

# 2022-10-24 Cloud Strategy Migration Call Notes

Itana Call –10/14/22 Cloud Migration Strategy

Roll call – many new faces for this topic!

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 Jim Phelps (UW) (he/him) (Host, me)

 Ashish Pandit (Co-host)

 Mary Stevens (Co-host)

 AH Adam Hundt

 DM Dana Miller-University of Texas at Arlir

 Declan Fleming - UCSD (he/his/him)

 GD Glenn Donaldson (OhioState)

 Henry Pruitt

 Jacob A. Morris (he / him)

 Jared Logan

 Jerry Krawczyk

 Lonnie Smetana

 Matthew House

 Michael E. Davis

 Nick Marangella - UCSD (he/his/him)

 RF Rob Fatland (UW)

 Rupert Berk, UW (he/him)

 SJ Steve J Devoti

 Stoyan Stoyanov - UC San Diego

 Tony Rimovsky - Notre Dame

Main Topic – Cloud Migration Strategies – lessons learned, panel discussion

Ashish Pandit – Facilitator

No slides this week

Panelists:

Declan Fleming – UCSD, Enterprise Arch. ~3.5 years for central IT on campus, support all cloud. Technical and financial.

Tony Rimovsky – Notre Dame, Enterprise Arch.

Rob Fatland - Res. Computing director, Univ. of Washington. Advocate for cloud computing, research computing advocacy. Consulting role.

Steve Devoti – Ent. Arch Univ. of Wisconsin Madison, office of CTO. Focus on strategy at enterprise level. Historical perspective from time on campus.

Q1. What is the cloud strategy and decision tree at your institution?How do you make decision on placement?

DF – Have decision tree, cloud first strategy initially, one big account, switched to make more accounts (finance side enablement). Start and end with billing in cloud. Tech side, lots of services in the cloud (lamda, eks, etc.) ent. Arch to work on standards and decision trees to define normal path.

RF – research perspective, culture is less guided service and more wild, wild west. Ability to get account and do whatever damage they can think of. Talk to people in crisis. Data management plan example, local resources, willing to use cloud, cost discussions, candidate for cloud -> get account with credentials, may come back for more discussions on how to use it efficiently. Indirect cost waiver for cloud. Trying to use solutions from consultations to create services inside of IT to something more formal as an offering.

SD – don't have a strategy/decision making especially from central IT perspective. Handle the billing, cleaned up some accounts. Treat it like a utility, offer all 3 clouds. Make things available, who on their own decide cloud is the best place to go. Have frameworks to make that as easy as possible. Authentication hooks. Only have 3 cloud engineers, so not a lot of resources. Leverage terraform, consistency. Push button deployment for account creation. Account owners do what they want after that. Complementary security engineers in some cases. Also have waived overhead if people use the cloud. Mostly do research in the cloud, some administrative stuff. Google Apogee and associated things from administrative side.

TR – ND finished cloud first ~92% of admin systems into aws or cloud service. First question when a new thing comes in can we accomplish it with something that we have, broad cloud solutions. Core infrastructure, fully AWS including banner, need demonstrated critical need to stay local. Decision making through project management office. Spend time during project on where something is going to be. Local if needed but avoid. No campus data center. Leverage local data centers if have to stay local.

AP – On prem and in cloud, make decision where it should go, don't assume on prem or in cloud.

DF – do cloud efficiently

Q2. How are you paying for the cloud?

TR – enterprise investment paid by central IT funds, did it without asking campus for additional money. Some places where they have to do cost recovery (grants, and charge back services). Do monthly sit downs to examine cloud spend (business line and aws service) flag growth in spend, invest savings plans 98% utilized.

JP – Shift how datacenters are used – shift to research computing using data centers. To make space other stuff has to leave (shut down or move to cloud). Some research use cases don't make sense in the cloud. Don't want to build more datacenters, or lease more data centers. Use the data center space wisely.

RF – credits for cloud for research, apply to aws, have program where they get credits and manage internally to encourage teams to try things out. Good to get credits from providers and show viability. Stretch grant dollars.

SD – NIH strides discounts, people will want to leverage things in many platforms. So have to have a multi cloud strategy.

Q3. Pros and cons of multi cloud strategy?

SD – size of institution, diverse needs, features of one cloud as perceived by users. Collaborations (Hospital in Azure).

DF – CIO reports to CFO, CFO wanted cloud spend controlled. Purse strings help bring in some control, reseller to get discounts, lots of legal stuff in role. Be cloud agnostic.

TR – Avoiding multi cloud for enterprise operations, complication, MS will drive them to use azure, sccm will go azure only, preparing for that now.

AP – also forces to go to azure including costing.

Q4. Value you have received by going to cloud? Lessons learned

TR – Agility, speed to deploy, covid – supply issues with hardware, aws allowed them to respond quickly. Zoom example, allowed them to respond quickly didn't have to build out server farms. Made more of emphasis on having cloud first more campus spanning than just IT especially early on. Enterprise operations is in a good state, in early stage with research.

SD – agility, do things quickly, could take a long time on prem. Collaboration is important as well. Need to support complex and large research collab. Doing in cloud makes that easier. Advocate for SaaS, don't have to manage infrastructure, upgrades, security stuff are done for you. MS going to where you won't be able to run on prem in the future. Do you want to be dragged, or up front of these transitions?

RF – Graduate student in genomics new algorithm, create an ami in aws publish, can say to community to reproduce his work. Molecular eng. Needed to do run of protein structures, \$3500 in cloud but could do it for conference without fighting for time.

DF – tags are a lie, don't lump everything together, everything ordered by money. Finance is important. Even 1% when you spend millions is a lot. Negotiate better deals if knew more in the beginning. Doing that now.

Q5 Enterprise discount program

TR – they are using one. TAM, enterprise support, bumpiness in beginning, going well now, renewal negotiation in the future.

Q6. If somebody starting new to journey, how should they go about it?

DF – lift and shift doesn't make sense today. Figure out cloud native approach that makes sense. Closing data centers is good. No one gave check back for electricity not using or for space not used, dept. didn't benefit. University did.

AP – Business value of something going in cloud vs. staying on prem.

RF – reach out to vendors, they are willing to devote time to getting started in the cloud. Take advantage of the vendors.

SD – vendors seem to have gotten better, take advantage of programs to do things like security reviews talk to their engineers, chart path forward. Zero trust stuff. No such thing as always cloud / always prem, goes back and forth. Change happens, analysis has to be renewed, dynamic environment, reassess and have a plan.

TR – Know how to count, how to count costs, what do you include or don't include. Nobody counted the time it took to wait for hardware that may have month long backlog. Opportunity costs, growth, time factors need to be part of the calculation. Lifecycles you assume impact cost calculations. Architecture discussions on what are the lifecycles we use, etc.

Questions from the floor:

No questions,

Close out of panel.

Organizational updates

Site and events

Working group updates:

API – 2<sup>nd</sup> session yesterday, data mesh discussion, next discussion in 2<sup>nd</sup> week of November.

Book Club is getting organized reading Thinking Fast and Slow, link in chat, still time to sign up.

New2EA – into a cohort based program, 15, 2<sup>nd</sup> meeting, homework, etc.

Business Arch – session last week – starting a practice, next week is an open session.