University of California
Los Angeles

Improving the Throughput of Connectionless Datagram Protocols over Networks with Limited Bandwidth

A dissertation submitted in partial satisfaction
of the requirements for the degree
Doctor of Philosophy in Computer Science

by

Richard Bert Wales

1993

The dissertation of Richard Bert Wales is approved.

Robert M. Stevenson

Richard L. Baker

David G. Cantor

Mario Gerla

Jack W. Carlyle, Committee Chair

University of California, Los Angeles

1993

To my mother . . .

who—among so many other things—

saw to it that I learned to touch-type

while I was still in elementary school

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(Acknowledgments omitted for brevity.)

Vita

1952	Born, San Francisco, California, USA.
1974–1975	Campus computer center "User Services" programmer and consultant, Stanford Center for Information Processing, Stanford University, Stanford, California.
1974–1975	Programmer, Housing Office, Stanford University. Designed a major software system for assigning students to on-campus housing. With some later improvements, it is still in use.
1975	B.S. (Mathematics) and A.B. (Music), Stanford University.
1977	M.A. (Music), UCLA, Los Angeles, California.
1977–1979	Teaching Assistant, Computer Science Department, UCLA. Taught sections of Engineering 10 (beginning computer programming course) under direction of Professor Leon Levine. During summer 1979, taught a beginning programming course as part of the Freshman Summer Program.
1979	M.S. (Computer Science), UCLA.
1979–1980	Teaching Assistant, Computer Science Department, UCLA.
1980–1981	Research Assistant, Computer Science Department, UCLA.
1981–present	Programmer/Analyst, Computer Science Department, UCLA.

Publications

MADHOUS Reference Manual. Stanford University, Dean of Student Affairs (Residential Education Division), 1978. Technical documentation for the MADHOUS software system used to assign students to on-campus housing.

Abstract of the Dissertation

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Professor Jack W. Carlyle, Chair

(Abstract omitted for brevity)

CHAPTER 1

Introduction

For text, let's use the first words out of the ispell dictionary.

aback abaft abandon abandoned abandoning abandonment abandons abase abased abasement abasements abases abash abashed abashes abashing abasing abate abated abatement abatements abater abates abating abbe abbey abbey's abbeys abbot abbot's abbots abbreviate abbreviated abbreviates abbreviating abbreviation abbreviations abdomen abdomen's abdomens abdominal abduct abducted abduction abduction's abductions abductor abductor's abductors abducts abed aberrant aberration aberrations abet abets abetted abetter abetting abeyance abhor abhorred abhorrent abhorrer abhorring abhors abide abided abides abiding abilities ability ability's abject abjection abjections abjectly abjectness abjure abjured abjures abjuring ablate ablated ablates ablating ablation ablative ablaze able abler ablest ablute ably abnormal abnormalities abnormality abnormally aboard abode abode's abodes abolish abolished abolisher abolishers abolishes abolishing abolishment abolishment's abolishments abolition abolitionist abolitionists abominable aboriginal aborigine aborigine's aborigines abort aborted aborting abortion abortion's abortions abortive abortively aborts abound abounded abounding abounds about above aboveground abrade abraded abrades abrading abrasion abrasion's abrasions abreaction abreactions abreast abridge abridged abridges abridging abridgment abroad abrogate abrogated abrogates abrogating abrupt abruptly abruptness