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Design and application of link: A DSL for network frame manipulation

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ABSTRACT:

This paper describes the design and application of Link, a Domain Specific Language (DSL) targeting the development of network applications focused on traffic manipulation at the frame level. The development of Link is described through the identification and evaluation of intended applications and an example translator is implemented to target the FRAME board which was developed in conjunction with this research. Four application examples are then provided to help describe the feasibility of Link when used in conjunction with the implemented translator.