

Questions and Answers to RFI for Disaster Recovery Services

Questions	Answers
1. Does NYS Department of Taxation have a current recovery plan in place?	Yes.
2. Does NYS Department of Taxation have an internal or 3rd party recovery provider today?	Yes, the Department currently maintains recovery services with a 3 rd party provider.
3. What is the current hardware environment at NYS Department of Taxation? a. Mainframe - Make, Model, CPU's, Memory b. Unix - Make, Model, CPU's, Memory c. Windows - Make, Model, CPU's, Memory d. Storage Make, Model, total storage e. Tape - Make, Model, # of drives, # slots	See Attachment A.
4. Are any Advanced Recovery techniques in use today (replication, vaulting, etc)?	Not at this time.
5. Does NYS Department of Taxation utilize Cloud technology today?	Not at this time.
6. Is Call Center support a requirement for NYS Department of Taxation?	No.
7. What type of network is in place today at NYS Department of Taxation? (Dedicated point to point, MPLS, other)	<p>Connectivity between Department facilities, District Offices and other remote sites utilize site to site VPNs over New York State CIO/OFT managed ePort data lines (Private WAN) which range from 1.5MB (T1) to 1GB (Ethernet) speeds based on location. The Department utilizes a hub and spoke topology with all remote connections coming back to the central site based at the Harriman Campus in Albany, NY. (Two 1GB data lines.)</p> <p>Internet connectivity is provided through two 100MB New York State CIO/OFT iPort service offerings.</p> <p>http://cio.ny.gov/nyenet</p>
8. What level of compliance with IRS 1075 (and other applicable governance) is the state expecting to be managed by the partner's services? How does the state plan to assess compliance with federal and state governance?	The Contractor must be able to verifiably assure the security, confidentiality and integrity of the Department's data in accordance with Federal and State Law provisions, as well as generally accepted information security policies, procedures and standards.

	<p>The Contractor must have verifiable procedures and controls in place which meet the secrecy provisions requirements of the New York State Tax Law, which conforms with sections 6103 and 7213(a) of the Internal Revenue Code.</p> <p>Contractor staff must maintain the Department's security and confidentiality of data;</p> <ul style="list-style-type: none"> a. All Contractor staff assigned to this Contract sign form DTF -202, Secrecy Provisions form; b. All Contractor staff that need access to the Department's computer systems will need to complete a required Tax Department Authorization form and abide by the Department's Access to and Disclosure of Information Policy. <p>The Department will review proposed solutions and validate that the Contractor has in place those procedures and controls needed to meet the above requirements. This will include meetings, questionnaires, documentation review, review of outside audits/certifications, and physical review of the procedures and controls.</p>
<p>9. Symantec Virtual and physical appliances are available to address Data Loss Prevention(DLP) services. What targeted devices are in-scope for DLP services(e.g. storage devices, databases, email, endpoint devices, etc)? With regards to the agency requirements around Data Loss Prevention, is this only to address the DR facility or is the current agency environment in scope as well?</p>	<p>DLP is not in scope.</p>
<p>10. Are servers only in-scope for Intrusion Detection and Prevention or are other devices in scope?</p>	<p>Intrusion Detection and Prevention is not in scope.</p>
<p>11. Are there any state policies that preclude secure cloud PKI infrastructures managed by the state for issuance of credentials to address authentication and encryption?</p>	<p>There are currently no state policies that preclude this solution. However, any solution must assure the security, confidentiality and integrity of the Department's data in accordance with Federal and State Law provisions, as well as generally accepted information security policies, procedures and standards.</p>

12. Is there anything that precludes different backup and availability solutions for the mainframe vs. the open systems environments?	No.
13. When the state references cloud/off-site, are there any specific expectations of what type of cloud(e.g. Private, hybrid, or public)?	Private and/or hybrid.
14. How does the Department of Finance anticipate this RFI to impact the OFT statewide consolidation pursuits and anticipated RFP?	Unknown.
15. With retention policies ranging from 30 days to 10 years, how is Tax and Finance currently managing retention strategies and is it the responsibility of the DR solution to support retention policies as well?	Currently, retention strategies are managed within the software used to create backup, archival, and disaster recovery tapes. If off-site on-line backup was to be incorporated with the Department's disaster recovery services, it is envisioned that data retention would be an integral part. However, the objective of this solicitation is to canvas suppliers of Disaster Recovery Solutions to determine what is available. The Department has no specifications and/or requirements at this time. Please detail any service offerings you feel are suitable.
16. Which large IBM zSeries mainframe are you using?	See Attachment A.
17. How many MIPS are required?	See Attachment A.
18. Please confirm the number of LPARs that are running on the mainframe and will need to be supported for your environment?	See Attachment A.
19. Please confirm the mainframe memory requirements?	See Attachment A.
20. Please confirm the mainframe DASD requirements?	See Attachment A.
21. Please provide specific configuration detail for the Intel vSphere/Windows server environment, e.g.: <ul style="list-style-type: none"> • How many physical servers? • How many virtual servers: • What is the configuration for each server; type of proc, number of cores, amount of memory, DASD required SAN based vs. internal HDD? 	100 physical. 335 virtual. See Attachment A.
22. Please provide specific configuration detail for the IBM Regattas for UNIX midrange;	

<p>type of proc, number of cores, amount of memory, DASD requires SAN based vs. internal HDD?</p> <ul style="list-style-type: none"> • Can you please confirm the (i) minimum number of IBM Regatta class servers, with the processor and memory requirements for each server; and (ii) the delivery time for each (24/48/72 hours etc.) that you would require as part of your Hot Site DR configuration. 	<p>See Attachment A.</p> <p>Recovery hardware must be available within 4 hours of declaration for commencement of core application recovery.</p>
<p>23. Is the 400 TB of on-line/on-site DASD usable or raw?</p>	<p>Usable.</p>
<p>24. Does the State of New York require all 400TB at time of declaration?</p>	<p>Approximately 100TB may be required upon declaration.</p>
<p>25. Approximately how much SAN disk can State of New York recover per hour?</p>	<p>The Department can theoretically get 5.28 GB/sec, given the number of tape drives and the speed of each drive. There are many other factors that are going to lower that number considerably. As we primarily use tape for our backup, we cannot supply an actual recovery rate.</p>
<p>26. Would an Uptime Institute Tier 3 datacenter located in the Mid-Atlantic be considered provided all the other requirements be met?</p>	<p>Yes. However, preference might be given to data centers geographically closer to New York State yet provide for an adequate geographical separation from Albany, NY.</p>
<p>27. Please provide specific detail regarding network connectivity into NYeNet access point?</p>	<p>See question 7.</p>
<p>28. What carriers have their own fiber terminated in the States Comptrollers ADC?</p>	<p>To the Department's knowledge, NYS CIO/OFT owns all fiber run into the Harriman Campus in Albany, NY. They lease out to Verizon, Paetec, Time Warner and others. We are unaware of privately owned fiber.</p>
<p>29. What size is the active circuit?</p>	<p>See question 7.</p>
<p>30. Internet Connection - please confirm if internet connection is required and will be utilized ATOD (At Time of Disaster) or does the State of New York require a committed internet connection?</p>	<p>A committed internet connection is required.</p>
<p>31. Please describe the VoIP Call Center requirements in detail?</p>	<p>Call Center is out of scope.</p>
<p>32. Please provide detail for the desired end-to-end security architecture?</p>	<p>For security purposes, we will not detail our security architecture in a public forum. The solution must be able to assure the security, confidentiality and integrity of the Department's data in accordance with Federal and State Law</p>

	provisions. In order to ensure the confidentiality and integrity of all data, data encryption for any data in transit is an essential element to the solution. Please detail your offerings.
<p>33. Please describe the storage/backup environment in detail?</p> <ul style="list-style-type: none"> • What type of tape library is used? • What type of tapes are used? • How frequently are tapes picked up? 	<p>See Attachment A.</p> <p>See Attachment A.</p> <p>Tapes are taken off-site daily.</p>
<p>34. Please describe in detail the preferred storage/backup replication process? Hardware based appliance? Data Domain? Something else?</p> <ul style="list-style-type: none"> • Software based application? e.g. IBM Global Mirroring? MIMIX? Something else? 	<p>The Department uses Tivoli Storage Manager and SysBack for backup, archive and disaster recovery; these are both tape centric programs. There is currently no Departmental preference for storage/backup replication. Please detail your service offerings.</p>
<p>35. Please describe the State's definition and requirements for cloud-based backup?</p>	<p>The objective of this solicitation is to canvas suppliers of Disaster Recovery Solutions to determine what is available. The Department has no specifications and/or requirements at this time. Please detail any service offerings you feel are suitable.</p>
<p>36. Are other optional backup services such as tape vaulting and archiving required? If yes, please provide detailed information.</p>	<p>No final decision has been made at this time. However, if a decision is made to include these services, some requirements could include:</p> <ol style="list-style-type: none"> 1. Courier Services to the Data Center Customer Sites: Regular, daily (Monday through Saturday including holidays) pickup and delivery services for rotation of backup files to and from the off-site storage facility and on demand courier services on an <i>as-needed</i> basis. 2. Courier Services to the Disaster Recovery Hot Sites: Retrieval of backup files from the off-site storage facility and delivery back to primary and or secondary hot sites on an on-call basis, 24 hours per day, 365 days per year to support disaster recovery and testing plans. 3. Storage Services and Facility Management Requirements: Storage of backup files (e.g., computer tape, cartridges, and related support media and documentation) in a secure, environmentally-controlled facility to meet the

	<p>Department's short-term (daily) and long-term (archived) storage requirements for tapes stored on an individual (racked) or bulk (boxed) basis.</p> <p>4. Inventory Control and Reporting Services: An inventory control system providing timely reports on the receipt, storage inventories, and retrieval of backup files. All data must be fully protected from destruction and unauthorized access. The security and confidentiality of all media and information in storage and in transport must be continuously guaranteed.</p>
37. Ultimately will you allow vendors to combine/collaborate on a submitted solution?	The objective of this solicitation is to canvas suppliers of Disaster Recovery Solutions to determine what is available. The Department has no specifications and/or requirements at this time. Please detail any service offerings you feel are suitable.
38. Are you looking to maintain separate site recovery verses backup options or is a consolidated solution a requirement?	The objective of this solicitation is to canvas suppliers of Disaster Recovery Solutions to determine what is available. The Department has no specifications and/or requirements at this time. Please detail any service offerings you feel are suitable.
39. What SLA for recovery times are required in even of primary site failure?	Recovery hardware must be available within 4 hours of declaration for commencement of core application recovery.
40. Are application segmentations identified for multiple SLA compliance?	Yes.
41. Do you have a breakdown between amount of data divided among retentions?	No.
42. Do you have a breakdown of data types by storage requirements?	No.
43. Would you consider replacement of primary site storage as part of the solution?	This is out of scope.
44. Are you also evaluating replication to other NY owned sites and if so would you consider a utility delivery model internally housed on NY owned data centers?	<p>The objective of this solicitation is to canvas suppliers of Disaster Recovery Solutions to determine what is available. The Department has no specifications and/or requirements at this time. Please detail any service offerings you feel are suitable.</p> <p>Any solution must provide for an adequate geographical separation from Albany, NY.</p>

Attachment A

Mainframe

- IBM 2097/E26 mainframe
 - 1 LPAR
 - CPU – 1500 MIPS on an IBM 2097 class processor
 - One (1) zIIP processor engine
 - Channels – Four (4) FICON to DASD, four (4) FICON to Tape/VTS, 1GB OSA and channels as appropriate for support devices
 - Memory – 22 GB
 - Direct Access Storage
 - DASD – 6780 GB
 - Tape Storage
 - Cartridge Tape – 3490E units, configured on multiple strings, each accessible by multiple control units
 - 3592-C06 Native (ATL) Tape subsystem.
 - TS7740 Virtual Tape Subsystem (TS7700 Virtualization Engine (3957-V06))

Unix

A sampling of relevant hardware in the UNIX/MidRange environment generally consists of the resources below. A *percentage* of these would be designated as required for the Department's Disaster Recovery configuration. The exact recovery configuration is yet to be determined.

- p520 (Server-8203-E4A-SN0686B22)
 - 4 @ 4.2GHz CPU
 - Power 6 Architecture
 - 24 GB Memory
 - 4 x 73.4 GB 15K SCSI Internal HDD
- p595a
 - 64 @ 2.1GHz CPU
 - Power 5+ Architecture
 - 384 GB Memory
 - 1 TB - 10K SCSI Internal HDD
- p795 (FHB)
 - 128 @ 4.0GHz CPU
 - Power 7 Architecture
 - 1280 GB Memory
 - 4 x 240Gb 10K SFF SAS Internal HDD
- Blade Center C (Model 7989BCH)
 - 14 Blades
 - 56 @ 4.2GHz CPU
 - Power 6 Architecture

- 224 GB memory
- 46 x 72GB 10K SFF SAS Internal HDD
- Blade Center D (Model 7989BCH)
 - 14 Blades
 - 56 @ 4.2GHz CPU
 - Power 6 Architecture
 - 224 GB Memory
 - 46 x 72GB 10K SFF SAS Internal HDD

ESX/Windows

A sampling of relevant hardware in the ESX/Windows environment generally consists of the resources below. A *percentage* of these would be designated as required for the Department's Disaster Recovery configuration. The exact recovery configuration is yet to be determined.

Server

- 4 IBM x3850 X5 servers
 - 4 Intel x7550 eight-core 2.0 Ghz CPUs
 - 256 GB of memory
 - 72 GB internal storage (usable)
- 2 IBM x3850 M2 servers
 - 4 Intel x7460 six-core 2.6 Ghz CPUs
 - 128 GB of memory
 - 72 GB internal storage (usable)
- External storage for server environment is 1.6 TB not counting user data.

VMWare View (VDI) environment

- 6 IBM HX5 blades
 - 2 Intel eight-core 2 GHx CPUs
 - 256 GB of memory
 - 40 GB internal storage (VMware)
- 4 IBM x3850 X5 servers
 - 4 Intel eight-core CPUs
 - 384 GB of memory
 - 0 GB internal storage
 - USB Key for ESXi
- 5 TB of external storage

Storage

A sampling of relevant hardware in the Storage environment generally consists of the resources below. A *percentage* of these would be designated as required for the Department's Disaster Recovery configuration. The exact recovery configuration is yet to be determined.

- EMC VNX - 120TB
- Several IBM System/Enterprise Storage Servers: 2 DS3500(40TB each), 2 DS4800 (18TB, 28TB), DS5300 (28TB), DS8100 (40 TB), ESS800(43TB), XIV (26TB)

Tape

- 2 IBM 3584 LTO tape libraries
 - 60 drives(LTO2, LTO 3 & LTO4)
 - 1400 LTO3, LTO4 slots
 - 700 LTO2 slots
- Several IBM 3581 standalone LTO tape drives