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Implementation of a quality of service feedback control loop on programmable routers

[Chi Nguyen](#) [Hoang, D.B.](#) [Zhao, I.L.](#) [Lavian, T.](#)

Fac. of Inf. Technol., Univ. of Technol., Sydney, NSW, Australia;

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Abstract

Current Diffserv architecture lacks mechanisms for network path discovery with specific service performance. Our aim is to introduce an enhanced-Diffserv scheme utilizing a feedback loop to gather path information and allow better flexibility in managing Diffserv flows. We utilize state-of-the-art programmable routers that can host the control loop operation without compromising their normal routing and switching functionalities. Furthermore, the control feedback loop implemented on the control plane of the router can selectively alter the behaviour of a specific data flow in real-time.

Index Terms**Inspec****Controlled Indexing**[DiffServ networks](#) [feedback](#) [quality of service](#) [telecommunication control](#) [telecommunication network routing](#)**Non-controlled Indexing**[Diffserv architecture](#) [network path discovery](#) [programmable router](#) [quality of service feedback control loop](#)**Author Keywords**

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