AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		

2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 02/22/2013	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)

6. ISSUED BY	CODE	PROC6555	7. ADMINISTERED BY (If other than Item 6)	CODE

6. ISSUED BY

Office of Procurement
US Patent and Trademark Office
Attn: MS 6, Office of Procurement
P.O. Box 1450
Alexandria, VA 22313-1450

8. NAME AND ADDRESS OF CONTRACTOR (No., street, country, state and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO.

PEGASYSTEMS INC.
1 ROGERS ST
CAMBRIDGE, MA 02142-1209

9B. DATED (SEE ITEM 11)

(X) 10A. MODIFICATION OF CONTRACT/ORDER NO.
DOC50PAPT1300005

X 10B. DATED (SEE ITEM 11)
11/30/2012

CODE: PEGASYSINC	FACILITY CODE: *

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[ ] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [ ] is extended, [ ] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Line Item Detail

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR Clause 52.212-4 (c) " Changes"
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [X] is required to sign this document and return __1__ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitaiton/contract subject matter where feasible.)
See attached pages.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
Eric Panepinto VP Pega Consulting	Chris Hannah

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	3/1/13	By (Signature of Contracting Officer)	3/7/13 ~~02/22/2013~~

Section B - Supplies or Services and Prices/Costs

Pega Software Engineering Services

ITEM NO.	SUPPLIES OR SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT

Accounting and Appropriations Data:

Accounting and Funding Total:

Original: $0.00
Change: $0.00
Current: $0.00

The above-referenced contract is hereby modified as follows:

1. Section B1 – CLIN 0001: Price Schedule for Trademarks WBS Support (Page 3 of contract) labor categories and pricing is deleted in its entirety and replaced with the following:

	Labor Category	Rate (Base)	Rate (OY1)	Rate (OY2)
1	Project Manager			
2	Senior Software Engineer			
3	Senior UI Engineer			
4	Subject Matter Expert			
5	Senior Systems Analyst/Programmer			
6	Deployment Engineer			
7	Travel Expenses	Actual costs to be billed in accordance with (IAW) Federal Travel Regulations (FTR); not to exceed amount established at task order level		

2. Section B2 – CLIN 0002: Price Schedule for Patents PRPS Monitoring and Enhancement Support (Page 4 of contract) period of performance is changed from 11/30/2012 – 9/30/2013 to 1/7/2013 – 9/30/2013
3. Section B2 – CLIN 0002: Price Schedule for Patents PRPS Monitoring and Enhancement Support (Page 4 of contract) labor categories and pricing is deleted in its entirety and replaced with the following:

	Labor Category	Rate (Base)	Rate (OY1)	Rate (OY2)
1	Principal System Architect			
2	Senior System Architect			
3	System Architect			
4	Project Manager			
5	Senior Systems Analyst/Programmer			
6	Travel Expenses	Actual costs to be billed in accordance with (IAW) Federal Travel Regulations (FTR); not to exceed amount established at task order level		

4. Section B4 – CLIN 0002: Statement of Work for Patents PRPS Enhancement and Monitoring Support is deleted in its entirety and replaced with the attached Statement of Objectives (SOO)

5. The following is added to both Section B1 and Section B2 of contract:

Travel Expenses Reimbursement

For Contractor personnel who have residence more than 50 miles from USPTO offices at 600 Dulany Street, Alexandria, VA 22314, Government shall only reimburse Contractor for travel expenses as allowable per Federal Travel Regulations (FTR) at http://www.gsa.gov/portal/content/104790, including:

- Airfare – Contractor shall finalize airfare no later than 48 hours upon written acceptance of candidate(s) for services under this contract by Government and written acceptance of assignment by candidate to Contractor; airfare shall be limited to coach-class only IAW with FTR; copy of receipt is required as supporting documentation to invoices submitted
- Lodging – Contractor shall not exceed lodging rates as established in FTR at http://www.gsa.gov/portal/category/100120; copy of receipt is required as supporting documentation to invoices submitted to the Government
- Meals and Incidental Expenses – Contractor shall not exceed rates as established in FTR at http://www.gsa.gov/portal/category/100120
- Airport Parking/Transit Fees – Contractor shall provide copy of actual receipts for reimbursement as supporting documentation to invoices submitted to the Government
- Baggage Fees – Contractor shall provide copy of actual receipts for reimbursement as supporting documentation to invoices submitted to the Government
- Rental Car Expenses – Contractor shall reserve rental car that is most cost-efficient to the Government, but in no case shall daily rental car expenses exceed $75/daily, excluding any sales or excise taxes; Contractor shall provide copy of actual receipts for reimbursement as supporting documentation to invoices submitted to the Government
- Communications Expenses – The Government allows Contractor maximum of $5/day for communications expenses not covered under other expenses noted above

For invoices submitted under this contract, Contractor shall include breakdown for travel expenses line item, including detailed listing of travel expenses by Airfare, Lodging, Meals/Incidental Expenses, Airport Parking/Transit Fees, Baggage Fees, Rental Car Expenses, and Communications Expenses

Contractor personnel who have residence less than 50 miles from USPTO offices shall be reimbursed only for the following:

- Mileage on Privately Owned Vehicle (POV) as established at FTR and further specified at http://www.gsa.gov/portal/content/100715
- Parking fees
- Applicable transit fees (i.e., Metro, Virginia Railways Express, or Maryland Area Rail Commuter trains)
- Contractor shall provide detailed breakdown of this on invoices submitted to the Government

6) The following contract clause is added to Section C (Contract Clauses) of Contract:

PTO-17: Contractor FOIA Requirement

Upon award of any contract resulting from this solicitation, the contractor shall be required to submit in electronic (.pdf or .tif) format, a copy of the contract with any proposed redactions it believes are necessary and required by law. If the contractor is proposing any redactions to the contract, the basis for the redactions shall be submitted in writing and must accompany the electronic copy of the contract. This submission is due within 14 days of contract award. If the Contracting Officer agrees with the contractor's proposed redactions, the document will be forwarded to the USPTO FOIA Officer for posting to the agency's e-FOIA website. Submission of the contract document in the required format and any written justification for the proposed redactions shall be provided at no cost to the government.

Except as listed herein, all other terms/conditions of the contract remain UNCHANGED.

1. USPTO Task Order Manager (TOM)

Thuy Nguyen
Office of Application Engineering and Development / Patent System Division

2. Background

2.1. The USPTO is a federal agency comprising approximately 10,300 employees. The mission of the USPTO is to administer the laws and regulations related to patents and trademarks in order to promote industrial and technical progress in the United States and strengthen the national economy. The USPTO carries out its mission by examining patent and trademark applications; issuing patents and registering trademarks; disseminating patent and trademark information to the public and by encouraging a domestic and international climate in which intellectual property can flourish. The Patent Trial and Appeal Board (Board) is a business unit within the USPTO that decides appeals, conducts trials and decides some petitions in patent-related cases. The Leahy-Smith America Invents Act (AIA) calls for many changes for the US Patent and Trademark Office (USPTO). What is currently known as the Board of Patent Appeals and Interferences (BPAI) is being renamed the Patent Trial and Appeal Board (PTAB). The USPTO must implement the provisions of the AIA that provide the new trial Derivation proceedings before the Board. The Board will provide a consolidated set of rules (notice of proposed rules) relating to Board trial practice for the new trials.

In that regard, the Board will need to accept documents filed directly from the public, manage fee payments, manage the documents within the context of discrete cases, manage the cases and maintain documents with some public access. Also, the Board will continue conducting trials for patent interferences, as well as deciding appeals and petitions, for which documents and cases will also need to be managed

2.2. This contract will support Phase 2 the Derivation Proceedings, the integration with other USPTO systems to retrieve and submit payment related data and party data, settlement agreements, and any bug fix releases to the proceedings involved in PRPS Phase I. PRPS Phase 1, which deployed on September 16, 2012, included support for Inter Partes Review (IPR), Post-Grant Review (PGR), and the transitional program for Covered Business Method patents (CBM) using the COTS software Pega and Alfresco.

3. Objective

3.1. The objective of this task is to provide accompanying services detailed below to the PRPS in the USPTO environment
- Administrative Requirement
- Project Management
- System Design
- Technical Design
- Configuration

- Installation
- Certification and Accreditation
- Testing Support
- System Integration
- Software System Implementation
- Deployment
- Post Deployment Support
- Knowledge Transfer

4. Statement of Objectives

The objectives of this effort are as follow:

4.1. To maintain and enhance PRPS 1.X and interfaces to PRPS 2.X

4.2. To expose PEGA services through RESTful SOA APIs and integrate their functionality into PRPS

5. Administrative Requirements

5.1. The Contractor shall attend a Kick-Off Meeting with the Contracting Officer (CO) and the Contracting Officer's Technical Representative (COTR) no later than five (5) business days after the date of award. The purpose of the Kick-Off Meeting is to discuss technical and task objectives of the contract.

5.2. The Contractor shall submit a draft Project Plan as part of its technical proposal. The plan will be reviewed by the government and is subject to approval. Any changes requested by the Government will be discussed at the Kick-Off Meeting.

5.3. The Contractor shall provide weekly status reports to the TOM and COTR via electronic mail. The weekly status reports shall include a summary of all Contractor work performed, including an assessment of technical progress and status, schedule status, risks, and any Contractor concerns or recommendations for the period of the report.

5.4. Upon request, the Contractor shall provide meeting agendas, minutes and action items within one (1) business day of publication for meeting attendees.

5.5. The Contractor shall provide a Task Management Plan within ten (10) business days after the date of award.

5.6. The Contractor shall notify the USPTO's CO, TOM, and COTR immediately of all problems that impact or potentially impact the contract, deliverable(s), or project schedule. Such notifications shall be made verbally and via email during normal work hours or at the beginning of the next USPTO workday. For each problem encountered, verbal notification shall be followed by a written report to the CO and copy to the COTR within 24 hours after the identification of the problem.

5.7. The Contractor shall be available to meet with the TOM and COTR upon request to present deliverables, discuss progress, exchange information and resolve emergent technical problems and issues.

6. Task Requirements

The Contractor shall provide support through completion of all tasks as defined in the contract statement and project plan.

6.1. Workload of the various activities covered by the contract may be variable, so resources should be allocated to the activities based on the following priorities: (1) Monitoring, (2) Enhancement support and (3) Operation support. Changes to priorities shall be based on specific direction from the Task Order Manager (TOM).

6.2. The monitoring, enhancement, and operation support activities include:
- Monitor daily data extraction and provide loading services including all background processes, log files, and workflow logs on the production application servers.
- Take necessary actions to keep the data extraction and loading services based on the Service Level Agreement (SLA).
- Provide technical support to resolve the security issues/findings.
- Enhance and deploy upgrades to resolve outstanding defects including analyze, troubleshoot and correct errors found in log files.
- Enhance and deploy upgrades to support Usability requirements of the application
- Update project (SDLC) documents.
- Support code review, testing and deployment activities.
- Perform code reviews for all software enhancements performed by the Contractor prior to delivery to USPTO.
- Participate in USPTO code review meetings
- Provide technical expertise to remediate defects found during code reviews
- Record all defects and new requirements in USPTO Clear Quest system.
- Resolve problems in the production operation of existing and modified software.
- Analyze customer requirements and equipment capabilities (deliverable) and determining system functionality.
- Produce system and/or program specifications (deliverable) using functional specifications provided by the USPTO TOM.
- Modify existing PRPS system programs (deliverable) to resolve reported program problems or changes in the system environment.

- Enhance existing PRPS system program to provide support for Derivation Proceedings
- Support system briefings and reviews.

6.3. AED Support for PRPS
- Perform root cause analysis (deliverable).
- Update system documentation (deliverable).
- Support meetings and discussions with USPTO organizations (For example Database Administrator (DBA), Quality Assurance (QA), Architecture).
- Assist in all Troubleshooting hardware/network /other system issues, in relation to PRPS.
- Provide day-to-day support and troubleshooting.
- Support activities associated with Security certification and accreditation (C&A) continuous monitoring.

6.4. Post Deployment Support
- The Contractor shall provide post-deployment and production support.
  - The contractor shall provide 24 hour on call support after a deployment.
- The Contractor shall support the development and updating of an Integrated Systems Project Plan for each successive release.
- The Contractor shall produce project schedules that will break down tasks to a detailed level for each successive release.

6.5. Ongoing Support
- Monitor system health and provide preventative measure to avoid alerts.
- Provide investigations (deliverable), research (deliverable), root cause analysis (deliverable), incident reports (deliverable), work around and documentation of the work around for issues (deliverable), long term solution analysis and documentation (deliverable).
- Provide outage reports (deliverable), updates and resolutions updates (deliverable).
- Document and check into configuration management (CM) repository all procedures and scripts for work around or regular operations procedures (deliverable).
- Deploy enhancement releases to fix outstanding issues/Deficiency Reports or to accommodate the changes based on Requirement Document.
- Provide demos per request, meeting agendas, minutes and action items.
- Support daily data loads.
- Employ a software quality tool approved by USPTO to understand and improve product quality each sprint such as CAST

6.6. Agile Methodology
- Agile methodology will be used for this contract.
- Sprints are anticipated to last 2-3 weeks.
- Each sprint will support a release of bug fix and/or enhancement request.
- Development efforts for each release will be driven by the prioritized product backlog which will be created using user stories. The deliverable(s) will be agreed upon, with development estimates for each story, prior to commencement of each Sprint and Release Cycle. These include deliverables for each sprint within the release cycle.
- Each deliverable at a minimum shall consist of:
  - Binary packages implementing functionality of system.

- o Source code, build procedures, test scripts, test data and all other artifacts used to produce binary packages above.
- o Gap Analysis Report
- o Change Documentation
- o Demonstration
  - New and updated SDLC Documentation is expected at the end of each release.

6.7. Modular Open Systems Approach
  - Adhere to Open Systems Approach (MOSA) principles to maximum feasible extent.

7. System Requirements

7.1. The system shall continue to provide a means to allow parties to file petitions:
  - Access petition eligibility (e.g. type and date) as per business rules and inform the Board of any abnormalities.
  - Provide a mechanism for petition initiation, to collect petition related data, provide mechanism to receive and validate formalities data by comparison with available information in the USPTO systems.
  - Provide mechanism to update formalities data when a party needs to, for example, change of address and change of counsel.
  - Accept new petition documents.
  - Provide mechanism for petition acknowledgement, create acknowledgement number and communicate to the petitioner and/or opposing party(ies).

7.2. The system shall continue to provide a means to allow parties to make payments as part of the petition filing:
  - Use existing agency secure payment services.
  - Accept fees as guided by the business rules
  - Access payment milestones according to the business rules and inform Board of payment status by triggering appropriate actions at predefined payment milestones.

7.3. The system shall continue to provide a means to allow parties to file motions, oppositions and replies, other exception seeking petitions as the proceeding progresses:
  - Access motion eligibility as per business rules and informs the Board of any abnormalities.
  - Support the processes to manage exception petitions.

7.4. The system shall continue to provide electronic means to allow parties to file and view documents during the petition lifecycle:
  - Provide a mechanism to enable parties to submit documents in various document formats as determined by the business rules.
  - Enable a mechanism to enable parties to designate their documents as public, private or confidential as guided by the business rules.
  - Enable parties to view public/private documents pertaining to their case.
  - Enable parties to provide metadata (label each document filed) and select metadata about their documents (e.g. when provided with an external list of categories to choose from).

7.5. The system shall continue to provide electronic means to allow the Board to moderate documents submission during the petition lifecycle:
- Enable USPTO to plug in a Document & metadata validator at the time of submission.
- Provide more detailed metadata redefinition of documents by the Board users.
- Parties shall be encouraged to submit documents only during their allocated time periods as guided by the business rules.
- Parties shall be able to update of their metadata
- Allow ability to restrict document size (limited to 250 mb in file size) as directed by the business rules.
- Allow ability to restrict total submission size in terms of the number of documents as directed by the business rules.
- Allow ability to expunge documents according the business rules. Allow ability to transfer confidential documents to a document vault.

7.6. The system shall provide means to communicate with the parties for petition related communications:
- Designated personnel shall be able to send messages to a party and receive messages from a party.
- All messages sent to a party are associated per party and available to designated roles as determined by the business rules (such as Parties, judges, paralegals).
- Timing of communications sent by the board personnel to the parties that are associated with the case must be determined by business rules.
- Provide means to maintain associations between communications, documents relevant to communications and milestones/state of the proceeding.

7.7. The system shall provide means to communicate with parties for petition related communications:
- Provide a mechanism to upload documents related to the conference calls.
- Provide a mechanism to associate conference calls to other milestones/state of the proceeding.

7.8. The system shall provide electronic means to create documents using predefined templates and metadata.

7.9. The system shall continue to provide a mechanism of docket management including the following functionality:
- Every case is assigned a unique ID.
- Bibliographic (metadata) information about every case can be assigned and is readily available.
- Can assign/change status of a case from within a docket.
- Availability of case's status with respect to the entire petitioning process.
- Hyperlink to cases from a docket.
- Triggers can be set for cases based on due dates.
- Display pendency of cases.
- Ability to apply preset filters to display of cases.
- Ability to sort cases by columns.
- Easy and hyperlinked based access to files within cases.

- Can link from the case to representations of parties, judges, and paralegals.

7.10. The system shall have the ability to provide case management including the following functionality:
- Role based hyperlink access to categorized documents within the cases.
- Flexibility for the role assignment in terms of who can modify the case metadata, status, etc.
- Can associate collections of documents with a case or more than one case - For example, parties in related cases might be allowed to file a single set of exhibits for all cases.
- Can perform limited search function within the case – across documents associated with a case and within a document (including search by date, case number, patent/application number, inventor, assignee and keywords).

7.11. The system shall continue to have the ability to provide case management including the following functionality:
- Integrated scheduling and automatic triggers for all roles except public and researcher roles.
- Integrate with existing USPTO email application (Microsoft Outlook is the present application).

7.12. The system shall disseminate information on the Web and make it available to the public and support other forms of information sharing if need be:
- All public documents in public cases. Note that any documents or cases not available to the public, e.g. confidential or private will not be made available to the public.
- Search for a public case by case number, patent or application number or party name.
- View statistics about the trial cases by month and/or fiscal year and apply at least the following filters: #submitted, #in trial, #initiated, #oral arguments complete, #decision issued (a notation would be made for the number of non-public cases in the report)The system will block out bulk data download from the live PRPS portal.
- The system shall feed data to a predefined USPTO portal and provide a link to that portal for bulk data access
- A mean to receive notifications for cases of interest.

7.13. The system shall continue to provide electronic means to assign tasks to various members of the board as determined by the business rules. System will provide a task assignment module.

7.14. The system shall allow rich analytics on PRPS data for internal uses.

7.15. The system shall provide automatic and flexible report generation that allows for at least for the following:
- Continue to provide dashboard overview of all cases according to their status and dates.
- Automated alerts, especially for warning if a case is close to being overdue.
- "Red" and "Yellow" status alerts.
- Continue to provide view of cases by filters.
- Continue to provide view of cases grouped by assigned APJ.
- Create ad-hoc reports as and when necessary.
- Continue to perform detailed metadata search across cases.

- Track all information involved in initiatives, phases, and milestones within the associated trial proceeding processes.

7.16. The system shall have an audit system that tracks who did what work when the product must date and time stamp and retain each input action for auditing purposes.

7.17. USPTO will lead the usability design and provide usability guidelines for PRPS system. Contractor shall adhere to the guidelines for all usability efforts

7.18. The system shall have the ability to separate users by roles, groups or catalogs and control the user's access based on these categories:
- UI design templates will be provided by USPTO along with the user stories. Contractor shall utilize these templates to build UI for the system.
- Product must provide drop-down menus and data validation routines to improve data accuracy.
- Data support provided for UI will be context aware specific
- The Product will provide proactive error notification.

7.19. The system shall provide print functionality for documents, cases, search results and reports.

7.20. The system shall integrate with IFW, PALM, EFOIA, RAM, LDAP, ICT2 & PTO database

8. Hours of Operation

8.1. Contractor employees shall perform work between the hours 8:00 AM and 6:00 PM EST, Monday through Friday. Contractors shall be perform work Monday through Friday onsite.

9. Emergency Off-Hours Support

9.1. Contractor personnel may be required to be "on call" in order to meet emergency situations. The USPTO TOM will define specific work responsibilities required to perform work and approval for off-hour support.

10. Period of Performance

10.1. The period of performance for this contract is from January 7, 2013 through September 30, 2013 with the option to exercise a two 12-month option periods based on performance and requirements.

11. Place of Performance

11.1. Primary place of performance is expected to be offsite; however, the Contractor may be required to perform some work onsite at the USPTO buildings located at 600 Dulany Street, Alexandria, VA 22314.

12. Skills Required to Perform this Task

12.1. Performance of this task requires experience using the core software and hardware listed below:
- Developer infrastructure tools including: Pega PRPC, Alfresco, Oracle, Microsoft Visual Studio .Net products, Adobe Acrobat, Microsoft Suite, Documentum, JBOSS, Eclipse, Java RMI, JINI, J2EE and Windows OS.
- Standard data formats including XML, XSL, and TIFF.
- Standard hardware and operating systems now used by the USPTO for PRPS production including: Red Hat Enterprise Linux 5 +. Database supported is Oracle 11g running on Red Hat Enterprise Linux. Web Application Servers supported are JBOSS EAP running on the Red Hat Enterprise Linux. Mail and calendar services are provided by Microsoft Exchange Server 2010. All network and data encryption implemented must be FIPS 140-2 compliant.
- Quality management tools including: Rally, IBM Rational Tool Suite (Rational Req Pro, Clear Case, Clear Quest, Rational Quality Manager, Rational Functional Tester), Rational Unified Process (RUP), Merant Dimensions (PVCS) for configuration management.

12.2. The expertise required for this task includes, experienced Java RMI, JINI, SQL*Net, C, PL/SQL, MS-DOS, Perl, CGI, ASP, C++, JSP, Java, J2EE framework, XSL, ODBC, SOAP, Open Source, UNIX and Celerra , IBM Websphere, IBM Portal, , Unix server, JBoss, TCP/IP, Oracle databases, EJB, JSP, HP-UX, AIX and Windows servers, MS Project , MS Office suites, Windows OS client workstations, Shell script, Visual C++, Java programs and a variety of printers (includes HP Laserjets).

12.3. Contractor must offer a qualified project team with expertise in the following areas:
- Pegasystems SmartBPM ™ Project Management Services
- Pegasystems SmartBPM ™ Business Architect Services
- Pegasystems SmartBPM ™ System Architect Services
- Alfresco
- Pega professionals must be certified with minimum level certification being Certified Business Architect (CBA) and Certified Senior System Architect (CSSA), Certified Lead System Architect (CLSA)

13. Qualified Personnel

13.1. The Contractor shall identify and provide resumes for all Key Personnel, Subject Matter Experts (SMEs), and any alternates. The Contractor shall permit the USPTO COTR to review the resumes of any personnel before their start date. Key personnel shall include the SMEs. The absence of Key Personnel and/or SMEs shall not be a point of failure.

13.2. The Contractor shall staff qualified personnel to provide the full scope of expertise and capabilities required to perform this contract. The Contractor shall specify the labor categories and staff hours by labor category that will be required.

13.3. The Contractor shall be fully staffed on the first day of the contract performance, and prepared to maintain a fully trained staff throughout the life of the contract without additional training cost to government.

13.4. Required Personnel

Below are listed labor categories with associated qualifications required for each labor category.

13.4.1. Principal System Architect:
- 13.4.1.1. PEGA Certified Senior System Architect
- 13.4.1.2. Experience designing and developing PEGA agents/listeners
- 13.4.1.3. Experience integrating PEGA PRPC with LDAP and SSO tools
- 13.4.1.4. Experience deploying PEGA enterprise packages/rulesets in Linux, UNIX and Windows environments
- 13.4.1.5. Experience supporting high transactional Pega web-based enterprise applications
- 13.4.1.6. Experience in deploying/tuning PEGA applications in clustered environments
- 13.4.1.7. Experience analyzing Pega server and application logs
- 13.4.1.8. Experience debugging and tracing using PAL, tracer and clipboard
- 13.4.1.9. Experience with designing and developing large scale enterprise PEGA rule-based applications
- 13.4.1.10. Experience creating reusable/extendable PEGA application frameworks
- 13.4.1.11. Experience leading and monitoring medium to large size team of Pega developers (senior system architects certified developers)
- 13.4.1.12. Experience Agile methodology

13.4.2. Senior System Architect:
- 13.4.2.1. Pega Certified System Architect
- 13.4.2.2. Significant database experience (with PEGA)
- 13.4.2.3. Experience integrating PEGA with other non-PEGA web application components
- 13.4.2.4. Experience with decision tables, decision tree and when rules
- 13.4.2.5. Experience with reporting and dynamic select rules
- 13.4.2.6. Experience with triggers, events, tickets
- 13.4.2.7. Experience with declarative rules and expressions
- 13.4.2.8. Experience with Pega PRPC architecture, design and implementation

13.4.3. Senior Systems Analyst/Programmer (Certified Pega Business Analyst-preferred)
- 13.4.3.1. Extensive Experience with UML (use cases, activity diagrams, sequence diagrams, state diagrams, class diagrams)
- 13.4.3.2. Extensive experience with OOA (Object Oriented Analysis)
- 13.4.3.3. Certified Pega Business Analyst with experience in Application profiler, Process Modeler, DCO and Discovery Map
- 13.4.3.4. Experience with Pega
- 13.4.3.5. Experience Creating process flows in PRPC 6.1/6.2
- 13.4.3.6. Experience analyzing, modeling and decomposing complex processes and workflows
- 13.4.3.7. Experience with structured analysis techniques (e.g. functional decomposition analysis)
- 13.4.3.8. Excellent communication and presentation skills
- 13.4.3.9. Experience gathering requirements for large agile projects using user stories and acceptance criteria

13.4.3.10. Experience with Agile requirement gathering and project management tools (preferably Rally tool)

13.4.3.11. Experience developing Pega internals, Pega rules, and Pega infrastructure (preferred)

13.4.4. Project Manager

13.4.4.1. Provides tactical oversight and direction to the PRPC project team and USPTO Project Manager.

13.4.4.2. Experience developing and managing to the implementation plan, and serves as a point of escalation to the USPTO Project Manager.

13.4.4.3. Excellent communication and presentation skills

13.4.4.4. Extensive experience managing PRPC open issues, monitoring of project implementation progress, communication of status and overall accountability for milestone achievement.

13.4.4.5. Extensive experience acting as a key advisor to the USPTO Project Manager (who serves as operational/day to day manager) whilst consistently promoting adherence to agreed standards/best practices, conventions and timelines.

13.4.4.6. Experience with providing transparent communications between Pega and USPTO management teams, and coordinates the involvement of other resources as required.

13.4.4.7. Participates in the USPTO governance process at the Project Level (and at the Executive Level as required) representing the technical PRPC solution. Coordinates the involvement of other Pega resources – internal or external - as required.

14. Configuration Management Builds

14.1. The Contractor shall assist in maintaining the most current production copies of both code and documentation in the appropriate OCIO CM systems. This includes, but is not exclusive to, loading and retrieving items as well as providing CM build support.

15. Phase-Out Support

15.1. The Contractor shall provide phase-out support at the completion of a contract, to include unencumbered access to the development and maintenance team. The phase-out activities shall include a briefing and all documentation provided by the Contractor to describe the status of all activities and deliverables required in the contract. The Contractor shall complete inclusion of all deliverables into CM during the phase-out period. The deliverables to be included shall consist of development deliverables in both complete and incomplete phases, all source code, documentation for any actions being performed for maintenance or support to include all known software issues, status of software problem reports, known workarounds, all other documentation, test scripts, and any other electronic data applicable to the contract at no increase in cost to the USPTO.

15.2. The Contractor shall provide no less than five (5) working days of phase-out support to the USPTO designee(s). Phase-out support shall start no later than five (5) days prior to the completion of the contract.

16. Hours of Operation

16.1. Contractor employees shall generally perform all work between the hours 8:00 AM and 5:00 PM EST, Monday through Friday (except Federal holidays). However, there may be occasions when Contractor employees shall be required to work other than normal business hours, including weekends and holidays, to fulfill requirements under this contract.

17. Emergency Off-Hours Support

17.1. Contractor personnel may be required to be "on call" in order to meet emergency situations. The USPTO TOM will define specific work responsibilities required to perform work.

18. Deliverables

18.1. Table 1: Deliverable Summary summarizes the products to be prepared and delivered by the Contractor in support of this contract. All deliverables will become the property of the Government.

Table 1: Deliverable Summary

Item Number	Task Section Number	Product/Event[1]	Delivery Date(s)
1	4.1	Kick-off meeting	No later than (NLT) five (5) business days after award
2	4.2	Project Plan	*Draft:* As part of the technical proposal *Final:* NLT five (5) business days after the Kick-Off Meeting
3	4.3	Weekly and Monthly Status Reports	Weekly: Every Monday morning Monthly: First business day of the month
4	4.4	Meeting Agendas, Minutes and Action Items	NLT one (1) business day after meeting
5	4.5	Task Management Plan	Ten (10) business days after award
6	4.6	Problem Notification Reports	As Required
7	5.5	Modified AISs Source Code	At the end of each sprint and five (5) days prior to the completion of this contract
8	5.5	Change Documentation	At the end of each sprint and five (5) days prior to the completion of this contract

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[1] All deliverables shall be submitted electronically to the TOM and the COTR in a format that is compatible with Microsoft Office 2003 / Microsoft Project 2003 (or new versions) and are subject to government review and acceptance.

Item Number	Task Section Number	Product/Event[1]	Delivery Date(s)
9	5.5	Source Code of Executable System	At the end of each sprint and five (5) days prior to the completion of this contract
10	5.5	Gap Analysis Report	At the end of each sprint and five (5) days prior to the completion of this contract
11	5.5	SDLC Documentation	At the end of each release
12	5.5	Demonstration	At the end of each sprint and five (5) days prior to the completion of this contract