Information Delivery Infrastructure

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Research Topics

・Efficient content delivery methods for information networks
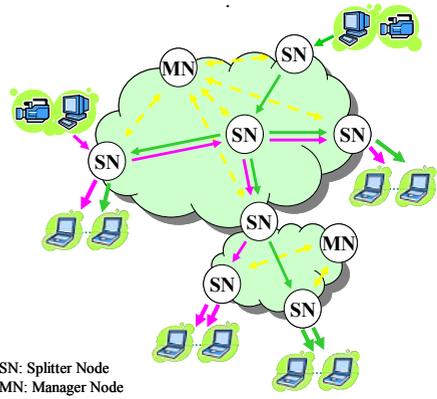・Application of information and communication technology (ICT) for local communities

Research Seeds

The use of video streaming on IP networks, such as the internet, has been increasing through advances in computer and network technologies. The video stream uses wide bandwidth and occupies network resources for a long time; efficient delivery is necessary.

Our research group has been studying information delivery infrastructure technology in computer networks, one of which is a multipoint video delivery system.

An application level overlay network is formed using splitter nodes and manager nodes. The splitter node delivers video streams to clients or other splitter nodes. The manager node controls the delivery network. The structure improves video streaming efficiency and reliability and decreases operation and management loads.

SN: Splitter Node
MN: Manager Node

Multipoint video delivery system.

Additionally, we have been working on research and development for efficient content delivery such as on-demand delivery method according to user demands for contents, and a multicast delivery method based on Software-Defined Network (SDN).

Related Technology

・Operation and management technology of information network
・Application software development for information services

Engineering

Computer Science