EFFICIENT ROUTING OF VIDEO REQUESTS USING BUILT-IN-CONTENT CACHING

A PROJECT REPORT

Submitted by

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in the partial fulfillment for the award of the degree

of

BACHELOR OF TECHNOLOGY

in

INFORMATION TECHNOLOGY

SRI VENKATESWARA COLLEGE OF ENGINEERING

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APRIL 2017

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BONAFIDE CERTIFICATE

Certified that this project report "**EFFICIENT ROUTING OF VIDEO REQUESTS USING BUILT-IN-CONTENT CACHING"** is the bonafide work of "**NIKHIL BHARATH.R (212713205059)**, **SUREKHA SREETHAR (212713205096)"** who carried out the project work under my supervision.

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ACKNOWLEDGEMENT

We would like to express our gratitude to our beloved Principal **Dr.S.GaneshVaidyanathan**, Sri Venkateswara College of Engineering, for his keen interest and encouragement without which the completion of this project would have not been possible

We offer our sincere thanks to **Dr.R.Anitha**, Head of the Department, Information Technology, for her support and suggestions during the tenure of the project.

We would like to thank our supervisor **Ms.J.SharonRanjitha Esther**, Assistant Professor, Department of Information Technology, for her help, guidance,support and constant encouragement throughout the course of the project.

We would like to thank our Project Coordinator **Ms.B.T.Shobana** and **Ms.S.Kalavathi,** Assistant Professor, for having lent a helping hand and encouraging us with their valuable experience and suggestions for the progression of our thesis.

We would also like to thank all faculty and supporting staff members of the department, our parents and friends for their inspiration, Co-operation and encouragement in motivating us to successfully complete this project.

ABSTRACT

Built-in content caching in mobile networks can help improve quality of service, reduce operation expenses, simplify inter-network cooperation, and thus is a promising approach for more efficient network architectures. In addition to the complexity of content placement, routing video requests remains a challenging issue. Two problems need to be addressed: (i) how to select gateways to fulfill a request (i.e., gateway selection); (ii) how to route the requested video data (i.e., traffic engineering). In this work, two objectives are considered to resolve the above two problems, namely, minimizing maximum link utilization and minimizing total link cost. Fast algorithms are implemented and studied. A hop-by-hop routing protocol is developed, which implements the optimization solutions by generating a set of flow-splitting and routing decisions for each router/caching node. Simulation results show that algorithms significantly outperform the Shortest- Path-based algorithm under various system settings.

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JDK	Java Development Toolkit
JRE	Java Runtime Environment
TCP	Transmission Control Protocol
HTTP	Hyper Text Transfer Protocol
IP	Internet Protocol
CDN	Content Distribution Network
PDN	Packet Data Network
JSP	Java Server Pages