Project Summary

More and more applications are used by the companies today. Most of the companies require at least quarterly user access review to guarantee that none of terminated employees have accounts and other users have the correct access privileges. In most companies, this is done manually and requires a lot of burdensome human work.

Coupa software has many services for internal use. For example they have AWS, RightScale, DNS and so on. There are also lots of employees in coupa with different roles. They are supposed to access and operate different applications and data within.

In this Access Review project, we come up with a solution to make access review process easier to manage and realize better visualization. This solution makes permission control more reliable and can greatly relieve the work of administrators.

Our solution is to build a web application to handle role based access review process. It is a basic applications as a service. The web application can provide access review service to enterprise users more efficiently, because it is distributed and maintained for all users at a single point – in the web server side. All the modification and review operation are facilitated by providing different interface for different users implemented on the cloud service platform. Integrated with a variety of automated tools, account management, permission review can be implemented together in the application. In this way management and administration are more controllable and efficient too.

In this project, we used Django framework and PostgreSQL database. We finally implemented the access control system. Using the raw csv file supplied by our customer, we extracted data to the backend database. We realized better visualization on access control list. The system makes access review easy to manage and more controllable.

We refine the access review process and separate roles based on users' responsibility.The administrator can control the roles, data and permissions. Managers can perform access review process. Auditor can operate audit on the permissions. We also provide a method to generate report for review offline.

We realized security mechanism to protect our system from potential attack vectors. Besides of basic authentication and role based access control, we added anti-csrf and

anti-XSS protection in the system. So our system is a quite reliable and safe web system.

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Results:

- Is the brief project summary suitable for display on the CMU Silicon Valley website? Yes
- Is the summary acceptable to the client? Yes