



Chicago Teachers' Pension Fund

**Questions and Answers #1 Related to the RFP for
Disaster Recovery Solution (PUBLIC VERSION)**

August 10, 2018

NOTE: All questions asked except #'s 63 and 79 involved confidential, technical specifications of CTPF assets. Any prospective respondent to this RFP who sends a signed NDA via email to the RFP contact, Rebecca Gonzales, at gonzalesr@ctpf.org will receive the answers to the confidential, technical specification questions via response email. Answers that indicate "NDA" below will be included in the non-public version of this Q&A. The NDA is only for the purpose of CTPF providing our confidential, technical specifications to prospective respondents and must be the CTPF NDA that is located on CTPF's website here: <https://www.ctpf.org/post/non-investment-procurements>. Additional and reciprocal confidentiality provisions may be negotiated as part of any final contract.

1. Does CTPF prefer an on-premises or a hosted/MSP solution?
NDA
2. Will RDBMS also be protected (i.e. SQL Server/Oracle)? If so, which types of RDBMS? How large are these databases in total? How large is largest database of each type?
NDA
3. How many VMs? How large is largest VM?
NDA
4. How many file servers? How large is largest file server?
NDA
5. What is the total amount of data to be protected (in TB)?
NDA
6. What is the current server environment?
NDA
7. What are the needs for replication?
NDA

8. Provide the following details on the environment itself: storage needs, compute, bandwidth, and geographic needs if there needs to be diversity there).
NDA
10. Are there any geographic redundancy requirements for the DRaaS Environment?
NDA
11. Are there any BAA or Compliance requirements for the provider/environment?
NDA
12. Do you require and additional instance/ environment of the DRaaS solution for added redundancy?
NDA
13. How will you be accessing this environment? (via VPN/public internet, or a dedicated connection)
NDA
14. Regarding the above – are there any requirements to source additional network services for this access?
NDA
15. Are there any E-RATE guidelines applicable here as part of the solution and, if so, can they be provided?
NDA
16. Are there any SLA/Response time requirements as part of the “managed service” requested?
NDA
17. Are there any systems requirements such as Zerto or Veeam?
NDA
18. Do they have any standard requirements for the test-restore timeframes?
NDA
19. Are there specific security requirements (such as the mentioned ransomware)?
NDA
20. What is the requested integration functionality for Office 365 and the other applications?
NDA
21. Regarding the above – please elaborate on “integration” as opposed to having the ability to replicate data and applications.
NDA
22. Provide the following:
 - a. Server information: number of physical and virtual hosts:
 - b. Server specs: RAM, Storage, CPU, OS, quantity, etc.NDA
23. Data storage SAN devices: how much storage is stored locally and offsite (TBs)?
NDA

24. Are there network diagrams available for reference?

NDA

25. Section A, Number 1 : *Selectable Recovery Point Objectives (RPO's) - What frequency is required for your Recovery Points? Hourly, Daily, Weekly, Monthly?

NDA

26. Section A Number 2: *Virtual Machine and file-level backup and restore – is the preferred data format for backup identical to the primary data storage system for optimal recovery efficiency? Using a separate system & data format is expensive, inefficient, and slows recovery and DR functionality.

NDA

27. Section A Number 2: *Data encryption – What level of encryption is required? FIPS 140-2? There are multiple types of encryption, the most preferred is considered “Blanket Encryption” (In-use, in-flight, and at rest). Anything else would leave data vulnerable. Is this level the desired outcome?

NDA

28. Section A Number 2: *Data Compression – is this a requirement with encryption enabled?

NDA

29. Section A Number 2: *Data Deduplication – same question as compression

NDA

30. Should this proposal include data backup with long term data retention or focus on DR only that would include days or hours data retention?

a. If long term data retention is needed, what are the retention requirements?

NDA

31. In order to provide a quote for DR solutions, we must understand the size of the infrastructure and systems being protected. Respondent is requesting a system inventory for all systems in-scope. An example is below and is also included in attached inventory spreadsheet.

Name	Host	Provisioned Disk Capacity (GB)	Used Disk Capacity (GB)	Host CPU Model	Memory Size (GB)	CPU Cores	Notes/Purpose
Physical Server 1	HP Proliant 380 G7	1071	838	Xeon X5650	4	6	Example. DC or Hosts App X
Virtual Server 1	VM	2048	220	2 - vCPUs	8	N/A	Example. DC or Hosts App X

NDA

32. Is there a business application inventory that can be referenced?

NDA

33. Are there any specialized or proprietary systems that need to be accounted for i.e. AS400?

NDA

34. Is the daily average data change rate known or assumed?

NDA

35. In the Scope of Work, CTPF listed three solution category options they are considering:

a. Administered mainly by the Fund after installation

b. Administered through a Managed Service

c. Full Disaster Recovery as a Service

Is there a solution preference or will scoring be weighted differently based on the solution category presented?

NDA

36. Is there a preference to connectivity for data replication? (i.e. Direct connect, Internet VPN, MPLS etc.)

NDA

37. Does CTPF have bandwidth it can dedicate to data replication or is more bandwidth or a new connection required?

NDA

38. Does CTPF have a secondary or DR data center today for use?

a. If so, what is the bandwidth between buildings?

NDA

39. Does CTPF have a Business Impact Analysis or DR run books? If not, should those consulting engagements be included in this proposal?

NDA

40. Have RPO/RTO requirements been defined and/or prioritized by workload? If so, what are those requirements?

NDA

41. What cloud based workloads or SaaS products are in-scope? (Anything outside what was listed in the Scope.)

NDA

42. For testing, would these be full or partial failover scenarios? What is the expected frequency for these tests i.e. annual, quarterly etc.?

NDA

43. Are there any regulations that must be adhered to i.e. SOX, HIPAA, etc.?

NDA

44. Is utilizing the public cloud for DR resources an option?

NDA

45. Current SAN manufacturer and model?

NDA

46. Current SAN used capacity?

a. If no SAN, what is the current internal storage capacity of your servers?

NDA

47. # of physical servers in the environment?

NDA

48. # of VM host servers?

- a. How many proc in each?
NDA
- 49. # of VMs?
NDA
- 50. What is your estimated daily change rate in GBs?
NDA
- 51. What is your estimated YOY data growth in % or TBs?
NDA
- 52. What is the age of your current server and san hardware?
NDA
- 53. What is your refresh schedule?
NDA
- 54. What is your VM hypervisor?
NDA
- 55. What is your current backup software?
NDA
- 56. What do you like and dislike about it?
NDA
- 57. What is your retention period?
NDA
- 58. What are the applications running in your environment?
NDA
- 59. What applications are currently cloud-based?
NDA
- 60. Are there plans for additional cloud-based applications?
 - a. If so what are they and what is the timeline?
NDA
- 61. Do you have a DR location today?
 - a. If so, does it mirror production or is it different? If yes and different, how so?
NDA
- 62. What is your off-site copy strategy/requirement?
NDA
- 63. What is the rough budget?
CTPF will not disclose this information.

64. What is your retention requirement (days, weeks, months, years)?
NDA
65. What is your RTO (recovery time objective) and RPO (recovery point objective)?
NDA
66. Are you open to both on-premises and cloud based DR options?
NDA
67. What are the most important features/functions of the new DR solution?
NDA
68. Scope of DR?
NDA
69. What percentage of your backed up data requires eDiscovery and Legal Hold? And what is the retention policy for Legal Hold?
NDA
70. Are there specific products within O365 that need protection (e.g. Outlook, OneDrive, etc.) day 1?
NDA
71. What is the front-end size of all the data that requires protection?
NDA
72. What percentage of the environment is virtualized? How many VM's? If physical servers in scope, what are the system OS's?
NDA
73. How many IT admins are responsible for managing the backup environment on a daily basis?
NDA
74. How many locations are in scope? Please include remote offices as well
NDA
75. What type of applications and databases are in your environment?
NDA
76. What is your storage platform?
NDA
77. How many DR tests plans are performed per year, if any?
NDA
78. When is the intended date of installation for this project?
NDA
79. You mentioned you were starting DR, but later in the year there may be a need for another with a focus on restructuring your Datacenter. Many customers we work with typically lay the groundwork in setting up their DC then focus on DR on top. Is that something you considered?

CTPF may issue a separate RFP for Converged Infrastructure in the near future. However, we are receptive to proposals in response to the DR Solution RFP that include restructuring the datacenter with converged infrastructure elements as part of a complete proposal. This option is provided for under the following RFP Sections:

Section III which states: "Please describe areas or processes, not included in the scope of this engagement that your firm may examine in order to provide a more complete and thorough solution."

Section VIII (D)(c) which states: "Describe any deliverables, solutions or services, not included in Section III. Scope of Work that your Firm would suggest is provided in order to provide more complete and thorough solutions and services."

80. Any information regarding how many physical servers, sockets, or amount of Data that will be part of the scope?

NDA