



A Switching Device IITM Technology Available for Licensing

Problem Statement

- The technical problem is to be solved herein is to provide a switching device for processing and transmission of the data packet in a networking environment and **reduce network overhead**.
- Present invention addresses the issues and provide efficient solution.

Technology Category/ Market

Technology: Switching Device;
Industry & Application: ICT, Electronics, Computer Hardware;
Market: The global **switching device** market is anticipated to flourish at a **CAGR of 7.1%** during **2024 to 2030**.

Technology

- Present invention describes an improved **switching device** for **processing & transmission** of the data packet in a networking environment.
- Said switching device comprises a **processor**, a **network module** for **receiving, processing and transmitting the data packet** in a switched network.
- The operation of **network module** is explained hereinbelow:
 - receive a data packet wherein the data packet comprises a header information and a payload;
 - extract the **header information** from the data packet, wherein the header information comprises a **plurality of outgoing port information**;
 - select an outgoing port information from amongst the plurality of outgoing port information;
 - modify the outgoing port information of the data packet;

- encapsulate the modified outgoing port information within the data packet; and
- transmit the encapsulated data packet to a subsequent switching device in the network, wherein the subsequent switching device is determined by the selected outgoing port information.
- Moreover, subject invention describes a **method** for processing & transmission of the data packet shown in figure herein:

Intellectual Property

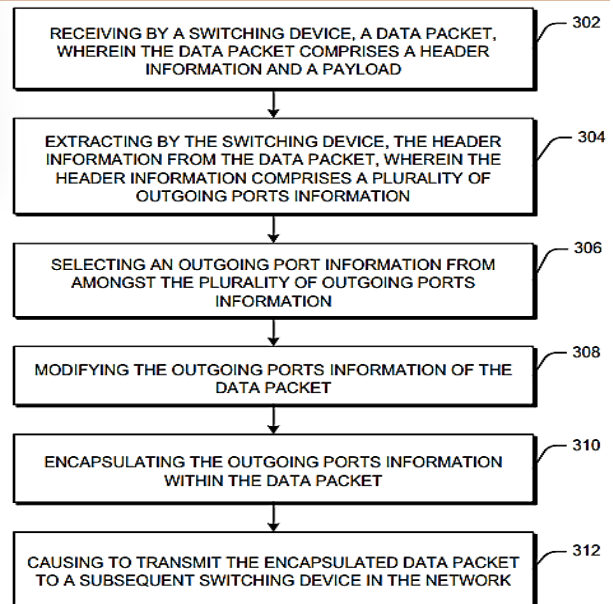


Fig.1 Illustrates the flowchart depicting claimed method;

Intellectual Property

IITM IDF Ref. 1941; Patent No:488524;

TRL (Technology Readiness Level)

TRL-4, Proof of concept tested in Lab;

Research Lab

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Key Features / Value Proposition

❖ Technical Perspective & Industrial Perspective:

- Present subject matter provides **an improved method** for processing and transmission of the data packet in a networking environment, thereby **eliminating the need for every switching device** in the network to process the data packet to determine the path of a subsequent switching device.
- Further, this **eliminates the continuous and repeated processing of each switching device**, thereby **reducing the overhead** on the switching device.
- The **data packet** is received at the switching device from a **source computing device** or a **preceding switching device** in the network.
- The **plurality of outgoing port information** is received from a **controller** or an **adjacent routing device** in the network.
- Facilitates **increased efficiency** of the switching devices in the network.
- **Saves computational resources** and provides a **positive impact** on the **network throughput**.

Image

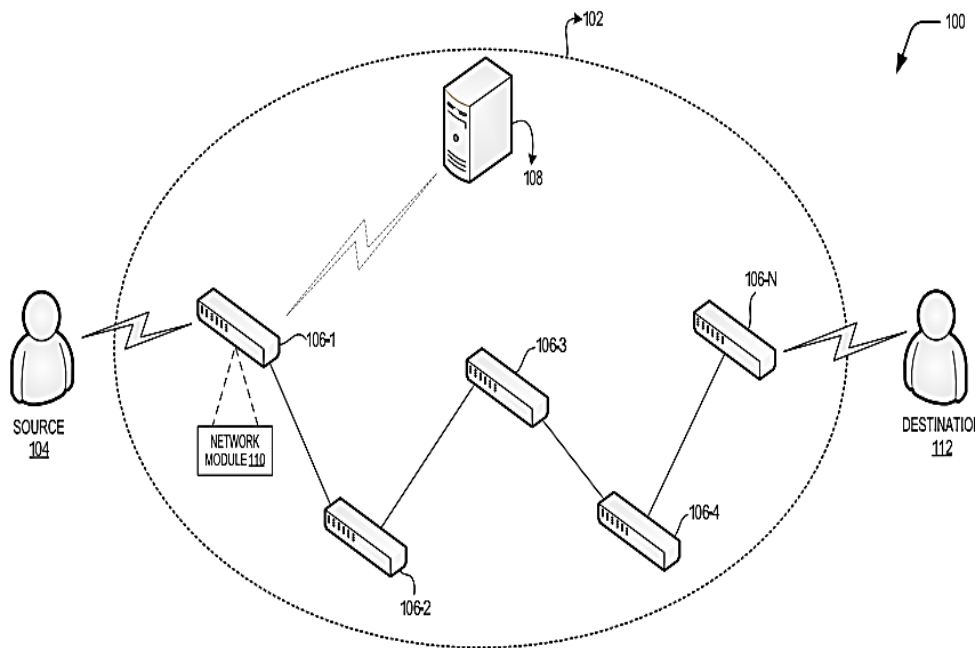


FIG 2: Illustrates an exemplary networking environment for implementing a plurality of switching device(s) and other components in a network.

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