Architectures for thread rich server workloads

Types of Parallelism: Symmetric Multi-Processing (SMP) and Multi-Core

Supported by the Itanium® Processor and Intel® Xeon™ Processor Families
Architectures for thread rich server workloads

**SMT on Intel® Xeon™ Processor vs. MT on a Montecito Core:**

- **Hyper-Threading Technology**
  (Intel® Xeon™ Processor Family)
  - Two threads run at the same time
  - Both threads simultaneously share processor resources

- **Coarse Multi-threading**
  (Itanium® Processor Family)
  - One thread runs at a time
  - Switches threads on long latency events

Note: Each box represents a processor execution unit

The EPIC Architecture dictates a different Multi-threading implementation when compared the IA-32 ISA