Phase Four

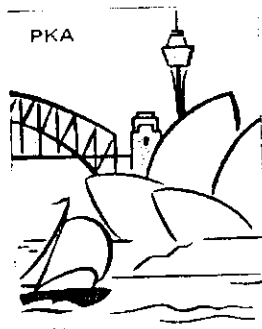# Trade Efficiency System Functional Specification Report: Response to OMSAR Comments

THE REPUBLIC OF LEBANON

TRADE EFFICIENCY PROJECT M71/WB

Presented March 1999 By;

PKA

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Lebanon Trade Efficiency Project: First Response to OMSAR Comments

Introduction

This brief document comprises the PKA response to OMSAR comments on the Phase Four report, TIS Functional Specifications.

The text of the OMSAR comments follows.

Comments on phase four:

In general, the report provides the Government with a good description of the proposed requirements for the set-up of a Trade Information System (TIS). It clearly describes the scope of work of the TIS and proposes guidelines for its implementation, operation and phased expansion. However, the report does not clearly distinguish between the scope of the TIS and the technical requirements which should be presented to vendors as part of a bidding process.

In summary, we have the following comments on the scope of the TIS:

1. With regards to the proposed TIS Systems (Specifications) as described in Diagram 4, we understood that the modules are sequential. Please clarify if this is the case and why they can not be in parallel.
2. We would like some clarification on why the process of implementation shall require around 5 years. Can it be shorter?
3. It was not possible from the report to determine the critical modules for the operation of the TIS. Can you please prioritize the services, identify the critical systems and provide us with your reasoning on why those selected are more essential than the others.
4. Can you please define all the stakeholders in the system and the level of involvement of each, since this is not apparent in the report. Who is responsible for populating the data available through the system ?

Moreover, we have the following comments on the technical component as required for bidding:

1. The report does not clearly identify the activities and deliverables required from the supplier. These need to be quantified and qualified.
2. Some essential elements for a tender document are missing, these include the hardware/networking requirements and specifications, training activities and plans, data entry requirements, necessary pre-requisites (e.g. the availability of the information base for the databases), database contents (including the technology, database

layout, etc..) amongst others.
3. It is not clear what databases if any the vendor should provide
and which would be supplied from external parties.
4. The application interface needs to support Arabic
5. On another note, do you envisage that one or multiple vendors
shall handle the implementation of the TIS. If multiple, what would be
the nature of the leading company which would be invited to participate
in the bid ?

In conclusion, it would be advisable to separate the elements which
represent the overall scope from those which are required by vendors to
enable them to respond to a Request for Information (RFI) or a tender
document. Moreover, as you are aware the recommendations of Phase Three
shall be the subject of the workshop, prior to an approval endorsed by
the government as a whole (noting that the approval of Phase Three was
only based on the compliance of the report with the requirements
specified in the TOR). Consequently, we can not assume that the
government has approved the recommendations of phase three. as a matter
of fact we hope that the workshop will pave the way towards the
government approval.

The responses are divided into **Scope of The TIS** and **Technical Issues**.

Part One: Functional Issues; Scope of the TIS

This response was originally written in email format because there are relatively few comments to respond to and will not take too much space. This Word Addendum to the Phase Four Report is for the record.

Introduction: General Comments

The TIS specifications were based on the assumption that an implementation plan had taken place and that all parties were clear as to their roles and responsibilities. Clearly this is not yet the case so certain assumptions had to be made which will be clarified during the implementation planning phase and vendor responses. The biggest doubt lies over whether LibanFac operates both LibanFac technology and TIS, which is my recommendation. In which case the implementation plan needs to take account of both services and organisations.

1. Sequential or in Parallel?

Section 4, pp 35-42 describes four sequential groups for the 12 different sets of functional modules. There is a potential for overlap between modules but, preferably, not between groups. Not for technical reasons but for implementation and human capacity reasons. To implement groups in parallel would be too much to absorb in one bite. Having said that, if a vendor has compelling reasons for installing one before the other-or in parallel-that would be fine, provided that the TIS/LibanFac organisations could make immediate productive use of those modules. The final decisions will follow a detailed implementation plan after acceptance of these recommendations.

2. Five Year Implementation?

I was responding to community reactions, especially committee members, when I designed a five year plan. Technically, there is no reason why it could not be a three-year plan. But it could not be much less than three years because some of the technical components such as Risk Management will take almost that long to develop and to be usable by TIS staff. Note: The development and testing might only take six months but TIS will not be ready to absorb and offer it for much longer.

There are also debates surrounding digital identities and payment issues that are as yet not totally resolved, but certainly will be within 18 months or so.

The main reasons why five years is a safer, more conservative choice, is the human resource and skills requirements, not to mention the time it will take to receive universal acceptance in the Lebanese environment. If I were proposing this for a European country or for an advanced Asian country I would have no hesitation in recommending a three year plan. But my own judgement, based on a 12 month experience of the Lebanese environment, is that five years is more realistic.

Once again, the final decisions will be taken during the adoption of an implementation plan and during vendor input.

3. Critical Modules

This question really needs more clarification: critical for function? for day to day operations (mission critical)? for trader's needs? for technical success? or for commercial success?

I organised the groups of modules initially based on the requirements for trade process reform: i.e. which modules could actually assist the process? From that perspective, modules 1. Technical Controls database and 12. Issue and Monitor Technical Controls are crucial. But the time difference between them is based on the time to develop and test the systems, to integrate them with others, to develop and to sensitise the market, TIS staff, TIS management and the TIS stakeholders (owners, directors/Board members and those critically involved in its success).
Hence, automating technical controls is the top priority in the overall context of trade efficiency and trade process reform.

From the point of view of commercial success, modules 4. Electronic Brochures, 9. Electronic trade opportunities, 10. SME declarations and 11. Auction and sales on line are the priorities. Each of these will generate user growth, volume growth and transactional revenue growth. But they are not critical to trade efficiency and trade process reform.

From the point of view of day to day usefulness to traders and the general trading community modules 2. Trade Agreements, 3. Trading Partner technical controls, 3. TIS links and Freight/Insurance/Finance rates and 7. Marketing Communication research data bases will be the most useful. It will be these services that justify the annual and joining fees.

Clearly from the technical standpoint, the Intranet, Extranet and Gateway facilities are the most important
The implementation plan will need to prioritise these modules based on the factors in this response and in the previous response. My own priorities were based on the assumptions previously described and on experience of what it takes to run a TIS-like organisation.

A note on the realities of business life here. We may design a perfect TIS and obtain everyone's agreement. Then, after two years of market and services development, the Board might become nervous about the financial performance of TIS and change the priorities to revenue generating rather than trader services. I have to say that this is almost inevitable. This is why I have designed the mix of function and commercial in this way and in this sequence. This is also why we need a balanced mix of stakeholders and directors, and Government support for the first few years.

4. Stakeholders

I can only recommend, not mandate. But in an ideal world the Government would provide the funding and appoint a commercially experienced and mandated CEO. The Board would then comprise a number of directors-with commercial experience-representing the equity holders. Stakeholders with a minority equity interest, such as the Chamber of Commerce, Trade Professionals and Banks and Insurance companies would also be represented. Non executive, non voting directors should also include representatives from Customs, Port and Harbour and Container Handlers.

There are several models. Visits can be arranged to the most relevant during the Implementation Planning Phase.

Part Two: Technical Issues

The following response concerns your comments on the technical requirement as required for bidding. I would note that the Phase Four document was a functional specification, regarding the functionality of the systems to be provided by the various vendors and on how the systems will be deployed by the end users. It was not written to be a RFQ or a tender document. The contract did not ask for that. Indeed OMSAR has much more expertise than most in this area. Nevertheless, as you are aware, I have already provided information acknowledged to be satisfactory to OMSAR regarding an RFI. However, subject to these caveats and to the understanding that there will need to be an implementation plan and RFI prior to final specifications, I will answer your questions in as much detail as I am able.

1. Activities and Deliverables from Suppliers

The ability to meet this functional specification changes every day as new suppliers emerge, new products are announced and new contracts agreed. The major factor in deliverables will be the response to the RFI (PK input provided December 1998).
In general the vendors will need to supply hardware and operating systems, network products and basic application software necessary to running the TIS service. The vendors will also have to provide Internet access tools and web development tools. These basic products and services should be obtainable locally but, at OMSAR's choice, may be bundled in with the functional tools for data base access and higher value add components, described in pp 35-42 of the Phase Four report.

Note: It has been assumed that OMSAR are progressing their recommended whole of Government Intranet and that TIS makes use of it. If not, OMSAR will need to add their Intranet specifications to the TIS RFQ. This is to ensure access for all Government agencies involved with technical controls.

Specific data bases are obtainable from a range of sources; certain vendors may have their own proprietary information, but, with the exception of those specifically developed for TIS, it is anticipated that they will be accessed using traditional Internet means. For example, the Prohibitions and Restrictions data base has been developed by Customs. It is currently only available in Arabic and utilises an Excel spreadsheet presentation. It will need to be translated into English and French for wider trader use. This will be a function of the TIS. To regularly update versions and to ensure multi language versions are available for traders and clients.

Trade agreements will need to be entered by TIS or a sub-contractor, unless they are already in a machine readable format. Mechanisms to ensure that TIS keep these data bases up to date will also need to be agreed.

Trading partner's technical controls will be a hybrid. The vendor may wish to contract for that job. Alternatively, TIS may wish to create and operate that function. Somewhere in the middle is the range of countries who already provide free or paid (privileged) access

to that data. This decision will require a detailed examination of what is available if the vendors cannot provide such information. However, the priorities are quite clear. Only those data bases which refer to the majority of trade (import and export) need to be priority. That information is available from TIC.

Electronic brochures, capabilities, etc. will require a merchant server (from a selection of 10 or so, many referenced in the web sites in the report). This will also require technical scanning to a professional level, digital cameras, colour printers and high quality screens. Specific web creation software may also be proposed, depending on the amount of work envisaged. A later, secure component, will be the subject of further discussion but I favour asking vendors to make specific proposals on this item.
An alternate to this is that there might be a whole of Government studio facility, or an outsourced facility. These are implementation issues.

Trading partner business requirements are a TIS function. They will receive requests from their members and either create links or build data bases, probably a hybrid of both. The same is true of marketing communications. Freight rates can also be a TIS created data base or accessed via links. The same is true of banking and insurance products.

Electronic trade opportunities will be subject to vendor proposals but can also be linked via free and privileged web sites. The conversion of TradePoint opportunities will need to be developed by a sub contractor for TIS, or by one of the bidding vendors.

EDI and SME declarations will be another merchant server product, perhaps residing on the electronic brochures server. Ideally, it should be a higher functionality server since it will need to input into a Customs ASYCUDA system. It is expected that vendors will need to propose such a system, including "credit card payment per transaction" and account options.

Secure payments can be a further development of the electronic brochure server, perhaps bid for at a later date, depending upon RFI input.
The automated technical controls and risk management systems will be a major external development. It may require its own dedicated server for security purposes. It will need to be developed by a vendor.

As you can see, there are many variations. Without substantial input from the stakeholders and an agreed implementation plan, together with input from the vendor RFI there would be so many combinations that to go into any more detail would be impractical at this stage.

2. Tender Document

As mentioned previously, Phase Four was not concerned with developing a tender document, it was a functional specification. However, when OMSAR are ready to issue

a tender document I will be pleased to help. In the meantime, I offer the following observations.

We have to make some assumptions on the number of users in TIS. Bearing in mind the current status of consultation, there is very little to go on. I guess that a starting configuration of 10 workstations on a TIS LAN will be sufficient to begin with. Ultimately, I foresee all government agencies-however they are, by then organised-each with their own Intranet server and LAN. Assume that each has an average of five users at this stage. By the time TIS is fully functional with all applications operational and connected to LibanFac then we could see up to 200 workstations and a hierarchy of servers, function as described in the previous set of comments.

I would also suggest that, since this is to be a commercially operated, service organisation, each workstation will require a personal printer by the time that the system is fully operational.

Comments on training are valid but it is too early to be specific apart from general observations. We will need to know which modules will be developed in-house by TIS and other agencies and which will be developed externally, therefore requiring formal external training. The previous answers will give the best guidance available to those answers at the moment. However, the IT professionals at OMSAR are much better qualified to give these answers than any outsider.

Probably the best option would be for any outside vendors to provide specialist training (and upgrade training) to two designated TIS staff and for TIS to operate an end user training function.

Comments about DB layout are no longer relevant in my view. I have already stipulated an SQL environment in the Phase Four Report.

Data entry requirements are subject to who provides the data bases, which is still open to much discussion. The previous section gives a good guide.

3. Data Bases

See 1. Actions and Deliverables.

4. Arabic Requirements

I agree that Arabic is a local requirement but the linked data bases will be in their country's natural language, and English and French. The responsibility for translation will surely be TIS', subject to an ROI or overwhelming qualitative argument. Each case should be treated on its merits.

You already have my view on EDI standards, message sets, implementation guidelines, code sets, etc. The same may well be true of XML and XSML which are set to become the commodity version of EDI.

5. Number of Vendors

I believe that it is possible that you will get a single vendor who will agree to do everything. But I would be suspicious of that vendor. On the other hand, ideally, you will get a vendor who will agree to outsource or facilities manage the whole programme. They might even agree a revenue share-funding option. I believe that this latter course is the most favourable for Lebanon because it involves delegating responsibility with guarantees of performance and revenue.

I believe that several vendors will be interested in this approach. I can name them privately if you wish.

Conclusion

Bearing in mind my comments during this technical response I believe that I have completed my obligations. I will naturally help out as much as I can. It might be that there will be time available during the Workshop- period that we can draft a tender document or at least list the variables for resolution. I can also help draft the various TORs that emerge from the Workshop and the Phase Four recommendations if we have time.

Lebanon Trade Efficiency Project: Second Response to OMSAR Comments

The following is the reply to the comments received from OMSAR Friday April 2nd (Saturday April 3rd in Australia). The text of the comments is as follows:

In order to make the phase four report partly focused on functional specifications as outlined in the original TOR, we request that you add functional specifications for each of the proposed TIS systems and grouped modules as extracted from the first draft of the phase four report:

Module One Requirements
1. Technical Controls
2. Trade Agreements
3. Trading Partner's Technical Controls
· Module Two
4. Electronic Brochures
5. Trading Partner Business Requirements
6. Marketing, Communication Data Bases
· Module Three
7. Electronic Communications
· Module Four
8. Electronic Trade Opportunities
9. EDI; Declarations for SMEs
10. Secure Payments, Digital Signatures, Auctions
11. Issue/Monitor Technical Controls

As the table of content title for module one states (Module One Requirements), each grouped module description tends to be more requirements than functional specifications. To facilitate for non-technical functional specifications to be documented, the stack diagram referred entitled 'Proposed Trade Information Services (TIS) Systems' needs to be drawn as a data/process flow diagram. This diagram needs to bring out the data input and output requirements of each system (1 through 11 as stated above). From these requirements, the functional specifications of each system can then be deduced. Again, no technical specifications are required here, yet it will be clearer to any potential vendor as to what the system needs to fulfil. How this is fulfilled will be left to the vendor to decide and propose.

With the data inputs and outputs of each TIS system clearly documented, the inter-links between the various TIS systems becomes easier to visualise and document as well. Hence the data/process flow diagram request. This diagram can extend over a proposed holistic or piece-wise (per system) timeframe yet adding another visual dimension to the deployment of the TIS systems. Tend to think of this data/process flow diagram as the series of guidelines that potential vendors need to adhere to and/or enhance in the drive the implement the overall TIS setup.

As for the module groups, we need not propose any at this time, but rather leave it up to the various vendors to propose implementation scenarios. The as divided module groups (1 through 4) can be a proposed scenario, yet the vendor is left with the freedom to propose other scenarios as fits with the systems and communications offerings available through that vendor. We need not limit ourselves and the vendors to one implementation scenario at this stage. With a change in scenario, which in large part may be due to advancements in systems and communications technologies, the implementation steps and timeframe will certainly change as well.

With the above said, the functional specifications resulting from phase four can be eventually used in an RFI document with some introductory and editorial content for distribution to potential international vendors or consortiums in this field. Again, they need not be technical, however they should clearly depict a proposed piece-wise (individual system) and holistic (all TIS systems) data and process flow, with a certain implementation timeframe.

The interpretation of this set of comments is that OMSAR are still not clear on the technical component of the report and therefore require some more explanation. While I will comply with the request, I have to point out that the web sites referenced in Reports Two, Three and Four all pointed to vendors whose web sites illustrate live demonstrations of all but one of the components described, i.e. Technical Controls Issue/Monitor (although Tradegate and Australian Customs do describe their systems), which is not yet developed but has been specified in some detail within the original Phase Four report and within the Phase Three report. Further, none of the specialist vendors listed in the web sites, and contained in the RFI, will require any elaboration. They know perfectly well the sorts of systems I was asking for, and describing. As OMSAR will discover when you start talking to them.

Specific Response

The following set of notes and diagrams illustrate modules one to four and their constituent components 1-12. Start by referring to the "stack diagram", reproduced as Diagram 1: TIS Systems Overview here.

Each application is separated out in the diagram and numbered 1-12 because **they are stand alone applications**. There is only a modest potential for integration between these applications. This is not an elegant IT construction. It is a working set of applications necessary for efficient trade processes. It is just more convenient to have a centralised access, or switch, and an opportunity for revenue earning in order to subsidise the TIS organisation.

Access to the TIS system (switch) is by LAN, Internet, Lebanese Government Intranet, and by VANS. Some proprietary networks are also identified within the comms module.

Internet, electronic mail (e.g. AOL, CompuServe, other proprietary mail systems) and web access are necessary for users to make optimum use of the TIS system.

Note that the system may, at some stage, require payments to be made for a range of privileged services. Based upon TIS' decisions at the time these may be selected from: secure Internet payments (SET, SSL, etc.), TIS account customers (electronically debited and credited; electronic account maintenance and presentation), electronic bill presentment or FEDI. See Appendices to Phase Three and web sites referenced for further details if required.

The following diagrams and comments contain an information flow for each of the applications listed in the stack diagram (Diagram 1: Proposed Trade Information Services (TIS) Systems) in Report Four, except for component 8, communications module which is self explanatory and component 12: Issue/Monitor Technical Controls (see P.31, Report Four).

1. Component One: Technical Controls

Refer to Diagram 2.

For (web site) examples of this application, and links, see Customs web site (if now set up), Department of Commerce, USA; Department of Trade and Industry, UK; SITPRO, UK; Department of Foreign Affairs and Trade, Australia; Department of Commerce, New Zealand; ITC, Geneva; UNCTAD, etc.

2. Component Two: Trade Agreements

Refer to Diagram 3.

This is a free text database to be set up by TIS. There is no centralised source of this information in electronic format at the moment. For similar examples see WTO web site; see TIC web site, MOIET. See also Dept. of Industry and Trade, UK and various countries like Zambia, Tunisia through the TradePoint network.

3. Component Three: Trading Partners Technical Controls

Refer to Diagram 4.

This is a construction of links to be created by TIS. There is no central; source although UNCTAD and the WTO, together with ITC are working on it. See their sites.

Note that the first three components are simple web site access systems. They are not interconnected or integrated, except through links. Simple HTML technology is perfectly adequate, but good graphics and XML, Java and the like will be useful additions for navigation and for holding attention. Access is open to all Internet users and all TIS users for basic information. Privileged information (at the discretion of TIS) will be by login, password and firewall navigation.

4. Component Four: Electronic Brochures

Refer to Diagram 5.

This component is the first that requires some specialist expertise. It may need to be built, based on a merchant server, such as Microsoft Enterprise Site Server, InterWorld, etc. (see web site references).

Brochures are essentially electronic catalogues organised by products, services, capabilities and company/organisation contacts. Each "brochure" will be a discrete web site with the TIS merchant server so that there is a single point for navigation and search. A range of search engines will also be required.

Open access to this information will be available to all users and to any Internet user. Access will be encouraged and advertised as a service to members.

Privileged data on price lists, inventory availability and terms and conditions of sale and purchase will only be available through a hierarchy of security, using sophisticated firewall technologies. Encryption may be considered as an option, but only in later phases, as TIS gains experience in those topics.

5. Trade Information Services: Links to Other Sites

See Diagram 6.

Once again, this is a simple web access for members and users of TIS. TIS will construct navigation tools from icon 5 access. This will provide links and commentary for trade information services. Some may link to other web sites; some to proprietary networks and VANS. The idea is to provide a one stop shop for information on logistics, finance, insurance, news and information of general interest to the trader.

This site could also house the TIS newsletter, the EC Association site, "whats new", news releases and the like. It is a perfectly straightforward web site.

Some sources of information may demand secure or privileged access. That might be automatically allocated to TIS members, once they are logged in to TIS. Some might also wish to retain their independence and maintain their own security.

TIS will need to construct this site, perhaps with help from ITC and the existing TIC system.

6. Trading Partner Business Requirements, Capabilities

See Diagram 7.

As with most of the other components, the details of this activity will rest with TIS, after researching their customer and potential customer base. It is anticipated that the first part of this component will be via icon 6 on the TIS home page, which will lead to a list of URLs for the major Lebanese trading partners, those who have their own trading

partners requirements web sites. See Walmart, Woolworths Supermarkets, EAN, AIM web sites for examples.

A later development, based upon market feasibility and demand, could see a further use of the merchant server technology utilised in icon 4 (electronic capabilities). TIS could reproduce this system but instead of completing the catalogues for Lebanese companies it would complete identical [pages for major consumers of Lebanese products and services.

7. Marketing Communications; Research Data Bases

See Diagram 8.

Icon 7 will point to a series of general research links, taken from TIC and complemented by TIS. See TIC, ITC, TradePoint, Silk Road, InfoTrade and various Government procurement sites.

The second part of icon 7 functionality is to be a marketing data base to be used by TIS clients for general communications. It will comprise a TIS generated list of company names (Customers and Suppliers), addresses, contacts, Industry, Country, Size, Number of Employees, etc. It will be complemented by links to similar lists, e.g. Kompass. The list software technology will be decided by TIS but standard contact management software will be adequate for the job.

8. Network, Electronic Communications

Diagram 1 illustrates the protocols and access methods commonly deployed in these types of systems.

9. Electronic Trade Opportunities (ETO)

See Diagram 9.

ETOs are now listed on a variety of data bases, although UNCTAD TradePoint (inaccurately) claims to have invented the term. The idea is that interested purchasers briefly list their requirements on a web site and expect bidders (buyers or sellers) to complete a form offering to buy or sell. Variants include html data bases, where buyers can obtain detailed information from the URL. An extra sophistication is the ability to click on the html script and submit an EDI generated PRICAT, Price/catalogue message, in ANSI X12, EANCOM or EDIFACT formats.

The first phase of component 9 will see users select icon 9 to see a list of ETO providers. Some will be privileged access; some, especially country procurement sites, will be free. See Australian Government for free ETO/Contract details. See TradePoint, Silk Road, for privileged access. A simple print out of a web page is good enough to begin with. TIS will need to provide sort and presentation tools for TIS user presentation and convenience. Standard search engines will be sufficient for the first stage.

ETO EDI will require a file to be output from the ETO and to be translated into EDI formats. The TIS system will need a good multi purpose EDI translator, with comms modules, for this activity.

10. EDI Declarations for SMEs

See Diagram 10.

This component requires a merchant server front end to the ASYCUDA system. The trader or TIS will complete and electronic form with Customs required information. The form will transmit this declaration to ASYCUDA in EDI format (EDIFACT CUSDEC) over the Internet, initially in the clear, later on in encrypted formats. It may also send data in OBI format from the merchant server.

Both web EDI, using html and xml, and MIME (later S/MIME) for email carried EDI will be necessary. Some custom development may be needed or possibly an EDI Gateway could be installed, containing all necessary functionality. See Oracle, Sterling, Harbinger, AT&T, etc.

Customs will respond with an email message of approval, via the Government Intranet and the Internet .

11. Auctions, Payments

See Diagram 11.

This penultimate system will require a full functionality merchant server, with catalogues for items to be sold/auctioned. Items will be posted with a time limit for auction. Best price wins. Payment will be electronic, by credit card, on account, bill presentment or FEDI. Encryption will be needed for all payment methods and for connection to the banking clearance system, or an acquiring bank.

Later stages, especially for SET functionality, will require a CA for certificate issuing/ verification and digital signatures. TIS may possibly be able to operate its own CA.

The merchant server will need to provide interconnection, through the TIS comms module, with the interbank clearing system, with transport and logistics networks (for automating delivery instructions), and with insurance networks. It may also, in time, interconnect with voice and image call centres and data warehousing for trend tracking.

See any shopping or business to business site for examples, e.g.Cisco, Dell, Compaq. See any of a range of auction sites, such as excess IT inventory, autos, etc.

12. Issue/ Monitor Technical Controls

See Phases Three and Four Reports for description and diagrams.

Summary

The exact functionality, timing of components and/or modules and the sequence can only be determined after a full Implementation Plan has been completed. This will require significant consultation with the user/client base, and with the TIS stakeholders, and probably with their LibanFac counterparts. Unless TIS and LibanFac become a single organisation.

12. ISSUE/MONITOR TECHNICAL CONTROLS

11B. Call Centres
Distribution Centres
Track and Trace
Data Warehousing

11. Secure Payments, Digital Signatures
Buying, Auction, Sales Systems

11A. Public Key Authorities
Digital Certificates
Banking Networks
Transport Networks
Insurance Networks

10. EDI, Declarations for SMEs

9. Electronic Trade Opportunities

8. Internet, Intranet, Extranet,
Gateways, VANS Connections

8A. 2780/3780, FTP,
ISDN/ATM, SMTP,
X.400/X.500, Dial Up,
Proprietary Comms.

7. Marketing, Communications,
Research Data Bases

6. Trading Partner Business
Requirements, Capabilities

5. Trade Information Services
Links to Other Trade Sites

5A. Freight Rates/
Availability
Insurance Rates/
Contacts
Trade Finance
Rates/ Availability
Trade Diary

4. Electronic Brochures, Products,
Services, Capabilities, Contacts

4A. Secure Price Lists
Secure Inventory
Terms and Conditions

3. Trading Partner's Technical Controls

2. Trade Agreements

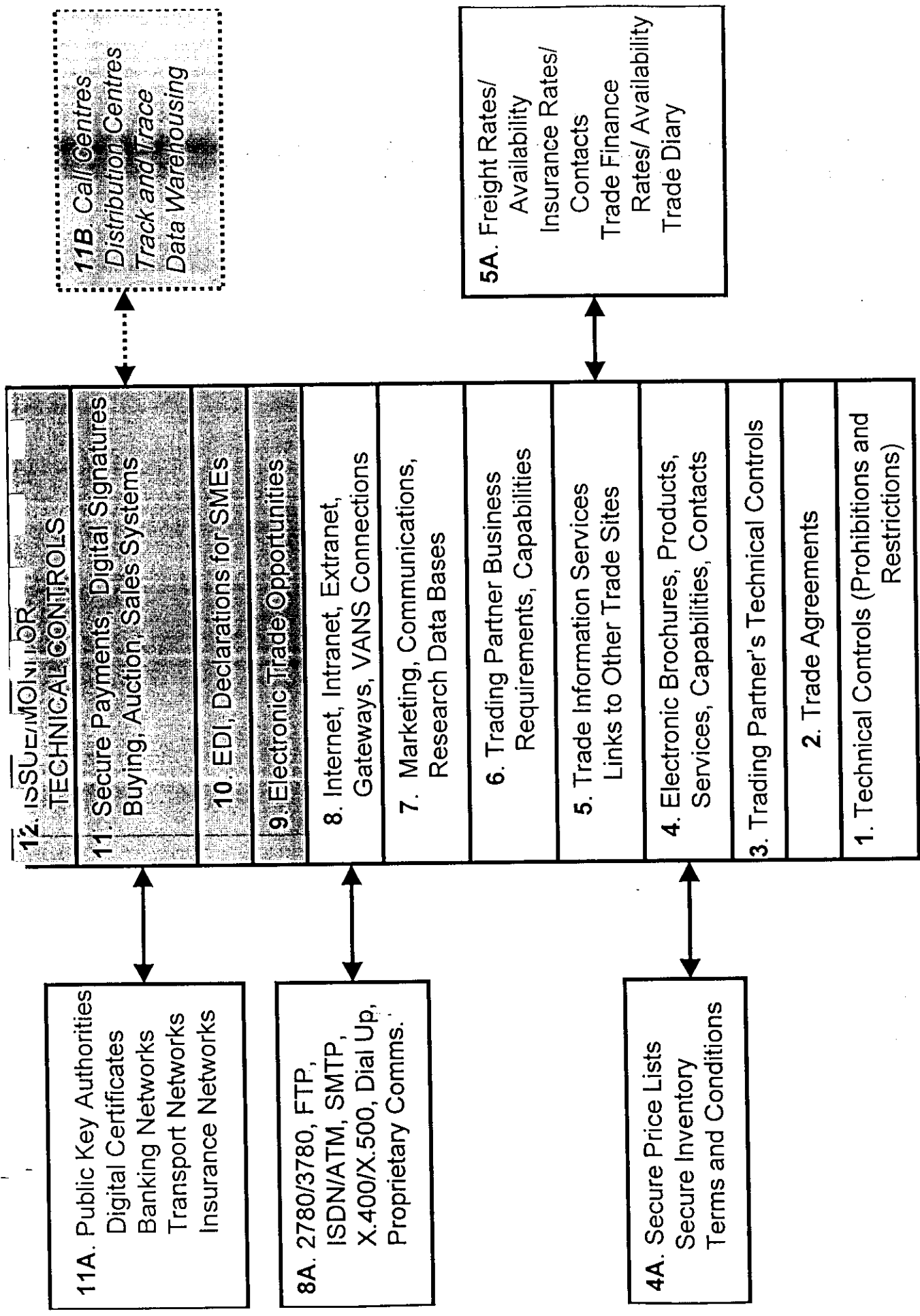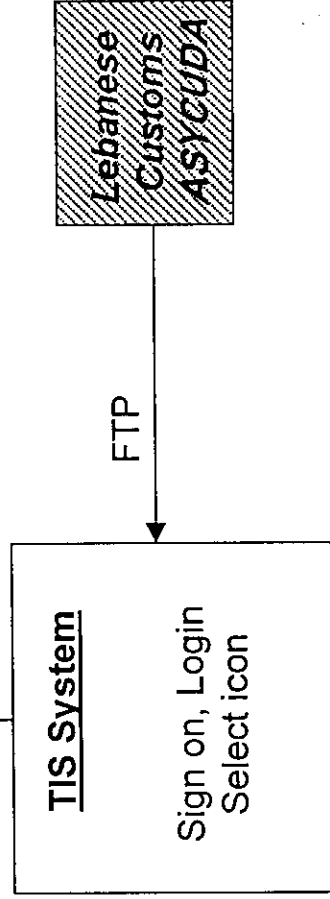**1.** Technical Controls (Prohibitions and
Restrictions)

Diagram1: Proposed Trade Information Services (TIS) Systems: Overview

Access by LAN, Internet, Government Intranet
VANS, Proprietary networks. Basic Services
free access. Privileged Services
requires use of login, password and verification.
Some may require payment for specific
information or services

Lebanese Customs ASYCUDA

FTP

TIS System

Sign on, Login
Select icon

Icon 1 is a URL which points to the Customs Excel database
on Prohibitions and Restrictions. Assuming correct level of access
(determined by TIS) end user reads database organised by HS code,
HS suffix, chapter, description, tariff and technical controls required.
P and R is a read only database. It may be held on the TIS system
and updated by regular FTP from Customs ASYCUDA database.

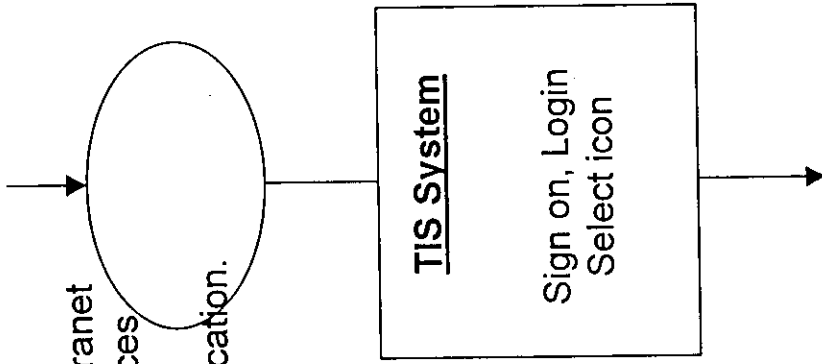**Diagram 2: Technical Controls: Prohibitions and Restrictions**

Access by LAN, Internet, Government Intranet VANS, Proprietary networks. Basic Services free access. Privileged Services requires use of login, password and verification. Some may require payment for specific information or services
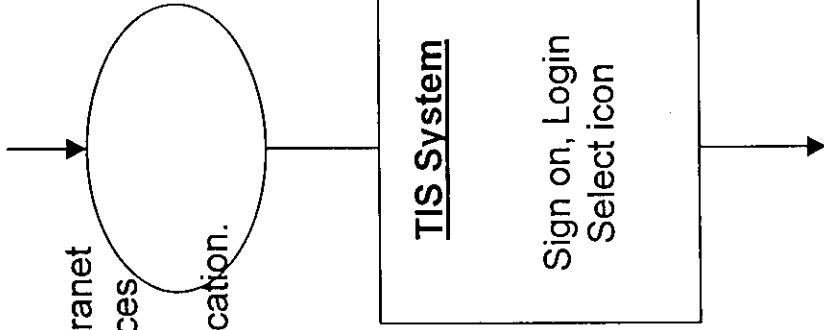
TIS System

Sign on, Login
Select icon

Icon 2 is a series of free text entries, created by TIS, with links to specific country web sites. Each page contains the details of Lebanese trade agreements with foreign countries

There will be a wide selection of links to make this page useful.

Diagram 3: Trade Agreements

Access by LAN, Internet, Government Intranet
VANS, Proprietary networks. Basic Services
free access. Privileged Services
requires use of login, password and verification.
Some may require payment for specific
information or services

TIS System

Sign on, Login
Select icon

Icon 3 is a series of free text entries, created by TIS, with links to
specific country web sites. Each page contains the details of trading
partner technical controls, reflecting the Lebanese P and R page.

There will be a wide selection of links to make this page useful. See
TIC home page, MOIET. See also UK Dept of Industry and Trade.

Diagram 4: Trading Partner's Technical Controls

Access by LAN, Internet, Government Intranet VANS, Proprietary networks. Basic Services free access. Privileged Services requires use of login, password and verification. Some may require payment for specific information or services

Check Access Levels for Required Application

Reject

TIS System

Sign on, Login Select icon

Tables of Secure Access Levels and Permitted Users

Approve

Firewall Access for Privileged users

TIS Merchant Server

Confidential Information

Marketing Materials

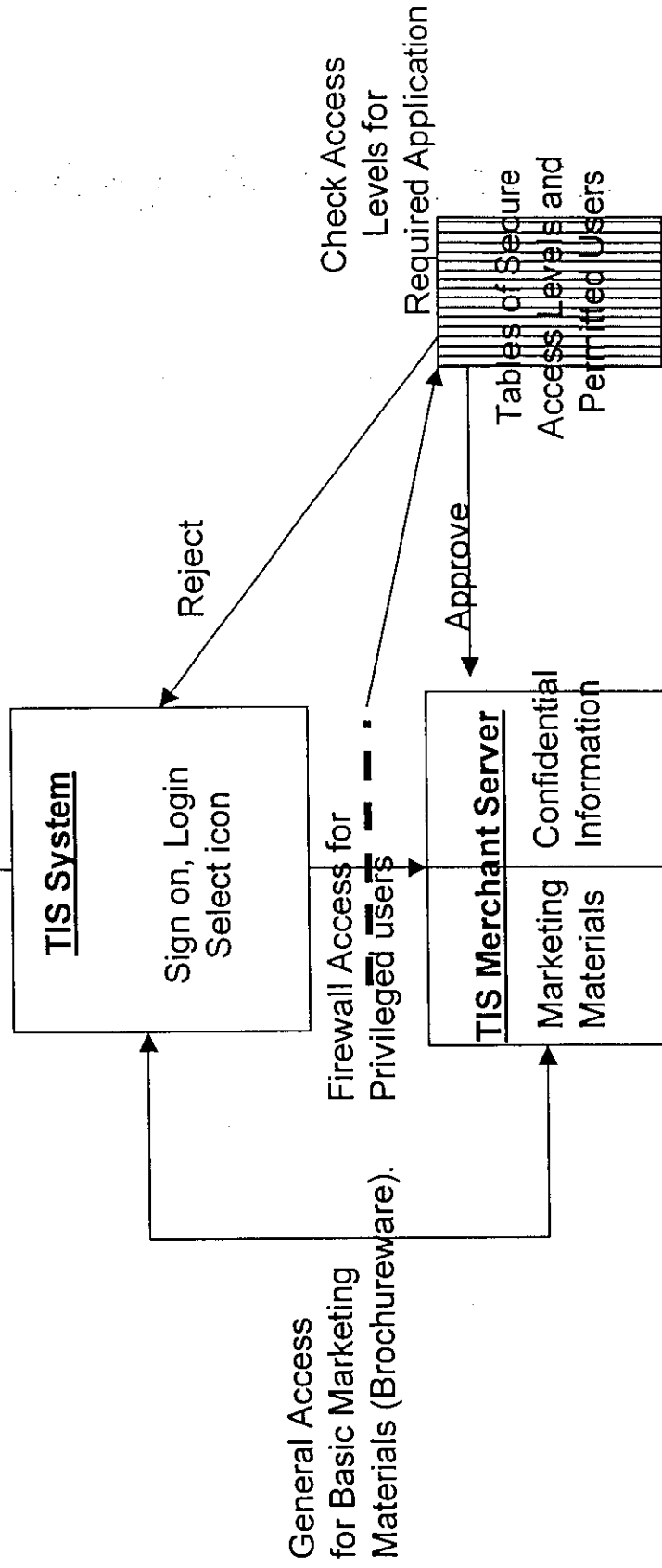General Access for Basic Marketing Materials (Brochureware).

Diagram 5: Electronic Brochures

Access by LAN, Internet, Government Intranet VANS, Proprietary networks. Basic Services free access. Privileged Services requires use of login, password and verification. Some may require payment for specific information or services

TIS System

Sign on, Login
Select icon

Reject

For Each Linked Web Site:
Check Access Levels for
Required Site/ Data Base

Tables of Secure
Access Levels and
Permitted Users

Firewall Access for
Privileged Users

Approve

General Access
for Basic Marketing
Materials (Brochureware).

Diagram 6: Trade Information Services Links

Access by LAN, Internet, Government Intranet VANS, Proprietary networks. Basic Services free access. Privileged Services requires use of login, password and verification. Some may require payment for 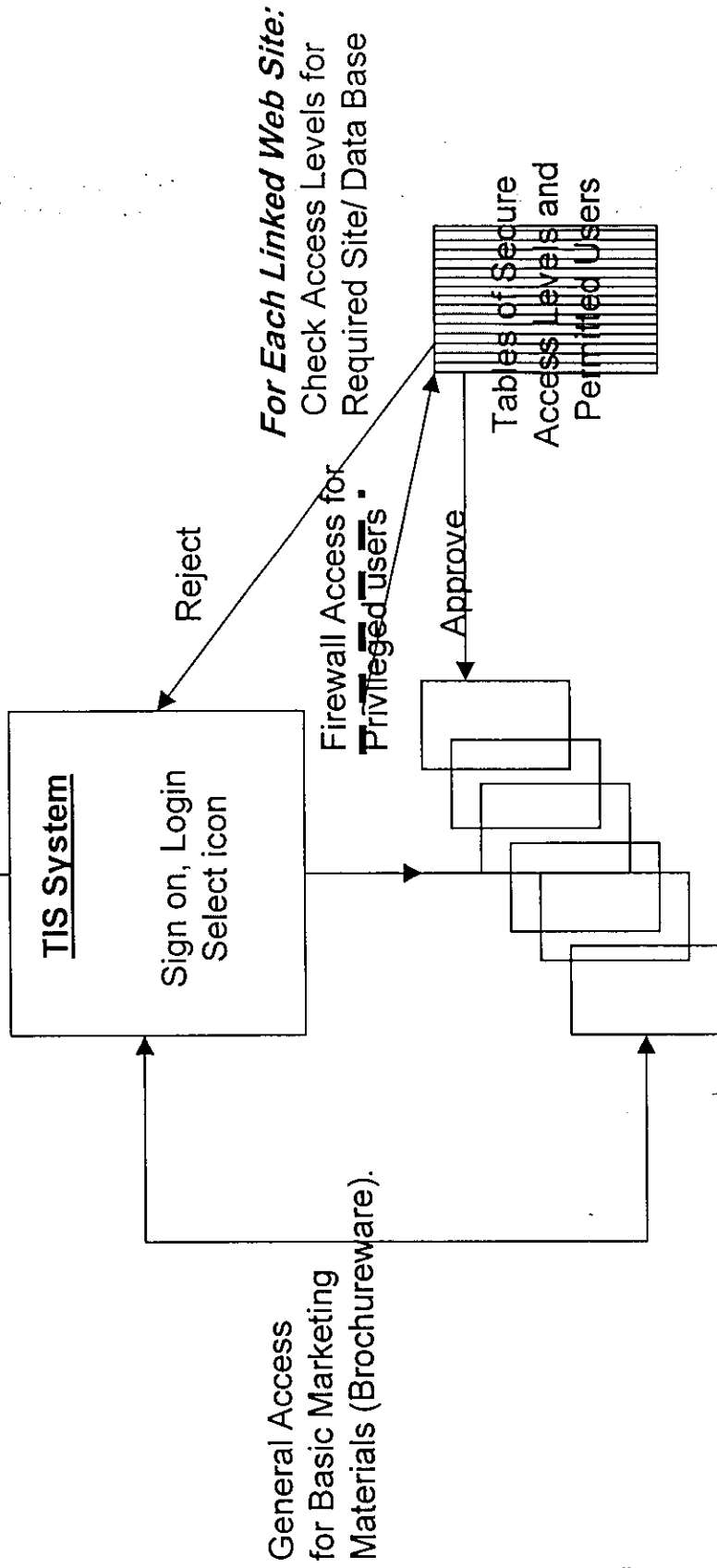specific information or services. For payment based services (a later requirement) secure payments, TIS account customers, bill presentment, and FEDI are options to be considered by TIS.

Access Networks

TIS System

Sign on, Login
Select icon

Reject

For Each Linked Web Site:
Check Access Levels for
Required Site/ Data Base

Firewall Access for
Privileged users.

Approve

Tables of Secure
Access Levels and
Permitted Users

Icon 6:
General Access
for Basic Marketing
Materials (Brochureware).

Privileged access for Pricing,
Inventory Availability.

Diagram 7: Trading Partner Business Requirements; Capabilites

Access by LAN, Internet, Government Intranet VANS, Proprietary networks. Basic Services free access. Privileged Services requires use of login, password and verification. Some may require payment for specific information or services. For payment based services (a later requirement) secure payments, TIS account customers, bill presentment, and FEDI are options to be considered by TIS.
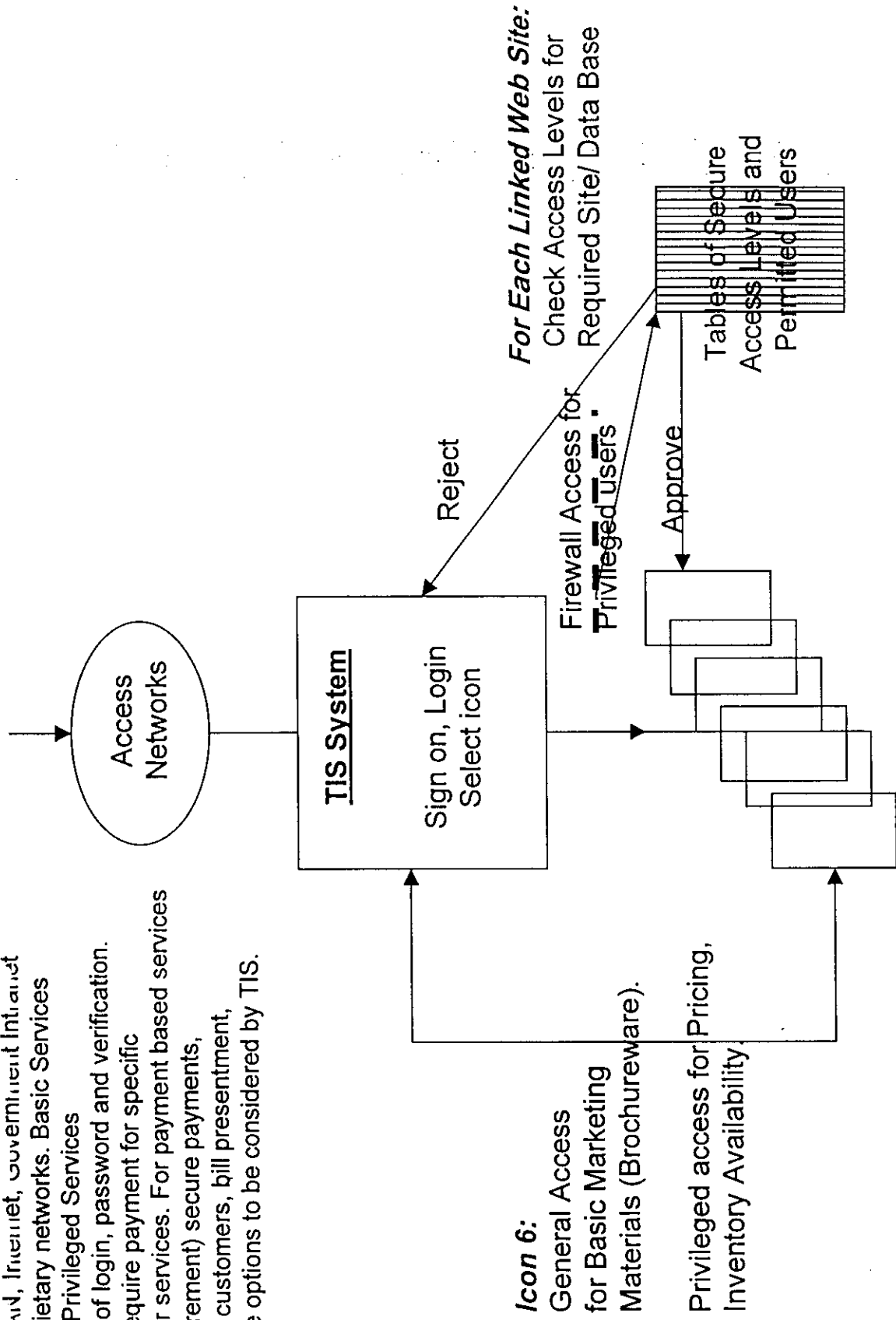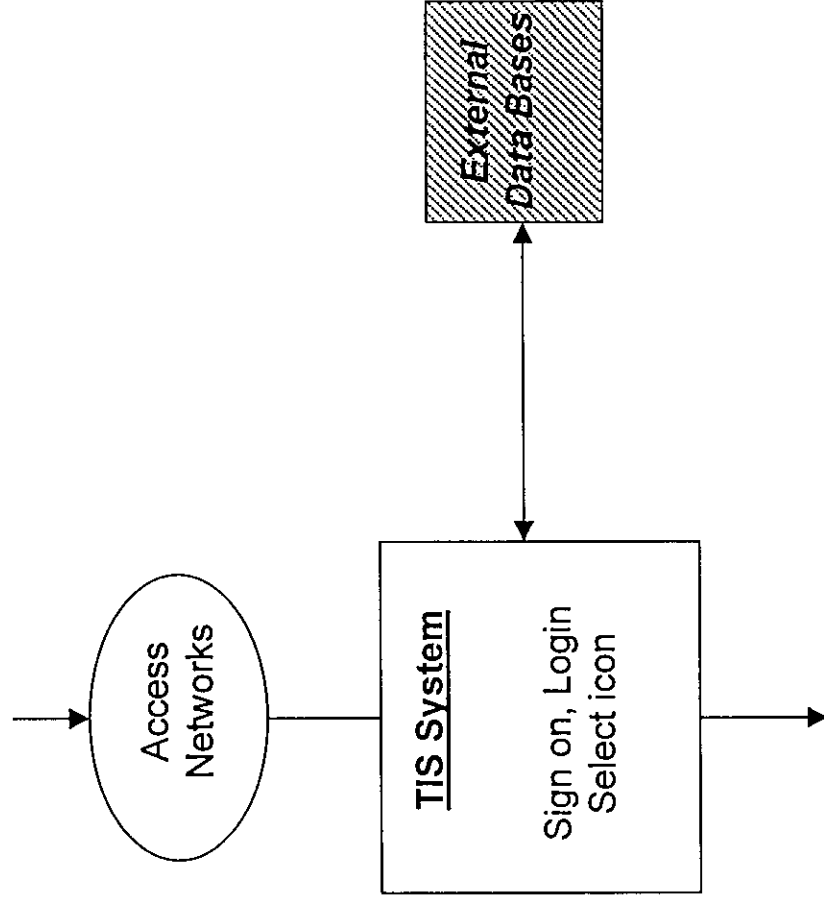
```
         ┌─────────┐              ┌──────────────────┐          ┌────────────────┐
  ──────▶│ Access  │─────────────▶│ TIS System       │◀────────▶│ External       │
         │ Networks│              │ ──────────       │          │ Data Bases     │
         └─────────┘              │ Sign on, Login   │          └────────────────┘
                                  │ Select icon      │
                                  └──────────────────┘
                                           │
                                           ▼
```

Icon 7 is a URL which points to a series of icons/references. One set is for general economic and marketing research.

It also points to a name and address data base, sortable by a variety of sort keys (e.g. Industry, Country, Size of Company, No of Employees, etc.). This data base will be compiled by TIS and complemented by others.

Diagram 8: Marketing, Communications, Research Data Bases

PRICAT File,
other responses to
VANS, ETO networks

•ETO List
•Present by Country, Industry,
Product, date, etc.

Access
Networks

TIS System

Sign on, Login
Select icon

Submit electronic
response
by EDI (PRICAT)

Access by LAN, Internet, Government Intranet
VANS, Proprietary networks. Basic Services
free access. Privileged Services
requires use of login, password and verification.
Some may require payment for specific
information or services. For payment based services
(a later requirement) secure payments,
TIS account customers, bill presentment,
and FEDI are options to be considered by TIS.

Icon 9 is a URL which points to a
series of icons/references.
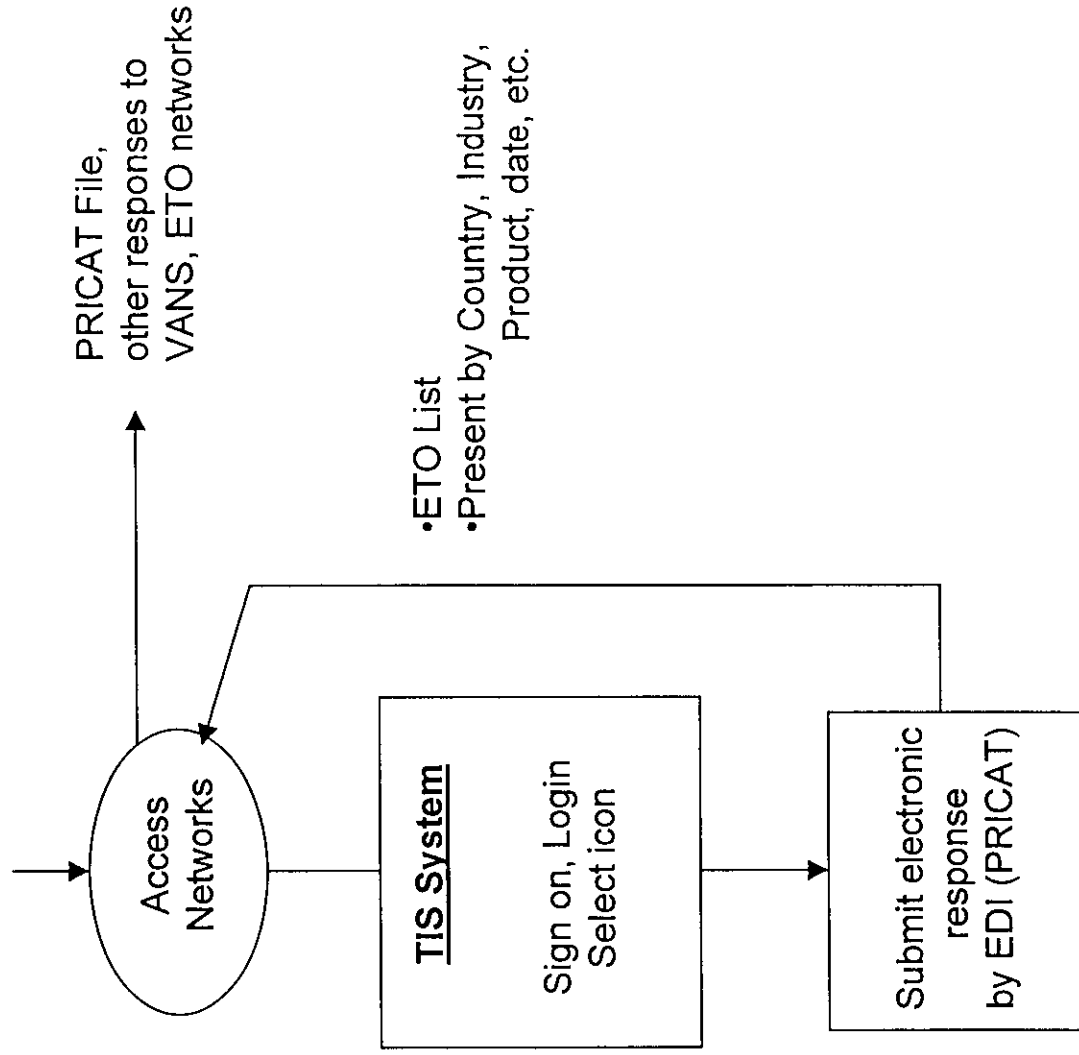Each of these is an ETO service,
some free, some privileged..

Diagram 9: Electronic Trade Opportunities (ETO)

CUSDEC to ASYCUDA

•Edit and Print/Review

Access Networks

TIS System

Sign on, Login
Select icon

Submit electronic
response
by EDI (CUSDEC)

Access by LAN, Internet, Government Intranet
VANS, Proprietary networks. Basic Services
free access. Privileged Services
requires use of login, password and verification.
Some may require payment for specific
information or services. For payment based services
(a later requirement) secure payments,
TIS account customers, bill presentment,
and FEDI are options to be considered by TIS.

Icon 10 is a URL which points to a
web site with CUSDEC forms. These may
use web EDI or encrypted email carriage.
Web site will use drop down menus for code
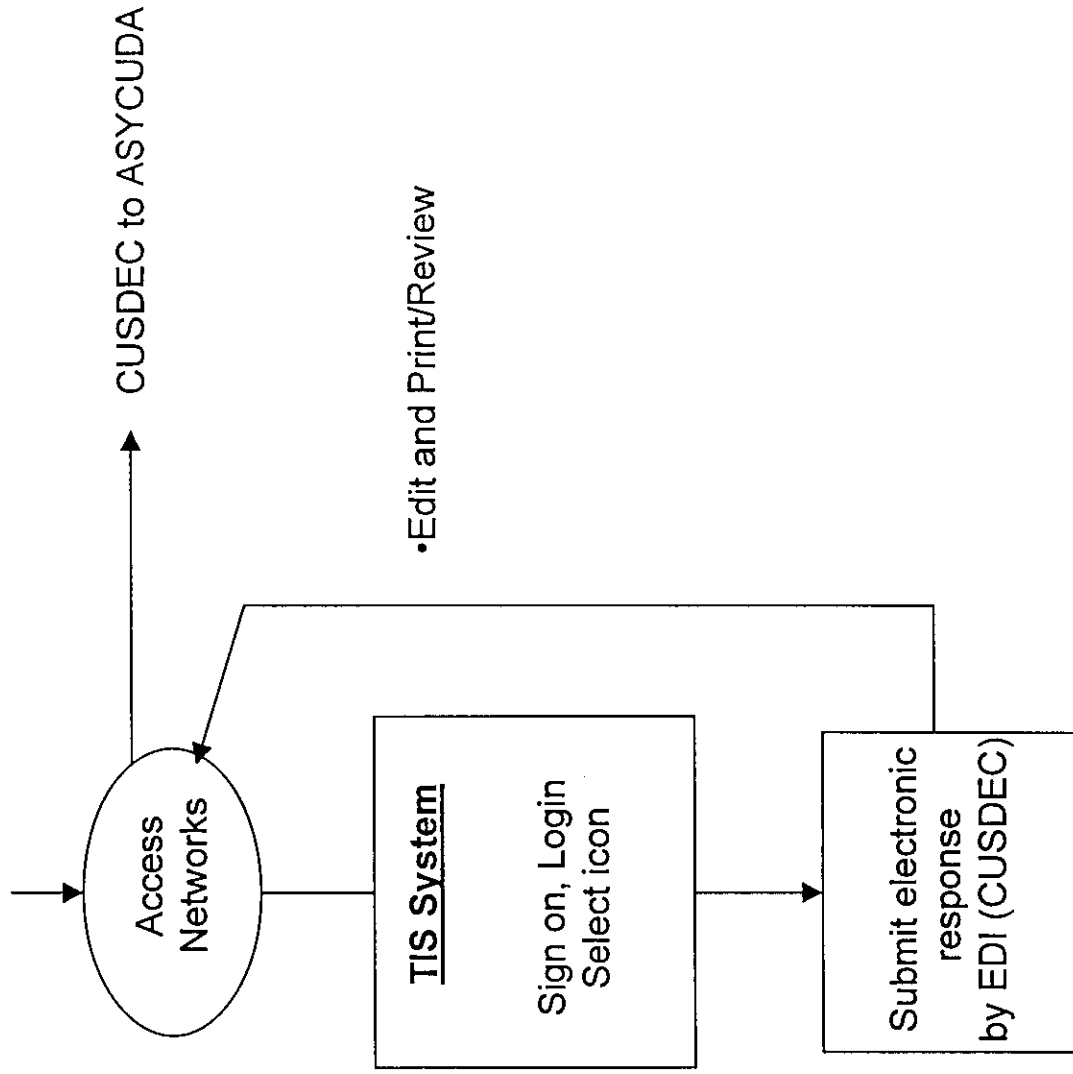lists and standard Customs entries.

Diagram10: EDI Declarations for SMEs

Access by LAN, Internet, Government Intranet VANS, Proprietary networks. Basic Services free access. Privileged Services requires use of login, password and verification. Some may require payment for specific information or services. For payment based services (a later requirement) secure payments, TIS account customers, bill presentment, and FEDI are options to be considered by TIS.

Icon 11 is a URL which points to a web site catalogue functionality. User selects items from catalogue and completes Eform with bid..
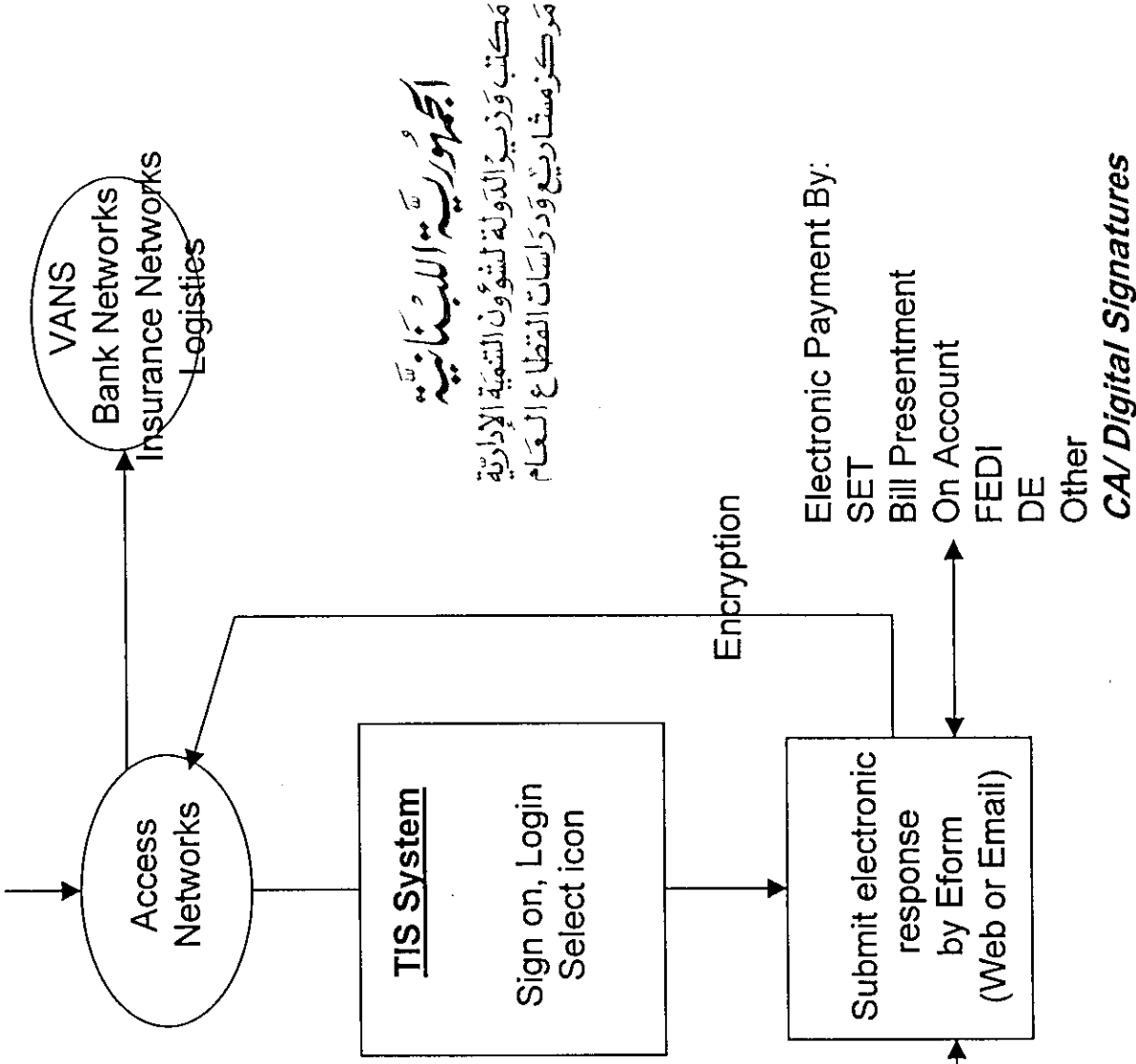
Call Centres
Data Warehouses
Track-and-Trace Services

VANS
Bank Networks
Insurance Networks
Logistics

TIS System

Sign on, Login
Select icon

Access
Networks

Submit electronic
response
by Eform
(Web or Email)

Encryption

Electronic Payment By:
SET
Bill Presentment
On Account
FEDI
DE
Other
CA/ Digital Signatures

Diagram11: Auctions, Sales Systems