Abstract—In recent years, various network devices have been provided by many vendors. Therefore, administrators must have knowledge of those network devices and network technologies when to design, configure and monitor their networks. To reduce administrative cost, we proposed Network Description Language (NDL) for network lifecycle (design, configuration and monitoring) managements. The administrator only needs to write network specification in NDL. Configuration files for individual network devices will be automatically generated from the specification. However, it is not easy to write the specification in NDL. This paper describes Network Design Assistant System based on NDL. It assists to create specifications from user requirements.

Keyword—Network Description Language, Network Design, Network Management, XML

Dr. Taketa is a assistant professor in the department of Informatics, Yamagata University. He became a Member of IEEE in 1999. He has a PhD in Information Science from the Tohoku University(2009). His research interests include computer networks and their applications, home automation and smart house, and human communication and Information propagation analysis in a social network.

Dr. Hiranaka is a professor in the department of Informatics, Yamagata University. He became a Senior Member of IEEE in 2011. He has a PhD in engineering from the University of Tokyo(1988). His research interests include physical sensing and visualization, computer networks and their applications, and software development by using simulators which incorporate real systems.