NATIONAL AGENCY FOR FISCAL ADMINSITRATION
REVENUE ADMINISTRATION MODERNIZATION PROJECT

Procurement of Hardware, Software and Training for Primary, Secondary and Data Warehouse Centers (RAMP/1-SR)

CLARIFICATIONS No. 4 of December 5th, 2014

Dear Sirs,

With regard to the above-referenced procurement procedure, we have received comments and requests for clarifications from some prospective bidders. According to Clause 10.1 of Section 1. *Instructions to Bidders* of the bidding documents issued on October 28th, 2014, please find below the requested clarifications:

Q1:

Regarding the mandatory requirements "3.8.9. Provide block-level data access service based on the iSCSI, FC and FCoE protocols", "3.11.2. Provide at least 8 (eight) 10Gbps FCoE ports, per service controller module", and "3.12.4. Provide back-end data storage access including:– 10Gbps IP/Ethernet connectivity for file-level data access over (at least) NFS v4;– 10Gbps FCoE connectivity for block-level data access", considering that FCoE is not a largely deployed storage protocol and that many vendors do not offer this type of protocol on their storage systems (Dell EqualLogic Family, HDS HUS Family, HP 3PAR 7200 / 7400, IBM DS 8870), but also the fact that, in each location can be used, as I/O Interconnect Fabric Module, switches with unified ports, that can accommodate also FCoE, FC and Ethernet, **please be so kind to accept storage solutions that offer an additional 8 x 16 Gbps or 16 x 8 Gbps FC ports instead of FCoE ports, to compensate the bandwidth and actually offer more than 50% additional front-end bandwidth**, in order to not restrict the participation of some of the largest storage vendors to the bidding procedure. Or, at least, please be so kind and accept the two requirements for FCoE ports as desirable requirements, instead of mandatory ones. Please note that, considering that FCoE is also requested for the networking solution (LAN switches) in section "3.12. I/O Interconnect Fabric Module (#IFM)", access from servers to storage system via FCoE is possible even if the storage system only has FC ports, by connecting the servers via FCoE to the network switches and the storage system via FC to the same network switches, and so FCoE access from the servers to the storage system is possible.

A1:

FCoE is a de facto industry standard — widely available on the market, for more than 5 years to date, published as ANSI/INCITS standard and with multivendor support — as the only FC-equivalent block level data access protocol over unified Ethernet transport. FCoE is a key requirement for the NAFA datacentre architecture of unified storage services over unified communications fabric. ***No amendments will be made to TR 3.11 or to TR 3.12.***

Q2:

Regarding the mandatory requirements "3.8.7. Provide native block-level deduplication and compression, directly managed by the #DSC_SCM" and "3.8.8. Provide native file-level deduplication and compression, directly managed by the #DSC_SCM", in order to not restrict the participation of some of the largest storage vendors to the bidding procedure as these requirements maybe full filed only by limited number of vendors, **please confirm that you accept also other solutions that will provide the similar or higher functionalities**, not at native level of the storage controller, but in different architectures, offering in the same time the same or higher level of performance (such as software appliances).

A2:

TR 3.7.2 and TR 3.7.3 require that the available hardware be transparently shared across all types of data access services provided. De-duplication and compression need to be provided, at block-level (as per TR 3.8.7) and at file-level (as per TR 3.8.8), as a fully transparent "inline" service readily available for any and all storage resource allocations. These requirements are not restrictive. Any bid solution must comply. ***No amendments will be made to TR 3.8.7 or TR 3.8.8.***

Q3:

Regarding the mandatory requirements "3.2.3. Natively run at least one of the major bare-metal "Type-1" hypervisor technologies available (Oracle VM Server, VMware ESX, Microsoft Hyper-V, KVM, etc.), including an embedded hypervisor boot key", considering using a single device as boot key represent a single point of failure for that compute module, **please be so kind to accept alternative solutions offering similar or even higher reliability and security level**, such as having 2 (two) hard drives in RAID 1 for a bootable solution. This way, **the solution will avoid single point of failure and is more reliable than solution with boot key**.

A3:

TR 3.2.3 allows for redundant, multi-component, embedded boot key solutions to be offered. ***No amendments will be made to TR 3.2.3.***

Q4:

Regarding the mandatory requirements "3.11.1. Provide at least 8 (eight) 1Gbps Ethernet ports, per service controller module", **please be kind and accept a higher throughput with 2 ports of 10Gbps**.

A4:

TR 3.11.2 requires 8 (eight) higher throughput 10Gbps ports. TR 3.11.1 requires 8 1Gbps ports for granular front-end services access over fabrics that are not 10Gbps enabled. ***No amendments will be made to TR 3.11.1 or to TR 3.11.2.***

Q5:

"4.3. Core Hypervisor Subsystem (#HPS) must be supplied and configured to:

4.3.1. Be fully licensed for the hardware components of the System (including the maximum capacity configurations specified above) for all 3 sites regardless of the distribution of the components / subcomponents across the System;"

Please clarify if you want to be offered HPS software licenses for the maximum capacity configuration supported by the blade servers included in the offer.

A5:

The TR 4.3.1 must be met with the #HPS licenses for the maximum configuration offered.