Corporate Quality

Products – Processes – Results

Integrated Management System Manual
ISO 9001:2000 and 14001:2004

Rev. B, 08/15/05

DITECH COMMUNICATIONS

Table of Contents

Ditech Communications Corporation

Ditech Communications Corporation is a global telecommunications equipment supplier. Ditech Communications' voice processing products serve the needs of mobile and wire-line operators for circuit and packet based networks. Ditech products include high-capacity voice enhancement and echo canceller solutions that utilize advanced software and digital signal processor (DSP) technology. This combination of software and hardware allows Ditech Communications to deliver Voice Quality Assurance™ (VQA™), a robust and cost-effective solution for voice enhancement that includes both noise reduction and echo cancellation to create clear understandable speech and an enhanced listening experience for phone users at both ends of a call.

Designed using our extensive knowledge of the improvement of voice impairment issues and our experience in building solid system-level solutions, our products transform network distortions and environmental background noise into clear, quality communications that lead to greater customer satisfaction, increased usage and higher retention rates. Our comprehensive line of high-performance hardware platforms integrated with our VQA™ software enable service providers to deliver consistently clear voice communications to their customers worldwide.

Ditech Communications' VoIP products combine VQA™ technology with packet voice processing and security capabilities to enable carriers to deploy end-to-end VoIP services across network security boundaries without requiring network re-architecting.

Headquartered in Mountain View, California, Ditech Communications has been serving the needs of telecommunications service providers for over 15 years, and in that time, our echo cancellation and voice quality improvement products have been deployed on 6 continents in more than 34 countries on over 7 million voice channels (DS0s).

Ditech (DITC) is listed on the Nasdaq National Market. (web site: *www.ditechcom.com*)

1.0 Purpose & Scope

1.1. *Integrated System Manual:* This manual describes Ditech's integrated Quality and Environmental Management System (QMS / EMS). It includes Ditech's QMS /EMS policies and describes how these policies are implemented and sustained throughout the organization. The core processes of the organization are described here, with references to the supporting procedures of the corporate QMS / EMS.

1.2. *Purpose:* The purpose of Ditech's integrated Quality and Environmental Management System is to ensure product and service quality continue to meet the highest standards demanded by the organization and expected by its customers; and to ensure Ditech's products, process, and services are carried out in an environmentally responsible and protective manner.

1.3. *Scope:* The scope of Ditech's activities includes the design, manufacture, marketing, sales, and service of telecommunications equipment for voice and data networks at Ditech's Mountain View, California facility.

2.0 Responsibility

2.1. *Organizational Responsibility:* Responsibility, authority, and interrelationships of personnel who manage, perform, and verify work affecting quality is defined through organization charts, job descriptions, corporate policies, and procedures. All employees have authority to take action regarding non-conformances.

2.2. *Quality Assurance Department:* The Quality Assurance Department is responsible for ensuring the QMS / EMS system is established, implemented, and maintained in accordance with ISO 9001:2000 and ISO 14001:2004.

2.3. *Quality Assurance Manager:* The Quality Assurance Manager coordinates the performance of the corporate quality management system. The Quality Assurance Manager and Facilities Manager jointly coordinate the performance of the environmental management system. (241-0101-00)

3.0 References, Documents & Forms

3.1.	Quality Management Systems -- Requirements	ANSI / ISO / ASQ Q9001:2000
3.2.	Environmental Management Systems -- Requirements	ANSI / ISO 14001:2004
3.3.	Ditech Workmanship Standard	240-0000-02
3.4.	Reference: Integrated Management System Process Model	243-0000-02
3.5.	Reference: ISO 9001:2000 Certificate	243-0000-03
3.6.	Reference: ISO 14001:2004 Certificate	243-0600-03
3.7.	Reference: Index of ISO Elements & Ditech Procedures	243-0000-04
3.8.	Reference: QMS and EMS Records List	243-0104-00

3.9. Specific procedures, work instructions, and references are noted, by part number, throughout this document.

4.0 Terms & Definitions

4.1. *ISO Standard Language:* The terminology used through out this manual is consistent with the definitions provided in the ISO 9001:2000 and 14001:2004 standards.

- **Supplier** is used for contract manufacturer, subcontractor, and/or vendor.
- **Organization** refers to Ditech.
- **Product** may also be used to mean services provided.
- **Environmental Aspects** are elements of Ditech activities that may interact with the environment.
- **Environmental Impacts** are the changes (positive / negative) to the environment from the **aspects.**

4.2. *QMS / EMS:* Quality and Environmental Management System.

4.3. *Environment*: The physical surroundings relative to the Ditech facility (Mountain View, CA). This includes the natural resources of air, land, and water; flora, fauna, humans and the interrelation of all of these elements.

4.4. *Aspect*: An element of Ditech activities, products, or services that can interact with the environment. Aspects are evaluated based on the location of the activity, the frequency of the activity, and the severity of the resulting impact or potential impact.

4.5. *Impact*: Any change in the environment, positive or negative, wholly or partially resulting from Ditech's activities, products, or services. The severity of an identified environmental impact is used to establish the objectives and performance targets for the EMS program.

5.0 An Integrated Management System

5.1. *ISO 9001:2000:* The ISO 9001:2000 standard is the foundation for Ditech's Quality Management System. The adoption of ISO 9001:2000 provides the foundation for world-class processes and a Quality Management System that supports continual improvements in the business. The ISO 9001:2000 standard requires documented procedures for:

- Management Responsibility & Review 241-0101-00
- Control of Documents & Records 241-0104-00
- Control of Nonconforming Material 241-0110-00
- Corrective & Preventive Actions 241-0108-00
- Internal Audits 241-0117-00

5.2. *ISO 14001:2004:* The ISO 14001:2004 standard is the foundation for Ditech's Environmental Management System. The addition of ISO 14001 provides a framework for conducting business in an environmentally responsible manner. Ditech's core EMS documented procedures are:

- Operational Control 241-0602-00
- Aspects & Impacts 241-0603-00
- Emergency Preparedness & Response 241-0604-00
- Compliance with Legal & Other Requirements 241-0605-00

5.3. *Relationship of Elements:* The inter-relationships among Ditech's QMS and EMS procedures are illustrated by the QMS / EMS Process Model. (243-0000-02) The correlation between the ISO 9001:2000 and ISO 14001:2004 elements and Ditech's procedures is illustrated by the Index of ISO Elements & Ditech Procedures (243-0000-04).

5.4. *Quality Policy:* It is our policy to deliver excellence in our products, services, and solutions that ensure customer value and contribute to their success. It is also our commitment that this is the result of planned and integrated efforts involving every element of our organization.

5.5. *Environmental Policy:* Ditech Communications conducts its business in a manner that conserves the environment. It is our mission to be recognized by our employees, customers, community, and shareholders as a responsible business committed to continual improvement and the prevention of negative environmental impacts from our business activities.

- This commitment is reflected through programs focused on reasonable compliance with: applicable regulations, industry standards and best practices, contractual requirements, and corporate initiatives. As an integral part of the business decision making process, Ditech considers the relevant environmental aspects / impacts of our operations.
- As part of the business relationship, Ditech expects our contract manufacturing partners and certain key suppliers to maintain a 9001- and 14001-certified QMS / EMS.

5.6. *Ditech Core Beliefs:*

- *Customer Excellence:* Ditech recognizes that consistently delivering defect-free products on time is only one characteristic of a world-class supplier. Quality relationships with our customers are equally important. Ditech continually strives to improve its responsiveness to customers, to anticipate customer requirements, and to provide customers with top-tier service.
- *Employer Excellence:* Participation in the development and improvement of Ditech's business is expected at all levels of the organization. Ditech's management strives to implement and improve processes by providing employees with information, training, and opportunities to improve processes.
- *Supplier Excellence:* Ditech expects its suppliers to provide defect-free products and services that conform to our requirements. Ditech is responsible for ensuring requirements are defined clearly and delivered in an effective and timely manner. Ditech partners with suppliers committed to continual improvement in their own quality system, and to a relationship with Ditech.

5.7. *Policy Communication & Review:* The Quality and Environmental Management Policies are discussed with new employees as part of their orientation, and are displayed in key locations throughout the workplace. Periodically, management reviews these policy statements to ensure appropriateness and continued suitability to the organization. (243-0000-01)

6.0 Management Responsibility & Review

6.1. *Management Commitment:* Ditech executive management acknowledges its responsibility for providing a quality policy, establishing a management representative, and conducting quality management system reviews. (241-0101-00) Ditech's management is responsible for:

- Providing leadership and communication to the organization.
- Defining strategic quality goals and objectives, including statutory and customer requirements.
- Ensuring continual improvement of products, processes, and the quality system.
- Delegating appropriate responsibilities to ensure compliance with quality objectives.
- Defining job descriptions, and organizational responsibilities / authority for all staff.

6.2. *Responsibility for Quality:* Ditech's management is responsible for creating and implementing quality policies and procedures. All process owners must ensure that processes are properly controlled. All employees are responsible for the quality of their work, as it contributes to the quality of Ditech products and services. Managers and team leaders recognize that they must ensure every team member is appropriately trained, and able to take corrective action when required. Finally, opportunities to improve existing processes are sought and taken. Executive planning strategies are communicated to the employees through management staff and quarterly company meetings. The Quality Assurance department is responsible for:

- **Ensuring** the requirements of the ISO 9001:2000 and 14001:2004 Standards are understood, implemented, and maintained throughout the organization.
- **Ensuring** corrective actions are implemented to resolve issues identified in internal and/or external audits.
- **Conducting** system audits per the ISO 9001:2000 and 14001:2004 standards and Ditech's Quality Management System (241-0117-00).
- **Reporting** to the executive staff on the effectiveness of the integrated QMS / EMS including a review of pertinent product, process, and customer data.

6.3. *Management Review:* Management review of the QMS / EMS part of the Mangers' Quarterly Business Review. Data from various departments is reviewed against established corporate objectives. Management review is intended to determine whether the data is representative of a functional QMS / EMS. This includes a review of internal process audits, corrective / preventive actions, corporate initiatives, and EMS programs. This periodic review of the QMS / EMS ensures its suitability, accuracy, and relevance to the organization. Recommendations for program changes and improvements are presented to the Executive Staff for their discussion and approval. Action items from the review are assigned to appropriate managers and other Ditech personnel to support continual improvement objectives and customer satisfaction. Meeting minutes are used to communicate the effectiveness of the QMS / EMS, and to document continual improvement progress. (241-0101-00)

7.0 Planning & Resource Management

7.1. *Quality Planning:* Ditech is dedicated to ensuring products and services conform to the quality standards and specifications required by our customers. Process-specific documentation supporting these activities is referred to as the Quality Management System. The Quality Management System is comprised of the quality manual, procedures, test procedures, work instructions, and templates / forms / references / records.

- Corporate quality objectives are defined and documented annually in the strategic business planning process. For new product development projects, quality objectives are documented at the product definition and planning stage, incorporating input from customers and suppliers.
- The Engineering and Operations management teams are responsible for the development, and execution of quality objectives that measure and verify appropriate performance standards for Ditech products. The Product Verification group verifies product performance and conformance before releasing a product for Production. Product and/or service discontinuance is planned, addressed and documented within the Product Lifecycle Process. (241-0301-00 and 243-0301-07)

7.2. *Environmental Management Program:* Corporate Environmental Objectives are established based on the Aspects and Impacts report. Objectives are translated into specific departmental targets. Responsibility for achieving these targets is given to the appropriate departments or cross-functional teams as designated by the Executive Staff. (241-0101-00 and 241-0602-00)

- *Environmental Aspects:* Ditech conducts regular reviews of its business to identify and prioritize the significant environmental aspects associated with its operations. This assessment is reviewed at least once per year as part of the annual goal setting activities. Additional reviews of the environmental aspects and impacts may be initiated as a result of a significant change to the corporate structure, facility location, or stated business plan. (241-0603-00)

- *Legal & Other Requirements:* As part of its responsibilities, the Facilities Department (OSHA: Safety Director) maintains a liaison with all applicable outside agencies and governments regarding environmental, regulatory, or legal requirements. These requirements are communicated as part of the corporate objectives and performance targets. (241-0605-00)
- *Objectives & Targets:* Corporate environmental objectives are defined and documented within the business planning process. Project-specific environmental objectives are documented as part of the project definition, incorporating input from customers and suppliers. (241-0602-00 and 241-0603-00)

7.3. *Resource Management:* Resources are allocated against the initial forecast requirements and are reviewed and supplemented where necessary. Annually, the management team establishes the corporate business objectives, including quality goals and customer requirements, and evaluates the resources required to meet stated objectives.

- *Human Resources:* All employees are hired based on the defined qualifications for a position. Department managers are responsible for reviewing employees' training needs and identifying where additional training may be required.
- *Training, Awareness, & Competence:* Resumes, training records and certificates are part of individual employee personnel records maintained by Human Resources. Annual reviews, goal setting, and measurement evaluate the competence and performance of all personnel. (241-0118-00) Employees whose work has a direct impact on the environment or the corporate environmental objectives and targets will be appropriately trained on those elements. (243-0118-01)

7.4. *Infrastructure & Work Environment:* Ditech maintains a safe and comfortable work environment for all employees. Where possible, reasonable accommodations are made for a specific individual's accessibility, or ergonomic needs. Workstations are arranged based on ergonomics to support personal comfort and productivity.

- Work areas are organized according to space required for the assigned tasks. Equipment, tools, or supplies are made available as appropriate to each job function or workstation. (241-0204-00)
- Where appropriate, hazardous material warnings and safety notices are posted. Flammable cabinets and other secured storage are used for some materials as specified by the item's Material Safety Datasheet (MSDS). Additionally, eye wash stations are installed wherever hazardous chemicals are in use.

8.0 Documentation & Records

8.1. *Controlled Documents:* The Integrated QMS / EMS Manual, subordinate procedures, work instructions, and forms are **controlled documents**. Changes to these items are maintained under revision control. Any controlled procedures, work instructions, or reference items are maintained under revision control. Changes to the Integrated QMS / EMS Manual require the approval of CEO and COO. (241-0305-00 and 243-0104-02)

8.2. *Uncontrolled Documents:* Printed copies of any quality documents are considered **uncontrolled**. Controlled copies are maintained in electronic form, through the Agile database. All documents and records relating to the QMS / EMS are maintained in a legible format and identifiable to the appropriate product(s), process(es), or program(s). (241-0104-00)

8.3. *Control of Records:* Records required in support of the QMS / EMS are identified and maintained by the appropriate department. Records are stored and maintained in a manner that is readily accessible and minimizes deterioration, damage, or loss. After the minimum retention period, records may be stored at an off-site location or destroyed. (243-0104-00)

9.0 Customer Focus

9.1. *Customer Focus:* Ditech continually strives to improve its responsiveness to its customers, to anticipate customer requirements, and to provide world class products and services. Customer feedback, including complaints, is managed through the Corrective Actions Request procedure. (241-0108-00)

9.2. *Customer Property:* Currently, Ditech customer supplied product is limited to product returned by a customer for repair and return of the same unit. The product will be replaced free of charge with a new unit if it is lost or damaged while in Ditech's possession. (241-0403-00)

9.3. *Customer Contracts:* Contract inquires are reviewed by both business and technical personnel to ensure requirements are understood and the necessary information is available to fulfill the requirements of the order/contract. Orders are reviewed prior to acceptance to confirm the understanding of the requirements, the internal capabilities (process, quality assurance, test equipment, subcontractors, delivery), and the organization's capacity to meet those requirements within the time required. (241-0401-00)

9.4. *Customer Support:* Customer Support is responsible for providing technical support and customer training. Support and services are extended beyond the warranty period and through the discontinuance of product as contractually required. (241-0403-00 , 241-0402-00 , 241-0404-00)

9.5. *Customer Satisfaction:* Customer visits, customer surveys, review meetings with customers and other customer communications are used to gather information on customer satisfaction. The results of both customer satisfaction surveys and customer feedback reports are reviewed as part of the Quarterly Business Review (241-0402-00, 241-0402-01, and 241-0101-00)

10.0 Product Realization

10.1. *Planning of Product Realization:* The product life cycle manages a product from development throughout its life. The seven phases of the Product Lifecycle are:

- *Concept:* Product ideas are identified, investigated and selected based on the current corporate strategy. The Product Decision Committee evaluates ideas and approves or rejects ideas based on established criteria, balancing resources and projects.
- *Definition*: Project definition involves the translation of the product's requirements into plans and specifications. *Engineering:* Engineering develops the product within the framework of the specification. (241-0301-00)
- *Engineering*: Hardware and software prototypes are developed according to the specification. System test specifications, manufacturing test and assembly, and support processes begin during this phase.
- *Qualification:* Product qualification encompasses all activities required for successful transition from engineering development to production. This phase is used to validate the product, documentation, testing methods, assembly processes, and manufacturing yields, **prior to** General Availability.
- *Launch*: The launch phase introduces the product to the market and verifies how well the product meets its performance goals, quality criteria, sales projections, revenue / profit objectives, order processes, and cost projections during volume productions.
- *Maintenance:* Maintenance begins after General Availability and encompasses all activities required for successful sale and deployment of the product until an end-of-life decision is made by the Product Decision Committee.
- *Obsolescence:* The Obsolescence phase encompasses the activities required to discontinue production of the product. Warranty obligations, when applicable, are honored. The product Transition Plan is also implemented during this stage.

10.2. *Design & Development*

- *Planning:* Project development plans include product functionality and features, organizational relationships and responsibilities, and required resources and activities. Plans are updated as the design evolves to document verified milestones.
- *Inputs:* Design input is based on customer input and internal research of potential market opportunities. Design input documents are maintained by the appropriate project manager for the duration of the development effort. These documents are then archived by Product Marketing.
- *Outputs:* Design output is documented with product functional specifications, drawings, acceptance tests, and regulatory compliance reports. Engineering and Product Management ensure that design output meets the design input requirements. Formally released documents provide information for purchasing, production, and service.
- *Review:* Design review meetings are held regularly throughout the development phase to ensure the product meets performance and manufacturability standards. Design Phase Checklists and review minutes with any follow-up actions are documented and maintained. (241-0301-00)
- *Verification:* Design verification establishes that product functional parameters are consistent with design requirements. An engineering prototype tests product functionality against established specifications and features. The Product Verification group evaluates the product based on its intended uses(s) in a customer environment. Records of product verification are maintained.
- *Validation:* The Product Verification group assists with beta trials and customer evaluations to validate the design for its intended use.
- *Control of Changes:* Procedures The Engineering Change Order process controls all changes, modifications, and revisions. The Agile database identifies the affected items, controls revisions, and establishes the appropriate review and approvals. (241-0305-01 and 241-0305-00)

11.0 QMS Supporting Elements

11.1. *Process Control:* Monitoring and control of product is tracked in the In-site database for each product tested. (241-0119-00) Monitoring and control of suitable parameters and product characteristics ensures products meet the specified requirements. Inspection records and test results are maintained as objective evidence. Analysis of test or inspection results is used to identify problems. Compliance with workmanship standards is confirmed through inspection and vendor reports. Internal audits are used to monitor these processes. (241-0117-00)

11.2. *Control of Process Changes:* When a significant change is made to an established process (e.g. new operator, machine, or technique), a critical examination is made of the first units(s) processed after the change. Operator qualification(s) and re-qualification requirements are established for all applicable processes. These requirements, at a minimum, address experience, training, and demonstrated skills.

11.3. *Materials & Purchasing:* Purchasing documents contain clear descriptions of the product or service ordered including appropriate identification codes, numbers, or references. All purchasing documents are reviewed and approved prior to release to the supplier. The receiving department ensures that the product received conforms to the stated requirements of the purchase order. The Materials Department, with support from Quality Assurance and Engineering, is responsible for ensuring that procured products and services conform to quality standards and specifications. The Approved Supplier List is maintained the ERP system. (241-0201-00 and 241-0103-00)

11.4. *Supplier Review:* Periodically, approved suppliers are reviewed as required to ensure their on-going ability to meet Ditech's quality requirements. This review includes quality metrics such as defect rate, on-time delivery, and workmanship. (241-0201-00 and 243-0201-01)

11.5. *Product / Service Control:* The Materials group meets with representatives from Sales, Marketing, Production, and Finance to develop a monthly production plan. Approval of processes and new equipment for testing product is established by Engineering when a product is released. Special processes are monitored, controlled, and maintained in compliance with contractual requirements. (241-0119-00)

11.6. *Product / Service Validation:* Product compliance with standards and/or specifications is confirmed through design verification tests. When a product is released, Engineering approves manufacturing and test processes, as well as the test and measurement equipment suitable to the product and/or process. Manufacturing test procedures define the test methods and equipment and verify that products function as designed.

11.7. *Product Preservation:* Products are handled, stored, packaged, preserved, and delivered with methods that protect the integrity of the product. Appropriate precautions are taken with static-sensitive components. Employees who have a direct contact with product are trained appropriately. Secure storage areas are maintained for incoming materials, in-process product, final product, and rejected material. Packaging, preservation, and marking are monitored and controlled. Products are protected through delivery to our customers. Packaging materials are subject to considerations regarding reduction and recycling. (241-0203-00)

11.8. *Identification and Traceability:* All material is identified on receipt by an attached label, storage bin label, or marking on the material. Serial number, product name, and model number identify finished products. Products are identified at delivery by packing lists and external markings on shipping container(s). Test stamps, serial numbers, and customer order numbers provide traceability. (241-0206-00)

11.9. *Control of Non-conforming Product:* Non-conforming material is identified and segregated from conforming material. The Customer Service department is responsible for notifying customers and recalling non-conforming product that has been sent to them. (241-0110-00) Details of the evaluation of non-conforming products are documented and reviewed by the appropriate departments. A Stop Ship / Product Hold notice, approved by authorized individuals, prevents shipment of any nonconforming products. (241-0114-00)

12.0 EMS Key Elements

12.1. *Communication:* Corporate goals and performance targets relating to the Environmental Management System are communicated through corporate all-hands meetings. External requests for information regarding the corporate EMS are tracked in the RightNowWeb database for future reference. (241-0602-00)

12.2. *Compliance with Legal and Other Requirements:* As part of the permit renewal process, Ditech reviews its compliance with relevant local, state, and federal environmental legislation, regulations, and program requirements, at least once per calendar year. Additionally, the Safety Committee conducts regular facility audits to ensure operational compliance with all applicable statutes, regulations, permits, and stated EMS guidelines. (241-0605-00 and 243-0117-05)

12.3. *Operational Control:* As appropriate, for each identified operation or activity associated with the significant environmental aspects identified, documented control procedures and / or work instructions are established to ensure the work performed is in line with the environmental policy, as well as stated environmental objectives and targets. (241-0602-00 and 241-0119-00)

12.4. *Emergency Preparedness & Response:* Ditech's Safety Committee implements and evaluates the emergency response procedures including employee safety, coordinating response activities with the applicable agencies, and addressing any environmental impacts resulting from an emergency situation. (241-0604-00)

13.0 Measurement, Data Analysis, & Audits

13.1. *General Requirements:* Measurement and analysis processes are designed so those near the sources of information can make decisions independent of the organizational hierarchy. Where possible, decision-making is based on facts gathered through measurement and analysis. Measurements are made of the following:

- Product characteristics
- Process performance
- Customer satisfaction
- Supplier performance
- Achievement of objectives / goals
- Financial results

13.2. *Monitoring and Measurement of Product:* Incoming product is held in a separate area until it is verified against specified requirements. The frequency, detail, and nature of inspection are determined by the amount of control exercised at the supplier's premises. All products maintain identification of conformance or non-conformance. This identification may be in the form of product travelers, test stamps, and/or a serial number tracked through test and defect-tracking databases. Identification ensures that only conforming products are used / installed. The identity of the person authorizing release of product is traced through test stamps, database login profiles, and / or signature. Final Inspection and testing of products is in accordance with documented test procedures to verify that testing has been completed and the results meet requirements. (241-0103-00, 241-0206-00, 241-0119-00)

13.3. *Control of Monitoring and Measuring Devices:* All measurement equipment is subject to systematic calibration checks at appropriate intervals to verify conformity with specified accuracy limits. Calibration of all equipment is completed by certified calibration agencies. Calibration certificates and records are maintained as quality records. All test and measurement equipment is identified with a "**Calibration Date**", a "**No Calibration Required**", or "**Maintenance Due dd/mm/yy**" sticker. (241-0302-00)

13.4. *Analysis of Data:* Data is collected to monitor process and product quality, to resolve problems, and to identify opportunities for improvement. Pertinent process, product (functional test yields and field reliability), and customer data is collected, analyzed evaluated to track trends and implement quality improvements. Reviews are conducted with suppliers, Operations management, and in management reviews. (241-0126-00)

13.5. *Internal Audit:* The Quality Department has the authority and responsibility for coordinating audit-related activities associated with the QMS / EMS. Audits are set at regular intervals to ensure all aspects of the QMS / EMS are reviewed. The frequency of the audits is based on the results of previous audits and the significance of individual system activities. The minimum audit cycle is once per year.

13.6. *Audit Results:* Findings and observations from internal or external audits are reviewed by person(s) responsible for the area audited. Discussion includes an investigation for corrective action or continual improvement suggestions. A summary of internal and external audit activities (results, findings, observations, improvements) is reviewed as part of the Quarterly Business Review. (241-0117-00)

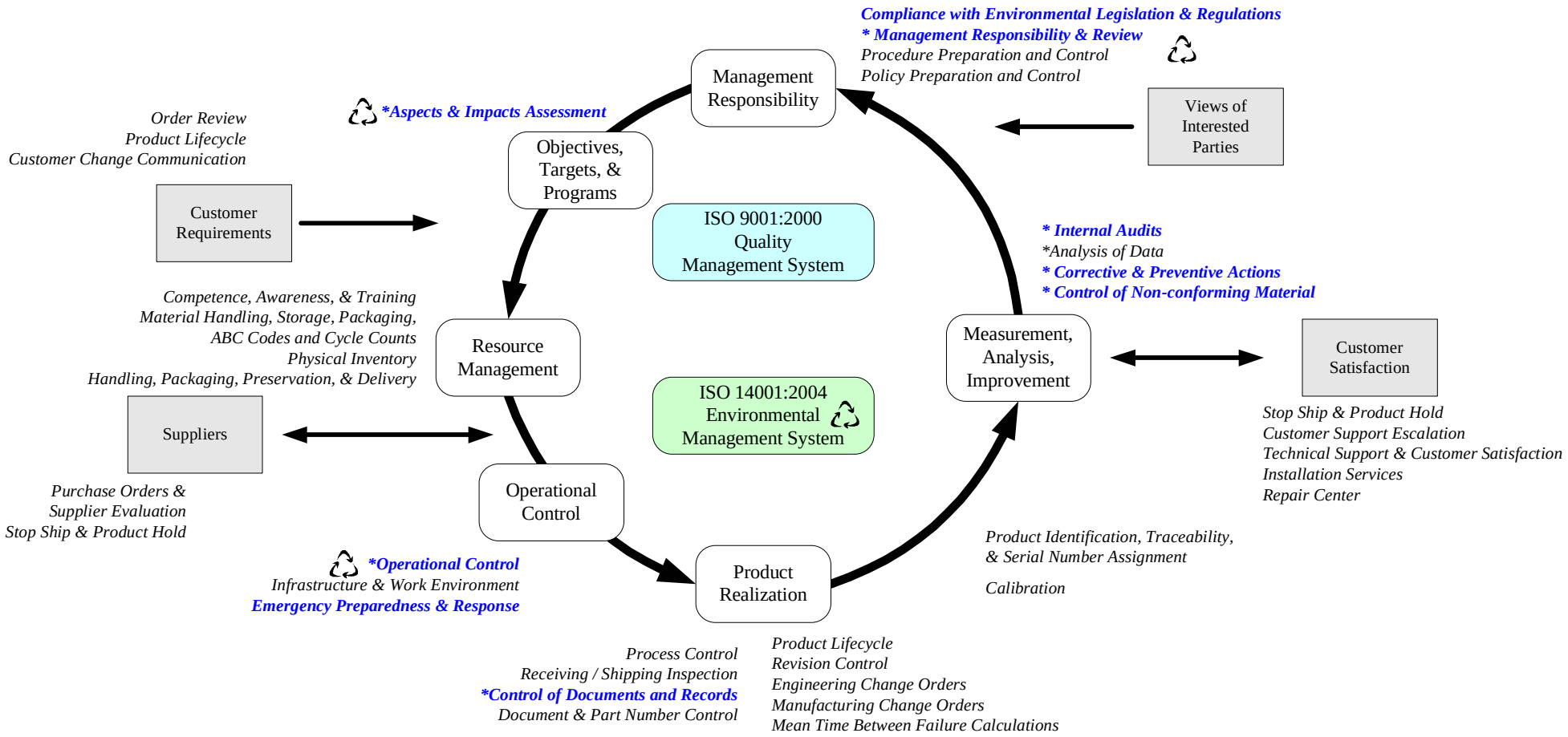
14.0 Continual Improvement

14.1. *Improvement:* In order to maintain continual improvement of the business, there is collective feedback of results. Additionally, individuals within the organization jointly identify goals and create plans to achieve those goals.

14.2. *Corrective Action:* Processes, inspection and test reports, supplier suggestions, internal and external audit reports, field service reports, and customer feedback are reviewed for possible corrective actions. Corrective action requests are documented in Agile and reviewed by Quality Assurance. As appropriate, corrective action is taken to prevent recurrence of non-conformances. (241-0108-00)

14.3. *Preventive Action:* All employees have authority to identify potential non-conformities and to initiate preventive action. Preventive actions may result from daily operations, internal or external audits, supplier suggestions, or customer feedback. Preventive actions requests are reviewed for a risk-benefit assessment. As appropriate, preventive action is taken to address potential problems, customer issues, or EMS failures. (241-0108-00)

Ditech Communications Corporation
Quality & Environmental Management System
Process Model



DITECH COMMUNICATIONS

Index of ISO 9001:2000 Elements & Ditech Procedures

Procedure #	Procedure Title	9001:2000	ISO Section Title
240-0000-01	Integrated QMS / EMS Manual	4.1, 4.2.1, 4.2.2 5.1 – 5.5 6.1	Quality Management System Mngmnt Commit / Customer Focus / Planning Provision of Resources
241-0101-00	Management Responsibility & Review	5.1, - 5.6 8.5.1	Management Responsibility Continual Improvement
241-0102-00	Procedure Preparation & Control	4.2.3	Control of Documents
241-0103-00	Shipping / Receiving Inspection	7.4.3	Verification of Purchased Product
241-0104-00	Control of Documents & Records	4.2.3 4.2.4	Control of Documents Control of Records
241-0105-00	Document & Part Number Control	4.2.3	Control of Documents
241-0108-00	Corrective & Preventive Action	8.5 / 8.5.1 8.5.2 / 8.5.3	Continual Improvement Corrective Action / Preventive Action
241-0110-00	Control of Non-conforming Material	8.3	Control of Non-Conforming Product
241-0114-00	Stop Ship & Product Hold	7.4.3 8.3	Verification of Purchased Product Control of Non-conforming Product
241-0117-00	Internal Audits	8.2.2 8.2.3 / 8.2.4	Internal Audits Monitoring & Measurement of Process / Product
241-0118-00	Competence, Awareness & Training (*Training Records)*	6.2 6.2.1, 6.2.2	Resource Management Human Resources
241-0119-00	Process Control	7.5 8.2.3	Production & Service Provision Monitoring & Measurement of Product
241-0126-00	Analysis of Data	8.4	Analysis of Data
241-0201-00	Purchasing – Purchase Orders & Supplier Evaluations	7.4 7.4.1, 7.4.2	Purchasing
241-0202-00	ABC Codes and Cycle Counts	7.5.5	Preservation of Product
241-0203-00	Material Handling, Storage, Packaging, Preservation, & Delivery	7.5.5	Preservation of Product
241-0204-00	Infrastructure & Work Environment *(ESD-Control, Grounding, Laser Safety)*	6.3 6.4	Infrastructure Work Environment
241-0205-00	Physical Inventory	7.5.5	Preservation of Product
241-0206-00	Product Identification Traceability, & Serial Number Assignment	7.5.3	Identification & Traceability
241-0301-00	Product Lifecycle	7.1 , 7.2.1 , 7.2.2 7.3 7.3.1 – 7.3.7	Planning of Product Realization Design & Development *Inputs, Outputs,. Reviews, Verify, Changes*
241-0302-00	Calibration & Preventive Maintenance	7.6	Control of Monitoring & Measuring Devices
241-0305-00 241-0305-01	Revision Control Engineering Change Orders (ECRs / ECOs)	7.3.7	Control of Design & Development Changes
241-0306-00	Deviations & TVAs	7.3.7	Control of Design & Development Changes
241-0307-00	Manufacturing Change Orders (MCOs)	7.3.7	Control of Design & Development Changes
241-0312-00	MTBF Calculations	7.3.1	Design & Development Planning
241-0401-00	Order Review	7.2	Customer-related Processes
241-0402-00 241-0402-01	Customer Service Escalation Technical Support & Customer Satisfaction	7.2.3 7.2.3 / 8.2.1	Customer Communication
241-0403-00	Repair Center	7.5.4	Customer Property
241-0404-00 241-0405-00	Installation Services Customer Change Communication	7.2	Customer Related Processes

DITECH COMMUNICATIONS

Index of ISO 9001:2000 Elements & Ditech Procedures

9001:2000	ISO Section Title	Procedure #	Procedure Title
4	***Quality Management System***		
4.1 4.2	General Requirements Documentation Requirements	240-0000-01	Integrated QMS / EMS Manual (8.0)
4.2.2 4.2.3 4.2.4	Quality Manual Control of Documents Control of Records	240-0000-01 241-0102-00 241-0105-00 241-0104-00	Integrated QMS / EMS Manual Procedure Preparation & Control Document & Part Number Control Control of Documents & Records
5	***Management Responsibility***		
5.1	Management Commitment	240-0000-01	Integrated QMS / EMS Manual (6.0)
5.2	Customer Focus	240-0000-01	Integrated QMS / EMS Manual (9.0)
5.3	Quality Policy	240-0000-01	Integrated QMS / EMS Manual (5.2)
5.4	Planning	240-0000-01	Integrated QMS / EMS Manual (7.0)
5.5	Responsibility, Authority, & Communication	240-0000-01	Integrated QMS / EMS Manual (2.0)
5.6	Management Review	241-0101-00	Management Responsibility & Review
6	***Resource Management***		
6.1	Provision of Resources	240-0000-01	Integrated QMS / EMS Manual (7.0)
6.2	Human Resources	241-0118-00	Competence, Awareness, & Training
6.3 / 6.4	Infrastructure / Work Environment	241-0204-00	Infrastructure & Work Environment
7	***Product Realization***		
7.1	Planning of Product Realizations	241-0301-00	Design & Development
7.2	Customer Related Processes	241-0401-00 241-0404-00 241-0405-00	Order Review Installation Services Customer Change Communication
7.2.1 7.2.2	Determination of Requirements Review of Requirements	241-0301-00	Product Lifecycle
7.2.3	Customer Communication	241-0402-00 241-0402-01	Customer Service Escalation Technical Support & Customer Satisfaction
7.3 7.3.1 – 7.3.7	Design & Development	241-0301-00	Product Lifecycle
7.3.1	Design & Development Planning	241-0301-00 241-0312-00	Product Lifecycle MTBF Calculations
7.3.7	Control of Design & Development Changes	241-0305-00 241-0305-01 241-0306-00 241-0307-00	Revision Control Engineering Change Orders (ECRs / ECOs) Deviations & Temporary Variance Authorizations Manufacturing Change Orders (MCOs)
7.4 7.4.1, 7.4.2	Purchasing Purchasing Process / Information	241-0201-00	Purchase Orders & Supplier Evaluations
7.4.3	Verification of Purchased Product	241-0103-00 241-0114-00	Shipping / Receiving Inspection Stop Ship & Product Hold
7.5	Production & Service Provision	241-0119-00	Process Control
7.5.3	Identification & Traceability	241-0206-00	Product Identification Traceability, & Serial Number Assignment
7.5.4	Customer Property	241-0403-00	Repair Center
7.5.5	Preservation of Product	241-0202-00 241-0203-00	ABC Codes and Cycle Counts Mat'l Handling, Storage, Pkg, Preserv. & Deliv.
7.6	Control of Monitoring & Measuring Devices	241-0302-00	Calibration & Preventive Maintenance
8	***Measurement, Analysis, & Improvement***		
8.2.1	Customer Satisfaction	241-0402-01	Technical Support & Customer Satisfaction
8.2.2	Internal Audits	241-0117-00	Internal Audits
8.2.3	Monitoring & Measurement of Product	241-0119-00	Process Control
8.2.4	Monitoring & Measurement of Process	241-0117-00	Internal Audits
8.3	Control of Non-Conforming Product	241-0110-00 241-0114-00	Control of Non-conforming Material Stop Ship & Product Hold
8.4	Analysis of Data	241-0126-00	Analysis of Data
8.5 8.5.1 8.5.2 / 8.5.3	Improvement Continual Improvement Corrective Action / Preventive Action	241-0101-00 241-0108-00	Management Review Corrective & Preventive Action

DITECH COMMUNICATIONS

Index of ISO 14001:2004 Elements & Ditech Procedures

Procedure #	Procedure Title	14001:2004	ISO Section Title
241-0101-00	Management Review	4.4.1 4.6	Resources, Roles, Responsibility, & Authority Management Review
241-0104-00	Control of Documents & Records	4.4.4 4.4.5 4.5.4	Documentation Control of Documents Records
241-0105-00	Document & Part Number Control	4.4.4 4.4.5	Documentation Control of Documents
241-0126-00	Analysis of Data	4.5.1	Monitoring & Measurement
241-0108-00	Corrective & Preventive Action	4..5.3	Nonconformity, Corrective & Preventive Actions
241-0117-00	Internal Audits	4.5.5	Internal Audits
241-0118-00	Training, Awareness, & Competence	4.4.2	Competence, Training, & Awareness
240-0000-01	Integrated QMS / EMS Manual	4.1 4.2 4.3.2 4.4.1	General Requirements Environmental Policy Legal & Other Requirements Resources, Roles, Responsbility, & Authority
241-0602-00	Operational Control	4.3.3 4.4.3 4.4.6	Objectives, Targets, & Programs Communication Operational Control
241-0603-00	Aspects & Impacts	4.3.3	Objectives, Targets, & Programs
241-0604-00	Emergency Preparedness & Response	4.4.7	Emergency Preparedness & Response
241-0605-00	Compliance with Legislation & Regulations	4.5.2	Evaluation of Compliance

DITECH COMMUNICATIONS

Index of ISO 14001:2004 Elements & Ditech Procedures

14001:2004	ISO Section Title	Procedure #	Procedure Title
4	***Environmental Management System Requirements***		
4.1	General Requirements	240-0000-01	Integrated QMS / EMS Manual (5.0)
4.2	Environmental Policy	240-0000-01	Integrated QMS / EMS Manual (5.4)
4.3	***Planning***		
4.3.1	Environmental Aspects	241-0603-00	Aspects & Impacts
4.3.2	Legal & Other Requirements	240-0000-01 241-0605-00	Integrated QMS / EMS Manual (7.2) Compliance with Legislation and & Regulations
4.3.3	Objectives, Targets, & Programs	241-0602-00 241-0603-00	Operational Control Aspects & Impacts
4.4	***Implementation & Operation***		
4.4.1	Resources, Roles, Responsibility & Authority	240-0000-01 241-0101-00	Integrated QMS / EMS Manual (2.0) Management Review & Responsibility
4.4.2	Competence, Training, & Awareness	241-0118-00	Training, Awareness, & Competence
4.4.3	Communication	241-0602-00	Operational Control
4.4.4	Documentation	241-0104-00	Control of Documents & Records
4.4.5	Control of Documents	241-0105-00 241-0104-00	Document & Part Number Control Control of Documents & Records
4..4.6	Operational Control	241-0602-00	Operational Control
4.4.7	Emergency Preparedness & Response	241-0604-00	Emergency Preparedness & Response
4.5	***Checking***		
4.5.1	Monitoring & Measurement	241-0126-00	Analysis of Data
4.5.2	Evaluation of Compliance	241-0605-00	Compliance with Legislation & Regulations
4.5.3	Nonconformity, Corrective & Preventive Actions	241-0108-00	Corrective & Preventive Actions
4.5.4	Records	241-0104-00	Control of Documents & Records
4.5.5	Internal Audits	241-0117-00	Internal Audits
4.6	***Management Review***		
4.6	Management Review	241-0101-00	Management Review

UNDERWRITERS LABORATORIES INC.

CERTIFICATE OF REGISTRATION

ISO 9000

DITECH COMMUNICATIONS CORPORATION

825 E. Middlefield Rd.
Mountain View, CA 94043

Underwriters Laboratories Inc.® (UL) issues this certificate to the Firm named above, after assessing the Firm's quality system and finding it in compliance with

ISO 9001:2000

EN ISO 9001:2000; BS EN ISO 9001:2000; ANSI/ASQ Q9001:2000

for the following scope of registration

3663 (US) : Radio and Television Broadcasting and Communications Equipment

The design, manufacture and marketing of Telecommunications Equipment for Voice and Data Networks.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organization.

This quality system registration is included in UL's Directory of Registered Firms and applies to the provision of goods and/or services as specified in the scope of registration from the address(es) shown above. By issuance of this certificate the firm represents that it will maintain its registration in accordance with the applicable requirements. This certificate is not transferable and remains the property of Underwriters Laboratories Inc. ®.

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S. Joe Bhatia
Executive Vice President and
Chief Operating Officer – International

ANSI-RAB QMS ACCREDITED

UL® REGISTERED FIRM

UNDERWRITERS LABORATORIES INC.

ENVIRONMENTAL MANAGEMENT SYSTEM REGISTRATION

ISO 14001

Ditech Communications Corporation

825 East Middlefield Road
Mountain View, CA 94043

Underwriters Laboratories Inc.® (UL) issues this certificate to the Firm named above, after assessing the Firm's environmental management system and finding it in compliance with

ISO 14001:1996

ENVIRONMENTAL MANAGEMENT SYSTEM

for the following scope of registration

The environmental management system of Ditech Communications Corporation associated with the design, manufacture and marketing of telecommunications equipment for voice and data networks at Mountain View, CA, U.S.A.

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