September 1, 2020

REQUEST FOR PROPOSAL 20-32-208288
JD Edwards Programming/Development and System Administration (CNC) Support

Response Requested,

This form must be completed and returned to ensure receipt of future addenda or additional information. Fax this form to (907) 265-2439 or email to: Walkerr@akrr.com.
All addenda will be forwarded to the contact name and number listed below.

Firms that have not returned this cover sheet will not be informed of addendums and will only be alerted to addendums by checking with the ARRC procurement officer or by checking ARRC’s internet site: www.alaskarailroad.com, select Suppliers and then Solicitations. Bidders must acknowledge the receipt of all issued addendums in their proposal/bid submittal.

Company ______________________________________________________
Address ______________________________________________________
____________________________________________________
Contact ______________________________________________________
Phone ______________________________________________________
Fax ______________________________________________________
Email ______________________________________________________
Website: www.alaskarailroad.com
REQUEST FOR PROPOSALS

20-32-208288

The Alaska Railroad Corporation ARRC is soliciting proposals from interested concerns for the following services:

JD Edwards Programming/Development and System Administration (CNC) Support

Sealed proposals in one (1) original and four (4) copies will be received until 3:00 p.m. Alaska time, September 24, 2020 at:

Alaska Railroad Corporation
327 W. Ship Creek Avenue
Anchorage, AK  99501

The envelope used for the submittal of your proposal shall be plainly marked with the following information:

1. Proposer’s name
2. Offer Number 20-32-208288
3. Date and time scheduled for the receipt of proposals
4. Sealed Proposal: JDE Support

This Request for Proposals is not to be construed as a commitment of any kind nor does it commit the ARRC to pay for any cost incurred in the submission of an offer or for any other cost incurred prior to the execution of a formal contract. Any contract resulting from this solicitation shall incorporate the Standard Terms and Conditions contained in this solicitation package.

ARRC reserves the right to reject any and all proposals, or any part thereof, or to accept any proposals or any part thereof, or to waive any informalities or defects in any proposal, as deemed to be in the best interest of the Alaska Railroad Corporation. An award shall be made to one or more responsible proposers whose proposal(s) are deemed to be most advantageous to ARRC. ARRC reserves the right to reissue the RFP, and to procure the professional services by any other measures.
Key Personnel Changes: Contractor shall secure prior written approval from ARRC for any changes of key personnel assigned to perform services under this contract. ARRC reserves the right to reject any of Contractor’s employees whose qualifications and/or experience in ARRC’s good faith and reasonable judgment do not meet the standards necessary for the performance of the services required under this contract.

ARRC Disadvantaged Business Enterprise (DBE) Program: ARRC is an equal opportunity corporation that encourages the participation of DBEs as prime contractors and subcontractors on its contracts funded in whole or in part by the Federal Transit Administration (FTA) or the Federal Highway Administration (FHWA). The ARRC has a race neutral DBE Program and does not set DBE goals on individual solicitations. Nonetheless, the ARRC aspires to achieve an overall DBE participation on federal contracts of 3.0 % in FY 2019-2021. If this contract is funded in whole or in part by funds from the FTA or the FHWA, it is imperative that you consult the Federal Terms and Conditions portion of this solicitation.

The Alaska Railroad is a member of Green Star (http://www.greenstarinc.org/). ARRC earned an initial Green Star Award in 1994 and a Green Star Air Quality Award in 2007. The Alaska Railroad considers Green Star membership to be a positive business attribute, and regards a Green Star award as a tangible sign of an organization’s commitment to environmental stewardship and continual improvement within its operations.

Please direct all responses and/or questions concerning this Request for Proposals to Rob Walker, Alaska Railroad Corporation, Supply Management, 327 Ship Creek Avenue, Anchorage, AK 99501, telephone number (907) 265-2218, fax number (907) 265-2439.

Sincerely,

Rob Walker
Contract Administrator
Alaska Railroad Corporation
SOLICITATION INDEX

SECTION A  SCOPE OF WORK
SECTION B  PROPOSAL INFORMATION, CONDITIONS & INSTRUCTIONS
SECTION C  PROPOSAL FORMAT AND CONTENT
SECTION D  COST SCHEDULE
SECTION E  SELECTION PROCESS AND EVALUATION CRITERIA
SECTION F  QUESTIONNAIRE
SECTION G  GENERAL TERMS & CONDITIONS (PROFESSIONAL SERVICES CONTRACTS)
SECTION H  ADDITIONAL CURRENT JDE SYSTEM INFORMATION
SECTION A

SCOPE OF WORK

ARRC will require CNC and programming support on an irregular basis. ARRC is not intending to completely outsource CNC, developer, or system administration roles or to have a full-time engagement partner.

Systems administration knowledge of IBMi 7.3 may be helpful, but not required. The vendor will provide a single point of contact that will be responsible for managing and tracking all work assigned, responding to billing questions, and act as general liaison.

CNC

CNC resources are expected to work with ARRC’s system administrator, unless directed to complete tasks independently. CNC support can be required at any time for emergency assistance in case of JDE malfunction. Maintenance is normally done on Thursday evenings, after 6 p.m. Package promotion for dev and test are handled during the normal business hours (8-5, Monday to Friday).

Duties

Typically:

- covering CNC during vacations/illness
- assigned typical tasks like project promotion or ESU installation to free up staff.
- consulting services on demand to resolve issues

This support will include, but is not limited to, coverage of the following:

- Installation of Tools Releases, ESU’s and other updates for the software
- Creation and Maintenance of Environments for project and production purposes
- Perform daily CNC support (packages/ESU's/User ID's/Debug error's)
- Troubleshooting JD Edwards technology issues, security, package build and performance issues that may include problems with IBMi, Weblogic and JDE 9.2.
- Define implementation and Management of the Object Change Management and Package Build Processes
- Work with application development teams to control code and structure migrations into production, identify performance bottlenecks, recommend solutions, and provide direction to optimize the utilization of resources
- Security administration and security setup of new sites/groups
- Installation tuning client solutions including Fat client, terminal server, and web server
- Provide AS400/DB2 admin support.

Experience/Skills Required

- Oracle Weblogic competency mandatory
- Advanced troubleshooting and implementation of all aspects of CNC infrastructure.
- Advanced problem-solving and troubleshooting of all aspects of JDE package life cycle.
- Advanced understanding of software updates, (ESUs) planner, EOY, rollback
- Able to do tools upgrades as needed
- Able to advise on tools release related bugs and issues.
- Advanced knowledge of mapping and configuration in OCM
- Able to advise on database and infrastructure requirements for Highly Available JD Edwards services.

Subsidiary server infrastructure:

- AIS server
• Deployment Server
• Enterprise server
• JDE Full Clients
• Server Manager
• Windows Server and desktop operating systems.

System (back end)
• IBMi, OS 7.3
• IBM DB2i DBMS

Programming/Development/Analysis

General
• Create or modify existing custom and customized applications per a scope of work
• Assist with analyzing and resolving application issues encountered by user community
• Remediation/debug/repair existing custom and customized code

Development
Tasks will be assigned by ARRC providing a scope-of-work (SOW) and desired completion date. An estimate of hours will be provided in response, along with feedback on the likelihood of being able to meet the requested date.

Progress status reports should be provided weekly, at a minimum.

ARRC mandatory documentation requirements include
• project promotion requests
• design documents
• time-accounting

Support
From time-to-time issues arise requiring analysis and debugging. A problem ticket will be assigned that describes the issue. The developer will be expected to communicate with the users reporting the issue, identify, and resolve the problem. Documentation requirements, above, will be followed.

Experience/Skills Required
• Experience with JD Edwards 9.2 on IBMi
• JD Edwards specific database management on IBM DB2i
• Advanced knowledge implementing Mobile apps for JD Edwards.
• Advanced knowledge implementing and troubleshooting the following in 9.2:
  ◦ UDOs
  ◦ Composed E1 Pages
  ◦ Classic E1 Pages
  ◦ Landing pages
  ◦ Orchestrator

Performance Period:

The period of performance for any contract resulting from this solicitation shall be for three (3) years. ARRC shall have the option to renew this contract for up to two (2) additional one year terms; the total period of performance including the exercising of any options shall not exceed five (5) years.
SECTION B
PROPOSAL INFORMATION, CONDITIONS & INSTRUCTIONS

1. Pre-Submission Proposal Inquires

Proposers shall promptly notify ARRC of any ambiguity, inconsistency, conflict, or error which they may discover upon examination of the solicitation documents. Verbal inquiries regarding this RFP are not permitted. All inquiries must be made in writing and received at ARRC’s offices prior to September 18, 2020 and the written inquiries must be submitted as follows:

Rob Walker
Contract Administrator
Alaska Railroad Corporation
327 W. Ship Creek Avenue, 2nd Floor
Anchorage, AK  99501
Fax 907-265-2439
Email: Walkerr@akrr.com

ARRC will respond to all or part of the written inquiries received through the issuance of a written Addendum to the RFP, if in the opinion of ARRC, such information is deemed necessary to submit proposals or if the lack of it would be prejudicial to other prospective proposers. Oral and all other non-written responses, interpretations and clarifications shall not be legally effective or binding. Any Proposer who attempts to use or uses any means or method other than those set forth above to communicate with ARRC or any director, officer, employee or agent thereof, regarding this RFP shall be subject to disqualification.

2. Proposal Submission Deadline

Sealed proposals must be received by ARRC no later than 3:00 p.m., Alaska Time, on September 24, 2020 at:

Alaska Railroad Corporation
327 W. Ship Creek Avenue
Receptionist Desk
Anchorage, AK  99501

One (1) original and four (4) copies of each proposal must be submitted. The sealed envelope or package used in submitting a proposal shall be clearly marked with the following information:

1. Proposer’s Name
2. RFP No. 20-32-208288
3. Date and Time Scheduled for Receipt of Proposals: Sept. 24, 2020; 3:00pm

Proposals received after the time and date set forth above shall be rejected. All proposals submitted in response to this solicitation must be signed by an individual with the legal authority to submit the offer on behalf of the company.
3. Proposal Open and Subject to Acceptance

All proposals shall remain open and subject to acceptance by ARRC for ninety (90) days after the deadline for proposal submission.

4. Proposal Opening

Proposals will be opened privately at ARRC’s convenience on or after the proposal due date.

5. Reserved Rights

In addition to other rights in this RFP, ARRC reserves, holds and may exercise at its sole discretion, the following rights and options:

   (a) To supplement, amend, or otherwise modify or cancel this RFP with or without substitution of another RFP.
   (b) To issue additional or subsequent solicitations for proposals.
   (c) To conduct investigations of the Proposers and their proposals.
   (d) To clarify the information provided pursuant to this RFP.
   (e) To request additional evidence or documentation to support the information included in any proposal.
   (f) To reject any and all proposals, or parts thereof, and/or to waive any informality or informalities in any of the proposals or the proposal process for the RFP, if such rejection or waiver is deemed in the best interest of ARRC.
   (g) To award a contract or contracts resulting from this solicitation to the responsible Proposer whose proposal conforming to this solicitation will be most advantageous to ARRC.
   (h) To negotiate any rate/fee offered by a Proposer. ARRC shall have the sole right to make the final rate/fee offer during contract negotiations. If the selected Proposer does not accept ARRC’s final offer, ARRC may, in its sole discretion, reject the proposal and start negotiations with the next highest ranked Proposer.
   (i) If an award is made and, prior to entering into a contract, subsequent information indicates that such award was not in the best interest of ARRC, ARRC may rescind the award without prior notice to proposers and either award to another proposer or reject all proposals or cancel the RFP.
   (k) To terminate the contractor at any point in the evaluation process or after award if the approved personnel become unavailable, are switched off project by the firm, or the qualifications are generally found to be inadequate. All personnel reassignments to and from the project will be approved by ARRC.

6. Proposal Costs

Each Proposer shall be solely responsible for all costs and expenses associated with the preparation and/or submission of its proposal, and ARRC shall have no responsibility or liability whatsoever for any such costs and expenses. Neither ARRC nor any of its directors, officers, employees or authorized agents shall be liable for any claims or damages resulting from the solicitation or collection of proposals. By submitting a proposal, Proposer expressly waives (i) any claim(s) for such costs and expenses, and (ii) any other related claims or damages.
7. Taxes

Pursuant to AS 42.40.910, ARRC is exempt from all forms of state or local sales, property and other taxes. Accordingly, any Proposer who submits a proposal shall not include any such tax in any of its proposal prices or in any calculation thereof.

8. Proposal Format

Interested firms shall submit one (1) original proposal and four (4) copies, containing a statement of qualifications and a concise narrative that fully addresses each evaluation criteria stated in Section C. Proposals shall have a maximum of thirty (30) pages, exclusive of resumes and exhibits. A signed cover letter of a maximum two (2) pages should introduce the proposed firm, summarize the main qualifications of the firm, and include any other information the Contractor deems will emphasize the Contractor's ability to successfully perform the services required and demonstrate why selection of Contractor would be advantageous to ARRC. A limited number of larger (11x17) sheets are acceptable for graphics or charts. The page limit excludes cover sheets, cover letter, table of contents, forms required by ARRC, resumes or other attachments required herein.

Important Instructions: To be considered responsive, Proposers must submit the following:

- Questionnaire in Section F. Note all addenda in your firm’s proposal
- Section D – Cost Schedule; Pricing shall be submitted in a separate envelope labeled “Pricing” (no copies required).

9. Capacity to Perform

Any Proposer considered for award as a result of this solicitation may be required to make assurance to the Contract Administrator concerning the Proposer’s capacity and capability to perform. Previous contracts of a like nature, financial solvency, and other information may be requested of the considered Proposer. Failure to provide assurances requested in a timely manner may be cause for rejection of the Proposal.

10. Costs

Other direct costs (ODC) on contracts incurred shall be billed at cost. Any travel and travel related expenses shall be billed at cost with coach airfare only, no first class or business class. Lodging and meal expenses must be reasonable. ARRC will not pay for alcohol, valet parking or other expenses it considers to be exorbitant.

11. Purchase Obligation

ARRC and responding firms expressly acknowledge and agree that ARRC has made no express or implied promises to expend any dollar amounts with respect to the services addressed by this RFP. By submitting a proposal in response to this RFP, each firm acknowledges and agrees that the provisions of this RFP, and/or any communication, statement, act or omission by representatives of ARRC (including consultants) in the selection process, shall not vest any right, privilege, or right of action in any Proposer.
12. **Exceptions to Terms, Conditions and Specifications**

Any contract resulting from this solicitation shall incorporate the General Terms and Conditions contained in this solicitation package. Each Proposer shall indicate all exceptions to terms, conditions, and specifications of this solicitation individually in its proposal. Exceptions received or placed after the proposal submission date will be considered as counter offers and as such will render the entire proposal non-responsive.

13. **Public Information**

All submitted proposals will be considered confidential until notice of intent to award is issued. After notice of intent to award is issued, all proposals will become public information.

14. **Qualifications of Proposers**

Proposers will be evaluated by ARRC based upon their experience in performing the services requested, financial stability, appropriate personnel, responsiveness, technical knowledge and general organization. ARRC reserves the right to take any actions it deems necessary to determine if Proposers have the ability to perform the services outlined in the Scope of Work in a satisfactory manner. Such actions will include an evaluation of the Proposer’s qualifications and references prior to Contract Award. Proposers may be disqualified, and their Proposals rejected, for any reason deemed appropriate by ARRC including, but not limited to, the following:

(a) Evidence of collusion between a Proposer and any other Proposer(s).

(b) An unsatisfactory performance record on prior projects for ARRC, or any other organization.

(c) The appearance of financial instability (in the opinion of ARRC) and/or evidence that Proposer may not be financially able to complete the work required by the Scope of Work in a satisfactory manner.

(d) If Proposer has failed to complete one or more public contracts in the past.

(e) If Proposer has been convicted of a crime arising from previous public contracts.

(f) If Proposer is not authorized to perform work in the State of Alaska.

15. **Contract Period**

The ARRC anticipates awarding a contract for a three (3) year period with the ARRC’s option to renew for two (2) additional one year terms.

**Alaska Bidder’s Preference:**

For the purposes of evaluating price, the proposed price of an offeror who qualifies as an Alaska Bidder shall be reduced by 5%. Offerors seeking an Alaska Bidders Preference must submit information with their proposals documenting that they meet each requirement stated in ARRC Revised Procurement Rule 1200.9(b).
SECTION C

PROPOSAL FORMAT AND CONTENT

Alaska Railroad Corporation (ARRC) is requesting proposals from interested firms qualified to perform the work described in the Scope of Services. This is intended to be an unbiased evaluation. ARRC reserves the right to withdraw this RFP, reject any and all proposals, advertise for new proposals, or accomplish the work by other means including issuing only some of the tasks defined in the Scope of Services above, that ARRC in its sole discretion, determines to be in its best interest. ARRC may request additional information from any firm to make a proposal responsive to this RFP or otherwise obtain clarification or additional information that ARRC, in its sole discretion, deems necessary to analyze and compare proposals.

Proposals must be complete as to the requested information.

Failure to follow this format in a proposal or failure to include complete information as requested will result in a lower score and may result in rejection of the proposal. At a minimum your proposal shall address the following in order to be considered responsive

Experience and Qualifications of the Firm

1. Provide a brief summary with general information on your organization’s history and its experience as it applies to this RFP, including the year it was founded, the number of years your firm has been providing requested services, and your experience with governmental entities or organizations in the transportation or railroad industries or accounts similar to the Alaska Railroad.

2. Describe your ownership structure, including parent, affiliated or subsidiary company, and business partners.

3. Explain any significant shifts in your organization within the last three years, such as ownership or restructuring. Describe any significant changes anticipated in the future.

4. Identify the number of clients that have begun using your company’s services in the past three years. Identify any clients that stopped using your company’s services in the past three years. Explain why.

5. Identify if your firm uses the services of a subcontractor. If so, provide details on whom and describe which portions or services.

6. Identify the location of the office from which management of the project would be accomplished, as well as any other offices anticipated to be involved.

7. Include a signature and title of a person authorized to obligate the firm.

8. Provide an organizational chart showing all key personnel, identifying their area of expertise, and their roles and relationships and how they will interact with ARRC personnel and among themselves.
Proposed Key Personnel

9. Identify and describe the pertinent experience of the proposed Account Executive (AE) and other personnel who would be involved in servicing the account in any way. Include resumes of all key personnel which will be involved in the performance of this contract and give the rationale for their involvement.

Technical Documentation & Performance

10. Samples of technical documentation you routinely generate in the performance of the requested services. If this documentation is not sufficient to ARRC’s needs, you will use document templates provided by ARRC to generate the documentation necessary to provide on-going support of the delivered product.

11. Provide a current client list (within the last 12 months). Provide a past client list (last three years). Describe the average length of client/firm relationships and working rapport.

12. Describe any additional services that your firm offers, include any features that set your firm apart from the competition.

Fee Proposal

The cost/fee matrix must be submitted in a separate envelope labeled “Pricing”.

13. Submit a completed SECTION D (Cost Schedule) as provided in this solicitation.

14. Provide the details of any other services offered but considered non-routine and their fee structure.

Additional Submission Requirements

Contractor shall include in its response:

15. Resumes and references for all resources to perform the requested services, along with a description of which service each contractor may be called upon to perform.
SECTION D
COST SCHEDULE

Contractor hereby offers to perform the specified work as detailed in Section A for the following prices:

Please specify the hourly rates you will charge ARRC for the top three key personnel who will perform the majority of work on this project. Include any additional key personnel in an attached rate sheet.

<table>
<thead>
<tr>
<th>Key Personnel</th>
<th>Fees / Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>$_____________/hour</td>
</tr>
<tr>
<td>Name &amp; Title</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>$_____________/hour</td>
</tr>
<tr>
<td>Name &amp; Title</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>$_____________/hour</td>
</tr>
<tr>
<td>Name &amp; Title</td>
<td></td>
</tr>
</tbody>
</table>

**Services Requested**

<table>
<thead>
<tr>
<th></th>
<th>Responsible Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Analysis &amp; Requirements Gathering/Documentation:</td>
<td>_____________________</td>
</tr>
<tr>
<td>B. Report Creation - BI-Publisher, Report Writer</td>
<td>_____________________</td>
</tr>
<tr>
<td>C. Orchestrator &amp; AIS</td>
<td>_____________________</td>
</tr>
<tr>
<td>D. UX One, Composed &amp; Classic E1 Pages</td>
<td>_____________________</td>
</tr>
<tr>
<td>E. ESU management &amp; upgrades</td>
<td>_____________________</td>
</tr>
<tr>
<td>F. Custom Programming</td>
<td>_____________________</td>
</tr>
<tr>
<td>G. CNC Support</td>
<td>_____________________</td>
</tr>
</tbody>
</table>

If the contractor offers different rates for services performed by resources of differing levels of expertise in one or more of the requested areas, please attach a rate sheet that details the different levels of experience offered and the hourly rate of each resource.
SECTION E

SELECTION PROCESS AND EVALUATION CRITERIA

The selection of a firm to perform the requested services will be made by an ARRC appointed committee which will evaluate the proposals in accordance with the evaluation criteria specified herein and establish a ranking. Proposals will be evaluated on the basis of advantages and disadvantages to ARRC using the criteria described in this Section. Please note, however, that a serious deficiency in any one criterion may be grounds for rejection and that the listing of pricing as an evaluation factor does not require ARRC to select the firm that submits the lowest price.

EVALUATION CRITERIA

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experience and Qualifications of the Firm and proposed staff:</strong></td>
<td>45</td>
</tr>
<tr>
<td>Identify and describe the pertinent experience of the proposed Account Executive (AE) and other personnel who would be involved in servicing the account in any way. Include resumes of all key personnel which will be involved in the performance of this contract and give the rationale for their involvement. Provide a current client list (within the last 12 months). Provide a past client list (last three years). Describe the average length of client/firm relationships and working rapport. Describe any additional services that your firm offers, include any features that set your firm apart from the competition.</td>
<td></td>
</tr>
<tr>
<td><strong>Technical Documentation and Performance:</strong></td>
<td>25</td>
</tr>
<tr>
<td>Samples of technical documentation you routinely generate in the performance of the requested services.</td>
<td></td>
</tr>
<tr>
<td><strong>Pricing:</strong></td>
<td>30</td>
</tr>
<tr>
<td>Please specify the hourly rates you will charge ARRC for the top three key personnel who will perform the majority of work</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Pricing shall be evaluated as follows: The sum of the above three hourly rates provided will be averaged and used for scoring purposes. The firm with the lowest overall average will be awarded the full point potential for this criterion with other firms receiving a proportionate score.

**Total Score** 100

An award will be made in the aggregate or by service requested, whichever is deemed by the Contract Administrator to be in the best interest of the ARRC.

**CONTRACT AWARD**

Once the committee has established a ranking, ARRC will begin negotiations with the highest ranked firm. If an agreement cannot be reached on contract terms, negotiations will be terminated, and negotiations will be conducted with the next highest ranked firm, until an agreement is reached, or until ARRC exercises its right to cancel the solicitation.
SECTION F
BIDDERS QUESTIONNAIRE

QUESTIONNAIRE
(Revised 2-27-06)

Note: Failure to provide the information requested in this questionnaire may be cause for rejection of your bid or offer on the grounds of non-responsiveness and/or non-responsibility.

Solicitation Number ________________________________

Business Name: ____________________________________________

Street Address: ____________________________________________

Mailing Address if Different: ________________________________

City: __________________ State: __________________ Mailing Zip: __________

Telephone: ______________ Fax: __________ E-Mail: ________________

Date Firm Established: ________________________________

How many years has the business been under the above name? ____________

Previous business name(s) if any: ______________________________

Federal Tax ID Number: ________________________________

Business License Number: ________________________________

Bid Acceptance Period _________________ Days. (Bids providing less than thirty-day (30) calendar days for acceptance may be considered non-responsive and may be rejected.)

Discount for prompt pay __________ % _____________ days.

List any variations from or exceptions to the Terms, Conditions or Specifications of the Solicitation

____________________________________________________________________________
____________________________________________________________________________

Continued on the next page

Page 1 of 2
Form 395-0136
Are you acting as a broker or the primary supplier in this transaction?

☐ Broker
☐ Primary Supplier

Business Information (Please check all that apply):

☐ The business is Individual
☐ The business is a Partnership
☐ The business is a Non-Profit
☐ The business is a Joint-Venture
☐ The business is a Corporation incorporated under the laws of the State of

☐ The business is full-time
☐ The business is part-time
☐ The business is not a certified Disadvantaged Business (DBE)
☐ Business is a certified DBE
☐ DBE was certified by State DOTPF
☐ DBE was certified by the Municipality of Anchorage
☐ Business is an 8(a)/WBE/MBE and is certified by SBA
☐ Business was certified by _______________________________________________
☐ DBE Certification # is ________________________________________________

Firms Annual Gross Receipts:

☐ <$500,000
☐ $500,000 - $999,999
☐ $1,000,000 - $4,999,999
☐ $5,000,000 - $9,999,999
☐ $10,000,000 - $16,999,999
☐ >$17,000,000

Completed by: ______________________________ Title: _____________________________

Signature: ______________________________ Date: _____________________________

Page 2 of 2, Form 395-0136
SECTION G

GENERAL TERMS AND CONDITIONS
(Professional Service Contracts)
(Revised 3/4/08)

The following terms and conditions supersede the terms and conditions on the reverse side of ARRC’s purchase order to the extent that they are inconsistent therewith and shall be deemed to have the same force and effect as though expressly stated in any such purchase order into which this document is incorporated.

1. Definitions.

“ARRC” shall mean the Alaska Railroad Corporation.

“Contractor” shall mean the person or entity entering into the contract to perform the work or services specified therein for ARRC.

“Contract” shall mean these General Terms and Conditions, the contract form to which they are annexed, and all other terms, conditions, schedules, appendices or other documents attached to the contract form or incorporated by reference therein.

“Services” shall mean any work, direction of work, technical information, technical consulting or other services, including but not limited to design services, analytical services, consulting services, construction management services, engineering services, quality assurance and other specialized services furnished by Contractor to ARRC under the contract.

2. Inspection and Reports. ARRC may inspect all of the Contractor’s facilities and activities under this contract in accordance with the provisions of ARRC Procurement Rule 1600.9. The Contractor shall make progress and other reports in the manner and at the times ARRC reasonably requires.

3. Claims. Any claim by Contractor for additional compensation or equitable adjustment arising under this contract which is not disposed of by mutual agreement must be made by Contractor in accordance with the time limits and procedures specified in sections 1800.12 et seq. of ARRC’s Procurement Rules, which by this reference are hereby incorporated herein.


4.1 The Contractor may not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical or mental handicap, sex, marital status, change in marital status, pregnancy or parenthood when the reasonable demands of the positions do not require distinction on the basis of age, physical handicap, sex, marital status, changes in marital status, pregnancy, or parenthood. To the extent required by law, the Contractor shall take affirmative action to insure that the applicants are considered for employment and that employees are treated during employment without unlawful regard to their race, color, religion, national origin, ancestry, physical or mental handicap, age, sex, marital status, changes in marital status, pregnancy or parenthood. This action must include, but need not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Contractor shall post in conspicuous places,
available to employees and applicants for employment, notices setting out the provisions of this paragraph.

4.2 The Contractor shall cooperate fully with ARRC efforts which seek to deal with the problem of unlawful discrimination, and with all other ARRC efforts to guarantee fair employment practices under this contract, and promptly comply with all requests and directions from the State Commission for Human Rights or any of its officers or agents relating to prevention of discriminatory employment practices.

4.3 Full cooperation in Paragraph 4.2 includes, but is not limited to, being a witness in any proceeding involving questions of unlawful discrimination if that is requested by any official or agency of the State of Alaska; permitting employees of the Contractor to be witnesses or complainants in any proceeding involving questions of unlawful discrimination, if that is requested by any official or agency of the State of Alaska; participating in meetings; submitting periodic reports on the equal employment aspects of present and future employment; assisting inspection of the Contractor's facilities; and promptly complying with all State directives considered essential by any office or agency of the State of Alaska to insure compliance with all federal and state laws, regulations, and policies pertaining to the prevention of discriminatory employment practices.

4.4 Failure to perform under this section constitutes a material breach of the contract.

5. Cancellation/Termination.

5.1 ARRC may, for its sole convenience, cancel this contract in whole or in part, at any time by giving written notice of its intention to do so. In the event of such cancellation, Contractor shall be entitled to receive payment in accordance with the payment provisions of this contract for services rendered or charges incurred prior to the effective date of termination. Contractor shall not be paid for any work done after receipt of a notice of cancellation or for any costs incurred by Contractor's suppliers or subcontractors which Contractor could reasonably have avoided. In no event shall ARRC be liable for unabsorbed overhead or anticipatory profit on unperformed services.

5.2 In addition to ARRC's right to cancel this contract for its convenience, ARRC may, by written notice of default to Contractor, terminate the contract in whole or in part in the following circumstances:

(1) The Contractor refuses or fails to perform its obligations under the contract, or fails to make progress so as to significantly endanger timely completion or performance of the contract in accordance with its terms, and Contractor does not cure such default within a period of ten (10) days after receipt of written notice of default from ARRC or within such additional cure period as ARRC may authorize; or

(2) Reasonable grounds for insecurity arise with respect to Contractor's expected performance and Contractor fails to furnish adequate assurance of due performance (including assurance of performance in accordance with the time requirements of the contract) within ten (10) days after receipt of a written request by ARRC for adequate assurance; or

(3) Contractor becomes insolvent or makes an assignment for the benefit of creditors or commits an act of bankruptcy or files or has filed against it a petition in bankruptcy or reorganization proceedings.
5.3 Upon receipt of a notice of cancellation or termination, Contractor shall immediately discontinue all service and it shall immediately cause any of its suppliers or subcontractors to cease such work unless the notice directs otherwise and deliver immediately to ARRC all reports, plans, drawings, specifications, data, summaries or other material and information, whether completed or in process, accumulated by Contractor in performance of the contract. In the event of termination for default, Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the amount to be paid on this contract exceeds the expense of finishing the work, compensation for additional managerial and administrative services and such other costs and damages as ARRC may suffer as a result of Contractor’s default, such excess shall be paid to Contractor. If such expense, compensation, costs and damages shall exceed such unpaid balance, Contractor shall be liable for and shall pay the differences to ARRC. The rights and remedies of ARRC provided in this section shall not be exclusive and are in addition to any other rights and remedies provided by law.

6. No Assignment or Delegation. The Contractor may not assign, subcontract or delegate this contract, or any part of it, or any right to any of the money to be paid under it, except with the prior written consent of ARRC. The hiring or use of outside services, subcontractors or consultants in connection with the work shall not be permitted without the prior written approval of ARRC. No such approval shall relieve Contractor from any of its obligations or liabilities under this contract.

7. Independent Contractor. The Contractor’s relationship to ARRC in performing this contract is that of an independent contractor and nothing herein shall be construed as creating an employer/employee relationship, partnership, joint venture or other business group or concerted action. The personnel performing services under this contract shall at all times be under Contractor’s exclusive direction and control and shall be employees of the Contractor, and not of ARRC.

8. Payment of Taxes. As a condition of performance of this contract, the Contractor shall pay all federal, state, and local taxes incurred by the Contractor and shall require their payment by any subcontractor or any other persons in the performance of this contract. Satisfactory performance of this paragraph is a condition precedent to payment by ARRC under this contract.

9. Ownership of Work Product. Except for items that have preexisting copyrights, all exhibits, drawings, plans, specifications, notes, reports, data, recommendations, artwork, memoranda and any other information prepared or furnished by Contractor to ARRC in the performance of this contract (collectively “Work Product”) shall become the property of ARRC and may be used by ARRC for any other purpose without additional compensation to the Contractor. Contractor hereby grants ARRC an irrevocable, perpetual, royalty-free, fully assignable license (with full sublicense rights) to use all proprietary and confidential information and other intellectual property that may be incorporated into any of Contractor’s Work Product for ARRC. Should ARRC elect to reuse said Work Product, ARRC shall indemnify, hold harmless and defend Contractor and its subcontractors against any damages or liabilities arising from said reuse. When Work Product produced by the Contractor and its Subcontractors under this Contract are reused by ARRC, the Contractor’s and Subcontractor’s signatures, professional seals, and dates shall be removed. If such Work Product requires professional signature and seal, it will be signed, sealed, and dated by the professional who is in direct supervisory control and responsible for the new project for which such Work Product is being reused.

Contractor hereby represents and warrants to and for the benefit of ARRC and its successors and assigns that no part of its work product for ARRC will infringe any patent rights or copyrights or
utilize any proprietary, confidential or trade secret information or other intellectual property for
which Contractor does not have the unqualified right to grant ARRC the license and sublicensing
rights referred to above. Contractor shall defend, indemnify and hold harmless ARRC, its
successors and assigns, and their respective representatives, agents and employees from and
against, any and all claims, defenses, obligations and liabilities which they may have or acquire
under or with respect to any patent, copyright, trade secret, proprietary or confidential information,
or any other form of intellectual property that may be asserted by Contractor or any other person
which arises out of, results from or is based upon the manufacture, use or sale by ARRC or any
of its successors or assigns of any of Contractor's work product for ARRC. ARRC shall have the
right to select its legal counsel and control its defense in any litigation resulting from any such
claim.

10. Governing Law. This contract, and all questions concerning the capacity of the parties,
execution, validity (or invalidity) and performance of this contract, shall be interpreted, construed
and enforced in all respects in accordance with the laws of the State of Alaska.

11. Alaska Executive Branch Ethics Act Requirements. No officer or employee of the State
of Alaska or of the ARRC and no director of the ARRC or legislator of the state shall be admitted
to any share or part of this contract or to any benefit that may arise therefrom. Contractor shall
exercise reasonable care and diligence to prevent any actions or conditions which could be a
violation of Alaska Statute 39.52 et seq. Contractor shall not make or receive any payments, gifts,
favors, entertainment, trips, secret commissions, or hidden gratuities for the purpose of securing
preferential treatment or action from or to any party. This obligation will apply to the activities of
Contractor's employees and agents in their relations with ARRC employees, their families,
vendors, subcontractors, and third parties arising from this contract and in accomplishing work
hereunder. Certain gratuities may be given or accepted if:

(1) there is no violation of any law or generally accepted ethical standards;

(2) the gratuity is given as a courtesy for a courtesy received and does not result in
any preferential treatment or action;

(3) the gratuity is of limited value (less than $150) and could not be construed as a
bribe, payoff or deal; and

(4) public disclosure would not embarrass ARRC.

ARRC may cancel this contract without penalty or obligation in the event Contractor or its
employees violate the provisions of this section.

12. Non-Disclosure of Confidential Information. Contractor acknowledges and agrees that for
and during the entire term of this contract, any information, data, figures, projections, estimates,
reports and the like received, obtained or generated by Contractor pursuant to the performance
of this contract shall be considered and kept as the private, confidential and privileged records of
ARRC and will not be divulged to any person, firm, corporation, regulatory agency or any other
entity except upon the prior written consent of ARRC. Furthermore, upon termination of this
contract, Contractor agrees that it will continue to treat as private, privileged and confidential any
information, data, figures, projections, estimates, reports and the like received, obtained or
generated by Contractor during the term of the contract and will not release any such information
to any person, firm, corporation, regulatory agency or any other entity, either by statement,
deposition or as a witness except upon the express written authority of ARRC. ARRC shall be
entitled to an injunction by any competent court to enjoin and restrain the unauthorized disclosure of such information.

Contractor's agreement of non-disclosure as specified in this section applies except to the extent required for (1) performance of services under this contract; (2) compliance with professional standards of conduct for preservation of the public safety, health, and welfare (so long as Contractor has given ARRC prior notice of the potential hazard and ARRC has had a reasonable opportunity to correct the hazard prior to disclosure); (3) compliance with a court order or subpoena directed against Contractor (so long as Contractor has given ARRC prior notice of such and ARRC has had an opportunity to contest the same in a court of law); or (4) Contractor's defense against claims arising from performance of services under this contract.

13. **Covenant Against Contingent Fees.** Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this contract, and that it has not paid or agreed to pay any person, company, individual, or firm any commission, gift, percentage, fee, contingent upon or resulting from the award or making of this contract. For the breach or violation of this warranty, ARRC may terminate this contract without liability and, at its discretion, deduct from the contract price or otherwise recover the full amount of the commission, percentage, gift, or fee.

14. **Standard of Performance.** Contractor shall perform its services with care, skill and diligence in accordance with normally accepted industry standards and shall be responsible for the professional quality, technical accuracy, completeness, and coordination of all reports, designs, drawings, plans, information, specifications and other items and services furnished under this Contract. Contractor shall comply with all applicable federal, state and local laws and ordinances, codes, and regulations in performing its services. If any failure to meet the foregoing standard of performance appears within one (1) year after the services are accepted by ARRC, Contractor shall, at a minimum, reperform the work at no cost to ARRC and shall reimburse ARRC for any additional costs that may be incurred by ARRC or any of its contractors or subcontractors as a result of such substandard work. If Contractor should fail to reperform the work, or if ARRC determines that Contractor will be unable to correct substandard services before the time specified for completion of the project, if any, ARRC may correct such unsatisfactory work itself or by the use of third parties and charge Contractor for the costs thereof. The rights and remedies provided for in this section are in addition to any other remedies provided by law.

15. **Warranty.** In the event Contractor supplies equipment, goods, materials or other supplies in addition to services under this contract, Contractor warrants that said items: (a) shall be of good quality and free from all defects and deficiencies in workmanship, material and design; (b) shall be fit, suitable and operate successfully for their intended purpose; (c) shall be new; (d) shall be free from all liens, claims, demands, encumbrances and other defects in title; and (e) shall conform to the specifications, if any, stated in the contract. Contractor shall honor all guarantees and warranties offered by the manufacturer of the equipment, goods, materials or other supplies provided under this contract. The rights and remedies provided for in this section are in addition to any other remedies provided by law.

16. **Indemnification.** Contractor shall defend, indemnify and hold ARRC harmless from and against all claims and actions asserted by a third party (or parties) and related damages, losses and expenses, including attorney’s fees, arising out of or resulting from the services performed or neglected to be performed by Contractor or anyone acting under its direction or control or in its behalf in the course of its performance under this contract and caused by any error, omission or negligent act, provided that Contractor’s aforesaid indemnity and hold harmless agreement shall
not be applicable to any liability based upon the independent negligence of ARRC. If there is a claim of, or liability for, the joint negligent error or omission of the Contractor and the independent negligence of ARRC, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. The term “independent negligence” is negligence other than ARRC’s selection, administration, monitoring, or controlling contractor and in approving or accepting Contractor’s work.

17. **Insurance.** Without limiting Contractor's indemnification, it is agreed that Contractor shall purchase at its own expense and maintain in force at all times during the performance of services under this contract the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Contractor's policy contains higher limits, ARRC shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the ARRC contracting officer prior to beginning work and must provide for a 30-day prior notice of cancellation, non-renewal or material change. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach and grounds for termination of the Contractor’s services.

17.1 **Workers’ Compensation Insurance:** The Contractor shall provide and maintain, for all employees of the Contractor engaged in work under this contract, worker's compensation insurance as required by applicable law. The Contractor shall be responsible for worker's compensation insurance for any subcontractor who directly or indirectly provides services under this contract. This coverage must include statutory coverage for states in which employees are engaging in work and employer's liability protection not less than $100,000 per person, $100,000 per occurrence. Where applicable, coverage for all federal acts (i.e. U.S.L. & H. and Jones Acts) must also be included.

17.2 **Comprehensive (Commercial) General Liability Insurance:** With coverage limits not less than $1,000,000 combined single limit per occurrence and annual aggregates where generally applicable and shall include premises-operations, independent contractors, products/completed operations, broad form property damage, blanket contractual and personal injury endorsements. Said policy shall name ARRC as an additional insured and contain a waiver of subrogation against ARRC and its employees.

17.3 **Comprehensive Automobile Liability Insurance:** Covering all owned, hired and non-owned vehicles with coverage limits not less than $100,000 per person/$300,000 per occurrence bodily injury and $50,000 property damage. Said policy shall name ARRC as an additional insured and contain a waiver of subrogation against ARRC and its employees.

17.4 **Professional Liability (E&O) Insurance:** Covering all errors, omissions or negligent acts of the Contractor, its subcontractor or anyone directly or indirectly employed by them, made in the performance of this contract which result in financial loss to ARRC. Limits required are per the following schedule:

<table>
<thead>
<tr>
<th>Contract Amount</th>
<th>Minimum Required Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $100,000</td>
<td>$500,000 per Occurrence/Annual Aggregate</td>
</tr>
<tr>
<td>$100,000-$499,999</td>
<td>$1,000,000 per Occurrence/Annual Aggregate</td>
</tr>
<tr>
<td>$500,000-$999,999</td>
<td>$2,000,000 per Occurrence/Annual Aggregate</td>
</tr>
<tr>
<td>Over $1,000,000</td>
<td>Negotiable-Refer to Risk Management</td>
</tr>
</tbody>
</table>
18. **ARRC’s Rights Not Waived by Payment.** No payment made by ARRC shall be considered as acceptance of satisfactory performance of Contractor’s obligations under this contract. Nor shall any payment be construed as acceptance of substandard or defective work or as relieving Contractor from its full responsibility under the contract.

19. **Nonwaiver.** A party's failure or delay to insist upon strict performance of any of the provisions of this contract, to exercise any rights or remedies provided by this contract or by law, or to notify the other party of any breach of or default under this contract shall not release or relieve the breaching or defaulting party from any of its obligations or warranties under this contract and shall not be deemed a waiver of any right to insist upon strict performance of this contract or any of the rights or remedies as to any subject matter contained herein; nor shall any purported oral modification or rescission of this contract operate as a waiver of any of the provisions of this contract. The rights and remedies set forth in any provision of this Agreement are in addition to any other rights or remedies afforded the nonbreaching or nondefaulting party by any other provisions of this contract, or by law.

20. **Savings Clause.** If any one or more of the provisions contained in the contract shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this contract, but this contract shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

21. **Headings.** The headings of sections and paragraphs of this contract are for convenience of reference only and are not intended to restrict, affect, or be of any weight in the interpretation or construction of the provisions of such sections or paragraphs.

22. **Forum Selection.** The parties shall not commence or prosecute any suit, proceeding or claim to enforce the provisions of the contract, to recover damages for breach or default under the contract, or otherwise arising under or by reason of the contract, other than in the courts of the State of Alaska for the Third Judicial District at Anchorage. The parties hereby irrevocably consent to the jurisdiction of said courts.

23. **Conflict of Interest.** Contractor shall act to prevent any actions or conditions which could result in a conflict with ARRC's best interests. This obligation shall apply to the activities of Contractor's employees and agents in their relationships with ARRC's employees, their families, vendors, subcontractors and third parties accomplishing work under this contract.

24. **Publicity.** Contractor shall not release any information for publication or advertising purposes relative to this contract or to the material, equipment and/or services furnished under this contract without the prior written consent of the ARRC.

25. **Audit.** ARRC has the right to audit at reasonable times the accounts and books of the Contractor in accordance with the provisions of ARRC Procurement Rule 1600.10.

26. **Internal Controls and Record Keeping.** Contractor shall keep full and accurate records and accounts of all of its activities in connection with this contract, including, without limitation, reasonable substantiation of all expenses incurred and all property acquired hereunder.

27. **Force Majeure.** Neither ARRC nor Contractor shall be responsible for failure to perform the terms of this contract when performance is prevented by force majeure, provided that: (1) notice and reasonably detailed particulars are given to the other party and (2) the cause of such failure or omission is remedied so far as possible with reasonable dispatch. The term "force
majeure” shall mean acts of God, earthquakes, fire, flood, war, civil disturbances, governmentally imposed rules, regulations or other causes whatsoever, whether similar or dissimilar to the causes herein enumerated, which is not within the reasonable control of either party and which through the exercise of due diligence, a party is unable to foresee or overcome. In no event shall force majeure include normal or reasonably foreseeable or reasonably avoidable operational delays.

28. Permits and Licenses. The Contractor shall, at its own expense, obtain all necessary permits, licenses, certifications and any other similar authorizations required or which may become required by the government of the United States or any state or by any political subdivision of the United States or of any state except where laws, rules or regulations expressly require the ARRC to obtain the same.

29. Environmental Protection. When performing all obligations under the contract, Contractor shall comply with all specific instructions of ARRC with regard to environmental concerns, regardless of whether such instructions are based upon specific law, regulation or order of any governmental authority.

30. Set Off. If ARRC has any claim against the Contractor related or unrelated to this contract, it may set off the amount of such claim against any amount due or becoming due under this contract.

31. Observance of Rules. The contractor’s personnel performing work or services hereunder on ARRC’s premises shall observe all fire prevention, security, and safety rules in force at the site of the work.

32. No Third-Party Beneficiary Rights. No provision of this contract shall in any way inure to the benefit of any third parties (including the public at large) so as to constitute any such person a third-party beneficiary of the contract or of any one or more of the terms hereof, or otherwise give rise to any cause of action in any person not a party hereto.

33. Entire Agreement. This contract represents the entire and integrated agreement between ARRC and the Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. This contract may be amended only by a written instrument signed by both ARRC and the Contractor.

34. Key Personnel Changes. Contractor shall secure prior written approval from ARRC for any changes of key personnel assigned to perform services under this contract. ARRC reserves the right to reject any of Contractor’s employees whose qualifications and/or experience in ARRC’s good faith and reasonable judgment do not meet the standards necessary for the performance of the services required under this contract.
Section H
ADDITIONAL CURRENT JDE SYSTEM INFORMATION

Current Implementation
Environment
ARRC’s installation consists of
JD Edwards 9.2 (upgrade completed October, 2019)
Tools 9.3.2.4 (January, 2020)
Oracle Weblogic Server 12.2.1.3.0 Thu Aug 17 13:39:49 PDT 2017 1882952
Vertex tax 4.3.3
IBM Power9 8194 on OS/400 version 7.3
Multiple Microsoft 2012R2 servers
Everest Single Sign-on solution 9.0.0.0
RF-Smart 5 (October, 2019) barcoding solution
AllOut 3.2
## Current Servers and Environments

<table>
<thead>
<tr>
<th>Role</th>
<th>System</th>
<th>Name</th>
<th>Environment(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Server</td>
<td>IBMi Power9 ³</td>
<td>JDE2</td>
<td>PD, Prior, Pristine</td>
</tr>
<tr>
<td>Test/Dev Server</td>
<td>IBMi Power9 ³</td>
<td>dbJDEDE</td>
<td>DV, PY</td>
</tr>
<tr>
<td>Administrative Servers</td>
<td>Microsoft Windows 10</td>
<td>JDE2Adm-One</td>
<td>DV, PY, PD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JDE2Adm-Two</td>
<td></td>
</tr>
<tr>
<td>Deployment Server</td>
<td>Microsoft 2012R2</td>
<td>JDE2-Deploy</td>
<td>All</td>
</tr>
<tr>
<td>OneView Server</td>
<td>Microsoft 2012R2</td>
<td>JDE2-Ovr</td>
<td>PD</td>
</tr>
<tr>
<td>RF-Smart Server</td>
<td>Microsoft 2012R2</td>
<td>RFSmart5svr</td>
<td>PD</td>
</tr>
<tr>
<td>RF-Smart Test</td>
<td>Microsoft 2012R2</td>
<td>RFSmart5test</td>
<td>PY</td>
</tr>
<tr>
<td>HTML Servers¹</td>
<td>Microsoft 2012R2/Weblogic</td>
<td>JDE2Prod-One</td>
<td>PD, Prior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JDE2Prod-Two</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>JDE2Prod-Three</td>
<td></td>
</tr>
<tr>
<td>Test/Dev HTML Server</td>
<td>Microsoft 2012R2/Weblogic</td>
<td>JDE2TD-One</td>
<td>DV, PY</td>
</tr>
<tr>
<td>Test/Dev AIS</td>
<td>Microsoft 2012R2/Weblogic</td>
<td>JDE2TD-AIS</td>
<td>DV, PY</td>
</tr>
<tr>
<td>Global Spreadsheet</td>
<td>Microsoft Windows 7</td>
<td>GS-Configurator</td>
<td>PD</td>
</tr>
<tr>
<td>Configurator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Clients</td>
<td>Microsoft Windows 10</td>
<td>JDE2Dev-One</td>
<td>DV, PY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JDE2Dev-Two</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>JDE2Dev-Three</td>
<td></td>
</tr>
<tr>
<td>Orchestrator &amp; AIS</td>
<td>Microsoft 2012R2/Weblogic</td>
<td>JDE2-AIS</td>
<td></td>
</tr>
<tr>
<td>URL Attachment Server</td>
<td>Microsoft 2012R2 with IIS</td>
<td>JDE2-CMMS</td>
<td>DV, PY, PD</td>
</tr>
</tbody>
</table>

### Notes

1. **HTML servers are combined with Microsoft Network Load Balancing (NLB) under the name JDE2NLB-Prod. Everest Single Sign-On is implemented redundantly on server.**
2. **The URL attachment server redirects http requests to files on a shared network store**
3. **IBMi ARRC has a single IBM Power9 running V7R3 that hosts eight LPARs.**

### Microsoft servers & desktops

All servers and desktops listed above are VMs hosted in ARRC’s VM environment. User desktops are Windows 10, using IE, Chrome, and Firefox browsers.

### Security

ARRC’s security is “lights-out” – all access is blocked unless granted by a role. The menus, E1 Pages, and roles are identically named and synchronized. Management of security is with the AllOut Security product.

SSL is implemented throughout the servers with published certificates.

All HTML servers provide single sign-on via the Everest’s product, ESI.
JDE modules Installed

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>JD Edwards EnterpriseOne System Foundation - Application User Perpetual</td>
<td>34</td>
</tr>
<tr>
<td>Oracle Technology Foundation for JD Edwards EnterpriseOne - Application User Perpetual</td>
<td>786</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne One View Reporting Foundation - Application User Perpetual</td>
<td>5</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Financial Management and Compliance Console - Application User Perpetual</td>
<td>25</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Financials (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Expense Management - Expense Reports Perpetual</td>
<td>1800</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Resource Assignments (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Real Estate Management (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Project Costing (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Contract and Service Billing (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Advanced Contract Billing (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne System Foundation (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Procurement and Subcontract Management (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Operational Sourcing (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Supplier Self Service (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Requisition Self Service (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Plant Manager Dashboard - Application User Perpetual</td>
<td>10</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Capital Asset Management (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Condition-Based Maintenance (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Equipment Cost Analysis (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Inventory Management (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Sales Order Management - Application User Perpetual</td>
<td>5</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Service Management Foundation (included in Suite)</td>
<td>40</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Human Resources - Enterprise Employee Perpetual</td>
<td>786</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Payroll - Enterprise Employee Perpetual</td>
<td>786</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Self-Service Human Resources - Enterprise Employee Perpetual</td>
<td>786</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne Time and Labor - Enterprise Employee Perpetual</td>
<td>786</td>
</tr>
<tr>
<td>JD Edwards EnterpriseOne eRecruit - Enterprise Employee Perpetual</td>
<td>786</td>
</tr>
<tr>
<td>Oracle User Productivity Kit Standard - UPK Developer Perpetual</td>
<td>2</td>
</tr>
<tr>
<td>Oracle User Productivity Kit - UPK Employee Perpetual</td>
<td>786</td>
</tr>
</tbody>
</table>

- Real Estate Management, UPK, and eRecruit are not in use. There are no plans to implement additional modules.

Approximately 648 employees have access to JDE, the bulk of them using only requisitions and employee self service functions like time-entry.
Storage Notes
To aid in understanding the size & complexity of ARRC’s environment the following is provided:

Select Table Sizes
Top five file sizes:

<table>
<thead>
<tr>
<th>Table</th>
<th>Records</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F0719</td>
<td>30.0M</td>
<td>DBA history</td>
</tr>
<tr>
<td>F0724</td>
<td>10.0M</td>
<td>Burden distribution</td>
</tr>
<tr>
<td>F0911</td>
<td>8.2M</td>
<td>Transaction files</td>
</tr>
<tr>
<td>F48S912</td>
<td>4.1M</td>
<td>Service Billing</td>
</tr>
<tr>
<td>F0902</td>
<td>3.7M</td>
<td>Foundation Environment</td>
</tr>
</tbody>
</table>

Media Objects
There 13,629 media objects totaling approximately 31 megabytes stored on the IBMi server in /MediaObj/HTMLUpload.

<table>
<thead>
<tr>
<th>gtMoType</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>499,094</td>
</tr>
<tr>
<td>1</td>
<td>23,224</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>1,520</td>
</tr>
<tr>
<td>5</td>
<td>17,668</td>
</tr>
</tbody>
</table>

*from F00165*
**Code Base**

ARRC completed an upgrade from 9.1 to 9.2 during 2019 that included cleaning up unused code and documenting the code base that continued. ARRC currently has custom objects, customizations installed in standard objects, external (non-OMW) custom code that access JDE tables for data, and other licensed software that works with JDE.

**JDE code**

The production system contains 660 custom objects broken down as:

<table>
<thead>
<tr>
<th>Object Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPL</td>
<td>68</td>
</tr>
<tr>
<td>BSFN</td>
<td>13</td>
</tr>
<tr>
<td>BSVW</td>
<td>87</td>
</tr>
<tr>
<td>DSTR</td>
<td>166</td>
</tr>
<tr>
<td>TBLE</td>
<td>56</td>
</tr>
<tr>
<td>UBE</td>
<td>192</td>
</tr>
<tr>
<td>UBE-BIP</td>
<td>25</td>
</tr>
<tr>
<td>UBEVER</td>
<td>53</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>660</strong></td>
</tr>
</tbody>
</table>

**Non-standard Objects**

During the 9.1-to-9.2 upgrade (2019) all custom, customized, and third-party objects were reviewed and retrofitted. Unused objects were removed, resulting in an accurate survey of the environment:

<table>
<thead>
<tr>
<th>Object Type</th>
<th>Copy</th>
<th>Custom</th>
<th>Standard</th>
<th>Third Party</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPL</td>
<td>22</td>
<td>29</td>
<td>17</td>
<td></td>
<td>68</td>
</tr>
<tr>
<td>BSFN</td>
<td>12</td>
<td>1</td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>BSVW</td>
<td>20</td>
<td>63</td>
<td>4</td>
<td></td>
<td>87</td>
</tr>
<tr>
<td>DSTR</td>
<td>112</td>
<td>52</td>
<td>2</td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>TBLE</td>
<td>8</td>
<td>41</td>
<td>7</td>
<td></td>
<td>56</td>
</tr>
<tr>
<td>UBE</td>
<td>15</td>
<td>169</td>
<td>6</td>
<td>2</td>
<td>192</td>
</tr>
<tr>
<td>UBE-BIP</td>
<td>12</td>
<td>5</td>
<td>8</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>UBEVER</td>
<td>18</td>
<td>35</td>
<td></td>
<td></td>
<td>53</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>189</strong></td>
<td><strong>389</strong></td>
<td><strong>80</strong></td>
<td><strong>2</strong></td>
<td><strong>660</strong></td>
</tr>
</tbody>
</table>
Non-JDE code
ARRC has approximately 325 programs that interface with JDE data but are external to the system. These applications are written in RPGLE, CLLE, and SQL. They are maintained by ARRC staff.

Other Software

<table>
<thead>
<tr>
<th>Software</th>
<th>Version Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertex (application &amp; data)</td>
<td>4.3.3</td>
</tr>
<tr>
<td>Allout Security</td>
<td>3.2</td>
</tr>
<tr>
<td>RF-Smart</td>
<td>5</td>
</tr>
<tr>
<td>Everest Software International (ESI JDE SSO)</td>
<td>9.0.0.0</td>
</tr>
<tr>
<td>Oracle Weblogic</td>
<td>12.2.1.3.0 Thru Aug 17 13:39:49 PDT</td>
</tr>
<tr>
<td>Global Spreadsheet</td>
<td>14.10.3</td>
</tr>
</tbody>
</table>

Other Notes
- ARRC does not currently use localizations – only a single language is used. All employees fall within the States of Alaska and Washington.
- Due to business/regulatory requirements, ARRC does not archive data and does not plan to.