General purpose CPU
- Highest level functionality
- Administrative interface
- System control
- Overall management functions
- Routing protocols

Embedded processor
- Intermediate functionality
- Higher-layer protocols
- Control of I/O processors
- Exception and error handling
- High-level ingress (e.g., reassembly)
- High-level egress (e.g., traffic shaping)

I/O processor
- Basic packet processing
- Classification
- Forwarding
- Low-level ingress operations
- Low-level egress operations

Figure 13.6 Example uses of the programmable processors on a network processor chip. Programmable I/O processors handle many of the basic packet processing tasks.