Meeting with GSF – 01.02.2024

Attendees: Everyone from the UCL team. Asim Hussain

**Team only part of the meeting**

*Right-sizing*

* Prizing (maximum price increase):
  + If we look at Azure, for example, there is some information available. Different pricing for different amounts of RAM, instance types and other parameters.
  + It is not certain that we would be able to play with the RAM and plans as this info might not be available to us.
  + Fair comparison between instances.
  + We could possibly get the basic rate (basic configuration for each instance, can compare per RAM or something else) as values and add that to the ompl files.
* Memory
  + Maybe we should consider memory more in general when it comes to the right-sizing.
    - As is, we recommend a ‘random’ instance, but we might want to base it more on memory as well
    - It Would be good to add memory as a component, so we don’t recommend an instance that has less memory than the current machine is using. Memory used before should not be more than the memory available in the instance we recommend.

*Carbon advisor*

* We could update it so that it outputs more than just the best result (can base the implementation on *Visualizer*).
* There is a chance that we will be put in contact with the SDK team about the endpoints, and we can then update the model and how we call the SDK endpoints in accordance with the information we get.
* We want to make the input parameters more human-readable (as has been done partly in Visualizer).

*Visualizer*

* We could make it more generic and base it on info from *carbon advisor*.
* We can possibly split it into 2 models (gather data points + visualize the data points).
* We have already added a better location naming (e.g. Europe).
* We want to add something similar for the timeframes, e.g. have a specific day that it can run on. Could also allow for more human-readable ways to write it, e.g. allow for the user to specify +- one day

**Meeting where GSF was present (Asim)**

*Right sizing*

* Some deeper analysis of right-sizing has shown that in some cases the price goes up when using right-sizing (pricier to use instances with better cpu utilisation).
* GSF has Cloud instance metadata – Asim thinks it would be better from their perspective to use the cloud instance metadata if possible. We would in this case put Cloud instances metadata before right-sizing, and it would enrich the data with the vCPUS, Instead of using the json (hardcoding them)
  + However, the metadata does not give the families needed for comparison. Asim now wants tot add it to the model (CIM), but that would be a future thing
  + As is, Asim recognises that Cloud Instance Metadata would not work with the current functionality
  + Cpu-util is the wrong unit; it should be from 0 to 100, not 0.0 to 1.0. So, 0.5 would be 0.5%, not 50% as we thought

*Carbon-advisor*

* Our question: How can we call SDK? (we are running SDK on localhost)
  + Made more for enterprises than single users, easier to run the SDK constantly for those customers.
  + The SDK team is moving away from the approach (or adding another one). Asim wants to connect us to the team responsible for SDK so that the model can be improved to work with the new possible approach as well.
* We are working on better/more usable locations and timeframes. Asim was happy about that (says it will be especially good for demos)

*Vizualizer*

* It Would be better if we could find a way to split more of these up. It needs to be more generic.
* If it could take a more general input it could be more useful to more people.
* Output a CSV file; use CSV for data visualisation.
* People want to see tables. They want to see time on the x-axis and other values on the y-axis.
* Any data could be useful to show as CSV data.
* Might be a simpler way of moving – if you can take a CSV file and visualise the data.
* Could be more useful if we build a more generic visualizer tool – (break it in half so the visualizer part is separate)
* Grafana
* It can be an issue when you use the plugin (that is not very generic) with a lot of components.
* The imager plugin would then just have to get the data point and not visualise the actual data points.