Request for Qualifications

May 4, 2017
Quality information

Prepared by: Jessica R. Chevreaux
Program Manager
M: 210-381-6220
E: Jessica.Chevreaux@AECOM.com

Revision History

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Program Manager
M: 210-381-6220
E: Jessica.Chevreaux@AECOM.com

AECOM
8200 IH-10 West
Suite 820
San Antonio
TX, 78230
USA
aecom.com

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Background
AECOM requires a design team that will provide the site and facilities designs required to support a BASELAYER IT solution for several future sites. The multi-discipline design team will be providing stamped and sealed design documentation and specifications as well as any permits required for each local and state authorities. The design team will consist of all disciplines required to perform the design/engineering of the project described in the RFQ documents:

Basis of Design
The AECOM IT solution is the BASELAYER EDGE XLMCA3 (spec sheet provided), with a PowerBlock and access Vestibule. This provides space and cooling for up to 60 cabinets at a total of 500kW of 2N redundant, UPS-backed IT capacity. See Exhibit I.

Key Design Milestones
- Basis of Design Report
- Site Selection Validation
- Schematic Design Package Issued for Review at 50% and 100% completion
- Detailed Design Package Issued for Review 50% and 100% completion
- Early work packages issued/sealed for permit/construction:
  - Long Lead Equipment
  - Structural Modifications including Structural Steel
  - Erosion and Sediment Control Plans
  - Site Grading & Preparation
  - Underground Utilities and Equipment Pads
- Construction Document Package Issues for Review; including specifications and calculations at 50% and 100% completion
- Jurisdictional permit applications for Owner/CS Signature/Submission

Key Near-Term Construction Milestones
- Finalize BASELAYER Module size/capacity
- Owner approval and Notice to Proceed
- Release BASELAYER to begin production
- Finalize and release generator order
- Finalize and release switchgear order
- Finalize and release chiller order

Deliverables Format
AECOM proposes to complete the designs in REVIT or the appropriate BIM software depending on discipline.

Team Composition
To accomplish this task the team should include at minimum:
- Project Management
- Architectural
- Structural
- Civil
- Electrical
- Mechanical (HVAC, Plumbing, Fire Protection, Fire Alarm)
- Telecommunications
- Security
- Life Safety
Other consultants, as deemed necessary by the design team, may be included.
Proposal Evaluation Criteria
AECOM will evaluate all proposals based on the following criteria. To ensure consideration for this Request for Qualifications, your proposal should be complete and include all the following criteria:

- Overall proposal suitability: proposed solution(s) must meet the scope and needs included herein and be presented in a clear and organized manner.
- Organizational Experience: Respondents will be evaluated on their experience as it pertains to the scope of this project.
- Previous work: Respondents will be evaluated on examples of their work.
- Value and cost: Respondents will be evaluated on the cost of their solution(s) based on the work to be performed in accordance with the scope of this project.
- Technical expertise and experience: Respondents must provide descriptions and documentation of technical expertise and experience.
- Preference will be given to Respondents who have the ability to provide services in multiple states and jurisdictions

Submittal Documents
Respondent’s submittal shall include the following items in the following sequence noted below. Please see Proposal Evaluation Criteria, for more detail on what information to include:

- Executive Summary: Respondents shall include a one to two-page Executive Summary highlighting the team’s qualifications and understanding of the scope of work.
- Bid for Services: Please provide an outlined estimated bid for services for a single site. The first potential site will be located in West Texas; additional information will be provided to the selected Respondent.
- Statement of Qualifications: Provide information on a minimum of three (3) similar projects performed by firms on the team in the last five to ten (5-10) years that demonstrate their understanding and ability to deliver on the scope of services outlined in this RFQ.
- Team Organizational Chart: Show reporting relationships of firms with key staff and location of the offices that will perform the work.
- Resumes: Resumes for each key team member, limited to no more than 1 page, shall demonstrate experience with the type of work defined in this RFQ.

Respondent is expected to examine this RFQ carefully, understand the terms and conditions for providing the services listed herein and respond completely. Failure to complete and provide any of the above-referenced information may result in the respondent’s submittal being deemed non-responsive and disqualified from consideration.
Submission Instructions

Respondent shall submit one (1) copy of the entire submittal in an Adobe PDF format clearly labeled “RFQ: Baselayer. All submittals must be received, NO LATER THAN 3:00 PM ON Thursday, June 15, 2017. Any submittal received after this time shall not be considered. All submittal questions may be submitted via email to Jessica.Chevreaux@AECOM.com, no later than June 1st, 2017.

Submissions may be emailed or mailed to the following:

AECOM
Attn: Jessica R. Chevreaux
Program Manager
Jessica.Chevreaux@AECOM.com

AECOM
Attn: Jessica Chevreaux
8200 IH-10 West
Suite 820
San Antonio TX, 78230
EDGE LM
XLMC Series Data Module

The EDGE LM Data Modules can be deployed indoors or outdoors and have been designed to provide density and rack adaptable IT space for environments enabling low to medium kW usage models suitable for the Service Provider and Enterprise markets.

- Chilled Water Configuration Shown
BASELAYER EDGE LM Data Module

USAGE MODEL SCENARIO
Indoor/Outdoor, density adaptable Data Module for environments enabling low to medium kW usage models suited for the Service Provider and Enterprise markets.

Performance
- Requires no raised floor
- Up to 500kW of cooling capacity
- Preconfigured space for 35 (LM2 shown), 60, 85 or 110 x 52U cabinets
- Busway power distribution (2000A)
- Cooling Configuration Options:
  a) Chilled Water (Shown):
     - 12 Fans, 8 Coils
  b) Outside Air:
     - 10 Fans, Evaporative Media
- Designed for Indoor or Outdoor deployment
- Flexible Whitespace

Options
- Camera Options:
  - Prewire: Standard
  - BASELAYER Camera Installed
  - Customer Specified Camera Installed
- Access Control Options:
  - Prewire: Standard
  - BASELAYER Card Reader Installed
  - Customer Specified Access Control Installed
- Cooling Options:
  - Chilled Water
  - Outside Air with Evaporative Media

Chilled Water Configuration Shown
BASELAYER EDGE LM Data Module: Configured to Meet Rack and Density Requirements

EDGE LM3
- 60 x 52U cabinets
- 8.3kW/rack @ N

EDGE LM5
- 110 x 52U cabinets
- 4.5kW/rack @ N

EDGE LM4
- 85 x 52U cabinets
- 5.9kW/rack @ N

LM2
- 35 x 52U cabinets
- 14.3kW/rack @ N

Chilled Water Configuration Shown
BASELAYER EDGE XLMC Series Data Module

HIGHLIGHTS
Delivers up to 500kW of Critical IT Power and Cooling for rack configurations of 35 (XLMC2 Shown), 60, 85 or 110, 52U racks @ N.

Engineered to meet NEMA 4 compliance standards for deployment in all global environments.

Ships configuration tested from the factory with RunSmart Embedded providing access to key module sensors and controls via a web-based server.

Power and cooling redundancy thresholds are configurable through BASELAYER RunSmart™ OS.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Exterior Dimensions</th>
<th>Length</th>
<th>Height</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>US (Metric)</td>
<td>42’ 8” (13.00m)</td>
<td>13’ 3” (4.03m)</td>
<td>31’ 0” (9.52m)</td>
</tr>
<tr>
<td></td>
<td>XLMC2 41’ 6” (12.65m)</td>
<td>XLMC3 52’ 0” (15.85m)</td>
<td>XLMC4 62’ 6” (19.05m)</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>All</td>
<td>XLMC5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Whitespace Dimensions</th>
<th>Length</th>
<th>Height</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>US (Metric)</td>
<td>41’ 8” (12.70m)</td>
<td>9’ 4” (2.85m)</td>
<td>21’ 6” (6.55m)</td>
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<tr>
<td></td>
<td>XLMC2 32’ 0&quot; (9.75m)</td>
<td>XLMC3 42’ 6” (12.95m)</td>
<td>XLMC4 53’ 0” (16.15m)</td>
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<tr>
<td></td>
<td>All</td>
<td>All</td>
<td>XLMC5</td>
</tr>
</tbody>
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| # of Std. Cabinets    | (34) 24” (609.6mm), 52U | (58) 24” (609.6mm), 52U | (62) 24” (609.6mm), 52U |
|                       | XLMC2 52U | XLMC3 52U | XLMC4 52U |
|                       | (106) 24” (609.6mm), 52U | XLMC5 52U |

| Voltage/Frequency     | 480 V, 3 Phase, 4 Wire, 60Hz |
|                       | 400 V, 3 Phase, 3 Wire, 50Hz |

| Power Distribution (IT) | Up to 2000A per Busway |

| Cooling Mechanics      | Chilled Water |

| Heat Removal           | 12 Fans/8 Coils |

| Leak Detection         | Strip Leak Detection (4 total) |
BASELAYER EDGE XLMC Series Data Module

SYSTEM PERFORMANCE

<table>
<thead>
<tr>
<th>System PUE Range</th>
<th>As low as 1.15 (Dependent upon Environmental and Operational Conditions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Module Capacity</td>
<td>Maximum Available kW</td>
</tr>
<tr>
<td>@ N</td>
<td>500kW MAX CAPACITY @ 25° ∆T</td>
</tr>
<tr>
<td>@ N+1</td>
<td>500kW MAX CAPACITY @ 25° ∆T</td>
</tr>
<tr>
<td>@ 2N</td>
<td>250kW MAX CAPACITY @ 25° ∆T</td>
</tr>
</tbody>
</table>

Access Control (Options Available)
Control
- Compartmentalized Architecture
- Role-based Access Control
- Layers of Physical & Logical Protection
- Separate Tech & Support Space Access

Fire System
Dedicated Fire System
- Dedicated 4-wire loop to signaling devices and initiating devices, with all batteries, amplifiers, transponders provided for a fully addressable fire alarm system.
- Pre-Discharge Alarm & Strobe Light
Fire Rating
- 1 Hour

BASELAYER RunSmart™ OS(Optional)
Intelligent Control
- Customizable: Role-based Visibility, Warnings, Alarms, Thresholds & Control Set Points
Available (UI) User Interfaces
- Visualizer – Desktop and Mobile, Business Reporting, API
- Provides Real-time Visibility, Control, Optimization, and Automation

Environmental Operating Conditions
Operating Temp
- -30°F (-34°C) to 140°F (60°C)
Operating Humidity
- 0 to 100% (RH)

Listings, Regulatory Compliance, Certifications
UL/CE
- UL 2755 or CE Compliant (As Regionally Appropriate, Certification Options Available)
NFPA
- Compliant
NEMA 4
- Engineered to Meet Standard

Support
Maintainability
- Concurrently Maintenable
Warranty
- Standard 1 year limited warranty; upgradable to 3 or 5 year limited warranty