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Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia Solicitation Response

Proc Folder : 744476 Solicitation Description : Addendum					
	Proc Type : Central Maste	r Agreen	nent		
Date issued	Solicitation Closes	Solicita	tion Response	Version	
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CAPITAL CONSULTING LLC			
Solicitation Number:	CRFQ	0702	TAX200000017

2020-07-23

Response Time:

11:48:19

Response Date:

\$85,331.45

Comments:

Total Bid :

FEIN #	DATE
	FEIN #

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln I	Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Cloud Infra	astructure	1.00000	LS	\$85,331.450000	\$85,331.45
Comm Code	Ma	nufacturer	Specification		Model #	
43212200						
Extended Des	scription :	Please see attached specif	ications			
		Cloud Infrastructure per the	attached Exhib	it A Pricing P	age	
		Please note: Vendor must	orovide Exhibit A	Pricing Page	e with their submitte	d bid response. Failure to do so will result in

Exhibit A - Pricing Page Cloud Infrastructure

Item Spec #	Part Number	Item Description	Service Term	Bid item Description and Product Number for Or Equal Product Submission	Service Metric/ Unit of Measure	Est.Quantity	Unit Cost	Extended Cost
3.1.1.7	B90559	Database Cloud Service - Enterprise Edition	12 Months	Database Cloud Service - Enterprise Edition	OCPU Per Hour	8	4,283.73	34,269.80
3.1.1.15	B89422	Compute - Virtual Machine Standard	12 Months	Compute - Virtual Machine Standard	OCPU Per Hour	2	508.37	1,016.74
3.1.1.15.5	B89426	Compute - Windows OS	12 Months	Compute - Windows OS	OCPU Per Hour	2	733.08	1,466.15
3.1.1.8	B89435	Block Volume	12 Months	Block Volume	Gigabyte Storage Capacity per Month	4096	0.46	1,864.40
3.1.1.4	B89432	Outbound Data Transfer - First 10 terabytes per month	12 Months	*Please see section 3.1.1.4 and 3.1.1.6.1 in attached response*	Gigabyte Outbound Data Transfer Per Month	1024	0.00	0.00
3.1.1.6.1	B89432	Outbound Data Transfer - Over 10 terabytes per month	12 Months	*Please see section 3.1.1.4 and 3.1.1.6.1 in attached response*	Gigabyte Outbound Data Transfer Per Month	1024	0.00	0.00
3.1.1.9	B89437	Object Storage	12 Months	Object Storage	Gigabyte Storage Capacity Per Month	6144	0.27	1,677.95
3.1.1.10	B89436	Object Storage Requests	12 Months	Object Storage Requests	10,000 Requests Per Month	1,000	0.04	36.41
3.1.1.17		Training		Training and Support	Lump Sum	1	45,000.00	45,000.00
							Total Bid Amount	40,331.45



West Virginia Purchasing Division on Behalf of the Tax Division Cloud Infrastructure of Disaster Recovery Request for Quotation (RFQ)– Proposal and Pricing

Solicitation number: CRFQ0702 TAX200000017 Solicitation Submission: July 23, 2020 1:30pm

Capital Consulting L.L.C. D/B/A Tharseo IT | 1231B Good Hope Rd. SE | Washington DC 20020-6907 tharseoit.com | 855.815.7474

Contact Information: Eric Wimer | 703.930.9509 ewimer@tharseoit.com

This proposal includes data that shall not be disclosed outside the District and shall not be duplicated, used or disclosed in whole or in part for any purpose except for use in the procurement process.

If, however, a contract is awarded to this offeror as a result of or in connection with the submission of this data, the District will have the right to duplicate, use, or disclose the data to the extent consistent with the District's needs in the procurement process. This restriction does not limit the District's rights to use, without restriction, information contained in this proposal if it is obtained from another source. The data subject to this restriction as contained in page 1 through the end of document.



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Statement of Confidentiality

All information submitted within this response to West Virginia's Tax Division is to be treated as confidential and to be used only within the context of the evaluation criteria as outlined in CRFQ 0702 TAX200000017.

Certification of Compliance

Capital Consulting L.L.C. D/B/A Tharseo IT certifies it has read and understood the solicitation and all amendments and is following proper compliance with all articles, clauses, terms and conditions contained or referenced within CRFQ 0702 TAX2000000017.

Validity of Proposal

Capital Consulting L.L.C. D/B/A Tharseo IT understands the terms set out in this response will remain valid for a period of not less than 120 days from the closing date of this solicitation, being 07/23/2020.

Enquiries and Corporate Contact Information

Should any enquiries arise during the review or evaluation of the contents of this submission, please contact Eric Wimer at (703) 790 – 9309 (Cell) or email <u>ewimer@tharseoit.com</u> and/or Amit Bahadur at (804) 405-5347 (Cell)- or email <u>abahadur@tharseoit.com</u>. The mailing address of Capital Consulting L.L.C. D/B/A Tharseo IT is 1231B Good Hope Rd. SE, Washington, DC 20020.

7612

Eric Wimer CEO

07/10/2020

Date

Cloud Infrastructure of Disaster Recovery

COVER LETTER

Joseph E Hager III Joseph.e.hageriii@wv.gov Department of Administration 2019 Washington Street E. Charleston, WV 25305

Solicitation: CRFQ 0702 TAX200000017 Cloud Infrastructure for Disaster Recovery

On behalf of Tharseo IT, I'd like to thank you for the opportunity to submit our Proposal for Cloud Infrastructure and Disaster Recovery. Tharseo IT is an Oracle Gold Partner, Oracle certified Cloud Excellence Implementer and authorized reseller of Oracle Services. We have an excellent track record of success helping Public Sector agencies design and deploy Oracle software, scaled agile design, development, integration, migration delivery and 24/7 operational support of open source and cloud solutions.

Our proposal includes the price schedule and all other requested documents as per the solicitation.

Thank you for your consideration. We look forward to the possibility of working with you to fulfill all of West Virginia's needs.

Should you have any questions, please feel free to reach out directly.

Sincerely,

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Eric Wimer CEO Tharseo IT

THARSEO IT COMPANY SUMMARY

Tharseo IT, LLC is a minority-owned, small disadvantaged business, HUBZone company founded in 2014 and headquartered in Washington, DC. We specialize in assisting federal, state and local government agencies move workflows, applications, and data to FedRAMP secure cloud services. We provide on-prem and cloud-based software, scaled agile design, development, integration, data migration, delivery, 24/7 operational support, customer support, and training for open source and Cloud Infrastructure.

Tharseo IT focuses on public sector and was recently named one of the 10 Most Promising Oracle Consulting/Service Companies in 2019 by CIO Review magazine. With more than 50 years' combined experience in the IT industry, our senior management has led several teams of more than 120 program analysts, program managers, health policy analysts, health IT specialists, health IT enterprise architects, network architects, security architect, developers, case workers, technical writers, call center specialist, and HR specialists. These teams have successfully designed, built, deployed, operated & maintained large IT systems for multiple government agencies to include DC Health Link, Department of Healthcare Finance, DC Health, DC Department of Human Services, MD529, University of Maryland, USDA FNS, DC Public Schools, DC Child and Family Services, DC Office of Chief Technology Officer, Office of Chief Financial Officer, and DC Water.

Tharseo IT continues to develop, enhance, operate, and maintain critical systems that enable government agencies to take advantage of the fast, secure, and stable infrastructure Oracle Cloud provides. We are privileged to have tackled some of the toughest and most intractable technology and innovation problems for our government clients that directly relate to the experience required to respond to this RFP.



Tharseo IT - Capability Statement:

ENTITY NAME	District of Columbia (DC) Department of Health Care Finance (DHCF)
ENTITY ADDRESS	441 4th St NW, Washington, DC 20001
PROJECT NAME	DC Healthlink & DC Access System
TOTAL CONTRACT VALUE	\$500M+
CONTRACT DURATION	March 2013 – September 2017
VALUE OF IMPLEMENTATION	\$35M
VALUE OF O&M	\$40M
NUMBER OF STAFF ASSIGNED	65
NUMBER OF USERS	190,000
PRIME OR SUB-CONTRACTOR	Subcontractor
DC Healthlink POC	Mila Koffman, Director. Mila.koffman@dc.gov
DC Access System POC	Susan Peck CIO/CTO (retired) susanjpeck@gmail.com

Past Performance: Tharseo IT – Project #1

Project Summary Description: DC Health Link – the District of Columbia's health insurance marketplace - fell behind schedule and was at risk of losing its federal charter. The DC Health Benefit Exchange Authority (DCHBX) engaged the team lead by principals now at Tharseo IT to establish an agile program management office, rearchitect the system, and provide development and quality assurance services. Tharseo IT principals transitioned the project to an agile delivery model, and recovered the schedule. As a result, DC Health Link was one of only four states that successfully launched on time for ACA Open Enrollment in 2013.

In the following years, the team became a critical partner for all of the government agencies that comprise DC Health Link, taking a lead role in strategy, enterprise architecture, grant management, web development, UI/UX, software development, project management, software quality assurance, data analytics and operations and maintenance for both the District's Health Benefit Exchange and the city's Medicaid eligibility system for the Department of Health Care Finance (DHCF).

Tharseo IT principals also provided project oversight, storyboarding services, user interface design, editorial support, copywriting, Drupal and HTML programming, Dev Ops support, and project management for the DC Health Link web redesign



efforts in 2015. The redesign incorporated integrating HBX's new plan management system (Enroll App), reimplementing integrations with Oracle Identity Management, integrating a third-party product (Consumers' Checkbook), and designing new landing page content for a smooth handoff to the Medicaid (and federal tax credit) Integrated Eligibility system. Our team was responsible for coordinating with all of the vendors to harmonize all the user interfaces and content using SOA and open source so that the site presented a unified and intuitive user experience for consumers, businesses, and Brokers.

Offeror's Role: Tharseo IT principals architected the blueprint for the deployment and integration (using SOA) of Cúram, Connecture, and Benaissance[®] with Federal, State, and Local hubs, and led the team that defined the Electronic Data Interchange (EDI) transactions. We deployed and supported DCAS environments for the District's very first Open Enrollment. Each of the environment were used by different teams and required a variety of support to deliver an agile product. At the peak of the development and deployment process, over 100

Cloud Infrastructure of Disaster Recovery

developers and agency personnel were actively and simultaneously using 12 environments. The Tharseo IT team set up a ticketing system using Salesforce, multiple agile teams to rapidly produce results and fix issues, and a deployment process to ensure consistency across environments. In all honesty, there were issues along the way, but the team took ownership and resolved the issues as they arose. All the environments were on the Oracle stack of IAM, WebLogic, SOA and DB.

After the successful deployment of the District of Columbia Access System (DCAS), the leadership and founders of Tharseo IT were engaged by the Department of Health Benefits Exchange (DCHBX) to establish a sustainable, new IT infrastructure and support model to serve all internal and external stakeholders of the Exchange. The challenge was to deploy a model that promotes excellence in customer service, ensuring maximum accountability with the most efficient use of resources to support new and existing Service Level Agreements (SLAs), new deployments and tiers of support.

The Tharseo IT leadership (under various subcontractors to DCHBX) developed an operations and maintenance roadmap with a clear and understandable work breakdown structure of DCAS. The support models satisfied the three governing agencies - DHCF, DHS and DCHBX. The support models included a map for integrating a variety of infrastructures, systems, platforms, software applications and call centers. They then defined the key roles and responsibilities required to provide exemplary support to keep this complex system running 24/7. The Operations and Maintenance (O&M) Team under Tharseo IT's leadership team managed: 1) Infrastructure and virtual machines supporting all environments; 2) Cloud Integration with Office of the Chief Technology Officer (OCTO); 3) Security Management – identity management, infrastructure security and compliance; 4) Defect, Issue, and Change Management across platforms and environments; 5) Operations & Maintenance Reporting. The plan was executed over a two-year period until the DCAS project was transitioned to OCTO. All of the systems and processes put in place by the Tharseo IT leadership still remain intact today.

ENTITY NAME	DC Department of Health
ENTITY ADDRESS	899 N. Capital St. SE Washington DC 20002
PROJECT NAME	WIC & Immunization Migration
TOTAL CONTRACT VALUE	\$1.5M
CONTRACT DURATION	Feb 2018 to Present
VALUE OF IMPLEMENTATION	\$1M
VALUE OF O&M	\$500K +
NUMBER OF STAFF ASSIGNED	10
NUMBER OF USERS	5,000
PRIME OR SUB-CONTRACTOR	Prime
DC Healthlink POC	Andersen Andrews CITO, andersen.andrews@dc.gov

Past Performance: Tharseo IT – Project #2

DC Health promotes health, wellness, and equity across the District of Columbia, and protects the safety of residents, visitors, and those doing business in our nation's Capital. Tharseo IT was entrusted by DC Health to integrate and migrate to Oracle Cloud Infrastructure (OCI) GovCloud Gen2 two of its most critical public health systems:

- 1. DOCIIS District of Columbia Immunization Information System
- 2. WIC Special Supplemental Nutrition Program for Women, Infants and Children

Cloud Infrastructure of Disaster Recovery

In an effort to focus staff resources on their core mission, DC Health needed Tharseo IT to help them "get out of the infrastructure business," eliminating silos, consolidating physical IT resources, and maximizing efficiency of the software development process by streamlining the environment. In response, Tharseo IT delivered a successful migration of both the WIC and DOCIIS systems, which included detailed specifications for Architecture Design, Configuration and Access Control, and Migration Plans for both systems.

The WIC and DOCIIS systems share multiple components, including the customer-facing portal; helpdesk requests; an appointment scheduling and reminder system; assessment/certification capabilities; reporting; banking; and specific features that support State Agency processes for vendor management and financial management – like printing checks. DC Health's goals were to:

- Migrate both systems into the Oracle Cloud exactly like they functioned "on-premise" (where they were
 originally hosted) and
- Securely migrate the on-premise database and public health data into the Oracle Cloud.

Tharseo IT not only delivered on these goals but exceeded expectations by increasing performance and productivity of both DOCIIS and WIC enterprise systems. Tharseo IT applied the most current industry standards to implement enhancements that addressed risk factors created by the previous on-premise solution – such as installing a Web Application Firewall to automatically block any unwanted or malicious requests that could cause the system to go down at any given time. System administrators and end users of both systems reported performance and speed improvements with the Oracle GovCloud solution.

Taking on the Challenge

When the project began, Tharseo IT quickly learned that there were several different project teams that needed to be engaged and work together as one to make the project a success. We proactively reached out to establish highly productive, professional relationships and continued to work closely with the network team, the application development team, business units, third-party providers, and senior leadership to establish the necessary access to individuals and the various IT system components that we needed to perform effectively for DC Health.

As stakeholders began to entrust us with their specific concerns, requirements, risks and issues, we negotiated carefully to create a win-win strategy that would prove to be the most efficient and feasible direction to accomplish the scope according to schedule. We maintained consistent communications with senior leadership and business units in order to manage expectations around delivery.

O&M and ROI

Moving to the Oracle GovCloud has saved DC Health 40% in infrastructure costs and 50% in development costs. The migration to a unified data layer enables DC Health to analyze data from multiple agencies for improved decision-making and mission acceleration. With this migration, DC Health stabilized their applications and was thus able to focus their resources on upgrades and innovation.

DC Health declared the Oracle Cloud "better than they ever thought it would be" and "strategically important" to achieving their mission for DC families. Tharseo IT gave the agency 24/7 access to data from anywhere, a high level of reliability, and enhanced the potential of the infrastructure. There was also a massive change in the interaction between various departments within DC Health as Tharseo IT led them to integrate their datasets, bridging the gap between multiple systems within the agency.

3.1 CONTRACT ITEMS AND MANDATORY REQUIREMENTS

3.1.1 Cloud Infrastructure Service

To preface, Tharseo IT is a multi-cloud hardware & software and services provider for the Public Sector with deep knowledge and experience with Oracle Cloud, Amazon Web Services (AWS), and Microsoft Azure. We noticed in the most recent Q & A that there were a few questions answered regarding using Amazon Web Services (AWS) for this particular engagement. Although on the surface AWS may provide an enticing price point for hosting Oracle products in their cloud, we have seen large price increases and fluctuations once the onpremises systems are actually moved into AWS cloud and are 'operational' (especially involving Oracle Database systems). Another piece to keep in mind is the fact that AWS provides 'AMIs' (Amazon Machine Images) which are Amazon approved machine images that come with pre-installed cloud hardware and software configurations to optimize performance. Since this engagement requires a FedRAMP-High compliant environment for the Cloud DR Database System, AWS will not be compliant using the Oracle Database AMI currently available in the Amazon Cloud Marketplace. In order to adhere to the compliance requirement, the vendor would have to separately buy Oracle Database on-premises licenses and install those licenses on a VM in AWS with other necessary configurations as a work-around method to ensure FedRAMP-High compliance. Speaking from past experience, we have seen a lot of things go wrong in situations of this nature that require you to 'bring your own license' to a non-Oracle Cloud database environment with a custom configuration. Using a method like this usually results in non-optimal performance with unpredictable price increases. When moving an Oracle Database into Oracle Cloud Infrastructure our customers have not only experienced predictive and reduced costs in comparison to on-premises and other clouds (typically a 50% reduction in infrastructure costs in comparison to AWS), but significantly improved performance with better overall security controls. In conclusion, Tharseo IT highly recommends that the State of West Virginia's Tax Division uses Oracle Cloud Infrastructure as their Cloud Disaster Recovery (DR) solution as originally intended.

3.1.1.1 All components must be hosted in a FedRAMP certified data center.

All proposed components will be hosted in a FedRAMP (FedRAMP-HIGH) certified data center. Oracle has worked to help agencies solve mission-critical IT challenges for more than 40 years. The company's complete portfolio of cloud services, which includes software-as-a-service (SaaS), infrastructure- as-a-service (IaaS), and platform-as-a-service (PaaS) solutions, offers agencies the ability to future-proof their IT environments today and build tomorrow's next generation of government services. Oracle has been a long-standing strategic technology partner of the U.S. Federal Government. In fact, a component of the U.S. Intelligence Community was the first customer to use Oracle's flagship database software 35 years ago. Today, more than 500 government organizations take advantage of the superior performance of Oracle's industry-leading technologies.

Oracle Cloud Regulatory Compliance and Support Certifications/Accreditations

- e US Federal Risk and Authorization Management Program (FedRAMP-High)
- The US DOD Information Assurance (DISA SRG impact level 5, IL5)
- The Health Insurance Portability and Accountability Act (HIPAA)
- ISO 27001
- SOC1, SOC2, SOC3

Link to full list of certifications: <u>https://www.oracle.com/cloud/cloud-infrastructure-compliance/</u>

Increased Performance & Security of Environments

Oracle Cloud Infrastructure's Government Cloud regions are purpose-built to provide the industry-leading performance, comprehensive security controls, and support for regulatory compliance efforts required by US public sector and Department of Defense (DoD) agencies as they shift mission-critical workloads to the cloud.

Oracle provides powerful and easy-to-manage cloud security for every workload. Oracle embraces a culture of security that is evident in every aspect of the design, testing, and rollout of cloud infrastructure and services. Oracle's technology and product decisions, network architecture, and certifications are all focused on protecting sensitive data and providing core-to- edge security. Oracle's security approach is based on seven core pillars so that public sector agencies can achieve the level of isolation, data protection, control, and visibility needed to support security and compliance requirements. The seven core pillars include:

- Customer Isolation: Application and data assets are deployed in an environment that provides isolation from other tenants and Oracle's staff, as well as isolation between the same tenant's workloads. Oracle provides customer isolation through bare metal instances, virtual machine (VM) instances, virtual cloud networks (VCNs), and identity and access management (IAM) compartments.
- 2. **Data Encryption:** Always-on encryption protects data at-rest and in transit, helping public sector entities meet compliance requirements regarding data encryption, cryptographic algorithms, and key management. Oracle provides default storage encryption, database encryption, as well as key management services (KMS) that enable customers to encrypt information using keys they control.
- 3. **Security Controls:** Effective and easy-to-use security management controls allow users to constrain access and segregate operational responsibilities. Oracle security controls cover networking, user authentication and authorization, and instance principals, and more.
- 4. **Visibility:** Comprehensive log data and security analytics for auditing and monitoring data and application assets.
- 5. **Highly Secure Hybrid Cloud:** Integrate existing on-premises security solutions with Oracle cloud security services using virtual private networks (VPNs). Oracle supports third-party security solutions and offers identity federation capabilities that enable organizations to use existing users and groups in the cloud. 6.
- 6. **High Availability:** Fault-tolerant data centers enable high availability scale-out architectures and are resilient against network attacks, for constant uptime in the face of natural disasters and cybersecurity risks. Oracle offers end-to-end service level agreements (SLAs) that cover high availability, performance, and manageability.
- 7. **Highly Secure Infrastructure:** Oracle demonstrates its adherence to strict security standards through third-party audits, certifications, and attestations—and helps public sector agencies demonstrate compliance readiness to internal security and compliance teams, auditors, regulators, and the general public.
 - **3.1.1.2** All components must be isolated from other customers. See the answer to #1 from 3.1.1.1 above and the supporting information below:

Yes, all components are completely isolated from other customers. All of the Oracle Cloud Infrastructure security capabilities have been designed with one goal in mind: allowing you to run your mission-critical workloads in the cloud with complete control and confidence. Oracle continues to invest in the above areas and more to offer unmatched security and assurance to enterprise customers.

Another important piece to note is Oracle's cloud partnership with Microsoft. Oracle Cloud and Microsoft Azure have created a fast, secure interconnection between their data centers. If your agency decides to use a multi-cloud approach down the line, you will see massive performance benefits and cost reductions for cloud workloads running in Oracle Cloud Infrastructure (OCI) and Microsoft Azure combined with seamless network security.

Link 1: <u>https://blogs.oracle.com/cloud-infrastructure/overview-of-the-interconnect-between-oracle-and-microsoft</u>

Link 2: https://www.oracle.com/cloud/azure-interconnect.html

*Link to Oracle Cloud Infrastructure Security Overview & Concepts: https://docs.cloud.oracle.com/en-us/iaas/Content/Security/Concepts/security_overview.htm

3.1.1.3 Must support secure VPN access to all components included on bid from the Agency network.

The networking components provided by Oracle Cloud Infrastructure (OCI) supports secure siteto-site Virtual Private Network (VPN) connection between your on-premises network (a data center or corporate LAN) and your Oracle virtual cloud network (VCN) over a secure encrypted VPN. The VPN connection uses industry-standard IPSec protocols (including FIPS 140-2 and NIST 800-171) that are FedRAMP-High accredited and compliant. VPN access to all components included on the bid from the Agency network will utilize these components. Tharseo IT has substantial experience with setting up secure federally compliant network configurations and implementations involving protected VPN connections from on-premise networks and datacenters to the Oracle Cloud FedRAMP compliant data centers. We have successfully connected and extended customer on-premises datacenters and their accompanied architectures securely to the cloud for agencies in the public sector and continue to provide present day on-going support to these customers. Tharseo IT also assisted and advised the Oracle FedRAMP Network Engineers/Team (which included engineers from Cisco that work on other cloud provider's FedRAMP compliant data centers) when moving existing customer systems and on-premises network connections to the Oracle Cloud Datacenters once they received their initial FedRAMP certification in 2019. Our team is close with the Oracle Cloud Network Engineering Team (including their respective teams like OCI Product Management) and we were able to accommodate certain customer network configurations that were normally out of scope for Oracle's support. That being said, we would certainly do the same for your agency if this opportunity were to arise for any reason. Please see below for supporting information on OCI VPN network support and setup in the cloud:

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VPN Connection and Configuration Overview

One way to connect your on-premises network and your virtual cloud network (VCN) is to use VPN Connect, which is an IPSec VPN. IPSec stands for *Internet Protocol Security* or *IP Security*. IPSec is a protocol suite that encrypts the entire IP traffic before the packets are transferred from the source to the destination. Tharseo IT believes that for this particular use-case (creating a hybrid cloud DR for your production database), the most cost-effective and efficient way to achieve your desired DR solution is to use IPSec VPN in comparison to a dedicated FastConnect. We have successfully set up IPSec VPN connections for several of our customers in the past with connection speeds of up to 500 Mbps with no issues. While Oracle offers FastConnect as an option to connect your on-premise datacenter to the cloud, for this particular engagement we do not see a need for it. However, if you decide to expand your cloud footprint in the future it may be something to take into consideration.

About the Oracle IPSEC VPN

In general, IPSec can be configured in the following modes:

- **Transport mode:** IPSec encrypts and authenticates only the actual payload of the packet, and the header information stays intact
- **Tunnel mode (supported by Oracle):** IPSec encrypts and authenticates the entire packet. After encryption, the packet is then encapsulated to form a new IP packet that has different header information.

Each Oracle IPSec VPN consists of multiple redundant IPSec tunnels. For a given tunnel, you can use either Border Gateway Protocol (BGP) dynamic routing or static routing to route that tunnel's traffic. More details about routing follow IPSec VPN site-to-site tunnels offer the following advantages:

- Public internet lines are used to transmit data, so dedicated, expensive lease lines from one site to another aren't necessary.
- The internal IP addresses of the participating networks and nodes are hidden from external users.
- The entire communication between the source and destination sites is encrypted, significantly lowering the chances of information theft.

Preferring a Specific Tunnel in the IPSec VPN

Within an IPSec VPN, you can influence *which tunnel* is preferred. Here are items you can configure:

- Your CPE's BGP local preference: If you use BGP, you can configure the BGP local preference attribute on your CPE device to control which tunnel is preferred for connections initiated from your on-premises network to your VCN. Because Oracle generally uses asymmetric routing, you must configure other attributes if you want Oracle to respond on that same tunnel. See the next two items.
- More specific routes on the preferred tunnel: You can configure your CPE to advertise more specific routes for the tunnel that you want to prefer. Oracle uses the route with the longest prefix match when responding to or initiating connections.
- AS path prepending: BGP prefers the shortest AS path, so if you use BGP, you can use AS path prepending to control which tunnel has the shortest path for a given route. Oracle uses the shortest AS path when responding to or initiating connections.
 Supported IPSEC Parameters: https://docs.cloud.oracle.com/en-us/iaas/Content/Network/Reference/supportedIPsecparams.htm

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Verified CPE (Customer-Premises-Equipment) Devices (Routers): https://docs.cloud.oracle.com/en-us/iaas/Content/Network/Reference/CPElist.htm

In summation, Tharseo IT would use the secure network component toolsets available in the Oracle Cloud to create a secure path from your on-premises data center to the Oracle Cloud capable of bidirectional and encrypted data flow. By combining the powerful tooling that the Oracle Cloud offers along with Tharseo IT's cloud expertise, we can provide a highly secure and robust hybrid cloud architecture that comfortably supports the State of West Virginia's Tax Division disaster recovery efforts.

3.1.1.4 Must include a minimum of ten (10) terabytes of outbound data transfer per month

Yes, this solution includes a minimum of 10 Terabytes of outbound data transfer per month free of charge. If more than 10TB of outbound data per month is required by your agency for any reason, the cost is \$.0085 per GB.

3.1.1.5 Must include unlimited inbound data transfer

Yes, Oracle Cloud Infrastructure includes unlimited inbound data transfer with infinite scalability.

3.1.1.6 Must include a summary of potential charges for variable use items such as:

3.1.1.6.1 Outbound data transfer

\$.0085 per GB over 10TB per month

*(please refer above to 3.1.1.4 for information)

3.1.1.6.2 Extra storage

- Block Storage: \$.0255 / GB / Month
- Object Storage: \$.0255 / GB / Month

3.1.1.6.3 Storage access

Oracle Cloud Infrastructure offers two distinct storage class tiers to address the need for both performant, frequently accessed "hot" storage, and less frequently accessed "cold" storage. Storage tiers help you maximize performance where appropriate and minimize costs where possible.

- Use **Object Storage** for data to which you need fast, immediate, and frequent access. Data accessibility and performance justifies a higher price point to store data in the Object Storage tier.
- Use **Archive Storage** for data to which you seldom or rarely access, but that must be retained and preserved for long periods of time. The cost efficiency of the Archive Storage tier offsets the long lead time required to access the data. \$.0026 / GB/Month. For more

information, see Overview of Archive Storage Storage.

3.1.1.6.4 Additional Virtual Machines

The cost of additional virtual machines varies dependent upon the shape and size (number of OCPUs and Shape), the operating system being ran on the VM (anything except for Windows OS is free of charge), block volume attached to it (block storage), and if you plan to back up those block volumes (this is automatically done in OCI Object Storage).

- Since the VM prices vary based on size and shape, please see the full list of pricing here: https://www.oracle.com/cloud/compute/pricing.html
- Operating System Price Variability:
 - Everything but Windows OS is Free (including versions of: Oracle Linux, CentOS, Ubuntu). The cost for Windows OS is \$0.092 OCPU per hour (see 'Compute – Operating Systems' section: <u>https://www.oracle.com/cloud/compute/pricing.html</u>)
- Block Volume Variability:
 - Block Volumes Government is \$0.0255 per GB per Month (this will be attached to the compute instance and will contain the operating system).
 - If you need a higher performing Block Volume, Oracle calculates these in 'Block Volume Performance Units'. The prices are as follows: Performance Units Per GB per Month
 - 0 VPUs at \$0 for Lower Cost
 - 10 VPUs at \$0.017 for Balanced
 - 20 VPUs at \$0.034 for Higher Performance

Usually we recommend using the 'Balanced Option' which includes Oracle-guaranteed performance (IOPS) for customers. This price point (\$0.017) will be added to the block storage price (\$0.0255) for a total of \$0.0425 per 'Block Volume'. This not only gives you the flexibility to use block volumes for compute, but also allows you to attach these volumes to your database in the cloud as high performing disks (IOPS) to enable predictable billing for your cloud storage and volume performance needs. Another benefit of using the 'Balanced' and or 'Higher Performance' option(s) for block volume performance is that the IOPS are guaranteed by SLAs. You can view this information <u>here</u>.

See Oracle Storage Cloud Pricing for all pricing information you may need that is additional: <u>https://www.oracle.com/cloud/storage/pricing.html</u>

- Object Storage Variability:
 - Object Storage: \$0.0255 per GB per Month
 - Object Storage Requests over 10,000 per Month: \$0.0034 per 10,000 requests per month

*Keep in mind, this is full list price without a discount. We will provide a discount should the opportunity arise where your organization requires additional cloud resources.

3.1.1.7 Service must include eight (8) cores of fully licensed Oracle Database Server Enterprise Edition 12c 12.1 or Equal.

Yes, the proposed solution includes 8 OCPUs of fully licensed Oracle Database Service Enterprise Edition 12c, 12.1, 12.2, or Equal. With this quote, we made the assumption that you were requesting 8 OCPUs (Oracle Compute Unit) as that is the measure Oracle uses for license

Cloud Infrastructure of Disaster Recovery

purposes in the cloud. Additionally, in the cloud you will also have the ability to choose from 11g, 12c, 18c, 19c, and 20c versions in the event that you want to upgrade your on-premises database system version at any time. Tharseo IT's database team is comprised of Oracle Database experts that have experience on-prem and in the cloud (Oracle Cloud, AWS, and Microsoft Azure). Typically, our customers notice significant performance increases for their Oracle Databases that reside in the Oracle Cloud in comparison to their on-premises environments.

3.1.1.8 Must have a minimum of four (4) terabytes of disk space for storage of database objects, tablespaces, indexes, transaction logs, etc.

Yes, the recommended solution includes 4TB of disk space for storage of database objects, tablespaces, indexes, transaction logs, etc. and more can be added on-demand for an additional cost if needed.

Since the database system will be running on VMs in the cloud—scaling up of storage can be done without any downtime.

Scaling storage up will automatically allocate disk space for database objects, tablespaces, indexes, transaction logs, etc. as well as any possible ASM/RECO storage issues your agency may come across as the database needs grow (the reason we mention this is because we have seen this in the past with other customers). As long as there is a sufficient amount of block storage available that is unused, these issues can be taken care of and allocated on-demand with no downtime. If no block storage is available during this time, more block storage can be purchased for an additional fee and quickly provisioned to ensure optimal system performance.

Many customers ask: How can I scale the storage available to a Database service running in a VM?

You can easily scale up storage for a DB system by using the console, REST APIs, CLI and SDKs. Database Cloud Service on VM uses remote block storage, so you can configure available storage anywhere from 256GB to 40TB. Scale up of storage happens without any downtime. Note: The total storage attached to an instance will be a sum of available storage, RECO storage, and software size. Available storage is selected by the customer, RECO storage is automatically calculated based on available storage, and software size is a fixed size Oracle database cost.

3.1.1.9 Must have a minimum of six (6) terabytes of disk space for other object storage. Yes, the solution provided contains the minimum of 6TB of Object Storage. If Object

Storage needs in the cloud (or any other storage needs) require an increase, additional storage can be purchased for a fee and quickly provisioned.

- **3.1.1.10** Must provide pricing for object storage requests if applicable. Object Storage requests are free if they do not exceed 10,000 requests permonth. Additional Object Storage requests will cost \$.0034 per 10k requests permonth.
- **3.1.1.11** Must have Transparent Data Encryption and data encryption at rest. Yes, the proposed solution provides Transparent Data Encryption (TDEE) and data encryption at rest by default and out-of-the-box.

- **3.1.1.12** Must have vendor provided means for replicating between the cloud and on-premise database systems with the following features.
 - 3.1.1.12.1 Ability to synchronize the on-premise production database with the cloudbased standby database without interrupting the production system. This function should include the initial replication, continuous synchronization, and recovery from communications outages.

The OCI bill of materials (itemized price list) attached to this this response includes 8 OCPUs of Enterprise Edition for Oracle Database. Your existing on-premises Oracle Database licenses come with Oracle 'Data Guard', which will allow for: initial replication, continuous synchronization (real-time replication and synchronization), and recovery from communications outages.

3.1.1.12.2 Ability to promote the cloud-hosted database to be the production system in case of failure of the on-premise system, i.e. fail-over.

Yes, the configuration we provided in the bill of materials will allow you to promote the cloud-hosted database to be the production system in case of failure of the on-premise system in a 'fail-over'-type situation. As long as your agency's on-premises database and the cloud database are the same software editions and versions (Enterprise Edition or higher, no separate license is required for on-premises systems) and is supported by all additions of Oracle Database Cloud Services (Enterprise, High Performance, and Extreme Performance).

3.1.1.12.3 Ability to replicate the cloud-hosted database back to the on-premise system after a disaster recovery, i.e., fail-back.

Yes, this capability is included in our proposed cloud solution and is covered by your on-premises Oracle Database Enterprise Edition licenses which already include Data Guard.

Using our proposed cloud solution enables the WV Tax Division to achieve an RPO of 1 hour and an RTO of 8 hours.

3.1.1.12.4 Ability to run standard Oracle 12c tools such as RMAN, IMPDP, and EXPDP against the cloud-hosted database when it has been promoted to production.

Yes, the ability to run standard Oracle 12c tools such as RMAN, IMPDP, and EXPDP against the standby cloud database are Oracle Cloud Database capabilities that come standard out of box. The initial set up is included in our services costs.

3.1.1.13 All patches and upgrades of database software must be included and to be completed by the Vendor.

Yes, we have factored this in as part of our 'training and services' fee.

3.1.1.14 Vendor must perform weekly full backups of database and a minimum of nightly incremental backups.

Yes, we will configure this to be done automatically and on-demand based on your preferred business operating schedule and available resources. We will also train your resources on how to perform these tasks as well.

3.1.1.15 In addition to the database server, vendor must provide one (1) virtual machine.

Yes, we have provided a 2 OCPU VM (VM.Standard2.2 shape) with windows licensing (if needed) that supports the industry standard 64-bit architecture. The extra technical specs & features that this VM provides:

- Processor: 2.0 GHz Intel[®] Xeon[®] Platinum 8167M
- **OCPU:** 2 (equal to the equivalent of 4 regular CPUs or vCPUs).
- Memory (RAM): 30 GB
- Storage: Up to 1PB (Pet-Bytes, which equals 1000 TB)

If you do not need Windows licensing, you can choose from a large list of possible oracle-provided licenses for free. They can be found here: <u>https://docs.cloud.oracle.com/en-</u>us/iaas/Content/Compute/References/images.htm

You can also create Custom Images of your boot disk OS and software configuration for launching new instances

This VM and any one of the oracle-provided images above will cover and support the agency provided disk image for operating system install provided by the WV Tax Division outlined in section 3.1.1.15.5.

• Oracle-Provided Image: The image determines the operating system and other software for an instance

3.1.1.15.1 Virtual machine must be industry standard 64-bit architecture (x64).

Yes, see answer to 3.1.1.15 3.1.1.15.1 Must have a minimum of two (2) CPUs.

Yes, see answer to 3.1.1.15

3.1.1.15.2 Must have a minimum of sixteen (16)GB of RAM.

Yes, see answer to 3.1.1.15

3.1.1.15.3 Must have a minimum of one (1) TB of disk storage.

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3.1.1.15.4 Must support agency provided disk image for operating system install.

Yes, see answer to 3.1.1.15. We will take a Custom Image of the boot disk OS image provided to us by your agency and use that to launch the VM.

3.1.1.16 Any tools required for the current on-premise system to participate in the required replication to and from the standby cloud system must be provided by the vendor as part of this bid.

Yes, all tools required for the current on-premise system to participate in the required replication to and from the standby cloud system are provided by Tharseo IT as part of this bid.

3.1.1.17 Must provide training to perform the following tasks:

Tharseo IT will provide the following Personnel, Training and Support to meet the requirements specified in **3.1.1.17.1** through **3.1.1.17.4**

Personnel:

Tharseo IT will provide the following personnel for this this effort. As this is a firm fixed price, the amount of time each resource spends in support of this effort may vary depending on what is needed to deliver exceptional results. The personnel that will be involved in all phases of the delivery will include:

- 1. Oracle Cloud Architect
- 2. Oracle Database Administrator
- 3. Cloud Network Engineer
- 4. Project Manager

Initial Set up & Support:

- 1. Support will be provided via electronic means such as phone, email, screen-share, or webchat.
- 2. Tharseo IT will perform required software upgrade and software installation on current Agency owned Oracle 12c 12.1 Production server to participate in synchronization and replication activities.
- 3. Tharseo IT will maintain the synchronization/replication connection between the two systems and perform tasks like startup, shutdown, fail-over, and fail-back between Primary and DR databases. Tharseo IT will meet this requirement by:
 - **a.** Setting up the initial synchronization/replication between on-premises and cloud DR databases.
 - **b.** Conduct a Disaster Recovery (DR) exercise, which will include startup, shutdown, fail-over, and fail-back between Primary and Cloud DR databases as per the solicitation requirements and Tharseo IT's planned tasks outlined in the Exhibit A Cloud Infrastructure Pricing attachment.

Cloud Infrastructure for Disaster Recovery

c. Provide (3) quarterly patches and (1) semi-annual startup, shutdown, fail-over, and fail-back between Primary and Cloud DR databases.

Training:

Tharseo IT will provide ²-day training to WV IT staff and cover the following topics: (*Topics may be adjusted as long as it can be done within the 2 days of training time that have been quoted*)

- 1. Overview of Oracle Data Guard (DG) in Oracle Cloud Infrastructure
- 2. Best Practices for Failover and Disaster Recovery using DataGuard.
- 3. Overview of:
 - a. How we performed required software upgrade and software installation on current Agency owned Oracle 12c 12.1 Production server to participate in synchronization and replication.
 - b. How we will maintain the synchronization/replication connection between the two systems
 - c. How we will perform tasks like startup, shutdown, fail-over and fail-back between Primary and DR databases
- 4. Tharseo IT will provide training materials in electronic and openable format using standard Microsoft Office 365 tools or Adobe Acrobat Reader.

3.1.2 Interconnectivity with Other Cloud Platforms

3.1.2.1 Cloud hosting solution proposed must have at least 1 interconnection agreement with another cloud hosting provider such that workloads can be distributed between the providers based on technologies used.

Yes, Oracle Cloud Infrastructure has an interconnection agreement with Microsoft Azure, please see answer to 3.1.1.2 for explanation.

4.1 MANAGEMENT AND TECHNICAL APPROACH

The Project Plan to set up, go-live, support and train is provided in Figure 1 below and is in the attached spreadsheet under "Resource Plan Tab." The plan provides a list of overall tasks that will be performed by Tharseo IT's group of Oracle and Cloud experts.

Figure 1 – Tasks for Initial Setup, Training and Support

Planned Tasks		Tin	neline			Ownership	
	Wk 1	Wk 2	Wk 3	Wk 4	Tharseo IT	WV Tax IT	Oracle CSM
Provision Oracle Cloud							Primary
Review Primary DB design and setup						Primary	
Setup User and Access					Primary		
Design DG Architecture					Primary		
- Physical or Logical Standby					Primary		
- Finalize DG Mode					Primary		
- Max Protection/Max Performance/Max Availability					Primary		
Setup VPN Access to Standby DB on Cloud						Primary	
Create VM Server in Cloud with WV Agency image provided					Primary		
Validate Connectivity between on-prem host and cloud host					Primary		
Prepare Primary DB					Primary		
Install and Configure DataGuard					Primary		
- Enable Archiving					Primary		
- Enable Force Logging					Primary		
- Setup Redo Log files					Primary		
Prepare Standby (DR) DB					Primary		
- Create standby instance					Primary		
- Configure tnsnames and listener					Primary		
- Configure DG broker					Primary		
Enable Data Gard on Cloud DB					Primary		
Run Oracle 12c tools on Standby DB					Primary		
Create Object Storage Buckets for DB Backups					Primary		
Setup full weekly backups of DB					Primary		
Setup nightly incremental backups of DB					Primary		
Ensure DB Backups are replicated in Object Storage Buckets					Primary		
Test synchronization/replication connection connection between on-prem production DB and Oracle Cloud DR DB							
Test Required Tasks: Between On-Prem Production DB and Oracle Cloud DR DB							
1. Startup							
2. Shutdown							
3.Fail-Over							
4. Fail-Back							
Training and Final documentation							
Perform switchover to test role transition					Primary		
Confirm role switch between Primary and Standby DB					Primary		
Make change to DB after role switch and test							
Revert role switch after successful testing					Primary		
Ongoing Upgrade and Patches of DB Software							Primary
Ongoing strategy to maximize product utilization and adoption							Primary
Maintenance & Support Tasks		Tin	neline		Í	Ownership	
	Q1	Q2	Q3	Q4	Tharseo IT	WV Tax IT	Oracle CSM
Quarterly Patches (Total of 3: Q2, Q3, Q4)					Primary		
Semi-Annual DR Exercise (Total of 1: Q3)					Primary		

Figure 2 below - The below example 'To-Be Architecture' is a high-level representation of what the architecture could look like in the response to WV Tax Section 3.1.1. Cloud Infrastructure Service.



Figure 2 – To-Be Architecture to meet all mandatory requirements

PRICE SCHEDULE

Tharseo IT is pleased to provide the State of West Virginia's Tax Division with pricing for the Cloud Infrastructure, training and support as specified in the solicitation.

All of the pricing can be found in Exhibit A.

The spreadsheet provided is locked and it does not appear to be adding the cost for Training and Support to the bid total. For clarification, our total bid price is:

- OCI Cloud Services = \$40,331.45
- Set Up, Training and Support = \$45,000
- Total Bid Amount = \$85,331.45

Please Note the following for pricing terms and conditions:

Cloud Services are provided under Oracle's current Cloud Hosting and Delivery Policies located at: <u>http://www.oracle.com/us/corporate/contracts/ocloud-hosting-deliverypolicies-3089853.pdf</u>

In reliance on your order, Tharseo IT will issue a non-cancellable order with its supplier for Cloud Services ordered. Therefore, all orders are non-cancellable.

By confirming, referencing or placing an order based on this quote, you are agreeing that the Cloud Services being purchased requires no transfer of tangible property.

Please reference quote TH5389 and include the following statements in your order:

1. This order is placed pursuant to the terms and conditions of Tharseo IT Cloud Services Agreement # MCSA-PS v0118

REQUIRED SOLICITATION DOCUMENTS



State of West Virginia Request for Quotation 21 — Info Technology

	Proc Folder: 744476			
	Doc Description: Cloud Proc Type: Central Maste	Infrastructure		
Data lanuard				
Date issued	Solicitation Closes	Solicitation No	Version	

25305

VENDOR

Vendor Name, Address and Telephone Number:

Capital Consulting L.L.C D/B/A Tharseo IT 1231B Good Hope Rd SE. Washington, DC 20020 855-815-7474

	- /	
FEIN # 47-1729825	DATE 7/22/20	
	FEIN# 47-1729825	FEIN# 47-1729825 DATE 7/22/20



State of West Virginia Request for Quotation 21 — Info Technology

Р	roc Folder: 744476			
Doc Description: Addendum				
Р	roc Type: Central Maste	r Agreement		
Date Issued	Solicitation Closes	Solicitation No	Version	
2020-07-09	2020-07-23 13:30:00	CRFQ 0702 TAX200000017	2	

BID RECEIVING LOCATION				
BID CLERK				
DEPARTMENT OF ADMINISTRATION				
PURCHASING DIVISION				
2019 WASHINGTON ST E				
CHARLESTON	WV	25305		
US				

VENDOR

Vendor Name, Address and Telephone Number:

Capital Consulting L.L.C D/B/A Tharseo IT 1231B Good Hope Rd SE. Washington, DC 20020 855-815-7474

FOR INFORMATION CONTACT THE BUYER Joseph E Hager III (304) 558-2306 joseph.e.hageriii@wv.gov			
Signature X FEI All offers subject to all terms and conditions contained in this solic	N # 47-1729825	date 7/22/20	

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Michael Tenreiro ; Director of Business Development (Name, Title) Michael Tenreiro ; Director of Business Development (Printed Name and Title) 1231B Good Hope Rd SE. Washington, DC 20020 (Address) 631.413.4924 (Phone Number) / (Fax Number) MTenreiro@tharseoit.com (email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Capital Consulting L.L.C D/B/A Tharseo IT

(Company) Michael Tenreiro, Director of Business Development

Mal 2

(Authorized Signature) (Representative Name, Title)

Michael Tenreiro

(Printed Name and Title of Authorized Representative)

07/21/2020

(Date)

631.413.4924

(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received: (Check the box next to each addendum received)

Addendum No. 1	Addendum No. 6
Addendum No. 2	🗍 Addendum No. 7
Addendum No. 3	🗍 Addendum No. 8
Addendum No. 4	🗍 Addendum No. 9
Addendum No. 5	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Capital Consulting L.L.C D/B/A Tharseo IT

Company

2hl James

Michael Tenreiro, Director of Business Development

Authorized Signature

07/21/2020

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

- **8.3 Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 8.4 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

er: Michael Tenreiro		
ber: <u>631.413.4924</u>		
MTenreiro@tharseoit.com		
	Michael Tenreiro 631.413.4924 MTenreiro@tharseoit.com	



Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or "Interested parties" means:

- A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: <u>ethics@wv.gov</u>; website: <u>www.ethics.wv.gov</u>.

West Virginia Ethics Commission Disclosure of Interested Parties to Contracts

(Required by W. Va. Code § 6D-1-2)

Name of Contracting B	usiness Entity:	Capital Consulting L.L.C D/B/A Tharseo IT	Address:	1231B Good Hope Rd SE.
				Washington, DC 20020
Name of Authorized Ag	ent: Michael	Tenreiro	Address:	1231B Good Hope Rd SE. Washington, DC 20020
Contract Number:	ax200000001	7 Con	tract Descrip	tion: Cloud Infrastructure
Governmental agency awarding contract: Tax Division				

□ Check here if this is a Supplemental Disclosure

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below (attach additional pages if necessary):

- Subcontractors or other entities performing work or service under the Contract
 Check here if none, otherwise list entity/individual names below.
- 2. Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)
 □ Check here if none, otherwise list entity/individual names below.

Eric Wimer, CEO

Amit Bahadur, President

3. Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)

Check here if none, otherwise list entity/individual names below.

Signature:

Date Signed: _07/22/2020

Notary Verification

State o

County of

_, the authorized agent of the contracting business

ALTH U

entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

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Taken, sworn to and subscribed before me this	22	day of	July	,0000
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	· /	Notary Pu	blic's Signature	
To be completed by State Agency:	/	W	MASHELI A	11100
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Date Automitted to Ethics Commission:			APRI PUR	
Cause submitted to Ethios Softmitting Disclosure:			E REG # C	
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STATE OF WEST VIRGINIA Purchasing Division PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Capital Consulting L.L.C D/B/	A Tharseo IT
Authorized Signature: MMUL	Date: 07/22/2020
State of The Margunaia	
County of Jaurhan, to-wit:	_ 0
Taken, subscribed, and sworn to before me this $\frac{22}{2}$ d	ay of July , 2010.
My Commission expires 03/3/	2021.0
	NOTARY PUBLIC CONTACT
APPIA SEAL HERL	Purchasing Affidavit (Revised 01/19/2018)
REG # CF 33	
EXPIRES 3/3/1/2021	
WEALTH OF WROTHING	
ALIAN MARSHAR AND	

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