Memo of Understanding for HPC/Big Data Support

(Who is the user, group, or for what grant)
Example: For Mickey Mouse *grant XXX*

Storage Requirements:

(What are the storage requirements or needs?)
Example:

100 GB of raw encrypted data
50GB of shared post processed data
10GB of user private data

Compute requirements:

(How much computer power is needed?)

Example:
Less than 2% of a systems CPU

Server Requirements:

(How many servers are needed and what is their purpose?)
Example:

Two virtual servers will be provided.

Server 1:
- Will contain all the raw data.
- It will have two encrypted virtual drives
    - One drive will contain data with identifying information.
    - The second drive will contain data that has been de-identified
    - Both drives will be encrypted with a password
    - Encryption will be done through Microsoft Bit Locker.
    - Bit locker generates a "rescue" documents that will be printed stored in a safe location by the grant
- Logins to this server will only be for "High Security" Users
- Client local drive mapping will be allowed to facilitate moving the data to the server
- Client audio, smart cards, plug and play devices, clipboard, and printers will not be allowed to connect to the server
- Data from the second drive will be sharable with the second server via an encrypted channel

Server 2:

- Will not contain any data
- It will mount the second drive from server 1 only if the drive on server 1 has been decrypted
- Logins to this server will be for those the grant holder deems necessary
- Client local drives, audio, smart cards, plug and play devices, clipboard, and printers will not be allowed to connect to the server

Password Security

(Are there special requirement for user passwords?)
Example:

- Minimum password length: 10 characters
- Password history: 24
- Must meet complexity requirements.
  - The password contains characters from three of the following categories:
    - Uppercase letters of European languages (A through Z, with diacritic marks, Greek and Cyrillic characters)
    - Lowercase letters of European languages (a through z, sharp-s, with diacritic marks, Greek and Cyrillic characters)
    - Base 10 digits (0 through 9)
    - Non-alphanumeric characters (special characters) (for example, !, $, #, %)
    - Any Unicode character that is categorized as an alphabetic character but is not uppercase or lowercase. This includes Unicode characters from Asian languages.
- After a password change the user cannot change again for 1 day
- The password must be changed every 42 days
- An account will be locked out after 5 password tries
- The account must be unlocked by the system administrator

Software

(What software is needed?)
Example:

Microsoft Office 2013
SAS
SPSS
STATA – Grant Purchased

Users

(How many users, are there different requirements for different users?)
Example:

8 users total
3 with access to the encrypted data

Training
(What kind of training is needed and who provides it?)
Example:

The system admin will train use of the system to an initial group of 3 people. Further training will be conducted by a representative of the grant holder

Understanding and use of the installed software is beyond the scope of the system administrator.

Backup
(What data is any needs to be backed up, how often, how long?)
Example:

Only the encrypted data will be backed up.

The backup schedule will be:
>	Daily between the hours of midnight to 6am
>	31 daily backups will be preserved on a live system
>	Month end backups will be copied up to Amazon Glacier for long term storage
>	Month end backup will be preserved until the grant has ended or the data is no longer useful.
>	Funding for the Amazon Glacier will be provided the grant

Lifetime
(How long with the server and data be needed?)
Example:

The server(s) will be needed for 3 years. The data will be preserved for 2 years after the grant has ended.

Uptime/System Availability
(What are the expectations of system uptime and availability?)
Example:

There will be times in which updates and maintenance will occur. If these times are predictable, the system administrator will notify the grand holder of a scheduled down time. Unforeseen problems are out of the control of the system administrator and may occur.

As this project needs intermittent access to the system, contact the system administrator one day before access is needed so the system will be ready.   Once powered up, the system will stay on for X days, and then powered down until the next request.