

TERMS OF REFERENCE (TOR)

FOR

**SERVICE LEVEL AGREEMENT/SUPPORT
SERVICES FOR PRODUCTION DATA
MANAGEMENT SYSTEM (PDMS) HARDWARE
INFRASTRUCTURE**



**TENDER ENQUIRY # PROC-
SERVICES/CB/PE&FD-4727/2020**

Service Level Agreement/Support Services for Production Data Management System (PDMS) Hardware Infrastructure

Terms of Reference (TOR)

Note: Bidders are requested to read this document carefully and provide complete information required in this TOR. All information required in the Technical Evaluation Criteria must be provided. OGDCL reserves the right to reject Proposals with in-complete or partial information.

1.0 OVERVIEW

Oil and Gas Development Company Ltd (OGDCL) is Pakistan's leading E&P sector company, having operations at above 28 fields in all the four provinces. The detailed information about the Company can be obtained from its website www.ogdcl.com.

PDMS Hardware is installed at OGDCL HO. Three years' warranty of hardware from OEM is expiring on 10-08-2020. Maintenance and support services PDMS Hardware for next 02 Two years is mandatory which includes OEM extended warranty, hardware maintenance and Local support for Operating System.

OGDCL invites Financial & Technical bids for hiring of Maintenance and support services for PDMS infrastructure. The Bidder must itself have authorized Service Delivery partner of manufacturer for hardware in our case (Fujitsu).

2.0 List of Equipment mentioned on Serial No 1 to 12 and item mentioned on Serial No. 13 which require Maintenance and support services on behalf of the OEM along with local support for a period of 02 Years (Two Years) i.e. from 11-08-2020 to 10-08-2022.

Sr . #	Item	Description	Qty.
1	Rack	42U Server Rack with Online UPS: PRIMECENTER M1 Rack 742A 42U with Online UPS 42U-1050x700, Dual Power socket outlet for UPS and Socket strip 3phase 3x 8 socket Serial # YM7N001666	01
2	KVM Switch	Console switch KVM S4-0812, digital, KVM, Serial # YVAT063496	01
3	Rack Console	RC25 43cm/17" TFT 1U US English with Keyboard and Mouse Serial # 0510295799	01
4	Online UPS	PRIMERGY 10kVA / 10kW R/T (6U) with Two Battery Bank & Network Management Ethernet card Serial # QS1502170667	01
5	Battery Bank	Serial# 5S1445T05406, 5S1445T05392	02
5	Database Servers: Processor Memory Type Hard Discs DVD Drive Network Interfaces Raid Controller FC Host adapter Remote Management Power Supply & FAN System Peripherals Ports Supported Virtualization Management & Monitoring Form Factor	Fujitsu PRIMERGY RX2540 M2 Serial # YM6C019120, YM6C019085 2 x Intel Xeon E5-2698v4 20C/40T 2.20 GHz 50 MB Cache 128GB (8 x 16GB) 2Rx4 DDR4-2400 R ECC expandable 3 x HDD SAS 12G 600GB 15K HOT Plug able 2.5' EP DVD-RW super multi ultra slim SATA PLAN EM 4x1Gb T OCI14000-LOM interface PRAID EP400i SAS Array Controller with Minimum 1Gb Cache, Supported RAID 0, 1, 10, 5, 50, 6, 60 2 x FC Ctrl 8Gb/s 1 Chan LPe1250 MMF LC LP with 8GB SFP Module iRMC S4 onboard for server management Dual Modular PSU 800W platinum hot plug VGA port, USB ports, management LAN and etc. Virtualization Supported Server View software for Pre failure indication, Centralize Management & Monitoring also supported for remote sites Mounting of RMK in symmetrical racks	02

6	<p>Application Servers</p> <p>Processor</p> <p>Memory</p> <p>Hard Discs</p> <p>DVD Drive</p> <p>Network Interfaces</p> <p>RAID Controller</p> <p>FC Host adapter</p> <p>Remote Management</p> <p>Power Supply & FAN</p> <p>System Peripherals Ports</p> <p>Supported Virtualization</p> <p>Management & Monitoring</p> <p>Form Factor</p>	<p>Fujitsu PRIMERGY RX2540 M2 Serial # YM6C018951, YM6C018952</p> <p>2 x Intel Xeon E5-2650v4 12C/24T 2.20 GHz, 30MB Cache</p> <p>64GB (4 x 16GB) 2Rx4 DDR4-2400 Registered ECC Expandable</p> <p>3 x HDD SAS 12G 600GB 15K HOT P 2lug 2.5' EP</p> <p>DVD-RW super multi ultra slim SATA</p> <p>PLAN EM 4x1Gb T OCI14000-LOM interface</p> <p>PRAID EP400i SAS Array Controller with Minimum 1Gb Cache, Supported RAID 0, 1, 10, 5, 50, 6, 60</p> <p>2 x FC Ctrl 8Gb/s 1 Chan LPe1250 MMF LC LP with 8GB SFP Module</p> <p>iRMC S4 onboard for server management</p> <p>Dual Modular PSU 800W platinum hot plug</p> <p>VGA port, USB ports, management LAN and etc.</p> <p>Virtualization Supported</p> <p>Server View software for Pre failure indication, Centralize Management & Monitoring also supported for remote sites</p> <p>Mounting of RMK in symmetrical racks</p>	02
7	<p>Domain/Management/ Backup Server</p> <p>Processor</p> <p>Memory</p> <p>Hard Discs</p> <p>DVD Drive</p> <p>Network Interfaces</p> <p>Raid Controller</p> <p>FC Host adapter</p> <p>Remote Management</p> <p>Power Supply & FAN</p> <p>System Peripherals Ports</p> <p>Supported Virtualization</p> <p>Management & Monitoring</p> <p>Form Factor</p>	<p>Fujitsu PRIMERGY RX2540 M2 Serial # YM6C018942, YM6C018943</p> <p>2 x Intel Xeon E5-2620v4 8C/16T 2.10 GHz, 20MB Cache</p> <p>32GB (2 x 16GB)2Rx4 DDR4-2400 R ECC</p> <p>2 x HDD SAS 12G 600GB 15K HOT Plug 2.5' EP</p> <p>DVD-RW super multi ultra slim SATA</p> <p>PLAN EM 4x1Gb T OCI14000-LOM interface</p> <p>PRAID EP400i SAS Array Controller with Minimum 1Gb Cache, Supported RAID 0, 1, 10, 5, 50, 6, 60</p> <p>2 x FC Ctrl 8Gb/s 1 Chan LPe1250 MMF LC LP with 8GB SFP Module</p> <p>iRMC S4 onboard for server management</p> <p>Dual Modular PSU 800W platinum hot plug</p> <p>VGA port, USB ports, management LAN and etc.</p> <p>Virtualization Supported</p> <p>Server View software for Pre failure indication, Centralize Management & Monitoring also supported for remote sites</p> <p>Mounting of RMK in symmetrical racks</p>	02
8	<p>Storage Area Network</p> <p>Supported Raid Level</p> <p>Host Interface</p> <p>Controllers</p> <p>Host Interfaces</p> <p>Controller Cache</p> <p>Enhanced Cache</p> <p>Max Number of Discs, Enclosures & supported Discs</p> <p>Max Number of Discs</p> <p>Installed Discs</p> <p>Replication</p>	<p>Fujitsu ETERNUS DX200 S3 Serial # 4601648378</p> <p>Supported Raid Level 0, 1, 1+0, 5, 5+0, 6</p> <p>Fibre Channel (16 Gbit/s, 8 Gbit/s, 4 Gbit/s), FCoE (10 Gbit/s), iSCSI (10 Gbit/s, 1 Gbit/s), Ethernet (10 Gbit/s, 1 Gbit/s), SAS (6 Gbit/s, 3 Gbit/s)</p> <p>Redundant Controller</p> <p>Dual FC 8Gbps Ports and Dual 1Gbps ISCSI Ports per Controller</p> <p>8GB Cache Per Controller</p> <p>Extreme Cache Pole/Enhanced Cache 800 GB through SSDs</p> <p>Supported Maximum. no. of drive enclosures 10, 2.5 and 3.5" drive enclosures supported with SAS, SSD, SATA Drives, Mixable drive in enclosures are also supported</p> <p>Maximum 264 Drives Supported</p> <p>8 X HDD 2.5" 1.2TB 10krpm and 2 x MLC SSD SAS 400GB 12G 2.5</p> <p>Local and Remote Replication Supported</p>	01

	Snapshots & Clone Thin Provisioning Raid Level Migration Redundancies Supported OS & Database Features Management software	Snapshots and clone supported with application and consistent for SQL Server, Oracle, MS Exchange, Hyper-V and VMware Thin Provisioning supported Raid Level Migration is supported without any down time. Installed Redundant RAID Controllers, Fans and Power Supplies Supported with Red Hat Linux 5 & 6. SUSE Linux 10, Microsoft Windows Server 2008, Microsoft Windows Server 2012 R2, VMWARE and Hyper-V. Database SQL Server, Oracle, MS Exchange Supported with Automatic Storage tiering, QoS, Encryption Web browser based Management complete with required functionality	
9	SAN Switches	2 x 24 Ports FC SAN Switch Brocade B300 with 8 active ports on each switch with SFP Module and Multimode FC Cables Serial # ALJ1911N00A, ALJ1911N007	02
10	Rack Mounted Auto Loader Tape Library Drive Interface Media Slots Media	Fujitsu ETERNUS LT20 Serial # LTDE65315265 Installed LT06 -6 FC Half Height tape Drive Dual FC 8Gbps Port 8 Media Slots with license 2 x Cleaning and 10 LTO-6 data cartridge with random barcode label	01
11	Backup Software Enterprise Backup Software	Symantec Backup Exec Online Enterprise Backup Solution with agents for Windows and SQL Database Server. BACKUP EXEC CAPACITY ED WIN 1 FRONT END TB ONPREMISE STANDARD LICENSE + ESSENTIAL MAINTENANCE BUNDLE INITIAL 12MO GOV	01
12	Network Switches Interface SFP+ Interface Total VLANs Jumbo Frame Redundant Power Supply	Catalyst 2960-XR 24 GigE Serial # FD0191610Y4, FD0191610Y5 Catalyst 2960-XR 24 GigE, Catalyst 2960-XR 24 GigE, 2 x 10G SFP+, IP Lite, 2 x 10GBASE-SR SFP Module 1024 VLAN Supported 9216 bytes Configured 2 Power Supply Serial # DCB2106D45N, DCB2106D4C2	02
13	OS Administration	local support for OS Administration	

3.0 Scope of Work

3.1 Scope of Work for Hardware Infrastructure

The service level agreement in terms of extended warranty of OEM with local support renewal is required for the Equipment listed in 2.0 for the Two (02) years. The Production Database Management System (PDMS) Hardware Infrastructure is deployed at OGDCL Head Office Islamabad for collecting, storing and managing the production data for planning, analysis and forecasting purposes.

Vendor is required to assure the availability, operational reliability, and response times for all the services as requested in this document.

The vendor is required to be responsible for replacement of faulty parts through OEM on their own cost, labor and Service. Vendor is also responsible for installation and configuration of faulty parts.

A survey shall be performed by vendor to ensure all equipment is under good working condition. This shall be done prior to signing this agreement.

In terms of BIOS/Firmware support, vendor shall monitor the updates and will be responsible to inform OGDCL and deploy the solution if any new release has been made available.

The vendor is required to execute corrective maintenance and monthly Preventive Maintenance and Health Check on site.

The vendor is required to have compliance of all the maintenance plans and processes by the principle of the equipment (Fujitsu) in this case.

The vendor is required to discuss all maintenance, health check and compliance plans ahead of time with OGDCL (at least 2 weeks before) to get OGDCL consent for the same and also to meet any pre-requisites ahead of time required for the same.

Vendor is required to provide bi-weekly status reporting for all the raised incidents for follow up and escalation in case of any delays for the open incidents. Incident will be reported on OGDCL prescribed forma.

Vendor is required to have the monthly Service Review meetings with OGDCL for the given below:

- Solution hardware issues/OS issues
- Software Related to Backup provided by Fujitsu i-e Backup Exec Server: Ver 16.0 Rev. 1142 (64-bit)
- Administrative Console: Ver 16.0 Rev. 1142.1632 /OS issues
- Any administrative Issues
- Security Issues
- New proposed firmware, patches updates
- Proposed changes
- Health checks plan
- Preemptive maintenance plans
- Compliance plans

**3.2 Scope of Work for Operating System Local Support
Operating System Windows Server 2016 Ver 1607 (OS Build 14393.447)**

In terms of Operating System Local support, vendor shall monitor the updates and will be responsible to inform OGDCL and deploy the solution if any new patches/releases have been made available.

Vendor will be responsible for installation of latest software upgrades on hardware/systems provided by OGDCL and will assist in linking it with PDMS.

Vendor shall perform quarterly preventive maintenance health check of System.

Vendor will be responsible for Installation/Configuration and Restoration of Servers with clustering in case of any disaster.

Vendor is required to provide service as per given below matrix to maintain various service levels requirements of OGDCL.

	Severity	Time
Response Time	Severe	1 to 3 Hours
	Serious	4 to 8 Hours
	Minor	12 to 24 Hours
Restoration Time	Severe	24 to 48 Hours
	Serious/Minor	48 to 72 Hours
Severity Severe	Business is stopped or the Solution main functionality is ceased and users cannot make any progress in their work.	
Severity Serious	Business is restricted but users can carry out work with significant difficulty or delay. The problem affects at least 30 % of the service. Potentially business might stop.	
Severity Minor	Business is not affected and the problem is of minor nature. A minor priority refers to any non- service affecting faults. Minor problems have a negligible impact upon end-user features or functions and routine queries regarding system functionality.	

4.0 Type of SLA

- Customer–Base SLA: 24 x 7 that is; 24 hours in a day 07 days a week

5.0 PROPOSALS

The firms are required to send Technical Proposal as well as Financial Proposal for the solution in separate sealed envelopes.

6.0 MANDATORY REQUIREMENT/Summary Rejection Criteria

- Bidder must be Tier 1 or Tier 2 Partner of manufacturer for the product mentioned at 2.0. (Provide evidence) otherwise bid will be rejected

- The Bidder must itself have authorized Service Delivery partner of manufacturer (Provide evidence) otherwise bid will be rejected
- Company Experience less than Two years will be rejected
- Last two years average Turnover of the Company is less than 100 (One hundred Million PAK Rupees) will be rejected.
- Experience of allocated Technical manpower for this service is less than two years will be rejected.
- The vendor must have a centralized 24/7 Service Desk facility to log calls for servicing with a dedicated resource for OGDCL Calls.
- Bidder must have Support Services facilities in Islamabad
- Bidder must not be Black listed from any agency/firm.

7.0 TECHNICAL PROPOSAL

Technical Proposal should be submitted covering the following details;

- 7.1 Brief company profile with years of service experience.
- 7.2 Technical expertise available for this support (complete list of technical manpower to be provided indicating position, qualification, certification and experience)
- 7.3 List of support offices available throughout the country
- 7.4 List of clients where bidder has provided the same nature of services for Hardware mentioned at 2.0 and other similar hardware of Fujitsu.

8.0 FINANCIAL PROPOSAL

Financial Proposals should consist of relevant costs for TSS for all quoted items mentioned at 2.0 of TOR with all applicable taxes. Use Annexure A-2 for financial bid proposal.

9.0 TECHNICAL EVALUATION

Technical Proposals will be opened first and then a technical evaluation will be carried out by an evaluation committee. The proposals not qualifying in technical evaluation will be rejected and financial proposal of the respective firm will be returned un-opened.

The Technical Proposals will be evaluated as per criteria given at Annexure A-1. The bidders are required to provide details in each category mentioned in the criteria.

10 FINANCIAL EVALUATION

Financial proposals of the technically qualified firms will be opened in presence of the bidders who will be informed for the purpose. Financial Evaluation will be carried out on "Grand Total Cost of Maintenance and support services for Equipment (as per Annexure A-3) and the Cost of Local Support for OS Administration for both Years".

11 PAYMENT TERMS

- 11.1 The prices quoted by bidder in financial bid are to be in US\$ and should be fixed/firm and are inclusive of all applicable taxes, duties and Levies etc. except Provincial Sales Tax/ICT Tax on Services. Provincial Sales Tax/ICT Tax on Services will be paid/refunded by OGDCL at actual.
- 11.2 The payments to the Service Company will be made on quarterly basis, at the end of each quarter, through cross cheque in 100% Pak Rupees, at actual, against verified invoices at official exchange rate prevalent on the date of payment.

12 DURATION OF CONTRACT

The duration of the contract will be for a period of Two (02) Years effective from **August 11, 2020 till August 10, 2022**. Any extension in the term of Contract will be made based on mutual consent of both parties in writing.

13 BID BOND:

Bid Bond/Bid Security amounting to **PKR132,000/-** (Pak Rupees One Hundred Thirty Two Thousand Only) is to be attached/provided **with Technical bid**. Please see Master Set of Tender Document for further details.

14 Mode of Procurement:

- 9.1 Bids against this tender are invited on "**Single Stage Two Envelope Bidding Procedure**" through press tendering, therefore, the bidders shall submit original and copy of their Technical and one original Financial bid. Soft copy of technical bids also to be submitted.

Note: The Master Set of Tender Documents for Services uploaded on OGDCL's website (www.ogdcl.com) is the integral part of this TOR.

TECHNICAL EVALUATION CRITERIA

NOTE: Bidders are advised to carefully read the Evaluation Criteria and provide complete information in each category in their Technical Proposal. In-complete or partial information will not be weighed up.

Description	Allocated Score	Criteria
<u>Company Experience History</u> Number of years of Experience of the Company (In Hard support)	20	X >= 2 years and X <= 07 years 10 Marks X > 07 years and X <= 12 15 Marks X > 12 years 20 Marks Note X= Company Experience
<u>Allocated Resource</u> Allocated Technical manpower for this service (a list of technical manpower with expertise including position, qualification, related certification & experience (Resume to be provided))	30	X >= 2 years and <= 4 years 15 Marks X > 4 years and <= 5 years 20 Marks X > 5 years 30 Marks Note X = Related experience on equipment mentioned at 2.0 of TOR or Similar nature equipment
Support Services Contracts executed (Vendor should provide the 4 POs, containing support services of Fujitsu Hardware)	25	Each PO will have 5 Marks and overall 5 additional marks will be given for TSS of same product.
<u>Company Financial Strength</u> In terms of last two years average Turnover (enclosed Audited report)	25	X >= 100 and <= 300 million Rs. 15 Marks X > 300 and <= 500 million Rs. 20 Marks X > 500 million Rs. 25 Marks Note: X= Last two years average Turnover in PAK rupees
Grand Total	100	
Over all Qualifying Score	70	

Note: Bid will be rejected, if Bidder will not obtain 50 (Fifty) percent qualifying Marks in each category and 70 (Seventy) Percent Marks overall.

FINANCIAL BID FORMAT

Bidders are required to provide costs for services as per scope mention in 3.0 on following format. The list of items requiring services are mention at annexure A-3. A copy of this page be included in Technical Proposal without cost figures.

Sr. No.	Description	Column No. 1	Column No. 2
		Cost of Support Services 1 st Year From 11-Aug-2020 to 10-Aug -2021 (US\$)	Cost of Support Services 2 nd Year From 11-Aug-2021 to 10-Aug -2022 (US\$)
1	Maintenance and support services (OEM extended warranty, hardware maintenance) for Equipment mention as Annexure A-3 with local support		
2	Cost of Local Support OS Administration		
	Grand Total Cost of S# 1 & S# 2		

Note:

Financial Evaluation will be carried out on “Grand Total Cost of Maintenance and support services for Equipment (as per Annexure A-3) and the Cost of Local Support for OS Administration for both Years”. Bidders are required to provide year wise lump sum cost inclusive all applicable Taxes, Duties, Levies except PST/ICT.

TSS Start Date and End Date Of Each Equipment

S #	Item	Description	TSS Start Date	TSS End Date		
42U Server Rack with Online UPS:		Qty. 01				
PRIMECENTER M1 Rack 742A 42U with Online UPS						
1	Rack Size	42U-1050x700, Dual Power socket outlet for UPS and Socket strip 3phase 3x 8 socket	11-08-2020	30-08-2022		
2	KVM Switch	Console switch KVM S4-0812,digital, KVM,				
3	Rack Console	RC25 43cm/17" TFT 1U US English with Keyboard and Mouse				
4	Online UPS	PRIMERGY 10kVA / 10kW R/T (6U) with Two Battery Bank & Network Management Ethernet card				
Database Servers:		Qty. 02				
Fujitsu PRIMERGY RX2540 M2						
5	Processor	2 x Intel Xeon E5-2698v4 e	11-08-2020	10-08-2022		
6	Memory Type	128GB (8 x 16GB) 2Rx4 DDR4				
7	Hard Discs	3 x SAS 12G 600GB 15K Hot Plug able				
8	DVD Drive	DVD-RW				
9	Network Interfaces	4x1Gb T OC14000-LOM interface				
10	Raid Controller	PRAID EP400i SAS Array Controller with Minimum 1Gb Cache, Supported RAID 0, 1, 10, 5, 50, 6, 60				
11	FC Host adapter	2 x FC Ctrl 8Gb/s 1 Chan LPe1250 MMF LC LP with 8GB SFP Module				
12	Remote Management	iRMC S4 onboard for server management				
13	Power Supply & FAN	Dual Modular PSU 800W platinum hot plug				
14	System Peripherals Ports	VGA port, USB ports, management LAN and etc.				
15	Supported Virtualization	Virtualization Supported				
16	Management & Monitoring	Server View software for Pre failure indication, Centralize Management & Monitoring				
17	Form Factor	Mounting of RMK in symmetrical racks				
Application Servers:		Qty. 02				
Fujitsu PRIMERGY RX2540 M2						
18	Processor	2 x Intel Xeon E5-2650v4			11-08-2020	10-08-2022
19	Memory	64GB (4 x 16GB) 2Rx4 DDR4-				
20	Hard Discs	3 x SAS 12G 600GB 15K HOT P 2lug 2.5' EP				
19	DVD Drive	DVD-RW super multi ultra slim SATA				
20	Network Interfaces	4x1Gb T OC14000-LOM interface				
21	RAID Controller	PRAID EP400i SAS Array Controller with Minimum 1Gb Cache, Supported RAID 0, 1, 10, 5, 50, 6, 60				
22	FC Host adapter	2 x FC Ctrl 8Gb/s 1 Chan LPe1250 MMF LC LP with 8GB SFP Module				
23	Remote Management	iRMC S4 onboard for server management				
24	Power Supply & FAN	Dual Modular PSU 800W platinum hot plug				
25	System Peripherals Ports	VGA port, USB ports, management LAN and etc.				
26	Supported Virtualization	Virtualization Supported				
27	Form Factor	Mounting of RMK in symmetrical racks				
Domain/Management/Backup Server:		Qty. 01				
Fujitsu PRIMERGY RX2540 M2						
28	Processor	2 x Intel Xeon E5-2620v4 8C/16T	11-08-2020	10-08-2022		
29	Memory	32GB (2 x 16GB)2Rx4 DDR4-2400 R ECC				
30	Hard Discs	2 x HDD SAS 12G 600GB 15K HOT Plug 2.5' EP				
31	DVD Drive	DVD-RW				
32	Network Interfaces	4x1Gb T OC14000-LOM interface				
33	Raid Controller	PRAID EP400i SAS Array Controller with Minimum 1Gb Cache, Supported RAID 0, 1, 10, 5, 50, 6, 60				
34	FC Host adapter	2 x FC Ctrl 8Gb/s 1 Chan LPe1250 MMF LC LP with 8GB SFP Module				
35	Remote Management	iRMC S4 onboard for server management				
36	Power Supply & FAN	Dual Modular PSU 800W platinum hot plug				
37	System Peripherals Ports	VGA port, USB ports, management LAN and etc.				
38	Supported Virtualization	Virtualization Supported				
39	Form Factor	Mounting of RMK in symmetrical racks				

	Storage Area Network): Fujitsu ETERNUS DX200 S3		Qty. 01	
40	Controllers	Redundant Controller	11-08-2020	10-08-2022
41	Host Interfaces	Dual FC 8Gbps Ports and Dual 1Gbps ISCSI Ports per Controller		
42	Controller Cache	8GB Cache Per Controller		
43	Enhanced Cache	Extreme Cache Pole/Enhanced Cache 800 GB through SSDs		
44	Installed Discs	8 X HDD 2.5" 1.2TB 10krpm and 2 x MLC SSD SAS 400GB 12G 2.5		
45	Management software	Web browser based Management complete with required functionality		
46	SAN Switches	2 x 24 Ports FC SAN Switch Brocade B300 with 8 active ports on each switch with SFP Module and Multimode FC Cables		
	Rack Mounted Auto Loader Tape Library: Fujitsu ETERNUS LT20 S2		Qty. 01	
47	Drive	Installed LT06 -6 FC Half Height tape Drive	11-08-2020	10-08-2022
48	Interface	Dual FC 8Gbps Port		
49	Media Slots	8 Media Slots with license		
50	Media	2 x Cleaning and 10 LTO-6 data cartridge with random barcode label		
	Backup Software: Symantec Backup Exec		Qty. 01	
51	Enterprise Backup Software	Online Enterprise Backup Solution with agents for Windows and SQL Database Server. BACKUP EXEC CAPACITY ED WIN 1 FRONT END TB ONPREMISE STANDARD LICENSE + ESSENTIAL MAINTENANCE BUNDLE INITIAL 12MO GOV	11-08-2020	10-08-2022
	Network Switches Catalyst 2960-XR 24 GigE		Qty. 02	
52	Interface	Catalyst 2960-XR 24 GigE,	11-08-2020	10-08-2022
53	SFP+ Interface	Catalyst 2960-XR 24 GigE, 2 x 10G SFP+, IP Lite, 2 x 10GBASE-SR SFP Module		
54	Total VLANs	1024 VLAN Supported		
55	Jumbo Frame	9216 bytes		
56	Redundant Power Supply	Configured 2 Power Supply		
57	OS	Local Support for OS	11-08-2020	10-08-2022