Halldor Matthias Sigurdsson - DTU Orbit (24/12/2017)
Halldor Matthias Sigurdsson

Organisations

PhD Student, Department of Informatics and Mathematical Modeling
09/01/2007 → 03/09/2013 Former
hms@imm.dtu.dk
VIP

PhD Student, Department of Photonics Engineering
15/10/2003 → 03/09/2013 Former
halldor@cict.dtu.dk
VIP

Publications:

Techno-Economics of Residential Broadband Deployment: Multimedia Services in Residential Broadband Networks

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, CICT
Authors: Sigurdsson, H. M. (Intern), Tadayoni, R. (Intern), Olesen, H. (Intern)
Number of pages: 278
Publication date: Sep 2007

Publication information
ISBN (Print): 87-643-0238-5
Original language: English
Series: IMM-PhD
Number: 186
Main Research Area: Technical/natural sciences
Electronic versions:
070902_Halldor Sigurdsson_Phd_thesis_imm_format_FINAL.pdf
Source: orbit
Source-ID: 202889
Publication: Research › Ph.D. thesis – Annual report year: 2007

Development of alternative broadband infrastructures: Case Studies from Denmark

General information
State: Published
Organisations: Department of Informatics and Mathematical Modeling, CICT
Authors: Tadayoni, R. (Intern), Sigurdsson, H. M. (Intern)
Pages: 331-347
Publication date: 2007
Main Research Area: Technical/natural sciences

Publication information
Journal: Telematics and Informatics
Issue number: 24
ISSN (Print): 0736-5853
Ratings:
BFI (2018): BFI-level 2
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.194 SNIP 1.843 CiteScore 3.56
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.751 SNIP 1.832 CiteScore 2.64
IPTV Market Development and Regulatory Aspects

General information
State: Published
Organisations: Center for Information and Communication Technologies, Department of Photonics Engineering
Authors: Tadayoni, R. (Intern), Sigurdsson, H. M. (Intern)
Number of pages: 24
Publication date: 2006

Host publication information
Title of host publication: 16th Biennial Conference of the International Telecommunications Society: Information and Communication Technology (ICT) : Opportunities and Challenges for Telecommunications
Volume: Paper 0286
Publisher: China Institute of Communication
Editors: Lu, T., Liang, X., Yan, X.
Main Research Area: Technical/natural sciences
Electronic versions:
ITSS2006_conference_version[1].pdf
Links:
http://www.viskan.net/phd
Source: orbit
Streaming com P2P

General information
State: Published
Organisations: Center for Information and Communication Technologies, Department of Photonics Engineering
Authors: Sigurdsson, H. M. (Intern)
Pages: 104-117
Publication date: 2006
Main Research Area: Technical/natural sciences

Publication information
Journal: R T I. Redes, Telecom e Instalaçoes
Issue number: 76
ISSN (Print): 1808-3544
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: English
Source: orbit
Source-ID: 192198
Publication: Research - peer-review › Journal article – Annual report year: 2006

Techno-economic Study

General information
State: Published
Organisations: Center for Information and Communication Technologies, Department of Photonics Engineering
Authors: Falch, M. (ed.) (Intern), Sigurdsson, H. M. (Intern), Point, J. (Ekstern), Million, P. (Ekstern)
Publication date: 2006

Publication information
Publisher: European Commission
Original language: English
Series: Broadband in Europe for All: A Multidisciplinary Approach
Number: FP6-IST-507554/JCP/R/Pub/D2.2-3.2
Main Research Area: Technical/natural sciences
Links:
http://www.viskan.net/phd
Source: orbit
Source-ID: 192962
Publication: Research - peer-review › Journal article – Annual report year: 2006

Drivers and barriers for development of alternative broadband
Alternative broadband infrastructures are emerging and developing very fast. Different technologies and organization/business models have been used to establish these networks. The aim of the paper is to understand and identify the technological, economic and political/regulatory drivers and barriers of this development, including the role of government in this process. The paper has a pure empirical approach and is mainly based on detailed case studies.

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Tadayoni, R. (Intern), Sigurdsson, H. M. (Intern)
Publication date: 2005

Host publication information
Title of host publication: EuRO CPR 2005 Conference
Place of publication: Potsdam, Germany
Main Research Area: Technical/natural sciences
Drivers and Barriers for Development of Alternative Broadband

General information
State: Published
Organisations: Center for Information and Communication Technologies, Department of Photonics Engineering
Authors: Tadayoni, R. (Intern), Sigurdsson, H. M. (Intern)
Number of pages: 28
Publication date: 2005

Publication information
Place of publication: Kongens Lyngby
Publisher: CICT, COM.DTU, DTU
Original language: English
Series: CICT Working Papers
Number: 102
Main Research Area: Technical/natural sciences
Source-ID: 182652
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Peer-to-Peer Aided Streaming in a Future Multimedia Framework

General information
State: Published
Organisations: Center for Information and Communication Technologies, Department of Photonics Engineering
Authors: Sigurdsson, H. M. (Intern)
Number of pages: 9
Publication date: 2005

Publication information
Place of publication: Kongens Lyngby
Publisher: CICT, COM.DTU, DTU
Original language: English
Series: CICT Working Papers
Number: 104
Main Research Area: Technical/natural sciences
Source-ID: 188209
Publication: Research - peer-review › Report – Annual report year: 2005

Potentials and Challenges of Peer-to-Peer Based Content Distribution

General information
State: Published
Organisations: Center for Information and Communication Technologies, Department of Photonics Engineering
Authors: Sigurdsson, H. M. (Intern), Halldorsson, U. (Ekstern), Hasslinger, G. (Ekstern)
Number of pages: 14
Publication date: 2005

Host publication information
Title of host publication: Proceedings of CICT's 2nd International Conference : Next Generation Broadband: Content and user perspectives
Volume: CD-ROM
Series: Proceedings of CICT's International Conference
Main Research Area: Technical/natural sciences
Conference: Proceedings of CICT's 2nd International Conference : Next Generation Broadband: Content and user perspectives, Kgs. Lyngby, Denmark, 1-2 December, 01/01/2005
Second report on the multi-technological analysis of the 'broadband for all' concept, focus on the listing of multi-technological key issues and practical roadmaps on how to tackle these issues

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Falch, M. (Intern), Schneider, M. (Intern), Sigurdsson, H. M. (Intern), Skouby, K. E. (Intern), Berger, M. (Ekstern), Christiansen, H. (Ekstern), Ruepp, S. (Ekstern), Soler, J. (Ekstern), Tadayoni, R. (Intern)
Publication date: 2005

Techno-economic evaluation of broadband access technologies: The BREAD approach
Broadband for all is an essential element in the EU policy concerning the future of ICT-based society. The overall purpose of this paper is to present a model for evaluation of different broadband access technologies and to present some preliminary results based on the model that has been carried out within the BREAD project.

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Sigurdsson, H. M. (Intern), Skouby, K. E. (Intern)
Publication date: 2005

The Cost of Universal Service Obligations in PSTN and VoIP

General information
State: Published
Organisations: Department of Photonics Engineering, Center for Information and Communication Technologies
Authors: Sigurdsson, H. M. (Intern), Falch, M. (Intern), Thorsteinsson, S. E. (Ekstern)
Number of pages: 7
Publication date: 2005
Cost Optimisation Methods in the Design of Next Generation Networks

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Sigurdsson, H. M. (Intern), Thorsteinsson, S. (Ekstern), Stidsen, T. (Ekstern)
Pages: 118-122
Publication date: 2004
Main Research Area: Technical/natural sciences

Publication information
Journal: IEEE Communications Magazine
Volume: 42
Issue number: 9
ISSN (Print): 0163-6804
Ratings:
BFI (2018): BFI-level 2
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): SJR 2.827 SNIP 4.807 CiteScore 10.66
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 2.449 SNIP 6.066 CiteScore 8.15
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.678 SNIP 4.808 CiteScore 6.54
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.584 SNIP 5.643 CiteScore 6.08
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.867 SNIP 5.416 CiteScore 5.73
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.242 SNIP 5.121 CiteScore 4.97
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.29 SNIP 3.65
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 1.817 SNIP 3.976
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 1.893 SNIP 3.918
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 2.331 SNIP 4.411
Scopus rating (2006): SJR 2.085 SNIP 4.483
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 2.788 SNIP 5.649
Service Differentiation in Residential Broadband Networks

As broadband gains widespread adoption with residential users, revenue generating voice- and video-services have not yet taken off. This slow uptake is often attributed to lack of Quality of Service management in residential broadband networks. To resolve this and induce service variety, network access providers are implementing service differentiation in their networks where voice and video gets prioritised before data. This paper discusses the role of network access providers in multipurpose packet based networks and the available migration strategies for supporting multimedia services in digital subscriber line (DSL) based residential broadband networks. Four possible implementation scenarios and their technical characteristics and effects are described. To conclude, the paper discusses how network access providers can be induced to open their networks for third party service providers.

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Sigurdsson, H. M. (Intern)
Publication date: 2004

Host publication information
Title of host publication: 1st International CICT Conference : VoIP - Potentials and Challenges, Drivers and Barriers
Place of publication: Kgs. Lyngby, Denmark
Publisher: Technical University of Denmark, COM.DTU, CICT

Series: CICT Conference Proceedings
Number: 1
Main Research Area: Technical/natural sciences
Conference: 1st International CICT Conference : VoIP - Potentials and Challenges, Drivers and Barriers, 01/01/2004
Source: orbit
Source-ID: 182653
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Topics in emerging technologies: Cost optimization methods in the design of next generation networks
A key development of telecommunication systems during the past two decades has been the evolution from the circuit-switched network toward the packet-switched network paradigm. Many operators are now migrating their PSTNs from circuit switched networks. This new approach is often called the next-generation network NGN enables network operators to run all services (i.e., voice, data and video) on one network. In this article the migration of Iceland Telecom's circuit-switched PSTN towards NGN is described. A cost model of the telecommunications system has been developed to enable cost and benefits analysis of transforming the network to NGN. Methods of optimization and their application to determine the optimal number and position of nodes in the future network are described. The optimization produces a network structure with the lowest possible total cost of ownership, and the model can also indicate how deviations from the optimum affect cost. The feasibility of NGN is assessed by comparing the cost of NGN migration to that of maintaining the current circuit-switched network.

General information
State: Published
Organisations: CICT, Department of Informatics and Mathematical Modeling, Operations Research
Authors: Sigurdsson, H. M. (Intern), Thorsteinsson, S. E. (Ekstern), Stidsen, T. K. (Intern)
Pages: 118-123
Publication date: 2004
Main Research Area: Technical/natural sciences

Publication information
Journal: IEEE Communications Magazine
Adferdir til lágmörkunar kostnadar vid hönnun næstu kynslöðar fjarskiptaneta: Cost Optimisation Methods in the Design of Next Generation Networks

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Sigurdsson et al., H. M. (Intern), Thorsteinsson, S. E. (Ekstern), Ragnarsson, H. (Ekstern)
Publication date: 2003

Host publication information
Title of host publication: Yearbook of the Association of Charted Engineers in Iceland, Reykjavik
Place of publication: Reykjavik, Iceland
Series: Yearbook of the Association of Charted Engineers in Iceland, Reykjavik
Main Research Area: Technical/natural sciences
Links:
http://www.viskan.net/phd/publications.php
Source: orbit
Source-ID: 199794
Publication: Research - peer-review › Journal article – Annual report year: 2004

Fjarskipti inni a heimilum: Home Area Networks

General information
State: Published
Organisations: Department of Photonics Engineering
Authors: Thorsteinsson, S. E. (Ekstern), Sigurdsson, H. M. (Intern), Richardsson, N. O. (Ekstern)
Publication date: 2003

Host publication Information
Title of host publication: Yearbook of the Association of Charted Enginner in Iceland
Place of publication: Reykjavik, Iceland
Main Research Area: Technical/natural sciences
Links:
http://www.viskan.net/phd/publications.php
Source: orbit
Source-ID: 180852
Publication: Research - peer-review › Book chapter – Annual report year: 2003

Projects:

Multimedia Services in Residential Broadband Networks

Department of Informatics and Mathematical Modeling
Period: 01/10/2003 → 03/09/2007
Number of participants: 6
Phd Student:
Sigurdsson, Halldor Matthias (Intern)
Supervisor:
Tadayoni, Reza (Intern)
Main Supervisor:
Olesen, Henning (Intern)
Examiner:
Henten, Anders (Intern)
Ambak, Jens Christian (Ekstern)
Olsen, Borgar T. (Ekstern)
Financing sources
Source: Internal funding (public)
Name of research programme: Eksternt finansieret virksomhed
Project: PhD