



RFQ-658-15
Deduplicated Disk Backup

Addendum 001
Issued 06/12/15

Below are the questions we have received from various parties with respect to this Request for Proposal, along with our response (indicated in red font). Although we have endeavored to remove duplicate questions, we have presented the questions below in an unedited format. We hope this is helpful to you in preparing your proposal. Please remember that proposals are due by 2:00pm Mountain Time on 06/19/15. This addendum is number 001. Please follow the submittal instructions carefully when submitting your proposal. CMC is not able to accept a late submittal as determined by the time stamp of your email to Colorado Mountain College via bids@coloadomtn.edu . Remember to allow a few extra minutes for any technical difficulties.

1. Your RFP states that there is 490TB of data that has to be recoverable within 12 months. It also states that you have a 30 day retention requirement on the system.

[RESPONSE] – The RFP states that our current back system contains roughly 490TB of recoverable data, that goes back 12 months.

- a. Does this mean that you want 30 days of data on the disk associated with the backup solution?

[RESPONSE] – We would like this backup system to contain all the associated backup data. Our goal is to not lose what we have as far as retention goes. Currently, our retention preference on our system would be the following retention settings:

**Keep 30 days of Daily's
Keep 4 weeks of weekly
Keep 12 months of Monthly
Keep 1 year of Yearly**

- b. Can tape be used for the remaining data for the 12 month period? On line tape?

[RESPONSE] – No. Tape is not a technology we will entertain for any facet of this RFP.

- c. Are there any long term archive requirements beyond 12 months?

[RESPONSE] – No.

- d. Would you consider the 490TB as active data or archive data?

[RESPONSE] – The 490TB is all backup data. That number was derived from our backup system, so it includes all of the associated backups with the retention of:

**Keep 30 days of Daily's
Keep 4 weeks of weekly
Keep 12 months of Monthly
Keep 1 year of Yearly**

- e. Do you have any service level requirements for restoration times?

[RESPONSE] – No.

2. How much data is on the systems to be backed up? That is, if a full backup of all data is done today, how many TBs of data would be backed up?

[RESPONSE] – If we were to back up our entire environment today, that number would be roughly 49TB.

3. Of the total data, how much is file data vs structured data (MS SQL, MS Exchange, MS SharePoint, etc.)?
[RESPONSE] – 3.75TB Currently.
4. How much data is in the MS SharePoint environment today?
[RESPONSE] – 850GB
5. What is the current backup solution today?
[RESPONSE] – Our backup solution is EMC’s Avamar. It is a 4 node grid. Each node is 2TB, and it has a spare node as well, for a total of 5 nodes.
6. Is there a preference for the operating system used on the backup server (Windows, Linux, etc.)?
[RESPONSE] – No preference.
7. How much data is at each remote site?
[RESPONSE] – It varies per site. Please see the pdf called “Site Data Inventory.pdf” for that information.
How much of the remote data is files at each of the above sites? % is fine
[RESPONSE] – It varies per site, but it’s probably 75-90% files.
What is the network type/bandwidth between each remote site and the central backup site?
[RESPONSE] – See the attached “Primary WAN Layout.pdf” for this information.
8. What is your expected growth rate for data over the next 12 months? A % estimate would be fine.
[RESPONSE]—For the next 12months we anticipate a 12-15% growth. We have averaged roughly 8% in the past.
9. Are there any hardware or software vendors you will not consider?
[RESPONSE]— No.
10. What is the 490 TB that line 2 speaks of?
 - a. Data backed up more than once?
[RESPONSE]— Currently, our backup system (EMC Avamar) is backing up and retaining roughly 490TB of data. This includes the backups, and the archives from our retention periods.
11. You said that they need 8 FETB of Capacity Licenses. Is that what they’re using now or does that include any growth throughout the year?
[RESPONSE]— Our current backup system is an 8TB system. We are looking for a replacement because we have outgrown it.
12. How many physical machines are running the VMware host?
[RESPONSE]—We currently have 273 virtual machine guests in our VMware Environment. We run these on 32 hosts across our district. Each field site has 2 servers (total of 20). Our DR site in Rifle, Colorado has 4 (soon to be 5-6), and our Primary site in Glenwood (Central Services) has 8.

13. How many HP-UX TB will need to be backed up (6e)? It says that it's not currently being backed up but will need to be added to the new system.

[RESPONSE]— We have two HP-UX systems. They each have 1TB needing backed up (total of 2TB across the systems).

14. Are they looking to shrink the 30RU of Rack Space?

[RESPONSE]— Not required, but wouldn't hurt.

15. Do the other campuses do their own backup?

[RESPONSE]— They do not.

16. You have specified an 8TB backup system as part of the RFQ. Can you provide a breakdown of the current backup environment and specifically what the 490 TB that is listed entails. Is this your current archived data (possibly Tape) or is this the size of your non-deduplicated data which then highly deduplicates down to 8TB?

[RESPONSE]— It isn't on tape, but it is highly deduplicated to get it down to the 8TB. The 490TB is all backup data. That number was derived from our backup system, so it includes all of the associated backups with the retention of:

Keep 30 days of Daily's

Keep 4 weeks of weekly

Keep 12 months of Monthly

Keep 1 year of Yearly

17. Can you tell me what a "One-Time" full backup of everything would look like? This will be required by HP for the correct licensing of your solution.

[RESPONSE] – If we were to back up our entire environment today, that number would be roughly 49TB.

18. For your remote sites, can you tell me if there are any bandwidth concerns that I need to be aware of? Can you share the current bandwidth and backup size requirement numbers for each of the 12 remote sites?

[RESPONSE] – See the attached "Primary WAN Layout.pdf" for this information. We've also included a pdf called "Site Data Inventory.pdf" that includes the current data at each location.

19. How are you currently backing up the remotes sites? Are you backing up the remote sites locally or are you sending the complete backups over the WAN?

[RESPONSE] – All of our backups take place nightly, and are backed up over the WAN. No backups are performed locally.

20. Do you require a HW appliance at the remotes sites? Do you have any server/storage capacity at the remotes sites that can be used as a target for local backups?

[RESPONSE] – We prefer that all our backups continue to be done in a centralized fashion. If the proposed solution requires an appliance at each location, we will still consider the solution, but preference will be given to the centralized model. At this time, there is no available storage at our remote sites to use as targets for local backups.

21. Can you share your current backup environment so that we can properly migrate your data and archived backups?

[RESPONSE] – Our backup solution is EMC's Avamar. It is a 4 node grid. Each node is 2TB, and it has a spare node as well, for a total of 5 nodes + a Utility Node.

22. Are you currently using a media server within your backup software? Is this something that you'd like to leverage in the new solution or should we proactively replace it?

[RESPONSE] – We are not currently using a media server within our backup software.

23. Do you require a highly available enterprise solution that has failover at the hardware level?

[RESPONSE] – This is not a requirement.

24. Are your DBA's currently backing up their databases thru native applications ? Does this need to be integrated into the new solution?

[RESPONSE] – We do back up our databases natively, but we would still prefer that our backup option have this integrated.

25. Would you like HP to provide a DR site hardware solution. This would position redundant hardware at two geographically separate locations.

[RESPONSE] – A DR solution is not a requirement for this RFP.

26. Are you interested in backing up or replicating to a cloud service?

[RESPONSE] – No.

27. What level of Support do you require for this quote? What response time do you need HP to provide?

[RESPONSE] – We'd prefer to see options for support / response times, for comparison.

28. What growth should we use for your 5 year lifespan? If you have rate of change and growth rates available, please provide them.

[RESPONSE] – Currently, our average change rate is 3%. Our calculated growth rate in the past has been 8%. For the next 12 months we anticipate a 12-15% growth.

29. How many front end TB's need to be protected?

[RESPONSE] – If we were to back up our entire environment today, that number would be roughly 49TB.

30. How many per data set?

[RESPONSE] – ?

31. What is the network infrastructure? 10GbE?

[RESPONSE] – Our Local Area Network at all campuses is 1GbE to the desktop, 10GbE between switches, and then our WAN is documented in the pdf entitled “Primary WAN Layout.pdf”.

32. Is the VM infrastructure hosted on a converged system?

[RESPONSE] – No.

33. What is the daily change rate per data type?

[RESPONSE] – This is not a calculation we can provide with our current system. Currently, our average change rate is 3%. Our calculated growth rate in the past has been 8%. For the next 12 months we anticipate a 12-15% growth.

34. What are retentions for daily incs? Weekly full? Monthly full? Quarterly full? Annual full?

[RESPONSE] – Currently, our preferred retention settings are:

Keep 30 days of Daily's

Keep 4 weeks of weekly

Keep 12 months of Monthly

Keep 1 year of Yearly

35. The RFQ notes an 8TB system that would retain 490TB of logical data at 12 months. This implies a ~61:1 deduplication/compression ratio. Is this ratio correct or is it a grid of 8TB nodes that provides the 490TB of logically retained content?

[RESPONSE] – The current backup system is comprised of 4 2TB Nodes, for a total of 8TB of usable backup storage. The 490TB is what the system is backing up and retaining. It is highly deduplicated.

36. What is the deduplication ratio of the current system?

[RESPONSE] – Our system currently shows our duplication ratio for deduplication at 74.69%

37. The RFQ notes a current retention of 12 months of backup content while the Specifications state retention requirement for just 30 days. Please confirm the total retention period.

[RESPONSE] – Currently, our preferred retention settings are:

Keep 30 days of Daily's

Keep 4 weeks of weekly

Keep 12 months of Monthly

Keep 1 year of Yearly

38. To ensure capacity for the new HP-UX system, can you identify the estimated storage on the system? Will there a database on the system and if so, what product?

[RESPONSE] – We have two HP-UX devices, each with 1TB of storage on them. There will not be an applicable database on them.

39. Do you require (or desire) migration of existing content from your current platform to the new system?

[RESPONSE] – It would be beneficial to see an option for this, although it is not required.

40. Please identify the capacity for a single Full and differential backup for each of the client types noted in section 6. If you current platform can provide the reporting, please state current full backup capacity and change rate.

[RESPONSE] – If we were to back up our entire environment today, that number would be roughly 49TB. Our change rate is 3%. We've provided a list of all our clients as well, with their existing data usage statistics labeled "Site Data Inventory.pdf" which should provide the information requested.

41. What is the capacity of the largest host backed up from each client type from the RFQ's section 6?

[RESPONSE] – We've included a list of all our clients and their respective capacity statistics labeled "Site Data Inventory.pdf" which should provide the information requested. SQL clients have been highlighted in Red, SharePoint in Blue, Exchange in Yellow, and MAC-OS in Orange. Our HP-UX systems require 2TB of backup space.

42. Please identify total capacity for clients in each of the 12 WAN locations (total per location) and estimated change rate of the remote clients.

[RESPONSE] – Please the pdf entitled "Site Data Inventory.pdf" for a list of all the clients requiring backups at each location. We do not have calculated change rates for each client to provide.

43. Please confirm that the 8TB is existing de-duped (vs actual)

[RESPONSE] – Confirmed.

44. Please confirm version ESXi you are using

[RESPONSE] – ESXi 5.5

45. Please identify if systems on 6 b,c,d,e are virtual or physical and a breakdown of each (Exchange, SQL, Macintosh, HP-UX) in terms of data capacity from production perspective.

[RESPONSE] – We've included a list of all our clients and their respective capacity statistics labeled "Site Data Inventory.pdf" which should provide the information requested. All The systems EXCEPT the HP-UX and Macintosh systems are virtualized.

46. What is the expected growth rate over 5 years

[RESPONSE] – We anticipate a minimum of 10%

47. Will you consider virtual or hybrid options?

[RESPONSE] – Yes.

48. Do you need to back up NAS device(s) as well

[RESPONSE] – Not currently, but the option wouldn't hurt.

49. What are your top 3 challenges in your Backup/DR environment today?

1) [RESPONSE] – We've outgrown our system.

2) [RESPONSE] – Our backup system is end of life.

3) [RESPONSE] – We have to replace that system.

[RESPONSE] – Overall, we are very happy with our backup solution. It's met our needs well. We've just outgrown it.

50. When would you like to have the backup solution implemented?

[RESPONSE] – Within 6 weeks from day PO is received, at a maximum.

51. What other bidders do you expect to respond?

[RESPONSE] – Any interested party.