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Intel might still have to officially the 8th generation of Core architecture, code named Coffee Lake, but it has already revealed details of the next generation-- Ice Lake.



Described as the "successor the 8th generation Intel Core processor family," Ice Lake processors will be built using a 10nm+ process. This is perhaps an odd move, since Chipzilla is still to officially detail the first 10nm Core architecture, Cannon Lake. It also throws a spanner in what is a confusing naming convention, what with Kaby Lake (14nm+), Coffee Lake (14nm++), Cannon Lake (10mm) and now Ice Lake (10nm+).

Chipzilla originally hoped to move to a 10nm process by the end of 2016, 2 years after the launch of the 14nm process. However the technology proved more challenging than expected, probably due to a yield rate not high enough for the company. According to Anandtech, the process also depends on die size, with the first products using it being designed for smaller mobile applications (since yields for smaller parts are better than larger parts at the same defect rate).

As such, the first generation of 10nm requires small processors to ensure high yields. Thus, Intel appears to be putting smaller die sizes (anything under 15W) in the 10nm Cannon Lake category, while larger 35W+ chips are in the 14nm++ Coffee Lake category. This gives time for the company to further refine its 10nm fabrication capabilities, leading to the 10nm+ process for larger chips.

When will Ice Lake hit the market? AnandTech suggests a 2018-2019 timeframe, depending on Intel's progress rate with larger chips and the 10nm+ process.

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Go Intel Officially Reveals Post-8th Generation Core Architecture Code Name (Anandtech.com)