- Unconventional design with special-purpose hardware
- Programmable using high-level languages
- Specialized onboard engines for protocol processing tasks
- Connection for external coprocessor
- Hardware support for classification, scheduling, policing, and packet modification
- Interfaces for various physical media

Figure 17.5 A list of the major features of Agere's APP550 network processor chip. In addition to the hardware facilities on the chip, the vendor offers a software development environment.