• 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 com-
  munication
• 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.