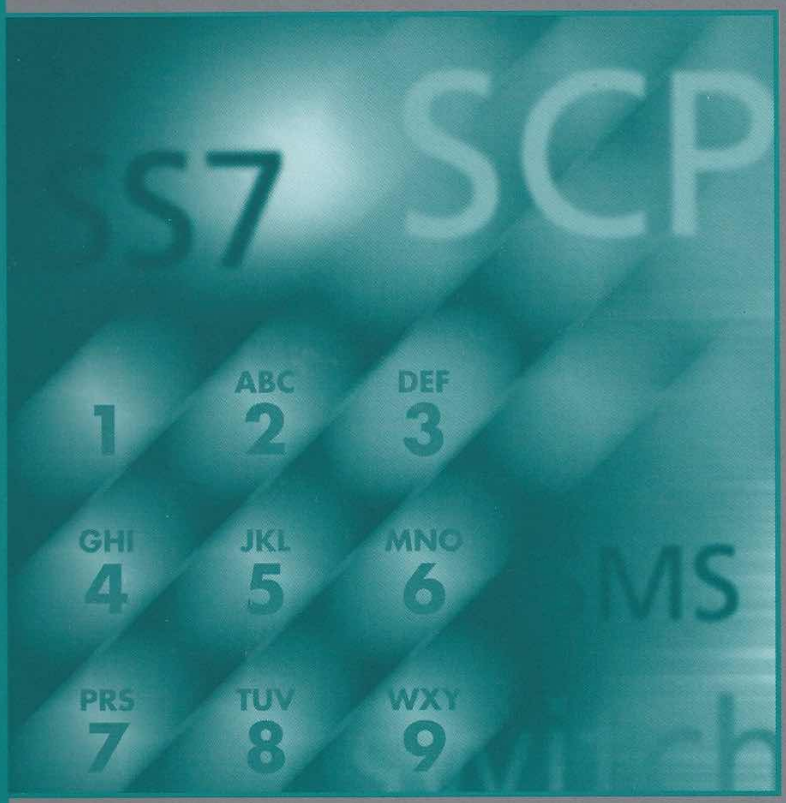
MOBILE COMMUNICATIONS SERIES

WIRELESS INTELLIGENT NETWORKING



GERRY CHRISTENSEN
PAUL G. FLORACK
ROBERT DUNCAN

Artech House Publishers

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

Library of Congress Cataloging-in-Publication Data
Christensen, Gerald.
Wireless intelligent networking / Gerald Christensen, Paul G. Florack, Robert Duncan.
p. cm. — (Artech House mobile communications library)
Includes bibliographical references and index.
ISBN 1-58053-084-2 (alk. paper)
1. Wireless communication systems. 2. Mobile communication systems. 3. Signaling system 7. I. Title. II. Series.

TK5103.2 .C459 2000 00-064276
621.382'1—dc21 CIP

British Library Cataloguing in Publication Data
Christensen, Gerald
Wireless intelligent networking. — (Artech House mobile communications library)
1. Wireless communication systems 2. Signaling system 7
I. Title II. Florack, Paul G. III. Duncan, Robert
621.3'8456

ISBN 1-58053-084-2

Cover design by Igor Valdman

© 2001 ARTECH HOUSE, INC.
685 Canton Street
Norwood, MA 02062

All rights reserved. Printed and bound in the United States of America. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Artech House cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

International Standard Book Number: 1-58053-084-2
Library of Congress Catalog Card Number: 00-064276

10 9 8 7 6 5 4 3 2 1

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

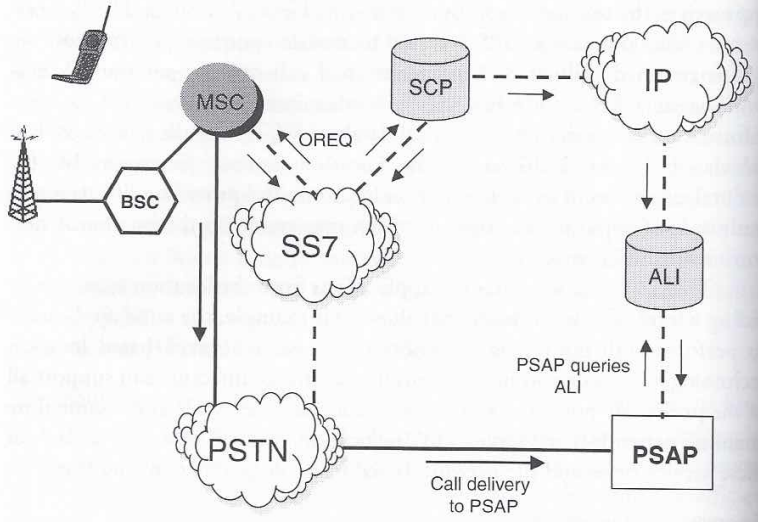


Figure 8.29 Architecture for wireless emergency services.

appropriate PSAP that serves the area from which the call was placed. The MSC then sets-up the call through the public switched telephone network (PSTN). The PSTN routes the call that ultimately arrives at its termination point at the PSAP. Upon receiving the call, PSAP premise equipment interrogates the ALI database. The ALI database, containing a cross-reference of cell/sector data to descriptive data such as street address, landmark, or any other identifying information, returns a response to the PSAP premise equipment that contains a description of the caller's location. Upon receiving the response from the ALI, the PSAP premise equipment synchronizes the location information with the incoming emergency call, displaying the location information along with the caller's MDN to the PSAP operator who answers the call.

This method meets phase I of the FCC ruling, which states the wireless carriers must provide at least cell site/sector level of position accuracy. While this method allows for routing to the appropriate PSAP and provides relatively accurate position information, this architecture is the foundation for greatly improved mobile positioning for emergency services. Work is underway within standards to establish interfaces to obtain much more precise location information from network, handset based, and/or hybrid PDE.

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.