Dear Wo and Big Data RA team,

First, kudos for great progress the team has made so far.

I had promised to send my thoughts about how to bring the existing Big Data closer to the Cloud Computing RA being developed at international level (jointly by ISO and ITU-T).

I started with the latest BD RA and made some changes to the inside of the Capabilities Provider on the right hand side of the diagram. You guys were pretty close already, so it was rather easy for me to make it match the latest Cloud RA.



You will notice the addition of the “Cloud Service Provider” box inside Big Data Framework. The international ISO/ITU Cloud RA has a box where the cloud service provider implements/provides the service. This box has a “cloud service” where the cloud application/workload runs and implements the cloud service used. The cloud computing capability types are available at this level to the cloud users (whether it is the capability to use software in the cloud, or the capability to program, or the capability to use infrastructure (compute, storage and networking) available to run given software. The workload/cloud app is itself running on top of a virtualized environment where resources and abstraction are offered in a scalable and elastic way. This environment is called “resource abstraction and control”, this is where the cloud computing algorithms for managing virtual resources (networking, compute, storage, etc.) present in the data center are encapsulated. This layer itself is executing on top of the “physical resources” which are CPU racks, switches, storage disks, cooling systems, dark fiber, etc.

You will notice I included “legacy systems” in the diagram as its own box, side by side next to the Cloud Service Provider, inside the Big Data Framework. This shows that Big Data can execute on cloud data centers (by cloud service providers), or on legacy data centers running legacy software stacks. This side by side positioning also signals the possibility of cloud workloads and cloud services interacting with legacy systems, if desired. The problem with the old diagram was that it seemed to imply that the legacy systems can be woven into the layers of cloud implementations, forming a composite system. This is not possible in practice as legacy implementations often lack elasticity and scalability requirements that are foundational to cloud implementations. So the way legacy systems interact with cloud systems is often done via clean, async interfaces that cloud apps use to call into the legacy, on-prem systems, or on-prem legacy code calling into cloud services implemented by cloud providers.

Also, I wonder whether the color match between the Big Data Framework boxes and those inside the Transformation Provider carry some specific meaning. If they exist for esthetic reasons only, it may confuse the readers as suggesting some correlation between specific transformations and specific capabilities. So I suggest to change the color scheme to avoid any possible confusion.

Hope this helps,

Thank you,

Babak Jahromi