Amazon’s Luna game streaming service is powered by Windows and Nvidia GPUs

Amazon’s new Luna cloud gaming platform is powered by Windows servers and Nvidia GPUs. Luna supports more than 100 games thanks to this Windows support, allowing developers to quickly move their existing Windows games over to an AWS instance and provide cloud streaming access to subscribers. This backend Windows support also allows publishers like Ubisoft to host their own digital services (Uplay) on Amazon’s Luna platform.

Amazon has confirmed to *The Verge* that Luna will run on a standard version of Amazon’s EC2 G4 server instance running Windows, complete with Nvidia’s T4 GPUs and Intel’s Cascade Lake CPUs. Nvidia’s T4 is based on the company’s Turing architecture that also powers the previous generation RTX 2080 and RTX 2080 Ti graphics cards. A single T4 GPU (Amazon might be using multiple) provides 8.1 teraflops of performance and support for Microsoft’s DirectX raytracing technology.

What this all means is that it should provide smooth gaming performance at the 1080p resolution Luna currently supports. 4K, which Amazon says is coming soon, might be more of a challenge for Luna on this hardware, especially without dialing down graphical settings in some demanding games.



Amazon’s Luna controller.
Image: Amazon

Amazon’s main cloud streaming rivals, Microsoft and Google, are using entirely different hardware and operating systems for their own cloud gaming services. Google opted for a custom x86 processor and a custom AMD GPU capable of 10.7 teraflops of GPU performance, all powered by Linux. Microsoft is currently using Xbox One S hardware in its server blades, offering just 1.4 teraflops of GPU performance and all running on the Windows-powered custom Xbox OS. Microsoft has confirmed it will move xCloud servers over to Xbox Series X hardware in 2021. Sony also uses custom PlayStation hardware for its own PlayStation Now service.

Amazon’s use of Windows software and Nvidia hardware, and its embrace of rival stores and services, gives it a big advantage over Google’s rival Stadia service. Stadia has struggled to attract enough content and subscribers to make its model

appealing, and Google’s promises of YouTube integration have failed to materialize. That’s meant there’s only around 90 games on Stadia at the moment, compared to more than 150 on Microsoft’s Xbox Game Pass, more than 100 on Luna, and more than 800 on Nvidia’s GeForce Now service.

Windows will make it a lot easier for developers to simply move their existing games to Amazon’s Luna service, with full Nvidia driver support. That should be a lot less work than moving games to Stadia and its Linux servers. That’s probably part of the reason why Amazon already has more than 100 games ready for its Luna service, which has launched in an early access phase.

While Amazon clearly has an interesting cloud platform offering here, with content and Twitch integration to back it up, the company will have to try and convince consumers that a pure game streaming service is worth the money. That’s something Stadia has wrestled with vs. established game console makers like Microsoft and Sony who are able to leverage their popular console base and offer game streaming as an add-on.

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