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AMD returns to the high performance processor game with Ryzen 7-- a CPU family based around Zen architecture, with 8-core, 16-thread parts and 16MB level 3 cache shared across all cores.

According to the company, Ryzen 7 CPUs can do 52% more work per cycle than a similarly-clocked predecessor, thanks to a 14nm manufacturing process, a 5x increase in bandwidth and the architectural changes brought about by Ze. The processors also support simultaneous multithreading (the AMD take on Intel's Hyper-Threading), allowing each core to execute 2 code paths simultaneously.

On launch the Ryzen 7 series comes in 3 flavours. On the top-end is the R7 1800X, with 3.6GHz base speed, 4GHz boost speed and 95W TDP. Following is the R7 1700X, with 3.4GHz base speed and 3.8GHz boost, and the R7 1700 with 3.0 and 3.7GHz clocks. All processors are unlocked for overclocking, and AMD insists they beat equivalent Intel processors in benchmark testing.

The Ryzen 7 CPUs ship from March 2017. The near future should see the launch of mobile Ryzen CPUs with integrated graphics processors, as well as the Vega GPU architecture, the Zen-based Naples server CPU and the Radeon Instinct headless GPUs for supercomputer use.

Go AMD Ryzen 7