

QUALITY FORUM: 'GETTING SMARTER' ABOUT QUALITY

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Tony Woods
John Urquhart
Stephen Boyd
Megan McNiven
Greg Hoy

Office of Technical Services, Griffith University, Brisbane, Queensland

(T.Woods@griffith.edu.au)

Abstract

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The Office of Technical Services (OTS) is a central support element within Griffith University whose mission is to provide high quality technical and scientific support to the University's teaching and research endeavours. OTS has recently developed and implemented a Quality Management System that provides a framework for monitoring and improving its overall organisational performance and capabilities. It also serves to demonstrate to clients and stakeholders across the five campuses of the University and externally that OTS is committed to best practice and continuous improvement in all its activities.

This Quality Forum will share with the audience how OTS set about developing and implementing a comprehensive and robust quality system applicable to scientific and technical support areas, regardless of the academic discipline. It will involve a brief overview of the current focus on quality in Australian universities, such as the Australian Quality Agency audit process, followed by details of the OTS Quality Management System and how it is being implemented. Internal benchmarking of OTS operations at campus level will be described briefly, and OTS staff supporting the Arts and Sciences areas will provide examples of practice improvements in calibration and profiling of digital imaging systems, and in the implementation of a PC2 (Physical Containment Level 2) checklist to meet the regulations of the Office of the Gene Technology Regulator (OGTR). Forum participants will then be invited to share their experiences, in particular with examples of best practice from their own Universities.

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Introduction

This session of TechTrain 2004 is being conducted in a forum/workshop format, rather than as a traditional conference presentation. As a result, this paper does not attempt to cover the full content of the forum. Instead, in order to provide some background to the forum's central theme, it takes the form of an extract from the overview document produced by the Office of Technical Services (OTS) at Griffith University that describes the development and implementation of its Quality Management System (QMS). Some examples of benchmarking implementation and improvements in practices that have incorporated QMS procedures are also described briefly.

The Office of Technical Services

The Office of Technical Services (OTS) is a central support element within Griffith University. Our role is to provide high quality technical and scientific support to the University's teaching

and research endeavours. With over one hundred staff, we operate across all campuses of the University in the rapidly growing Brisbane – Gold Coast corridor.

Our principal function is the provision of approved technical support to an extremely wide range of laboratory, studio and field-based teaching and research activities. These span disciplines as diverse as arts, education, engineering, nursing, multimedia, environmental sciences, physical and biological sciences, and health and medical sciences.

OTS also provides a range of other client services to the Griffith University community. These include manufacturing and maintaining equipment in our engineering and electronics workshops; operating technical and scientific stores and a number of specialist facilities; planning and managing building space; and providing health and safety advice and direction in areas such as laser safety, biological safety, chemical safety and radiation safety.

While managed centrally, our staff are located in close proximity to the areas they support, ensuring a fast and professional response to student and academic staff needs. Our staff report to Campus or Technical Managers, who report to our Director, who in turn reports to the Pro Vice Chancellor (Administration).

Why **OTS** developed a Quality Management System

There is a strong and increasing national and international focus on quality, particularly within industry and government. Within the university sector, this focus is evidenced by the formation of the Australian Universities Quality Agency (AUQA), with its charter to conduct quality audits of all Australian universities. For its part, Griffith University is committed to a culture of quality, innovation and responsiveness, and of review and improvement.

At the functional level, the primary goal of any service element or unit such as OTS should be to deliver an effective high-quality service to its clients and stakeholders. The OTS Mission, Vision and Goals statements reflect our commitment to providing client services of the highest quality, and our staff are strongly committed to providing an excellent level of service to all our clients - the students, Schools and teaching and research staff that we serve.

In view of this already strong commitment, one might ask why it is necessary to introduce a quality management system. However, it is very important to be able to back up such a commitment with a system **which can provide assurance** to our clients and stakeholders, as well as to senior management of the University, that we have procedures in place to encourage and implement best practice and continuous improvement in all of our operations and activities.

The **OTS Quality Management System** is aimed at providing this assurance.

Considerations in developing our system

In developing our **QMS**, we were very conscious of the need to strike an acceptable balance between ensuring that the system is on the one hand comprehensive and rigorous and incorporates the essential features of internationally-accepted quality standards, while on the other hand is as unobtrusive as possible in its implementation and operation, so as to **impose a minimum of additional bureaucracy on** OTS staff.

Furthermore, the system should encourage and engender a quality culture within OTS, and give our staff a strong sense of ownership.

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It should also provide tangible benefits to our staff, both through the sense of pride and satisfaction that comes from providing a high quality service, and by way of providing a readily-accessible and easy to follow reference source of hints and suggestions on best practice in a range of activities.

Finally, we felt it very important that the system should not be seen as a separately imposed stand-alone system. Rather, it should be embedded into all of our operations, and form an integral part of all that we do.

Alignment with quality standards

Extensive review was undertaken to ensure that our QMS aligns with and incorporates the essential features and requirements of the ISO 9001:2000 and ISO 9004:2000 international quality standards.

Guidance was also provided by the following documents:

- HB 90.7-2000 (Education and Training Guide to ISO 9001:2000)
- Australian Business Excellence Framework

We believe that by developing our Quality Management System to align broadly with these standards, it has sufficient procedural checks and balances for improving and maintaining quality without the need for formal external accreditation. Our view is that the nature of OTS operations is such that formal accreditation would impose significant additional administrative burdens on our staff without a corresponding increase in benefit.

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OTS Quality Management System and Quality Handbook

The OTS QMS was designed to provide comprehensive coverage of the major aspects of OTS management and operational procedures. It is arranged into discrete self-contained sections which correspond broadly to appropriate sections of ISO 9001:2000 and ISO 9004:2000, as detailed in Attachment 1. These sections are contained in the OTS Quality Handbook, which therefore forms the central reference source for all material relating to the functioning of the QMS.

The Handbook has also been designed so that OTS staff can use it as a reference source book to give them guidance on procedures to follow in a range of activities they encounter in the course of their work.

The various sections of the QMS as covered in the Quality Handbook include:

- **Internal planning and management processes** – a description of the procedures used by OTS to facilitate effective planning, management, supervision and internal communication at all levels of OTS operations
- **Working with our clients and stakeholders**– procedures to ensure that regular and effective client interaction and feedback is undertaken by all levels of OTS staff in relation to provision of OTS services
- **Introducing or changing a service** – procedures for development of new or changed OTS services, and for effectively monitoring and reviewing the implementation and operation of these and existing services

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In our case, all aspects of the OTS Quality Management System (QMS) are encapsulated within
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- **Process improvements – sharing best practice** – procedures to encourage the sharing of best practice amongst OTS staff and to engender an ongoing quality culture within and across its operations
- **Preventing and correcting operational problems** – procedures for identifying, preventing and correcting service delivery problems and for dealing with client complaints
- **Keeping track of documents** – standardised naming and version numbering protocols for all formal OTS documents, as well as procedures for their approval, review and updating
- **Guidelines for developing policies and procedures** – guidelines and checklists to help OTS staff who may be required to develop new OTS procedures or policies
- **Benchmarking and self-assessment** - a comprehensive set of technical services benchmarks covering all facets of university technical support, developed in consultation with over twenty Australian universities
- **Training and development** – procedures to monitor and update the skills of OTS staff
- **Risk management** - procedures to regularly review the risks to which OTS is exposed and to feed the review results into strategic and operational planning activities
- **Internal audits** - procedures to monitor and check satisfactory implementation and operation of the various sections of the QMS
- **Annual review** – procedures to ensure that all facets of the QMS and OTS' overall planning and management systems are reviewed and updated annually

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An appendix to the Quality Handbook also provides the main repository of all formally-approved OTS policies and procedures. Maintaining them in the Handbook provides a centralised location and serves to reinforce the fact that they are part of the quality system, should be developed and updated according to consistent quality guidelines, and are subject to annual review and updating as part of the QMS.

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The current versions of the various sections of the Quality Handbook are located on the OTS website at www.griffith.edu.au/ots. Keeping the Handbook on the website allows any OTS staff member to quickly locate and view sections of interest and to print off the desired portion of the latest version. Using the website also overcomes the previous difficulty of keeping numerous hard-copy versions of such manuals in various diverse physical locations and not knowing whether they contained the latest updates or versions of documents.

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Integrating quality processes into OTS planning, management and operational arrangements

The way in which the quality-related activities are integrated into OTS's overall operations is shown in [Figure 1](#), and described below:

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Service delivery

The base of the diagram shows the service provision interface between OTS staff and our clients. At this interface there are QMS procedures for developing new services, for dealing with non-conformance issues, and for recording process improvements. These procedures are actioned through regular local work team/supervisor/manager meetings. Working up the diagram, it will be seen how consolidated outcomes from these quality procedures from across all of OTS' operations are then fed into the annual review of the QMS. This in turn provides input to the Annual Strategic Outlook Workshop conducted by the OTS Director and senior managers group.

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Strategic Outlook Workshop

The annual Strategic Outlook Workshop is the first stage of the annual OTS planning cycle. It considers the OTS and University operating context and circumstances at that time, and OTS performance over the past year against its Key Performance Indicators. Key University documents including the University's current Strategic Plan are discussed. It also examines the effectiveness of OTS's management structure and operations, considers a report on the annual review of the QMS, and usually includes a SWOT analysis. From all these, a range of issues may be identified as well as strategies to deal with them. The workshop outcomes also provide the essential baseline contextual operating information necessary for OTS' business planning process.

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Planning and budget cycle

The annual Strategic Outlook Workshop is followed by development of the OTS Business / Operational Plan which involves extensive consultation with OTS clients and stakeholders. Once outcomes from the University's budget process are known, OTS develops its Implementation Plan for that year and regularly reviews progress with its implementation.

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Benchmarking

Every two years, OTS conducts an internal benchmarking exercise to provide additional information on the effectiveness of its operations, for input to the Strategic Outlook Workshop.

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In addition to its primary role of housing all sections of the QMS, the Quality Handbook through its appendix also provides the main repository of all formal OTS policies and procedures. Maintaining them in the Handbook not only provides a centralised location, but it serves to reinforce the fact that they are part of the quality system, should be developed and updated according to consistent quality guidelines, and are subject to annual review and updating as part of the QMS. ¶

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External review

Every five years, OTS compiles a comprehensive "self-assessment report" as the baseline input to an external review of its operations. In developing this report, OTS management draws heavily on the outcomes of that year's review of the QMS, the Strategic Outlook Workshop, results of internal and external benchmarking projects, and the OTS Operational Plan.

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Quality Reference Group

To assist in developing and maintaining a strong focus on quality within OTS, the Director of OTS has established a Quality Reference Group (QRG), chaired by a senior manager and with representative membership drawn from across OTS, and externally. The QRG undertakes a range of quality initiatives, including client satisfaction surveys and special projects supported through the Griffith University Quality Grant scheme. The QRG plays an important role in various phases of implementing and maintaining the QMS across OTS.

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Implementation of the QMS

Although the QMS is a large and comprehensive system that may at first glance appear daunting to those unfamiliar with it, in reality much of it reflects best practice procedures that are in large measure already used in one form or another. A major objective in implementing the remaining new or modified procedures has been to do so as seamlessly as possible so as to impose a minimum of additional paperwork on OTS staff. It has involved the following stages:

- Initial briefings/presentations to OTS staff on all campuses during regular staff meetings on the overall objectives and structure of the system
- Briefing sessions for managers and supervisors on details of the various procedures and forms associated with the QMS. This gives them a better understanding of the overall working of the system and the sections of direct relevance to them, and the opportunity to comment and suggest improvements prior to its implementation at individual work team level. Importantly, it also allows them to gain better ownership of the system.
- Discussion and introduction of specific QMS procedures and forms at individual work team level, involving the supervisor and all team members in practical worked examples relevant to each team's situation.
- Inclusion of quality-related objectives into the performance objectives of individual staff.
- Spot audits of selected sections of the QMS six months after implementation to check on uptake and to identify any issues or stumbling blocks to implementation.
- Incorporation of these findings as part of the Annual Review of the QMS.

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Examples of Adoption of the QMS

Three examples reflecting aspects of the QMS that have been recently utilised within OTS are as follows:

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- A comprehensive internal benchmarking exercise was undertaken across OTS as part of its QMS procedures. The outcomes have been examined and action plans developed at campus level to ensure that any issues identified are followed up in a systematic way as part of continuous improvement practice.
- The Office of the Gene Technology Regulator has recently changed the content of its laboratory inspection requirements, imposing additional demands on laboratory users and inspectors. In implementing these requirements within the University, OTS bio-safety staff have adopted a number of QMS procedures, including those relating to introduction of changed services, client interaction and feedback, and document tracking.
- Following the installation of new equipment in the form of an Epson 7600 Pro digital inkjet printer for high quality photographic printing, improved calibration and profiling techniques have been developed for the printer and related digital imaging systems to achieve and maintain international industry and professional quality standards. Relevant QMS sections include benchmarking and the prevention and correction of operational problems.

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Conclusion

This paper has described the development and implementation by the Office of Technical Services at Griffith University of a Quality Management System, framed to cover the major elements of the ISO 9001:2000 and ISO 9004:2000 international quality standards, and intended to promote and encourage a quality ethos and best practice on the part of its staff to underpin all its activities and operations.

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Attachment 1

Correspondence between sections of the OTS Quality Handbook and International Quality Standards ISO 9001:2000 and ISO 9004:2000

Section no	Section title	Corresponding sections of ISO 9001:2000	Additional coverage of ISO 9004:2000
1	Overview of the OTS quality management system	4.1; 4.2.1; 4.2.2	
2	Our quality policy	4.2.1a; 5.1; 5.3	5.4.1
3	OTS's role and structure	5.5.1	
4	Staff roles in the QMS	5.1; 5.4.1; 5.5.1; 5.5.2	
5	Internal planning and management processes	5.5.3; 5.6; 6	4.3; 5.1; 5.4; 5.5; 5.6; 8.2.1.5
6	Working with our clients and stakeholders	5.2; 7.2; 8.2.1	5.2.3
7	Introducing or changing a service	6.3; 7.1; 7.3; 7.5; 7.6; 8.1; 8.2; 8.3; 8.5	
8	Process improvements – sharing best practice	7; 8.2; 8.5	5.6; 8.5.4
9	Preventing and correcting operational problems	8.3; 8.4; 8.5.2	
10	Handling complaints	5.2; 7.2.3; 8.5.2	
11	Keeping track of documents	4.2.3; 4.2.4	
12	Guidelines for developing procedures or policies, and related documents	4.2.1c; 4.2.1d; 7.5	
13	Benchmarking & self-assessment	8.2.4	8.2.1.5
14	Training and development	6.2.2	
15	Managing risks	8.3; 8.5.2; 8.5.3	7.1.3.3
16	Internal audits - checking our QMS	8.2.2	
17	Annual review	5.6; 7.3.7; 8.2.3; 8.2.4; 8.5	5.6; 8.2.1.5
Appendix 1	Policies, procedures and related documents library	4.2.1c; 4.2.1d; 7.5	

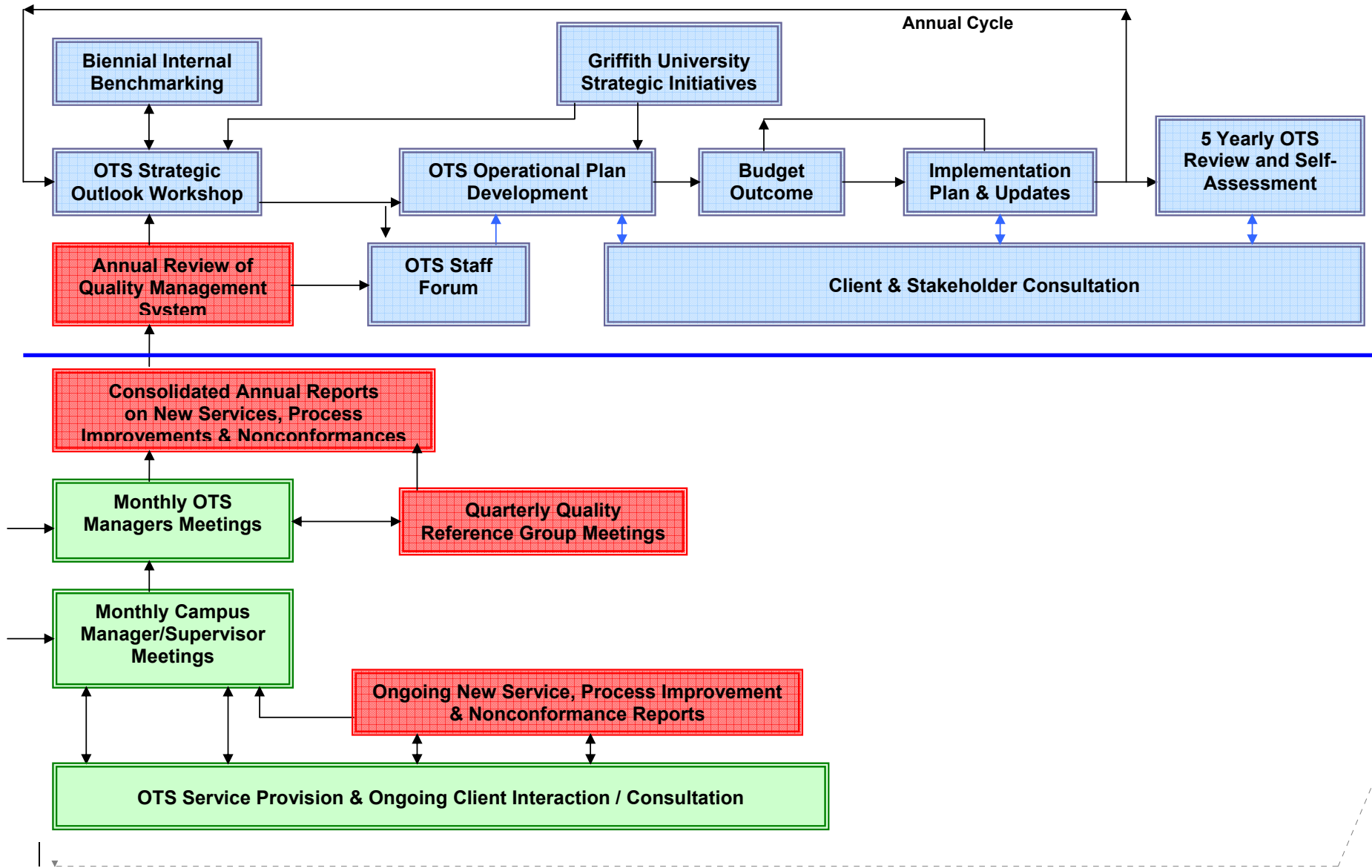
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Figure 1

Integrated OTS Planning, Management and Quality System



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OTS policies and procedures

In addition to its primary role of housing all sections of the QMS, the Quality Handbook through its appendix also provides the main repository of all formal OTS policies and procedures. Maintaining them in the Handbook not only provides a centralised location, but it serves to reinforce the fact that they are part of the quality system, should be developed and updated according to consistent quality guidelines, and are subject to annual review and updating as part of the QMS.

The policies and procedures are arranged under a series of headings to reflect major areas of OTS activity or responsibility.

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Location of the OTS Quality Handbook

The current versions of various sections of the Quality Handbook have been located on the internal OTS website. Keeping the Handbook on the website allows any OTS staff member to quickly locate and view its various sections and to print off the desired portion of the latest version. Using the website also overcomes the previous difficulty of keeping numerous hard-copy versions of such manuals in various diverse physical locations and not knowing whether they contained the latest updates or versions of documents.

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