**Why do we need DDR4?**

There are four major reasons why DDR4 is set to replace DDR3: it's capable of hitting faster speeds, it's capable of hitting higher densities (16GB DIMMs are expected in 2015), it has improved error correction built into the baseline specification, and it consumes less power for equivalent or better performance than DDR3. In short, while DDR3 is butting up against its limitations today, DDR4 still has a tremendous amount of room to scale.

**Does DDR4 have XMP?**

Yes! We have been working hard with all major motherboard vendors to ensure compatibility with our high speed DDR4 memory, and that includes XMP. DDR4 employs a new specification, XMP 2.0, while DDR3 remains on XMP 1.3.

**How does XMP work on DDR4?**

Very similarly to DDR3, but with some caveats. For starters, Haswell-E tops out at a 2666MHz memory strap, which is very low for what DDR4 can do. Since XMP specifies speeds in excess of 2666MHz, your motherboard BIOS has to compensate somehow. Typically, when XMP tells the motherboard to use a higher memory speed than 2666MHz, the motherboard BIOS will bump the BClk strap from 100MHz to 125MHz. That's normal, but that change will also increase the clock speed of the CPU itself; a well-designed BIOS will compensate and bring the CPU clock speed in line.

**Where can I learn more about DDR4?**

We've authored a whitepaper that provides a much more detailed examination of this new memory technology.

**Why am I encountering stability issues with XMP?**

While we've been working around the clock with motherboard vendors to maximize compatibility and performance, these technologies are all very new. If you have trouble with stability using either XMP profile, we recommend either manually entering the speed and timings the DDR4 is rated for or running your memory at its default speeds until your motherboard vendor provides a BIOS update to improve stability.

**Why are there two XMP profiles on my Corsair DDR4?**

We include a pair of XMP profiles instead of just one for users who want to control how much power is consumed by the memory. The first XMP profile runs the DDR4 at its specification of 1.2V, while the second offers a higher speed at the cost of bumping the voltage to 1.35V. The first profile, then, is officially supported, while the second is not and instead offers a baseline of what the memory should be able to achieve

**What's the difference between Dominator Platinum DDR4 and Vengeance LPX DDR4?**

Vengeance LPX is our mainstream DDR4, utilizing a standard height PCB and heatspreader. Dominator Platinum DDR4 adds a larger, more robust heatspreader as well as compatibility with our Light Bar Kit, Dominator Airflow Platinum fan, and Corsair Link for monitoring voltage and temperature (Airflow Pro required.)

**Is DDR4 backwards compatible with DDR3?**

No. DDR4 and DDR3 have key notches in different places on the DIMM to prevent them from being mixed up, and Haswell-E and X99 are DDR4 only.

**Is DDR4 slower than DDR3?**

Because DDR4 uses looser latencies than DDR3 does, it can be slightly slower than DDR3 at the same clock speeds. What makes DDR4 important is that it can easily make up for that deficit by hitting higher clock speeds than DDR3 can. Getting DDR3 to run at 2666MHz or higher requires very careful binning of memory chips and can be very expensive, while 2666MHz is the lowest speed we're launching DDR4 at.

**What can we expect from DDR4 in the future?**

We're launching DDR4 at up to 3000MHz speeds and 8GB per stick densities, but that's just this year alone. DDR4 is expected to hit 16GB densities in 2015, allowing your X99 motherboard to support a staggering 128GB of memory (provided it has eight memory slots). In short, it's gonna get bigger, and it's gonna get faster.

**I'm running at the default 2133MHz speed, but my system still isn't stable.**

Double-check to see which memory slots your DDR4 is installed in against your motherboard's instruction manual. We've found that you have to install your DIMMs in the primary set of memory channels first, in order, to ensure stability.