



**ShakeAlert® Earthquake Early Warning System
California – Oregon – Washington
Technical Engagement Program**

Pilot Phase License Agreement

This Pilot Phase License Agreement (including all attachments and appendices, collectively the “Agreement”) is entered into between the United States Geological Survey (“USGS”), a bureau of the U.S. Department of the Interior, having offices at 12201 Sunrise Valley Drive, Reston, Virginia, 20192, and [name of Licensee] (“Licensee”) and is effective on the date of last signature below (the “Effective Date”). Each of USGS and Licensee may also be referred to as a “Party” and together, the “Parties.”

BACKGROUND

- a. The USGS is authorized to develop a system capable of providing earthquake warning data to mitigate damage from earthquakes as established by the Disaster Relief Act (P.L. 93-288, popularly known as the Stafford Act) and the National Earthquake Hazard Reduction Program, as enacted by the Earthquake Hazards Reduction Act of 1977, 42 U.S.C. §§ 7701 et seq. The data feed in coordination with state and private entities is used to develop mechanisms to respond to the data to notify the public about the earthquake. The USGS, in partnership with the University of Washington, the California Institute of Technology, the University of California at Berkeley, and the University of Oregon is continuing efforts to develop and maintain this Earthquake Early Warning (EEW) system called ShakeAlert®. USGS’s earthquake reduction plan is to create an infrastructure where the public receives a notification or alert within seconds of the ShakeAlert system detecting an earthquake, thereby providing warning before destructive shaking arrives.
- b. This Agreement is entered under the authority of the Federal Technology Transfer Act of 1986, codified in 15 U.S.C. § 3710a(a)(2), as amended. The Licensee’s authority to enter into the Agreement is pursuant to [Enter Authority if a State entity or not applicable if no authority is needed]. The purpose of this Agreement is to further the development of the ShakeAlert Materials by granting access to Licensee to evaluate the ShakeAlert Materials’ functionality and compatibility with Licensee’s products and services. Licensee will provide USGS with feedback regarding the functionality and compatibility of the ShakeAlert Materials, as further detailed below.
- c. The “ShakeAlert Materials” licensed under this Agreement include:
 - i. “ShakeAlert Data”, which consists of real-time data streams that may include parameters derived from ground motion records, ground motion estimates, or earthquake source information including origin time, location, magnitude, and fault rupture description, and duration; these information streams begin shortly after an earthquake starts and update as the earthquake develops;
 - ii. “ShakeAlert API” (Application Programming Interface), which is defined as an application programming interface that delivers the ShakeAlert Data;
 - iii. ShakeAlert UserDisplay demonstration module is defined as an application run on a user’s device, presents visual, and audio information about the earthquake, its magnitude, and when it will arrive at the user’s location;
 - iv. ShakeAlert server connections, other software, algorithms, associated media, printed materials, data, files and information, and any online or electronic documentation; and
 - v. ShakeAlert education and training materials, including, but not limited to USGS approved messaging.

In consideration of the mutual promises set forth herein, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. License.

1.1 Grant.

- a. USGS grants Licensee a non-exclusive, revocable (as provided in Section 11.2, Termination), non-transferable (except as expressly permitted in this Agreement), royalty-free license to access and use ShakeAlert Materials in connection with the approved pilot application identified in Appendix A, subject to this Agreement's terms and conditions.

1.2 License Restrictions.

- a. Licensee will not advertise, sell, copy, modify, reverse engineer, publish, rent, lease, loan, sublicense, or distribute ShakeAlert Materials or derivative works based on ShakeAlert Materials to the public or any other third-party without the prior written consent of USGS.
- b. Access to the ShakeAlert Materials will be solely governed by terms and conditions of this Agreement;
- c. Licensee will distribute derivative works based on ShakeAlert Materials (for example early warning notification to a user) to only to USGS approved clients, as described in Appendix A (Pilot Project Application and Statement of Work);
- d. Licensee, including its employees and (or) USGS approved Licensee third-party, will not interfere with or disrupt USGS or ShakeAlert Materials servers or networks, and will comply with the USGS requirements, procedures, policies, and regulations for the ShakeAlert servers or networks, as set forth on Attachment B (License to Operate Amendments). Upon USGS written consent of any Licensee third-party, Licensee will take all reasonable steps, including flow down provisions, to ensure that terms required by Licensee under this agreement are passed to its contactors to the extent necessary for the performance of its contractor's work.
- e. Licensee shall adhere to USGS mandated alert delivery thresholds (magnitude and intensity) and USGS recommended public facing messaging including protective action messaging guidelines as outlined by the USGS and USGS authorized delegates. Further, Licensee will work with the USGS and USGS authorized delegates in the development and testing of education and training resources for this pilot.
- f. The Licensee shall use ShakeAlert sounds, voice instructions, visual representations, and other characteristics recommended by USGS unless alternatives are approved in writing by the USGS.
- g. The Licensee shall communicate to users all secondary messages from USGS that follow any ShakeAlert response action taken by Licensee as a result of a ShakeAlert data feed.
- h. Unless otherwise agreed by USGS in writing, Licensee is limited to [##] concurrent connections to ShakeAlert servers; and
- i. LICENSEE will not charge client(s) a fee in connection with Licensee's redistribution of alerts unless permitted by amendment, as provided in Section 19 (Amendment).

1.3 No Other Restrictions.

Nothing in this Agreement:

- a. requires Licensee to use any ShakeAlert Materials in Licensee products or services;
- b. restricts Licensee from using content it obtains elsewhere; or
- c. restricts Licensee from exercising any rights it has at law (including under the U.S. Copyright Act).

1.4 Pilot Project Application and Statement of Work

Each Party will perform its obligations set out in this Agreement, including Appendix A (Pilot Project Application and Statement of Work).

2. Confidential Information.

2.1. Confidential Information.

“**Confidential Information**” means information that one Party discloses to the other Party under this Agreement, and that is marked as confidential or would normally be considered confidential information under the circumstances. It does not include information that:

- a. becomes public through no fault of the receiving Party;
- b. is rightfully given to the receiving Party without a confidentiality obligation;
- c. is independently developed by the receiving Party without reference to or use of information provided under this Agreement;
- d. required to be disclosed as a matter of court order or law; or
- e. permitted to be disclosed per the terms of this agreement.

Subject to the above, Confidential Information shall include:

- For the Licensee:
 - non-public information related to Licensee’s products and services, including metrics and findings related to Licensee’s use of the ShakeAlert Materials; and
 - information related to Licensee’s operations, products, and services provided in the Pilot Project Application and Statement of Work.
 - Provide a detailed list of confidential and proprietary information in Appendix D.
- For USGS: **NONE**, unless described below

2.2. Obligations.

The recipient will not disclose the other party’s Confidential Information, except to employees, agents, or professional advisors (“Delegates”) who need to know it and who have a legal obligation to keep it confidential. The recipient will use the other party’s Confidential Information only to exercise rights and fulfil obligations under this Agreement while using reasonable care to protect the Confidential Information. The recipient will ensure that its Delegates are also subject to the same non-disclosure and use obligations. The recipient may also disclose Confidential Information when required by law after giving reasonable notice to the other party, if permitted by law.

2.3. Public Statements

- a. Subject to Section 2.3.b., public statements or commercial advertisements issued by Licensee after verification shall not refer to this Agreement in a manner which states or implies that the products or services of Licensee are endorsed by the Government, or are considered by the Government to be superior to other products or services. This restriction is intended to avoid the appearance of preference by the Government toward any product or service. The Licensee may ask USGS to make a determination as to the propriety of promotional material.
- b. Licensee may refer to this Agreement in any public statements or commercial advertisements using language agreed upon by both Parties, as identified in Appendix B.

3. **Intellectual Property and Endorsements.**

3.1 No Endorsement.

USGS does not directly or indirectly endorse any product or service provided, or to be provided, by Licensee in connection with this Agreement.

3.2 Retention of Rights.

As between the parties:

- a. USGS retains all rights in the ShakeAlert Materials and USGS' patents, trademarks, logos, and domain names; and
- b. Licensee retains all rights in Licensee's products and services independently made.

3.3 Trademarks.

Licensee, including its employees, third-parties, and agents, will not use any trademarks, domain names, social media account names or handles, or seek any trademark registration that are the same or confusingly similar to any USGS trademarks including its tradename(s), logo(s), brand(s), or seal(s), whether registered or not, without first obtaining written permission from USGS. Permission to use USGS' trademark(s) will not be unreasonably withheld, so long as Licensee's use does not state or imply any endorsement, suggest any other relationship than the one established by the license or a pending agreement with the USGS, or that the mark is not placed on or in connection with any Licensee or third-party goods.

Furthermore, Licensee agrees to use due diligence when selecting or using domain names, a trademark or seeking state or Federal trademark rights related, in any way, to this License Agreement, the ShakeAlert Materials, or for any good or service offered by Licensee, so that reasonable efforts are made to ensure that any of Licensee's trademark do not include, or are confusingly similar to, the names, trademarks, official insignia, or logos of the USGS.

3.4 Copyrights.

By virtue of this Agreement and Licensee's relationship with USGS, Licensee will be granted access to subject matter that may qualify for copyright protection in accordance with 17 U.S.C. §102. Without the prior written consent of USGS, Licensee shall not claim, file for, or otherwise acquire an interest in any copyrights in the ShakeAlert Materials, including software or any other material that Licensee has access to by virtue of this Agreement.

3.5 Patents.

Licensee by virtue of its use of the ShakeAlert Materials under this Agreement may generate patentable materials and (or) trade secrets of the Licensee. If Licensee uses federal funding and the ShakeAlert Materials provided under this Agreement to develop a patentable invention, Licensee grants to the USGS a perpetual, worldwide, nonexclusive, nontransferable, irrevocable, royalty-free license to practice or have practiced such invention, throughout the world by or on behalf of the Government for research or other Government purposes.

4. Maintenance and Support.

4.1. Updates. Subject to Section 4.2 (Notice):

- a. USGS is under no obligation to provide maintenance for the ShakeAlert Materials. If, in its sole discretion, USGS makes an update available to Licensee, it will be deemed incorporated into the ShakeAlert Materials and subject to this Agreement.
- b. USGS reserves the right to make any and all changes to ShakeAlert Materials that it deems necessary to maintain and improve the function of the system.

4.2. Notice. USGS will use best efforts to:

- a. provide at least 14 days' advance written notice to Licensee of any of any changes, fixes, patches, or updates that it makes to ShakeAlert API; and
- b. notify Licensee within 24 hours of any unexpected disruptions or malfunctions that occur and affect the ShakeAlert Materials.

5. Benchmarks

5.1. Measuring Delays.

The Licensee shall provide a copy of an annual report including a summary of compliance with benchmarks, quantity of subscribers, elapsed time from when a ShakeAlert message is received from USGS and when it is delivered to Licensee's end users (e.g., commercial subscribers or clients) with a precision of one (1) second or better. The Licensee shall provide this performance data to USGS within seven (7) days of a request. USGS is free to provide this data to the public, unless stated in Appendix D.

5.2. Alert Delays.

The Licensee shall make reasonable effort to ensure the fastest possible delivery time of an alert. Licensee shall maintain an average time to receive, process, and redistribute the alerts from the ShakeAlert system to its clients at no more than five (5) seconds, for at least 95 percent of users.

6. Feedback.

As consideration for this Agreement, the Licensee will provide suggestions and feedback regarding the ShakeAlert Materials, including, but not limited to, functionality, design, usability, bugs, and results of any testing performed by Licensee on a quarterly basis or upon the request by the USGS. The USGS is free to share feedback not classified as proprietary or confidential with ShakeAlert Partners as identified in Appendix A and to use and incorporate any feedback in USGS' products, without payment of royalties or other consideration to the Licensee, so long as adoption by USGS does not infringe any active patents, copyrights, or trade secret of the Licensee.

7. Passwords and Security.

Licensee is required to register as an authorized user for access to ShakeAlert Materials. Registration will include a username, password and contact information ("User Credentials"). For convenience, usernames will

reasonably reflect the name of the Licensee. User Credentials must be kept accurate and up to date. Licensee is responsible for maintaining the confidentiality of its User Credentials and will not share its User Credentials with anyone or use the User Credentials of others. While USGS will use its best efforts to provide advance notice, USGS reserves the right to disable, delete, or change Authorized User Credentials at any time if USGS reasonably believes that doing so is in the best interests of the government or serves the public's interest, immediately without any advance notice.

8. Attribution.

If Licensee publishes research or otherwise publicly discloses information related to the ShakeAlert Materials that is permitted by this Agreement, then Licensee upon written approval by USGS, shall give appropriate credit to the USGS as the source of the ShakeAlert Materials. Licensee is permitted to use the name, USGS, in black and white, non-stylized text for limited purpose of USGS attribution in a scientific publication. For use of actual "USGS" mark, Licensee shall follow USGS Office of Communications and Publishing recommendations regarding appropriate format. Licensee shall send notice to USGS as indicated in Section 17 (Notices) of this Agreement for file and requested color. Guidance may also be found at <https://www.usgs.gov/information-policies-and-instructions/usgs-visual-identity-system>.

9. Prohibition on the Distribution of Warning Signals.

Licensee is not authorized to transmit messages, notifications, alerts, or warnings derived from the ShakeAlert Materials to unauthorized clients or to the public under this Agreement unless specifically agreed to by USGS in writing, or Licensee's pilot license is converted to License to Operate (LtO) under Section 15 (Conversion to License to Operate).

10. Disclaimers; Warranties; Limitation of Liability.

10.1. Disclaimers.

During the pilot phase, ShakeAlert Materials are licensed under this Agreement for the purpose of continued research and development. The Parties make no express or implied warranty as to any matter whatsoever, including the conditions of the research or any invention or ShakeAlert Material, whether tangible or intangible, made or developed under or outside the scope of this Agreement, or the ownership, merchantability, or fitness for a particular purpose of any research, invention or material, or that a technology used by a Party in connection with the ShakeAlert Materials, or the ShakeAlert Materials, do not infringe any third-party patent rights.

Furthermore, USGS does not warrant that the ShakeAlert Materials will always function, in all geographic areas, without interruption, be error-free or that any errors will be corrected. All ShakeAlert Materials are provided "AS IS" and without any warranty, express, implied, or otherwise, regarding its accuracy or performance. Any reliance upon ShakeAlert Materials is at the express and sole risk of the Licensee, including its employees, assigns, and insurers.

Licensee shall provide the following disclaimer to all Clients that receive and distribute data about earthquakes:

LICENSEE MAKES NO WARRANTY WITH RESPECT TO ANY TECHNOLOGY, GOODS, OR SERVICES USING THE DATA AND HEREBY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

10.2. Licensee Warranties.

The Licensee warrants that:

- a. it has authority to enter into this Agreement;

- b. the signatory has the authority to sign on behalf of the Licensee; and
- c. as of the Effective Date and to the best of its knowledge, the Licensee is not debarred or suspended by any agency of the U.S. government.

10.3. USGS Warranties.

USGS warrants that it has and will retain all necessary rights to grant the licenses in this Agreement and deliver ShakeAlert Materials to Licensee during the term of this Agreement.

10.4. Liability.

- a. Liability. In this Section 10.4, “**Liability**” means any liability, whether under contract, tort (including negligence), or otherwise and whether or not foreseeable or contemplated by the parties.
- b. Limited Liabilities. Subject to Subsection (c) (Unlimited Liabilities) and any amendment, neither Party will have any Liability arising out of or relating to this Agreement or the ShakeAlert Materials for:
 - i. lost revenues, profits, savings, or goodwill;
 - ii. indirect or consequential losses;
 - iii. special or incidental losses; or
 - iv. punitive damages.
- c. Unlimited Liabilities. Nothing in this Agreement excludes or limits either party’s Liability for:
 - i. death or personal injury resulting from its negligence or the negligence of its employees or agents;
 - ii. willful misconduct or a lack of good faith;
 - iii. fraud or fraudulent misrepresentation;
 - iv. breach of Section 2 (Confidential Information); or
 - v. matters for which liability cannot be excluded or limited under applicable law.

11. **Term and Termination.**

11.1. Term.

This Agreement starts on the Effective Date and continues for one (1) year, unless earlier terminated by either Party in accordance with Section 11.2 (Termination), or unless both Parties agree in writing to extend this Agreement. USGS will not be liable for any damages claimed by Licensee or its clients as a result of the termination of this Agreement in accordance with its terms.

11.2. Termination.

Either Party may terminate this Agreement for any reason with 30 days prior written notice, provided that if Licensee’s pilot license is converted to an LtO under this Agreement, USGS shall provide 90 days written notice prior to termination. However, if USGS reasonably believes that immediate termination is

in the best interests of the government or serves the public's interest, then USGS may terminate this Agreement immediately without any advance notice.

11.3. Effects of Termination.

Upon termination:

- a. Licensee will stop utilizing ShakeAlert Materials (subject to any wind-down provisions agreed to by the parties in writing) and return to USGS or destroy all copies of the ShakeAlert Materials in accordance with instructions from USGS; and
- b. Within ten (10) business days of receipt of a Party's written request, and at the second Party's option, the second Party will use commercially reasonable efforts to return or destroy all tangible Confidential Information of the first Party, including, but not limited to, all electronic files, documentation, notes, plans, drawings, and copies thereof.

12. **Governing Law.**

This Agreement shall be governed by and interpreted in accordance with United States Federal Law. Prior to seeking a court of competent jurisdiction for any outstanding dispute, the parties agree to resolve such matters through submission of their dispute to USGS' and Licensee's respective signatories for an agreed resolution between the parties.

13. **Assignment.**

This license and the rights or obligations of any Party hereunder may not be assigned or otherwise transferred by any Party without the written consent by the appropriate delegated official of the other Party. USGS' consent shall not be unreasonably withheld where:

- a. the assignee has agreed in writing to be bound by the terms of this Agreement;
- b. the assigning party remains liable for obligations under the Agreement if the assignee defaults on them;
- c. the assigning party has provided notice of the assignment to the other party; and
- d. any Licensee assignee has completed all training required by USGS regarding the use of the ShakeAlert Materials.

If assigned in accordance with this Section, this Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assignees. Any other attempt to assign is void.

14. **Export Controls and Special 301 Report.**

14.1. Export Control.

Licensee agrees to comply with U.S. export laws and regulations including obtaining licenses as needed from the Bureau of Industry and Security for export and re-export(s).

14.2. Special 301 Report.

Licensee further agrees to not allow any foreign personnel that is engaged by the Licensee as a contractor, consultant, grantee, or third-party collaborator ("Foreign Contractor") whose country of origin is listed on the current annual Office of the U.S. Trade Representative (USTR) Special 301 Report (Report) to access the ShakeAlert API (e.g., by providing ShakeAlert API developer credentials or an API access key to the Foreign Contractor) for the performance of any work under this Agreement. The Report must be consulted annually throughout the term of the Agreement for compliance. For avoidance

of doubt, employees of a United States Licensee are not Foreign Contractors, and this Section 14.2 does not apply to them.

15. Conversion to License to Operate.

Upon USGS' written notice of approval and both Parties' execution of a conversion amendment, this Pilot Phase License Agreement will be converted to a LtO ("**Conversion**"). Upon Conversion, Licensee's use of ShakeAlert Materials will be subject to any additional terms, conditions, and restrictions specified in the conversion amendment and will continue to be governed by this Agreement as modified as follows:

15.1. The license grant specified in Section 1.1 will be amended to include:

- b. *"USGS grants to the Licensee the right to distribute ShakeAlert Materials and (or) derived products to the public, subject to limitations set forth by USGS for the technology and field of use identified in Appendix B (License to Operate Amendments)."*
- c. *"USGS grants to the Licensee the right to attribute USGS as the source of the ShakeAlert Materials in accordance with approved statements, as agreed upon by both Parties, identified in Appendix C (Public Release Statements)."*
- d. *"USGS grants to the Licensee the right to charge client(s) a fee in connection with Licensee's developed services or products using ShakeAlert Materials. Licensee will provide, on a regular basis as agreed upon by both Parties, an updated list of clients to the USGS."*

15.2. Delete Section 1.2.i., *"LICENSEE will not charge client(s) a fee in connection with Licensee's redistribution of alerts unless permitted by amendment, as provided in Section 19 (Amendment)."*

15.3. Section 10 will be amended to include:

"10.5 Indemnification

Licensee will defend, indemnify, and hold harmless the USGS, United States Government, and its employees from and against any and all claims, suits, losses, damage, costs, fees, and expenses from third-party claims made or brought against USGS based upon or arising out of or in connection with Licensee's use of ShakeAlert Materials, including but not limited to use of Licensee's products or services."

15.4. The first sentence of Section 11.1 (Term) will be deleted and replaced with the following: *"This Agreement starts on the Effective Date and remains in effect until terminated by either Party in accordance with Section 11.2 (Termination)."*

A LtO will not be effective until a written amendment has been attached to Appendix B (License to Operate Amendments) and has been signed by both parties.

16. Severability.

If a provision of this Agreement is found illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions will not in any way be affected or impaired thereby and such provision will be ineffective only to the extent of such invalidity, illegality, or unenforceability.

17. Notices.

All notices of termination or breach must be in writing and addressed to the other party's Legal Department. Additionally, termination and (or) breach notices from Licensee to USGS must also be addressed to the USGS Primary Contact. All other notices must be in writing and addressed to the other party's primary contact. Notice will be treated as given on receipt, as verified by written or automated receipt or by electronic log (as applicable).

USGS Primary Contact:

Douglas Given
USGS Earthquake Early Warning Coordinator
525 S. Wilson Ave
Pasadena, CA 91106
626-583-7812
doug@usgs.gov

USGS Agreements Department:

Office of Policy and Analysis
Technology Transfer
12201 Sunrise Valley Drive
Mail Stop 153
Reston, VA 22033
(703) 684-7550
Gs-a_opa@usgs.gov

LICENSEE's Primary Contact:

[name]
[title]
[address]
[address]
[email address]
[phone number]

LICENSEE'S Legal Department:

[name]
[title]
[address]
[address]
[email address]
[phone number]

18. Entire Agreement.

This Agreement constitutes the entire Agreement with respect to use by Licensee of the subject matter identified in Appendix A and supersedes all prior or contemporaneous, oral, or written agreements concerning use of the subject matter including any online, clickwrap, click-through or other terms or agreements that may be a part of the ShakeAlert Materials.

19. Amendment.

Any amendment and (or) modification to this Agreement, including all appendixes, must be in writing, signed by the duly authorized representatives of each party, and expressly state that it is amending this Agreement.

20. No Agency.

This Agreement does not create any agency, partnership, or joint venture between the parties.

21. No Third-Party Beneficiaries.

This Agreement does not confer any benefits on any third party unless it expressly states that it does.

22. Counterparts.

The parties may execute this Agreement in counterparts, including facsimile, PDF, and other electronic copies, which taken together will constitute one instrument.

23. Consultants and Contractors.

Subject to Section 14.2 (Special 301 Report), Licensee may use its consultants and contractors to exercise its rights and fulfill its obligations under this Agreement, if those parties are subject to the same obligations as Licensee. Licensee is liable for those parties' acts and omissions.

SIGNATURES

By executing this Agreement, each Party represents that all statements made herein are true, complete, and accurate to the best of its knowledge; that each has read and understood this agreement prior to signing; and that each enters into it freely and voluntarily.

LICENSEE

Signature _____ Date _____

Printed Name of Signatory

Title and Name of Organization

Phone _____ E-mail _____

USGS

Signature _____ Date _____

Printed Name of Signatory

Title and Name of Organization

Phone _____ E-mail _____

Appendix A



**ShakeAlert® Earthquake Early Warning System
California – Oregon – Washington
Technical Engagement Program**

Pilot Project Application and Statement of Work
(LICENSEE completes sections marked in red)

The United States Geological Survey (USGS) seeks well qualified pilot partners to develop and cooperatively test products that use the ShakeAlert system earthquake early warning notification product (i.e. a ShakeAlert® message) in real-world applications. Licensee is one such pilot partner. The ShakeAlert system is not yet complete but alert servers are operational and “open for business” in California, Oregon, and Washington.

The Licensee may develop products and services that use ShakeAlert Materials with the aim of commercial (sale) or non-commercial distribution to clients. Permissible uses include, but not limited to both machine-to-machine applications and human notification systems. Products and services may be developed and tested under this Agreement, but not on sale or offered for sale without a License to Operate (LtO). Pilots that successfully demonstrate their ability to meet performance standards for alert delivery and other mandated ShakeAlert guidelines (e.g., following mandated alerting thresholds and recommended education and training guidelines established by the USGS and (or) USGS authorized delegates) will be eligible for the LtO for the specific applications described in the Statement of Work included in this Appendix.

The Licensee will develop its application(s) based on an understanding of the behavior and limitations of the ShakeAlert system and the content of ShakeAlert messages. The Licensee's distribution of alerts will conform to the magnitude and intensity thresholds and geographic limits established by USGS. Pilot applications must meet the following criteria:

- not result in notifications beyond the scope of this Appendix;
- internally recognize possibility of the ShakeAlert messages containing false, missed, or late alerts and incorrect intensity estimates;
- have the capability to be tested using test ShakeAlert message in order to demonstrate compliance with performance standards; and
- make reasonable commercial efforts to complete testing within one (1) year of the Effective Date.

The ShakeAlert system provides earthquake notification and data streams using internet-based services. The USGS will provide Licensee access to ShakeAlert API and data format documentation and examples, password protected access to a ShakeAlert test service, and live streams from ShakeAlert alert servers. The USGS is able to provide only limited application development support.

In order to commence with development and testing, Licensee must have a fully executed the ShakeAlert Pilot Phase License Agreement with the USGS.

Qualifying organizations agree to collaborate with the USGS and (or) USGS authorized delegates to develop and implement best practices for the use of ShakeAlert powered products.

This includes use of ShakeAlert human interface signals and messaging; development, testing, and implementation of the ShakeAlert education and training program; and participating in ShakeAlert community interactions

(conferences, focus groups, etc.) where industry knowledge and best practices will be shared, discussed, and disseminated with the goal of improving the ShakeAlert System.

Statement of Work (SOW)

Date: _____

1. Principal Investigator (PI).

The USGS principal investigator (PI) for the ShakeAlert Project is:

Douglas Given
USGS Earthquake Early Warning Coordinator
525 S. Wilson Ave.
Pasadena, CA 91106
(626) 583-7812
doug@usgs.gov

The National Coordinator for ShakeAlert Technical Engagement is:

Robert M. de Groot
USGS ShakeAlert Technical Engagement Coordinator
Chair, ShakeAlert Joint Committee, for Communication, Education, and Outreach
525 S. Wilson Ave.
Pasadena, CA 91106
(626) 583-7225
rdegroot@usgs.gov

Licensee will also interact with ShakeAlert Technical Engagement Regional Coordinators. ShakeAlert Regions are Southern California, Northern California, Oregon, and Washington. These local points of contact will serve as subject matter experts including topics related to education and training, provide technical advice, assist with the completion and routing of paperwork, and serve as a liaison between the USGS and the Licensee. However, any questions or concerns regarding the content of ShakeAlert agreements (licenses) and this application including approvals must be routed through the National Coordinator for Technical Engagement. Only the USGS has the authority to approve and (or) amend agreements and Pilot Applications.

The Partner PI for the Pilot Project is:

[name]
[title]
[address]
[address]
[email address]
[phone number]

If a PI is unable to continue in this project, the organization will substitute a replacement acceptable to the other Party within sixty (60) days.

2. Notices.

Any notice required to be given or which shall be given under this SOW shall be in writing and delivered by email (or surface mail) to the Parties as follows:

USGS:	Licensee:
Technical:	Technical:
Douglas Given 525 S. Wilson Ave. Pasadena, CA doug@usgs.gov (626) 583-7812	
Administrative:	Administrative:
Martha Saburomaru Earthquake Science Center, USGS P.O. Box 158 Moffett Field, CA 94035 marthas@usgs.gov (650) 439-2884 DUNS No. 1378256 Tax ID No.01450804 http://earthquake.usgs.gov	
	Team Leads:

3. Pilot Application:

I. Goals or Specific Aims of Pilot Project

II. Pilot Scope

III. Licensee’s Obligations

The Licensee, in support of this agreement, will access the ShakeAlert API and make reasonable efforts to attempt to demonstrate (in an internal, pilot/non-commercial testing environment) that it can:

IV. USGS’ Obligations

The USGS has designated federal authority to issue ShakeAlert messages. The USGS also provides management and financial support for the Pacific Northwest Seismic Network (PNSN) and California Integrated Seismic Network (CISN) as participating regional seismic networks within the Advanced National Seismic System (ANSS).

The USGS, in cooperation with ANSS partners:

- will operate the ShakeAlert Earthquake Early Warning system in Washington, Oregon, and California; and
- will publish ShakeAlert products to ShakeAlert servers based on magnitude and intensity thresholds it determines.

The USGS will:

- manually review ShakeAlert messages that meet specific criteria and publish follow up messages;
- operate a “scenario” test server that provides on-demand replay of synthetic and recorded events; and
- operate and curate a GitLab repository with documentation and sample code for the benefit of ShakeAlert Licensee.

USGS and (or) other USGS partners in support of this Pilot Project will:

- provide documentation on the ShakeAlert system and its data products including formats, service protocols, and information on the system’s behavior;
- provide credentials and access to a test server (the “scenario server”) and web application that allows on-demand simulation of various test ShakeAlert scenarios;
- determine and provide magnitude and intensity thresholds and geographic areas within which ShakeAlert messages can be used for various purposes;
- provide credentials and access to ShakeAlert live message (alert) servers subject to the conditions of the Agreement;
- provide access to ShakeAlert technical expertise on a limited basis;
- advise and coordinate with Licensee on end user training and education;
- inform Licensee of any significant changes in the behavior of the ShakeAlert system or its formats or protocols; and
- advise Licensee on the suitability of ShakeAlert data for particular applications.

V. Joint Tasks and Activities (optional section)

USGS and Licensee will jointly:

Appendix B: License to Operate Amendments

To be determined at a later date upon agreement by both Parties.

Appendix C: Public Release Statements

To be determined upon agreement by both Parties. This may be developed at a later date.

Appendix D: Confidential Information

Licensee to provide confidential information in this Appendix.