TEDP: AN ENHANCE TOPOLOGY DISC ÉRY SERVICE FOR SOFTWARE-**DEFINED NETWORKING**

ABSTRACT

- Currently, Software-Defined Networking (SDN) platforms leverage Link Layer Discovery Protocol (LLDP) to discover the underlying topology.
- However, LLDP is suboptimal in terms of message load. In this paper, we present the Tree Exploration Discovery Protocol (TEDP), proving that shortest paths can be built at the same time that the topology information is gathered, without extra messages compared to LLDP.

• We also analyze two alternative implementations for TEDP and give insights into some features that SDN platforms should ideally provide for an efficient topology discovery service.

EXISTING SYSTEM

- NETWORK services are one of the main benefits of the thriving Software-Defined Networking (SDN) paradigm. These services are reusable pieces of network functionality that may be leveraged by any SDN application.
- Topology discovery could be considered one of the central SDN services, fuelled by the global perspective of the logically centralized SDN controllers.
- sOFTDP relocates part of the discovery process in the switch, which memorizes topology information to asynchronously notify the controller based on specific events, instead of periodically, hence saving messages.

PROPOSED SYSTEM

- In this paper, we present the Tree Exploration Discovery Protocol (TEDP), proving that shortest paths can be built at the same time that the topology information is gathered, without extra messages compared to LLDP. We also analyze two alternative implementations for TEDP and give insights into some features that SDN platforms should ideally provide for an efficient topology discovery service.
- This protocol initiates the topology discovery at a single node, by flooding a probe frame to explore the network and collect its information, instead of polling each device and aggregating the replies afterwards, as in LLDP.

HARDWARE REQUIREMENTS

Processor

- Pentium –III

- Speed
- RAM
- Hard Disk
- Floppy Drive
- Key Board

Monitor

- 1 1 01
- 1.1 Ghz

20 GB

- 256 MB(min)

MB

Standard Windows Keyboard

H.C.

- Two or Three Button Mouse
- SVGA

SOFTWARE REQUIREMENTS

- Operating System
- Front End
- Database : M

- : Windows 8
- Java /DOTNET
- : Mysql/HEIDISQL

CONCLUSION

We have defined, implemented and evaluated TEDP. This protocol initiates the topology discovery at a single node, by flooding a probe frame to explore the network and collect its information, instead of polling each device and aggregating the replies afterwards, as in LLDP. The results are encouraging, not only the number of control messages are reduced, but the topology service is enhanced to provide latency-based paths. Nevertheless, the change of approach proposed by TEDP has also disclosed some constraints in the current SDN implementations.

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reason, our conclusion is twofold firstly, this For network services should be specifically redesigned for SDN from scratch; it is our opportunity to think out of the box, instead of simply migrating old protocols. Secondly, the SDN architecture is still flourishing and should capture new ideas to reformulate its foundations, such as the Open Flow protocol.

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