Ｉ　オペレーティングシステムはＵＮＩＸあるいはLinuxであること。
Ｊ　高度に並列化された数値計算ライブラリー、プログラミング環境が提供されること。
Ｋ　スーパーコンピュータと可視化システムにおいてファイル共有が可能で、ディスク容量はＲＡＩＤ６運用におけるユーザー領域が１ＰＢ以上であること。また、ファイルの自動バックアップあるいは自動移動が可能であり、バックアップ領域はユーザー領域の２倍以上あること。
Ｌ　現有のソフトウェア資産の移行性が高いこと。
Ｍ　スーパーコンピュータと可視化システムは一体的に管理することができること。
Ｎ　インタラクティブ及びバッチによる多重処理が可能であること。
Ｏ　高速の外部ネットワーク通信機能を持つこと。
Ｐ　ＣＰＵ、主記憶及び磁気ディスクが連続的に稼動し続けた際にも十分な排熱が行えるように、空調、設置方式が考慮されていること。
Ｑ　ハードウェアの信頼性が高く、長時間のサービスが安定的に行えること。
Ｒ　いわゆる低ＰＵＥを実現できるような冷却方法を有していること。
Ｓ　分散記憶型並列計算機を何らかのソフトウェアを実装することにより共有記憶型として利用可能にできる場合は、必要なソフトウェアを提供されること。
Ｔ　所内ＬＡＮの幹線部分を40Gbpsに変更するために必要なコアスイッチ、エッジスイッチ、ファイヤウォール、ＩＰＳ、認証サーバ、メールサーバ等を提供できること。
Ｕ　分散記憶型並列計算機の一部をクラウド環境とし、所外の共同利用者がインターネットを通して利用できるようするためのソフトウェアを有していること。

2　資料及びコメントの提供方法　上記１⑵の物品に関する一般的な参考資料及び同⑹の要求要件等に関するコメント並びに提供可能なライブラリーに関する資料等の提供を招請する。
⑴　資料等の提供期限　平成25年１月11日17時00分（郵送の場合は必着のこと。）
⑵　提供先　〒190―8562　東京都立川市緑町10―３　大学共同利用機関法人情報・システム研究機構　極地研・統数研統合事務部共通事務センター用度担当　阿相　和良　電話042―512―0907
3　説明書の交付　本公表に基づき応募する供給者に対して導入説明書を交付する。
⑴　交付期間　平成24年11月26日から平成25年１月11日まで。
⑵　交付場所　上記２⑵に同じ。
4　説明会の開催　本公表に基づく導入説明会を開催する。
⑴　開催日時　平成24年12月４日15時00分
⑵　開催場所　統計数理研究所立川総合研究棟２階会議室１
5　その他　この導入計画の詳細は導入説明書による。なお、本公表内容は予定であり、変更することがあり得る。
6　Summary
⑴　Classification of the products to be procured : 14
⑵　Nature and quantity of the products to be rent : Supercomputer System for Statistical Science 1 Set
⑶　Type of the procurement : Rent
⑷　Basic requirements of the procurement :
A　This system should be mainly composed of two supercomputers and a visualization system.
B　One of the supercomputers should be composed of several nodes as shared memory parallel computers. The other supercomputer should be composed of several nodes as distributed memory parallel computers. Hereafter the computational node is defined as a computer system which is composed of one or more processing units and main memory shared by them. Theoretical peak performance on double-precision floating point of each node of shared memory type supercomputer must be 10 TFLOPS or higher and main memory of each node must be 5 Tbyte or more. Theoretical peak performance on double-precision floating point of each node of distributed memory type supercomputer must be 250 GFLOPS or higher and main memory of each node must be 128 Gbyte or more. The peak speed for communication between any two nodes should be equal to or faster than 4.8 GByte／s／per each direction.
C　Total computing speed of two supercomputers for 64-bit floating-point number should be 200 TFLOPS or higher. The benchmark tests are given. The supercomputers should process benchmark programs, which we give, within prescribed time.
D　Each computational node must be equipped with magnetic disk drives or SSD whose capacity is sufficient to operate the supercomputers harmoniously. The magnetic disk drives must be capable of RAID 1 configuration. Computer system which needs no system disks for each node should have operating system so as to manage supercomputers effectively.
E　The supercomputers and the visualization system should have a fast interface between main storage and magnetic disk units.
F　The visualization system and the supercomputers should be connected with high-speed. The visualization system should be able to visualize the computation results on the supercomputers through a fast interface.
G　The system should have high performance compilers for FORTRAN, C, C++ and Java. These compilers should have optimization facility tuned for the system configuration.
H　The communication library MPI 2.1 or later version should be provided for the supercomputers. Other methods for parallel computing should be provided for the shared memory type supercomputer.
I　Operating system must be UNIX or Linux.
J　Highly parallel numerical libraries and programming environments must be provided.
K　A reliable storage system, which is composed of magnetic disk drives, must be provided. The reliable storage system must have the capacity of at least 1 PByte for user region and the capacity of at least twice of user region for backup thorough utilizing RAID 6 configuration. This storage system must be accessed by not only the supercomputers but also the visualization system. The storage system should be able to back up or move a part of files to a part of the storage system automatically.
L　Software, which has been developed in our institute, should be easily converted to software for the new system.
M　The visualization system and the supercomputers should be able to be managed as the unified system.
N　Multiple processing in interactive jobs and／or batch jobs should be possible.
O　The system should have fast interface for computer network so as to be connected to the present local area network.
P　The air flow and system assembly must be carefully designed so that the system is kept cool even if CPU, memory and disk drives are fully and continuously operated.
Q　Hardware should have high reliability in order to serve computing power constantly.
R　Cooling system which allows us to operate supercomputer system under so called low PUE condition.
S　In the case shared memory supercomputers cannot be proposed, software with which distributed memory supercomputers can be used as shared memory supercomputers must be proposed.
T　Core switches, edge switches, fire walls, IPS system, radius servers, mail severs and so on should be proposed in order to speed up our LAN from 10Gbps to 40 Gbps.
U　A part of distributed memory supercomputer's nodes should be supplied collaborators as cloud system.