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Secretariat, ISO/IEC JTC 1, American National Standards Institute, 25 West 43rd Street, New York, NY 10036; Telephone: 1 212 642 4932; Facsimile: 1 212 840 2298; Email: lrajchel@ansi.org

BUSINESS PLAN FOR JTC 1/SC32: 2007-2008

PERIOD COVERED:

September 2007 through May 2008 with Chairman's remarks to September 2008

The Business Plan was approved by the SC 32 plenary meeting in Sydney on 2008-05-30 (SC 32N1737a Sydney Resolutions).

SUBMITTED BY:

Bruce Bargmeyer — ISO/IEC JTC 1/SC 32 Chairman

1.0 MANAGEMENT SUMMARY

1. 1 CHAIRMAN'S REMARKS

SC 32 participants are progressing a wide range of projects as shown below. These projects are to develop standards that range from revisions of relatively mature technologies to new standards for emerging technologies. Participants include major vendors, academics, and users, including government agencies. Contributions are received from North America, Asia, Australia, and Europe—a resource that is beneficial to the quantity and quality of the standards. These strengths stand against substantial risks of shifting priorities and support within participating organizations as well as competition from other standards development organizations.

SC 32 WG 1 is continuing e-Business standards development work based on the Open-edi reference model. This work is in close liaison with UN/CEFACT and ITU-T under the auspices of the MoU concerning standardization in the field of electronic business.

SC 32 WG 2 has released a CD ballot for the core part of the third edition of ISO/IEC 11179 - Metadata Registries (MDR). This substantially extends metadata registry capabilities to register and manage semantics. Substantial efforts are being made to align these standards within SC 32 and between WG 2 and OMG, W3C and OASIS through a series of liaison and informal meetings. These standards are intended to lead the development of emerging technologies in these areas rather than to consolidate current industry practice. In addition to the standards specifications, prototype systems are being built to confirm the validity of the standards specifications.

SC 32 WG 3 has completed a substantial revision to all nine parts of ISO/IEC 9075 "Database Languages – SQL". Among the new capabilities in ISO/IEC 9075:2008 is support for the new W3C XQuery Update facility. WG 3 is currently working on adding additional capabilities to the SQL standards.

1.2 JTC 1 SC32 STATEMENT OF SCOPE

JTC 1/ SC 32

Title: Data Management and Interchange

Area of Work: Standards for data management within and among local and distributed information systems environments. SC 32 provides enabling technologies to promote harmonization data management facilities across sector-specific areas. Specifically, SC 32 standards include:

1. reference models and frameworks for the coordination of existing and emerging standards;
2. definition of data domains, data types and data structures, and their associated semantics;
3. languages, services and protocols for persistent storage, concurrent access, concurrent update and interchange of data;
4. methods, languages, services and protocols to structure, organize and register metadata and other information resources associated with sharing and interoperability, including electronic commerce.

JTC 1/ SC 32/WG 1

Title: e-Business

Area of Work: Standardization in the field of generic information technology standards for open electronic data interchange needed to attain global interoperability among the information technology systems used by organizations. Such interoperability is viewed from both business and information technology perspectives.

Within this context the scope includes:

1. establishment of methodology and framework for identification and modelling of business activities through business scenarios and their components, such as roles, information bundles, and semantic components;
2. identification and specification of formal description techniques for describing classes of business requirements and their contextual and semantic specifications;
3. identification and specification of formal description techniques for developing business scenarios and their components;
4. identification and specification of information technology services and service interfaces for accomplishing business transactions;
5 . identification and specification of facilities to manage business scenarios and their components.

Note: Priority is on work required to support the needs of electronic commerce, electronic administration, electronic business, etc. The basis of work is the Open-EDI Reference Model (ISO/IEC 14662).

JTC 1/ SC 32/WG 2

Title: Metadata

Area of Work: The development and maintenance of standards that facilitate specification and management of metadata, metamodels and ontologies. Use of these standards will enhance the understanding and sharing of data, information and processes to support, for example, interoperability, electronic commerce and model- and service-based development. The scope shall include:

1. establishment of a framework for specifying and managing metadata, matamodels and ontologies;
2. specification and management of metadata, matamodels and ontologies;
3. specification and management of data about processes, services, and behaviour;
4. development of facilities to manage metadata, matamodels and ontologies, including

registries and repositories;

5. development of facilities to exchange metadata, matamodels and ontologies, including semantics, over the Internet, intranets and other media.

JTC 1/ SC 32/WG 3

Title: Database Languages

Area of Work: The terms of reference of ISO/IEC JTC1/SC32/WG3 Database Languages are:

1. develop and maintain languages for the dynamic specification, maintenance and description of database structures and contents in multi-user environments. The specifications may include the data type, behaviour and any integrity constraints on the contents of the defined structures. The specifications may include mechanisms for the creation and generation of new data types and behaviours so as to support the specification of other international standards.
2. provide additional support for the integrity of database systems through transaction commitment, recovery, and security facilities.
3. develop and maintain languages which provide for the storage, access and manipulation of data in database structures by multiple concurrent users. These languages may be computationally complete and may contain features for the packaging and storage of modules and procedures in database structures.
4. provide interfaces for the languages developed to other standard programming languages.
5. provide interfaces or access to other standards describing data types, behaviour or database content to users of the languages developed.

JTC 1/ SC 32/WG 4

Title: SQL Multimedia & Application Packages

Area of Work: Specification of packages of abstract data types for use in various application areas. Specify each package of abstract data type definitions using the facilities for user-defined type provided in the Database Language SQL/Foundation. This should include packages such as Full-Text, Spatial, Still Image, Still Graphic, Animation, Full Motion Video, Audio, Seismic, and Music.

1.3 PROJECT REPORT

http://jtc1sc32.org

1.4 CO-OPERATION AND COMPETITION

A complete listing of SC 32 liaisons is listed in the following tables. SC 32 is continually re-evaluating its liaisons and assessing areas of internal and external cooperation and competition. SC 32 has requested JTC 1 to remove the liaisons that have not expressed an interest in the work of SC 32.

Internal Liaison Membership

IEC B3 JWG 15	Design Automation

ISO/IEC JTC 1/SC 2	Coded character sets
ISO/IEC JTC 1/SC 6	Telecommunications and information exchange between systems
ISO/IEC JTC 1/SC 7	Systems Engineering -ODP & Modelling Languages
ISO/IEC JTC 1/SC 7/WG 7	Software engineering/Life cycle management
ISO/IEC JTC 1/SC 17	Cards and personal identification
ISO/IEC JTC 1/SC 22	Programming languages
ISO/IEC JTC 1/SC 22/WG 20	Programming languages/Internationalization
ISO/IEC JTC 1/SC 24	Computer Graphics and Image Processing
ISO/IEC JTC 1/SC 27	IT Security Techniques
ISO/IEC JTC 1/SC 31	Automatic identification and data capture techniques
ISO/IEC JTC 1/SC 34	Document Description and Processing Languages
ISO/IEC JTC 1/SC 35	User Interfaces
ISO/IEC JTC 1/SC 36	Information Technology for Learning, Education & Training
ISO/IEC JTC 1/SC 37	Biometrics
ISO/TC 37	Terminology (principles and coordination)
ISO/TC 37/SC 2	Terminology and other language resources - Terminography and Lexicography
ISO/TC 37/SC 3	Terminology/Computer Applications
ISO/TC 37/SC 4	Terminology and other language resources
ISO/TC 46	Information and documentation
ISO/TC 46/SC 4	Information and documentation/Computer applications
ISO/TC 46/SC 11	Archives / Records Management
ISO/TC 46/WG 2	Information and documentation/Coding of country names and related entities
ISO/TC 68/SC 2	Banking, securities and other financial services/ Security management
ISO/TC 127/WG 2	Mobile construction machinery - Work-site data exchange
ISO/TC 154	Documents and data elements in administration, commerce and industry
ISO/TC 184	Industrial automation systems and integration
ISO/TC 184/SC 4	Industrial automation systems and integration/ Industrial data
ISO/TC 204	Transport Information and Control Systems
ISO/TC 211	Geographic information/Geomatics
ISO/TC 215	Healthcare Informatics

External Liaison Membership Category - A

INTELSAT	International Telecommunications Satellite Organization
ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
UN/ECE	UN/Economic Commission for Europe/CEFACT

External Liaison Membership Category - B

CISAC	International Confederation of Societies of Authors and Composers
SWIFT	Society for Worldwide Interbank Financial Telecommunication

WMO	World Metrological Organization

External Liaison Membership Category - C

DCMI	Dublin Core Metadata Initiative
Eurostat	Eurostat
IEEE LTSC	Learning Technology Standards Committee
OECD	Organisation for Economic Co-operation and Development
OGC	Open GIS Consortium
OMG	Object Management Group
W3C	World Wide Web Consortium

2.0 PERIOD REVIEW

Excellent progress has been made in developing SQL, SQL MM, e-Business, Common Logic, Metamodel and Metadata Registry standards. We expect that progress to continue in the future. . A major revision of the SQL standards was completed in June 2008 and planning is in progress for the next revision.

2.1 MARKET REQUIREMENTS

Market requirements for SC 32 standards are driven by the rapid pace of hardware and software advancement as well as by the explosive growth of World Wide Web/Internet/Intranet/Extranet applications and related semantic technologies. These drive a stream of market requirements that are addressed by SC 32 standards for data management and interchange, including metadata management. The data management market continues to grow rapidly.

SC 32 projects respond to an increasing market demand for semantics management and semantic computing. Better semantics are needed to ground the concepts used in databases, XML messages, text in documents (which may be stored in databases), the semantic web, etc. The work underway connects several ISO standards for terminology content and structure with standards for data management and interchange. SC 32 is exploring the market requirements for semantics management and potential extensions to new and existing standards in order to articulate and then fill the unmet need. Work is also ongoing on projects dealing with the relationship between metamodels and metamodel management. This work is needed to contribute to tools and technologies needed for Semantic Service Oriented Architectures and Model Driven Architectures. Study periods are underway to explore potentially new areas of standardization, including database futures, metamodel management, registry interoperation, and topics such as ontology evolution.

The market demand for SQL database products remains strong, both from commercial vendors and open-source projects. The clear acceptance of the SQL:2003 standards by the database community is very encouraging. The new capabilities in SQL:2008 were driven by market priorities, so we expect vendor acceptance of the enhancements. WG3 is currently reviewing a variety of options for additional extensions and expansions of the SQL standards.

Market demand for electronic commerce products grows as firms struggle to move into the electronic marketplace. Standards for electronic business functions are necessary to facilitate this demand. The SC 32 work related to eBusiness and business object registries is supporting JTC 1 involvement with the ISO IEC UN/ECE MoU Management Group.

Each part of SQL/MM standards is based on explicit requirements from a domain market. Especially, SQL/MM Part 2: Spatial specifying Spatial Data Management received much attention

from ISO TC 204 (Intelligent Transport Systems), ISO TC 211 (Geographic information/Geomatics), and OGC (Open GIS Consortium) and is being developed under close coordination with TC 211 and OGC. Thus, we believe that our standards meet real market requirements.

2.2 ACHIEVEMENTS

Eighteen projects have completed during this period and are in Stage 5 – Publication:

1.32.03.06.01.00 ISO/IEC 9075-1:2008
Database languages - SQL - Part 1: Framework (SQL/Framework)

1.32.03.06.02.00 ISO/IEC 9075-2:2008
Database languages - SQL - Part 2: Foundation (SQL/Foundation)

1.32.03.06.03.00 ISO/IEC 9075-3:2008
Database languages - SQL - Part 3: Call-Level Interface (SQL/CLI)

1.32.03.06.04.00 ISO/IEC 9075-4:2008
Database languages - SQL - Part 4: Persistent Stored Modules (SQL/PSM)

1.32.03.06.09.00 ISO/IEC 9075-9:2008
Database languages - SQL - Part 9: Management of External Data (SQL/MED)

1.32.03.06.10.00 ISO/IEC 9075-10:2008
Database languages - SQL - Part 10: Object Language Bindings (SQL/OLB)

1.32.03.06.11.00 ISO/IEC 9075-11:2008
Database languages - SQL - Part 11: Information and Definition Schemas (SQL/Schemata)

1.32.03.06.13.00 ISO/IEC 9075-13:2008
Database language SQL - Part 13: SQL Routines and Types Using the Java™ (SQL/JRT)

1.32.03.07.14.00 ISO/IEC 9075-14:2008
Database language SQL - Part 14: XML-Related Specifications (SQL/XML)

1.32.03.06.01.00 ISO/IEC 9075-1:2003/Cor 2:2007
Database languages - SQL - Part 1: Framework (SQL/Framework) - Technical Corrigendum 2

1.32.03.05.99.02 ISO/IEC 9075-2:2003/Cor 2:2007
Database languages - SQL - Part 2: Foundation (SQL/Foundation) - Technical Corrigendum 2

1.32.03.05.99.04 ISO/IEC 9075-4:2003/Cor 2:2007
Database languages - SQL - Part 4: Persistent Stored Modules (SQL/PSM) - Technical Corrigendum 2

1.32.03.05.99.10 ISO/IEC 9075-10:2003/Cor 2:2007
Database languages - SQL - Part 10: Object Language Bindings (SQL/OLB) - Technical Corrigendum 2

1.32.03.05.99.11 ISO/IEC 9075-11:2003/Cor 2:2007
Database languages - SQL - Part 11: Information and Definition Schemas (SQL/Schemata) - Technical Corrigendum 2

1.32.03.06.99.14 ISO/IEC 9075-14:2006/Cor 1:2007
Database language SQL - Part 14: XML-Related Specifications (SQL/XML) - Technical Corrigendum 1

1.32.31.01.04.00 ISO/IEC 15944-4:2007
Business operational view - Part 4: Business Transaction Scenarios - Accounting and economic ontology

1.32.31.01.05.00 ISO/IEC 15944-5:2008
Business operational view - Part 5: Identification and Mapping of Various Categories of Jurisdictional Domains

1.32.25.01.00.00 ISO/IEC 24707:2007
Common Logic (CL) - A Framework for a Family of Logic-based Languages

The following projects are completing Stage 4 – Approval Stage by being submitted to ITTF for final vote:

1.32.31.01.07.00 ISO/IEC 15944-7:2008
Business operational view - Part 7: eBusiness vocabulary

1.32.03.06.01.00 ISO/IEC FDIS 9075-1
Database languages - SQL - Part 1: Framework (SQL/Framework)

1.32.03.06.02.00 ISO/IEC FDIS 9075-2
Database languages - SQL - Part 2: Foundation (SQL/Foundation)

1.32.03.06.03.00 ISO/IEC FDIS 9075-3
Database languages - SQL - Part 3: Call-Level Interface (SQL/CLI)

1.32.03.06.04.00 ISO/IEC FDIS 9075-4
Database languages - SQL - Part 4: Persistent Stored Modules (SQL/PSM)

1.32.03.06.09.00 ISO/IEC FDIS 9075-9
Database languages - SQL - Part 9: Management of External Data (SQL/MED)

1.32.03.06.10.00 ISO/IEC FDIS 9075-10
Database languages - SQL - Part 10: Object Language Bindings (SQL/OLB)

1.32.03.06.11.00 ISO/IEC FDIS 9075-11
Database languages - SQL - Part 11: Information and Definition Schemas (SQL/Schemata)

1.32.03.06.13.00 ISO/IEC FDIS 9075-13
Database languages - SQL - Part 13: SQL Routines and Types Using the Java ™ (SQL/JRT)

1.32.03.06.13.00 ISO/IEC FDIS 15944-7
Business operational view - Part 7: e-Business vocabulary

The following project completed Stage 3 – Committee Stage with PDTR ballot and is now completing Approval Stage by being submitted to JTC1 for LB final vote:

1.32.31.01.06.00 ISO/IEC DTR 15944-6
Business operational view - Part 6: Technical introduction to eBusiness modelling

The following project completed Stage 3 – Committee Stage with FCD ballot:

1.32.17.01.01.00 ISO/IEC FCD 20944-1
Metadata Registry Interoperability and Bindings (MDR-IB) - Part 1: Framework, common vocabulary, and common provisions for conformance

1.32.17.01.02.00 ISO/IEC FCD 20944-2
Metadata Registry Interoperability and Bindings (MDR-IB) - Part 2: Coding bindings

1.32.17.01.03.00 ISO/IEC FCD 20944-3
Metadata Registry Interoperability and Bindings (MDR-IB) - Part 3: API bindings

1.32.17.01.04.00 ISO/IEC FCD 20944-4
Metadata Registry Interoperability and Bindings (MDR-IB) - Part 4: Protocol bindings

1.32.17.01.05.00 ISO/IEC FCD 20944-5
Metadata Registry Interoperability and Bindings (MDR-IB) - Part 5: Profiles

1.32.19.02.00.00 ISO/IEC FCD 14957
Representation of data elements values: Notation of the format 2nd Edition

1.32.22.01.02.00 ISO/IEC FCD 19763-2
Framework for Metamodel interoperability - Part 2: Core model

1.32.22.01.04.00 ISO/IEC FCD 19763-4
Framework for Metamodel interoperability - Part 4: Metamodel for model mapping

1.32.23.01.00.00 ISO/IEC FCD 19773
Metadata Registries (MDR) Modules

The following projects are progressing in Stage 3 – Committee Stage:

1.32.31.01.03.00 ISO/IEC CD 15944-3
Business Operational View - Part 3: Open-edi description techniques (OeDT)

1.32.31.01.08.00 ISO/IEC CD 15944-8
Business Operational View - Part 8: Identification of privacy protection requirements as external constraints on business transactions

1.32.24.01.00.00 ISO/IEC CD 24706
Metadata for technical standards and specifications documents

1.32.19.02.00.00 ISO/IEC CD 14957
Representation of data elements values: Notation of the format - 2nd Edition

1.32.22.02.03.00 ISO/IEC CD 19763-3
Metamodel framework for interoperability - Part 3: Metamodel for ontology registration 2nd Edition

1.32.04.03.07.00 ISO/IEC CD 13249-7
SQL Multimedia andApplication Packages - Part 7: History

1.32.15.03.03.00 ISO/IEC CD 11179-3
Metadata registries (MDR) - Part 3: Registry metamodel and basic attributes 3rd Edition

The following projects are progressing in Stage 2 – Preparatory Stage:

1.32.04.04.01.00 ISO/IEC AWI 13249-1
SQL Multimedia and Application Packages - Part 1: Framework 4th Ed.

1.32.04.04.03.00 ISO/IEC AWI 13249-3
SQL Multimedia and Application Packages - Part 3: Spatial 4th Ed.

1.32.22.01.06.00 ISO/IEC AWI 19763-6
Metamodel framework for interoperability (MFI) Part 5: Model registration procedure

2.3 RESOURCES

Adequate resources are currently available for all projects. SC 32 actively seeks and recruits new participants.

2.4 ENVIRONMENTAL ISSUES

None

2.5 PARTICIPATION METRICS

Indicate the active participation of National Bodies in both meetings and balloting. In particular, note if the 50% voting participation requirement is being met.

JTC 1/SC 32 Performance (as of 2008-09-15)

SC 32 METRIC	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008[9]
Attendance at Meetings [1, 6, 8]	57	73	62	53	47	47	61	37	33	48
New Standards Published [2]	8	4	5	1	5	5	1	0	13	18
Total Standards Published [3]	31	28	34	41	43	37	41	41	54	72
Active Projects [4]	42	38	44	77	64	67	66	66	66	52
New Projects [5]	4	4	0	13[7]	3	0	2	0	0	3

[1] Average Attendance at Plenary and Working Group Meetings
(where a plenary include a meeting of all working groups – if working groups do not meet during plenary meetings, a cumulative mean attendance to working group meeting should be used) **(Att. Plena**.)

[2] New Standards published **(NSP**)

[3] Total standards published (and currently valid) **(TSP**)

[4] Active projects **(AP**)

[5] New projects introduced (**NP**)

[6] At the National Body level the Working Groups are obtaining considerable participation with electronic participation

[7] Project splits waiting justification then JTC 1 approval

[8] Plus 250 attendees at the Open Forum on Metadata Registries, held concurrent with the SC 32 meetings, The attendance number does not include several Open Forum attendees who are also SC 32 participants at the National Body level, but who were unable to remain a second week for the SC 32 meetings.

[9] Since May 2008

3.0 FOCUS NEXT WORK PERIOD

SC 32 has refined its program of work to ensure that it is focusing on those standards that will meet market requirements. SC 32 plans to continue to focus on developing standards for SQL, SQL/MM, eBusiness and data semantics. SQL work is expected to be particularly active. The metadata registry market is very active, driving rapid development of all parts of ISO/IEC 11179.

Database Languages (WG 3) work is active with the focus on a revised set of ISO/IEC 9075 parts. WG3 is continuing to track the W3C XQuery work as well as reviewing a variety of options for additional extensions and expansions of the SQL standards. The options currently under review are:

- Addressing requirements to manage streaming data
- Additional OLAP facilities for data warehousing
- Supporting additional types of metadata
- Increased interoperability
- Enhanced security capabilities

- Providing underlying support for semantic web capabilities

The eBusiness Working Group (WG 1) is concentrating on multiple parts of ISO/IEC 15944: Information technology - Business Operational View Part 3 Open-edi description techniques, Part 7 eBusiness vocabulary, Part 8 Identification of privacy protection requirements as external constraints on business transactions, and Part 9 Traceability framework..

The Metadata Working Group (WG 2) is progressing with revisions to the ISO/IEC 11179 family of metadata registry standards. A major effort is underway to produce a revised metamodel for metadata registries. This will form the foundation for the next edition (E3) of this family of standards. It is intended to greatly enhance the semantic management capabilities. Close coordination with ISO/TC 37 (Terminology and other language resources) is under way to ensure that Metadata Registry management of semantics will be consistent with and complimentary to other ISO standards in this area. The ISO/IEC 20944 project addresses the exchange of metadata among ISO/IEC 11179-based registries that depends not only on standard-conforming software, but also on contents that are compatible across registries. Work is underway to foster interoperation between ISO/IEC 11179 metadata registries, XML registries, UN/CEFACT Core Component Technology Specification, UN/CEFACT Modelling Methodology (UMM), OASIS ebXML Registries, and facilities that will be built in conformance with OMG's Ontology Definition Metamodel and Information Management Metamodel. The OMG Common Warehouse Metamodel (CWM) is being progressed as a PAS submission, with WG 2 handling the process and editing sessions. It is expected that OMG will submit the Ontology Definition Metamodel as a PAS submission once it is finalized in OMG. WG 2 is well on its way to extending the family of standards, ISO/IEC 19763 - Metamodel Framework for Interoperability. This family of standards will help businesses collaboration sharing models and ontologies.

The WG 2 work is positioned to meet the deeper semantic management aspects of data management and interchange. This includes provision of semantics for semantic computing, the semantic web, classification schemes, and associated metadata.

WG 2 organizes an annual *Open Forum on Metadata Registries*. The eleventh Forum was held in Sydney, Australia in May 2008. The Twelfth Forum is planned to be held in Korea in June 2009.

3.1 DELIVERABLES

See section 1.2 for those projects with upcoming target dates.

3.2 STRATEGIES

SC 32 is focused on progressing its program of work as quickly and efficiently as possible.

The committee is focused on identifying and meeting market requirements, and emphasizes new projects that have well-defined, concrete objectives that are market driven.

SC 32 empowers its WGs by delegating everything that can be delegated to a WG, per JTC 1 directives, along with the relevant authority and responsibility. The SC does not impose any additional management overhead. SC 32 Plenary meetings accomplish those tasks required by the JTC 1 directives in as brief a time as possible. Only an opening and closing plenary are held with less than a half-day duration, each. Inter-WG discussions are invited during a tutorial meeting and anytime outside of Plenary. All contentious issues are identified in advance and groups appointed to resolve the issue and prepare a recommendation before the closing Plenary. This strategy is intended to make the SC as productive as the members can be. WGs strive to insure that all National Bodies are actively involved in the technical work and that all of their opinions and contributions are considered.

SC32 maintains extensive contact with software developers and users to keep in close alignment with market forces. The Working Groups continue to utilize electronic editing meeting in order to progress the work as fast as possible.

SC 32 has active liaisons with industrial consortia, such as OMG, W3C, UN/CEFACT.

3.2.1 RISKS

Each of the Working Groups within SC 32 has its own priorities and strategies for achieving its objectives. There is increasing progress in identifying and establishing critical inter-group understanding and liaisons. Some progress is being made on developing new standards that cut across the WG organizational lines. Considerable effort is being given to avoid isolated work within the WGs. At current SC 32 meetings, each WG gives a tutorial on its work to the full subcommittee.

There is some possibility that major vendors may wish to re-focus their efforts within national bodies or other standards groups, with the intention to progress the resulting standards through JTC 1 as Fast Track/PAS submissions. There is a possibility that major standards such as SQL could be declared as mature and not require substantial additional effort within SC 32. There is also a possibility that major participant groups within any of the WGs may drop participation for financial, programmatic, product, or other reasons, thus severely damaging the viability of the WG and/or SC 32.

There is always the risk that new project could be initiated that does not have clear objectives and concrete specifications. If this occurs, SC 32 would dilute its focus and might create incentive to produce important standards outside of SC 32 and JTC 1.

Overlapping scope of projects is an area that needs to be continually monitored and controlled. Changes in market requirements may cause some perturbation in the work schedules. However, if SC 32 loses technology leadership, it may lose control. Therefore, rapid development of new standards, as well as producing the next edition of existing standards, is a crucial factor in future success.

If SC 32 does not pursue its work aggressively, risks exist that essential capabilities will not be available in the marketplace to support important functions, or that the marketplace will produce multiple incompatible solutions in areas that common approaches and interoperability are essential to users.

The delegation of authority and responsibility to the WGs stands in contrast to the working of some of the SC/WG relationships that came into SC 32. This management style makes some participants uncomfortable, since it limits discussion time in Plenary meetings. There is a risk of missing some viewpoints that might be expressed in longer Plenary meetings.

Other standards bodies are very active in areas related to SC 32 standards. SC 32 must be nimble to maintain its relevance and leadership.

3.2.2 OPPORTUNITIES

The Internet, electronic commerce, semantic computing, the semantic web, object technologies, and XML represent major areas of opportunity where market forces are creating demand for SC 32 standards. SC 32 will continue to work with the others involved to identify the specific standardization needs and to respond with current and newly proposed standards.

Semantic Service Oriented Architectures represents a major area of opportunity where market forces are creating demand for standards. SC 32 is continually monitoring the work in this area and will react as soon as it sees and appropriate opportunity.

3.3 WORK PROGRAMME PRIORITIES

Each WG establishes work programme priorities in their project plan, which is approved in the SC 32 Plenary. These can be seen in the material, above. For example, high priority is given to the standardization of an integrated/interoperable information processing environment.

The SC has established a priority of educating each working group about the work and ideas of the other work groups. The prior SC 32 meetings have shown that there is considerable interest

in the synergy that can be developed within the committee. The next SC 32 meeting will again include tutorials from each work group.