- Multiplier unit
- Pseudo-random number generator
- CRC calculator
- Integrated access to four thirty-two bit timers and timer signaling
- Sixteen entry Content Addressable Memory for inter-thread communication
- Timestamping unit
- Support for generalized thread signaling
- Six hundred forty words of local memory
- Simultaneous access to packet queues without the need for explicit mutual exclusion
- Functional units for ATM segmentation and reassembly
- Automated facilities to handle byte alignment
- Microengines divided into two clusters with independent command and SRAM buses

Figure 27.4 Enhancements in microengine functionality on the IXP2400.