LPC – OS Selection Options

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- We got INC000001167171 yesterday about user job failures. They were using "rhel7" as their desired OS.

- Some background on this:

  – When we supported both SL6 and SL7 on the LPC, we used to handle rhelX variants in the pool. This was because CMS global pool uses rhelX (i.e. CRAB3, CMS connect etc. use them) and supporting these made the user scripts more portable

  – When we retired SL6, OS selection mechanism became redundant since we only had one OS available so the HTCondor configuration was updated to remove the expressions

  – With the addition of Alma8 and Alma9 OS options, we need to review the OS selection options. As things stand, the system currently accepts SL7, EL8 and EL9 as options

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- There are a couple of ways we can move forward:

  – We can add rhelX variants back to our configurations to make things consistent with how they were. This'll make our HTCondor configurations complicated but will help users with portability

  – We can double down on our convention and say SL7, EL8 and EL9 are the only available options. This keeps our HTCondor configuration simpler (fewer chances of human error etc.) but will be inconvenient for users

- I am personally in favor of the first option, but open to suggestions and feedback

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LPC – OS Selection Options

- The incident also uncovered a couple of issues that need to be solved regardless of the OS options:

  – The OS keywords need to be case insensitive. As is, SL7 != sl7

  – We should reject jobs with invalid OS (and apptainer image) and have a human readable error message for user course correction

- I'll update the configuration to have these two things fixed

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