

Delivering more DRAM bandwidth

- Independent DRAM controllers
- Optimized DRAM paging
- Re-architect NB for higher BW
- Write bursting
- **DRAM prefetcher**
- Core prefetchers

- ▶ **Track positive and negative, unit and non-unit strides**
- ▶ **Dedicated buffer for prefetched data**
- ▶ **Aggressively fill idle DRAM cycles**