

ANNEX 7 / Telecommunications

Sub-sector: **DATA System** with the following main characteristics:

Capacity: 5000 port/subscribers

Coverage: Baghdad and 14 provincial centers throughout Iraq.

No. of Nodes: 25

Interconnection between nodes:

- 2 Mbit/s link(s) in Baghdad using the new digital microwave network..
- Low capacity satellite system (VSAT like) to provide point-to-multipoint on-demand data interconnection between the data nodes in the in the provincial centers and Baghdad. This satellite solution is the only possible solution given the very poor quality of the existing analogue national transmission systems. The necessary capacity will be rented from one of the satellite service providers on one of the International or regional satellite covering the area.

Status of the project: In negotiation stage with the bidders. The contract is expected to be signed with the successful bidder before the end of April 1999 (in a provisional mode).

Estimated time of completion of the project: 3-6 months from effective date of the contract.

Estimated total cost of the project: 6-10 Million USD.

Important Note: Full detail of each of following general items will be given once the final contract is signed with the successful bidder.

| Code | Item Description | Unit | Quantity | Complementary Items |
|-------------|--|-----------|----------|---------------------|
| 07-06-00100 | Data system node complete with the necessary switching/routing equipment, Access equipment, Modem banks, Servers, PC's, Power Supplies and all necessary Software. | Subsystem | 25 | Note (1) |
| 07-06-00200 | Data terminal equipment (various types and capacities) | Unit | 5000 | |
| 07-06-00300 | Satellite system with | System | 1 | Note (1) |

| | | | | |
|-------------|---|-----|----|----------|
| 07-06-00310 | common rented capacity of 512 – 1024 kbit/s comprising the following: - One hub station (4-6m diameter) - 14 terminal station (3-4.5m diameter) | | | |
| 07-06-00320 | | | | |
| 07-06-00400 | Installation and commissioning for data equipment | Lot | 1 | |
| 07-06-00500 | Test Equipment for data system equipment | Lot | 16 | |
| 07-06-00600 | Installation material for data equipment | Lot | 5 | |
| 07-06-00700 | Training by manufacturer for data equipment (Factory, local & On Job) | Lot | 1 | Note (2) |
| 07-06-00800 | Miscellaneous for data | Lot | 5 | |
| 07-06-00900 | Installation and commissioning for satellite equipment | Lot | 1 | |
| 07-06-01000 | Test equipment for satellite equipment | Lot | 5 | |
| 07-06-01100 | Training by manufacturer for satellite equipment | Lot | 1 | Note (2) |
| 07-06-01200 | Miscellaneous for satellite equipment | Lot | 5 | |
| 07-06-01300 | Rent of Satellite capacity for 3 years | Lot | 1 | |

NOTES:

Note (1): Appropriate equipment room will be provided and properly furnished and equipped in all sites.

Note (2): Existing and newly recruited engineers shall be employed for the project. No problem whatsoever is envisaged in this aspect due to high availability of unemployed engineers in the local market. Special incentives will be given to help in this matter.