F　業務支援用システム
a　情報基盤センターの業務を円滑に行うためのシステムを提供すること。
b　スケジュール機能、ファイル保存機能を有すること。
G　データサイエンス研究用システム
a　研究用高速大容量ストレージ（ペタバイトクラス）を提供すること。
b　基本的なデータベース機能と機械学習環境を備えたデータ分析用サーバを提供すること。
H　その他
a　セキュリティ対策を行うこと。
b　障害およびセキュリティ事故時には速やかな対応を行うこと。
c　既存のハードウェアやソフトウェアを継続して利用できること。
d　コンピュータシステムのサポートを提供する相談員を配置すること。
e　省電力および地球環境保護対策に配慮したシステム構成であること。
f　機器の故障に対する運用継続性が考慮されていること。

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⑸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　令和２年11月６日17時00分（郵送の場合は必着のこと。）
⑵　提供先　〒950―2181 新潟市西区五十嵐二の町8050番地　新潟大学財務部財務管理課学系等契約係　佐藤　泉穂　電話025―262―7671

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　令和２年10月６日から令和２年11月６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　令和２年10月16日15時00分
⑵　開催場所　オンライン開催とする。（詳細は、導入説明書による。）

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 : Niigata University Computer System 1 Set
⑶　Type of the procurement : Rent
⑷　Basic requirements of the procurement : The system should be highly reliable, stable, and extendable to provide services for education and research to approximately 20,000 people of the members of Niigata University. The computer system consists of High-Performance Computing System, Educational Computer System, Authentication System, Operating Servers for Network Services, Networking Equipment, and Administration Support Servers. Considering BCP, a part of the servers will be placed on SINET data center and cloud computing. To secure user authentication, multi-factor authentication must be introduced for the systems used from outside the university.
A　Campus Private Cloud Computing System
a　can manage virtual machines efficiently.
b　must realize stable operation without performance deterioration under running multiple virtual machines.
c　can be accessed from network clients on the University Campus.
d　provides a flexible operation in virtual storage.
B　Educational Computer System
a　provides an educational system for BYOD (Virtual Desktop Infrastructure or Server Based Computing) enabling remote access from client PCs (Windows and Mac) at Wi-Fi classrooms. Classes for fundamentals of Python programming and UNIX literacy can be deployed on the system.
b　must be placed on Center for Academic Information Service, University Library, and the branches of Center for Academic Information Service, adding to BYOD environment above.
c　The operating system on the educational computers must be booted only from a network or be running on Virtual Desktop Infrastructure. Multiple different desktops (or boot images) can be managed efficiently with a management system.
d　provides an automatic system for managing rental notebook computers or tablet PCs.
e　provides a cloud storage service used from Educational Computers. The storage service can be available from other computers with using Authentication System.
f　provides applications software for the academic course and a general information infrastructure.
g　To manage and distribute licenses of a variety of applications software for education and research, the system provides license management software to provide the members of the university running the applications software with the minimal number of software licenses.
h　provides a learning-management system (e-Learning) and video distribution system, as online classes efficiently deployed.
i　provides AI practice system enabling a machine learning calculation by using GPU.
C　Authentication System
a　provides a uniform management to authenticate university members and cooperates with other authentication systems on the university campus.
b　must be able to authenticate users when they logon the educational computers and their related service.
c　must support LDAP and RADIUS protocol.
d　must support the Academic Access Management Federation in Japan (GakuNin) provided by the National Institute of Informatics.
e　provides a VPN system for student use.
D　Operating Systems for Network Services
a　provide e-mail, web hosting, and DNS services for the university staff.
b　provide the e-mail and the web hosting services for the department. The administrators of the department can manage the services of their department. Also, the system can enroll and modify departments without affecting the services of the other department.
c　provide the e-mail and the web hosting services on cloud computing. Web applications on the hosting service must be protected by Web Application Firewall (WAF).
d　provide a file delivery service enabling secure access to uploaded files by password authentication.
E　Networking Equipment
a　requires 10Gbps or higher link speed for Campus Private Cloud Computing System and 1Gbps or higher link speed for Educational Computers.
b　must be required to be connected to the existing networking devices and servers in Center for Academic Information Service.
c　requires a log server and analyze network communication.