

Australian Standard[®]

Quality system guidelines

Part 9:

**Guide to AS/NZS ISO 9001:1994 for
telecommunications call charging
and call billing**

This Australian Standard was prepared by Committee QR/2, Quality of Service. It was approved on behalf of the Council of Standards Australia on 22 January 1996 and published on 5 April 1996.

The following interests are represented on Committee QR/2:

Association of Certification Bodies, Australia
Australia Post
Australian Bankers Association
Australian Bus and Coach Association
Australian Hotels Association
Australian Organization for Quality
Commonwealth Department of Tourism, Australia
Department of Defence, Australia
Department of Fair Trading, Australia
Electricity Supply Association of Australia
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Masters Builders Australia
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Motor Inn and Motel Accommodation Association of Australia
New Zealand Association of Certifying Bodies
Quality Society of Australasia
Restaurant and Catering Association of N.S.W.
Sydney Water
Telarc New Zealand
Tourism Training Australia

Additional interests participating in preparation of this Standard:

AAP Telecommunications
Attorney General's Department, Australia
AUSTEL
Australian Telecommunications User Group (ATUG)
Consumers Telecommunications Network
Optus Communications
Small Enterprise Telecommunications Centre (SETEL)
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee QR/2 on Quality of Service.

The objective of this Standard is to provide guidelines for quality management systems for telecommunications call charging and call billing. These guidelines are considered relevant to those organizations involved in providing telecommunications services to customers, whether they be carriers, service providers or resellers.

This Standard is the result of a consensus among Australian and New Zealand representatives on the Joint Committee to produce it as an Australian Standard.

The primary reference for this Standard is AS/NZS ISO 9001, *Quality systems—Model for quality assurance in design, development, production, installation and servicing*.

The guidelines in this Standard were developed in consultation with a broad cross-section of the telecommunications industry and telecommunications users. Particular attention was paid to the following:

- (a) The operation of the various types of telecommunications network-based call charging equipment.
- (b) The transfer of call charging data from telecommunications network equipment to billing centres.
- (c) The operation of billing centres, including charge calculation, account production and charging data storage.

The specific requirements of statutory and regulatory authorities (e.g. AUSTEL, National Standards Commission) are not addressed directly in AS/NZS ISO 9001 or in this Standard. However, such requirements, where they are applicable, should be contained in written procedures and therefore should become an integral part of the quality system.

Attention is drawn to AS/NZS ISO 9004.1 *Quality management and quality system elements, Part 1: Guidelines* and AS 3904.2/NZS 9004.2/ISO 9004.2, *Quality management and quality system elements, Part 2: Guidelines for services*. Where this Standard gives guidance on the application of AS/NZS ISO 9001 within the context of the telecommunications industry, AS/NZS ISO 9004.1 describes an extensive list of quality system elements to assist an organization to develop a quality system appropriate to its needs. This is supplemented by AS 3904.2/NZS 9004.2/ISO 9004.2 which relates to services and describes concepts, principles and quality system elements applicable to all forms of service offerings.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is for information and guidance only.

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CONTENTS

	<i>Page</i>
FOREWORD	4
1 SCOPE AND APPLICATION	5
2 REFERENCED DOCUMENTS	5
3 DEFINITIONS	5
4 QUALITY SYSTEM ELEMENTS	7
4.0 General	7
4.1 Management responsibility	9
4.2 Quality system	14
4.3 Contract review	17
4.4 Design control	21
4.5 Document and data control	30
4.6 Purchasing	34
4.7 Control of customer-supplied product	38
4.8 Product identification and traceability	39
4.9 Process control	40
4.10 Inspection and testing	42
4.11 Control of inspection, measuring and test equipment	48
4.12 Inspection and test status	50
4.13 Control of nonconforming product	51
4.14 Corrective and preventive action	53
4.15 Handling, storage, packaging, preservation and delivery	56
4.16 Control of quality records	58
4.17 Internal quality audits	60
4.18 Training	61
4.19 Servicing	62
4.20 Statistical techniques	63
APPENDIX A AN EXAMPLE DOCUMENT APPROVAL, ISSUE AND ALTERATION SCHEME	64

FOREWORD

Recent years have seen worldwide movement by virtually all sectors of commerce and industry to consideration of the importance of quality management to their business.

Internationally, the initial publication of ISO 9000 (and its companion Standards ISO 9001 and ISO 9002) in 1987 was a major milestone for the fledgling 'quality industry'.

Australia first published standards for suppliers' quality systems in 1975 and, having contributed to the development of the ISO 9000 series of International Standards, adopted them as the AS 3900 series in 1987, shortly after their international publication.

Recent years have also seen sweeping changes in the Australian telecommunications industry, from the divestiture of the PMG to form Telecom in 1976, through the Davidson report in the 1980s to the introduction of competition with the Telecommunications Acts 1989 and 1991 and the formation of AUSTEL as the industry regulator.

These two separate movements are now converging, with the newly competitive telecommunications service supply industry recognizing the worth of quality management to their own business, to their customers and to Australia at large.

In May 1992 AUSTEL issued a discussion paper titled 'Investigations into Standards for Call Charging and Billing Systems'. The subsequent inquiry resulted in its report to the Minister for Transport and Communications in December 1992. The recommendations of that report, particularly recommendations 12 and 17, provided the impetus for the application of quality management Standards to telecommunications call charging and billing.

This document of necessity addresses only a portion of the total activities of any telecommunications carrier or service provider. The principles it outlines, however, can be readily applied to many other facets of the business, and to great effect.

In implementing a quality system for its call charging and billing process, each licensee will need to decide if 'design' is within the scope of the quality system and consequently whether AS/NZS ISO 9001:1994 or AS/NZS ISO 9002:1994 is the appropriate Standard. These guidelines provide guidance to both Standards. It is very unlikely that AS/NZS ISO 9003:1994 would apply to the telecommunications charging and billing industry.

STANDARDS AUSTRALIA

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1 SCOPE AND APPLICATION This Standard is intended for use by a telecommunications carrier or service provider (licensee), for guidance on quality management standards and their application to telecommunications call charging and call billing process. This recognizes the complexity and diversity of the business of providing telecommunications services, and describes the application of quality management standards to one specific area of that business.

This Standard is also applicable to the monitoring or sampling systems used by the licensee to generate performance indicators for charging accuracy, ensuring that such systems are designed and operated in such a way as to provide consistent and accurate measures of licensee charging accuracy performance.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS/NZS ISO

8402	Quality management and quality assurance—Vocabulary
9001	Quality systems—Model for quality assurance in design, development, production, installation and servicing
9002	Quality systems—Model for quality assurance in production, installation and servicing

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Bill—a statement of money owed for goods or services supplied.

3.2 Carrier—a general carrier or mobile carrier (*Ref: Telecommunications Act 1991*).

3.3 Charging and billing process—*call* charging and *call* billing process. Figure 1 illustrates the generic call charging and call billing process. All telecommunications charging and billing process will use essentially these process elements, albeit in slightly differing configurations.

The use of shading in the ‘blocks’ in Figure 1 is explained as follows:

- (a) *Shaded*—components of the charging and billing process that are within the scope of this Standard.
- (b) *Partially shaded*—components of the charging and billing process that are partially within the scope of this Standard.
- (c) *Non-shaded*—processes that are not within the scope of this Standard.