

**Corrigendum to Request for Proposal (RFP) for  
“Selection of Managed Service Provider for  
Implementation of Enterprise Business System in  
Five Major Indian Ports”**

**Bid Reference # IPA/ICTD/ERP/2016**

Dated: 01 June 2017



**I** Indian  
**P** Ports  
**A** Association

Corrigendum to Request for Proposal (RFP) for "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

#	RFP Volume	Page#	Clause#	Older Clause	Revised Clause
1	Vol 2	251	Clause 5.1 and Clause 5.2	<p>Project implementation timelines</p> <p>Wave 1: 6 Months Wave 2: 12 Months Wave 3: 15 Months Baselining and stabilization: 18 Months</p>	<p><b>Clause modified:</b></p> <p>Timelines for waves have been revised and is to be considered as per the ANNEXURE A of this corrigendum</p> <p>Wave 1: a) 6 months for development b) 3 months for fine tuning and testing Total (a + b) = 9 Months</p> <p>Wave 2: 15 Months Wave 3: 18 Months Baselining and stabilization: 20 Months</p>
2	Vol 1	54	Clause 6.2	Payment terms for a port	<p><b>Clause modified:</b></p> <p>Payment terms revision to be considered as per ANNEXURE B</p>
3	Vol 2	279	Clause 7 Bill of Material	Annexure - Bill of Material	<p><b>Clause modified:</b></p> <p>Refer Annexure-D</p> <p><b>Clarification:</b></p> <p>Consumables (paper, cartridges and fuel) will have to be supplied by MSP as per port requirements. MSP may factor in the cost at 10% of the component for the same. Cost going above this value will be borne by ports at actuals applicable for all components where port staff is deployed.</p>

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#	RFP Volume	Page#	Clause#	Older Clause	Revised Clause
					MSP to consider A3/A4/Legal sizes for Digitization and Scanning.
4	Vol 1	117	Clause 10.2.8	Format for TCB	<p><b>Clause modified:</b></p> <p>Revision in cost-format for TCB. Refer to Annexure E</p>
5	Vol 2	236	Point c of 2. Annual Technology Support of 4.13 Track 11: Operations and Maintenance for 5 years post Go-Live (Vol – 2)	All changes requested till ONE year from GO-LIVE shall be carried out at no additional cost to IPA.	<p><b>Clause modified:</b></p> <p>MSP shall provision for an additional effort of 3120 person days to handle any change requests to be carried out after GO-LIVE. No payments shall be made to MSP against such change requests.</p> <p>The 3120 person days shall be divided equally among the ports however a port which has exhausted its 520 person days may use the man-days from the pool of 3120 person days subject to approval from designated authority at IPA. The bidder shall quote this price as a separate line item under APP.3 component and shall be considered during commercial evaluation. The decision on the effort requirement as per the change requests shall be as defined under Change Control. This unit rate (blended) discovered shall be applicable for subsequent change requests till the end of contract.</p> <p>An internal mechanism by framing a committee will be in place to decide about the change request process after a Change Request is initiated by the user or MSP.</p>

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#	RFP Volume	Page#	Clause#	Older Clause	Revised Clause
6				Solution Deployment	<p><b>Clarification</b></p> <p>1. In case of CENTRAL INFRASTRUCTURE, MSP is encouraged to leverage on components, including networking, monitoring and security components, being supplied by Cloud Service Providers on pay-per-use manner wherever applicable to optimize Cost of Ownership for IPA / Ports.</p> <p>This is not applicable to the Port-EBS business applications. All software licences related to business applications POS, ERP, Hospital, etc. have to adhere to the conditions as mentioned within the RFP. Port-EBS application should be portable to any other MeitY-empanelled Cloud Service Provider.</p>
7	Vol 2			Volumetric details	<p><b>Clarification</b></p> <p>Clarifications on Volumetric assumptions for Sizing is provided as ANNEXURE C</p> <p>ADDENDUM to ANNEXURE – Existing System Details</p>
8	Vol 2	129 and 174	Clause 1.4 and Clause 2.5	<i>Clause 1.4 Page 129 of Volume 2: “End objective of the exercise is to have a common application platform with different port-specific instances, hosted on a central system leveraging on common infrastructure.”</i>	<p><b>Clarification</b></p> <p>The bidders are expected to ensure that the deployment model being proposed should consist of individual port-specific instances, logical or virtual, which meet the following criteria:</p>

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#	RFP Volume	Page#	Clause#	Older Clause	Revised Clause
				<p><i>Clause 2.5 Page 174 of Volume 2: "Under cafeteria model, it is expected that port-specific autonomy is maintained."</i></p>	<ol style="list-style-type: none"> <li>1. Each port maintains its identity as a separate legal entity or business group</li> <li>2. Access, Integrity and security of port's data is controlled</li> <li>3. Port has autonomy around its business rules related to its processes</li> <li>4. Port has autonomy around structuring its services and business model</li> <li>5. Port may move out of the system without impacting other ports</li> <li>6. Also, a new port may join in without impacting other ports</li> </ol>

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## 5 Project Implementation timelines

### 5.1 Project implementation approach

#	Item	Wave 1: T + 6 + 3 months	Wave 2: T + 15 months	Wave 3: T + 18 months
1	Application Development	Online presence and single window	Integrated backend applications	Full scale integration and operations
A	Port Operations	Implementation of port operations modules	Full scale integration and operations of port operations	
B	Estate Operations	Self-service portal for estate customers	Integration with GIS system	Full scale integration and operations of estate operations
C	Engineering & Maintenance	Self-service portal for vendors	Implementation of engineering & maintenance modules	Full scale integration and operations
D	Electronic Office	Online portal with basic workflows	Intermediate workflows	Full scale integration and operations
E	Establishment, Finance and Administration	Self-service portal for port employees Implementation of Finance module	Implementation of establishment and administration modules	Full scale integration and operations
F	Allied Systems	Hospital system Canteen system	Legal Case Management	Full scale integration and operations

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#	Item	Wave 1: T + 6 + 3 months	Wave 2: T + 15 months	Wave 3: T + 18 months
G	Integration with allied systems	PCS and existing systems	Internal Port Systems	Partner and Customer systems
2	Training capacity building and change management	Training infrastructure Online learning portal Training material as required for wave	Mobile app for learning Training material as required for wave	Training material as required for wave
3	Operations Infrastructure	Call Centre IT helpdesk Port Service Centre	Port Command Centre	
4	Man-Power Deployment for Support Operations	As per port requirements	As per port requirements	As per port requirements
5	Compute and Storage Infrastructure`	Primary data centre	Disaster recovery site Port server room	
6	End user computing	As required in the wave	As required in the wave	As required in the wave
7	Network Infrastructure	EBS WAN Port to PDC connectivity	Port LAN (Network backbone)	

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#	Item	Wave 1: T + 6 + 3 months	Wave 2: T + 15 months	Wave 3: T + 18 months
8	Data Migration	As required for wave ONE functionalities	As required for wave TWO functionalities	As required for wave THREE functionalities
9	Integration and Interfacing	As required for wave ONE functionalities	As required for wave TWO functionalities	As required for wave THREE functionalities

## 5.2 Project milestone plan

Considering the complexity involved with the implementation and various levels of integration requirements, it is proposed that the project be executed in waves. The project is divided into following three phases:

**Phase I – Implementation:** This phase would start from project initiation and would be completed once the system has been implemented. The various activities would include freezing of specifications for various components of envisaged system and data migration, application software development, testing, conference room demo of functionality, procurement & installation of hardware and required system software, network creation, and deployment of support staff for pilot.

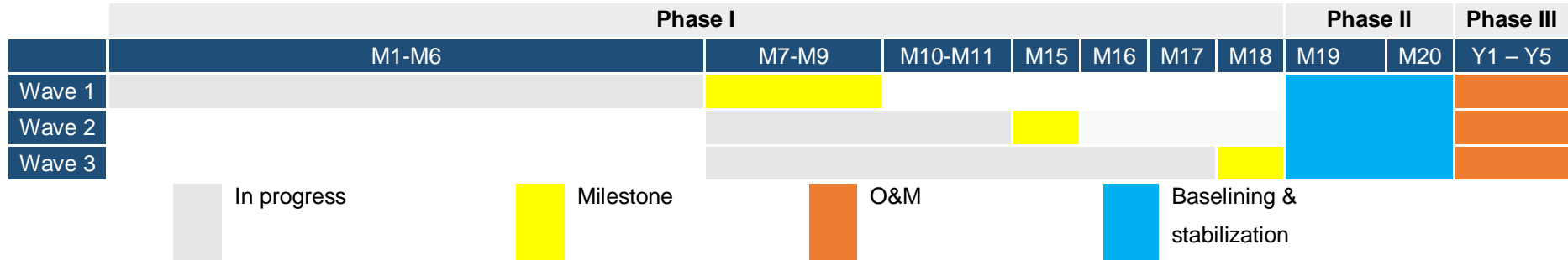
**Phase II – Stabilization and baseline:** This phase would have the complete rollout of the envisaged system and all its components across all defined port locations. It would end when all transactions and the operations have stabilized for a period of 2 months. The closure includes completion of Phase II AT ALL PORT LOCATIONS.

**Phase III – Operations and Maintenance:** This phase would continue till the termination of the contract. The MSP would be responsible for the functioning of the system for a period of 5 years and would also maintain the entire system for the same duration.

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Indicative representation of the timelines of the phases and waves is given below:



#	Activity	Time Completion	Deliverable
<b>Phase I: System development and implementation phase</b>			
	<b>Agreement</b>	T	D1
	<b>Wave 1</b>	T + 6 + 3 months	
1	<b>Application Development</b>		
i	Submission of Project Charter	T + 1 month	D2
ii	Submission of Detailed Project Plan	T + 1.5 month	D3
iii	Submission of Master Design Document for overall system covering all waves and operations	T + 3 months	D4
iv	Submission of Software Requirement Specifications (SRS) for functionalities to be covered under wave ONE	T + 5 months	D5-1
v	Submission of detailed design document for functionalities to be covered under wave ONE	T + 5 months	D6-1
vi	Commencement of Conference Room Pilot for Wave ONE	T + 6 months	D7-1

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#	Activity	Time Completion	Deliverable
vii	Submission of applications for UAT for functionalities to be covered under wave ONE	T + 8 months	D28-1
viii	Submission of applications ready for Go-Live for functionalities to be covered under wave ONE	T + 9 months	D8-1
<b>2</b>	<b>Capacity Building &amp; Change Management</b>		
i	Submission of Training and capacity building plan including change management approach	T + 3 months	D17
ii	Establishment of Training Infrastructure including port training rooms and Online Learning Portal	T + 7 months	D29
iii	Submission of training material including learning modules, training manuals, multimedia training modules for internal and external users for functionalities to be covered under wave ONE	T + 7.5 months	D30-1
iv	Completion of user training for functionalities to be covered under wave ONE	T + 8 months	D18-1
<b>3</b>	<b>Operations Infrastructure</b>		
i	Establishment of central call centre for all participating ports	T + 9 months	D21
ii	Establishment of IT Helpdesk including NOC and SOC at centre for all participating ports	T + 9 months	D21
iii	Establishment of IT helpdesk at participating ports	T + 9 months	D21
iv	Establishment of port service centre and Dispatch centres	T + 9 months	D21
<b>4</b>	<b>Man-Power Deployment for Support Operations</b>		
i	Deployment of manpower as required by port	As agreed with port	D22-1
<b>5</b>	<b>Compute and Storage Infrastructure</b>		
i	Submission of Master Design Document for overall Compute and Storage infrastructure including Primary Data Centre, DRC and Port Server room	T + 3 months	D9

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#	Activity	Time Completion	Deliverable
ii	Submission of design document for Primary Data Centre	T + 5 months	D9
iii	Establishment of Primary Data Centre	T + 7.5 months	D10
<b>6</b>	<b>End user computing</b>		
i	Submission of master requirements and specifications for end user computing for overall project	T + 3 months	D11
ii	Submission of requirements and specification for end user computing for wave ONE	T + 5 months	D31-1
iii	Deployment of end user computing for wave ONE	T + 7.5 months	D12-1
<b>7</b>	<b>Network Infrastructure</b>		
i	Submission of Master Design Document for overall network infrastructure including:	T + 3 months	D13
	· Master network design for Port LAN		
	· Network connectivity at PDC		
	· Network connectivity between port and PDC		
ii	Establishment of network connectivity at PDC	T + 7.5 months	D14
iii	Establishment of network connectivity between port and PDC	T + 8 months	D15
<b>8</b>	<b>Data Migration</b>		
i	Submission of Master Design Document for data migration including:	T + 3 months	D19
	· Application data migration		
	· Migration of scanned documents and images		
	· Data entry of information		
	· Data scanning, indexing, storage, retrieval and archival		
ii	Submission of data migration plan for wave ONE	T + 5 months	D32-1

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#	Activity	Time Completion	Deliverable
iii	Completion of application data migration required for functionalities to be covered under wave ONE	T + 7.5 months	D20-1
iv	Completion of data entry of information for functionalities to be covered under wave ONE	T + 8 months	D20-1
<b>9</b>	<b>Integration and Interfacing</b>		
i	Submission of Master Design Document covering integration and interfacing requirements for all functionalities as envisaged in the project	T + 3 months	D26
ii	Submission of incremental design document covering integration and interfacing requirements for all functionalities for functionalities to be covered under wave ONE	T + 5 months	D33-1
iii	Completion of integration and interfacing requirements for functionalities to be covered under wave ONE	T + 8 months	D27-1
	<b>Wave 2</b>	<b>T + 15 months</b>	
<b>11</b>	<b>Application Development</b>		
i	Submission of Software Requirement Specifications (SRS) for functionalities to be covered under wave TWO	T + 6 months	D5-2
ii	Submission of detailed design document for functionalities to be covered under wave TWO	T + 7 months	D6-2
iii	Commencement of Conference Room Pilot for Wave TWO	T + 13.5 months	D7-2
iv	Submission of applications for UAT for functionalities to be covered under wave TWO	T + 14 months	D28-2
v	Submission of applications ready for Go-Live for functionalities to be covered under wave TWO	T + 15 months	D8-2
<b>12</b>	<b>Capacity Building &amp; Change Management</b>		
i	Submission of training material including learning modules, training manuals, multimedia training modules for internal and external users for functionalities to be covered under wave TWO	T + 13.5 months	D30-2

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#	Activity	Time Completion	Deliverable
ii	Completion of user training for functionalities to be covered under wave TWO	T + 14 months	D18-2
iii	Go-live of user training mobile app	T + 14 months	D34
<b>13</b>	<b>Operations Infrastructure</b>		
i	Establishment of port command centre	T + 12 months	<b>D35</b>
<b>14</b>	<b>Man-Power Deployment for Support Operations</b>		
i	Deployment of manpower as required by port	As agreed with port	D22-2
<b>15</b>	<b>Compute and Storage Infrastructure`</b>		
i	Establishment of Disaster recovery site	T + 9 months	D36
ii	Establishment of Port server room (as required for network components)	T + 9 months	D37
<b>16</b>	<b>End user computing</b>		
i	Submission of requirements and specification for end user computing for wave TWO	T + 7 months	D31-2
ii	Deployment of end user computing for wave TWO	T + 13.5 months	D12-2
<b>17</b>	<b>Network Infrastructure</b>		
i	Establishment of networking for Port LAN	T + 13.5 months	D16
<b>18</b>	<b>Data Migration</b>		
i	Submission of data migration plan for wave TWO	T + 7 months	D32-2
ii	Completion of application data migration required for functionalities to be covered under wave TWO	T + 13.5 months	D20-2
iii	Completion of data entry of information for functionalities to be covered under wave TWO	T + 13.5 months	D20-2
<b>19</b>	<b>Integration and Interfacing</b>		

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#	Activity	Time Completion	Deliverable
i	Submission of incremental design document covering integration and interfacing requirements for all functionalities for functionalities to be covered under wave TWO	T + 7 months	D33-2
ii	Completion of integration and interfacing requirements for functionalities to be covered under wave TWO	T + 13.5 months	D27-2
	<b>Wave 3</b>	<b>T + 18 months</b>	
<b>20</b>	<b>Application Development</b>		
i	Submission of Software Requirement Specifications (SRS) for functionalities to be covered under wave THREE	T + 12 months	D5-3
ii	Submission of detailed design document for functionalities to be covered under wave THREE	T + 13 months	D6-3
iii	Commencement of Conference Room Pilot for Wave THREE	T + 16.5 months	D7-3
iv	Submission of applications for UAT for functionalities to be covered under wave THREE	T + 17 months	D28-3
v	Submission of applications ready for Go-Live for functionalities to be covered under wave THREE	T + 18 months	D8-3
<b>21</b>	<b>Capacity Building &amp; Change Management</b>		
i	Submission of training material including learning modules, training manuals, multimedia training modules for internal and external users for functionalities to be covered under wave THREE	T + 16.5 months	D30-3
ii	Completion of user training for functionalities to be covered under wave THREE	T + 17 months	D18-3
<b>22</b>	<b>Operations Infrastructure</b>		
i	Full scale operations of call centre, IT helpdesk with NOC & SOC at Centre, IT helpdesk at port, port command centre and port service centre	T + 17 months	D21-2
<b>23</b>	<b>Man-Power Deployment for Support Operations</b>		

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#	Activity	Time Completion	Deliverable
i	Deployment of manpower as required by port	As agreed with port	D22-3
<b>24</b>	<b>End user computing</b>		
i	Submission of requirements and specification for end user computing for wave THREE	T + 13 months	D31-3
ii	Deployment of end user computing for wave THREE	T + 16.5 months	D12-3
<b>25</b>	<b>Data Migration</b>		
i	Submission of data migration plan for wave THREE	T + 13 months	D32-3
ii	Completion of application data migration required for functionalities to be covered under wave THREE	T + 16.5 months	D20-3
iii	Completion of data entry of information for functionalities to be covered under wave THREE	T + 16.5 months	
<b>26</b>	<b>Integration and Interfacing</b>		
i	Submission of incremental design document covering integration and interfacing requirements for all functionalities for functionalities to be covered under wave THREE	T + 13 months	D33-3
ii	Completion of integration and interfacing requirements for functionalities to be covered under wave THREE	T + 16.5 months	D27-3
<b>27</b>	<b>Phase II: Stabilization phase</b>	<b>T1 = T + 20 months</b>	
i	Baseline of applications deployed across all ports	T + 20 months	D23
ii	Submission of consolidated documentation post baseline and agreement on cafeteria model for EBS	T + 20 months	D23
iii	Completion of migration of scanned documents and images as agreed with port	T + 20 months	D23
iv	Completion of scanning of documents as agreed with port	T + 20 months	D23
v	Submission of comprehensive exit management plan	T + 20 months	D23
<b>28</b>	<b>Phase III: Operations and maintenance phase</b>	<b>T1 + 60 months</b>	

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#	Activity	Time Completion	Deliverable
i	Submission of port specific metering information required for invoicing	Quarterly	D38
ii	Submission of SLA Compliance reports along with invoices and supporting documents	Quarterly	D24
iii	BCP-DR Drill for two days	Half-yearly	D25
iv	Initiation of exit management plan as per plan	As per plan	D39

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## 6.2 Payment terms for a port

The table below provides the payment terms for a port.

Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
APP.1	Licenses	90% (3 pay-outs during Phase I (Implementation))	Milestone Pay-out- 90% of license cost on supply of Licenses for respective wave on actuals Payment for Wave 1 cannot exceed 50% of PORT-SHARE and 90% for Wave 2	<b><u>Wave 1: T + 8 months</u></b> <b><u>Wave 2: T + 14 Months</u></b> <b><u>Wave 3: T + 17 Months</u></b>
		Balance 10%	Milestone Pay-Out- Balance 10% of APP.1 at completion of Phase II (Stabilization and baseline)	<b><u>T+ 20 Months</u></b>
APP.2	Annual Technical Support and AMC	5% x 20 (20 equal pay-outs during Phase III (Operations & Maintenance))	Quarterly Pay-Out- Phase III: Operations & Maintenance Phase at the end of Every Quarter Pay-out will not exceed 100% of component cost	End of every Quarter during Phase III
APP.3	Installation/ Configuration/ Customization/ Development (Including Data Migration/ Interfacing)	10% x 1 (1 pay-out during Phase I)	Milestone Pay-Out Submission of Master Design document (Deliverable D4) Submission of equivalent Advance Bank Guarantee (ABG) valid for 24 months Pay-out will not exceed 10% of component cost	<b><u>T + 3 Months</u></b>

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Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
		<b><u>6% X 3</u></b> (3 equal pay-outs during Phase I)	Milestone pay-out- Commencement of User Acceptance Testing for each wave at port Pay-out will not exceed 18% of component cost	<b><u>Wave 1: T + 8 months</u></b> <b><u>Wave 2: T + 14 Months</u></b> <b><u>Wave 3: T + 17 Months</u></b>
		<b><u>9% X 3</u></b> (3 equal pay-outs during Phase I)	Milestone pay-out- Completion of User Acceptance Testing for each wave at port Pay-out will not exceed 27% of component cost	<b><u>Wave 1: T + 9 months</u></b> <b><u>Wave 2: T + 15 Months</u></b> <b><u>Wave 3: T + 18 Months</u></b>
		<b><u>25%</u></b> (1 pay-out at end of Phase II)	Milestone pay-out Go-Live of Phase II of the project for all ports together <b>Pay-out will not exceed 25% of component cost</b> And Advance Bank Guarantee shall be released	<b><u>T + 20 Months</u></b>
		<b><u>20%</u></b> <b><u>(At end of first quarter after base lining and stabilization)</u></b>	<b><u>One time Pay-Out-</u></b> <b><u>At the end of 1<sup>st</sup> Quarter after base lining and stabilization</u></b> <b><u>Pay-out will not exceed 20% of component cost</u></b>	<b><u>End of 1st Quarter after base lining and stabilization</u></b>

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Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
INF.1 EUC	Procurement of Required compute and Storage Infrastructure (including end user computing and Port Specific Server Room Infrastructure)	50% (3 pay-outs during Phase I (Implementation))	Milestone Pay-out- 50% of equipment cost on supply of equipment for respective wave on actuals Payment for Wave 1 cannot exceed 50% of PORT-SHARE and 90% for Wave 2	<b><u>Wave 1: T + 8 months</u></b> <b><u>Wave 2: T + 14 Months</u></b> <b><u>Wave 3: T + 17 Months</u></b>
		40% (3 pay-outs during Phase I (Implementation))	Milestone Pay-out- 40% of equipment cost on installation of equipment for respective wave on actuals Payment for Wave 1 cannot exceed 50% of PORT-SHARE and 90% for Wave 2	<b><u>Wave 1: T + 8 months</u></b> <b><u>Wave 2: T + 14 Months</u></b> <b><u>Wave 3: T + 17 Months</u></b>
		Balance 10%	Milestone Pay-Out- <b>Balance 10% of INF.1 &amp; EUC at go-live of respective waves</b>	<b><u>Wave 1: T + 9 months</u></b> <b><u>Wave 2: T + 15 Months</u></b> <b><u>Wave 3: T + 18 Months</u></b>
INF.2 EUC	Annual Maintenance for equipment under INF.1 and EUC	5% (20 equal pay-outs during Phase III)	Quarterly Pay-Out- Phase III: Operations & Maintenance Phase at the end of Every Quarter Pay-out will not exceed 100% of total quoted cost	End of every Quarter during Phase III
CCI	Primary Data Centre	<b><u>4%</u></b> <b><u>(25 pay-outs on actuals)</u></b>	Quarterly Pay-Out- <b>From Go-live of Wave 1: At end of Every Quarter</b> Pay-out will not exceed 100% of total quoted cost	<b><u>Go-live of Wave 1 – T + 9 months</u></b>

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Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
CCI	Disaster Recovery Center	<b>4%</b> <b><u>(25 pay-out on actuals)</u></b>	Quarterly Pay-Out- <b>From Go-live of Wave 1: At end of Every Quarter</b> Pay-out will not exceed 100% of total quoted cost	<b><u>Go-live of Wave 1 – T + 9 months</u></b>
NWI.1	Procurement of Required Networking Infrastructure	40% (3 pay-outs during Phase I (Implementation))	Milestone Pay-out- 40% of equipment cost on supply of equipment for respective wave on actuals Payment for Wave 1 cannot exceed 50% of PORT-SHARE and 90% for Wave 2	<b><u>Wave 1: T + 8 months</u></b> <b><u>Wave 2: T + 14 Months</u></b> <b><u>Wave 3: T + 17 Months</u></b>
		40% (3 pay-outs during Phase I (Implementation))	Milestone Pay-out- 40% of equipment cost on installation of equipment for respective wave on actuals Payment for Wave 1 cannot exceed 50% of PORT-SHARE and 90% for Wave 2	<b><u>Wave 1: T + 8 months</u></b> <b><u>Wave 2: T + 14 Months</u></b> <b><u>Wave 3: T + 17 Months</u></b>
		Balance 20%	Milestone Pay-Out- Balance 20% of NWI.1 at completion of Phase II (Stabilization and baseline)	<b><u>T+ 20 Months</u></b>
NWI.2	Annual Maintenance for equipment under NWI.1	5% (20 equal pay-outs during Phase III)	Quarterly Pay-Out- Phase III: Operations & Maintenance Phase at the end of Every Quarter Pay-out will not exceed 100% of total quoted cost	End of every Quarter during Phase III

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Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
NWI.3	Set-up of Network Infrastructure and Readiness for network availability	18% (3 equal pay-outs during Phase I)	Milestone Pay-Out- Go-Live of Phase I of each wave at each port Pay-out will not exceed 54% of the component cost	<b><u>Wave 1: T + 9 months</u></b> <b><u>Wave 2: T + 15 Months</u></b> <b><u>Wave 3: T + 18 Months</u></b>
		<b><u>26%</u></b> (1 pay-out during Phase II)	Milestone Pay-Out- Go-Live of Phase II of all Ports Together <b><u>Pay-out will not exceed 26% of the component cost</u></b>	<b><u>T + 20 months</u></b>
		<b><u>20%</u></b> <b><u>(At end of first quarter after base lining and stabilization)</u></b>	<b><u>One time Pay-Out-</u></b> <b><u>At the end of 1<sup>st</sup> Quarter after base lining and stabilization</u></b> <b><u>Pay-out will not exceed 15% of component cost</u></b>	<b><u>End of 1st Quarter after base lining and stabilization</u></b>
BWR.1 BWR.2	Bandwidth Services	<b><u>4%</u></b> <b><u>Payment will be done to ISP by IPA on actuals</u></b> <b><u>(25 pay-outs)</u></b>	Quarterly Pay-Out- <b><u>From Go-Live of Wave 1 at each Port</u></b> <b><u>Pay-out will not exceed 100% of component cost</u></b>	<b><u>End of Wave 1: T + 9 Months</u></b>
CAC	Call Centre (Seat Basis)	5% (20 equal pay-outs during Phase III)	Quarterly Pay-Out- Phase III: Operations & Maintenance Phase at the end of Every Quarter	End of every Quarter during Phase III

## ANNEXURE B

Corrigendum to Request for Proposal (RFP) for  
 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
			Pay-out will not exceed 100% of total quoted cost	
DNS	Data Scanning	As per actuals	Quarterly Pay-Out- Phase III: Operations & Maintenance Phase at the end of Every Quarter	End of every Quarter during Phase III
CIH PSR NWI	Operations Centre (Implementation Cost)	80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of set-up for Port on-site premise at each port	<b><u>T+9 Months</u></b>
PSC PIH PCC		80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of Set-up of Training Room for each port	<b><u>T + 7 months</u></b>
TRI DIC		80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of Set-up of Port Service Centre for each port	<b><u>T+9 Months</u></b>
		80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of Set-up of Command Control Centre at each port	<b><u>T+9 Months</u></b>
		80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of Set-up of helpdesk and remaining locations not covered above at each port	<b><u>T+9 Months</u></b>

## ANNEXURE B

Corrigendum to Request for Proposal (RFP) for  
 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
		80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of set-up of helpdesk for central location at IPA, Delhi	<b><u>T+9 Months</u></b>
		80% on acceptance Balance 20% on Go-live end of Phase II	Milestone Pay-Out Acceptance of Dispatch Centres at each port	<b><u>T+9 Months</u></b>
CIH PSR NWI PSC PIH PCC TRI DIC	Operations Centre (O&M Cost)	5% (20 equal pay-outs during Phase III)	Quarterly Pay-Out- Phase III: Operations & Maintenance Phase at the end of Every Quarter Pay-out will not exceed 100% of total quoted cost	End of every Quarter during Phase III
MAS.1	Man-Power Deployment for Project Implementation as per tender	80% (3 equal pay-outs during Phase I (Implementation))	Milestone Pay-Out- Go-Live of Phase I Pay-out will not exceed 80% of the component cost	<b><u>Wave 1- T + 9 months</u></b> <b><u>Wave 2- T+15 Months</u></b> <b><u>Wave 3- T+18 Months</u></b>
		Balance 20%	Milestone Pay-Out- Balance payment of MPD.1 upon Go-Live of Phase II	<b><u>T+ 20 Months</u></b>

ANNEXURE B

Corrigendum to Request for Proposal (RFP) for  
 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Code	Component	Max pay-out percentage of PORT-SHARE of the component	Payment applicability condition	Payment applicability not before
			Pay-out will not exceed 20% of the component cost	
MAS.2	Man-Power Deployment for Project during O&M phase	5% (20 pay-outs during Phase III)	Quarterly Phase III: Operations & Maintenance Phase at the end of Every Quarter Pay-out will not exceed 100% of the component cost	End of every Quarter during Phase III
MOP	Man-Power Deployment for Ports (people sought from the bidder for business operations of the project)	At Actuals	Quarterly Phase III: Operations & Maintenance Phase at the end of Every Quarter Pay-out will not exceed 100% of the component cost	End of every Quarter during Phase III

**Note:**

- The bidder(s) has to ensure that their financial proposal is structured in such a way that the costs during Implementation Phase quoted in the project do not exceed more than 50% of total costs of the project. In case the bidder quotes higher figures towards capital costs the same shall be restricted to 50% while making payments towards Implementation Cost. Any value quoted towards Implementation Costs over and above 50% limit will be paid in equal quarterly instalments for next five years along with quarterly payment for each quarter during the Operations and Maintenance Phase.
- Payment for bandwidth would be directly made by IPA or its nominated agencies / partners to the connectivity service provider as per the tripartite agreement to be signed by the parties involved after award of contract to the successful bidder. If the payment exceeds the quoted amount, the same will be recovered from quarterly payment towards other components being made to the MSP.

ANNEXURE B

Corrigendum to Request for Proposal (RFP) for  
 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

<b>Indicative payment schedule for each port subject to fulfilment of conditions as specified in the RFP</b>																					
<b>Code</b>	<b>Phase I - Implementation</b>																		<b>Phase II</b>		<b>Phase III - Operations &amp; Maintenance</b>
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	Equal Quarterly Pay-out at end of quarter
APP.1							45%							36%			9%			10%	NIL
APP.2																					5%*20 quarters
APP.3			10%				6%	9%						6%	9%		6%	9%		25%	20% at end of 1st quarter
INF.1 & EUC							45%	5%						36%	3.60%		9%	0.90%			NIL
INF.2 & EUC (AMC)																					5%*20 quarters
CCI								4%			4%				4%			4%	4%		4%*20 quarters
CCI								4%			4%				4%			4%	4%		4%*20 quarters
NWI.1 (as per 10.2.7)							40%							32%			8%			20%	
NWI.2 (as per 10.2.8)																					5%*20 quarters
NWI .3 (as per 10.2.7)								18%							18%			18%		26%	20% at end of 1st quarter
BWR.1								4%			4%				4%			4%	4%		4%*20 quarters
BWR.2								4%			4%				4%			4%	4%		4%*20 quarters
CAC																					5%*20 quarters
DNS																					At actuals
Operation Centres																					
CIH								80%												20%	NIL
PSR								80%												20%	NIL
PSC								80%												20%	NIL
PIH								80%												20%	NIL
PCC								80%												20%	NIL
TRI							80%													20%	NIL
DIC								80%												20%	NIL
AMC for operation centres																					

ANNEXURE B

Corrigendum to Request for Proposal (RFP) for  
 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

<b>Indicative payment schedule for each port subject to fulfilment of conditions as specified in the RFP</b>																					
	<b>Phase I - Implementation</b>																		<b>Phase II</b>		<b>Phase III - Operations &amp; Maintenance</b>
<b>Code</b>	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	Equal Quarterly Pay-out at end of quarter
CIH																					5%*20 quarters
PSR																					5%*20 quarters
PSC																					5%*20 quarters
PIH																					5%*20 quarters
PCC																					5%*20 quarters
TRI																					5%*20 quarters
DIC																					5%*20 quarters
MAS.1								40%						32%				8%		20%	NIL
MAS.2																					5%*20 quarters
MOP																					At actuals

ANNEXURE C

Clarification to Request for Proposal (RFP) for  
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**8.16 Clarifications on Volumetric Details:**

At present total number of registered users on Port Community Systems across the FIVE participating ports is 1844, however, this user count may increase due to adoption of the system by multiple users.

**Department-wise existing employee count**

Please note that HR and certain administrative functions are being carried out department level within ports. Staff count includes these figures.

**8.16.1 Kandla Port**

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
1. Civil Engineering Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	149	134	120	108	97
	Class IV	225	202	182	164	147
	Indoor Staff					
	Class I	20	18	16	14	12
	Class II	9	8	7	6	5
	Class III	65	58	52	47	42
	Class IV	8	7	6	5	4
2. Mechanical Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	23	20	18	16	14
	Class III	177	159	143	128	115
	Class IV	155	139	125	112	101
	Indoor Staff					
	Class I	11	10	9	8	7
	Class II	0	0	0	0	0
	Class III	44	40	36	32	28
	Class IV	1	0	0	0	0
3. Marine Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	162	146	131	118	106
	Class IV	219	197	177	159	143
	Indoor Staff					
	Class I	10	9	8	7	6
	Class II	3	2	1	0	0
	Class III	23	21	19	17	15
	Class IV	4	3	2	1	0

## ANNEXURE C

Clarification to Request for Proposal (RFP) for  
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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
4 General Administration Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	52	47	42	38	34
	Class IV	15	13	12	11	10
	Indoor Staff					
	Class I	13	12	11	10	9
	Class II	8	7	6	5	4
	Class III	41	37	33	30	27
	Class IV	9	8	7	6	5
5. Finance Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	7	6	5	4	3
	Class IV	3	2	0	0	0
	Indoor Staff					
	Class I	11	10	9	8	7
	Class II	6	5	4	3	2
	Class III	69	62	56	50	45
	Class IV	5	4	3	2	0
6. Medical Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	23	21	19	17	15
	Class IV	30	27	24	22	20
	Indoor Staff					
	Class I	11	10	9	8	7
	Class II	1	0	0	0	0
	Class III	10	9	8	7	6
	Class IV	2	1	0	0	0
7. Off Shore Terminal,Vadinar	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	9	8	7	6	5
	Class III	76	68	61	55	50
	Class IV	79	71	64	58	52
	Indoor Staff					
	Class I	8	7	6	5	4
	Class II	0	0	0	0	0
	Class III	22	20	18	16	14
	Class IV	0	0	0	0	0
8. Traffic Department	Outdoor Staff					

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 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class I	0	0	0	0	0
	Class II	3	2	1	0	0
	Class III	148	128	115	103	93
	Class IV	780	11	10	9	8
	Indoor Staff					
	Class I	8	6	5	4	3
	Class II	0	0	0	0	0
	Class III	25	14	13	12	11
	Class IV	6	4	3	0	0
9. Vigilance Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff					
	Class I	1	0	0	0	0
	Class II	2	0	0	0	0
	Class III	4	0	0	0	0
	Class IV	1	0	0	0	0

## 8.16.2 Chennai Port

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
1. Finance	Class I	15	10	10	7	7
	Class II	19	13	8	7	6
	Class III	149	145	139	135	130
	Class IV	41	40	40	39	39
2.General Administration	Class I	10	10	10	7	5
	Class II	12	9	8	8	7
	Class III	71	70	67	65	64
	Class IV	20	20	20	20	20
3.Medical	Class I	25	25	24	23	21
	Class II	5	5	2	2	2
	Class III	147	141	137	130	128
	Class IV	69	67	67	65	65
4.Traffic	Class I	18	17	13	13	12
	Class II	12	11	8	7	5
	Class III	618	592	571	544	519
	Class IV	635	588	561	546	520
5.Marine	Class I	19	17	16	15	14

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 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class II	7	4	1	1	1
	Class III	237	225	207	194	185
	Class IV	184	181	178	174	173
6.Engg	Class I	32	27	21	17	16
	Class II	25	25	25	25	23
	Class III	282	272	269	260	258
	Class IV	566	555	552	547	538
7.Cme	Class I	27	23	21	16	15
	Class II	44	40	35	25	20
	Class III	1185	1112	1060	999	933
	Class IV	102	100	99	98	95
8.Vigilance	Class I	2	2	2	2	2
	Class II	4	3	3	2	2
	Class III	12	12	12	12	12
	Class IV	3	3	3	3	3

## 8.16.3 Haldia Port

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
1.Administration Division	Outdoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff - Regular					
	Class I	23	23	22	21	20
	Class II	8	8	4	4	3
	Class III	40	33	29	25	23
	Class IV	22	19	18	15	14
	Outdoor Staff - Contract					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV					
	Indoor Staff - Contract					
	Class I	5	5	5	5	5
	Class II	0	0	0	0	0
	Class III	25	25	25	25	25
	Class IV	0	0	0	0	0
2.Finance	Outdoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0

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 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class IV	0	0	0	0	0
	Indoor Staff - Regular					
	Class I	12	12	12	12	10
	Class II	8	7	3	3	3
	Class III	32	30	28	25	22
	Class IV	4	4	4	3	2
	Outdoor Staff - Contract					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff - Contract					
	Class I	3	3	3	3	3
	Class II	1	1	1	1	1
	Class III	4	4	4	4	4
	Class IV	0	0	0	0	0
3.I&CF	Outdoor Staff - Regular					
	Class I	28	28	25	25	24
	Class II	10	10	9	9	6
	Class III	146	135	120	100	91
	Class IV	64	62	54	44	41
	Indoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Outdoor Staff - Contract					
	Class I	3	3	3	3	3
	Class II	0	0	0	0	0
	Class III	4	4	4	4	4
	Class IV	4	4	4	4	4
	Indoor Staff - Contract					
Class I	0	0	0	0	0	
Class II	0	0	0	0	0	
Class III	0	0	0	0	0	
Class IV	0	0	0	0	0	
4.Marine Operations	Outdoor Staff - Regular					
	Class I	28	27	22	21	20
	Class II	6	5	4	3	3
	Class III	166	150	133	121	112
	Class IV	100	93	85	76	68
	Indoor Staff - Regular					

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Outdoor Staff - Contract					
	Class I	9	9	9	9	9
	Class II	3	3	3	3	3
	Class III	10	10	10	10	10
	Class IV	0	0	0	0	0
	Indoor Staff - Contract					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	5. Medical	Outdoor Staff - Regular				
Class I		0	0	0	0	0
Class II		0	0	0	0	0
Class III		0	0	0	0	0
Class IV		0	0	0	0	0
Indoor Staff – Regular						
Class I		13	11	11	11	11
Class II		0	0	0	0	0
Class III		25	25	25	25	25
Class IV		23	22	19	17	16
Outdoor Staff - Contract						
Class I		0	0	0	0	0
Class II		0	0	0	0	0
Class III		0	0	0	0	0
Class IV		0	0	0	0	0
Indoor Staff - Contract						
Class I		5	5	5	5	5
Class II		0	0	0	0	0
Class III	21	21	21	21	21	
Class IV	0	0	0	0	0	
6. Materials Management	Outdoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff - Regular					
	Class I	8	7	7	6	6
	Class II	2	2	2	2	1

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class III	12	9	9	9	8
	Class IV	3	2	2	2	2
	Outdoor Staff - Contract					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff - Contract					
	Class I	2	2	2	2	2
	Class II	1	1	1	1	1
	Class III	2	2	2	2	2
	Class IV	0	0	0	0	0
	7.Plant & Equipment	Outdoor Staff - Regular				
Class I		41	32	27	24	24
Class II		23	19	18	17	15
Class III		345	305	260	225	198
Class IV		204	170	144	123	110
Indoor Staff - Regular						
Class I		0	0	0	0	0
Class II		0	0	0	0	0
Class III		0	0	0	0	0
Class IV		0	0	0	0	0
Outdoor Staff - Contract						
Class I		9	9	9	9	9
Class II		2	2	2	2	2
Class III		31	31	31	31	31
Class IV		1	1	1	1	1
Indoor Staff - Contract						
Class I		0	0	0	0	0
Class II		0	0	0	0	0
Class III	0	0	0	0	0	
Class IV	0	0	0	0	0	
8. Personnel & Industrial Relations	Outdoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff - Regular					
	Class I	15	14	13	11	10
	Class II	3	3	2	2	2
	Class III	41	37	32	27	21
	Class IV	38	35	30	24	19

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Outdoor Staff - Contract					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff - Contract					
	Class I	4	4	4	4	4
	Class II	1	1	1	1	1
	Class III	4	4	4	4	4
	Class IV	1	1	1	1	1
9.Traffic Operations (Shipping & Cargo Handling)	Outdoor Staff - Regular					
	Class I	15	15	15	14	14
	Class II	7	6	6	4	3
	Class III	166	142	114	89	73
	Class IV	198	152	100	59	18
	Indoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Outdoor Staff - Contract					
	Class I	2	2	2	2	2
	Class II	1	1	1	1	1
	Class III	2	2	2	2	2
	Class IV	0	0	0	0	0
	Indoor Staff - Contract					
	Class I	0	0	0	0	0
Class II	0	0	0	0	0	
Class III	0	0	0	0	0	
Class IV	0	0	0	0	0	
10.Traffic Operations (Railways)	Outdoor Staff - Regular					
	Class I	8	8	8	8	8
	Class II	14	12	10	3	2
	Class III	63	58	52	47	40
	Class IV	50	45	31	29	25
	Indoor Staff - Regular					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Outdoor Staff - Contract					
Class I	3	3	3	3	3	

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class II	0	0	0	0	0
	Class III	4	4	4	4	4
	Class IV	0	0	0	0	0
	Indoor Staff - Contract					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0

## 8.16.4 Kolkata Port

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
1.GAD Main	Class I	15	14	14	12	11
	Class II	6	6	6	6	6
	Class III	75	70	64	61	58
	Class IV	64	53	51	44	38
2.Mechanical & Electrical Engg.	Class I	34	25	23	21	21
	Class II	46	39	38	36	34
	Class III	633	566	473	406	337
	Class IV	67	55	47	39	35
3.Medical	Class I	43	38	37	33	30
	Class II	1	1	0	0	0
	Class III	85	79	73	67	56
	Class IV	52	47	36	29	26
4.Vigilance	Class I	4	4	4	4	3
	Class II	1	1	1	1	1
	Class III	6	6	5	5	5
	Class IV	5	4	3	3	3
5.Civil Engineering	Class I	33	30	28	28	25
	Class II	2	1	1	1	1
	Class III	135	125	116	106	102
	Class IV	86	72	51	40	29
6.Material Management	Class I	5	5	4	3	2
	Class II	1	1	1	1	1
	Class III	20	16	16	12	11
	Class IV	15	14	13	9	8
7.Planning & Research	Class I	12	12	10	9	8
	Class II	4	4	4	3	3
	Class III	23	23	23	20	20
	Class IV	0	0	0	0	0

## ANNEXURE C

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
8.Finance	Class I	23	23	21	19	17
	Class II	7	6	6	4	4
	Class III	111	106	97	86	80
	Class IV	16	14	12	10	7
9.Hydrolic Study	Class I	18	16	15	15	15
	Class II	5	5	4	3	2
	Class III	34	33	29	26	25
	Class IV	15	14	13	11	9
10.L&Ir	Class I	10	8	6	4	3
	Class II	2	2	2	2	2
	Class III	26	24	23	21	21
	Class IV	27	25	22	19	18
11.Estate	Class I	6	6	6	6	6
	Class II	11	10	9	9	9
	Class III	36	34	33	32	30
	Class IV	10	10	9	9	8
12.Legal	Class I	7	6	5	5	5
	Class II	1	1	1	1	1
	Class III	12	11	9	8	8
	Class IV	3	3	3	3	2
13.Marine	Class I	175	166	158	150	140
	Class II	19	16	12	8	6
	Class III	302	285	274	260	232
	Class IV	254	240	228	207	191
14.Traffic	Class I	36	32	30	24	24
	Class II	5	5	4	4	3
	Class III	412	371	333	303	265
	Class IV	274	261	237	215	187

## 8.16.5 Paradip Port

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
1.Traffic	Class I	5	4	4	4	4
	Class II	3	3	2	2	2
	Class III	85	64	50	38	25
	Class IV	356	229	106	62	37
	Contractual	93	0	0	0	0
2.Marine	Class I	16	16	16	15	14

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class II	10	8	8	8	8
	Class III	93	89	80	78	66
	Class IV	49	44	37	35	29
	Contractual	12	12	12	12	12
3.Finance	Class I	8	7	7	6	5
	Class II	5	5	5	4	4
	Class III	14	12	12	11	10
	Class IV	2	1	1	1	1
	Contractual	19	0	0	0	0
4.Administration	Class I	6	6	6	5	5
	Class II	7	6	6	6	5
	Class III	57	52	48	43	38
	Class IV	23	20	15	13	10
	Contractual	32	0	0	0	0
5.Electrical & Mechanical Engineering	Class I	36	36	35	35	35
	Class II	21	20	20	20	20
	Class III	164	144	117	96	83
	Class IV	68	54	41	31	22
	Contractual	75	0	0	0	0
6.Civil Engineering	Class I	19	19	18	17	17
	Class II	9	9	9	9	9
	Class III	27	24	19	16	15
	Class IV	79	58	40	26	16
	Contractual	74	0	0	0	0
7.Medical	Class I	14	14	14	13	13
	Class I Cont.	4	4	4	4	4
	Class II	1	1	1	1	1
	Class II Cont.	2	2	2	2	2
	Class III	16	14	12	12	10
	Class III Cont.	26	26	26	26	26
	Class IV	23	21	18	15	12
	Class IV Cont.	15	15	15	15	15
8.Vigilance	Class I	2	2	2	2	2
	Class II	1	1	1	1	1
	Class III	2	2	0	0	0
	Class IV	2	2	2	1	1
	Contractual	0	0	0	0	0

## 8.16.6 Mumbai Port

## ANNEXURE C

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
1.General administration department - hr	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff					
	Class I - GAD (Secretary's, HR Divn, IR Divn, Stenographers)	12	12	11	10	8
	Class II - Stenographers (PA to HOD)	8	8	7	0	6
	Class III - GAD (Secretary's, HR Divn, IR Divn, Stenographers, Sr.Office Attendant, Drivers)	80	80	78	77	74
	Class IV - GAD (Secretary's, HR Divn, IR Divn - Sr.Office Attendant, Drivers)	14	14	13	12	11
2.General administration department - welfare division	Outdoor Staff					
	Class I	4	4	4	4	4
	Class II	0	0	0	0	0
	Class III	51	50	48	38	34
	Class IV	275	266	253	234	222
	Indoor Staff					
	Class I	6	6	6	5	3
	Class II	0	0	0	0	0
	Class III	28	28	26	23	20
	Class IV	22	22	22	19	17
3.Materials Management Division	Outdoor Staff					
	Class I	1	1	1	1	1
	Class II	0	0	0	0	0
	Class III	24	24	24	23	23
	Class IV	34	32	30	28	23
	Indoor Staff					
	Class I	10	10	10	10	10
	Class II	0	0	0	0	0
	Class III	51	50	49	44	43
	Class IV	33	32	28	25	23
4.Security Division	Outdoor Staff					
	Class I	4	4	4	4	4
	Class II	6	6	6	6	6
	Class III	9	9	8	6	4
	Class IV	228	200	174	147	113
	Indoor Staff					
	Class I	1	1	1	1	1

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 "Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class II	0	0	0	0	0
	Class III	4	4	4	3	0
	Class IV	0	0	0	0	0
5.Civil Engineering Department 6. CE (Ex.BDLB)	Outdoor Staff					
	Class I	1	0	0	0	0
	Class II	0	0	0	0	0
	Class III	171	150	133	116	102
	Class IV	332	309	279	246	219
	Indoor Staff					
	Class I	47	45	43	39	36
	Class II	0	0	0	0	0
	Class III	101	99	95	88	83
	Class IV	48	43	39	36	30
	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	4	3	3	3	3
	Class IV	16	16	16	15	15
	Indoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	6	6	6	6	4
	Class IV	0	0	0	0	0
7.Traffic Department - Railway Division	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	60	43	26	17	13
	Class IV	34	27	20	7	4
	Indoor Staff					
	Class I	2	2	2	2	2
	Class II	0	0	0	0	0
	Class III	10	9	9	9	8
	Class IV	5	4	3	2	2
8. Vigilance Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff					
	Class I	7	7	7	7	7
	Class II	1	1	1	1	1
	Class III	7	7		7	7

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class IV	0	0	0	0	0
9.Traffic Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	1437	1333	1142	934	773
	Class IV	3925	3424	2814	2205	1666
	Indoor Staff					
	Class I	39	37	35	33	30
	Class II	0	0	0	0	0
	Class III	141	136	133	127	126
	Class IV	28	28	27	24	22
10.Medical	Outdoor Staff					
	Class I	40	37	35	34	34
	Class II	0	0	0	0	0
	Class III	224	222	219	215	211
	Class IV	214	194	182	166	140
	Indoor Staff					
	#Class I	4	4	4	4	3
	*Class II	1	1	1	1	1
	Class III	34	31	31	30	29
	Class IV	23	23	23	22	22
11.Mechanical & Electrical Engineering Department	Outdoor Staff					
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	702	631	560	477	404
	Class IV	346	317	277	236	198
	Indoor Staff					
	Class I	40	38	34	34	31
	Class II	0	0	0	0	0
	Class III	117	113	108	102	97
	Class IV	0	0	0	0	0
12.Marine	Outdoor Staff					
	Class I	68	68	68	68	68
	Class II	0	0	0	0	0
	Class III	404	376	339	300	271
	Class IV	537	496	437	370	341
	Indoor Staff					
	Class I	3	3	3	3	3
	Class II	0	0	0	0	0
	Class III	72	71	67	63	59
	Class IV	19	19	19	18	16
13.Finance	Outdoor Staff					

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Department / Function Name	Number of Employee	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21
	Class I	0	0	0	0	0
	Class II	0	0	0	0	0
	Class III	0	0	0	0	0
	Class IV	0	0	0	0	0
	Indoor Staff					
	Class I	17	16	16	14	13
	Class II	1	1	0	0	0
	Class III	227	223	217	198	183
	Class IV	35	32	26	21	20
14.Legal	Class I	2	2	2	2	2
	Class III	9	7	7	7	7
	Class IV	5	5	5	2	1
15.Estate	Class I	15	14	14	14	14
	Class II	1	1	1	1	1
	Class III	91	89	88	84	76
	Class IV	28	27	27	26	22

## 7 Indicative Bill of Materials

The figures provided within the Bill of material are indicative for estimation purpose only. MSP has to perform an independent assessment of the Infrastructure requirements for the proposed system and provide a detailed BOM for the proposed infrastructure in line with the requirements of the project and performance on service level agreements. IPA / IPA designated authority shall review and approve the BOM of the successful bidder at the time of implementation/deployment/commissioning. The MSP should take note of the reusability of existing infrastructure at the port in their response. . MSP may reduce the quantity of any component in lieu of existing infrastructure available within the port at their own risk. Subject to the specifications laid down in Volume II of the RFP, it is clarified that the BOM approved by IPA shall in no case be a lower version than the one proposed by the bidder in its technical proposal submitted to IPA and the same shall be scaled up / upgraded by the MSP as per the requirement for performance on the service levels at no additional cost to the IPA. Infrastructure hardware, software and services will be billed on actuals, subject to the ceiling as per commercial bid submitted by MSP. The ceiling will not apply for DNS and MOP components.

In order to assist MSP in sizing, an indicative figures have been provided in Annexure – Existing System details. The numbers specified may vary during the course of the project. Hence, MSP shall make its own independent assessment to meet the desired service levels as stated in the RFP.

### 7.1 Summary of BOM

Code	Component	Type of component	Distribution principle
	<b>Central Infrastructure ( Refer to 7.1.1)</b>		
APP.1	Application 1 – Supply	Shared	PORT SHARE
APP.2	Application 1 - Supply – ATS	Shared	PORT SHARE
APP.3	Application 2 - Bespoke + Configuration + Migration	Shared	PORT SHARE
MAS	Application Support – Manpower	Shared	PORT SHARE
TCB	Training & Capacity Building	Shared	PORT SHARE
CIH	Central IT Helpdesk	Shared	PORT SHARE
CCI	Central Compute Infrastructure	Shared	PORT SHARE
BWR.1	Bandwidth requirements - @Centre	Shared	PORT SHARE
CAC	Call Centre	Shared	PORT SHARE
	<b>Port-specific Infrastructure (Refer to 7.1.2)</b>		
PSR	Port Server Room	Port-specific	Not opted by ports
NWI	Networking Infrastructure	Port-specific	As opted by port
BWR.2	Bandwidth requirements - @Port	Port-specific	As opted by port
PSC	Port Service Centre	Port-specific	As opted by port
PIH	Port-specific IT helpdesk	Port-specific	As opted by port
PCC	Port Command Centre	Port-specific	As opted by port
TRI	Training Room Infrastructure	Port-specific	As opted by port
EUC	End User Computing	Port-specific	As opted by port
DIC	Dispatch centres	Port-specific	As opted by port
DNS	Digitization & Scanning	Port-specific	As opted by port

## ANNEXURE D

## Corrigendum to Request for Proposal (RFP) for

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MOP	Manpower - Operations	Port-specific	As opted by port
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**7.1.1 Central Infrastructure**

<b>APP</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Minimum Quantity</b>
1	Port operations	<b>6 ports</b>
2	ERP user licenses	880
3	Payroll	As required for employees and pensioners
4	ESS	As required for employees
5	BI-DW + ETL	1
6	DMS	1
7	Mail solution	1
8	SMS solution	1
9	Workflow (with DMS)	1
10	Helpdesk solution	1
11	GIS	1
12	Content Management System	1
13	Hospital	1
14	Enterprise management solution	1
15	Mobility Manager	1
16	API Solution	1
17	LDAP Application	1
18	Portal Application	1
19	HTTP Server	1
20	Application server software	1
21	Database solution	1
22	Learning Management System	1
23	Project Management Info System	1
24	Version Control Software	1
25	Replication Software	1
26	Legal	1
27	Pension	1
28	Provident Fund	1
29	Investments	1
30	E-forms	1
31	Grievance management	1

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<b>APP</b>		
<b>Sr. No.</b>	<b>Description</b>	<b>Minimum Quantity</b>
32	Incident management	1
33	Utilities & Maintenance (UTLM)	1
34	Please add others as required	

## Note:

Systems for Hospital and Estate will not be required for Mumbai Port. System for Canteen management will not be required for any of the ports. These will however have to be considered for integration with ERP and retained applications.

Port entry systems are available in all participating ports at administrative building. Bidder is expected to carryout assessment of the existing system at ports.

<b>MAS. Application Support – Manpower</b>		
<b>Sr. No.</b>	<b>Item</b>	<b>Minimum Count</b>
1	Project Director	1
2	Project Manager	1
3	Port Lead	6
4	Functional Lead- HR	2
5	Functional Lead- Finance	2
6	Functional Lead- Material Management	2
7	Functional Lead- Asset Management	2
8	Functional Lead- Plant maintenance	2
9	Solution Architect	1
10	Network Architect	1
11	Data Center Specialist	1
<b>12</b>	<b><u>Database Administrator</u></b>	<b><u>2</u></b>
<b>13</b>	<b><u>Trainers &amp; Change Management specialist</u></b>	<b><u>12</u></b>
<b>14</b>	<b><u>Technical support at ports (consolidated figure)</u></b>	<b><u>12</u></b>
<b>15</b>	<b><u>IT helpdesk at centre</u></b>	<b><u>5</u></b>
<b>16</b>	<b><u>IT helpdesk at ports (consolidated figure – 3 per port)</u></b>	<b><u>18</u></b>
<b>17</b>	<b><u>ERP support</u></b>	<b><u>4</u></b>
<b>18</b>	<b><u>BI and reporting support personnel</u></b>	<b><u>3</u></b>

## ANNEXURE D

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"Selection of Managed Service Provider for Implementation of Enterprise Business System in Five Major Indian Ports"

<b>TCB: Training counts across all ports</b>				
Sr. No.	Item	Indicative no of trainings in Phase I & Phase II	Indicative no of trainings per year in Phase III (A)	Indicative no of trainings in Phase III (A*5)
1	Executive leadership workshop	6	6	30
2	Functional heads	12	12	60
3	Functional users	60	60	300
4	Administrators	12	12	60
5	ERP And POS users	24	24	120
6	Employees of support functions	12	12	60

**\*Payment will be actual trainings successfully carried out at ports**

<b>CIH: Central IT Helpdesk 1 Location at IPA office</b>		
Sr. No.	Item	Min. Indicative Quantity
1	Workstation Desktop	5
2	Multifunction Device	3
3	Phone	5
4	Site preparation costs	As applicable
5	LCD TV 50"	2
6	UPS – 5.0 KVA	1
7	Access Switch: Industrial Grade Managed Switch Base-T + SFP Module, support hybrid queuing with SP+WRR / IPv4 and IPv6 DSCP, IEEE 802.1x	As required
8	Air conditioner	1

<b>CCI: Central Compute Infrastructure</b>			
Sr. No.	Item	Min. Indicative Quantity for VMs at Primary Site	Min. Indicative Quantity of VMs at Disaster recovery Site
1	Web server - Internal traffic	12	Functional DR with at least 50% compute capacity and 100% storage as that of Primary site.
2	Web server - External traffic	12	
3	Server - API Services	12	
4	Application Server	12	
5	Database server	12	
6	Other Servers	As required	
7	LMS server	1	
8	Project Management (PMIS) Server	1	
9	Storage (min per server)	50 GB	

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Corrigendum to Request for Proposal (RFP) for

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<b>CCI. Central Compute Infrastructure</b>			
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity for VMs at Primary Site</b>	<b>Min. Indicative Quantity of VMs at Disaster recovery Site</b>
10	Security components	As applicable	
11	Network components	As applicable	
12	One time cost of creating data dump site for any of the other Major ports not part of this tender*	Cost for ONE port has to be provided	

\* - This shall include cost of all services only related to creation of a data dump site for any of the other Major Ports which are not part of this tender.

<b>BWR.1. Bandwidth requirements – at Centre</b>		
<b>Sr. No.</b>	<b>Minimum bandwidth per link</b>	<b>Min No. of Units</b>
1	DC Internet link (Primary) - 20 Mbps	1
	DC Internet link (Secondary) - 20 Mbps	1
2	DR Internet link (Primary) - 20 Mbps	1
	DR Internet link (Secondary) - 20 Mbps	1
3	DC MPLS link (Primary) - 20 Mbps	1
	DC MPLS link (Secondary) - 20 Mbps	1
4	DR MPLS link (Primary) - 20 Mbps	1
	DR MPLS link (Secondary) - 20 Mbps	1

<b>CAC. Call Centre</b>				
<b>Sr. No.</b>	<b>Item</b>	<b>Deployment</b>		
		<b>Quantity</b>	<b>Initial</b>	<b>Support</b>
1	Call centre agents	11	10%	100%

**7.1.2 Port-specific Infrastructure**

Port Server room has not been opted by the ports. Though server room is not required at all ports, bidder shall need to setup necessary site infrastructure to host and manage the network operations as required for those ports

For NWI component only the quantity may be reduced than what is provided in the table as per MSP assessment of port's networking requirements at their risk. Payment will be carried out at actuals not exceeding the value quoted by MSP in their response.

## ANNEXURE D

Corrigendum to Request for Proposal (RFP) for

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**NWI. Networking Infrastructure across all ports except Chennai\***

\* Network creation not under scope of MSP, relevant SLAs will be amended at the time of contract signing for Chennai port.

Sr. No.	Components	Indicative Quantity for Sizing
1	Core Router (MPLS HA)	10
2	Core Router (Internet HA)	10
3	Core Switch	10
4	Distribution Switch	28
5	Access Switch 48 port	28
6	Access Switch 24 port	66
7	Access Switch 8 port	240
8	WAN switch 24 port (HA)	10
11	Wireless Access Point - Indoor	194
12	Wireless Controller (HA)	10
13	Wireless Controller License for Access Point	194
14	SFP 1G	376
15	SFP 10G	162
16	SFP Base T	240
26	Rack - 6U	177
27	Rack - 12U	49
28	Rack - 42U	30
29	UPS (Online - 650 VA)	177
30	UPS (Online - 7.5 KVA)	30
31	UPS (Online - 1.5 KVA)	49
32	EMS	5
33	UTM appliance at Port	10

**NWI. Networking Infrastructure - Passive Components**

Sr. No.	Components	Indicative Quantity for Sizing	Unit
1	Fiber optic Outdoor armoured cable Single mode (SM) (in Mtr)		
	6 Core	25000	Mtr
	12 Core	50000	Mtr
	24 Core	50000	Mtr
	48 Core	5000	Mtr

## ANNEXURE D

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<b>NWI. Networking Infrastructure - Passive Components</b>			
<b>Sr. No.</b>	<b>Components</b>	<b>Indicative Quantity for Sizing</b>	<b>Unit</b>
2	LIU, 6/12/24/48 fiber	25	Nos
3	Fiber Joint Closure	400	Nos
4	UTP- CAT-6 cable (in Mtr.)	193920	Mtr
5	24 Port Patch Panel	326	Nos
6	48 Port Patch Panel	28	Nos
7	Information Outlets	4848	Nos
8	40 mm PLB HDPE Pipe with Silicon Coating for OFC Under Ground Laying	140000	Mtr
9	Misc (Patch cords, connectors & any other Civil/Electrical/Optical/Copper items etc)	5	Nos

<b>NWI. Networking Infrastructure - Service items</b>			
<b>Sr. No.</b>	<b>Components</b>	<b>Indicative Quantity for sizing</b>	<b>Unit</b>
1	Manual Digging of Soil 1.5 Mtrs Depth with refilling & HDPE pipe	42000	Mtr
2	Outdoor Horizontal directional drilling (HDD) or Trenchless Digging, pulling HDPE pipe.	98000	Mtr
3	Excavations under road crossing & rail track without effecting the traffic	2500	Mtr
4	In building laying of fiber through Duct/ Conduit	42000	Mtr
5	Outdoor Laying of fiber through Duct/Conduit	98000	Mtr
6	Installation and termination of Fiber termination/Interconnection LIU	256	Nos
7	Fiber optics cable needs to be marked with the help of route marker	750	Nos
8	Performance testing of laid Fiber Optic cable for continuity, length & dB loss with Documentation of the results & performance certification for 5 years	5	Nos
9	Creation of Manhole/ Pit for Fiber Joint Enclosure including RCC material with Top Covering	350	Nos
10	In-building laying of UTP CAT 6 cable with cable route survey & detailed cable route diagram, termination of cable with labels & marking as per approved labelling plan & documentation with Performance testing and certification	193920	Mtr

## ANNEXURE D

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<b>NWI. Networking Infrastructure - Service items</b>			
<b>Sr. No.</b>	<b>Components</b>	<b>Indicative Quantity for sizing</b>	<b>Unit</b>
11	Misc. (Civil, Electrical, Optical & Copper installation items and services)	5	Nos

<b>BWR.2. Bandwidth requirements – at Port (per port) required at all ports</b>		
<b>Sr. No.</b>	<b>Minimum bandwidth per link</b>	<b>Min. Indicative Quantity</b>
1	Port-site Internet link (Primary) - 10 Mbps	1
	Port-site Internet link (Secondary) - 10 Mbps	1
2	Port-site MPLS link (Primary) - 10 Mbps	1
	Port-site MPLS link (Secondary) - 10 Mbps	1
3	GPRS connectivity supplied to certain critical locations including - Sheds, Gates, signal station, yard, etc. in form	25
4	GPRS Connectivity for devices supplied (tablets, handheld, mobiles, other equipment)	25

<b>PSC. Port Service Centre required at all ports except Chennai:</b>		
<ul style="list-style-type: none"> <li>· <b>Mumbai</b></li> <li>· <b>Kandla</b></li> <li>· <b>Kolkata</b></li> <li>· <b>Haldia</b></li> <li>· <b>Paradip</b></li> </ul>		
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity</b>
1	Workstation Desktops	1
2	Desktops	6
3	Multifunction devices	6
4	Large Multifunction devices	2
5	Scanners	1
6	Bar code scanners	6
7	Cash Registers	3
8	Site preparation	As required
9	UPS with 2Hour Battery backup – 5.0 KVA	1
10	Diesel generator set including consumables and fuel	1
11	Air conditioner (2T, Split)	11
12	Dome camera for internal surveillance	12

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**PSC. Port Service Centre required at all ports except Chennai:**

- Mumbai
- Kandla
- Kolkata
- Haldia
- Paradip

Sr. No.	Item	Min. Indicative Quantity
13	Access Switch: Industrial Grade Managed Switch Base-T + SFP Module, support hybrid queuing with SP+WRR / IPv4 and IPv6 DSCP,IEEE 802.1x	1 as required
14	OS	as required
15	AV	as required
16	Consumables (Paper, Diesel, Toner, Cartridges)	1

**PIH. Port-specific IT helpdesk required at all ports except Chennai (1 per port)**

Sr. No.	Item	Min. Indicative Quantity
	<b>Port IT Helpdesk</b>	
1	Desktop	5
2	Small Multifunction Devices	2
3	Phone	5
4	Site preparation	As required
5	UPS – 3.5 KVA	1
6	Diesel generator set including consumables and fuel	1
7	Air conditioner	1
8	Access Switch: Industrial Grade Managed Switch Base-T + SFP Module, support hybrid queuing with SP+WRR / IPv4 and IPv6 DSCP,IEEE 802.1x	1
9	OS	as required
10	AV	as required

**PCC. Port Command Centre required at all ports except Chennai (1 per port)**

Sr. No.	Item	Min. Indicative Quantity
1	Desktop	3
2	LCD TV (50")	2
3	Multifunction Device	2
4	Landline Phones	3

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<b>PCC. Port Command Centre required at all ports except Chennai (1 per port)</b>		
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity</b>
5	Site preparation	As required
6	Biometric Access control system	1
7	UPS – 5.0 KVA	1
8	Fire alarm system	1
9	Rodent repellent system	1
10	Diesel generator set including consumables and fuel	1
11	Air conditioner	2
12	Access Switch: Industrial Grade Managed Switch Base-T + SFP Module, support hybrid queuing with SP+WRR / IPv4 and IPv6 DSCP,IEEE 802.1x	1 as required
13	OS	as required
14	AV	as required

<b>TRI. Training room across ports required at all ports (1 per port)</b>		
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity</b>
1	Projector	1
2	Projector Screen	1
3	White board	2
4	Thin clients (except Chennai Port)	10
5	Server	1
6	Audio system	1
7	Video Conferencing system	1
9	Desks and seating arrangement	20
10	Site Preparation	as required
11	Access Switch: Industrial Grade Managed Switch Base-T + SFP Module, support hybrid queuing with SP+WRR / IPv4 and IPv6 DSCP,IEEE 802.1x	1 as required
12	OS	As required
13	AV	As required

<b>EUC. End User Computing across ports (combined figure from all ports except Chennai Port)</b>		
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity</b>
1	Desktops	500

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<b>EUC. End User Computing across ports (combined figure from all ports except Chennai Port)</b>		
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity</b>
2	Laptops	50
3	Thin Clients (including required components and server)	145
4	Multifunction devices	25
5	Printers	100
6	Scanners	40
7	Bar code scanners	45
8	Cash Registers	23
9	Tablets (at least 8")	95
10	Mobile Phones (at least 5")	55
12	OS (1 + 2 + 3) If cost not included above	as required
13	AV (1 + 2 + 3) If cost not included above	as required

<b>Dispatch centres required at all ports (One dispatch centre per department of port except Chennai Port where it will have only ONE Dispatch Centre in Port rather that Department-wise Dispatch Centres)</b>		
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Indicative Quantity</b>
1	Desktops	2
2	Large Multifunction Device	1
3	Access Switch: Industrial Grade Managed Switch Base-T + SFP Module, support hybrid queuing with SP+WRR / IPv4 and IPv6 DSCP,IEEE 802.1x	1
4	Site preparation	As required
5	Operating System	as required
6	Antivirus	as required

<b>DNS. Digitization &amp; Scanning (A3/A4/Legal size)</b>		
<b>Sr. No.</b>	<b>Department Name</b>	<b>Minimum Indicative Document nos.</b>
1	Mumbai	0
2	Kolkata	25,00,000
3	Haldia	25,00,000
4	Kandla	75,00,000
5	Paradip	75,00,000
6	Chennai	25,00,000

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**\* Cost of other page size shall be mutually agreed with ports (not to be considered for above figures)**

<b>MOP. Manpower – Operations may be opted by ports##</b>				
<b>Sr. No.</b>	<b>Item</b>	<b>Min. Quantity</b>	<b>Deployment</b>	
			<b>Implementation</b>	<b>O&amp;M</b>
1	Data Entry - Senior	3	100%	100%
2	Data Entry - Junior	21	100%	100%
3	Front desk - Senior	3	50%	100%
4	Front desk - Junior	12	50%	100%

## Billing for MOP will be on actual basis based on manpower deployed at port

ANNEXURE E

Corrigendum to Request for Proposal (RFP) for  
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**10.2.8 Format for TCB**

S. No.	Description	Unit cost per training session including training material, training sessions, videos, consumables, trainers, etc. (excluding taxes, duties, levies)	VAT / CST	Service tax	Any other taxes, duties, levies	Unit cost per training session including training material, training sessions, videos, consumables, trainers, etc. (including taxes, duties, levies)	No of training sessions in Phase I & II	Total cost of training during Phase I & II	No of training sessions during Phase III	Total cost of training during Phase III	Total Price (including all taxes, duties, levies)
		A	B	C	D	E = A + B + C + D	F	G = E x F	H	I = E x H	J = G + I
1	Executive Leadership workshop										
2	Functional heads										
3	Functional users										
4	Administrators										
5	ERP And POS users										
6	Employees of support functions										
7	Any other training										
	Total										

ANNEXURE E

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Total Price (in Words) is \_\_\_\_\_

Authorised signatory on behalf of the bidder:

Full name:

Address:

Seal of the Firm: