# Government of the Syrian Arab Republic

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# United Nations Development Program

## Support for Business Innovation and Development Center in Deir Ez Zor

The project is aimed at bringing about the necessary support for the creation of a **Business Innovation and Development Center** in the city of Deir Ez Zor.

The Business Innovation and Development Center will act as a facilitating and **capacity-building** center for local Syrian entrepreneurs to meet their business development and technical needs, thereby increasing employment generation and sustainability in the region.

Interventions will first target **existing SMEs** before assisting **start-up enterprises** in order to build capacities and retool business practices with **added ICT emphasis** for efficiency, market outreach, the cross-fertilization of information related to market creation, innovation and mutual learning among SMEs.

Expected **short-term impacts** include enhanced capacities of local entrepreneurs, notably through training. **Long-run expectations** comprise increased sustainability among existing SMEs and reduced mortality rates among start-up businesses, resulting in sustainable employment generation within the region and poverty reduction.

UNDAF Outcome(s)/Indicator(s):

*Link to UNDAF outcome., If no UNDAF, leave blank)*

Expected Outcome(s)/Indicator (s):

*(CP outcomes linked t the SRF/MYFF goal and service line)*

**Improve conditions (legal, information, marketing, finance, ... etc) to enhance private sector investment and job creation**

Expected Output(s)/Indicator(s):

1. **Business plan developed**
2. **Business Center established**
3. **Business Service provided to local entrepreneurs**
4. **Activities publicized**

Executing Agency:                            **The State Planning Commission**

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| **Programme Period: 2002 - 2006** <br> **Programme Component: Achieving the MDGs** <br> **and Reducing Human Poverty** <br> **Project Title: Support for Business Invovation** <br> **and Development Center in Deir EzZor** <br> **Award ID: 00040885 (SYR/05/013)** <br> **Project ID: 00046441** <br> **Project Duration: August 05 –January 07 (18 months)** <br> **Management Arrangement: NEX** | Budget     US$208,224 <br> General Management Fees Fee:   US$ 11,776 <br> Total budget:    US$220,000 <br><br> Allocated resources: <br> • Government <br> • Regular <br> • Other: <br>     o TOTAL E&P   US$180,000 <br>     o ICTDAR*   US$ 40,000 <br> * GMS will be negotiated with ICTDAR |

**Agreed by: H.E. Mr. Abdallah Dardari**
Deputy Prime Minister for Economic Affairs and    Date: _____
Head of the State Planning Commission
On behalf of the Syrian Government and
the Executing Agency

**Agreed by: Mr. A. Al-Maqi**
Resident Representative – UNDP     Date: _____

N.B. The UN exchange prevailing at the signature date of the project is US$ 1= SP 53.45

# SECTION I - ELABORATION OF THE NARRATIVE

## Part I. SITUATION ANALYSIS

It is widely recognized that entrepreneurs play a vital role in promoting the private sector and the economic growth of states.

Small and medium-sized enterprises (SMEs) are considered to be one of the principal driving forces in economic development as they stimulate private ownership and entrepreneurial skills, generate **employment**, and help diversify economic activity, thereby making a significant contribution to gross domestic product.

In the context of countries in transition (CIT), SMEs have proven an important element of the **reform process** towards market economy and industrial restructuring. From political and social points of view, assistance to SMEs has also been considered both by national governments and international donors as a means to fight unemployment and poverty through self-employment, as well as a way to foster the **reduction of regional disparities** through local/regional development.

Promoting entrepreneurship and encouraging innovation within CITs thus has a vital role to play in reaching these development objectives.

In the case of Syria, small and medium-sized entrepreneurs represent a large and growing segment of the total workforce and approximately **80% of the private sector** workforce. They are active in several sectors including trade, tourism, agriculture, construction, industry and transportation to a lesser extent.

These entrepreneurs however, are unable to play an effective role in overall economic growth; their contribution to the GNP is hence very modest and does not live up to their potential.

SMEs lack proper organizational and administrative structure and prove unable to build their own capacities in areas of human resources, IT skills and financial management partly because they suffer from **dearth of resources**.

The high costs of travel coupled with the relatively high cost of IT technology also hinder these entrepreneurs' exposure to international standards and competition, which are necessary for developing their skills and innovation.

These combined factors are currently depriving Syrian entrepreneurs of opportunities to be competitive, responsive, productive, and innovative, all prerequisites for being successful entrepreneurs.

## *Supporting innovation and SME development*

To aid the development of SMEs, **business incubation** in its various forms (i.e. business incubators, support centers, science and techno parks etc., which provide entrepreneurs with appropriate premises, equipment, counseling and contacts) has proven a valuable tool in supporting business innovation, development and sustainability – for both newly-created and existing enterprises.

Therefore, effective **cooperation** from both private and public sector actors in promoting SMEs development should be sought after as a recipe for success.

Private sector partners can provide the appropriate **technical assistance**, expertise and seed funds necessary for such a program, while public sector authorities can provide premises and logistical help, while **reducing bureaucratic red tape** that tends to hinder fledgling enterprises' viability.

In this regard, incubation also means developing a supportive and stimulating environment for entrepreneurship and start-up companies. This in turn should help improve the overall business climate, resulting in positive externalities for the private sector as a whole.

## *A multi-stakeholder partnership*

Considering the current entrepreneurial situation for SMEs in Syria, and in light of over a decade of **worldwide UN experience** with support to the private sector in developing economies, UNDP Syria initiates the project through **public-private partnership** aiming at establishing and supporting a Business Innovation and Development Center to promote SMEs in Syria.

The Center will serve as a permanent, sustainable example and as a **model for initiatives** in the rest of the country. This business development center is expected to utilize the tools of business incubation to provide both **resources and services** in the promotion of a targeted segment of the Syrian private sector, Syrian SMEs.

## PART II. STRATEGY

This project is aimed at bringing about the necessary support for the **creation, implementation and sustainability** of a Business Innovation and Development Center **in Deir Ez Zor.**

The primary objective of the center is to improve the business capacities of existing enterprises and allow well-trained, viable SMEs to pursue their activities outside the center, thus generating sustainable employment opportunities and business activity.

This Center will act as facilitating hub for local Syrian entrepreneurs to meet their business development and technical needs. By providing multiple services and resources, the Center will aim to **build the capacities of SMEs**, notably in terms of employment generation.

The Center will support entrepreneurs working in one or more specific sectors, to be determined in full coordination with the **Deir Ez Zor Chamber of Commerce and Industry**.

It will provide eligible entrepreneurs, as needed, with premises, IT infrastructure and counseling on administrative, financial, legal and technical aspects of entrepreneurial activities in the region.

At first, interventions will mainly **target existing SMEs** in order to retool business practices, notably through training on business plan design and management, with added ICT emphasis for efficiency, market outreach, the cross-fertilization of information related to market creation, innovation and the sharing of know-how, i.e. mutual learning among SMEs operating within the center.

The program will seek to promote, support and complement large scale and **replicable** employment generation initiatives.

## Phase 1: Preparatory assistance

All stakeholders of the project should assist in providing the required means for the design and functioning of the Center, starting with the support of a task force in charge of organizing the following (possibly through an initiation meeting):

1. Conduct a feasibility study for the establishment of the Center in Deir Ez Zor
2. Determine secondary purposes of the Center with relevance to the local context, in close coordination with the local Chamber of Commerce
3. Determine eligibility criteria for candidate entrepreneurs
4. Design the Center's **business plan**, resources and cost-recovery structure to ensure its sustainability
5. Detail the support services to be provided by the Center
6. Appoint the Center's director and team

## Phase 2 : Implementation

According to the findings and recommendations resulting from the preliminary stage, this phase will comprise of the following activities:
1. Rehabilitate selected premises
2. Set up an ICT Hub (service provider) in partnership with government, NGOs, professional associations, local authorities and the private sector
3. Launch the selection process of local entrepreneurs
4. Provide SMEs with relevant Center support, such as:
   ✓ Provide training in human and financial resources management

     ✓ Provide orientation on marketing and promotion techniques

     ✓ Provide training on strategic planning and product life cycle

     ✓ Provide access to international competitiveness benchmarks aimed at improving the quality of Syrian SMEs products

     ✓ Assist in conducting feasibility studies for new ideas developed by entrepreneurs

     ✓ Develop an SME Info Portal and Toolkit and design information management tools

5. Conduct publicity campaigns to develop entrepreneurship especially among **Women and Youth**

6. Organize conferences and local business networks through which SMEs can share experience

7. Organize public events, presentations and consultations on the adoption of new production technologies and the use of ICT.

## Services to be offered within the Center

The mission of the Center will be to offer a comprehensive range of programs and services designed for entrepreneurs at all stages of business development, articulated around the following service lines:

o **Counseling and Advisory services** (assistance in the design of business plans and feasibility studies, creation of a collaborative platform to foster exchange of good practices)

o **Capacity Building services** (access to ICT equipment and related training, training on ICT for business management, financial management, English and sectoral technical trainings)

o **Information services** (provide local/national/international legal, commercial and business information to facilitate market access, create a resource sharing database or web-based system of information)

## Phase 3: Evaluation and Replication

Based on a **business model** to be designed during the preparatory phase, as well as the findings of the **evaluation report** that will be jointly prepared by the appointed board and the management team, the experience may be extended to other areas in Syria.

For accurate evaluation, the Center's performance and sustainability may be measured against the following benchmarks[*]:

• **Performance outcomes** – which include program sustainability (revenues and costs generated) and growth, tenant firms' survival and growth (both in terms of

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[*] see Sarfraz Mian, <u>Technology Business Incubation: Learning from the US Experience</u>, State University of New York at Oswego, 1997. A review of the main evaluation factors is provided in the OECD paper : <u>Technology Incubators: Nurturing Small Firms</u> , 1997.

sales revenue and capital), contribution to the Center's sponsors mission, and community-related impacts (employment created and sustained).

- **Management Policies and their effectiveness** – measuring the effective use of resources against the Center's objectives. The elements assessed include the goals, organization and governance of the incubator, financing and capitalization, operational policies and target markets.
- **Services and their value added** – assessment of the perceived value added to the supported firms in terms of services and facilities provided, and the perceived value associated to the knowledge sharing and to the Center's environment.

# PART III. MANAGEMENT ARRANGEMENTS

Since 1962, UNDP, the United Nations' global development and knowledge network, has been operating in Syria and cooperating with the government and focusing on human development issues. Working closely with the State Planning Commission (SPC) ensures that international cooperation programmes and internationally agreed development goals are brought in line with national development priorities, simultaneously ensuring that projects meet the twin needs of priority and sustainability.

The project will be executed by the Syrian government under the NEX modality in close cooperation with UNDP Syria and TOTAL E&P. In order for this program to be successful, past UN experience has shown that it requires cooperation and partnership at three levels: the strategic level (policy making), the institutional level (support institutions, i.e. private donors and the UNDP), and the enterprise level (entrepreneurs and business entities). Thus UNDP Syria CO, as the execution partner with the Syrian government, takes responsibility for management of the project implementation process in coordination with other multiple stakeholders.

Responsibility of each party is as following:
**Syrian government** will provide total supervision to the project and suitable premises and infrastructure for the implementation of the Center as well as advisory support.
**UNDP Syria** will undertake total management and observation of the implementation process through the duration of the project. It will also coordinate the communication with all stakeholders, including regular reporting to TOTAL E&P.
**UNDP ICTDAR** programme will ensure proper counseling and training on the ICT component of the initiative.
**Deir Ez Zor Chamber of Commerce and Industry** will provide assistance in determining relevant strategies (both in terms of training and business plan) for the Center to match local needs.
**Local NGOs** may assist in conducting all preparatory studies and identifying local partners for the implementation phase.
**University of Deir Ez Zor** may provide supportive human resources both in preparatory and implementation phases.

UNDP support staff for administration, finance and operation including IT that support project activities will be charged to the project.

Implementation Support Services fees will be applied by UNDP on all services provided to the project as per the Universal Price List.

## PART IV. MONITORING AND EVALUATION

The project will be subject to monitoring and reporting in accordance with UNDP guideline and agreement between UNDP Syria office and Total E&P. UNDP Syria CO will have overall responsibility for reviewing annual project progress reports to be prepared by the project staff, and the annual work plans will be adjusted depending on the progress.

Regular reporting and financial auditing should be shared with all counterparts in order to be monitored, discussed and evaluated. The Monitoring and Evaluation plan and indicators will be identified at the preparatory assistance phase. An independent (external) evaluation will be conducted at the end of the project.

## PART V. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of the S.A.R. and the United Nations Development Program, signed by the parties on 12 March 1981. The host-country implementing unit shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government cooperating agency described in that document.

The following types of revisions may be made to this project document with the signature of the UNDP Resident Representative only, provided he is assured that the other signatories of the project document have no objections to the proposed changes:

- Revisions in, or additions of, any of the annexes of the project document.
- Revisions which do not involve significant changes in immediate objectives, outputs or activities of the project, but are necessitated by rearrangement of inputs already agreed to, or by cost increases due to inflation; and
- Mandatory annual revisions, which re-phase the delivery of agreed project inputs or expert or other costs due to inflation or take into account expenditure flexibility.

## Section II: RESULTS AND RESOURCES FRAMEWORK

**Intended Outcome:** Improve conditions (legal, information, marketing, finance, ....etc) to enhance private sector investment and job creation.

**Outcome indicators:** 1. Viable Business plan designed and set in place 2. Business Center functioning effectively 3. Capacity of local business developed 4. Programme activities publicized and potential for replication to other areas proved
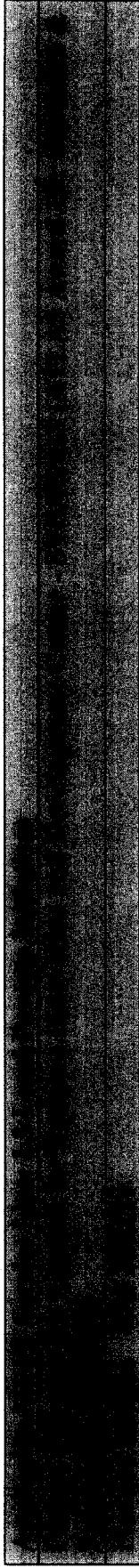
**Applicable MYFF Service Line:** 1.5 Private Sector Development

**Project title and ID: Support for Business Innovation and Development Center - SYR/05/013 (ATLAS Award ID:00040885 & Project ID: 00046441)**

| Intended Outputs | Indicative Activities | Responsible Parties | Inputs US$ |
|---|---|---|---|
| 1. Total business plan of the center developed through forming a task force | 1.1 Task force formed<br>1.2 Feasibility study conducted<br>1.3 Project staff recruited<br>1.4 Business plan (cost recovery, resources, activities) discussed and determined | UNDP Syria<br>UNDP/ICTDAR<br>Deir Ez Zor Chamber of Commerce | 1 International consultant for 2 weeks = $ 7,000<br><br>1 National project manager for 3 months = $ 6,000<br><br>1Center Director<br>$800* 16 months = 12,800<br>3 Core management staff<br>$600*16 months = 28,800<br>1 Administrative staff<br>$400*16 months =6,400 |
| **Sub-total** | | | **$61,000** |
| 2. Business center established | 2.1 The center premises rehabilitated<br>2.2 IT hub set-up | UNDP Syria<br>UNDP/ICTDAR<br>Governorate of DeirEz Zor<br>Deir Ez Zor Chamber of Commerce | Rehabilitation cost = $25,000<br>IT equipment = $ 82,400 (see attached)<br>Furniture = $ 3,000 |

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| **Sub-total** | | | **$ 110,400** |
| 3. Business service provided to entrepreneurs | 3.1 Trainings for capacity development conducted<br>3.2 Counseling and Advisory service provided<br>3.3 SME info portal and toolkit developed | UNDP Syria<br>Project Staff<br>Governorate of DeirEz Zor<br>Deir Ez Zor Chamber of Commerce | Center operation cost =<br>$ 16,000<br>Portal/toolkit development<br>= $ 5,000<br>Training cost =<br>$ 10,000 |
| **Sub-total** | | | **$ 31,000** |
| 4. Activities publicized and networks established | 4.1 Workshop conducted | UNDP Syria<br>Project staff<br>Governorate of DeirEz Zor<br>Deir Ez Zor Chamber of Commerce | $ 5,824 |
| **Grand Total** | | | **$ 208,224** |

| Output | Activities | Budget | Amount |
|---|---|---|---|
| 1. Total business plan of the center developed through forming a task force | 1.1 Task force formed<br>1.2 Feasibility study conducted<br>1.3 Project staff recruited<br>1.4 Business plan (cost recovery, resources, activities) discussed and determined | 1 International consultant for 2 weeks = $ 7,000<br>1 National project manager for 3 months = $ 6,000<br>1Center Director $800* 16 months = 12,800<br>3 Core management staff $600*16 months = 28,800<br>1 Administrative staff $400*16 months =6,400 | 61,000 |
| 2. Business center established | 2.1 The center premises rehabilitated<br>2.2 IT hub set-up | Rehabilitation cost = $25,000<br>IT equipment = $ 95,000 (see Annex)<br>Furniture =$ 3,000 | 110,400 |
| 3. Business service provided to entrepreneurs | 3.1 Trainings for capacity development conducted<br>3.2 Counseling and Advisory service provided<br>3.3 SME info portal and toolkit developed | Center operation cost = $ 16,000<br>Portal/toolkit development = $ 5,000<br>Training cost =$ 10,000 | 31,000 |
| 4. Activities publicized and networks established | 4.1 Workshop conducted | Workshop cost = $5,824 | 5,824 |

**Annex**

**Technical Specifications**

| Item Name | Qty |
|---|---|
| Computers | 25 |
| <ul><li>Dell, HP or equivalent</li><li>Intel PVI at least 3.2 GHz or more</li><li>Memory: At least 512 MB RAM (1 chip) Upgradeable</li><li>Cache: L2 512 KB full Cache</li><li>Hard disk at least 60 GB or more</li><li>DVD Reader</li><li>3.5" floppy disk drive</li><li>10/100/1000 Mbps integrated Ethernet adapter</li><li>Ports: At least 2 high USB ports - LPT</li><li>Display adapter, with at least 64 bit</li><li>Optical Mouse (included)</li><li>17" LCD color monitor</li><li>Keyboard & optical mouse</li><li>Individual UPS</li><li>Licensed XP Professional</li></ul> | |
| Notebook | 1 |
| <ul><li>Dell, Toshiba, HP or equivalent Notebook Intel Pentium-M ULV Centrino at least 1.3 GHz</li><li>Memory: At least 1024 MB RAM (1 chip) Upgradeable</li><li>Cache: L2 512 KB full Cache</li><li>Hard disk at least 80 GB or more</li><li>Compo CD ROM drive – DVD – CD writer included (internal)</li><li>3.5" floppy disk drive (internal is preferred and should be included)</li><li>10/100/1000 Mbps integrated Ethernet adapter</li><li>Integrated modem</li><li>Ports: At least 2 high USB ports - LPT</li><li>Display adapter, with at least 128 bit</li><li>Supporting Bluetooth / Supporting to wireless technology</li><li>Sound Controller; integrated speakers preferable</li><li>Wireless Optical Mouse (included)</li><li>Licensed XP Professional</li><li>Lithium ion Battery charging time 5 hours at least</li><li>Bag is included</li><li>Weight as light as possible</li></ul> | |
| Network Printer | 2 |
| <ul><li>Print Speed: at least 40 ppm</li><li>Memory: at least 128 MB</li><li>Monthly Volume : at least 15000 pages</li><li>Trays Capacity: at least 2 tray X 300 Sheet</li><li>Connectivity: 1 parallel and 1 10/100/1000 Base - TX</li><li>4 cartridges</li></ul> | |
| Copier | 1 |
| <ul><li>Black and white digital copier</li><li>At least 40 pages per minute (letter)</li></ul> | |

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| • Two-sided copying standard<br>• 50 page Duplex Automatic Document Feeder<br>• Scan-once-print-many technology<br>• First page out time in less than 8 seconds<br>• Up to 3 paper trays including the bypass tray<br>• Bypass tray for envelopes, transparencies or special media | |
| **Scanner** | 1 |
| • Resolution: Optical Max. 600 x 2400dpi & Interpolated: Max. 9600 x 9600dpi<br>• Grey Scale: 256 shades of grey<br>• Color Depth: 48 bit internal / 24 bit external<br>• Scan key: Scan to e-mail/OCR/Image/File | |
| **Fax** | 1 |
| • Modem: at least 33.6kbps<br>• Dual Access<br>• Automatic redial<br>• One-touch dials<br>• Speed dials up to 200 locations<br>• Group dials up to 5 groups<br>• Fax / Tel switch<br>• Super fine<br>• Grey scale: 256 shades of grey<br>• Delayed timer up to 50<br>• Memory transmission up to 500 pages<br>• Out of paper transmission up to 500 pages<br>• Broadcasting locations<br>• Batch transmission<br>• Auto reduction<br>• Error correction mode<br>• Fax forwarding<br>• Remote access<br>• Fax retrieval | |
| **Video Projector** | 1 |
| • Brand name: Infocus or Equivalent.<br>• Brightness : At least 1000 ANSI Lumens<br>• Contrast ratio: at least 1500:1<br>• Image size (diagonal): at least 0.8 m (min) / 4 m (max)<br>• Native resolution: 1024 x 768<br>• High picture performance<br>• Help Function<br>• Auto Input Search<br>• Speakers<br>• Equipped with remote control<br>• At least 2 years warranty<br>• Soft carrying bag | |
| **Digital Camera** | 1 |
| • Brand name: Sony<br>• Imaging device: 5.0 Mega pixel at least<br>• Zoom: 3X Optical, 2X Digital at least<br>• Focus: 5 Area Multi-Point AF at least<br>• Shutter speed: High speed mechanical shutter | |

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| • Color LCD: at least 2.5" Pixels LCD Screen<br>• Flash modes: Auto/Forced On/Forced off/Slow Synchro, Red-eye Reduction On/Off<br>• Still image modes: JPEG (Fine/Std.)<br>• USB terminal<br>• Memory: 256 MB at least<br>• Battery: Hi capacity rechargeable battery | |
| Generator | 1 |
| To be determined | |
| **Access Switch** | 3 |
| • Network Ports : Twenty Four 10/100 Mbps ports , ONE 2 Gbps optical fiber port, Full-duplex operation in each port, Auto-sensing of communication speed and auto negotiation of duplex mode, Console port,<br>• Standards Compliance : IEEE 802.3, IEEE 802.3u, IEEE 802.1 D, IEEE 802.1p, IEEE 802.1 Q, IEEE 802.3z/IEEE 802.3ab<br>• Hardware Features : Min switching Fabric speed 8.8 Gbps, Forwarding rate 6.6 Mpps, MAC addresses 8,000,<br>• Management : Has SNMP agent, Supports SNMP MIB II, Supports Bridging MIB, Allows out-of-band management via serial port, Allows in-band management via telnet, Allows graphical management via Web interface, Supports RMON, Complete with management S/W<br>• Security : MAC-based port level security, Multilevel access security for console,<br>• Administration : Allows S/W upgrade via TFTP ,<br>• Advanced Features : Allows VLAN operation, Supports priority queuing, Supports IGMP snooping,<br>• Power Supply : 220 v (+/- 10%), 50 Hz (+/- 5%). | |
| Backbone Switch | 1 |
| • Network Ports (min specs): 24 X 1Gbps optical fiber ports.<br>• Standards Compliance : IEEE 802.3z/IEEE 802.3 ab, IEEE 802.3x, IEEE 802.1p, IEEE 802.1 Q,<br>• Hardware Features : Wire speed non-blocking on all ports, Switching Fabric speed min 24 Gbps,<br>• Management : Has SNMP agent, Supports SNMP MIB II, Supports Bridging MIB, Allows out-of-band management via serial port, Allows in-band management via telnet, Allows graphical management via Web interface, Complete with management S/W,<br>• Security : MAC-based port level security, Multilevel access security for console,<br>• Administration : Allows S/W upgrade via TFTP,<br>• Advanced Features : Allows VLAN operation, Supports priority queuing, Supports L3 switching, Supports IGMP snooping, Supports DVMRP ,<br>• Power Supply : 220 v (+/- 10%), 50 Hz (+/- 5%).<br>• Additional redundant power supply | |
| Cabling | 1 |
| To be determined upon field visit | |
| Internet Router | 1 |
| • Self boot router with the following min specs:<br>• Structure : Modular,<br>• LAN Interface : One 10/100 Mbps Ethernet interface,<br>• WAN Interface : 2 ports for E1 connectivity, | |

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| • Network Protocol Support : Includes TCP/IP, Novell IPX, X.25, HDLC, Frame Relay,<br>• Routing Protocol Support :Includes RIP, OSPF, EGP, ES-IS, IS-IS, and BGP4,<br>• WAN Bandwidth Management : Includes Dial-on-demand, Dial-backup, WAN reroute restoral, triggered RTP, IPX spoofing, NetBios filtering, bandwidth filtering and reservation, and bandwidth on demand,<br>• Bridging Capability : Includes transparent bridging,<br>• Management Capability : Has SNMP agent that supports at least SNMP MIB-II, manageable via SNMP by industry standard network management systems,<br>• Administration Capability : Remotely accessed for statistics and configuration manipulation, flash memory upgradeable for simplified S/W maintenance,<br>• Security Capability : Allows different internal access usernames and passwords per channel as through a centralized database like TACACS and/or RADIUS and/or Kerberos,<br>• Power Supply : 220 v (+/- 10%), 50 Hz (+/- 5%),<br>• Others : Complete with all manuals, original software, connectors, and cables. | |
| DSL Modem | 2 |
| • V35/G703 Interface,<br>• Configurable 64Kbps-2Mbps Transfer rate,<br>• DIP Switch and Console configuration capability,<br>• Internal, External and Remote clock source,<br>• Encoding to be specified. | |
| Large Cabinet (36 U) | 1 |
| • Cabinet Size 36 U (or larger) metallic cabinet with front glass door, ventilation fan, lock, and power distribution panel. Side doors for easy access, back door with lock | |
| Servers Uninterrupted Power Supply (UPS) – (40 KVA) | 1 |
| • The UPS unit should provide uninterruptible power<br>• Supply for the Center through dedicated power distribution panel.<br>• Acceptance of UPS installation should be based on the results of testing, Functionality and the receipt of documentation.<br>• True Online, Double-conversion with Power Factor Correction (PFC) rectifier UPS.<br>• Battery monitoring and intermittent recharge system.<br>• Automatic and maintenance bypass.<br>• Rated power (KVA) 40 KVA.<br>• Nominal AC input: 380 + 10 % - 15 %, 50 Hz +- 5 %.<br>• Bypass AC input: 380 + 10 % - 15 %.<br>• Output: 380+- 1 % from 0-100 % load, 50 Hz +- 0.1 %.<br>• T.H.D. < 5 % for non-linear loads.<br>• T.H.D. < 2 % for linear loads.<br>• Batteries:<br>  o Sealed lead-acid batteries (Maintenance free).<br>  o Service life: 10 Years.<br>  o Backup time: 15 Minutes at full load.<br>  o Back feed protector.<br>• Isolation transformer.<br>• The UPS unit must be equipped with full protections.<br>• The noise at one meter from the unit < 55 db.<br>• The unit can be connected with a computer via standard serial port to show all | |

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| operating conditions and alarm | |
| Linux based Server | 1 |
| Administration purposes server (1 server):<br>• one Processor, performance of each is at least equivalent to the Intel® Xeon processor 3.2 GHz with 1MB cache(up to 2),<br>• Performance: at least 25000 tcpmc<br>• Storage Expansion for up to six 1" hot-plug SCSI hard drives and a further two hot-plug drives in the media bay.<br>• Integrated Dual embedded SCSI with external port.<br>• Hot-plug Power Supply for Redundancy and hot-plug/redundant fans<br>• 2GB DDR SDRAM upgradeable to 12GB<br>• CD-ROM 40x IDE, 3.5" 1.44MB Floppy Drive<br>• 3 x 36GB 15,000rpm 1" Ultra3 SCSI universal hard drive<br>• Dual channel RAID (support RAID 0, 1, 0/1, 3, 5) with 128Mb and battery backed cache<br>• 2 x Gigabit NIC (RJ45)<br>• Support Windows 2003 Operating System<br>   **Extending ports:**<br>     o  5 PCI extending ports:<br>     o  4 (64 bit/100 MHz).<br>     o  1(32 bit/33 MHz).<br>   **Security & privacy:**<br>     o  multi lock security features:<br>     o  power-on password.<br>     o  Diskettes drive control.<br>     o  Diskettes boot control.<br>     o  Disk configuration lock.<br>   **Power supply:**<br>     o  200 to 240 V -50 Hz.<br>     o  hot-pluggable redundant power supply. | |
| Windows based Server | 1 |
| Administration purposes server (1 server):<br>• one Processor, performance of each is at least equivalent to the Intel® Xeon processor 3.2 GHz with 1MB cache(up to 2),<br>• Performance: at least 25000 tcpmc<br>• Storage Expansion for up to six 1" hot-plug SCSI hard drives and a further two hot-plug drives in the media bay.<br>• Integrated Dual embedded SCSI with external port.<br>• Hot-plug Power Supply for Redundancy and hot-plug/redundant fans<br>• 2GB DDR SDRAM upgradeable to 12GB<br>• CD-ROM 40x IDE, 3.5" 1.44MB Floppy Drive<br>• 3 x 36GB 15,000rpm 1" Ultra3 SCSI universal hard drive<br>• Dual channel RAID (support RAID 0, 1, 0/1, 3, 5) with 128Mb and battery backed cache<br>• 2 x Gigabit NIC (RJ45)<br>• Support Windows 2003 Operating System<br>   **Extending ports:**<br>     o  5 PCI extending ports:<br>     o  4 (64 bit/100 MHz).<br>     o  1(32 bit/33 MHz).<br>   **Security & privacy:**<br>     o  multi lock security features:<br>     o  power-on password. | |

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| o Diskettes drive control.<br>o Diskettes boot control.<br>o Disk configuration lock.<br>**Power supply:**<br>o 200 to 240 V -50 Hz.<br>o hot-pluggable redundant power supply. | |
| Application Sever | 1 |
| • Dual RISC Processors (up to 4).<br>• NIC 10/100/1000<br>• 2 free PCI Slots<br>• Fully redundant hot swap PSU,<br>• Hot swap drive cage, supports Hot swap HDD's<br>• 2GB DDR ECC RAM (buffered) extendable up to 12GB,<br>• 3 * 72 GB (expandable) 80 pin 15000RPM SCSI Hard Drives (Hot swap)<br>• Dual channel U320, Integrated mirroring / striping<br>• 48x CD- ROM,<br>• 1.44MB Floppy Drive<br>• Unix Based Operating system is a must<br>• Power : 220 Volt, 50 Hz<br>• Integrated Dual embedded SCSI with external port.<br>• Operating System: Linux, unlimited user license.<br>• Complete with all original manuals for hardware and software (in English), original software media, and power cable.<br><div align="center">***Screen:***</div>o Flat square"15"<br>o 0.28 DPI<br>o Resolution: min 768 x 1024<br>o Low Radiation<br>o Plug & Play<br><div align="center">***Keyboard:***</div>o Arabic / English<br>o ps/2<br>o heavy duty<br>o un-erasable letters.<br><div align="center">***Mouse:***</div>o heavy duty.<br>o ps/2. | |
| Software Package | 1 |
| • Antivirus: Latest version (network-based, licensed according to network configuration). (for Linux and Windows).<br>• Windows Server 2003 Enterprise Edition.<br>• Linux : Latest version.<br>• Oracle DBMS for Windows.<br>• Oracle DBMS for Linux.<br>• Microsoft SQL Server.<br>• Oracle developer.<br>• Borland® C++ BuilderX™ Enterprise ( cross-platform ).<br>• Borland® JBuilder® 2005 Enterprise ( cross-platform ).<br>• Visual Studio .Net 2003 + ( Visio 2003 Enterprise , Crystal Reports ).<br>• Bea WebLogic 8.1<br>• Application server for CORBA ( for Linux and Windows).<br>• XMLSPY® 2004 Enterprise Edition ( Altova ). | |

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| • Rational Rose ( for Linux and Windows). <br> • MS Project Server. <br> • Microsoft Office Latest: Full version. | |
| Firewall (Optional) | 1 |
| The firewall must have at least the following specs: <br> • 32 MB RAM, 16 MB Flash, <br> • Dual 10/100BaseT Ethernet interfaces with RJ-45 , <br> • 180 Mbps throughput, <br> • 2 PCI slots, <br> • console port, <br> • TFTP device update process, <br> • Adaptive security algorithm (ASA), <br> • Cut-through proxy authentication, <br> • Multiple interface support (10/100 Mbps, <br> • True Network Address Translation (NAT), <br> • Port Address Translation (PAT), <br> • Mail Guard removes need for external mail relay server in perimeter network, <br> • Radius authentication, <br> • DNS Guard transparently protects outbound name and address lookups, <br> • Flood Guard and Fragmentation Guard protect against denial of service attacks, <br> • Java blocking eliminates potentially dangerous Java applets (not compressed or archived), <br> • IPSec and VPN implementation support, <br> • Enhanced granularity of inbound access lists, <br> • Allows use of existing registered IP addresses, <br> • Extended access lists, <br> • Ability to customize protocol ports, <br> • SNMP remote management, <br> • Reliable sys-logging using either TCP or UDP | |