

CCCCO System-wide Architecture Committee (SAC)

Meeting Minutes

Thursday January 26, 2017

Zoom Online Meeting

Attendees: Tim Calhoon, Gary Bird, Debra Connick, Bob Hughes, Ben Seaberry, Dave Fuhrmann, Rico Bianchi, Anna Stirling, Sylvia Lynch, JC Sales, Joe Moreau, Lou Delzompo, Dan Borges, and Bruce Racheter.

Call to Order:

Gary called the meeting to order at 1:30 pm and took attendance.

Minutes:

There were no additions or corrections to the minutes for November 16, 2016. Sylvia Lynch moved to approve the minutes and Lou Delzompo seconded the motion. The minutes were approved by the committee.

Infiniti –AWS Cloud Backup Solution:

The Technology Center has been working with Scott Drossos at Infiniti for four to six months; they won the RFP for Dev Ops Services. Infiniti has been working at Pasadena City College helping them to do backup into the cloud in Amazon. Since this topic was selected back in June, Tim thought it made sense to ask Scott to talk to the committee about what they are doing.

Scott and Jacob, senior network engineer and Amazon solution architect, provided an overview of four backup solutions they help customers implement using Amazon Web Services.

Infiniti has been around since 2004 as an IT consulting services firm and has now become a cloud services firm with IT consulting focus. They work largely with the public service sector, leading in the next generation Medicaid field and have a big educational practice. Their focus is on delivery on time and on budget and listening to the customer. They were the bidder with the highest technical support and lowest cost for the CCCTC Dev Ops RFP. They are becoming more known for educational work across the state and the country. They are a key public service partner for Amazon and have done a lot of work in the K-12 space.

Pasadena has about 50,000 students, 86 servers or so, and was highly vulnerable with respect to disaster recovery (DR). Infiniti started working with them in September on an Office 365 migration and then on developing a new AWS architecture. As part of that process they also launched a network scan of their architecture and all system applications.

Infiniti works between the customer and Amazon's structure to provide services that leverage what Amazon provides. They do dev ops projects, create architecture, do migrations, and have a deep focus on security and other performance metrics.

CCCCO System-wide Architecture Committee (SAC)

Meeting Minutes

Thursday January 26, 2017

Zoom Online Meeting

Jacob presented a series of slides that showed the contrast between traditional DR services and what can be done using Amazon Cloud Services to significantly reduce capital expenditures, reduce storage costs, and provide the ability to recover faster.

Options:

- Typical Backup Restore- has the highest RTO and RPO and lowest cost. On premise with backup on premise, but a third copy can also be stored in an Amazon storage device.
- Pilot Flight- RTO and RPO drop and the cost rises slightly. This allows the most critical operations to be in the cloud, so there can be failover if needed. Can use auto-scaling groups
- Warm Standby- RTO and RPO continue to drop and cost increases slightly. Applications and services are running at a very minimal capacity and they are replicating with your environment.
- Multi-Site- Lowest RTO and RPO and highest cost. In this environment everything is running in synch, it can be thought of as active-active. Traffic can be rerouted and production can be load balanced

In most customer environments some combination of all four strategies are deployed in the same environment. Jacob reviewed diagrams and explanations of services Infiniti is providing at Pasadena, Contra Costa, and some of what is being done at the Technology Center

Data in the cloud can be stored in an S3 bucket, but can also be moved to Glacier after a predetermined period of time for cost savings. The projects that Infiniti does get sized and priced based on what the customer uses and consumes. In a typical DR recommendation, there is a network scan, a one or two day visit, a number of data collection tools are run, and they set up a budget plan. The team will discuss the current DR plan, move into analysis, and start to look at the best strategies for the customer. The architecture design is driven by scope and mix of applications for the particular college. Infiniti provides a set of recommendations the college can choose to act on or shelve.

There are several different contracts that colleges can work off of, and pricing that Tim and Lou worked out for the Technology Center will be extended to other colleges without needing a piggyback contract, but simply as a goodwill gesture.

AWS charges are variable depending on usage.

Infiniti has CMAS agreements and a CDT award technically called the "Vendor Hosting Agreement" if colleges choose to buy through CDT.

Action Item:

Scott will send a pdf of the slides so Bruce can send them to the committee.

CCCCO System-wide Architecture Committee (SAC)

Meeting Minutes

Thursday January 26, 2017

Zoom Online Meeting

He will also send Tim a copy of the new CDT contract so it can be passed on to the Foundation and be easier for colleges to find.

System Updates:

Technology Center

CCCApply just passed the 5 million mark on number of applications. There are still colleges that have not adopted CCCApply, some of them have their own applications. The contract with Xap has ended and all of the old 20 million applications with Xap have been purged.

Multiple measures questions were added to CCCApply in September and sixty-nine colleges have opted into using them. There is a workshop coming up at Sacramento City College on the 12th and 13th. A new release of CCCApply will be coming out in March; it will include a number of new features including items for homeless and foster youth.

There are now 3.7 million student accounts in OpenCCC with a duplication factor below .003%. A new Proxy for SSO is being put out to take care of continuing students without a CCCID. There are seventeen colleges in production with it, another eight testing, and twelve kicking off after that.

CENIC Update:

CENIC is engaged in future proofing efforts; they started with districts with needs that were Priority 1 and 2 (saturated or close to saturated circuits). There are about 230 circuits in production. In the queue there are 17 1 Gig circuits and 176 10 Gig upgrade candidates. There are 59 deployments going on right now and 24 upgrades have been completed. The plan is in place and colleges should see 10 Gig circuits rolling out across the system this year and the next.

Security Center and Accessibility Center:

There was a combined workshop in January at San Jose Evergreen College that had about twenty-six colleges represented.

There was an announcement in the TechEdge News that the SSL Security Certificate program is now in place, which offers free security certificates to all of the CCCs. Jeff Holden has also completed contracting on Tenable Security Center for Nessus, and Splunk for log analysis.

The accessibility standards just recently changed from 508 Compliance to WCAG 2.0 AA as the new standard. Colleges can contact Sean Keegan at the Accessibility Center about using Compliance Sheriff to do accessibility testing on websites, etc. to make sure they are compliant.

CCCCO System-wide Architecture Committee (SAC)

Meeting Minutes

Thursday January 26, 2017

Zoom Online Meeting

EPI:

The Student Success Portal, CCC MyPath is live at Santa Rosa Junior College and is being stood up at State Center. There are about four or five other districts that are going to implement after that. For Starfish there are twenty-five colleges looking to onboard and perhaps up to forty in the next year.

The Chancellor's Office Curriculum Inventory (CO-CI) is looking to roll out in the late spring to early summer. C-ID is also getting rolled out. It was waiting for a while because a key Academic Senate person was on leave. They are now looking to cut over to the new system in April.

EdExchange is an augmentation in the transcript process. It is a standardized process to look up an end point for either a record holder for a transcript or a receiver. It will mostly be used by vendors, but is also an option for colleges as well. That work is in pilot mode right now with a number of vendors. Work is being done as an augmentation of the OEI. They are starting to pilot at Ventura and Foothill, on end to end connections from one SIS to the other using Project Glue and EdExchange. At the end of Course Exchange this will provide the transfer process. Work involves the Technology Center and Parchment.

CAI:

Over the last few months a lot of work has been done at the Technology Center to set up a Project Management Office (PMO). The first project the PMO worked with was CCCAssess on dividing a complicated project into a series of steps. The first step involves the CCCAssess Beta release to the twelve pilot colleges. A big hurdle is the test approval process for the assessment; the technical aspects are not a problem. CCCAssess is a cutting edge test and there are many elements involved in moving it through the approval process. There is a lot currently going on to gather data through the spring and to submit the approval package in the summer. The project is looking at fall to get pilot colleges live running assessments and placing students for spring. Once the pilot is complete CCCAssess will be released to other colleges in a phased rollout.

OEI:

Pat James, OEI's original Executive Director, retired at the beginning of January, and Jory Hadsell was selected to take her place. There are now 103 colleges that have committed to making the move to Canvas. The project is working with the other ten which are in various stages of local decision making and potential commitment.

The Course Exchange is in production at Lake Tahoe and Fresno City College with the other six being close to going into production. Joe praised the

CCCCO System-wide Architecture Committee (SAC)

Meeting Minutes

Thursday January 26, 2017

Zoom Online Meeting

exceptional developers and the great work they have done in development of the Exchange. The next college to go live will be Foothill for spring quarter, with the others close behind. The project is beginning to chart a course with sixteen more pilot colleges for fall 2017 registration. They are also looking at other opportunities to work with colleges to scale out the number of courses in the Exchange.

OEI is continuing to refine the course review process and is also working with Instructure to advance Canvas as a product. Finally, OEI was included in the Department of Education publication, The Higher Education Addendum to the National Tech Plan.

CCCCO:

TTAC met earlier this week and some of their big discussions came from five big ideas at the TTAC Retreat last spring. One was accessibility standards and the need for improved and disseminated documentation to go out to the system. The committee recommended forming a work group to start.

Another big idea was data governance which has been a major point of discussion for a while. The group will develop well-documented system architecture, up to date data dictionary, and a governance model.

The Governor's budget included \$10M ongoing additional funding for OEI to pay annual costs for the common CMS, Canvas, and \$6M one-time funding (with the possibility of follow-up ongoing funding) for an integrated library system. Currently every college has their own system; the integrated library system will consolidate everything. There was also \$150 for a Guided Pathways project; details will be provided on that after the trailer bill language can be studied.

Tech Center Day at CISOA:

The Tech Center asked the CISOA Board if they would support one half day of detailed presentations on Project Glue and Amazon Web Services. That was approved and it will be announced in TechEdge next week along with registration information.

There will be an overview presentation by the Technology Center, lunch, and then a split into two groups, one for AWS and the other for Project Glue. The Project Glue presentation will be about the very deep level integration with Colleague and Banner. There have been a number of technical questions from the field and this will be an opportunity to do a deep dive into those questions. This will probably be of most interest to senior technical staff.

On the other side of the hall there will be AWS talks. There will probably be one similar to what Scott presented today regarding backup and disaster recovery. Amazon has a couple of service offerings that are very similar to Microsoft

CCCCO System-wide Architecture Committee (SAC)

Meeting Minutes

Thursday January 26, 2017

Zoom Online Meeting

Remote Desktop that are pretty cost effective; that will be covered as well. Finally, there is strong interest in the movement of some applications into the Amazon Cloud and how that will look.

The expectation is for a total of about three and a half hours of presentation that half day.

Next Meeting:

The next meeting will be on February 23, 2017 at 1:30pm.

Adjournment:

The meeting was adjourned at 2:56 pm.