

Performance evaluation of route optimization management of producer mobility in information-centric networking

ABSTRACT

Named data networking (NDN) is a network service evolving the Internet's host-based packet delivery model. The idea of NDN is to use named data for routing, which specifies what they are looking for, instead of using location addresses that determine where they expect it to be provided. This architecture is expected to solve many issues that are currently faced by transmission control protocol/internet protocol (TCP/IP) architecture, such as scalability, robustness, mobility, security, and etcetera. One of the problems is about handling producer mobility. Considering the explosion growth rate of Internet connection in public transport vehicles, this is a challenge that needs to be overcome. Therefore, we have proposed a new scheme called route optimization management of producer mobility (ROM-P) with new features such as distributing anchor points and caching by using the same data name and comparing our previous scheme, efficient producer mobility support (EPMS). This paper shows the analysis result between the ROM-P and EPMS by using simulation. All simulations were conducted using ndnSIM 2.4 NS-3 based. Throughout the simulation ROM-P shows a promising development in better performing compares to EPMS.