

# DDR5 Memory in the Marketplace

Over the past decade, the unprecedented growth of programs and apps, data sets and complex codes, along with 3D model rendering, 8K video editing, and gaming with high frame rates, has proven too taxing for DDR4 technology. It simply cannot keep up. As CPU core counts increase to deal with these immense needs, memory technology has had to scale up as well. DDR5 memory in a next-gen system is the answer to achieving the required performance today as well as scaling up to meet even more demanding needs in the future of content creation, distribution, and consumption. But how exactly does it help?

## Content Creation

Content creators have been limited with DDR4 technology as their high-powered workstations consumed any increase in memory density or memory bandwidth. The added hours of waiting drove down efficiency as even multitasking was impossible. But DDR5 memory will provide a massive boost for bandwidth. Over time, DDR5 will ultimately scale to 64Gb components, providing densities previously only available to servers with 16 slots per CPU.

## Content Distribution

Cloud storage and cloud-based services have also been constrained by previous memory technology, which limited the efficiency and quality of distributed content. With DDR5 memory, cloud storage will be capable of delivering a higher level of performance, faster than ever. Whether within the same rack footprint or in a smaller footprint with the same level of performance, DDR5 enables richer content to be delivered faster, for a better user experience.

## Content Consumption

High-performance PC users like gamers have always sought new memory technologies with faster speeds. DDR5 answers the increasing needs of hardware components, such as gaming monitors with frame rates as high as 144Hz or even 240Hz and resolutions such as 4K or 8K become more mainstream. More applications will be able to leverage higher refresh rates and even provide AR/VR-type experiences. Even if the end use is just watching videos online, they can now be consumed at higher resolutions, making the experience more lifelike.

Crucial DDR5 provides the powerful performance needed to break through the processing bottlenecks of your most intensive workloads. With Crucial DDR5, your next-gen system can process twice as fast for speed you can feel.

To learn more about DDR5 memory technology, visit [crucial.com/ddr5](https://www.crucial.com/ddr5).