March 31, 1999

Mr. Yo Takagi Director Inter-Office Information Services World Intellectual Property Organization 34, chemin des Colombettes 1211 Geneva 20 SWITZERLAND

Re: WIPO SCIT Circular 2431 – SCIT Strategic Plan

Dear Mr. Takagi:

This letter is in response to C.SCIT 2431. The USPTO has drafted suggestions for the substance of the chapters of the proposed strategic plan. These suggestions are contained in the attachment. I hope you find our contributions useful in developing a draft plan for the SCIT.

I will be the contact person for the draft plan and can be reached at cherie.kazenske@uspto.gov.

Sincerely,

Cheryl E. Kazenske Intellectual Property Program Manager Office of Legislative and International Affairs U.S. Patent and Trademark Office

WIPO'S SCIT STRATEGIC PLAN FOR THE 21 ST CENTURY

- 1. Introduction (to be prepared by IB)
 - Brief overview of WIPO Charter/Governance
 - Brief overview of Policy direction (Mainly to address the chief WIPO activities such as development of international intellectual property law, global protection systems and services, and cooperation for development).
 - WIPO Vision

2. SCIT's Vision (to be prepared by IB)

(Example: To focus on a global information technology architecture linking intellectual property offices in WIPO Member States, and the International Bureau for the purpose of generating, communicating, and protecting intellectual property knowledge and rights for the global economy of the 21st Century).

3. SCIT's Mission (to be prepared by IB)

(Example: To focus on the following issues: Coordinate and ensure the delivery of an information technology infrastructure and the policies to facilitate information services for a globally networked intellectual property community, such as WIPOnet, IPDL project, electronic filing, office automation, etc.).

4. SCIT Goals

- Promote global intellectual property protection
- Eliminate the information access gap that exists between developed countries and developing countries
- Reduce the cost and time to grant intellectual property rights
- Improve the flow of information among WIPO member states
- Reduce the burden on applicants to obtain global intellectual property protection
- Improve intellectual property information dissemination to the public
- Help guide the International Bureau to leverage information technologies

5. Governing Information Technology Strategies

To enhance the effectiveness of information technology management, the SCIT will follow several key-governing strategies. The strategies represent fundamental principles and philosophies for achieving the goals of the SCIT. The management of these components are to be integrated in the planning process.

• General Strategy

The strategic plan contains several inter-related projects — each can be managed separately, but must be closely coordinated to ensure that inter-dependencies are identified and common information technology and data standards are adopted. The information technology infrastructure is to be managed separate from the application software and the data, recognizing that each component — application software, data, infrastructure - has a distinct life cycle.

• <u>Information Technology Project Management Strategies</u>

- -Information technology projects must be managed as investments. Projects will focus on identifying and producing measurable improvements to the International Bureau and Intellectual Property Offices, and will apply risk management principles to mitigate risks.
- -Evolutionary development and incremental delivery of complete products with measurable results to operations must be emphasized. An enterprise configuration management approach will be employed to document code and systems.

 -Information technology products and services are to be provided in a timely and useful format.

Plan costs, schedule performance and quality assurance -each project will be baselined in a management control system to ensure adequate visibility for actual progress, accurate tracking of project costs against target dates and costs, and implementation of high quality systems.

• Information Infrastructure (WIPONet) Strategies

A robust architecture-information technology infrastructure is to be implemented utilizing a secure virtual private network and Internet technology to connect Intellectual Property Offices.

Appropriate infrastructure security mechanisms will be implemented with respect to access, disaster recovery, and incident responses.

• <u>Information Technology Application Software Strategies</u>

Software re-use, sensitive information security, and use of Commercial-Off-the–Shelf software will be emphasized on all SCIT projects.

Prototyping is encouraged to help define and refine functional requirements. Implementation of products should move rapidly from the prototype to the operational stage whenever feasible.

Standards-based products are required to support emerging and evolving information technology in the 21st Century.

• <u>Data Management Strategies</u>

The SCIT will foster and facilitate increased data sharing by pursuing electronic data interchange agreements among Member States and other international entities.

The SCIT will promote the use of standard data models and all elements from a data repository system which facilitates data sharing and data re-use among Member States.

• <u>Information Dissemination Strategies</u>

Each office will have the responsibility for establishing its own public dissemination policy.

6. Organizational responsibilities

In order to develop an effective means for accomplishing goals and information technology strategies to meet those goals, all organizations within the context of the SCIT will need to work cooperatively to carry out the strategic plan. All entities should refocus program activities to take maximum advantage of an information technology driven medium for cooperation. Each Member State must dedicate the appropriate infrastructure and personnel to manage the available technology.

• Standing Committee on Information Technologies (SCIT)

The Standing Committee on Information Technologies was established to provide a high-level forum where WIPO Member States can consider, recommend and administer specific initiatives concerning the use of information technologies. The SCIT should recommend prioritized initiatives to be accomplished and work with the International Bureau to establish time schedules. The SCIT should review the progress of projects supporting each initiative and make recommendations to the International Bureau to help assure that projects deliver quality products on schedule and within cost estimates. The SCIT should propose common solutions to problems shared by many offices to provide cost savings to Member States and WIPO for SCIT initiatives.

• International Bureau of WIPO

The successful development, deployment and operation of information technology requires close coordination and partnership between the International Bureau and the Member States. The International Bureau should apply resources to implement and maintain initiatives as recommended by the SCIT. The International Bureau must focus on and needs to provide resources to assist developing countries in providing for a modernized information technology based patent office. The International Bureau will be responsible for assessing the needs of each Intellectual Property Office, assisting

developing countries to deploy the necessary infrastructure and management to communicate through a global network, provide training to the IP Offices to maintain systems developed within the context of the SCIT to effectively use the information resources available through the global network, and provide necessary training or reference manuals to assist developing countries in this modernization effort. WIPO will work with individual Intellectual Property Offices to develop action plans, to include training plans, based on each Office's needs. WIPO will maintain the day to day operations of the global network.

The IB is also responsible for ensuring coordination between the activities of the SCIT and the IPC Committee of Experts as well as other WIPO forums. The reformed IPC should be used as a basic search tool in accessing patent information through the Intellectual Property Digital Libraries.

• WIPO Member States

Intellectual property offices of Member States and regional intellectual property offices should dedicate resources to work with WIPO to implement initiatives. The Intellectual property offices of Member States are responsible for ensuring that all actions requested by the SCIT are completed by timeframes as designated by the SCIT. Member States also have a responsibility for promoting the reduction in duplications of effort by IP Offices through sharing of localized collection of Global IP information. Member States will be responsible for prospectively(front-file) capturing their data electronically as part of operating the systems provided by the International Bureau for inclusion in the digital libraries. Member States should provide dedicated resources to administer, manage, maintain and operate systems during the deployment and operational phases of each production system.

• Other relevant organizations

Other relevant organizations such as UNCITRAL, ISO, and UNESCO shall be looked to for acquiring information on relevant SCIT topics.

7. Assumptions and Constraints

The information technology planning decisions are influenced by the SCIT's strategic vision and goals, as well as by various financial, demographic, and technology assumptions and constraints. Several key assumptions and constraints are as follows.

Financial

Many IP Offices will have limited funding to implement and sustain an IT program. Developing countries will be provided with assistance through the IB's special reserve fund for funding deployment costs of SCIT initiatives.

• <u>Human Resources</u>

Limits on staffing for the development of these initiatives exist at the IP Member States, WIPO, and regional organizations. Required information technology personnel skills, knowledge, and abilities increase as the transition to more complex, on-line, interactive, client server systems continues. Offices will need to assess the feasibility of increasing the skills of existing staff or adding new staff. Learning experience needs to be shared among the IP Member States to increase the knowledge base of all participating countries.

• Economic and Geographical Considerations

Certain regions of the world have only limited Internet connectivity. The International Bureau should assist and provide guidance to countries in disseminating intellectual property information at a minimum to universities. Satellites may need to be used instead of telephone lines in some geographic areas.

• Language Considerations

The need to provide intellectual property information in a multitude of languages will continue. This need will effect all users of a global system. Multiple language interfaces must exist for searching the Intellectual Property Digital Libraries and for the translation of applications.

• International Cooperation

The IB, Member States, and regional offices will need to continue international cooperation efforts on information initiatives to include data exchange, developing information technology and data standards, common search tools, and cost sharing arrangements in order to maximize benefits of these initiatives.

• Technology Environment

• International Bureau of WIPO

WIPO will need to continually assess its web server capability in deploying future projects.

WIPO will deploy and maintain the WIPONet infrastructure.

• International Search Authorities, International Examining Authorities
Today there is no electronic communications between International Search
Authorities and the International Bureau except for that of one regional office. All other submissions are made by paper.

• Infrastructure

There is a wide divergence in the level of development of participating Intellectual Property Offices. Therefore, the needs of many of the IP Offices around the world vary considerably.

Information technology is commonly used in developed countries in the normal course of operations. Most of the IP Offices from developed countries utilize electronic mail, have Office web sites, and provide some form of collections of automated search data within the Office and to the public. However, today there is a lack of common search software used throughout these developed nations. A global network would facilitate a greater degree of cooperation between intellectual property offices by allowing for more extensive sharing of information resources and would support deployment of a standards based search request and result set exchange protocol for use between the different search clients and servers on the network.

Developed countries are also reviewing issues such as electronic filing in order to reduce time and costs for applicants. The Trilateral Offices have been reviewing requirements for electronic transmission of documents between their respective offices. A global network will speed up the electronic exchange of documents between intellectual property offices and would facilitate the electronic filing of documents by applicants.

8. Developing countries: Special issues

• Modernization of Infrastructure

Special attention will need to be directed towards the developing countries in establishing an information technology infrastructure. Many of the countries utilize paper-based systems which are not disseminated to the general public. Additionally, many of the developing countries have difficulty in gaining access to and using intellectual property information resources.

All countries, including many developed countries, have significant datasets that have not been captured in electronic form. Countries will need to capture their data with an appropriate mix of technical/standards/financial assistance from WIPO.

<u>Creation of Knowledge Databases including Traditional Knowledge</u> (To be completed by IB)

Sustainability

All participating Intellectual Property Offices must dedicate resources to continue operating and maintaining systems after deployment. This may require ongoing assistance from WIPO in many of the developing countries. However, all offices should dedicate resources to this effort.

9. Strategic Information Technology Initiatives (needs to be prioritized)

a. Establish WIPONet

The objective of this initiative is to establish a secure, global network to support communications among and cooperation between IP offices in the administration of their IP systems. The network is to utilize Internet technology, open standards and commercial off the shelf technology wherever practical.

The major function of WIPONet is to provide electronic connectivity to Intellectual Property Offices and to facilitate the rapid exchange of data among the offices. WIPONet will help Member States exchange information in a more cost effective manner than is done currently. The WIPONet can also help serve as a means for fulfilling a public dissemination role. WIPONet connectivity services will encompass both public Internet connectivity and secure encrypted IP based network services over the same link.

- Ensure the establishment and operation of a combined public and secure WIPONet by _____.
- Coordinate among all Intellectual Property Offices in WIPO Member States
 to ensure they are provided with equipment and training by _____. Training
 will include instruction on methods for effectively utilizing information
 available over the network. Participants must agree to the responsibilities as
 described in the Member States Organizational responsibilities section
 mentioned above.

b. Establish Intellectual Property Digital Libraries

Digital libraries are electronic equivalents to paper collections of intellectual property records. Digital libraries offer a cost-effective and efficient means of disseminating intellectual property information to interested users and form the basis for moving toward a paper-less environment. Digital libraries have the potential of vastly simplifying the process of providing access to timely and complete collections of intellectual property records maintained by other IP offices by providing specific information at the time it is needed. They are an attractive alternative to the paper based collections maintained today by most offices. All forms of intellectual property data should be included in such a library (patents, trademarks, published applications, copyrights, designs)

WIPO will assist developing country offices in capturing data for the development of components of their digital libraries. With assistance from

WIPO, the IP Offices will collectively capture PCT minimum documentation requirements. The Member States of the WIPO will share already established databases to assist in the development of the global intellectual property digital library.

Exchange of image and text file data will occur electronically over WIPONet. The amount of data to be exchanged will be increased considerably from what is exchanged today. However, physical transfer of data will decline via use of WIPONet. Data will need to be exchanged among the Trilateral Offices and to WIPO for uploading to mirror site databases. WIPO will provide funding for these mirror site databases.

Digital libraries are to be seamlessly linked. A simple search interface should provide a single point of access to distributed libraries of a particular form of intellectual property data(such as patents).

•	Adopt guidance on an effective program to expand and/or enhance
	Intellectual Property Libraries by

•	Ensure	% utilization rate of Intellectual Property data exchanges over
	the WIPON	et by

c. Automate business functions of Intellectual Property Member States

The SCIT should undertake pilot projects to evaluate viable, cost-effective and user friendly solutions for the streamlining and automation of intellectual property administrative functions, in particular those solutions most suitable for small intellectual property offices. Establishment of a global standardized infrastructure will lead to global interoperable systems.

A minimum baseline of functions to be automated will be defined. WIPO will assist developing countries in achieving this minimum level of automation.

d. Provide for effective information dissemination to the public

The Internet is a very useful and cost effective means to disseminate information to the public. It makes information available worldwide in real time in spite of geographic conditions.

Unrestricted information contained in the Intellectual Property Digital Library should be made available to the public over the Internet. Additionally, Web sites are to be established at the Member States. The SCIT will provide its members with guidelines for establishing such a site. The WIPO will assist developing country IP offices to configure and begin operational use of systems.

e. Provide for electronic filing and communications with applicants

<u>Electronic Filing-</u> The development of the electronic filing process will necessitate the establishment of common standards that will be accepted by all countries signing the Patent Law Treaty.

Common technical data standards must be established utilizing the International Standard Application Format for the electronic filing of PCT applications. They should be established in such a manner that applicants can choose to file via the Internet or via paper that is scanned and converted to electronic means. Standards for electronic filing of PCT applications shall be the same as the filing of national/regional internal applications. The standardization of data on a global basis is a great benefit to applicants. An applicant will only need to enter data once and will have the capability to simultaneously file an application in a number of countries.

The development of electronic filing will be monitored by the SCIT. WIPO standards will be elaborated where necessary. Technical assistance is to be provided to developing countries in this area.

PCT Automation – The Patent Cooperation Treaty (PCT) is presently a paper-oriented system, grounded on many formalities associated with production and physical transfer of international applications on paper. Significant opportunities exist to redesign the administration of PCT functions to take advantage of the secure global intellectual property network that will link PCT Member Offices.

The automation of the PCT can occur in various stages.

- replace the transfer of paper records of PCT applications and priority documents from Intellectual Property Offices to the IB with electronic transfer over WIPONet.
- A complete electronic prosecution process starting with an electronically filed PCT application at the Receiving Office, followed by electronic processing and publication by the Receiving, International Search, International Preliminary Examination, and Designated Offices, and the International Bureau.

The approach should include design of handling of applications at Office-applicant level, Office-Office level, and then should implement an optimal workflow model using contemporary computer and communications technology.

The systems should be shared. Any system developed to automate the IB's RO/DO functions can be deployed to interested offices. Technical assistance should be provided to member States to modify, extend and implement the PCT RO/DO system for internal use.

• The target date for PCT automation is
Standards – Common technical data standards must be established for electronic filing and for the exchange of all information between offices. The SCIT will continue to maintain and develop standards that will allow for this exchange.
 Provide utilization rates and recommendations to the WIPO Governing Bodies in on electronic patent and trademark filing standards that correlate to reductions in costs, time, and complexity for applicants obtaining Intellectual Property rights. Prepare a recommendation(s) by on minimum standardization criteria needed for % utilization of WIPONet for search, and patent and trademark filings.
f. Leverage information technology to educate Member States on Intellectual Property.
Pilot projects will be undertaken to facilitate the WIPO Worldwide Academy initiatives. Computer based training will be utilized and training materials will be posted on the

Meetings and seminars will continue to be broadcast from the WIPO Web Site.

10. Implementation Schedule

WIPO Web site to further this initiative.

Activity	1999	2000	2001	2002	2003
SCIT Projects Quality Assurance Program	-Select and adopt a Quality Assurance methodology to be applied across SCIT projects	-Develop projects under QA methodology -Conduct project QA compliance reviews -Apply QA lessons learned to projects	-Develop projects under QA methodology -Conduct project QA compliance reviews -Apply QA lessons learned to projects	-Develop projects under QA methodology -Conduct project QA compliance reviews -Apply QA lessons learned to projects	-Develop projects under QA methodology -Conduct project QA compliance reviews -Apply QA lessons learned to projects
WIPONet Deployment	-Begin initial deployment of WIPONet backboneBegin implementing secure transmission facilitiesBegin providing Internet connectivity to developing countriesBegin implementing WIPONet operation, administration and maintenance.	-Expand WIPONet backbone. -Expand secure transmission facilities. -Provide Internet to more developing countries. -Expand WIPONet operation, administration and maintenance -Begin implementing user support service -Complete initial deployment	-Upgrade WIPONet bandwidth as necessary. -Maintain secure transmission facilities -Maintain Internet connectivity. -Maintain WIPONet operation and administration. -Expand user support service	-Maintain backbone -Maintain secure transmission facilities -Maintain Internet connectivity -Maintain WIPONet operation and administration -Maintain user support service.	-Maintain backbone -Maintain secure transmission facilities -Maintain Internet connectivity -Maintain WIPONet operation and administration -Maintain user support service.
WIPONet Equipment and Training	-Develop equipment requirements for Member States -Plan equipment acquisition and deployment -Identify training requirements for equipment and software -Develop training plan -Begin acquiring and deploying HW and SWBegin training	-Equipment acquisition and deployment -Deliver training for equipment and software -Expand/adapt training program	As needed: -Equipment acquisition and deployment -Deliver training for equipment and software -Expand/adapt training program	As needed: -Equipment acquisition and deployment -Deliver training for equipment and software -Expand/adapt training program	As needed: -Equipment acquisition and deployment -Deliver training for equipment and software -Expand/adapt training program
WIPONet Public Key Infrastructure	-Develop WIPONet Security Policy -Identify WIPONet PKI Requirements	-Revise WIPONet PKI requirements and policy -Select WIPONet PKI solution and vendor -Begin WIPONet PKI deployment and use	-Evolve WIPONet PKI policy -Operate and maintain WIPONet PKI	-Evolve WIPONet PKI policy -Operate and maintain WIPONet PKI	-Evolve WIPONet PKI policy -Operate and maintain WIPONet PKI
WIPONet Electronic Mail Service	-Identify secure email service requirement for member states. Begin initial deployment of secure email server facility for WIPONet	-Begin providing secure email service and training to member states. Expand secure email server facility	-Provide more secure email service and training to member states. Maintain secure email server facility	-Maintain secure email service on WIPONet	-Maintain secure email service on WIPONet
Intellectual Property Digital Libraries (IPDL)	-Develop plans to share established databases -Develop plans for established DB mirror sites -Secure funding to implement mirror sites -Initial access to IPDL content over WIPONet	-Develop search interfaces for individual Offices -Begin exchange of IPDL image and text file data over WIPONet -Implement IPDL DB mirror sites -Expand access to IPDL content over WIPONet	-Operate IPDL DB mirror	-Continue exchange of IPDL data over WIPONet -Operate IPDL DB mirror sites	-Continue exchange of IPDL data over WIPONet -Operate IPDL DB mirror sites
IPDL Content Development	-Survey assets of developing countries to identify IPDL material -Plan assistance to developing countries for IPDL data capture -Develop schedule to capture data back to 1920 for PCT min. doc. rqmtsDevelop plans and schedule for adding new content	-Begin capturing developing country data -Begin capture of data back to 1920 -Start expanding content beyond established DBs	-Continue capturing new data -Complete capture of retrospective data -Continue expanding IPDL content	-Continue capturing new data -Continue expanding IPDL content	-Continue capturing new data -Continue expanding IPDL content

Activit Develop and D Data Capture a Exchange Star	Deploy and	1999 -Explore development of exchange standards for public and sensitive IPDL data -Complete developing common technical data standards for electronic filing	2000 -Continue development and begin using new exchange standards for public and sensitive IPDL data -Define standards for electronic interface between PCT RO and IB	2001 -Continue development of exchange standards for additional data types -Maintain exchange standards -Implement an AIS to interface between the IB and electronic PCT ROs	2002 -Continue development of exchange standards for additional data types -Maintain exchange standards	2003 -Maintain exchange standards
Automate Busi Functions of th International B	he	-Develop IB Automation Plan in harmony with Trilateral PCT Automation Projects	-Implement a Pilot IB Automation Project -Begin testing Pilot IB Automation System -Develop Requirements for Operational IB Automation System	-Operate Pilot IB Automation System -Begin development of Operational IB Automation System	-Complete development of Operational IB Automation System -Transition business functions to Operational IB Automation System	
Automate Busi Functions of N States		-Plan pilot projects for the streamlining and automation of intellectual property administrative functions, especially for small intellectual property offices	developing countries to achieve a basic level of business function automation	-Continue assistance to developing countries for business function automation -Deploy pilot projects -Deploy operational projects -Assess automation program effectiveness	-Continue assistance to developing countries for business function automation -Deploy operational projects -Assess automation program effectiveness	-Continue assistance to developing countries for business function automation -Deploy operational projects
Provide Effect Information Dissemination Public		-Plan to disseminate all non-sensitive information contained in the IPDL to the public over the Internet -Develop guidelines for member state website development	-Establish public web sites at member states desiring such assistance, especially developing country IP offices	-Continue assitance with website development	-Continue assitance with website development	-Continue assitance with website development
Provide for Ele Filing and Pro Phase Communicatio Applicants	secution	-Work toward establishing common standards that will be accepted by all countries signing the Patent Law Treaty	-Align the International Standard Application Format for the electronic filing of PCT applications with the Patent Law Treaty	-Align standards for the filing and prosecution of national/regional internal applications with PCT application electronic filing standards	-Monitor the development of electronic filing -Evolve WIPO standards where necessary -Begin technical assistance to developing countries for electronic filing as needed	-Continue monitoring the development of electronic filing -Evolve WIPO standards where necessary -Continue providing technical assistance to developing countries for electronic filing as needed
	Educate s on	-Establish pilot projects to facilitate the WIPO Worldwide Academy initiatives -Continue broadcasting meetings and seminars from the WIPO Broadcast Service (WBS)	seminars from the WBS -Deliver computer based training on transportable media -Post training materials on	-Broadcast meetings and seminars from the WBS -Develop more computer based training on transportable media -Develop new pilot projects -Deploy operational projects	-Broadcast meetings and seminars from the WBS -Develop more computer based training on transportable media	-Broadcast meetings and seminars from the WBS -Develop more computer based training on transportable media