TECHNICAL ANNEX REGARDING THE SUPPLY OF DNS ANYCAST SERVICE

SUBJECT OF THE SUPPLY

MINIMUM TECHNICAL REQUIREMENTS

Participation is reserved to Economic Operators in possession of the following minimum participation requirements:

GENERAL REQUIREMENTS:

Non-existence of the reasons for exclusion specified in art. 80 of Legislative Decree 50/2016 and subsequent amendments.

- The following technical requirements are essential, and the non-compliance with all of them leads to the disqualification of the Economic Operator:

- The Economic Operator must provide a DNS Anycast Service for the .it, dns.it and nic.it zones, which includes the operation of the authoritative DNS Anycast servers for these zones, their management and maintenance, monitoring, etc.
- The hardware and software, where the DNS Anycast Service will run, will be provided by the Economic Operator and will be completely under her/his responsibility, as well as the routing and network infrastructure at the Anycast sites.
- At the time of the tender, the number of .it domain names is about 3,4 million.
- The dns.it zone contains only the names of the .it authoritative nameservers (i.e. a.dns.it, r.dns.it, m.dns.it, etc.).
- The nic.it zone is dedicated to the name resolution of the IIT-Registry machines (clients and servers).
- All the nameservers used by the Economic Operator to provide the DNS Anycast Service, must have the same public IPv4 and IPv6 addresses and all these addresses have to be part, respectively, of at least a /24 and a /48 networks, used by the Economic Operator only for DNS Anycast purposes.
- The DNS software used by the Tenderer to provide the DNS Anycast service must be compliant with the relevant DNS protocol technical specifications, such as those indicated in the RFCs 1034, 1035, 2181, 2308, 4034, 4470, 5155 and their following updates.
- The DNS software used by the Tenderer to provide the DNS Anycast service must be compliant with the relevant DNSSEC protocol technical specifications, such as those indicated in the RFCs 2535, 4033, 4034, 4035, 6840, 6841 and their subsequent updates.
- The nameservers used to supply the DNS Anycast Service must be able to perform the name resolution, if queried on both IPv4 and IPv6.
- The nameservers used to supply the DNS Anycast Service must be able to answer to DNSSEC queries for the .it, nic.it and dns.it domains.
- AXFR and IXFR zone transfers must be supported.

- Zone transfer authentication, between the distribution master(s) of .it, nic.it and dns.it, and the distribution master(s) of the DNS Anycast infrastructure, must be based on TSIG and not on IP addresses.
- The Economic Operator for the DNS Anycast infrastructure must prove to IIT to have Anycast nodes distributed as follows. At least:

  - 3 DNS Anycast nodes in Europe;
  - 3 DNS Anycast nodes in the Americas;
  - 3 DNS Anycast nodes in Asia;
  - 1 DNS Anycast node in Africa;
  - 1 DNS Anycast node in Australia.

- The Economic Operator must provide IIT with an authenticated Web portal where IIT can verify if everything is working properly and obtain traffic statistics in terms of query/s and bytes/s, both aggregated and distributed per each Anycast node".

VALIDITY OF THE OFFER

Terms of validity of the offer: 180 days from the deadline upon receipt of the offers.

OTHER INFORMATION

The person responsible for the Procedure is the Director, Dr Marco Conti

PHASES FOLLOWING THE AWARD

Definitive Insurance and Bank guarantee
The contractor, in order to guarantee compliance with the contractual terms and the success of the supply, according to Italian legislation, should provide for the establishment of a bank guarantee, to the sum of 10% of the net contract, pursuant to art.103 of Legislative Decree no. N. 50/2016.

Award and sending of documents
Following the award, the Company will be required to transmit, within a brief time, agreed upon unilaterally by the IIT and communicated at the moment of award, all the documents testifying to the possession of the requirements for participation, declared during the participation in the bid for tender.

Prices of the contract
The price accepted in entrusting the service to the contractor Company is fixed and cannot be varied for the entire duration of the contract.

The Director

Dr. Marco Conti

Istituto di Informatica e Telematica
Il Direttore
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