

Framework Schedule 6 (Order Form Template and Call-Off Schedules)

Order Form

CALL-OFF REFERENCE: **itt_4721**

THE BUYER: **Public Health England**

BUYER ADDRESS: Wellington House, 133-155 Waterloo Rd, London SE1 8UG

THE SUPPLIER: **Boxxe Limited**

SUPPLIER ADDRESS: East Moor House, Green Park Business Centre, Goose Lane, Sutton On The Forest York YO61 1ET

REGISTRATION NUMBER: **02109168**

DUNS NUMBER: 390294056

SID4GOV ID: **N/A**

APPLICABLE FRAMEWORK CONTRACT

This Order Form is for the provision of the Call-Off Deliverables and dated 20/04/2021 It's issued under the Framework Contract with the reference number RM6068 for the provision of Technology Products and Associated Services.

CALL-OFF LOT(S):

- Lot 1 Hardware & Software, & Associated Services

CALL-OFF INCORPORATED TERMS

The following documents are incorporated into this Call-Off Contract. Where numbers are missing we are not using those schedules. If the documents conflict, the following order of precedence applies:

1. This Order Form including the Call-Off Special Terms and Call-Off Special Schedules.
2. Joint Schedule 1(Definitions and Interpretation) RM6068

3. The following Schedules in equal order of precedence:

- Joint Schedules for RM6068
 - Joint Schedule 2 (Variation Form)
 - Joint Schedule 3 (Insurance Requirements)
 - Joint Schedule 4 (Commercially Sensitive Information)
 - Joint Schedule 10 (Rectification Plan)
 - Call-Off Schedules for **itt_4721**
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4. CCS Core Terms (version 3.0.6)

5. Joint Schedule 5 (Corporate Social Responsibility) RM6068

No other Supplier terms are part of the Call-Off Contract. That includes any terms written on the back of, added to this Order Form, or presented at the time of delivery.

CALL-OFF SPECIAL TERMS

None

CALL-OFF START DATE: 3rd May 2021

CALL-OFF EXPIRY DATE: 31st July 2021

CALL-OFF INITIAL PERIOD: 3 Months

CALL-OFF OPTIONAL EXTENSION PERIOD: 6 Months

CALL-OFF DELIVERABLES
Option A: Partnering OCF Ltd

LOCATION FOR DELIVERY
REDACTED

REDACTED

DATES FOR DELIVERY OF THE DELIVERABLES

Option A: Decommissioning work to commence 3rd May 2021 Projected hardware delivery date 17th May 2021

TESTING OF DELIVERABLES

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Option B: full testing details to be provided by OCF Ltd in their statement of work.

WARRANTY PERIOD

Hardware warranty 3 years

MAXIMUM LIABILITY

The limitation of liability with OCF Ltd for this Call-Off Contract is equal to the value of the contract.

The Estimated Year 1 Charges used to calculate liability in the first Contract Year is £ 1,786,568.71

CALL-OFF CHARGES

Option A: £ 1,786,568.71

The Charges will not be impacted by any change to the Framework Prices. The Charges can only be changed by agreement in writing between the Buyer and the Supplier because of a Specific Change in Law or Benchmarking using Call-Off Schedule 16 (Benchmarking) where this is used.

REIMBURSABLE EXPENSES

None

PAYMENT METHOD

BACS

Hardware to be invoiced on delivery and site work to be invoiced monthly.

BUYER'S INVOICE ADDRESS:

Accounts Payable
PHE Porton
Manor Farm Road
Porton
Wiltshire
SP4 0JG
payables@phe.gov.uk

BUYER'S AUTHORISED REPRESENTATIVE

REDACTED

Procurement
PHE Colindale
61 Colindale Avenue
London

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BUYER'S ENVIRONMENTAL POLICY

available online at: <https://www.gov.uk/government/publications/sustainability-in-public-health-england>

BUYER'S SECURITY POLICY

available online at <https://www.gov.uk/government/organisations/public-health-england/about/personal-information-charter>

SUPPLIER'S AUTHORISED REPRESENTATIVE

REDACTED

REDACTED

REDACTED

Greenpark Business Centre, East Moor House, Goose Ln, York YO61 1ET

SUPPLIER'S CONTRACT MANAGER

REDACTED

REDACTED

REDACTED

Greenpark Business Centre, East Moor House, Goose Ln, York YO61 1ET

PROGRESS REPORT FREQUENCY (from subcontractor)

Weekly

PROGRESS MEETING FREQUENCY (with subcontractor)

3 times a week, Monday, Wednesday and Friday

KEY STAFF

Not applicable

KEY SUBCONTRACTOR

OCF Ltd

Rotunda Business Centre, Thorncliffe Rd,
Chapelton, Sheffield S35 2PG

SUBCONTRACTOR'S SUPPLIER'S CONTRACT MANAGER

REDACTED

REDACTED

COMMERCIALLY SENSITIVE INFORMATION

Not applicable

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SERVICE CREDITS

Not applicable

ADDITIONAL INSURANCES

Not applicable

GUARANTEE

Not applicable

SOCIAL VALUE COMMITMENT

Not applicable, Social Value statement to be provided by OCF Ltd

For and on behalf of the Supplier:		For and on behalf of the Buyer:	
Signature:	REDACTED	Signature:	REDACTED
Name:	REDACTED	Name:	REDACTED
Role:	REDACTED	Role:	REDACTED
Date:	21.04.2021	Date:	27 April 2021

Equipment, Software & Services Schedule from subcontractor

Qty

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- 1 Intel Walkerpas S9200WK 48 2U Chassis with 96 Servers

S9248WK2HAC 2U air cooled chassis - Platinum 9200 processors housed in a 2U front I/O Intel® Server Chassis FC2000.

2x Intel Cascade lake - Platinum 9242 processor, 48 Cores, 2.30 GHz, 71.5 MB Intel® Smart Cache

384GB memory - 24 x 16GB DIMMS

Mellanox ConnectX-6 single port InfiniBand / Ethernet
- 4 Lenovo ThinkSystem NE10032 RackSwitch 32 Port 100 / 40 GbE ethernet switch

100GbE cables
- 8 Lenovo 20m 100G QSFP28 Active Optical Cable
- 12 5M interconnect DAC cables - Lenovo 5m Passive 100G QSFP28 DAC Cable
- 55 5M server cables - Lenovo 5m Passive 100G QSFP28 DAC Cable
- 55 3M server cables - Lenovo 3m Passive 100G QSFP28 DAC Cable

InfiniBand 2 Port Cards & Cables
- 10 ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 2-port PCIe VPI Adapter
- 10 5m Mellanox HDR IB Active Optical QSFP56 Cable
- 2320 Memory upgrade, replace existing 16GB DIMMS with 32GB DIMMS to increase memory to 8GB per core.
 - 1 Installation of Memory
- 100 MTFDHBA800TDG-1AW1ZABYY - Micron 7300 MAX 800GB NVMe M.2 (22x80) Non-SED Enterprise SSD
 - 1 Installation of disks and configuration
- 2300 Trade in of existing memory

This is an indicative price. Final price to be determined when the memory is available to return.

Installation Services
 - 1 Hardware installation

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1 Software integration with SMED cluster

Integration with SMED cluster including:

-Ethernet Switch configuration (this may need to be done in collaboration with PHE as most switches are not managed by OCF)

-Cluster networking configuration/preparation

-xCAT discovery of 96 nodes

-Integration into the existing environment, including Salt-Stack integration

(Authentication, networking, storage. etc)

-Integration into existing monitoring (Icinga/Grafana)

-New partition/queue and basic testing into existing Slurm scheduler

-Overnight burn-in test using Stress-NG and Slurm (assuming no specific performance requirements)

1 Project Definition Workshop & Project Documentation

1 System Administrator Documentation, provided by OCF GitLab

1 Project Manager -

6 months, working 16 hours per week (2 days) on project managing the sequencing installation workstreams.

OpenStack Control Nodes

10 ThinkSystem SR630 - 3yr Warranty

2 Intel Xeon Gold 6226 12C 125W 2.7GHz Processor

12 ThinkSystem 16GB TruDDR4 2933 MHz (1Rx4 1.2V) RDIMM

1 ThinkSystem RAID 530-8i PCIe 12Gb Adapter

2 ThinkSystem 2.5" 5300 480GB Entry SATA 6Gb Hot Swap SSD

1 ThinkSystem 1Gb 4-port RJ45 LOM

1 ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 1-port PCIe VPI Adapter

2 ThinkSystem 750W (230/115V) Platinum Hot-Swap Power Supply

1 ThinkSystem XClarity Controller Standard to Enterprise Upgrade

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OCF Installation Services

- 2 Hardware installation
- 8 Software integration with OpenStack clusters

REDACTED Cluster Upgrade

Standard Compute node - 32 cores (2x 16 core CPU), 192 memory and Infini Band connectivity

- 10 ThinkSystem SR630 - 3yr Warranty - HPC&AI
- 2 Intel Xeon Gold 6226R 16C 150W 2.9GHz Processor
- 2 ThinkSystem 750W (230/115V) Platinum Hot-Swap Power Supply
- 1 ThinkSystem M.2 with Mirroring Enablement Kit
- 1 ThinkSystem Mellanox ConnectX-6 HDR100 QSFP56 1-port PCIe InfiniBand Adapter
- 1 ThinkSystem 2.5" 5300 480GB Entry SATA 6Gb Hot Swap SSD
- 12 ThinkSystem 16GB TruDDR4 2933MHz (2Rx8 1.2V) RDIMM
- 2 ThinkSystem M.2 5300 240GB SATA 6Gbps Non-Hot Swap SSD
- 1 ThinkSystem RAID 530-8i PCIe 12Gb Adapter

High Memory Server - 32 cores (2x 8 core CPU 3.6GHz), 768 GB Memory, InfiniBand Connectivity

- 2 ThinkSystem XClarity Controller Standard to Enterprise Upgrade
- 2 ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD
- 1 ThinkSystem Mellanox ConnectX-6 HDR100 QSFP56 1-port PCIe InfiniBand Adapter
- 2 ThinkSystem 750W (230/115V) Platinum Hot-Swap Power Supply
- 1 ThinkSystem 2.5" Intel S4510 480GB Entry SATA 6Gb Hot Swap SSD
- 2 Intel Xeon Gold 6244 8C 150W 3.6GHz Processor
- 1 ThinkSystem 10Gb 2-port Base-T LOM
- 24 ThinkSystem 32GB TruDDR4 2933MHz (2Rx4 1.2V) RDIMM
- 1 ThinkSystem RAID 530-8i PCIe 12Gb Adapter

- 2 GPU Server - 2x A100, 768 GB memory
- 2 Intel Xeon Gold 6226R 16C 150W 2.9GHz Processor

- 1 ThinkSystem Toolless Slide Rail
- 2 ThinkSystem 1600W (230V) Platinum Hot-Swap Power Supply
- 2 ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD
- 1 ThinkSystem 2.5" Multi Vendor 480GB Entry SATA 6Gb Hot Swap SSD
- 1 ThinkSystem XClarity Controller Standard to Enterprise Upgrade

- 1 ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 1-port PCIe VPI Adapter
- 1 ThinkSystem 10Gb 2-port Base-T LOM
- 24 ThinkSystem 32GB TruDDR4 2933MHz (2Rx4 1.2V) RDIMM
- 2 ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU

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1 ThinkSystem RAID 530-8i PCIe 12Gb Adapter

1 Mellanox QM8700 40-Port Managed 200Gb/s HDR InfiniBand Switch (PSE)

2 1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable

1 Mellanox QM87xx Enterprise RMK w/Air Duct

1 Foundation Service - 2Yr Post Wty NBD Resp Mellanox Infiniband

8 2m Mellanox HDR IB to 2x HDR100 Splitter Passive Copper QSFP56 Cable

3 10m Mellanox HDR IB Active Optical QSFP56 Cable

Storage expansion for existing (new) head nodes

12 ThinkSystem 3.5 PM1643a 7.68TB Entry SAS 12Gb Hot Swap SSD

1 OCF installation and integration services Plus integrating the SSD storage into the existing Head nodes

4 Additional training on use of GPU servers for Machine Learning and Artificial Intelligence applications

Redacted cluster upgrade

2 ThinkSystem SR950 - 3yr Warranty - 8 Socket Server

8 Intel Xeon Platinum 8253 16C 125W 2.2GHz Processor

48 ThinkSystem 32GB TruDDR4 2933MHz (2Rx4 1.2V) RDIMM

2 ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD

1 ThinkSystem 1Gb 2-port RJ45 LOM

2 QLogic 16Gb Enhanced Gen5 FC Dual-port HBA

1 ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 2-port PCIe VPI Adapter

4 High Efficiency 1600W Power Supply for SR950 (200-240VAC only)

2 Hardware installation

GPU Node with Nvidia A100 GPU card

2 ThinkSystem SR650 - 3yr Warranty - HPC&AI

2 Intel Xeon Gold 6226R 16C 150W 2.9GHz Processor

24 ThinkSystem 32GB TruDDR4 2933MHz (2Rx4 1.2V) RDIMM

1 ThinkSystem RAID 530-8i PCIe 12Gb Adapter

1 ThinkSystem 2.5" Multi Vendor 480GB Entry SATA 6Gb Hot Swap SSD

2 ThinkSystem M.2 5300 480GB SATA 6Gbps Non-Hot Swap SSD

1 ThinkSystem 10Gb 2-port Base-T LOM

1 ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 2-port PCIe VPI Adapter

Framework Ref: RM6068

Project Version: v0.1

Model Version: v3.2

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- 2 ThinkSystem NVIDIA A100 40GB PCIe Gen4 Passive GPU
- 2 ThinkSystem 1600W (230V) Platinum Hot-Swap Power Supply
- 1 ThinkSystem XClarity Controller Standard to Enterprise Upgrade
- 10 IRODS Consultancy - continue project to correctly catalogue data and enable archiving. 10 Days technical support to be provided
- Redacted Cluster Head Node upgrade
- 3 Virtualised Head Nodes for High Availability
- 2 Intel Xeon Silver 4210R 10C 100W 2.4GHz Processor
- 12 ThinkSystem 16GB TruDDR4 2933MHz (2Rx8 1.2V) RDIMM
- 1 ThinkSystem RAID 730-8i 2GB Flash PCIe 12Gb Adapter
- 6 ThinkSystem 2.5" PM883 7.68TB Entry SATA 6Gb Hot Swap SSD
- 2 ThinkSystem 2.5" PM883 240GB Entry SATA 6Gb Hot Swap SSD
- 1 ThinkSystem 1Gb 4-port RJ45 LOM
- 2 ThinkSystem Mellanox ConnectX-6 HDR100/100GbE QSFP56 2-port PCIe VPI Adapter
- 1 ThinkSystem Broadcom 57454 10/25GbE SFP28 4-port PCIe Ethernet Adapter V2
- 2 ThinkSystem 750W(230/115V) Platinum Hot-Swap Power Supply
- 2 2.8m, 13A/100-250V, C13 to C14 Jumper Cord
- 1 ThinkSystem XClarity Controller Standard to Enterprise Upgrade
- Mellanox InfiniBand Switch
- 1 Mellanox QM8700 HDR IB Managed Switch (PSE)
- 2 2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable
- 1 Mellanox QM87xx Enterprise RMK w/Air Duct
- 13 2m Mellanox HDR IB Passive Copper QSFP56 Cable
- Cluster installation services
- 1 Hardware
- 12 Software install and integration

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- 1 Red Hat Ceph Storage, Premium (Up to 512TB on a maximum of 25 Physical Nodes)- 1 Year
- 64 Red Hat OpenStack Platform (without guest OS), Standard (2-sockets)- 1 Year
- 49 Red Hat OpenStack Platform, Standard (2-sockets)- 1 Year