David Gabbay (*DoGav Systems* Ltd), Izraelis, paskaita: **Evolution of Networking Processors**

2017 m. birželio 9 d. 10 val. VU Matematikos ir informatikos fakultetas (Naugarduko g. 24)

Abstract. During the late 1980's several semiconductor companies, in particular Motorola (later *Freescale Semiconductor*, and now NXP), started to include communication ports in their general-purpose processors. The idea behind that was to save the users the need for separate hardware communication peripherals when designing their systems. At that time the communication management and the message creation and analysis were all carried out by the general-purpose processor using software. In addition, the protocols supported were merely for small area local link (UART).

As the technology progressed over the years, especially in the last decade, the industry (especially NXP) introduced tightly integrated products where high speed ports and complicated protocols (e.g. TCP) are also supported using hardware rather than software. The hardware analyzes the incoming frame, manages the buffer(s) and queues the frame according to customer priority. In addition, the hardware handles the traffic congestion and provides quality of service support.

This lecture will cover the history of networking processors evolution to date, and will highlight the devices on the market today, especially those from NXP (soon *Qualcomm*).

Kviečiame dalyvauti!