HARC FINANCIAL AND ACCOUNTING SYSTEM

Plan to Replace Existing Software System

REQUEST FOR PROPOSALS

Published: August 25, 2021

Due: September 17, 2021, 4:00 PM CST

Milestones	Target Date
RFP advertised and published	8/25/2021
Deadline for written questions	9/3/2021
All questions and answers will be posted	9/7/2021
Proposals due	9/17/2021
Estimated Notice of Award	11/1/2021

1. Overview

The Houston Advanced Research Center (HARC), a research hub that provides independent air, energy and water analysis to people seeking scientific answers, invites written proposals from interested vendors for the installation, configuration and necessary user training of an enterprise accounting and financial software system.

2. Background

HARC is a nonprofit research organization with approximately 30 employees. HARC is seeking to replace its current server-based financial accounting system with a more modern and versatile cloud- or web-based accounting system that is designed to handle fund or project accounting needs. A detailed list of system requirements is attached, but vendors are welcome to propose features and capabilities that are not included on the list of requirements if they will enhance the system's capabilities. HARC currently has approximately 12 employees who regularly or frequently access the current system either as a primary user or as a manager.

3. Purpose

The purpose of this RFP is to identify a fully qualified software vendor who can supply an accounting system that fully meets HARC's needs. Vendors are encouraged to include additional "value-added" services in their proposed lists of services to be provided, such as grants and contracts management module, human resources module, etc., although HARC reserves the right to decline such add-ons.

HARC will evaluate the proposals that are received to select the vendor best able to provide the scope of services per the requirements of this solicitation. Price, both for acquisition/installation and for ongoing support and maintenance, will be a primary factor in the selection process but not the only or necessarily most important factor. HARC will rely on vendor's ability, expertise, and demonstrated knowledge of the requested services. Vendor shall be obligated to exercise the highest standard of care consistent with professional standards in performing its obligations. Vendor shall demonstrate to HARC's satisfaction that it is of sound financial condition and is adequately bonded and insured, if requested.

4. Scope of Services

The selected vendor will assist HARC by supplying a fully functional financial and accounting system, consistent with the system requirements as listed in Attachment A and Attachment B, including the following:

- Installation of software and configuration
- migration of data
- user training
- ongoing support and maintenance

5.   Proposal Submittal Requirements

Proposals must include the following items in the order presented.

A. Binding Transmittal Letter (2 pages maximum)

Each proposal must include a transmittal letter signed by a party authorized to obligate and bind the vendor to perform the commitments contained in the proposal. The letter must clearly identify the vendor and a contact person for future communications regarding the proposal. The letter should discuss the vendor's overall ability and qualifications to conduct the work and agree to fully comply with all applicable ordinances, laws and regulations if awarded the contract. The letter is to include a statement that the offer will be valid for a period of 180 days.

B. Qualifications

Proposals must provide sufficient information to allow the selection panel to evaluate the vendor's capability to successfully complete the Scope of Services. This section should address:

- Company history and staff qualifications
- Experience with successful system implementations
- If applicable, documentation of status as a small or minority, women, or veteran-owned business
- Include two references of clients, preferably comparable to HARC
- Any additional information that may be useful to the HARC review committee

C. Product Capabilities

Based on the requirements and preferences as listed in Attachments A and B, provide sufficient information to enable HARC to make at least a preliminary judgement as to the extent that the proposed product meets HARC's needs. This response may be modeled on the template in Attachment A, but the vendor may submit this information in the format they consider most appropriate for the purpose.

D. Installation Support and Subsequent Maintenance/Support

Describe the envisioned plan for installing and implementing the proposed system, including final specifications, customizations, data migration, key user training, general user training, immediate post-implementation support, etc. What maintenance and/or support agreements are required or recommended for ongoing system management?

E. Fees

Vendor shall provide a fee schedule that describes the types of costs that HARC would incur as a client.

6. Proposal Instructions

A. Questions Regarding the RFP

The deadline to submit questions and requests for interpretation is ***Friday, September 3, 2021***. Any questions are to be submitted by email to gco@harcresearch.org. **All answers will be posted at**

https://harcresearch.org/about/financials **in the Q&A section for Open RFPs no later than September 7, 2021**. We encourage vendors to periodically check the website for updates.

B. Proposal Submissions

One (1) electronic copy (PDF via email to gco@harcresearch.org or on CD or flash drive via mail or courier) of the proposal must be received no later than **4:00 PM Central Time Friday, September 17, 2021.** Include in the Subject line "**RFP for HARC Accounting System**". No proposals will be accepted after this date and time. Early submission is encouraged to avoid any possibility of disqualification for late submission.

Proposals, if not emailed, may be mailed, or delivered to:

Mr. Scott Gall
Accounting Manager
Houston Advanced Research Center
8801 Gosling Rd.
The Woodlands, TX 77381
sgall@harcresearch.org

Other means of transmission, including facsimile will not be accepted.

At any time during the proposal evaluation process, HARC may require a vendor to provide oral or written clarification of its proposal. HARC reserves the right to negotiate the proposed system features prior to making an award. HARC may make an award without further clarifications of proposals received, or HARC may decide not to accept any proposal.

7. Proposal Evaluation Process and Selection Procedure

A. Evaluation Criteria

HARC will form an internal evaluation committee that will review and score the proposals. Interviews will be requested as needed and final selection will be determined by the evaluation committee.

Evaluation Criteria	Max. Points
Qualifications and Experience	**50**
• Company history and staff qualifications • Alignment of proposed system to HARC's requirements	
Deliverables, Cost and Schedule	**30**
• Proposed fees • Status as a small, minority, women or veteran-owned business	
References	**20**
• Include two references of clients, preferably comparable to HARC	
Proposal Score	**100**

B. Anticipated Timeline

HARC has established the following target dates for issuance, receipt, and evaluation of proposals in addition to award of an agreement in response to this RFP.

Milestones	Target Date
RFP advertised and published	8/25/2021
Deadline for written questions	9/3/2021
All questions and answers will be posted	9/7/2021
Proposals due	9/17/2021
Estimated Agreement certification/Notice of Award	11/1/2021

These dates are not binding and may change depending on the number of proposals received, staff availability for oral interviews and other intervening events.

C. Interview Process

The evaluation committee may, at its option, invite one or more vendors for an interview or demonstration. The evaluation committee may use this additional information to score the proposals.

D. Agreement Negotiations and Contract

The evaluation committee will make a recommendation regarding award of the agreement to the highest-ranking vendor(s). HARC will negotiate and execute an agreement to perform the requested services with the highest-ranking vendor(s). The selection of any proposal shall not imply acceptance of all terms of the vendor, which may be subject to further negotiation and approvals. HARC may begin agreement negotiations with the next highest-ranked vendor(s) at any time during the process until an agreement is finalized. Once agreement negotiations are complete, the agreement will be finalized.

8. Terms and Conditions Governing this RFP

A. Financial Responsibility

HARC does not accept financial responsibility for any costs incurred by a firm in responding to this RFP, participating in oral presentations, or negotiating an agreement. The proposals in response to the RFP will become property of HARC and may be used by HARC in any way deemed appropriate.

B. Reservations of Rights by HARC

The issuance of this RFP does not constitute an agreement by HARC that any contract will actually be entered into by HARC. HARC expressly reserves the right at any time to:

- Waive or correct any defect or informality in any response, proposal, or proposal procedure
- Reject any or all proposals
- Reissue an RFP

- Prior to submission deadline for proposals, modify all or any portion of the specifications or requirements for any materials, equipment, or services to be provided under this RFP, or the requirements for contents or format of the proposals
- Procure any materials, equipment of services specified in this RFP by any other means
- Determine that no project will be pursued.

C. Form and Content

Failure to timely execute an agreement, or to furnish any and all certificates, compliance forms, bonds or other materials required in the agreement may be deemed an abandonment of an agreement offer.

D. Attachments

Attachment A – RFP List of Required Features
Attachment B – Summary of Required capabilities

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
1	**General Ledger**	**10**	**Yes**									General ledger keeps centralized charts of accounts and corporate financial balances. It supports all aspects of the business accounting process. In this module, financial accounting transactions are posted, processed, summarized, and reported. It maintains a complete audit trail of transactions and enables individual business units to view their financial information, while parent companies can roll up all business subsidiaries and view the consolidated information.
1.1	**Parameters and Structuring**	**7**	**Yes**									
1.1.6	Multi-entity financial reporting	6	Yes									A financial reporting entity is a business unit which can legally make financial reports.
1.1.11	Open any number of fiscal years or calendar periods at the same time	4	No									
1.1.14	Distinguishes A/P transactions (of the same type) from different entities	4	No									account payable (A/P)
1.1.22	Specifies a key and rules to have the system automatically purge all records related to the key throughout the system--sub-ledger accounts, sub-ledger transactions, tables, rates	3	No									A general ledger key typically is an identifier attached to accounts to put the accounts into groups. For example, there may be fifteen accounts in the chart of accounts related to payroll, and all fifteen accounts will be assigned the same key (perhaps "PAYROLL"). Thus the system can purge or set other rules to all chart of accounts with the same key
1.1.23	Automatic check to ensure that prior to deleting a financial record, the account balance must have been "closed out" (i.e., nets to zero)	6	Yes									
1.1.25	Automatically inserts actual account balances into the elapsed month's bucket in a future forecast file at the end of each accounting period when the system rolls into the next period	4	No									
1.1.27	Audit log required for any changes to table information that may contain rates and information used by the system in any way; log contains before and after, change, date, and user identification	5	Yes									
1.1.28	Flexible general ledger key with multiple levels	8	Yes									General ledgers are designed to present values for creating financial statements. The multiple level for a ledger key means the system will have a more complex and functional key structure--one that supports a hierarchy of keys.
1.1.29	Exception reporting with drill down capabilities	5	Yes									The ability to automatically, rather than manually, identify open receivables exceptions by using user-defined conditions (for example, very large amount invoices, exceeding credit line. etc.)
1.1.32	Integration with ADP electronic transmission of payroll data	4	No									ADP refers to automatic data processing.
1.1.33	Uses the budget forecast information to create automatic postings; accruals for any potential overhead item, for example, bonus, depreciation, professional fees, new product development, and marketing expense; supports standard (automatically repeating) postings and entries that are generated each month with reference to amounts maintained in budget fields for the month. The amounts may or may not be the same from month to month	6	Yes									Forfuture expenses that have not been received. Upon invoice receipt, differences are posted to aparticular G/L account.

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1.1.34	Automatic year-end rolling of balances in sub-ledgers and general ledger control accounts	6	Yes									This is different from a purge because the balance still exists but has been moved to another account. This allows for the automatic aging of account balances from a current file to a prior file and is required to maintain separate balances relating to customers acquired in the current year and in prior years.
1.1.35	Automatic linking and posting of control accounts from related sub-ledger accounts	8	Yes									
1.1.36	Processes jobs in edit and update mode	7	Yes									The ability to process jobs that are in the midst of being edited or updated
1.1.37	Jobs required to include error and warning messages on reports	8	Yes									
1.1.38	Reports to include a control report that lists pages on which errors and warnings have occurred	8	Yes									The ability to create a report subsection that indicates which pages of the report mention errors and warnings
1.1.39	User-defined controls to allow specific jobs to update multiple times in a period	3	No									The ability to decide if a particular job should be updated more than once during a given time period
1.1.41	Table master functionality--sets parameters in a table, has jobs read the table, and creates postings or reports accordingly	3	No									The ability to define variables within a tabular array of data so that jobs are performed and postings or reports are created accordingly
1.1.42	User-defined field names for tables	3	No									This refers to enterprise resource planning (ERP) database tables, not, for example, report tables.
1.2	**Chart of Accounts Structure**	8	Yes									The chart of accounts is a list of ledger account names and account numbers, creating consistency in terminology and eliminates redundant accounts. A chart of accounts structure should include fields for account and ledger descriptions, to prevent shadow accounts from being created. Data tree tools allow users to see the structure of the fields and summaries, to help with reporting requirements, foster change, etc.
1.2.1	Account numbers may contain upwards of thirty alphanumeric characters	3	No									
1.2.3	Common chart of accounts	7	Yes									A common chart of accounts lets an organization integrate its data within financial and cost accounting systems, whether or not the data are included internally or externally. A common chart of accounts helps drive consistency of reported information, in addition to decreasing the reconciliation and consolidation procedures. Using a common chart of accounts is a method of ensuring compatibility across business units.
1.2.4	Common chart of accounts for both the ledgers and the sub-ledgers	7	Yes									Given ledgers and sub-ledgers may share a chart of accounts.
1.2.5	Account numbers may be alphanumeric	8	Yes									
1.2.8	Accounts, cost centers, and departments are ordered in a logical manner or in numeric sequence	5	No									Logical numbering refers to, e.g., date-related number assignment (as opposed to strictly sequential numbering).
1.2.10	Creates accounts in accordance with structure of the chart of accounts	6	Yes									
1.2.12	Specifies account types in structure	5	No									Standard, subtotal, statistical, volume, and memo are standard types of accounts.
1.2.17	Alphanumeric account keys	7	Yes									Full account numbers may be derived from alphanumeric key codes. This enables quick entry of account number data.
1.2.19	Create cost center entities, supporting up to at least 999	8	Yes									Cost center entities such as departments
1.2.20	Fields and segments can be defined in an account structure	6	Yes									Fields and segments can be created to represent areas required by a report structure such as a country, region, division, fund, product line, etc.
1.2.25	Track multiple organizational divisions such as business areas and profit centers	10	Yes									
1.2.27	Consolidates multiple entities (unlimited) results including calendars, chart of accounts, and currencies	4	No									

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1.2.32	Chart of accounts and titles may have multiple entities, which can be consolidated	5	No									The chart of accounts is a list of ledger account names and account numbers, creating consistency in terminology and eliminates redundant accounts. A chart of accounts structure should include fields for account and ledger descriptions, to prevent shadow accounts from being created. Data tree tools allow users to see the structure of the fields and summaries, to help with reporting requirements, foster change, etc.
1.2.38	Per-account entry on a monthly basis or annually by cost center	3	No									Cost centers are an organization's smallest units for reporting
1.2.39	Budget accounts for current and future year	5	No									
1.2.42	Budgets and accounts can be assigned to a department	6	Yes									
1.2.45	Maintenance of history for two years (viewing) and five years (reporting)	6	Yes									
1.2.47	Validity checks to ensure existence of standard accounts	5	Yes									The system checks the validity of standard accounts.
1.3	**Ledger Development and Management**	4	Yes									
1.3.3	Assigned books use ledger calendar and chart of accounts	4	Yes									Assigned books refer to the set of accounting records for a specific business entity.
1.3.5	Divides sub-ledger into smaller components for departments, cost centers, expense categories, projects, etc.	9	Yes									
1.3.6	Sequential account numbers are not required in order to subtotal accounts	5	Yes									Accounts and groups may be subtotaled regardless of their numerical sequence.
1.3.8	Manipulates data within the GL and sub-ledgers according to preset or calculated parameters defining allocation of postings	7	Yes									The ability to use preset or calculated variables to change where information is stored in the general ledger and subledgers
1.3.9	Calculates and posts expense items in accordance with an established group of allocation models	4	Yes									
1.4	**Enterprise Reporting Structure**	0	No									
1.5	**Journal Entry and Reporting**	10	Yes									The accounting department is typically responsible for recording all transactions in the company in the journal (GL). All of the criteria that fall Journal Entry and Reporting relate to various ways to record journal transactions. For example payroll is an AP item. As paychecks are cut the AP items need to be reconciled with the cash outflow. A software feature might be the automatic reconciliation of payroll deductions when paychecks are issued (as opposed to having an accountant have to key the transactions by hand).
1.5.1	Automatic A/P entries and maintenance by interfacing with another accounting system	4	Yes									
1.5.3	Automatic cash account entries and maintenance by interfacing with another accounting system	4	No									
1.5.4	Interface with third party payroll provider for automatic entries and maintenance	4	No									
1.5.5	Journal entries may be input directly	8	Yes									
1.5.8	Automatically numbers standard journal entries in sequence or as predefined (with a manual option)	6	Yes									
1.5.9	Automates journal entries which occur in each period	5	No									
1.5.11	Recurring journal entries	4	Yes									Specify a journal entry as the G/L's template for repeating every period
1.5.15	Manually entered journal entries can be modified before posting	7	Yes									
1.5.16	Batch totals and batch checking	6	Yes									A batch total is the sum of a field used as a control, to ensure all applicable data has been entered. Batch checking detects and reports standard deviations.

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1.5.32	Report writer enables the user to design standard monthly reports as well as "one-off' reports	6	Yes									
1.5.42	Creates automatic posting based on predefined calculation and information contained in the general ledger.	7	Yes									
1.6	**Journal Vouchers**	**7**	**Yes**									A journal voucher (JV) is a document that authorizes payment for services performed, or for goods that are received or exchanged. As a means to record ledger transactions, JVs may have different approvals for different accounts. For example when someone submits an expense report that money is typically associated with an account on the chart of accounts in the G/L. The account may require a JV for posted entries. The JV may include copies of receipts and a sign off from a manager before the entry can be posted.
1.6.2	Interfaces with third party databases to import and export transactions	3	Yes									
1.6.5	Real time posting enables direct transaction posting and journal saves, provided that there are no errors	3	No									
1.6.6	Debits and credits have separate columns in the journal voucher entry screen	3	No									
1.6.9	Upon transaction completion, issues batch control totals	7	Yes									
1.6.10	Recurring journal entries are automatically posted by the G/L for each accounting period	6	Yes									
1.6.17	Erroneous journal voucher batches may be removed by mass reversal	4	No									
1.6.24	Initiates new year before closing previous year	7	Yes									
1.6.26	Performs period-end closing multiple times, for trial purposes	4	No									
1.6.27	Prior to close, multiple period-end closes can be performed	4	Yes									
1.6.32	Audit trails are available in detail for both internal and external auditing	5	Yes									
1.6.34	Posting to both the general ledger and sub-ledger simultaneously	5	Yes									
1.7	**Controls for Ledgers**	**7**	**Yes**									
1.7.2	Identifies accounts that are inactive and inhibits or prohibits posts to those accounts	6	Yes									
1.7.7	User-assigned security rules restrict entry and query access to specific entities, accounts, or ranges of entities and accounts	6	Yes									
1.8	**Multicurrency Capabilities**	**0**	**No**									
1.9	**Online Inquiry Reporting**	**7**	**Yes**									
1.9.1	Current period and balance activity	7	Yes									
1.9.2	Account activity and balances for current year available online	7	Yes									
1.9.3	Account balance for previous year available online	6	Yes									
1.9.4	Amount designated for a planned project available online	7	Yes									
1.9.5	Compares actual operation results to the planned budget, online	7	Yes									
1.9.6	Compares current year to previous year or years	7	Yes									
1.9.7	Standard account inquiry that drills down to the source of the transaction in real time and extracts data; also includes analyses fields	6	Yes									

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1.9.9	Online drill down queries include summary and detail specific accounts, journal entry reviews, payable invoices, funds available, and variance calculations	5	Yes									
1.10	**Report Writing Capabilities**	9	Yes									
1.10.1	Transaction and trial balance reports	10	Yes									
1.10.2	Trial balance	10	Yes									A trial balance is a statement of accounts and their balances over a specified period.
1.10.3	Report for the profit and loss statement and balance sheet	10	Yes									
1.10.4	Budget statement comparison including current state and journal details	9	Yes									
1.10.5	Comparison on different types of income statements	6	No									
1.10.6	Balance sheet comparison showing different periods' balances	9	Yes									
1.10.7	Detail and summary level in G/L report	9	Yes									general ledger (G/L)
1.10.8	Summary and detail levels for trial balances	9	Yes									Accounting information can be analyzed from different levels and view points. A summary trial balance report lists the general ledger (G/L) balances and activity for each account, or for a group of accounts. A trial balance report presents specific information.
1.10.10	Specific reports may be requested	6	Yes									
1.10.11	User has option of multiple financial statement report formats	6	Yes									
1.10.12	Reports can be exported in a tab- delimited format	6	Yes									The chart of accounts is a list of ledger account names and account numbers, creating consistency in terminology and eliminates redundant accounts.
1.10.17	Lists chart of accounts	7	Yes									
1.10.18	Reports for entity accounts, sub-accounts, cost centers, and projects	9	Yes									
1.10.22	Users may define "as-of" date ranges for reporting	9	Yes									
1.10.37	Exports as tab-delimited spreadsheet format	6	Yes									general ledger (G/L)
1.10.39	Report writer for the G/L	9	Yes									general ledger (G/L)
1.10.64	User reporting tool--including flexible report format, rounding options, calculation options, and variance analysis--can access underlying data contained in the general ledger database	6	Yes									
1.11	**Variable Analysis**	5	No									
1.11.3	Compares variance, budget, forecast, and prior year in any combination	5	Yes									
2	**Accounts Payable (A/P)**	10	Yes									Accounts payable schedules bill payments to suppliers and distributors, and keeps accurate information about owed money, due dates, and available discounts. It provides functionality and integration to other areas such as customer service, purchasing, inventory, and manufacturing control. The software should support the following functionality: AP company policies and procedures; suppliers/voucher master data; payment controls; invoice processing and aging analysis; payment processing; journal voucher processing; AP ledger posting; check processing; AP transactions and controls; and AP reporting.
2.1	**Policies and Procedures**	10	Yes									
2.1.1	Multiple companies, divisions, and cost centers	10	Yes									
2.1.4	Company, division, or cost center accounts	10	Yes									
2.1.5	Sets up A/P system with distinct processing cycles for each company or account code	10	Yes									
2.1.6	Approved vendor list for all business entities	3	No									

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2.1.8	Uses accrual basis accounting	10	Yes									Accrual basis accounting requires expense matching and posting transactions to the ledger regardless of whether an invoice has been received or not. Using this method, revenue is recognized in the period in which it was earned.
2.1.9	Fields for data input may be determined by the user	5	Yes									
2.1.10	Alternate methods of data entry such as scanning and light pens	1	No									
2.1.11	EFT	10	Yes									electronic funds transfer (EFT)
2.1.12	Multiple banks and accounts	10	Yes									
2.2	**Supplier Master Data**	**10**	**Yes**									
2.2.2	1099 or W2 vendor designation (US tax forms)	10	Yes									The ability to include a field that indicates whether a company has 1099 or W2 status. This is useful for compliance with Internal Revenue Service reporting requirements for 1099 vendors. W2 is a tax form showing the income and taxes paid during the year.
2.2.3	Postal code field (including US zip code format)	10	Yes									
2.2.4	Vendor name	10	Yes									
2.2.5	Vendor number	10	Yes									
2.2.6	Vendor type	9	Yes									
2.2.7	Vendor address	10	Yes									
2.2.9	Vendor insurance numbers/EIN	10	Yes									
2.2.10	Vendor history with most current invoices listed first	10	Yes									
2.2.11	Contact name of supplier	5	No									
2.2.12	Suppliers listed alphabetically by supplier name	3	No									
2.2.15	Contact number	5	No									
2.2.16	Standard terms and the ability to mass change	4	No									The ability to record the time period that is normally extended on credit sales before payment is due, and to make mass changes to this time period
2.2.17	Default currency by supplier	3	No									
2.2.18	Voucher ID (in sequence)	3	No									
2.2.19	PO number	10	Yes									purchase order (PO)
2.2.20	Issue date of voucher	3	No									
2.2.21	Supplier's invoice or credit number for reference, including amount and date	10	Yes									
2.2.22	Discount percent available based on supplier criteria	3	No									
2.2.25	Records date payment must be received for a discount to be effective	8	Yes									
2.2.26	G/L account to be charged and the monetary amount	10	Yes									
2.2.27	Tracks check number, date of issue, and amount	10	Yes									
2.2.28	Manages miscellaneous supplier data such as insurance numbers, addresses, telephone numbers, etc.	10	Yes									
2.2.30	Identifies supplier by type (including freelance, employees, one-time, US tax W2 or 1099 info, etc.)	10	Yes									
2.2.31	Suppliers with multiple locations, addresses, and currencies	10	Yes									
2.2.33	Data entry screens for high-volume activity are supplier-specific	10	Yes									A data entry screen dedicated to a specific vendor in the case that the vendor has a high volume of activity
2.3	**Invoice Process and Aging**	**10**	**Yes**									purchase orders (PO)
2.3.1	Creates miscellaneous distribution lines to record charges and invoices for items that do not have POs	10	Yes									

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2.3.2	Validates vendor invoice numbers, with only valid invoices posted to the accounts payable ledger being scheduled for payment	10	Yes									
2.3.3	Option to pay invoices immediately	9	No									
2.3.4	An invoice that was entered in the system as a system check can be redesignated as a manual check	9	Yes									
2.3.5	No new vendors added at invoice entry (security)	10	Yes									
2.3.6	A/P aging report on outstanding items	10	Yes									
2.3.7	A/P due-date aging	10	Yes									
2.3.10	Inserts invoices for future periods	5	No									
2.3.11	Distributes invoices to different accounts within separate companies or locations	3	No									
2.3.12	"On hold" designation may be attributed to invoices in system	3	No									
2.3.13	Allocates cost to projects	10	Yes									
2.3.14	A/P system performs maintenance of all invoice information fields	10	Yes									Accounts payable (A/P); users can modify invoice information fields from within the A/P system.
2.3.15	Currency and exchange rate defaults by vendor	5	No									
2.3.18	Scanned invoice images available online	10	Yes									
2.3.19	Scans accounts payable invoices into system with option to drill down to view invoice	10	Yes									
2.3.20	Flexible invoice processing (e.g. one check from multiple invoices or multiple checks from a single invoice)	10	Yes									
2.3.21	Produces (US) government 1099 and W2 forms and tracks payments	10	Yes									The ability to provide all the forms and reports needed to meet 1099 and W2 tax reporting needs
2.3.22	Recognizes credit notes or cost adjustments made by user	10	Yes									
2.3.23	Links cost adjustment back to original invoice and ensures adjustment is tied to check or payment of the original invoice	10	Yes									
2.3.24	Handles a batch filing system--each invoice requires a cross reference number in the system as well as a vendor code	3	No									
2.3.25	Maintains at least four years of invoice details (current year and three prior years)	8	Yes									
2.3.27	Audit report for any changes to the vendor master file-- should show the information before the change, indicate what was changed, who changed it, and what the new information is	10	Yes									
2.3.28	Sends or routes invoices to various departments for approval and on request produces a report by department that ages the invoices either by invoice date or date sent to department (i.e., tracks the status of a document and to whom it has been sent)	10	Yes									
2.3.29	Flags outstanding items	8	Yes									
2.3.30	Two-way invoicing or PO options by invoice, PO--on hold until received	10	Yes									
2.3.32	Invoice batch edits for checking data input prior to update	10	Yes									
2.3.33	Invoice inquiry supports search by dollar amount, invoice number, vendor number, vendor name, or alpha key	10	Yes									
2.4	**Journal Invoice Process**	**8**	**Yes**									voucher process
2.4.1	Prepays vouchers or makes payment with manual checks	6	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
2.4.2	Online entry and processing of vouchers, with views for purchase order information, receiving document information, and credit memo information	4	No									
2.4.6	Multiple vendor sites can be used on a voucher, including different addresses for shipping and remitting	10	Yes									
2.4.10	Suspends payment for a voucher and records amount due	8	No									Suspends an invoice to cancel a payment
2.4.21	Accrual-basis accounting for recognizing revenue	7	Yes									Standard method of accounting where some types of revenue may be recorded before being received
2.5	**A/P Ledger Posting**	**10**	**Yes**									
2.5.1	Detail or summary G/L posting review	10	Yes									general ledger (G/L)
2.5.2	Account codes can be overridden or inputted	8	Yes									
2.5.3	All transactions are posted daily to the A/P ledger and are automatically posted to the G/L	10	Yes									accounts payable (A/P); general ledger (G/L)
2.5.4	Reports to the G/L account the total value of all transactions that occurred in a specified period	6	No									general ledger (G/L)
2.5.5	G/L distribution report	6	No									
2.5.7	A/P balances at business unit and plant levels	5	No									
2.6	**Control of Payments**	**10**	**Yes**									
2.6.1	Verification to prevent a vendor with an open PO or unpaid invoice from being deleted	10	Yes									
2.6.2	Verification to prevent a vendor active in current year from being deleted	10	Yes									
2.6.3	Negative amount can be added to an invoice (negative invoice line) to indicate, for example, trade discounts	10	Yes									
2.6.4	Places holds on all vendor invoices for a given vendor	6	No									
2.6.5	Release payment at vendor level, invoice level, or line item	10	Yes									
2.7	**A/P Transactions and Controls**	**10**	**Yes**									
2.7.2	All A/P transactions updated in real time	10	Yes									
2.7.4	Checks online batch total or voucher balances	10	Yes									
2.7.5	Validates vendor invoices to avoid duplication	10	Yes									
2.7.7	Corrects distribution errors online without having to reenter or reverse entries and transactions	10	Yes									
2.8	**Processing of Payments**	**10**	**Yes**									
2.8.19	Accepts invoices without a PO	10	Yes									purchase order (PO)
2.8.20	Skeleton voucher containing standard recurring information	6	No									A skeleton voucher is one that contains basic or recurring information, regularly input in a voucher
2.8.21	Queries open and closed payables	10	Yes									
2.8.22	Online view of vendors with current unpaid balances	10	Yes									
2.8.23	Processes credit card payments	10	Yes									
2.8.24	EFTs	10	Yes									electronic funds transfer (EFT)
2.8.26	Partial payments	10	Yes									
2.8.30	Automatically generates PO number	10	Yes									
2.8.31	Navigates directly to a specific invoice (for example, by double-clicking on listing)	3	No									
2.8.32	Tracks status of document (invoice and PO) and to whom it has been sent	10	Yes									
2.8.33	Provides summary and aged listing of documents or invoices sent to a department (date based on invoice date, date routed, and date sent)	8	No									
2.8.34	Alerts users of outstanding action items	10	Yes									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
2.8.37	Multiple search criteria, including vendor, invoice number, and dollar amount	10	Yes									
2.8.38	Approves POs online	10	Yes									
2.8.39	EDI of purchase orders and invoices for select vendors	3	No									
2.8.40	Web-enabled activity, such as allowing employees to e-mail expense reports for processing	10	Yes									
2.8.41	Travel and entertainment reporting as well as verification by employees	10	Yes									
2.8.42	Posts invoices to future periods but pays them in the current period instead of holding onto them	10	Yes									
2.8.43	Back-end tax reporting for sales and use tax--a list of invoices processed during the month, which indicates the sales and use tax--input tax credit claimed	7	No									Users can create a report that lists all sales and user tax liabilities for a time period, along with the invoices already claimed. This would apply if an invoice had been received after the sales and use tax calculation had already been calculated for a specific time period.
2.9	**Processing of Checks**	**10**	**Yes**									
2.9.1	Funds can be drawn from more than one bank	10	Yes									
2.9.2	Checks can be written from more than one bank	10	Yes									
2.9.3	User-selected check formats include printed check and EFT formats	10	Yes									electronic funds transfer (EFT)
2.9.6	Check run can be recovered and initialized if there are printing problems	10	Yes									
2.9.7	Reconciles checks and accounts that are manually input	9	Yes									
2.9.9	Prints sequence of checks by supplier name or supplier name within a specific bank	10	Yes									
2.9.11	Voids and replaces checks	10	Yes									
2.9.12	Automatically reverses distribution when a check is voided	10	Yes									
2.9.13	Uses void and replacement check numbers when bank activity is reconciled with account activity	10	Yes									
2.9.14	Invoices are automatically returned to the system if a check is voided	5	No									
2.9.15	Prints employee expense payments using a sequence distinct from vendor payments	6	No									
2.9.16	Automatically reconciles the bank account with the accounts payable payment history	6	No									
2.9.17	Processes cancelled checks	6	No									
2.9.18	Creates a report on all issued checks, including manually entered and voided checks	10	Yes									
2.9.19	Reports all the transactions of a vendor during a specified period	5	No									
2.9.20	Verifies that checks were written by approved personnel only	8	Yes									
2.9.21	Check number count before new check run	10	Yes									
2.9.22	Flags checks requiring attachments prior to mailing	9	No									
2.9.23	Prints checks requiring attachments at the beginning of a check run	9	No									
2.9.25	Supports automated check reconciliation from the bank	8	Yes									
2.9.26	Supports the transfer of data of all cashed checks from banks	8	Yes									
2.9.27	Posts invoices being processed to one accounting period, but posts the check run to another accounting period	10	Yes									
2.9.28	Laser-printed checks	10	Yes									
2.9.29	Multiple banks and currencies	10	Yes									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
2.9.30	Monthly check registers by bank	8	Yes									
2.9.31	Reinstates an invoice or cancels a check (still payable by the system)	5	No									
2.9.32	Voids an invoice or check (no longer payable by the system); reverses original distributions; and adjusts the outstanding check lists (while leaving a complete audit trail)	10	Yes									
2.9.33	Generates a manual check of an invoice already in the system as an open item waiting to be paid by a computer check--inputs a batch that will transfer the invoice from open item to paid status	3	No									
2.9.34	Electronic funds transfers and direct deposit for employees	10	Yes									
2.9.35	Procurement card processing	10	No									
2.10	**Reporting**	10	Yes									
2.10.2	Employee expense reports include details on meals, transportation, lodging, etc.	10	No									
2.10.3	Employee expense reports (month-to-day and year-to-date)	7	No									
2.10.4	Expense reports contain summarized lists divided by category	7	No									
2.10.5	Creates report of expenses by cost center or division	5	No									
2.10.8	Reports details of bank transactions and bank balances	9	Yes									
2.10.9	1099 and W2 reporting and form printing (US tax purposes)	10	Yes									
2.10.11	Age trial balance vendor listing	9	No									The ability to show the length of time since financial transactions occurred on vendors' accounts
2.10.12	Shows cash amount necessary to pay outstanding invoices	10	Yes									
2.10.13	Prints items in base currency or in transaction currency	8	No									
2.10.14	Creation of ad hoc reports by user (for example vendor payment history report)	9	No									
2.10.15	Tax reporting for sales and use tax: summary by vendor or invoice of all input tax credits processed in the month by the A/P system	7	No									
2.10.16	Age trial balances and vendor payment history (YTD)	10	Yes									The ability to show the length of time since financial transactions occurred on vendors' accounts, in conjunction with the vendor's payment history for the year to date (YTD)
2.10.18	Travel expense reporting capability	5	No									
2.10.19	Monthly check registers	10	Yes									
2.10.20	Automated workflow--A/P automatically updates and sends message to the general accounting group that a transaction has taken place	10	Yes									
3	**Fixed Assets**	3	No									Fixed assets manages depreciation and other costs associated with tangible assets such as buildings, property and equipment. The software should support the following functionality: fixed assets records; asset transactions; asset depreciation; depreciation books; revaluation and interest calculation; and tax reporting.
3.1	**Records for Fixed Assets**	0	No									
3.2	**Asset Transactions**	0	No									
3.3	**Depreciation of Assets**	0	No									
3.4	**Depreciation Books**	0	No									
3.5	**Tax Reports**	0	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
4	**Cost Accounting**	**7**	**Yes**									Cost accounting analyzes corporate costs related to overhead, products, and manufacturing orders. It provides a variety of costing approaches such as standard, FIFO, LIFO, average, target, and activity-based costing (ABC). The software should support the following functionality: cost data; cost allocation definitions; cost allocation process; cost management; cost and sales price calculation; activity based costing (ABC); and activity based cost tracing and tracking
4.1	**Cost Data**	**7**	**Yes**									
4.1.1	Maintains multiple calculation codes for various algorithms used in calculating different cost data.	7	Yes									Calculation codes indicate what calculation should be performed for particular cost data or a cost simulation and when.
4.1.2	Overhead rates	7	Yes									
4.2	**Cost Allocations**	**5**	**No**									Cost allocations are the identification and distribution of cost in a multipurpose project.
4.2.1	Attributes cost pool dimension codes for the source and target of the allocation	5	No									A cost pool includes all the costs that can be attributed to a resource account. A dimension code is an identifier used to specific traits of a cost center. Allocation amounts are determined by postings to the source dimension code and the cost category of accounts. The amount is distributed among the target dimension codes or activities.
4.2.2	Groups dimension codes into cost pools by dimension type	5	No									A cost pool includes all the costs that can be attributed to a resource account. A dimension code is an identifier used for specific traits of a cost center.
4.2.4	Uses allocation codes to post results to G/L	5	No									general ledger (G/L)
4.3	**Cost Allocation Processing**	**5**	**No**									
4.3.5	Allocates cost by multiplier, quantity, or amount	5	No									A dimension code is an identifier used to identify specific traits of a cost center. Accounts are grouped into cost categories and allocated amounts are posted from the source dimension (a dimension originally charged) to the target dimension.
4.3.7	Groups accounts into cost categories, and allocates amounts from one reporting dimension code to another	5	No									general ledger (G/L)
4.3.10	Posts cost allocation in the G/L	5	No									general ledger (G/L)
4.3.18	Audit report tracks allocation costs made to the G/L and their transaction histories	5	No									
4.3.19	Journalizes allocations so they can be posted to the G/L	5	No									general ledger (G/L); journalizing is the act of classifying and recording entries in a journal
4.4	**Management of Costs**	**0**	**No**									
5	**Cash Management**	**6**	**No**									Cash management involves the capability of the system to record cash charges or deposits, recording of cash payments and receipts, cash projection reporting, calculation of expected cash uses/sources, current cash availability, etc. It monitors and analyzes cash holdings, financial deals, and investment risks
5.1	Up-to-date cash balance report	5	No									
5.3	Projects cash utilization from purchasing, A/P, and miscellaneous cash	4	No									accounts payable (A/P)
5.4	Checks committed funds against cash reserves or availability	3	No									Ability for the system to always check the funds committed (purchase orders) against the cash sources to ensure that the funds available is not exceeded.
5.6	Reports cash projections	6	No									
6	**Budgeting**	**6**	**Yes**									Budgeting involves budgetary controls, budget accounting, budget development, and budget allocation. The software should provide sufficient tools to enable detailed budget development and analysis. Additional functionality should be available to integrate with project management software applications either natively or with external interfaces.
6.1	**Budget Control**	**5**	**Yes**									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
6.1.1	Budget control logic can be defined at any area of the account structure or for any number of levels	5	Yes									
6.2	**Budget Accounting**	5	Yes									
6.2.2	Income, expense, liability, assets, and equity accounts can be used in the budgeting process	5	Yes									
6.2.3	Multiple budgets can be created from a single account to create what-if scenarios and for forecasting	5	Yes									
6.2.4	Annual, quarterly, monthly, or customized budget periods	5	Yes									
6.2.5	Creates financial statements in conjunction with budgets	5	Yes									
6.2.6	Pro rata distribution of annual budgets over different periods, including quarterly, monthly, or other, customized periods	5	Yes									
6.2.7	Pro rata distribution of quarterly budgets over monthly accounting periods	5	Yes									
6.3	**Budget Development**	5	Yes									
6.3.1	Worksheet tools for developing budgets	5	Yes									
6.3.2	Integrated budget tools	5	Yes									
6.3.3	Generates budget using historical budget and actual budget	5	Yes									
6.3.4	Generates a new budget by using data from historical budgets, and changes in historical actuals and percentages	5	Yes									
6.3.5	Budget report summaries for executive or management review	5	Yes									
6.3.6	Uses historical budgets and actuals to create reports predicting trends	5	Yes									
6.3.7	Future costs and revenues can be based on different rates, standards, volumes, and user-specified factors	5	Yes									The ability to forecast different future costs and revenues based on different rates, standards, volumes, and other user-specified factors
6.3.8	Budgets can be viewed online and interactively	5	Yes									Capability of the system to allow the users to review, on-line, interactively, budget information as it is being loaded into the system
6.3.9	Uses historical budgets and actuals to automatically project trends	5	Yes									
6.4	**Budgets**	5	Yes									
6.4.1	Multiple budgets for current and previous years	5	Yes									
6.4.2	Many versions of the budget can be created for the current year	5	Yes									
6.4.3	Stores multiple budgets of prior year	0	No									
6.4.4	Online reports of budgets to actual	5	Yes									
6.4.5	Compares budget versus actual dollar activity	5	Yes									Provides complete budget information versus actual dollar activity as a comparison for analysis and status.
6.4.6	Budget versus forecast comparison	4	No									
6.4.14	Produces reports rounded to dollars, hundreds, or thousands	5	Yes									
6.4.15	Produces a consolidated corporate budget or re-forecast	5	Yes									
6.4.18	Allocates an amount across accounts	4	No									
6.4.19	Allocates based on percentages, which are based on statistical account balances (such as head count and floor space)	5	Yes									
6.4.41	Generates and updates budgets in real time	5	Yes									
6.5	**Allocation of Budgets**	5	No									
6.5.1	Defines budget level financial allocations	5	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
7	Accounts Receivable	10	Yes									Accounts receivable tracks payments due to a company from its customers. It contains tools to control and expedite the receipt of money from the entry of a sales order to posting payments received. The software should support the following functionality: AR company policies and procedures; customers/voucher master data; bill processing and aging analysis; credit management; cash/payment application, receipt processing; journal voucher processing; AR ledger posting; multicurrency accounting and conversions; AR transactions and controls; and AR reporting.
7.1	On-line Requirements	10	Yes									
7.1.1	Accepts manual entry of invoices, cash receipts and adjustments with G/L accounts and effective dates	10	Yes									
7.1.2	Accepts debit memo and credit memo transactions as adjustments to the customer accounts	10	Yes									
7.1.4	Invoice, cash receipt, or adjustment transactions may be entered in batches	10	Yes									
7.1.5	Reject or suspend batches not balancing on either item or dollar totals	10	Yes									If a batch does not balance, it will not be posted by the system, but will be held in suspense until the errors have been corrected.
7.1.6	Invoice, cash receipt, or adjustment transactions may be directly entered, bypassing batch entry requirements	10	Yes									Individual transactions can be entered and posted immediately rather than being posted as part of a batch. In fact these individual transactions are still a batch containing a single transaction.
7.2	Processing Requirements	10	Yes									
7.2.1	Allow either open item or balance forward processing of receivables	10	Yes									
7.2.4	Consolidate multiple-location customer billings into a single open item, due from one paying location	10	Yes									
7.2.6	For reporting purposes accept cash sales as a specially coded receivable and cash receipt	8	Yes									
7.2.9	Issuing invoices for percent complete	8	Yes									
7.3	Data Requirements	10	Yes									
7.3.3	Maintain a customer table with multiple addresses for sold-to, ship-to, and bill-to	10	Yes									
7.3.4	Maintain a customer table with multiple contacts, including name, location, title, phone, and fax data	10	Yes									
7.3.8	Maintain a summarized history of all written-off customers and invoices for five years	10	Yes									
7.3.9	Code fields are user defined for adjustment by plant tied to G/L	10	No									Adjustments can be tied to individual plants by utilizing a specific code field.
7.4	Reporting Requirements	10	Yes									
7.4.1	Upon request, print a batch listing, showing every item in a particular batch	8	No									
7.4.2	Produces an A/R journal that lists all activity posted to the A/R master file, and sorts report line items by either batch and line number or customer number	8	Yes									accounts receivable (A/R)
7.4.3	Ages the receivables according to user-definable time buckets	10	Yes									
7.4.4	Ages receivables either according to invoice date or according to due date	10	Yes									
7.4.5	A/R aging report shows a line item for each invoice posted to the A/R master file	10	Yes									accounts receivable (A/R)

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
7.4.7	Balance forward system produces a period end A/R trial balance showing each account's open period balance, all posting activity, and closing balance	10	Yes									
7.4.9	Provide a customer contact listing, showing name, phone number, and other contact information by customer	5	No									
7.4.10	Creates a management summary or a key indicator report containing a summary of A/R activity, including DSO, bad debt ratio, and percent of current accounts	6	No									accounts receivable (A/R); day sales outstanding (DSO)
7.4.11	Forecast cash receipts based on the historical payment patterns of customer accounts	8	No									
7.5	**Interfacing Requirements**	10	Yes									
7.5.1	Receive invoices and debit or credit memo transactions from the invoicing system	10	Yes									
7.5.2	Automatically prepare general ledger journal entries by business unit, for cash receipts	10	Yes									
7.5.5	Automatically prepare general ledger journal entries by allowance for un-collectible accounts	8	No									
7.5.6	Automatically prepare general ledger journal entries by write-offs	8	No									A write-off is an allowable reduction in an asset's value.
7.5.11	Create a single journal that summarizes activity by invoices	8	Yes									
7.5.12	Create a single journal that summarizes activity by cash receipts--auto cash transaction type	8	Yes									
7.5.13	Create a single journal that summarizes activity by adjustments	8	Yes									
7.5.16	Create a single journal that summarizes activity by specific invoice line items	10	Yes									
7.6	**Credit and Collections Management**	0	No									

8   Financial Reporting

Hierarchy	Criterion	Priority	Mandatory	SUP	PSUP	PADD	MOD	3RD	CST	FUT	NS	Description
8	Financial Reporting	10	Yes									Financial reporting enables robust analysis of company performance through delivered reports. These reports will allow individual business units to view their financial information, while parent companies can roll up all business subsidiaries and view the consolidated information. Additionally, solutions should provide user generated reporting tools that are easy to use and provide sufficient depth of and access to the financial data to permit comprehensive analysis.
8.1	**Online Requirements**	10	Yes									
8.1.1	Specifies report rows as a set of accounts defined by an account range	9	Yes									
8.1.2	Specifies report rows as a set of accounts defined by a list of account numbers	9	Yes									
8.1.4	Specifies report rows as a set of accounts defined by a department (summary or detail) in a financial report structure	9	Yes									
8.1.5	Specifies report rows as a set of accounts defined by account balances that meet specified conditions	10	Yes									
8.1.6	Creates report rows using a separate file of row specifications that links particular accounts to individual rows	9	Yes									
8.1.7	Column specifications indicate column width	9	Yes									
8.1.8	Column specifications indicate the beginning column position on the report, up to 196 column positions	8	Yes									
8.1.9	Column specifications indicate editing options, including currency symbols and commas	7	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
8.1.10	Column specifications indicate options to edit data, including thousands of dollars	7	No									
8.1.11	Column specifications indicate options to edit data, including specified number of decimals	7	No									
8.1.12	Column specifications indicate options to edit data, including reporting negatives in parentheses	9	Yes									
8.1.13	Column specifications indicate options to edit data, including where to select column information such as current year actuals	8	Yes									
8.1.14	Column specifications indicate options to edit data, including where to select prior year actuals	9	Yes									
8.1.15	Column specifications indicate options to edit data, including budget version number	9	Yes									
8.1.16	Column specifications indicate options to edit data, including where to select column information such as period format by YTD balances	9	Yes									year to date (YTD)
8.1.17	Column specifications indicate options to edit data, including where to select column information, such as periods in the current or prior year	9	Yes									
8.1.18	Column specifications indicate options to edit data, including where to select column information such as forecasted year end amount (actual plus budget)	8	Yes									
8.1.19	Column specifications indicate options to edit data, including where to select column information such as quarterly balances	9	Yes									
8.1.20	Column titles that span several columns and contain up to four lines of description	8	Yes									
8.1.21	Allow particular rows or columns to be defined as the sum or difference of two other rows/columns	9	Yes									
8.1.22	Enable an entire new report specification to be set up by copying an old one	8	Yes									
8.2	**Miscellaneous**	**10**	**Yes**									Enables individual business units to view their financial information, while parent companies can roll up all business subsidiaries and view the consolidated information.
8.2.1	Schedule the execution of any custom financial reports so that they can be run at any time or any day of the week	10	Yes									
8.2.2	Control break can be defined on any component of a qualified account number, such as by department	10	Yes									Users can define a non-posting account that accumulates the total amount associated with the control break account. In this example users can define an account that accumulates all revenue or expenses that are associated with a specific department. These non-posting account totals can then be printed on a report.
8.2.3	Provide control break logic that prints totals being accumulated since the previous control break	10	Yes									Control breaks are like sub-totals. In this case the user can define multiple control break accounts and the system will automatically accumulate and print on a report the subtotals.
8.2.4	Provide control break logic that prints a blank line, or set of underlines, before or after printing a total	10	Yes									Control break accounts do not have to be accumulators. They can also be blank lines or underlines that will help users format a report.
8.2.5	Provide control break logic that prints the next control value only once to start the next control group	10	Yes									Rather than accumulating and printing the accumulator sub-total at the end of the control break, users can specify that the sub-total is printed at the beginning of the account list.

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)
8.2.6	Provide control break logic that prints user-defined headers for each control break	10	Yes								
8.2.7	Provide multiple levels of control breaks	10	Yes								
8.2.8	Custom financial report can automatically print an unlimited number of header title lines on each report page	8	Yes								
8.2.9	Financial report can be customized to automatically print report routing for data control on each report page	9	Yes								
8.2.10	Financial report can be customized to automatically print page numbers, date, and time on each report page	9	Yes								
8.2.11	Allow financial report writer specifications to be printed on hard copy	8	Yes								
8.2.12	Reported information can be extracted, placed into a file, and loaded into a spreadsheet or other software packages	10	Yes								
9	**Project Accounting**	**10**	**Yes**								
9.1	**Project and Cost Coding Structure**	**10**	**Yes**								
9.1.1	Provide for user definition of project or cost code segments	10	Yes								
9.1.2	Permit user definition of the sizes of each segment	9	Yes								
9.1.3	User-defined number of actual, commitment, budget, and statistical accounts for each level of the account structure	3	No								
9.1.4	Defines summary accounts in a multilevel hierarchy, including features associated with posting accounts	9	Yes								
9.1.5	Use the project and cost coding structures for selection required in reporting	9	Yes								
9.1.6	Uses date sensitivity in a structure, such as particular roll-up of tasks, which will take effect within a certain period of time	2	No								
9.1.7	Free-form notes or text comments can be posted at any level of the structure, with optional notes history, notes notification, and notes display at summary details	7	Yes								
9.1.9	User-defined sub-project coding can be applied at any level of the regular cost coding structure to provide a unique breakdown of costs, with optional inclusion or exclusion in project reports	8	Yes								
9.1.10	Provide an option to budget or commit project expenditures by periods	9	Yes								
9.2	**Project Creation**	**10**	**Yes**								
9.2.1	A project can be created from a default table containing different project templates, which in turn contain definitions and separate coding structures	8	No								
9.2.2	An existing project structure may be duplicated with no data being transferred	3	No								
9.2.4	Support for multiyear projects	10	Yes								
9.2.5	Permits multiple phase project definitions	9	Yes								

Description

Control break accounts do not have to be accumulators. They can also be blank lines or underlines or titles that will help users format a report.

Project accounting uses financial practices to monitor the schedules and spending of projects.

The ability to apply extra, user-defined codes at any level of the cost coding structure in order to look at the cost breakdown in a new way

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
9.2.6	Tracks a contract change order from identification, where it is reported as pending; to formal approval, when it is included in the contract and automatically transferred to commitment	9	Yes									
9.3	**Cost Coding Structure Creation or Maintenance**	**8**	**Yes**									
9.3.1	Cost codes may be added to the structure without affecting existing projects	8	Yes									
9.3.3	A cost code may not be deleted if there are any values for that code in existing projects	10	Yes									
9.3.4	When deleting a cost code the system either automatically deletes all references to the code from other parts of the system, or disallows the deletion	6	No									
9.3.5	Retains statistical accounts in a manner that allows the statistical amount to be defined as either a balance forward account or as a balance only account	5	No									Statistical accounts track information, which is not of a financial nature.
9.4	**Transaction Processing**	**10**	**Yes**									
9.4.1	Distribution to unlimited project and cost codes accounts	8	Yes									
9.4.2	A running total shows the total debits and credits as they are being entered	4	No									
9.4.3	Posting of financial transactions to open periods	10	Yes									
9.4.4	Posting of budget, commitment, or statistical data to any open or future period	6	No									
9.4.5	Automatic creation of general ledger transactions with appropriate debit or credit offsets	10	Yes									
9.4.6	An accounting date or effective date, indicating which cost ledger accounting period is to be posted	9	Yes									
9.4.7	E-mail and workflow routing and tracking of unposted transactions and related images for approval	7	Yes									
9.4.8	Provide for recording and tracking of contingent liabilities by project	9	Yes									
9.4.10	Support a posting interface which permits simultaneous updates of the general and cost ledgers when financial transactions are posted to either ledger	9	Yes									
9.5	**Line Item Data Capture**	**8**	**Yes**									
9.5.1	A transaction description field of at least sixty characters in the summary or header	8	Yes									
9.5.2	Transaction number, transaction type, and general reference fields by line	4	No									
9.6	**Reporting Format and Tools**	**10**	**Yes**									
9.6.1	Original budget	10	Yes									
9.6.2	Authorized funds	10	Yes									
9.6.3	Prior budget	9	Yes									
9.6.4	Current budget	10	Yes									
9.6.5	Commitments	9	Yes									
9.6.6	Pending commitments (change orders in process)	9	Yes									
9.6.7	Actuals	10	Yes									
9.6.8	Estimate-to-complete	9	Yes									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
9.6.9	Retentions	4	No									Retention is when a percentage of an invoice (either payables or receivables) is withheld until the job or project is finished. The system will accrue these retentions until in a special asset or liability account.
9.6.11	Supports reporting of posted transactions, un-posted transactions, or both	6	No									
9.6.12	Uses the cost coding structure to allow online drill-downs from summary to detail; drills-through to source transactions and related documents and images, including estimates and supporting detail, contracts and change orders (actual and pending commitments), and invoices (actuals)	9	Yes									
9.6.14	Provides an online query tool or direct link to query tool, and real-time spreadsheet interface (specifies spreadsheets, i.e. Lotus or Excel)	9	Yes									

10   Product Technology

| | | 10 | Yes | | | | | | | | | This group of criteria defines the technical architecture of the product as well as the technological environment in which the product can run successfully. Criteria include product and application architecture, software usability and administration, platform and database support, application standards support, communications and protocol support and integration capabilities. Relative to the other evaluation criteria, best practice selections place a lower relative importance on the product technology criterion. This apparently lower importance is deceptive because the product technology usually houses the majority of the selecting organization's mandatory criteria, which generally include server, client, protocol and database support, application scalability, and other architectural capabilities. The definition of mandatory criteria within this set often allows the client to quickly narrow the long list of potential vendors to a short list of applicable solutions that pass muster relative to the most basic mandatory selection criteria. |

Hierarchy	Criterion	Priority	Mandatory	SUP	PSUP	PADD	MOD	3RD	CST	FUT	NS	Description
10.1	**Architecture**	0	No									Architecture refers to the framework for organizing the planning and implementation of data resources. It also refers to the way the system is designed and how the components are all connected to one another.
10.1.1	**Data Integration Technologies**	0	No									Data integration technologies pertain to hardware and software integration.
10.1.1.1	**Data Management Options**	0	No									Data management options pertain to hardware and software integration.
10.1.1.1.1	Relational database design	0	No									
10.1.1.1.2	Normalized tables	0	No									This term describes the database architecture of the proposed business system. From table relations handled as fourth normal form to first normal form.
10.1.1.1.3	SQL APIs for calls or data requests	0	No									
10.1.1.1.4	Multi-RDBMS portability	0	No									Relational database management systems (RDBMS) are a type of database management systems (DBMS) that store data in the form of related tables.
10.1.1.1.5	Transaction tracking system	0	No									
10.1.1.1.6	Replicates database master files, fields, and structures	0	No									The ability to make copies of master files, fields, and structures
10.1.1.1.7	Supports Disaster Recovery Institute procedures	0	No									
10.1.1.2	**Database Gateway Options**	0	No									Gateways are interfaces that convert protocols in order to connect different networks.
10.1.1.2.1	Microsoft SQL Server	0	No									
10.1.1.2.2	Oracle	0	No									
10.1.1.2.3	IBM DB2	0	No									
10.1.1.2.4	Informix	0	No									
10.1.1.2.5	MySQL	0	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.1.2.6	PostgreSQL	0	No									
10.1.1.2.7	Progress	0	No									
10.1.1.2.8	Sybase	0	No									
10.1.1.3	**Server/Host Relational DBMS Options**	**0**	**No**									
10.1.1.3.1	Oracle	0	No									
10.1.1.3.2	Microsoft SQL Server	0	No									
10.1.1.3.3	IBM DB2	0	No									
10.1.1.3.4	Informix	0	No									
10.1.1.3.5	MySQL	0	No									
10.1.1.3.6	PostgreSQL	0	No									
10.1.1.3.7	Progress	0	No									
10.1.1.3.8	Sybase	0	No									
10.1.1.4	**Metadata Management**	**0**	**No**									
10.1.1.4.1	Maintain basic data models	0	No									Metadata are data about data. They describe how, when, and by whom a particular set of data was collected, and how these data are formatted.
10.1.1.4.2	Storage of metadata model/global data dictionary for any applications or data sources	0	No									The ability to include all information in the database, no matter what format it is stored in
10.1.1.4.3	Include data in the interrelationship details, regardless of data formats	0	No									
10.1.1.4.4	Includes data description/definition language (DDL) for importing, editing, printing, and generating DBMS data structures	0	No									
10.1.1.4.5	Common relational model for sharing data across multiple databases	0	No									A way to store and share data from multiple databases according to its relationships with other data
10.1.1.4.6	Interface to relational database structures	0	No									
10.1.1.4.7	Interface to CASE tool designs	0	No									
10.1.1.4.8	Interface to system management or network configurator for automatic job execution	0	No									
10.1.1.4.9	Non-operational data warehousing	0	No									
10.1.1.5	**Logical Repository Model**	**0**	**No**									This pertains to the IT department's system support of the application.
10.1.1.5.1	House system design criteria, database structures, data element links, and interrelationships	0	No									This pertains to the IT department's system support of the application.
10.1.1.5.2	Combine procedural and object-oriented components	0	No									This pertains to the IT department's system support of the application.
10.1.1.5.3	Capture complex relationships between system components	0	No									
10.1.1.5.4	Unify and reconcile enterprise data within and across all applications and platforms	0	No									
10.1.1.5.5	Define structure of distributed databases and data stores	0	No									
10.1.1.5.6	Define network components and interrelationships in enterprise of a distributed application infrastructure	0	No									
10.1.1.5.7	Include inventory of hardware configurations	0	No									
10.1.1.5.8	Identify hardware upgrade requirements and manage the upgrade/distribution process	0	No									
10.1.1.6	**Repository Metadata Tools**	**0**	**No**									Database field names and types
10.1.1.6.1	Tool for modeling metadata (information about data, its structure, and where it is stored)	0	No									
10.1.1.6.2	Tools for analyzing source data, modeling target data structures, and storing information	0	No									
10.1.1.6.3	Source code analyzers for documenting program interdependencies and separating application logic from core data structures	0	No									These refer to tools for programmers.

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.1.6.4	Map source/host application data to data elements in an open system environment for coexistence, batch extraction, or system migration	0	No									To enable batch and automated data transfer between the system and other applications which may be in operation, the data fields must be mapped to create a link between the systems. This criterion refers to the ability to do such mapping in an open system environment, so as to simplify the mapping process and to have fewer limitations in terms of different applications.
10.1.1.6.5	Create objects that reference multiple sources or data formats	0	No									This criterion refers to part of the software functionality. The software will dynamically create "program language objects". This pertains to database design for business analysis.
10.1.1.7	**Repository User Interface**	0	No									
10.1.1.7.1	Uses meaningful terms and descriptions rather than data-schema terms and abbreviations	0	No									
10.1.1.7.2	Central point of reference for retrieving and controlling enterprise information	0	No									
10.1.1.7.3	Concurrent access to the data with data locking and check-in and check-out integrity mechanisms	0	No									Users can access some data elements but not all to protect data from being corrupted. The degree of locking is dependent on where in the hierarchy the data is being accessed. As an example is someone has opened a customer maintenance screen, certain fields will not be available to other people who may be entering transactions that will require some of these data fields.
10.1.1.7.4	Views information in the repository by using a browse feature	0	No									A repository is a central place where data is stored and maintained.
10.1.1.7.5	Guide feature identifies what data is available and where it is used	0	No									
10.1.1.7.6	Access to business rules and predefined queries for decision support	0	No									
10.1.1.7.7	Windows-based end user query and reporting tools	0	No									
10.1.1.7.8	Combines information from different databases or data sources in one query or report	0	No									
10.1.1.8	**Non-operational Data Warehousing**	0	No									These are business statistics derived by batch processes (usually once a day).
10.1.1.8.1	End user database environment designed for "what-if" modifications and queries	0	No									
10.1.1.8.2	Denormalized read-only database tables	0	No									Database tables that show data from separate files or tables in a single table
10.1.1.8.3	Data effectivity rating	0	No									
10.1.1.8.4	Data element time-sensitivity analysis	0	No									
10.1.1.8.5	SQL report writer query access	0	No									
10.1.1.8.6	External data warehousing tools and databases	0	No									The ability to store data that lies outside the system
10.1.2	**Messaging Protocols**	0	No									Messaging protocols are a description of data exchange protocols. RPC refers to remote procedure calls. This allows a computer program to invoke a subroutine or procedure outside of its execution space (commonly on another computer on a shared network) without the programmer explicitly coding the details for this remote interaction.
10.1.2.1	**RPC Options**	0	No									
10.1.2.1.1	Asynchronous RPC	0	No									This remote procedure call can take place at any time. The listener is always present.
10.1.2.1.2	Synchronous RPC	0	No									This remote procedure call must take place at specific times when the listener is scheduled to be present.
10.1.2.1.3	OSF DCE RPC	0	No									OSF Distributed Computing Environment (DCE) is an industry-standard, vendor-neutral set of distributed computing technologies. DCE is deployed in critical business environments by a large number of enterprises worldwide.
10.1.2.1.4	Proprietary or other	0	No									Other methods to do RPCs.

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.2.2	**Message Oriented Middleware**	0	No									Message oriented middleware is a client/server infrastructure that increases the interoperability, portability, and flexibility of an application by allowing the application to be distributed over multiple heterogeneous platforms.
10.1.2.2.1	Sockets	0	No									
10.1.2.2.2	**Microsoft MSMQ**	0	No									Sockets refers to an open port in a TCP/IP protocol. Microsoft MSMQ enables applications running at different times to communicate across heterogeneous networks and systems that may be temporarily off-line.
10.1.2.2.2.1	**APIs**	0	No									This refers to a source code interface that an operating system or library provides to support requests for services made by computer programs.
10.1.2.2.2.1.1	DDE	0	No									DDE is technology for communication among multiple applications under Microsoft Windows or OS/2.
10.1.2.2.2.1.2	OLE and	0	No									
10.1.2.2.2.1.3	ODBC and ADO	0	No									
10.1.2.2.2.1.4	Client/server API middleware	0	No									
10.1.2.2.2.1.5	Published APIs to standard ERP functionality	0	No									Legacy or another system must use an interface among other systems in order to communicate with each other.
10.1.2.2.2.1.6	Published APIs to specific vendor systems	0	No									Legacy or another system must use an interface among other systems in order to communicate with each other, this criterion should coincide with specific vendor systems, e.g., Oracle. SAP. etc.
10.1.2.2.2.1.7	ActiveX	0	No									
10.1.3	**Device Interfaces**	0	No									
10.1.3.1	**Device Interface Management**	0	No									This refers to how different types types of devices communicate with one another.
10.1.3.1.1	Accept input transactions from a preformatted batch	0	No									
10.1.3.1.2	ASCII text file	0	No									
10.1.3.1.3	Accepts input transactions in a continuous process	0	No									
10.1.3.1.4	Continuous data load	0	No									
10.1.3.1.5	Multiple loads processed simultaneously	0	No									
10.1.3.1.6	Internal data validation/error checking	0	No									
10.1.3.1.7	Error file review and manipulation	0	No									
10.1.3.1.8	Current data download processing status operator display	0	No									
10.1.3.1.9	Automatic maintenance of complete audit trail	0	No									
10.1.3.1.10	Automatic maintenance of error logs	0	No									
10.1.3.2	**Standard Device Interface Protocols**	0	No									This criterion refers to a hardware/software protocol for establishing a physical infrared connection between the auxiliary interface and the standard device.
10.1.3.2.1	RS-232 communication protocol	0	No									RS232 is a telecommunication interface. It is mainly used with a modem and a telephone line to send and receive faxes.
10.1.3.2.2	I/O driver interfaces to bar code readers, automatic ID devices, and gauges	0	No									
10.1.3.2.3	Radio frequency (RF)/bar code reader	0	No									
10.1.3.3	**Input Device Options**	0	No									
10.1.3.3.1	Pen-based systems	0	No									
10.1.3.3.2	Voice recognition	0	No									
10.1.3.3.3	Touch screens	0	No									
10.1.3.3.4	Mouse	0	No									
10.1.3.3.5	Bar code	0	No									
10.1.3.3.6	Keyboard	0	No									
10.1.3.3.7	Scanners	0	No									
10.1.3.3.8	Portable data terminals	0	No									
10.1.4	**Architectural Foundation**	0	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.4.1	**System Defaults and Parameters**	**0**	**No**									It is necessary to indicate the company name, address, and other information within many types of enterprise systems. This information may include the format of the account codes, licenses, names of the users, their roles, etc.
10.1.4.1.1	Generalized codes validation tables	0	No									
10.1.4.1.2	Standard messages and reason codes	0	No									The use of messages and reason codes that are commonly used across the industry
10.1.4.1.3	Customized help windows	0	No									
10.1.4.1.4	Company-specific field help	0	No									
10.1.4.1.5	Security by user ID, password, and user group	0	No									
10.1.4.1.6	User menus	0	No									
10.1.4.1.7	Operating system command options	0	No									
10.1.4.1.8	Database dump/load	0	No									
10.1.4.1.9	Archive history file reload	0	No									
10.1.4.1.10	Master file audit reporting	0	No									
10.1.4.1.11	Scroll and keyword search of displayed reports	0	No									
10.1.4.1.12	System cross-reference of files, fields, programs, menus, and messages	0	No									
10.1.4.1.13	Multiple printer assignment to users and to functions	0	No									
10.1.4.1.14	Bar code control character sequences for printing preformatted documents	0	No									
10.1.5	**Web Enablement**	**0**	**No**									
10.1.5.1	**Degree of Web Enablement**	**0**	**No**									If business is done via the Internet, one of the requirements is to have a connection from the Internet to backend software.
10.1.5.1.1	Intranet capabilities	0	No									
10.1.5.1.2	Extranet capabilities	0	No									
10.1.5.1.3	Connects multiple sites and the extended enterprise using private lines or the Internet or intranet	0	No									
10.1.5.1.4	Lookups processed online occur in real time	0	No									
10.1.5.1.5	Browses processed online occur in real time	0	No									
10.1.5.1.6	Data validation processed online occurs in real time	0	No									
10.1.5.1.7	Transactions processed online occur in real time	0	No									
10.1.5.1.8	Provides information on demand	0	No									
10.1.5.2	**Web Interface**	**0**	**No**									If business is done via the Internet, one of the requirements is to have a connection from the Internet to backend software.
10.1.5.2.1	Open database structures permits user or third party to write Web enabler	0	No									
10.1.5.2.2	API program interface	0	No									
10.1.5.2.3	Tool to build interface	0	No									
10.1.5.2.4	Pre-configured screens	0	No									
10.1.5.2.5	Third party tool to build interface	0	No									
10.1.5.2.6	Third party tools for drag-and-drop creation of interface	0	No									
10.1.5.2.7	Built-in tool for drag and drop web page design	0	No									
10.1.5.2.8	Administration tool kit	0	No									
10.1.5.2.9	Setup tool kit	0	No									The tools necessary to prepare a work center for the operations that will be performed there
10.1.5.2.10	Uses plug-ins, helper applications, and other existing off-the-shelf tools	0	Mandatory									
10.1.5.2.11	Customization and tailoring capabilities	0	No									
10.1.5.2.12	API configuration tool	0	No									
10.1.5.3	**Web Forms**	**0**	**No**									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.5.3.1	Template extends basic HTML with SQL functions	0	No									The system would support templates that don't just consist of HTML but rather include the ability to perform queries and retrieve information from a database. This could be used to allow forms to provide a predetermined set of options that users could choose from.
10.1.5.3.2	User-friendly control features	0	No									
10.1.5.3.3	Template generates web form	0	No									
10.1.5.3.4	Drag and drop to create web form	0	No									
10.1.5.3.5	Form creation	0	No									
10.1.5.3.6	Form entry validation	0	No									
10.1.5.3.7	Rich formatting functions for plain text, HTML text, or URL strings	0	No									
10.1.5.3.8	Templates include cookie, session, query, shopping, and transaction features	0	No									
10.1.5.3.9	Form modification and customization	0	No									
10.1.5.4	**Functionality**	**0**	**No**									
10.1.5.4.1	Dynamic, embedded URL support	0	No									This refers to non-static URLs. Based on various parameters in the URL, the resulting page or form will provide different information from the database. It's likely that this would be used to display specific fields or data to a user, based on that user's task at hand.
10.1.5.4.2	Reference resolution	0	No									This refers to resolving the different parts of a reference for information purposes.
10.1.5.4.3	Where-used queries	0	No									The ability to find out on-line about all single-level parents in all bills-of-material that include a specific component
10.1.5.4.4	Record creation	0	No									
10.1.5.4.5	Record update/modify	0	No									
10.1.5.4.6	Promotions and approvals	0	No									
10.1.5.4.7	Check-ins and check-out files	0	No									
10.1.5.4.8	Attaches references	0	No									The ability to attach information that refers to data stored elsewhere
10.1.5.4.9	Reads and writes or modifies data at the browser level	0	No									This refers to a user being able to manipulate the information they're working with through the Web browser interface without the interface making lengthy connections back-and-forth with the system/database. This is relatively common for modern Web interfaces, particularly with the usage of AJAX.
10.1.5.4.10	Manages query results from within the application	0	No									
10.1.5.4.11	Robust data type sets	0	No									
10.1.5.4.12	Dynamic SQL statements from all form inputs, URL strings, and environment	0	No									The ability to use the SQL language to store information from form inputs, URL strings, and the environment so that it is continually refreshed
10.1.5.4.13	High-volume, online transaction processing	0	No									
10.1.5.4.14	Function for generating e-mail, based on HTML form input	0	No									
10.1.5.4.15	User-defined procedures	0	No									
10.1.5.4.16	Both browser and non-browser access via TCP	0	No									
10.1.5.4.17	Simultaneous access to heterogeneous databases	0	No									
10.1.5.4.18	Deploys across multiple platforms	0	No									
10.1.5.4.19	Message-based communication between business systems (using EDI or other document formats)	0	No									
10.1.5.4.20	Integrates application and desktop applications	0	No									
10.1.5.4.21	HTML push technology	0	No									This is one of the programming interfaces on the web site that would deliver business transactions to the backend software.
10.1.5.4.22	Intuitive drag-and-drop tool for accessing ad hoc database information	0	No									
10.1.5.5	**Web Security**	**0**	**No**									
10.1.5.5.1	**Security Levels**	**0**	**No**									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.5.5.1.1	Base product security (the level of security supplied by vendor API)	0	No									
10.1.5.5.1.2	Encryption (SSL 3.0)	0	No									
10.1.5.5.1.3	Encryption for password transmission	0	No									
10.1.5.5.1.4	Encryption for data transmission	0	No									
10.1.5.5.1.5	Cookies (to preserve state between successive pages or sessions)	0	No									
10.1.5.5.2	**Security Functions**	**0**	**No**									
10.1.5.5.2.1	CORBA access	0	No									CORBA access means the system supports the Common Object Request Broker Architecture (CORBA). It is a common security standard for distributed applications (including Web-based or Web-accessible applications), but it differs from Web services type of security.
10.1.5.5.2.2	Accepts logins	0	No									
10.1.5.5.2.3	Routes connections to other systems or hubs	0	No									
10.1.5.5.2.4	Browser requests	0	No									
10.1.5.5.2.5	Remote agent for database access	0	No									
10.1.5.5.2.6	Moves results from one database to another database	0	No									The ability to move data from one database to another database
10.1.5.5.2.7	Communicates with remote agents and other hubs	0	No									
10.1.5.5.2.8	Transfers queries from agent to agent	0	No									The ability to transfer queries from one system user to another
10.1.5.5.2.9	Merges data from multiple sources	0	No									
10.1.5.5.2.10	Communicates with other middleware	0	No									
10.1.5.5.2.11	Time data sequence number in each transaction	0	No									
10.1.5.5.3	**Security Management**	**0**	**No**									Security management is used for fraud elimination and protection from accidental errors.
10.1.5.5.3.1	Role or task-based security scheme for individual users	0	No									
10.1.5.5.3.2	Coordinates Internet server security with database security	0	No									
10.1.5.5.3.3	On-spot security management	0	No									
10.1.5.5.3.4	Administration tools	0	No									
10.1.5.5.3.5	Tools provided to manage access	0	No									
10.1.5.5.3.6	Administrative monitoring	0	No									
10.1.5.5.3.7	Point and click security setup	0	No									
10.1.5.5.3.8	Creates transaction log	0	No									
10.1.5.5.3.9	Reads, writes, and deletes permissions at the record or row level	0	No									
10.1.5.5.3.10	User authentication applied at data level	0	No									
10.1.5.5.3.11	Session management tools	0	No									
10.1.6	**Mobile Options**	**0**	**No**									
10.1.6.1	Delivers alerts through mobile messaging techniques (e.g. SMS or app-centric social media)	0	No									
10.1.6.2	Multimode access and delivery (e.g., access via voice, deliver on wireless)	0	No									
10.1.6.3	Manages user access and security with logons and passwords	0	No									
10.1.6.4	Supports over 1,000 concurrent users	0	No									
10.1.6.5	Automatically recognizes handheld device type, so content displayed is optimized for each type of device	0	No									
10.1.6.6	Management of data storage in device or remotely	0	No									
10.1.6.7	Synchronization between the offline and the online or on-premise systems	0	No									
10.1.6.8	Content is encrypted and keyed to each device using a unique device ID	0	No									
10.1.6.9	Integrates with an external application or can be used as a stand alone application	0	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.1.6.10	Provides full data tracking with automatic synchronization	0	No									
10.1.7	**Organizational Structure**	**0**	**No**									This refers to how the network topology is built, such as how the computers are laid out, how they are connected, etc.
10.1.7.1	Graphical display of entities, business units, organizational units, departments, warehouses, employee groups, and employees	0	No									
10.1.7.2	Graphical editor tool for structuring organizational connections	0	No									
10.1.7.3	Hierarchical connections between organizational groups	0	No									
10.1.7.4	Hierarchical connections between organizational groups and external processes, sources, and systems	0	No									
10.1.7.5	Linkage of business procedures with organizational groups or individuals	0	No									
10.1.7.6	Hierarchical link of organizational or supply chain processes	0	No									
10.1.7.7	Linkage of manual processes and external processes or systems with groups or individuals	0	No									
10.1.8	**Application Security**	**0**	**No**									Application security refers to a layer of the TCP/IP model.
10.1.8.1	Database-level security	0	No									
10.1.8.2	Program-level security	0	No									
10.1.8.3	Multilevel access passwords	0	No									
10.1.8.4	User authentication	0	No									
10.1.8.5	Digital signatures	0	No									
10.1.8.6	User, object, and method access control	0	No									
10.1.8.7	Encrypting or decrypting of messages	0	No									
10.1.9	**Multisite Management**	**0**	**No**									Multisite management is the ability to run and maintain more than one site.
10.1.9.1	Multiple date formats including month/day/year, day/month/year, and year/month/day	0	No									
10.1.9.2	Site-specific calendars	0	No									
10.1.9.3	Consolidation of all plant information	0	No									
10.2	**User Interface**	**0**	**No**									User interface refers to the manner in which people access and interact with the software. The user interface should facilitate the user's easy operation of the software
10.2.1	Configurable menus	0	No									
10.2.2	Drag-and-place menus per user	0	No									
10.2.3	Configurable user screens	0	No									
10.2.4	One-time only screen configuration	0	No									
10.2.5	Configuration can be saved as user default screen	0	No									
10.2.6	Configurable browse toolbars and options	0	No									
10.2.7	Configurable functions and process activities	0	No									
10.3	**Platforms**	**0**	**No**									The platform refers to the framework, both the hardware (e.g., type of processor) and the operating system that allows a computer or set of computers to function.
10.3.1	**Servers**	**0**	**No**									
10.3.1.1	BSD (such as FreeBSD, NetBSD, or OpenBSD)	0	No									Such as FreeBSD, NetBSD, or OpenBSD
10.3.1.2	HP UX	0	No									
10.3.1.3	IBM AIX	0	No									
10.3.1.4	IBM iSeries	0	No									For iSeries OS/400 (AS/400)
10.3.1.5	Linux (e.g. Debian, Red Hat, or Ubuntu)	0	No									GNU/Linux systems include distributions such assuch as Debian, Red Hat, SUSE,and Ubuntu.
10.3.1.6	Mac OS	0	No									
10.3.1.7	Microsoft Windows	0	No									

Hierarchy	Criterion	Priority (0-10)	Mandatory (Y/N)	SUP (X)	PSUP (X)	PADD (X)	MOD (X)	3RD (X)	CST (X)	FUT (X)	NS (X)	Description
10.3.1.8	Solaris (Sun OS)	0	No									
10.3.1.9	Unix	0	No									
10.3.1.10	Other Servers	0	No									
10.3.2	**Database**	**0**	**No**									
10.3.2.1	IBM DB2	0	No									
10.3.2.2	Microsoft SQL Server	0	No									
10.3.2.3	MySQL	0	No									
10.3.2.4	Oracle	0	No									
10.3.2.5	PostgreSQL	0	No									
10.3.2.6	Sybase	0	No									
10.3.2.7	Other	0	No									
10.3.3	**Workstation OS**	**0**	**No**									
10.3.3.1	Linux (e.g. Debian, Red Hat, or Ubuntu)	0	No									GNU/Linux systems include distributions such as such as Debian, Red Hat, SUSE, and Ubuntu.
10.3.3.2	Mac OS	0	No									
10.3.3.3	Microsoft Windows	0	No									
10.3.4	**Web Browser**	**0**	**No**									
10.3.4.1	Chrome	0	No									
10.3.4.2	Firefox	0	No									
10.3.4.3	Internet Explorer	0	No									
10.3.4.4	Opera	0	No									
10.3.4.5	Safari	0	No									
10.3.4.6	Other Web browser	0	No									
10.3.5	**Mobile OS**	**0**	**No**									
10.3.5.1	Android	0	No									
10.3.5.2	Blackberry OS	0	No									
10.3.5.3	Blackberry Tablet OS	0	No									Also known as QNX Neutrino.
10.3.5.4	ChromeOS	0	No									
10.3.5.5	iOS (iPhone or iPad)	0	No									
10.3.5.6	Linux-based mobile OS	0	No									
10.3.5.7	Windows Phone	0	No									
10.3.5.8	Other mobile OS	0	No									
10.4	**Reporting**	**0**	**No**									
10.4.1	Reports available online	10	Yes									
10.4.2	Local report printing (not centralized printing and distribution)	0	No									
10.4.3	Ad hoc inquiry capability from within the ERP product	0	No									
10.4.4	Active or inactive status	0	No									The ability to categorize items based on whether their activity status is active or inactive
10.4.5	Automatically rank search results in order of relevance based on required or optional criteria and weighting factors	0	No									
10.4.6	Natural-language queries/search	0	No									
10.4.7	Report libraries	0	No									
10.4.8	Allows full text searches based on metadata attributes	0	No									
10.4.9	Third party reporting application integration	0	No									

HARC FINANCIAL AND ACCOUNTING SYSTEM

ATTACHMENT B – SUMMARY OF REQUIRED CAPABILITIES

The following summarizes the current system requirements for an Accounting and Financial system for Houston Advanced Research Center (HARC) to replace ONESolution (OS) Public Administration (version 15.2.185.0 HF 1). As used by HARC, the system is also used for Project Accounting and includes the following key components that are considered unique to HARCs current business operations.

1. General Ledger structure
   a. Components (& descriptions)
      i. Object Code (4-digit, numerical code associated with "natural", primarily functional, description (ex. Salaries & Wages, Utilities, Travel, etc.))
      ii. Ledger Code (HP (Project Ledger) or HL (General/Corp/Parent Ledger))
      iii. Fund Type (2-digit, numerical code associated with Project funder type, i.e., State/Fed., Foundation, etc.)
      iv. Group Code (2-character alpha-numeric code associated with Program area)
      v. Key Code (10-character alpha-numeric code for Project Accounting, also used in-lieu of true fund-accounting)
   b. Use of a dba (doing-business-as) for certain Operational Projects
2. System-generated, rules-based (including cost allocation), Journal Entries (JEs) for Project costs:
   a. Accounts Receivable (A/R) & Unbilled Revenue, OR (depends on project)
   b. Deferred Revenue (Liability) & Billed Revenue
3. Other cost allocations for Fringe Benefits & Allocated Direct Costs are completed in MS Excel and imported as JEs
4. Accounts Payable (A/P) module, including Purchase Orders (POs), requisitions, encumbrances & multiple levels of review/approval (workflows)
5. Cash Management – daily bank account reconciliation is currently done 'offline' via MS Excel
6. Budgeting – currently managed via MS Access Database (DB) & MS Excel budget templates loaded into OS, as well as Project-specific budgets, of which only 1 version is included in OS
7. A/R & Project billing – unbilled project revenue is transferred to billed revenue via JE as billed (note this also utilizes system-generated, rules-based "posting strategy" to both A/R billing (move unbilled amount to billed) & cash receipts (relieves billed A/R)
8. Financial Reporting – periodic and operational reports are available in OS, as well as select reports with drill-down capabilities (CDD reports), however quarterly and annual Financial Statements (FSs) prepared according to Generally Accepted Accounting Principles (GAAP) are completed with MS Excel
9. Project Accounting and management – primarily used for managing costs (primarily staff &/or subcontractors) according to budget (as previously mentioned OS only allows 1 version). Also, staff time is managed via Time-Clock-Plus (TCP) and a MS Access DB (neither integrated with OS)
10. Hosting – current system is hosted on HARCs servers, with a web- or cloud-based replacement required