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CU I&E Submission: Critical Patch Updates for PeopleSoft Systems [1]

Submitted By

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Project Description

Oracle releases a Critical Patch Update (CPU) four times a year. These patches play a key role in keeping University of Colorado PeopleSoft systems secure. While putting together the final schedule for CPU patching, business continuity, environment refreshes, maintenance windows and other UIS project activities were considered. UIS PeopleSoft administration team used Puppet and Ansible for automating CPU patching in various environments. The table below compares the time taken for the patching before and after this project.

Timeline for patching	Production patching	Non-Production patching
Pre FY2022	11-13 Days	14-21 Days
FY2022	4-7 Days	7-10 Days

Project Efficiency

The CPU Patching project showcases University Information Systems' operational excellence. This project is a huge efficiency gain involving more than 30 UIS resources, short time and huge amount of work. We had to balance our time, testing, communications, and the

availability of our systems while remaining dedicated to applying each CPU. In my recent trip to Alliance, a Higher Education User Group (HEUG) conference I saw a presentation where University of Berkeley was showing their 12 days turnaround time on CPU patching compared to UIS turnaround time of 4 days. This makes us a leader in higher education space for CPU patching.

Project Inspiration

Given the increase in attacks on Higher Ed over the past few years, our CIO, Scott Munson, directed us to re-evaluate UIS current approach to assess our ability to patch all our PeopleSoft environments faster in October 2021. Boulder's data breach that made the news occurred within 7 days of a patch being released. So, we were trying to keep our target under 7 days and were successful in getting it down to 4 days. By keeping this time low we were able to protect our systems while keeping the cost low with a sustainable approach.

Future Plans

Future propositions to make the CPU patching even more efficient and reliable.

1. Ability to do hot patching by using tools like Coherence to provide no downtime in the customer-facing environments.
2. Build more robust automated testing for all applications and leverage automation testing awesomeness.
3. Creating awareness around in the campus community around criticality of patching activity so that we can schedule maintenance windows.
4. While building the future maintenance windows consider CPU release dates into account.

What Makes You Happiest about this Project?

The CPU patching project provided all of us great satisfaction by enabling us to protect our Enterprise Resource Planning systems. After Log4j vulnerability surfaced in December 2021, the importance of protecting our systems has become even more evident. This project is one more stride in right direction towards in securing our systems in a timely manner.

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