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SAFEGUARD Data-Processing System

Preface

The papers in this special supplement to The Bell System Technical Journal differ markedly from the more quantitative typical B.S.T.J. papers, which are characterized by their analytical and experimental approach, usually with a definitive telecommunications tie-in. The reason for this contrast is that these papers, taken together, are intended to serve a quite special purpose.

In its defense work for the U.S. government for the past several years, the team of Bell Laboratories and Western Electric, with close support from many contracting firms, has carried out the development of what is believed to be the most complex real-time software/hardware system ever successfully undertaken. These papers constitute an integrated story of the scope of the *software* task, the way it was organized and managed, and the principal lessons learned (problems encountered as well as successes achieved).

We are making this story available in the hope that the computer/data-processing community and others might profit from those developmental and administrative approaches that proved to be particularly effective and avoid those avenues that were found to contain pitfalls.

THE B.S.T.J. EDITORIAL COMMITTEE