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Model of joint servicing of real-time service traffic and data traffic. II. (English. Russian original) [Zbl 1234.93101](#)

Autom. Remote Control 72, No. 5, 1028-1035 (2011); translation from *Avtom. Telemekh.* 2011, No. 5, 139-147 (2011).

Summary: For the model of joint servicing of the real-time service and data traffics, numerical study of the demand servicing indices vs. the model input parameters is carried out. The problem of estimating the minimal channel resource sufficient to service the demand inflow with the desired performance is solved. Approximate algorithms are constructed, and their accuracy is analyzed numerically.

MSC:

[93E10](#) Estimation and detection in stochastic control theory

[93A30](#) Mathematical modelling of systems (MSC2010)

[94A12](#) Signal theory (characterization, reconstruction, filtering, etc.)

[94A40](#) Channel models (including quantum) in information and communication theory

Cited in **5** Documents

Keywords:

real-time service; data traffic; demand servicing indices; model input parameters; minimal channel resource

Full Text: [DOI](#)

References:

- [1] Stepanov, S.N., Model of Joint Servicing of the Real-time Service Traffic and Data Traffic. I, *Autom. Remote Control*, 2011, no. 4, pp. 787–797. · [Zbl 1235.93240](#)
- [2] Ross, K.W., *Multiservice Loss Models for Broadband Telecommunication Networks*, London: Springer, 1995. · [Zbl 1094.90514](#)
- [3] Stepanov, S.N., *Osnovy teletrafika mul'tiservisnykh setei svyazi (Fundamentals of Teletraffic of Multiservice Communication Networks)*, Moscow: Eko-Trendz, 2010.

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