Corporate Finance Department
Materials Management Division   **55-2015 ADDENDUM 1**

Winnipeg

REQUEST FOR PROPOSAL FOR THE PROVISION OF ENTERPRISE STORAGE

ISSUED: May 11, 2015
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URGENT

PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE REQUEST FOR PROPOSAL

THIS ADDENDUM SHALL BE INCORPORATED INTO THE REQUEST FOR PROPOSAL AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS
Template Version: Ar20150105

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Request for Proposal, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 9 of Form A: Proposal may render your Proposal non-responsive.

PART A – PROPOSAL SUBMISSION

55-2015 Form B: Prices has been provided in Word format for the convenience of the Bidders.

PART B – BIDDING PROCEDURES

Revise B9.18 to read:

B9.18   We currently use custom scripts to backup Solaris Zones and Microsoft SQL Databases. This backup data is sent to Windows NFS **and CIFS** shares

Revise B16.10.1(c) to read:

B16.10.1(c)   D2D storage must be online storage **and must be capable of supporting CIFS and NFS directly or support connecting the storage to a Virtual Server that serves up CIFS/NFS shares**

Delete: B26.1(h)

Revise B26.10 to read:

B26.10   This Contract may be awarded in sections as identified on Form B: Prices.

Delete: B26.10.2

PART E – SPECIFICATIONS

Add: Appendix B   55-2015_Addendum_1_Appendix_B-City_Secondary_Floor_Plan

BIDDERS CONFERENCE INFORMATION – MAY 7, 2015

Bidders Conference – General Discussion

- Bidders are reminded that all sections in the RFP that are to be evaluated should be responded to. It is suggested that responses should contain the number from the RFP, the question or statement and then the response directly below.

- Section B17 Experience is asking for the details of at least 3 implementations and references of the proposed solution to meet similar business needs of the City.   Bidders should be aware that full points will not be awarded if less than 3 implementations/references are provided, if the implementations are not using the same elements of the proposed solution, or if the implementations do not address business requirements of at least the same demands as the City's.

- Part C - General Conditions contains a link to The General Conditions for the Supply of Goods - http://www.winnipeg.ca/matmgt/gen_cond.stm which contains definitions for "may", "should", "shall" and "must". Bidders are advised to review these definitions.

- Bidders are advised to review B26.2.   Submissions may be deemed non responsive if they are conditional or contain additions, deletions, alterations or other irregularities.

BIDDERS CONFERENCE QUESTIONS AND ANSWERS

Q1   Can an electronic version (Eg. Microsoft Word) of the RFP be posted?

  A1   A Microsoft Word version of Form B: Prices will be posted as an addendum.

Q2   Section B9.28(c) lists the approximated breakdown of Primary Storage by category. For Oracle, SQL and Exchange can you provide the space for active Databases? Is the City using Exchange Data Availability Groups (DAGs)?

  A2   The space listed in B9.28(c) includes other storage than just active databases (e.g. Logs, exports, etc.). The City is using Exchange DAGs. The Actual amount of active DB data by category is:

   Oracle DB – ~19.3 TiB

   SQL DB – ~3.6 TiB

   Exchange DB – ~2.1 TiB (not including replicated DAG)

Q3   Section D2.2 – What is the City's requirement for "implementation" services? For example, does this include hardware and software installation and configuration? Does it include data migration services from your existing systems? We would like to understand the demarcation of work the City would expect do to internally vs. the vendor.

  A3   Implementation of the solutions should include hardware and software installation and configuration and verification that the system is working - See B16.8(f). Bidders are asked to provide a timeline for implementation including any City activities that will be required such as migration of data.

Q4   Sections D2.4 and D2.3 reference an existing contract for storage that ends on October 26, 2015 but you have monies approved to December 31, 2015. What is the implication of that information to the Bidder?

  A4   The City expects to purchase additional storage in 2015 under our existing Storage Contract which expires on October 26, 2015. The City Budget is approved annually - monies have been budgeted for future years but will not be approved until City Council approves the budget for that year. We will be purchasing storage through this RFP based on approved budgets in the timeframes specified in B16.9 and B16.10.

Q5   We would like to understand more about the requirement for CIFS and NFS support**.** Section B9.6 says that you are 100% FC and you only have a limited understanding of iSCSI. However, B16.9.7 has a requirement for CIFS and NFS. This seems to imply that you are looking for a different solution than you have today. Could you please elaborate on the CIFS and NFS support requirement?

   A5   All of our physical servers, Tape Libraries and Storage Subsystems are connected via FC. B16.9.7 states that Configuration 1 should provide support for Veeam, NFS and CIFS. We currently utilize NFS and CIFS shares for backing up Solaris and SQL Databases and we would like the option of utilizing the Configuration 1 solution for this purpose. We are not asking for any specific solutions, only stating our business requirements.

Q6   Section B9.17. What tools or processes do you currently use to migrate data between Tiers? Are you currently utilizing HSM?

   A6   B9.17 describes our TSM environment. TSM utilizes different pools of storage which are on different tiers and handles the movement between these Tiers through TSM processes such as Migration. We are not currently utilizing HSM.

Q7   Section B9.16 and B9.17. What are your target backup windows for Veeam and TSM?

   A7   Our target backup windows for Veeam and TSM are 5:00pm – 8:00am. We currently do perform some backups from 8:00am – 5:00pm.

Q8   What are your RTO / RPO requirements for DR?

   A8   We do not have specific RTO/RPO requirements defined. Our high level availability requirements have been identified in B9.2.

Q9   Please describe the space and power constraints at your secondary data centre and, if possible, provide an existing floor plan.

   A9   Please see the attached floor plan (55-2015_Addendum_1_Appendix_B-City_Secondary_Floor_Plan). The green shading indicates space that could accommodate 3x19 inch Racks. Note that the "6 Foot Rack" in the diagram will be removed by Q3 2015.

   We need to monitor the existing Power in our secondary datacenter to ensure we have 120 minutes of run time from our UPS's. Our current UPS load is shown below. We utilize PowerWare 9390 UPS's.

	UPS A	UPS B
KVA load	19.7	19.4
KW load	16.3	15.6
Battery Runtime	255 min	269 min

Q10   Please provide the current size of your TSM Primary Storage Pools.

A10   We have 3 TSM servers – partial output from "Q STGP" is shown below for these 3 servers. Note that "TSM5" stores the TSM Offsite Copy Pool for "TSM3" and "TSM4".

Server	Storage Pool	Est Capacity (GB)	% Utilized	Next StoragePool
TSM3	ARCHIVE-TAPE	172,740	50.9	
TSM3	ARCHIVEPOOL	1,020	0	ARCHIVE-TAPE
TSM3	BACKUP-DISK	31,645	89.9	BACKUP-TAPE
TSM3	BACKUP-TAPE	300,548	27.6	
TSM3	BACKUPPOOL	2,040	95	BACKUP-DISK
TSM3	DIRPOOL	4	60.7	
TSM3	VVOL3	133	41.2	
TSM4	ARCHIVE-TAPE	183,420	67.7	
TSM4	ARCHIVEPOOL	1,370	1.8	ARCHIVE-TAPE
TSM4	BACKUP-DISK	30,563	89.6	BACKUP-TAPE
TSM4	BACKUP-TAPE	156,654	58.1	
TSM4	BACKUPPOOL	2,040	85.1	BACKUP-DISK
TSM4	DIRPOOL	8	6.3	
TSM5	VVOL-POOL	7,119	62.8	VVOL-TAPE
TSM5	VVOL-TAPE	1,136,557	47.7	

Q11   Section B16.4(g) requires system to "provide compression and de-duplication of the data" and Section B16.10.1(a) states "D2D storage capacity listed is capacity required after the Backup data has been compressed by backup software (e.g. Veeam, TSM)". Backup targets generally require data to be uncompressed in order provide the full value of deduplication which would reduce the amount of storage for the back-up device. Will there be an option to send the data uncompressed to the deduplication target?

A11   Yes this should be possible. We have used client side compression on TSM to reduce the network bandwidth required and have found in many cases compression actually shortens the backup time. We would want to test this out and would rely on expertise and best practices on how other organizations have accomplished this.

Q12   Please list all of the versions of Microsoft SQL Server and Oracle DB that are used in your environment.

A12   We are currently running Microsoft Server Standard Edition 2005, 2008 and 2012. We are currently running Oracle Standard Edition 9i, 10g and 11g. We also run Oracle Enterprise Edition 11g on Solaris for specific applications.

Q13   B26.1(h) states that "Costs to the City of administering multiple contracts" is one of the evaluation criteria but has no points associated with it.   How would this be used and is this a significant factor?

A13   See Addendum.

Q14   B5 refers to enquiries that can be made regarding the RFP. What is the expected response time to questions that are posed?

A14   Answers to questions will be responded to as quickly as we can and the time to respond will depend on the nature of the question. If the response contains information that is not currently in the RFP an addendum will be posted with the information for all Bidders.

Q15   B9.19 references backing up 2 TiB of data per day. Is this changed data only?

A15   We are utilizing TSM incremental backups on our File Servers so the 2 TiB of data is changed files after client side compression. We are utilizing TSM sub-file backups for PST files on the file server so for those files it would be changed blocks only.

Q16   Do Bidders need to provide responses to Part D – Supplemental Conditions?

A16   There are no points awarded for this section so there is no evaluation and no responses are required. Part D will form part of the Contract after the award so Bidders need to be aware of all conditions in this section.

Q17   B16.4 States that "The enterprise storage solution deployed should provide the following features at a bare minimum". Does this apply to both configurations?

A17   Yes. As per B16.2, all of the statements in B16 Solution apply to both Configuration 1 and Configuration 2 unless stated otherwise. Any differences in the responses based on the configuration should be clearly stated in the response.

Q18   B9.3 states that in the event of a major data centre failure that the infrastructure at either data centre will be used to service critical computing workload from the alternate data centre. Can you provide a list of the critical applications?

A18   No. We do not have a prioritized list of applications at this time.

Q19   Can the Closing date of May 28, 2015 be extended?

A19   At this point there is no plan to extend the Closing date. The date could be extended if there are circumstances that warrant an extension.

Q20   Will we be providing a list of attendees at the Bidders Conference or potential bidders?

A20   No list of attendees from the Bidders Conference will be published. The RFP is an open RFP so we have no knowledge of potential Bidders.

New Questions since Conference:

Q21   Are your D2D backups (Veeam, Solaris containers and Windows SQL) all running over NFS?

A21   Veeam backups are described in B9.16 – we utilize Direct SAN Transport Mode with FC storage and are not utilizing NFS for backups. Solaris backups are using scripts and backup to NFS shares. Windows SQL backups are using scripts and backup to Windows CIFS shares (B9.18 should have stated Windows NFS and CIFS shares.)

Q22   Is the CIFS requirement for User file shares only or are there other backup/archive processes using CIFS?

A22   Configuration 1 states that the solution should support CIFS and NFS. Configuration 1 is for Backup Storage. We utilize CIFS and NFS for some of our backup scripts and would like to utilize the solution for this purpose. Configuration 2 states that D2D storage must be online storage and be accessible via CIFS and NFS. This statement has been amended to "must be online storage and must be capable of supporting CIFS and NFS directly or support connecting the storage to a Virtual Server that serves up CIFS/NFS shares. We want to utilize the solution as a target for our scripts that write to NFS and CIFS shares.