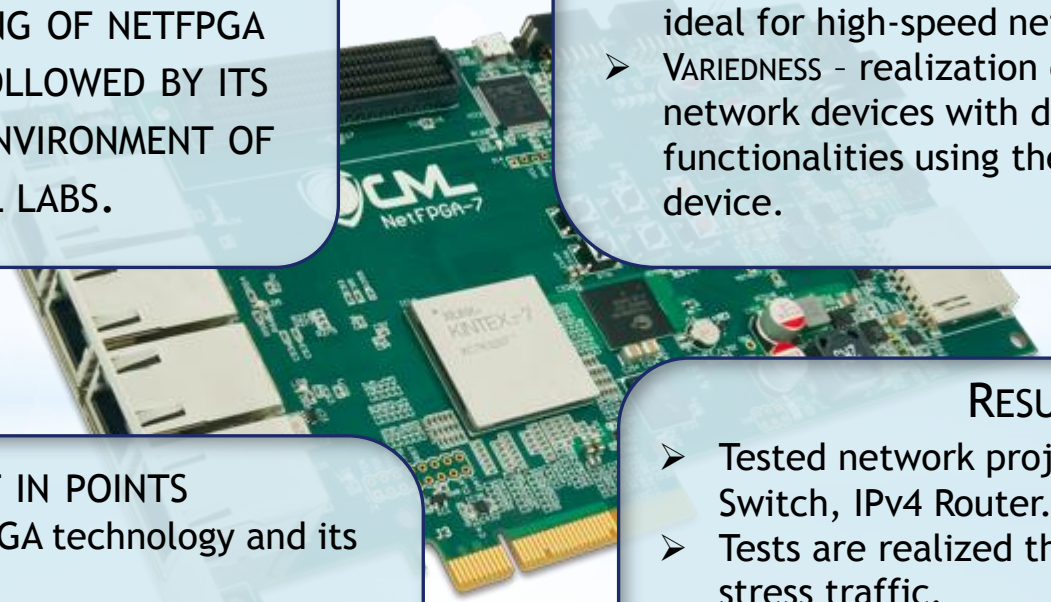
THE NETFPGA TECHNOLOGY AND ITS REAL NETWORK UTILIZATION

MAIN GOAL:

DEEPER UNDERSTANDING OF NETFPGA AND ITS STRUCTURE FOLLOWED BY ITS INSTALLATION IN THE ENVIRONMENT OF DEPARTMENTAL LABS.



CONTENT IN POINTS

- Analysis of netFPGA technology and its structure – FPGA.
- Possible areas of its utilization in the field of computer networks.
- Implementation of existing network projects placed on the site netfpga.org.
- Functional testing of individual projects with final evaluation.

RESULTS

- Tested network projects: NIC, Ethernet Switch, IPv4 Router.
- Tests are realized through generation of stress traffic.
- All tested functionalities were provided as specified in related documents – proves the successful implementation.

CONCLUSION

- Realization of network devices in the HW with possibility of its reconfiguration.

Advantages over SW implementations:

- HIGH SPEED - ability to process high volume of data in short time period → ideal for high-speed networks.
- VARIEDNESS – realization of all sorts of network devices with different functionalities using the same netFPGA device.

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