



## **RFP 60-23-01 DRaaS and iSeries Solutions Partner**

### **Questions & Answers**

- 1.) Will proposals from non-U.S. companies be accepted?  
Only if the vendor has data centers to support the DR function within the US and all SURS data would stay within the US.
- 2.) Will this engagement require onsite meetings?  
No onsite meetings.
- 3.) Can the services requested in this RFP be performed outside of the U.S.?  
See the answer to question #1.
- 4.) Can proposals be submitted via email?  
Submission requirements can be found in section IX of the RFP.
- 5.) Which sites are Primary and DR? How many applications and systems are replicating to DR?  
SURS is not currently doing replication for DR but would be willing to if the price was right.
- 6.) Is there an existing DR plan? Is there an existing business continuity plan?  
Yes and yes.
- 7.) Is the current DR solution hot site, warm site, cold site?  
The current solution is a cloud solution. Data is backed up to the cloud provider and can be restored to their environment within the 24-hour RTO (cold).
- 8.) What are the tools in place for system backups?  
This was documented in Appendix H. Currently network backups are performed nightly to disk using Veeam software and then to tape using Net Vault software. SURS performs snapshots hourly throughout the day. iSeries backups are performed to disk and tape using FSFlashCopy and BRMS. BRMS backups are also duplicated to the DR site in case of emergency.
- 9.) Please provide info on systems that require backups and create and schedule backup jobs.  
Backups are performed and controlled onsite by SURS. The data from the backups for critical systems/applications are then transferred to Cloud DR vendor via Sphinx devices.
- 10.) Does offeror need to provide storage for this data, or will SURS provide it?  
In the current scenario, cloud storage is required for transfer of critical systems to vendor to ensure ability to restore critical systems within the RTO. If you have a different method of recovery, please describe.

- 11.) What infrastructure platform is being utilized for DR currently?  
SURS' current vendor has an iSeries and network infrastructure that our systems are restored to.
- 12.) Can the resource be remote?  
There are no onsite requirements. May need the ability for someone to go onsite in the event of disaster but would be very rare.
- 13.) How many servers are protected?  
Up to 30 VMWare servers may need to be recovered. Only 9 virtual servers would need to be recovered within the 24 hr RTO/RPO.
- 14.) What are the O/S types of the servers being protected?  
Windows and iSeries servers.
- 15.) How many of each server?  
N/A
- 16.) How many protection zones exist?  
(SURS is unsure what this question is referring to.)
- 17.) What DR toolsets are available (e.g., VMWare SRM)?  
SURS is running a VMWare 6.7 environment for Windows and Ubuntu servers.
- 18.) What is the current rate (i.e., sizes, frequency, etc.) for backups now?  
iSeries backups are done daily each evening on Prod, Web, TEST, and DEV. Weekly backups are completed on Friday nights. Monthly backups also include the DR system and Flashcopy partition.
- 19.) Are current images up to date?  
Yes, images are up to date.
- 20.) What was the last patch run?  
This is current.
- 21.) Are the iSeries and VMWare environment connected and, if so, what is the interdependency between the two?  
iSeries uses on-prem hybrid exchange server to send email.  
FileNet uses an API to accesses iSeries for validation to input of documents.
- 22.) Does VMWare environment provide services to other parts of the environment not connected to the iSeries?  
Yes.
- 23.) Has an assessment of the environment been performed recently? Can this be shared? This would show interdependency between the two to build the proper DR plan.  
See the answer to question #21.

- 24.) Answers to these questions are not released until September 29<sup>th</sup> and bids are due October 6<sup>th</sup>. This gives responders just a week to revise, re-price, and submit by the October 6<sup>th</sup> deadline. Might SURS consider a two- or three-week extension of the deadline to gather complete and well-suited responses?  
The proposal submission deadline will remain October 6<sup>th</sup>. However, SURS is amending the original timeline to allow for a formal narrowing down to a group of finalists. Those finalists will have the opportunity to submit a best-and-final offer.
- 25.) Regarding iSeries Managed Services, could SURS provide information about the tasks currently performed by the retiring iSeries administrator? If work is assigned by tickets, could ticket data be provided?  
Examples of tasks include:  
Troubleshoot issues and bring in a developer as needed.  
Program utilities to eliminate repetitive tasks.  
Assist users with access to iSeries and OnDemand.  
FTP, print, and connection issues.  
Monitor and perform maintenance to 3<sup>rd</sup> party software, PTF's, and backups.
- 26.) Regarding iSeries Managed Services, can all support activities be handled remotely?  
Yes.
- 27.) Regarding iSeries Managed Services, is remote support delivered from outside of the United States permitted?  
No.
- 28.) Regarding iSeries Managed Services, does SURS have any runbooks or existing documentation that can be shared prior to proposal?  
SURS is unwilling to share certain sensitive information at this point in the process. SURS understands that this information is helpful in preparing proposals. While the proposal submission deadline remains October 6<sup>th</sup>, the original timeline is being amended to allow for a formal narrowing down to a group of finalists after proposals are received. Finalists who are willing to enter into a nondisclosure agreement with SURS will be provided answers at that stage. Those finalists will then have the opportunity to submit a best-and-final offer.
- 29.) Regarding iSeries DRaaS, would a multi-tenant hardware environment be acceptable to SURS (i.e., dedicated LPAR and dedicated LUN storage; physically shared with other resources)?  
This would be acceptable provided proof that SURS data is secure and not accessible by other clients. Would also need to ensure that vendors such as business partner or IBM is aware and following procedures that don't allow unauthorized physical access to the systems.
- 30.) Regarding iSeries DRaaS, does SURS currently use a 9009-41A (S914) utilizing Direct Access Storage Devices (DASD) or external storage arrays? What are the size and performance characteristics of production storage?  
Storage is external via a Storwize V5000 device for all partitions on the system.
- 31.) Regarding iSeries DRaaS, SURS documents in Appendix H that the 9009-41A has a CPU feature code of EP12 (8 core CPU), but does not document how many CPUs of IBM i are allocated and licensed to each LPAR. How many CPUs are allocated to the PROD LPAR that is in scope for the DRaaS solution?

A total of 8 installed, 7 licensed, 5 assigned to partitions, 2 available for use. PROD - 1CPU; WEB - 0.5; DEV - 0.4; TEST - 0.4; with the remainder spread across Flashcopy partitions.

- 32.) Regarding iSeries DRaaS, Appendix H references “Backups are currently performed to an on-prem device that then transfers the data to the cloud vendor.” What is that device? Does it need a corresponding target for replication?  
SURS currently uses Sphinx. It does need a corresponding target for replication.
- 33.) Regarding iSeries DRaaS, Appendix H references “iTera for PROD -> WEB replication” for IBM i. Is it currently being utilized to deliver DR?  
No, it’s mainly for data replication to a partition that is used as a web front end.
- 34.) Regarding iSeries DRaaS, SURS currently has DR for IBM i with an annual DR test. Is that implemented today with an Always On LPAR?  
The DR LPAR is only used for testing of iSeries system backup restores.
- 35.) Regarding iSeries DRaaS, even though Appendix H gives useful data on technology used, HMC scanner output would be useful. Could SURS run this against their HMC and provide the detailed output?  
See the answer to question #28.
- 36.) Regarding iSeries DRaaS, would SURS be interested in a pricing model that reserves capacity (versus dedicating capacity), but has a DR activation charge that’s only incurred during an actual event? This could save money, but Appendix C pricing doesn’t facilitate pricing in that fashion.  
Yes, that can be provided as optional. Feel free to add an addendum for these types of items and any additional commentary on your proposal. Be sure to indicate what item it would be replacing in the original price list.
- 37.) Regarding iSeries DRaaS, Appendix C only supports a fixed price proposal. Is hourly software development (RFP programming) of interest to SURS?  
Yes, an hourly rate can be proposed in that instance.
- 38.) Regarding the network, how is connectivity performed to the current recovery environment? For example, Internet with IPSec? Or do you have a dedicated private connection to the cloud provider? In either case, what is the bandwidth?  
VPN with IPSec and 1 gb capacity.
- 39.) Regarding the network, will SURS provide the connectivity for the new environment?  
SURS will set up and configure our end of the VPN with IPSec.
- 40.) Our understanding from Section I of the RFP is that we may bid on either the DRaaS component or the iSeries Managed Services component or both. Can SURS please confirm if vendors bidding on both components would receive preference in evaluation, or is each component being evaluated separately for the vendor who will best meet SURS needs for each component?  
Each component will be evaluated separately to identify the best-of-breed solution for SURS.

- 41.) In Section V of the RFP under *Candidate Information*, we are asked to “include resume(s) for potential candidates, detailing applicable experience and credentials”. Can SURS please confirm if we are expected to provide details on our account management and support team specifically for the DRaaS component of this RFP, or is this requirement asking for the CV of a candidate who would support the iSeries Managed Services component of this RFP only?  
**Yes, provide detail on both.**
- 42.) Regarding Section VII of the RFP, we are interested in better understanding the evaluation process. Can SURS please share which SURS resources are involved in the evaluation team, and can SURS share the weighting for the evaluation criteria?  
**Each proposal is evaluated to ensure it meets minimum qualifications for the bid. Upon ensuring eligibility, a group of leaders from Ops, PMO and InfoSec will evaluate the proposal based on the criteria listed to determine which vendors best match the needs of SURS.**
- 43.) In Section VII of the RFP, one of the evaluation criteria includes “Independence”. Can SURS please elaborate on this requirement? Is this an evaluation of whether the solution includes any third-party service?  
**This refers to the responder’s ability to work independently without SURS supervision.**
- 44.) Section I of the RFP notes that all forms are available on [www.surs.org](http://www.surs.org). However this link is for the main SURS website and not a procurement portal. Can SURS please confirm that all forms required to be submitted for this procurement are contained within the RFP document?  
**Yes, all requirements are included in the RFP. Here is the link to the specific RFP page on SURS website. <https://surs.org/2022/09/draas-and-iseriessolutions-partner/>**
- 45.) Regarding the Fee Proposal as described on page 7 and then laid out in Appendix C: Fee Proposal, we prefer to offer SURS a more detailed and transparent overview of our fee proposal than is offered by the prescribed format. May we modify the Appendix C template to provide more detail to better reflect our service offering? Or, in addition to the prescribed format in Appendix C, may we include an Addendum with further detail?  
**You may include an Addendum with further detail.**
- 46.) On page 8 of the RFP, under *Contract*, there is a reference to “Appendix (?)”. Can SURS please confirm this is a reference to Appendix D: Addendum to Contract?  
**Yes, this is a reference to Appendix D.**
- 47.) In Section X of the RFP, there is a Cyber Security Training Requirement referenced. However, no additional detail is provided about what the training entails. Can SURS please provide more information about this training? For example, number of hours or days, whether the training is onsite or online?  
**Security training will be administered through KnowBe4. Currently, there is a requirement for one initial training for any contractor that has access to SURS systems/data. The training is online and can be completed in less than 30 minutes.**
- 48.) Page 15 of the RFP is blank. Can SURS please confirm if any content of the RFP is missing?  
**No information is missing; this was a page break error in the PDF conversion.**

- 49.) In Appendix A, at the top of the page, SURS asks for “**two project references**, similar in design and scope”. However, within the table below SURS requests “contact information for **three references** (if possible) from projects similar in size, application and scope and a brief description of their implementation. Include at least one reference to a recently acquired account, at least one reference to a long-term account, and at least one reference to a recently terminated account.” Will SURS please confirm if we are meant to provide two references, or three, or a total of five references?  
**Please provide a minimum of 2 references.**
- 50.) Regarding the table in Appendix I on page 34, the instruction is to “Complete the tables by either entering a response where prompted or placing an “x” in the appropriate column for each criterion”. However, we note that many of the questions require a detail in the response. Are we required to provide both written answers and fill in the table for each criteria? In which case, may we respond in a question and answer format or are we required to use exclusively the table format?  
**Yes, you may respond in a question/answer format if additional clarification is needed. The table should also be completed.**
- 51.) The table in Appendix I includes the requirement “Is the managed services offerings (or parts thereof) outsourced?” Does this reference to managed services refer exclusively to the DRaaS component or to the separate iSeries Solutions Partner component of this RFP? Is the reference to “outsourced” asking whether the solution involves sub-vendors / partners?  
**Yes, the question is asking whether the solution involves sub-vendors/partners and applies to both DRaaS component and also to the managed services component.**
- 52.) May we include an executive summary with an overview of our solution?  
**Yes, can include executive summary with overview.**
- 53.) May we include additional information that directly supports our solution?  
**You may include an addendum with additional information to clarify your solution(s).**
- 54.) Our understanding is that iTera is not used to replicate to current DR site with a HA target from which the system may be recovered in the event of a disaster. Please confirm.  
**That is correct.**
- 55.) Is SURS open to replacing iTera with another software (QEDD) solution for replication?  
**Since iTera is not currently used for replication, it does not fall within the scope of this RFP.**
- 56.) How many active cores are allocated to PROD LPAR?  
**There is one.**
- 57.) Can we examine a report or RV Tools export which lists all virtual machines in the VMware environment and that details storage, compute, OS versioning, hardware versioning and criticality by order of priority for DR purposes?  
**See the answer to question #28.**
- 58.) Does SURS have host level access to production VMware environment today?  
**Yes, SURS does.**

- 59.) What is the current replication technology being used for the VMware environment virtual machines?  
See the answer to question #158.
- 60.) What is the current replication technology being used for the CIFS and NFS storage shares?  
No replication, backups only.
- 61.) Is proximity between iSeries and VMware DR environment a requirement?  
The only requirement is there needs to be a connection between the 2 environments. Also see the answer to question #161.
- 62.) Will customer need host level access for VMware DR environment?  
Yes, will need host level access.
- 63.) Is dedicated hardware for VMware DR site a requirement?  
No, this is not a requirement.
- 64.) Please provide a HMC Scanner report for your iSeries environment so that we can gather essential compute and storage configuration metrics. The HMC Scanner report provides granular configuration metrics helpful for scoping and sizing.  
See the answer to question #28.
- 65.) Which OS Version and Release are currently deployed on the iSeries environment, would SURS seek to upgrade and when?  
All partitions are at V7R4. Environment not ready yet for V7R5 and wouldn't happen until early next year, possibly.
- 66.) Is SURS open to global/offshore iSeries environment resources?  
No not open to global/offshore.
- 67.) How old is the current environment? Is it owned or leased?  
It is 3 years old and owned by SURS.
- 68.) What is the application, is it custom code? What is it written in?  
If this is in reference to the iSeries, it is an in-house developed application.
- 69.) The RFP identifies 11 LPARs but indicates the only partition needing DR recovery is "PROD". Is this accurate? If not, please clarify which partitions need to be recovered?  
PROD and WEB are primary parts of the environment, but all partitions including the Flashcopy partitions need to have the ability to be recovered.
- 70.) Do SURS require Code Promotions? If so, on which LPARS and what is the frequency?  
Would like to understand the relevance of this question.
- 71.) What automation tools are currently in use?  
Advanced Job Scheduler.
- 72.) Are all the LPARS using the automation or only specific ones?  
All of them.

- 73.) Does the automation interface with scheduling Software?  
**Yes, it interfaces with scheduling Software.**
- 74.) Are there automation events that are forwarded to external event or problem management systems?  
**Yes, Halcyon.**
- 75.) What is the storage platform supporting the production IBM Power S924? Or is the storage all internal type disk?  
**External Storwize V5000 system.**
- 76.) According to the RFP, there is 16.9 TB Disk associated with the 11 LPARs. Is this provisioned capacity? Or used capacity? If used capacity, what is the provisioned capacity? If provisioned capacity, what is the used capacity? - If possible, please provide a list of all storage volumes that make up the 16.9 TB showing both provisioned capacity and used capacity.  
**See the answer to question #179.**
- 77.) The RFP indicates "iSeries backups are performed to disk and tape using BRMS". Is "disk" in this scenario a reference to a Virtual Tape Library (VTL)? If yes, what is the VTL platform supporting the iSeries environment?  
**Disk refers to Flashcopy and then to the tape library and duplicated to the DR site.**
- 78.) The RFP indicates "Tape restoration would be used if other methods are inaccessible". What is the preferred method of recovery (ex: via replicated disk solution, via replicated VTL solution, etc.) for the iSeries environment?  
**VTL or replicated disk.**
- 79.) The RFP indicates 24-hour RPO and 24-hour RTO are the current timeframes. What are the desired RPO and RTO for the iSeries environments?  
**Desired timeframes are 24-hour RPO and 24-hour RTO.**
- 80.) The RFP indicates 24-hour RPO and 24-hour RTO are the current timeframes. What are the desired RPO and RTO for the VMware environment?  
**Desired timeframes are 24-hour RPO and 24-hour RTO.**
- 81.) Are there any components of the iSeries environment that are subject to a 'lift and shift' type migration specific to the intended disaster recovery solution? - If yes, please identify the components and migration strategy.  
**No, none of the components.**
- 82.) Can you provide a RVTools report for your VMware environment so that we can gather essential compute and storage configuration metrics? - The RVTools report provides granular configuration metrics helpful for scoping and sizing.  
**See the answer to question #28.**
- 83.) The RFP indicates "There are approximately 100 virtual applications services, 30 of these servers are critical and would need to be recovered in a DR situation". Please delineate the 30 VMs that are be recovered using the RVTools report?

See the answer to question #28.

- 84.) Is Pure Storage FA-X70R3 the production storage platform supporting File Storage (CIFS), Data Storage (NFS), and Exchange? If not, please clarify the storage platforms in scope for CIFS, NFS, and Exchange?

Yes.

- 85.) According to the RFP, there is 6 TB Disk associated with File Storage (CIFS), 12 TB Disk associated with Data Storage (NFS), and 100 GB Disk associated with Exchange. Is this provisioned capacity? Or used capacity? If used capacity, what is the provisioned capacity? If provisioned capacity, what is the used capacity? If possible, please provide a list of all storage volumes that make up the 6 TB, 12 TB, and 100 GB showing both provisioned capacity and used capacity.

See the answers to question #179 and #154.

- 86.) Is there a preference for how the CIFS volume(s) is/are to be protected and recovered?

No preference.

- 87.) The RFP indicates "Tape restoration would be used if other methods are inaccessible". What is the preferred method of recovery (ex: via replicated disk solution, via replicated VTL solution, etc.) for the VMware environment? What specific infrastructure is currently used to support recovery?

See the answer to question #154.

- 88.) Are there any components of the VMware environment that are subject to a 'lift and shift' type migration specific to the intended disaster recovery solution? If yes, please identify the components and migration strategy.

No components of the VMware environment.

- 89.) Please confirm the IBM TS3310 Tape Library with 3580 Ultrium LTO-6 tape drive is used by both iSeries and VMware in support of tape-out of backups?

See the answer to question #154.

- 90.) Is the IBM TS3310 the base Model L5B? Or with optional expansion Model E9U?

It is L5B.

- 91.) Please confirm how many LTO-6 tape drives are required?

One LTO-6 drive required.

- 92.) Please detail the encryption management requirements of the IBM TS3310 Tape Library?

In the rare instance that we would need to restore from physical tape we would need to be able to restore a virtual SKLM server or export keys.

- 93.) What is the retention policy of your backups for the iSeries environment? Daily retained for? Weekly retained for? Monthly retained for? Yearly retained for? Etc.

Daily - 20 day rotation.

Weekly – 60 day rotation.

Monthly - 1 year rotation - The last monthly or weekly backup of the fiscal year on tape would become the yearly backup.

- 94.) What is the retention policy of your backups for the VMWare environment? Daily retained for? Weekly retained for? Monthly retained for? Yearly retained for? Etc.

Daily - 1 month.

Weekly - 1 month.

Monthly - 1 year - The last monthly or weekly backup of the fiscal year on tape would become the yearly backup.

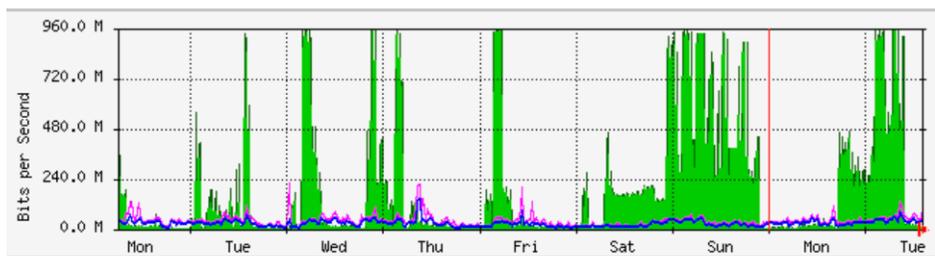
- 95.) What is the desired replication window for backups (the maximum amount of time desired to replicate backups to offsite storage) defined as number of hours, if applicable?

Number of hours is < 8 hours.

- 96.) How much internet bandwidth (Mbps) is available at the current production site? Please indicate the average utilization rate during peak operations and/or business hours if known.

Weekly utilization chart is below.

**'Weekly' Graph (30 Minute Average)**



	Max	Average	Current
In	953.6 Mb/s (100.0%)	183.0 Mb/s (19.2%)	11.7 Mb/s (1.2%)
Out	216.7 Mb/s (22.7%)	25.9 Mb/s (2.7%)	47.2 Mb/s (4.9%)

- 97.) How many public IPv4 addresses are required during at-time-of-test/disaster, or do you own a direct allocation of public IPv4 addresses from ARIN (Class C or greater) that are portable? SURS has a registered class C but I don't believe any will be necessary for DR as anything internet exposed is proxied either by WordPress or Cloudflare and we would make a DNS change there as necessary to point to any new or temp IP's.

- 98.) Please describe employee and/or end-user connectivity requirements (IPsec VPNs, SSL VPNs, MPLS circuits, P2P circuits, etc.) that will be needed during at-time-of-test/disaster? IPsec VPN should work for user connectivity, and we would want to limit it to only SURS subnets to ensure privacy.

- 99.) Do the iSeries and/or VMWare environments need to interface with the Public Cloud or 3rd-party Service Provider via Hyperscale or SD-WAN solution? If yes, please elaborate on both the connectivity and bandwidth requirements. No.

- 100.) What is SURS preference for replication over the Internet via IPsec VPN? Or dedicated point-to-point circuit? If dedicated point-to-point circuit, please provide the NPA-NXX and address of the production facility. IPSEC VPN is fine.

- 101.) Is there a requirement for a workplace recovery solution to support relocation of employees during at-time-of-test/disaster? If yes, please identify how many seats will be required.  
**This is not a requirement. If you have this capability, you may include it as optional with pricing.**
- 102.) Are Subcontractors approved?  
**In general, yes. They must be located in the US, fully disclosed, and approved by SURS.**
- 103.) Where are Exceptions to be included in the final deliverable?  
**See Appendix D of RFP.**
- 104.) For the IBM i / AS-400, please provide the number of cores assigned to each LPAR.  
**See the answer to question #56.**
- 105.) Please confirm that the WEB LPAR is not needed for the proposed Disaster Recovery environment.  
**Not at this time. We believe this will need to be added in the future.**
- 106.) Please provide a list of all infrastructure in the IBM i / AS-400 environment.  
Storage SAN(s) (manufacturer, model etc.)  
Virtual Tape Libraries "VTL" (manufacturer, model, quantity, location etc.)  
**See the answers to question #75 and #154.**
- 107.) Is the IBM Fax Support needed on the Production LPAR?  
**Yes, this will be needed.**
- 108.) If FAX Support is needed on the Production LPAR, what Fax solution is currently being used (fax card with a POTS line? Or IP based internet fax etc.)?  
**Fax cards and POTS line.**
- 109.) Are all of the IBM i software applications listed under maintenance / support agreements?  
**Yes, these are both under maintenance/agreements.**
- 110.) Please define the level of support requested for the software applications that are listed (Appendix I, pg. 34, IBM i / AS-400 Software list.)  
**In a DR situation, no 3<sup>rd</sup> party software support would be needed. In managed services, we would need 3<sup>rd</sup> party software updates, interface with vendor, and initial troubleshooting of user issues.**
- 111.) Does the Purestor SAN support the IBM i environment, or is it only supporting the VMware environment? If it is not providing space for the IBM i environment what storage system is providing that space?  
**No, see the answer to question #75.**
- 112.) What tape encryption technologies (SKLM, TKLM, etc.) are used in support of the environment  
IBM i  
VMware

We would need both using SKLM.

- 113.) What vendor is being used for the off-site tape retention?  
No third party vendor is used, performed by SURS and retained in a SURS facility.
- 114.) Where is the off-site tape retention vendor located (where are the tapes stored)?  
Located in Illinois.
- 115.) What are the backup retention policies for each of the LPARs?  
Previously answered in previous question.
- 116.) On the IBM environment, please run the command "PRTRPTBRM" on the production LPAR and provide the results.  
See the answer to question #28.
- 117.) What are the backup retention policies for the VMware VMs?  
See question number 94.
- 118.) Please identify / define the RPO and RTO for the 30+ VMs in scope.  
See question number 179.
- 119.) Please provide an [RVTools report](#) or similar report of the VMware environment ( need to provide VM list with vCPU, Memory and Storage for each VM.)  
See the answer to question #28.
- 120.) On the RVTools report, please identify the 30+ VMs that are needed for the disaster recovery environment.  
See the answer to question #28.
- 121.) Please identify any Microsoft SQL Server VMs in the VMware environment.  
See number 167.
- 122.) Please identify any Microsoft Clusters that will be replicated to the DR environment. If there are clusters please identify the clustering type (active/passive failover or Always On Availability Group AAG).  
No clusters present.
- 123.) What security tools are used in the IBM i environment?  
See the answer to question #28.
- 124.) What security tools are used for the VMware environment?  
See the answer to question #28.
- 125.) If implemented, what SIEM is in place?  
Implementation of Splunk is planned.
- 126.) Is SURS interested in the remote management of any of the following?  
VMware VMs (monitoring, management, administration, backups, patching etc.)  
SQL Server DBA Support Services (options are Production, Operational or SQL backups)

SIEM Services (if so, please provide details)

Network device management (if so, please provide network architectures, or list of devices)

No, not interested in remote management of the items listed above.

- 127.) Please describe what technologies, methods and the disaster recovery processes that are currently in place for the IBM i environment.  
See question number 146.
- 128.) Please describe what technologies, methods and the disaster recovery processes that are currently in place for the VMware environment.  
Cloud provider has virtual tapes of critical servers created by Veeam and once a test has been scheduled, restored using their Veeam/VMWare environment.
- 129.) For clarification, will the State of Illinois University Retirement System consider respondent's standard master service agreement with the inclusion of applicable service schedules as the baseline for developing any contract between the parties?  
Yes.
- 130.) Will SURS accept a partial response for i-Series Management only?  
Yes, responses can address both or either of the core services being requested.
- 131.) Is the i-Series Platform virtualized? IF yes, how many VIOS are you running?  
Yes, 2 are running.
- 132.) Please confirm the number of i-Series Servers in the production data center?  
Number of i-Series Servers is 1.
- 133.) Storage for the i-Series, is it internal on the server(s) or on an external SAN? If on an external SAN please confirm make, model, # of LUNs assigned to the i-Series, connectivity, and if operation and administration management is part of the i-Series management requirements?  
This was listed above already.
- 134.) Please define the CPU provisioning for each LPAR listed.  
This was listed above.
- 135.) For the LPARS listed on page 35 of the RFP, please identify where each of the 11 LARS physically resides.  
They are all on a single system at the SURS data center.
- 136.) Due to the nature of the data being hosted on SURS IT infrastructure, can the virtual servers reside on a multi-tenant cloud solution for IBM and VMware?  
Data needs to reside in a dedicated single tenant environment.
- 137.) There are 5 LPARs on the DR system only 1 LPAR (Prod) is configured for DR Recovery, are the other 4 LPARs (DR, DEV, TEST, WEB) being used at the current DR solution provider?  
No, they are flashcopy partitions. Would need to be created and used in an actual emergency scenario.

- 138.) Does SURS have documented runbooks which will be shared with the selected solution provider?  
**Some procedures exist and will be shared with the selected solution provider.**
- 139.) What replication technology is deployed for replicating the VMware VM's to the current DR target?  
**Not replicating VM's currently.**
- 140.) Will SURS provide a network topology diagram that details the connectivity to the current DR target?  
**No, there is only a VPN with IPSec.**
- 141.) On page 35, you define a "required" list of skills that you want available to assist you, please clarify what you mean by assist, examples of typical support requests, and the anticipated amount of support activity per month in hours.  
**See question numbers 25 and 150.**
- 142.) On page 35, you define a "desired" list of skills that you want available to assist you, please clarify what you mean by assist, examples of typical support requests, and the anticipated amount of support activity per month in hours.  
  
**See question numbers 25 and 150.**
- 143.) What are your back up policies for I-Series, and for VMware?  
**Nightly incrementals and weekly full backups.**
- 144.) Are you able to provide performance metrics for your I-Series environment?  
**See the answer to question #28.**
- 145.) Will you allow the **selected** solution provider to install a data collection agent to provide system utilization of the VMware environment?  
**Yes.**
- 146.) Please define the actual DR recovery and restoration process for both the i-Series environment, and for the VMware environment.  
**Coordinate the restore date with the DR site and send the tape and number to the person onsite. Once the system is created and installed up to the OS, then the BRMS reports are used to restore the system.**
- 147.) Is the iSeries application software for the Pension Retirement System a Vendor Package written in CL/RPG or is it an In-House Developed System?  
**It is developed In-house.**
- 148.) Would on-site training be provided with the current retiring iSeries System Admin?  
**Yes. Ideally, we'd have 1 month or longer to have the vendor shadow the incumbent. SURS will still have 1 iSeries admin. Backup for this admin is needed.**
- 149.) How many people support the current system?  
**Two iSeries administrators.**

- 150.) What is volume of iSeries related tickets per month by application?  
There were 75 tickets in total for the past year.
- 151.) What are the iSeries requests (tickets) focused on?  
See question number 25.
- 152.) What is the iSeries CPU allocation by partition? Memory?  
Already provided above.
- 153.) What applications are utilizing Synon, Cool/2E & Lansa, and how are they being utilized?  
SURS pension applications are written using the above tools. Synon, Cool/2E is used to develop the iSeries applications and Lansa is used to develop the web applications.
- 154.) What backup media (physical tape or virtual tape) is being used for iSeries backups. If virtual tape, what is the make and model and storage capacity and % used of the virtual tape unit?  
Virtual tape IBM 3580 LTO6 2 TB per tape 30% used.
- 155.) What is the backup schedule for the iSeries? What is backed up nightly, weekly, monthly, quarterly, semi-annually and annually? What backup software (i5 OS, BRMS etc) is being utilized?  
Schedule was already listed above. All backups are done with FlashCopy and BRMS.
- 156.) If a Virtual Tape is being used are the tape images transferred offsite and what is the schedule for transfer? If physical media is used what is the rotation schedule and are the tapes moved offsite?  
See questions below. Transferred daily overnight.
- 157.) Will backups need to be replicated?  
Yes, they are currently duplicated to the DR site as well as offsite storage.
- 158.) If archives are going to the cloud from the backup appliance, what is the cloud provider?  
Nightly backups are currently being sent to the DR site. Archived backups are currently in Azure or on tape.
- 159.) For cloud archiving, is there a specific desired region?  
No, but must be US based.
- 160.) Is tape needed for any of the workloads aside from the iSeries environment?  
One LTO6 tape drive is desired but not required.
- 161.) Does the data need to reside in a certain region in North America per part of the managed services? Will any data need to reside overseas?  
All data must be kept within the US. Data Centers within 100 miles of Champaign, IL would not be ideal.
- 162.) Is Capex or Opex preferred for solution?  
No preference.

- 163.) What is the estimated growth rate of the backup data per year? 5%? 10%? 15%? More?  
Estimated growth is < 10% annually for iSeries, VM growth 10% annually.
- 164.) What is the estimated change rate of your data?  
Change rate of data is < 10%.
- 165.) How much data from each workload is considered non-compressible?  
Backups for iSeries currently compress by 63%, Backups for VM's compress by 43%.
- 166.) Can an RVTools be provided to the team for the VMware / virtual workloads for sizing purposes?  
See the answer to question #28.
- 167.) Are there any Databases, such as SQL or Oracle in the VMware environment? If yes, how many hosts? How many databases? And what is the size of the largest database.  
Yes, we have SQL databases on 7 servers. There are 7 main databases with the largest database of 2TB.
- 168.) Roughly how many files are in the NFS/CIFS environments? Do they contain video or imaging files?  
FileNet Images are within our CIFS environment. There are 25 million+ images for this app.
- 169.) What is the retention of daily snapshots?  
Kept on-prem for 10 days.
- 170.) What is the retention of weekly snapshots?  
Kept on-prem for 2 weeks.
- 171.) What is the retention of monthly snapshots?  
N/A
- 172.) What is the retention of yearly snapshots?  
N/A
- 173.) Are there any requirements that must be met for your Cybersecurity Insurance? Immutable backups, ransomware protection, etc.?  
SURS requires SOC2 reports from all cloud vendors.
- 174.) Does the solution need anomaly detection?  
No.
- 175.) Will sensitive data be present in your backups? Will you need Sensitive Data Discovery to satisfy cybersecurity insurance or to lower your rates?  
Yes, sensitive data will be present. No to the discovery question. All data should be treated as sensitive.
- 176.) How confident is the team that they can recover from a Ransomware attack today?  
Pretty confident.

- 177.) What are compliance requirements?  
Compliance requirement is 1 test per year.
- 178.) The RFP indicates that SURS is requesting DRaaS for only the Production LPAR which currently is configured with 29GB of RAM and 1.4TB of storage. It would be helpful to also have the total CPW or Entitled Capacity of this LPAR. This can be obtained from the LPAR view of the HMC.  
See the answer to question #28.
- 179.) For the iSeries LPAR and the 30 critical VMS, what is the amount of storage allocated and what is the change rate?  
Only 8 VMS would need to be recovered within a 24hr RPO, 24hr RTO. Virtual environment 10TB allocated and 70% utilized.  
iSeries storage was answered in previous question. iSeries 1.4 TB in PROD and 50% utilized.