



NETWORK CODING USING AN OUTER CODING PROCESS

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HIGHLIGHTS

- faster and more reliable data transfer over communication networks with less bandwidth consumption

OPPORTUNITY

University of Alberta researchers have developed a network coding solution. Network coding is based on the idea that the intermediate nodes of the network combine several receiving packets for transmission instead of only forwarding them. The benefit of network coding is that it significantly reduces server bandwidth and download time, especially for peer-to-peer (P2P) communication.

Our novel solution is a low-complexity and low-overhead network coding method using multiple layers of data packet coding. The result is faster and more reliable data transfer over communication networks with less bandwidth consumption. The invention represents a valuable opportunity to enhance modern communication network performance over the Internet, internal data center networks, and any other high-speed communication network.

COMPETITIVE ADVANTAGE

- Increased overall throughput and decreased bandwidth due to low overhead (3-10%)
- Reduced load on servers can result in facilitating increased number of supported users
- Low encoding and decoding complexity – can enable high quality and high-speed service even on hand-held devices
- Robust- flexible structure, making it potentially adaptable to multiple applications

IP STATUS

- [US Patent - 9,749,388](#)

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MORE INFORMATION

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