



Overview

TL 9000 Quality Management System Requirements and Measurements

The TL 9000 Quality Management System (QMS) was created by QuEST Forum to meet the quality requirements of the worldwide telecommunications industry. It defines quality system requirements for the design, development, production, delivery, installation and maintenance of telecom products and services, and provides a measurement system that, when implemented, allows companies to track performance and improve results.

As the industry's unique extension to ISO 9001:2000, TL 9000 includes four supplemental areas to the ISO standard: (1) reliability and associated costs; (2) software development and management; (3) requirements for specialized service functions such as installation and engineering; and (4) requirements to address communications between telecom service providers and suppliers.

Because of its telecommunications focus, TL 9000 eliminates the need for multiple telecom quality management standards, reduces costs of doing business, and ultimately results in better products and services to consumers. What's more, it provides the consistent set of quality expectations needed to drive efficiency and performance across the global telecommunications supply chain.

Continuous Improvement

The TL 9000 Quality Management System requires an organization to engage in continual improvement of products, services or processes. To ensure effectiveness and provide a performance baseline, TL 9000 enables organizations to input company TL 9000 registration information through the online Registration Repository System (RRS), and access benchmarkable data and industry trend reports through the QuEST Forum web site.

Registration to TL 9000 has proven beneficial to both service providers and suppliers. Testimonials and case studies from member companies cite improvements such as a 20% savings in cost of quality; a 40% improvement in on-time deliveries; an 80% reduction in procurement cycle time; and 25% reduction in first year return rates.

The Benefits of TL 9000 Implementation

As a Buyer

How do you ensure consistent quality across all products and services? What can you do to drive supply chain efficiencies and improve supplier relationships? The answer is QuEST Forum and TL 9000 certification. By selecting suppliers that are TL 9000 certified, you are assured that they have a quality management system that has been systematically audited by an independent TL 9000 registrar. Furthermore, the advanced measurements system facilitates analysis against industry benchmarks. You can produce objective product or supplier evaluations that enable you to make fully informed supply decisions.

As a Supplier

How do you demonstrate that you produce a high quality product and deliver excellent service? How can you reduce the costs of quality audits yet create customized performance reports for current and potential customers? The answer is TL 9000 certification and QuEST Forum membership.

The Goals of TL 9000

- Establish and maintain a common set of telecom QMS requirements, thereby reducing the number of standards for the industry
- Foster a system that protects the integrity and use of telecom products — hardware, software, and services
- Define effective cost and performance-based measurements to guide progress and evaluate the results of QMS implementation
- Drive continual improvement and enhance customer relationships
- Leverage the industry conformity assessment process

TL 9000 certification, along with independent audits, allows you to save time and money by complying with only *one* quality standard. What’s more, you save your customers the cost of on-site inspections. As a TL 9000 certified organization, you’ll also have access to performance data for benchmarking that can help you achieve further product and service improvement. This shows your commitment to quality and business excellence. Here are additional operational and customer relationship benefits:

OPERATIONAL BENEFITS

- Decreases costs of product life cycle management, audits, supplier management expenses, and general operations
- Delivers improvements in:
 - Performance (manufacturing and service)
 - Productivity
 - Reliability of processes and production
 - Life-cycle management
 - Supply chain efficiencies
 - Employee teamwork
- Increases the efficiency of external audits and site visits
- Ensures operational consistency
- Quantifies performance results

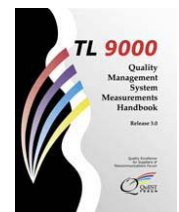
CUSTOMER RELATIONSHIP BENEFITS

- Provides access to a greater customer base (those who require quality standards)
- Enhances competitive position
- Improves customer service and overall satisfaction
- Establishes a method to gather and measure quality and performance data
- Demonstrates a commitment to product quality and customer value (focus on cycle-time reductions; on-time deliveries; return rates; reliability; defect elimination)
- Demonstrates the company’s accountability and focus on continuous improvement
- Enables the development of stronger customer/supplier relationships

A Two-Part Quality Management System

TL 9000 is both a management *and* measurement system comprised of the two parts that cover the following areas:

- Requirements clauses of the International Standards ISO 9001:2000
- Common telecom industry requirements that apply to hardware, software and services
- Telecom-specific requirements for hardware, software and services
- Common telecom industry measurements that apply all product categories
- Telecom industry measurements specific to hardware, software and services



TL 9000 Quality Management System Requirements Handbook (Release 3.0)



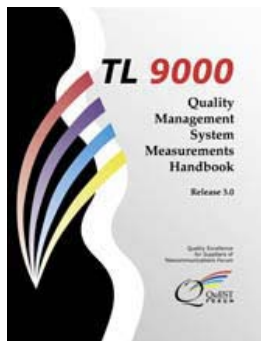
The Requirements Handbook establishes and details hardware, software and services quality system requirements and provides a consistent set of parameters specific to the global telecom industry.

This book is essential for telecommunications suppliers or service providers looking to improve quality and reliability while reducing the cost of poor quality.

The Requirements Handbook reveals an increased focus on these factors:

- Customer/supplier relationships
- Quality training
- Management responsibility
- Integrity of service
- Up-front planning

TL 9000 Quality Management System Measurements Handbook (Release 3.5)



The Measurements Handbook is a comprehensive guide to measurements processing, usage, responsibilities and requirements.

This book defines the minimum set of performance measurements to assess progress and evaluate results of quality management system implementation.

The Measurements Handbook identifies performance metrics that are key in the telecom industry:

- Common measurements
- Outage measurements
- Hardware measurements
- Software measurements
- Service quality measurements

Frequently Asked Questions

- **Does my company have to be ISO 9000 certified before seeking TL 9000 registration?**
Though the TL 9000 is derived from ISO 9001:2000, a company does not need ISO certification prior to seeking TL 9000 registration.
- **How long will it take for my company to become TL 9000 certified?**
The process can take from 6 to 18 months. It varies with the size of the company, existing quality management systems, scope of registration (hardware, software, and service), and the amount of dedicated internal and external resources to support this effort.
- **How much will a TL 9000 implementation cost?**
It depends on the scope and magnitude of your project. Total costs will depend on the breadth of TL 9000 certification, external consultant and training resources needed.
- **What is the Registration Repository System (RRS)? Do I have to be a QuEST Forum member to access information?**
RRS is a database of TL 9000 registered organizations and contains information on primary contacts, Registrar, scope of Registration and Registration Status. This information is accessible to the public.

- **What is the Measurements Repository System (MRS)?**
MRS is an exhaustive database of measurements reported by TL 9000 registered companies, where data is collected for over 100 product categories. Measurements data are guaranteed for anonymity and security. A downloadable version of the MRS brochure is available via the Web site.
- **Can non-QuEST Forum members access MRS data?**
The benchmark data and industry trend reports are included in the QuEST Forum membership package and available for a separate fee to non-QuEST Forum members.

How TL 9000 Supports Telecom Business Needs and Drivers

