copied for a specific client and go to the specific client data for updating. Client data gets replaced with the hash code. Each client can now be identified with the hash code that is secured. It is a secure way of displaying the confidential data of an organization to its vendors. Client data is handled in such a way that no confidential data is leaked. As hash code is the better way of securing personal data it is used instead of passwords and any other encryption method. The websites and data are used by most of the employees in an organization. There is chance of leaking data inappropriately in every organization. RPA not only does all the hash code conversion it also does the task in less time. A human takes a minimum of one day to update 100 client's data with their respective hash codes. A software robot does that task in less than an hour depending on internet speed.

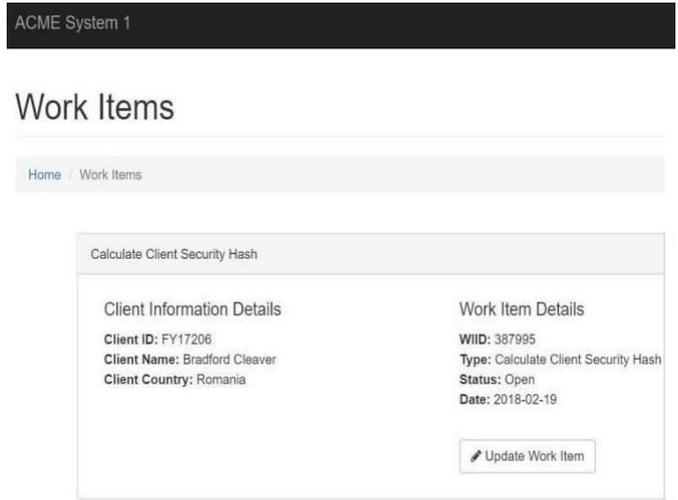


Fig -2: shows the sample Client data in System1

Fig-2 shows the client information which is processed. The client Id, name and country is fetched and trimmed for further processing. Client id, name and country is trimmed to a single line separated by a hyphen. Client information is copied for further processing.



Fig -3: shows the Hash code generation for sample Client data in SHA1 website

Fig-3 shows the client hash code generation. The information fetched from the AcmeSystem1 page is pasted here in the hash code generation box for generating a specific hash code. The Client data is updated by adding the generated hash code into the System1.

Further to minimize the unauthorized users' accessing and manipulating private data can be dealt with software bots. It mostly prevents the misuse of automated platform functionalities. Security of access is used to endorse RPA businesses from employees' unintentional error and hacker attacks. The most known security factor is reducing access to data based on assigning different roles in a robotics process automation team. Each persons' activities are aligned and constraints by the assigned role by keeping malware activity under control. As a result, no change can pass into the live environment before achieving consensual approval, as required by the protocol. RPA reduces the security related risks by doing password management, configuring applications of privacy settings because it sets a zero-touch environment. By eliminating manual work done by a human, robotics process automation minimizes the security risks at minimum level.

5. CONCLUSION

In this paper, we present an implementation solution for client data security using hash automation which helps the company to minimize the time that is wasted during manual operations. The inspiration to automate this technique is to get impeccable system automation that can improve efficiencies to pass on dynamically exact knowledge data and besides give nonstop access to subsidize data with uncovering and analytic limits. By means of robotizing errands, cost assets of about 30% can be practiced over the yield of proficiency. Programming robots in like manner cost not actually an all-day laborer. By discarding human bumbles, for instance, tiredness or nonattendance of learning, RPA reduces the rate of errors thus giving a lower measurement of operational risk. RPA can utilize present structures, a comparable way a human specialist can.

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