SRU Exception for transitional hardware enablements (tHWE)

Problem Statement

Teams such as Canonical Partner Engineering (PE) want to enable new partner platforms on existing stable releases, which partners may not support on later versions (yet). They may require specific kernel patches, or additional user space components. This poses a problem with the SRU requirement that a problem fixed in an SRU, must be fixed in all newer versions of Ubuntu first.

Proposed approach

We propose that the Technical Board waive the requirement that the (optimized) platforms need to be enabled in newer versions first, provided that appropriate measures are taken to prevent release upgrades on affected platforms - in particular, a "quirk" for the ubuntu-release-upgrader. This ensures that users are not able to upgrade to a newer version of Ubuntu where their hardware is not supported.

An approach that can be considered is adding a new field to packages that *must* be upgraded when upgrading to a newer version (be it interim or next LTS), for example, the kernel meta packages. If these packages are not available in the target release, ubuntu-release-upgrader must fail.

Alternatives considered

We considered enabling partner platforms via a separate archive. This would allow isolating them from Ubuntu proper, and work around the entire Ubuntu policy. However we believe that the transitional hardware enablements benefit from the scrutiny and transparency of being in the main archive, it does allow the Ubuntu teams to weigh in on these enablements and ensure they otherwise live up to the usual Ubuntu standards and also encourages partners to close gaps quicker.

In particular, shipping packages in a separate repository makes it somewhat harder to introduce a quirk mechanism like is being proposed here, and would result in users being able to upgrade when they shouldn't, subverting user expectations more by just breaking on them.

Further details, tl'dr: Special package / archive cases in PE