

**Universal Service Administrative Company  
Request for Information  
Robotic Process Automation**

**1. INTRODUCTION**

Universal Service Administrative Company (USAC) is issuing this Request for Information (RFI) for information and planning purposes only, and does not constitute an offer to fund, as a whole or in part, the opportunities referenced herein. This RFI does not represent a pre-solicitation synopsis or a solicitation and does not constitute a Request for Proposal (RFP) nor a promise to issue an RFP in the future. This RFI does not commit USAC to contract for any supply or service whatsoever. USAC is not seeking proposals or accepting unsolicited proposals. We advise respondents that USAC will not pay for any information or administrative costs incurred in response to this RFI; all costs associated with responding to this RFI will be solely at the interested party's expense. Not responding to this RFI does not preclude participation in any future RFP. USAC and FCC shall review the RFI responses and will make them publicly available through the FCC's Electronic Comment Filing System. USAC may use the RFI responses to develop requirements for future needs and may lead to the development and preparation of a formal RFP.

**2. BACKGROUND**

The High Cost Program is dedicated to preserving and advancing voice and broadband service, both fixed and mobile, in rural areas of the United States. The High Cost Program ensures that rates for broadband and voice services are reasonably comparable in every region of the U.S. Like all Universal Service Funds (USF) programs, the administration of the High Cost Program has undergone significant modernization in the last several years to increase innovation and ensure beneficiaries have access to updated technology.

The High Cost Program provides funding to companies to support voice and broadband deployment for wireless and wireline connectivity infrastructures in unserved or underserved areas across the United States ("Carriers"). Funding supports voice and broadband deployment for wireless and wireline areas of the United States. The High Cost Program disburses approximately \$5 billion annually to Carriers in support of closing the digital divide

Carriers participating in modernized Connect America Programs must file broadband deployment data into the USAC's High Cost Broadband Portal (HCBP) showing exactly where they are building out service by precise location (latitude and longitude) coordinates. The HCBP performs a number of automated checks to validate this data – flagging errors such as ineligible latitude and longitude coordinates, along with a slew of other system validations. USAC then display this information on a public-facing map to show the impact of Connect America funding on broadband expansion throughout rural America. The HCBP also computes milestone deployment percentages. The HCBP's deployment monitoring facilitates the High Cost verifications team's comparison against the interim milestone deployment obligations.

The High Cost verifications team reviews evidence submitted by carriers as proof of deployment and performance obligations to ensure providers are building out broadband networks and providing the quality of experience to the subscribers as intended. This includes documentation showing proof of speed, deployment dates and Multi-unit Location Records (MLRs) for serviceable locations. For locations that have no active subscribers, the High Cost verification team relies upon other sources of evidence such as a certificate of testing, network construction maps, etc. The upcoming FCC 5G order requires High Cost verifications team to ensure accuracy of provider's broadband deployment coverage maps in conformance with Radio Frequency (RF) standards adding another layer of complexity.

Throughout the verification process, the verifications team exchanges messages with carriers, requesting supporting documentation that is both structured and unstructured in nature. The team then reaches a decision regarding qualifying broadband deployment at a given location (single geo-coordinate) or a coverage area. A pass or fail status is then applied. To complete the verification, USAC must manage varying procedures and personnel, undergo multiple layers of manual reviews, meet project timelines, assess the status of a given review, and provide feedback to team members to ensure projects stay both accurate and on time.

In addition to the location deployment data, the HCBP collects annual location certification data due in March each year, pre-testing performance measures data (due every quarter) and test performance data (due every year). The location validation and verification results coupled with annual certification data support continued carrier funding eligibility.

The High Cost verifications team also validates the FCC Form 481 that carriers file annually by performing “limited” financial data audits and ensures carriers attach the right information as part of the annual certification.

In regards to performance measures data, carriers are required to demonstrate that the services they provide to their subscribers (end users) also meet the required Quality of Experience (QoE) metrics (e.g., MOS, 5G etc.) focused on the customers perception of the service. To that end, carriers are obligated to submit actual speed and latency tests conducted during regular intervals for selective active subscribers. Carriers conduct performance testing for the randomly selected list of subscribers and submit the resulting performance test data into the HCBP. USAC would then collect, validate, verify and audit carrier Performance Test data. To comply with this requirement, carriers must submit proof of performance measurements data specifications into the HCBP based on a random sample of subscribers. HCBP collects and validates compliance to performance data specifications. In cases where carriers substitute one location sample for another, the verification team verifies the validity of the reasons behind replaced locations to ensure compliance with FCC guidance and to protect the integrity of the performance measures program.

### **3. PURPOSE**

The majority of the overall verification process is manual and labor intensive, resulting in long cycle times for each process step. Metrics and statistical reporting are also manual processes, contributing to lengthy timelines and increasing the risk of user error. The verification team has a project on its radar to replace the bulk of manual processes via a Verification Case Management System comprising of the HCBP, verification workflow tool, and external user interfaces.

With the rapidly growing amount of locations that need to be verified and to satisfy the demand for program reviews, the verifications team has also embarked on a process streamlining effort to eliminate waste in the process. In like manner, the use of a Robotic Process Automation (RPA) can aid the High Cost Verifications team in:

- automating a large volume of email transactions and metrics generation that are currently done manually;
- performing automated verifications of evidence submitted by carriers in numerous formats (including GIS data) ; and
- Synthesizing data to find patterns and commonalities to arrive at an optimal process design.

USAC High Cost Verification team is searching for ways to innovate our overall CAF verification method including eliminating waste in processes, developing Verification workflows using our in-house workflow tool capabilities, standardizing evidence etc. that all have an impact on our overall Verification team

workforce load model. By quickly identifying a proof of concept that is large enough, we can increase efficiencies in verification reviews and enhance program integrity. The purpose of the RFI is to gather information from US based companies that have an established record of accomplishment of cost-effectively automating manual, repetitive, and rule-based processes using Robotic Process Automations (RPAs).

The RFI responses shall include, at a minimum, the following:

- General RPA software solution functionalities - intuitive GUI and easy to use drag and drop interfaces, rich analytical suite, less script or script-less automation, process structured and especially unstructured documentation, GIS and mapping capabilities, scale seamlessly to large volumes, seamless integration into the USAC environment;
- Discuss how the solution is auditable and traceable – audit logs, audit trails and versioning for regulatory audit requirements;
- Security – security standards, full FISMA and FedRAMP compliance is required;
- Cost – pricing structure that includes hardware, software, licensing, maintenance cost to total cost of ownership (TCO), additional costs for AI/ML components (if any);
- Environmental considerations - e.g. cloud based, knowledge base, chat box for real time assistance;
- Customer Models supported – in sourcing, outsourcing; discuss how you can develop a fully outsourced solution and eventually transition it to an in-house effort;
- KPIs – standard KPIs that are part of the tool and the ease of configuration;
- Risk considerations - technical readiness (platform agnostic), product maturity, deployment considerations;
- Tool administration – ease of administering the tool;
- Training considerations - availability, learning platform, certifications offered;
- Telecom – provisioning, equipment inventories, GIS and mapping capability from a Telco perspective, knowledge of telecom billing standards, CMMI certification, auditing and regulatory compliance;
- Agile and DevOps approaches to building RPA solutions.

***Please note that this is not a solicitation for products and/or services and this inquiry will not result in an award or contract.***

USAC may use the specifications and information gathered from this RFI to evaluate the current marketplace offerings leading to the development and preparation of a formal Request for Proposal (RFP). Please see below detailed USAC questions pertaining to this effort.

Information submitted by any interested party is voluntary and with the understanding that this RFI is for information gathering purposes only and is not a formal solicitation. Similarly, cost ranges will be used solely for budgetary analysis and establishing a target budget. USAC will not use information gathered through the RFI process as a response to any solicitation subsequently issued by USAC.

#### **4. BENEFITS**

The RFI proposals must include responses relating to the following benefits:

1. Scale to significant order of magnitude change in both volume and complexity
2. Reduced process cycle time for verification activities and absorb new work requirements without the need to add additional heads
3. Reduced core verification testing processing errors and consequent costs of rework and delays



4. Efficient and effective metrics for routine reporting to USAC management and the FCC
5. Streamlined and configurable communication chain with carriers, subject to review
6. Increased overall process cycle efficiency of existing verification processes and achieving more than can be done with current resources, e.g., more frequent and timely processing of evidence received in numerous formats and improved quality
7. Improved internal controls, regulatory compliance and auditability
8. Improved security and privacy by automating and securing handling of sensitive verification evidence data and reducing vulnerability to harmful action
9. Automated data entry and other manual processing that occurs between USAC (and High Cost) core systems and compliment the current USAC IT architecture and standards.

## 5. KEY CATEGORIES

### A. Performance and Quality

USAC would like to receive RFI proposals that speaks to the Performance characteristics below, but also encourages vendors to pinpoint any unique capabilities or offerings. USAC requests that the proposal responses address the following Performance and Quality needs:

1. What is the primary method used to achieve automation (screen scraping, scripting, rule based or model-based automation)?
  - o Use Cases:
    - Scan the screen of the user's machine and perform searches
    - Scan structured or unstructured documents (PDF, XML) (e.g. key word searches on subscriber bills such as speed, speed packages offered by carriers etc.
    - Perform OCR/ICR related actions or search screenshots of google maps to derive key data insights?
2. To what degree is scripting required to achieve the desired automation?
3. How much time does it take, on average, to create a production bot?
4. How many people are typically involved in creating, testing, and deploying a production bot?
5. How easy is it to configure and customize analytics for multiple scenarios? (e.g., cycle time metrics for each verification process step, lead time etc.)
6. Can the bot send automated emails to contacts, import/save contact information, and track the history of communication between USAC and the carrier under review (to support compliance gaps and appeals, etc.).
7. How cumbersome or easy is it to synthesize, view, or even cache or archive communications history in a RPA Operational or Strategic dashboard? (this is important for our audits)

### B. Automation

USAC requests that the proposal responses address the following automation needs:

1. How can we extract data from USAC High Cost broadband portal per fund / per carrier using specific selection criteria? Use cases – certified locations in the broadband portal, business rules to exclude locations that were previously sampled
2. How can we generate statistically significant samples based on carrier/state/study area code combinations and then notify external parties (carriers) indicating that the samples are ready for them to provide evidence?
3. How can we leverage RPA tool for location milestone monitoring to identify initial deficiencies after the passage of an interim milestone deadline and perform continuous monitoring of quarterly compliance reporting to assess status of compliance gaps?



4. How can we utilize RPA tool to send a Word template of questionnaire to carriers enabling them to complete the questionnaire and provide examples of supporting documentation?
  - o How easy is it to adjust a bot to respond to a proposed piece of evidence?
5. How can we send formal notifications to carriers chosen for review along with study area codes chosen for review using predetermined templates and samples via secured file transfers?
6. How can we use latitude and longitude coordinates reported in the broadband portal to assess the eligibility for structures? A use case would be to use Geocoding analysis to measure the distance between coordinates reported and the coordinates that correspond to the physical address of the broadband deployed location. Note: The USAC verifications team currently uses an array of tools such as Google Maps, Address Management System, Bing, MapQuest, County GIS, CSV files, and Google Earth.
7. How can the Verifications team ensure that the PDF document (unstructured) showing speed package provided by carriers as part of their evidence passes the speed requirements? Can Artificial Intelligence/Machine learning functionality accomplish this?
8. How do we extract data from images and documents as proof of location deployments using functionality such as OCR?
9. How can we ensure that the evidence submitted by carriers for Multi-Dwelling Units are accurate (location accuracy)? Currently, carrier provides multitude of evidence such as KMZ, PDF, Word, Excel, Photos, Videos, etc. Verification team also performs Zillow in-depth reviews and views maps, among others, as part of their evidence checks.
10. How can we share progress of milestone deployments, pin point deficiencies and gather responses back from carriers using predetermined templates?
11. How do we track the status of verification for team members, management and FCC? Use cases include team member performance on their assignments at any given point in time, how many locations completed review, how many are pending review or awaiting further evidence from carriers, how many locations failed or passed?
12. Can you explain the robot's ability to read structured and unstructured documentation?
  - o A use case would be to derive meaningful insights from variety of file types (PDF, XML etc.) provided by the carriers as proof of deployed locations.
13. Can the robot track deadlines for verification submissions, extensions, and notify primary reviewer of approaching deadlines through configurable email notifications?
14. What is the ease with which the robot can analyze and report upon completion of milestones (e.g. SAC reviews, for example, total of 10 locations failed for xyz reasons out of 100 sampled)?
15. Can the robot track and report each team member's progress on assignments?
  - o A use case would be if a verification analyst is examining 100 locations, how many of the locations have passed or failed? How many are still pending a conclusion?
16. Can you elaborate on the audit and tracking capabilities of the tool - audit logs, audit trails and versioning for regulatory requirements?

### **C. Cost**

1. Can you explain your pricing structure? Insourcing vs. outsourcing
2. Are there additional costs for AI/ML components?
3. What is a typical ratio of maintenance costs to total cost of ownership?

### **D. Other Considerations**

1. Can you elaborate on the RPA tool integration capabilities (via API, SaaS tools, ODBC)?
2. What security standards do you follow? Are you FISMA compliant? Do you follow any specific security standards?
3. How long does it take to design or add a new automated process on average?

4. How much training will do staff need to effectively utilize the bot?
5. What skillset is required to fix broken bots?
6. What metrics can you share regarding mean time to resolution when bots break?
7. How easy is it to perform admin functions – e.g., for an RPA user to create, edit and delete accounts, based on their roles?

## 6. RFI RESPONSE FORMAT

The RFI response shall be in two parts. The first part is a written response (as detailed below), which may lead to the second part, a request for a demonstration. Based on the written responses, USAC may invite selected respondents to present or demonstrate their approach to USAC and FCC staff. The demonstration may take place either at USAC headquarter offices located at 700 12th Street NW, Suite 900, Washington, DC 20005 (preferred), or remotely via a video teleconference session.

Respondents’ written response should have numbered pages and include an index, or table of contents, referencing the appropriate page numbers for the following sections:

### Section I – **Maximum 5 pages**

- a) Company Profile (including a point of contact information)
- b) Statement of Relevant Experience

### Section II – **No Maximum page count**

- a) Response to questions outlined in Section 3

### Section III – **Maximum 10 pages**

- a) Any additional information that might be useful

### Section IV – **Maximum two page**

- a) To the extent available, detailed price estimate for any recommended solution, (please note that we use cost ranges solely for budgetary analysis and for establishing a potential target budget).

## 7. RFI TIMELINE

<b>Event</b>	<b>Date</b>
RFI Issue Date:	August 11, 2020
Last Day For Vendor Questions:	August 18, 2020 at 2:00 PM ET
USAC Responses To Questions:	August 20, 2020 at 2:00 PM ET
Vendor Responses Due:	August 28, 2020 at 2:00 PM ET
Vendor Demonstration:	September 1 -2, 2020 (TBD)

## 8. RFI SUBMISSION INSTRUCTIONS

All responses to this RFI are due no later than 2:00 PM ET, August 28, 2020. We may not consider responses received after this date for review. Responses should be prepared simply and economically, and provide a straightforward and concise explanation of the information requested. Emphasis should be on completeness and clarity. Please submit one (1) electronic copy (PDF) of your response to Noor Jalal at [rfp@usac.org](mailto:rfp@usac.org). All submissions must include “**Response to RFI – Robotic Process Automation**” in the subject line. Please note that all electronic submissions must be limited to a maximum size of 25 GB.

## 9. VENDOR INQUIRIES AND QUESTIONS

Submit all Questions and inquiries, regarding this RFI, by 2:00 PM ET, August 18, 2020 to Ecatarina Grant at [rfp@usac.org](mailto:rfp@usac.org) and include “**Questions to RFI – Robotic Process Automation**” in the subject line.

## 10. USAC POINT OF CONTACT INFORMATION

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