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A feasibility study for a voucher management system (VOMS) as part of intelligent network (IN) architecture for telecommunications operations in a changing customer service market

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ABSTRACT

The research focused on the development of a Voucher Management System (VOMS) which had a higher availability as compared to existing VOMS which had been designed to an availability of less than 99,999. The need for the newly proposed VOMS was driven by the changing needs from a competitive consumer market. This market traditionally made use of PrePaid services (VOMS), typically for the voice services during a typical person's awake hours during a day. However, the market now drives a diverse set of requirements, including DATA, SMS and VAS which is required at all times of the day.

The research contribution achieved a proposal for a VOMS in which an extremely high availability was realised. The proposal for the new VOMS is characterised by a separation of the computation function from the storage functionality. Each function consists of several servers in a clustered arrangement to ensure both improved system performance as well as redundancy for component failure.