

# ShakeAlert™

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

**Pilot Phase License Agreement**

**Please Ensure All Revisions Are Made Using Track Changes or Similar Editing Functions**

**Not Clearly Identifying Edits May Delay the Review Process**

LICENSEE completes sections marked in red  
Remove all instructional blue text prior to signature.

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 stream of data messages produced by the system is used to reduce earthquake impacts by initiating automated machine-to-machine actions notifying people 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 the ShakeAlert® Earthquake Early Warning system. USGS’s earthquake risk 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 potentially providing warning before 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. Licensee’s authority to enter into the Agreement is pursuant to [for State or local government entities, enter a legal authority]. *If this sentence is not applicable, remove the sentence.* 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 Messages," which consist of streams of real-time data messages that may include parameters derived from ground motion records, ground motion estimates, or earthquake source information including origin time, location estimates, magnitude estimates, and fault rupture description, and duration; the stream of messages begins shortly after an earthquake is detected, and updated messages are published as the earthquake develops and may include follow-up messages based on human review;
  - ii. "ShakeAlert API" (Application Programming Interface), which includes code examples, data file examples, and documentation describing the data streams and interface that delivers the ShakeAlert Messages;
  - iii. "Earthquake Early Warning Display or EEWDisplay," is a demonstration module run on a Licensee's device. The EEWDisplay presents visual and audio information about an earthquake, estimated magnitude and shaking, and when shaking will arrive at Licensee's location. EEWDisplay is for demonstration only and should not be used for life-safety applications;
  - iv. Credentials to access ShakeAlert servers that provide data connections and development tools; and
  - v. ShakeAlert education and training materials, including, but not limited to USGS approved messaging and other resources including fact sheets, graphics, and talking points.

**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 (Pilot Phase Project

Application and Statement of Work), 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) only to USGS approved clients, as described in Appendix A;
- d. Licensee, including its employees and (or) USGS approved Licensee third-party, must not interfere with or disrupt USGS or ShakeAlert Materials, servers or networks, and must comply with the USGS requirements, procedures, policies, and regulations for the ShakeAlert servers or networks, as set forth on Appendix B (License to Operate Amendments).
- e. Upon USGS written consent of any Licensee third-party, Licensee must 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 Licensee's contractor's work.
- f. Licensee and its employees, agents, or other professional advisors ("Delegates") must take all reasonable steps, including flow down provisions, to ensure that terms required by Licensee under this agreement are passed to its clients to the greatest extent applicable to the product or service being offered. Delegates are authorized employees, agents, or professional advisors as designated by each respective Party.
- g. Licensee must adhere to USGS mandated alert delivery thresholds based on earthquake magnitude, intensity, and other characteristics and limit use of ShakeAlert data to within geographic boundaries prescribed by USGS.
- h. Licensee must adhere to USGS recommended public facing messaging, including but not limited to protective action messaging, guidelines, training, and other resources that Licensee provides to end users as outlined by the USGS and (or) USGS Delegates.

- i. Licensee must work with the USGS and USGS Delegates to develop and test education and training resources for this pilot. Licensee must develop a USGS approved education and training plan prior to the License to Operate conversion, as provided in Section 15 (Conversion to License to Operate). Licensee must develop a USGS approved education and training plan prior to conversion of the pilot to the License to Operate. Licensee must implement this plan within six (6) months of the conversion from a pilot to License to Operate.
- j. Licensee's earthquake warning products or services must not conflict with the USGS recommended public facing messaging, as set forth in Section 1.2.h.
- k. Licensee must use ShakeAlert sounds, voice instructions, visual representations, and other characteristics recommended by USGS unless alternatives are approved in writing by the USGS.
- l. Licensee must communicate to end users all secondary messages (also known as Post ShakeAlert Message Follow-Up Messages) from USGS that follow any ShakeAlert response action taken by Licensee as a result of a ShakeAlert data stream. USGS will assist Licensee to develop a follow-up message plan to end users. Automated updates from the ShakeAlert system may not be part of this plan. Licensee must process all ShakeAlert system updates, including follow-up messages based on USGS human review and act on these messages as described in Appendix A or Appendix B for License to Operate conversions Licensee's system must accommodate automated updates from the ShakeAlert system. Licensee must develop a plan to interact with end users. The plan must include the distribution of a follow-up message to end users and (or) other actions.
- m. Unless otherwise agreed by USGS in writing, Licensee is limited to [##] concurrent connections to ShakeAlert servers;  
*A maximum of six (6) connections are provided to Licensee. If Licensee needs more connections, in another document, provide a justification for USGS consideration.*
- n. Licensee must list all users of each connection in Appendix E (List of Users);
- o. Licensee must not charge client(s) a fee in connection with Licensee's redistribution of alerts unless permitted by amendment, as provided in Section 19 (Amendment); and
- p. Licensee must ensure that its products or services comply with all applicable state and local laws, including public health and safety laws, and commercially reasonable industry standards (including by obtaining, maintaining, and

complying with all necessary permits and licenses) that do not conflict with the terms of this Agreement. All Licensee products and services must be of such quality as will not adversely affect the goodwill, image, and reputation adhering to the USGS and its ShakeAlert trademark.

### 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 (Appendix A)

Each Party will perform its obligations set out in this Agreement, including Appendix A.

## 2. **Confidential Information.**

### 2.1. Confidential Information.

“**Confidential Information**” means confidential proprietary information that one Party discloses to the other Party under this Agreement, and that is visibly identified 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;
- e. permitted to be disclosed per the terms of this Agreement;

- f. information provided in accordance with Appendix A, Section 3.VI. (Performance Reporting); or
- g. name of Licensee that possess access credentials to connect to the ShakeAlert servers.

Subject to the above, Confidential Information will include:

- For Licensee:
  - Information identified in **Appendix D (Confidential Information)**.
- For USGS: **NONE**, unless described below.

## 2.2. Obligations.

The recipient will not disclose the disclosing Party's Confidential Information, except to Delegates who need to know and who have a legal obligation to keep it confidential. The recipient will use the disclosing 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 disclosing Party, if permitted by law.

Any copies of Confidential Information that are made will be identified as belonging to the disclosing Party and marked "Confidential." The recipient may not use Confidential Information to reproduce, redesign, or reverse engineer any products or equipment of the disclosing Party.

A non-written disclosure will be considered Confidential Information to the extent that such disclosure is orally identified as Confidential Information at the time of disclosure and is confirmed in writing by the disclosing Party. Such written confidential information must: (i) sufficiently describe the information disclosed in detail, its scope, and manner of disclosure; (ii) identify disclosers and recipients; (iii) be supplied within ten (10) business days after oral disclosure; and (iv) refer to this Agreement.

## 2.3. Public Statements

- a. Licensee will notify the USGS of all public statements or commercial advertisement in connection with this Agreement. USGS will verify any of Licensee's public statements or commercial advertisement in connection with this Agreement prior to use. In the event correction is needed, the USGS will inform

Licensee of the needed revision(s). Licensee must make the requested changes within ten (10) business days after notification by the USGS.

- b. Subject to Section 2.2.c., public statements or commercial advertisements issued by Licensee after verification will 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. Licensee may ask USGS to make a determination as to the propriety of promotional material.
- c. 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 patents, trademarks, copyrights, logos, domain names, and 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 this Agreement 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 will 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 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 ten (10) business days advance written notice to Licensee of any changes, fixes, patches, or updates that it makes to ShakeAlert API that affect Licensee; and
- b. notify Licensee within twenty-four (24) hours of any unexpected disruptions or malfunctions that occur and affect the ShakeAlert Materials.

## 5. Performance Benchmarks

- 5.1. Alerting Speed. Licensee will make reasonable efforts to ensure the fastest possible delivery time of an alert to end users. Licensee will strive to maintain an average time to receive and process ShakeAlert Messages from the ShakeAlert system and deliver alerts to its clients of no more than five (5) seconds, for at least ninety-five (95) percent of end users.
- 5.2. Recordkeeping. Licensee will record and retain performance information sufficient to meet its obligations under Section 6. Reporting.

## 6. Reporting

### 6.1. Feedback on ShakeAlert Materials.

- a. As consideration for this Agreement, Licensee will provide an annual report on the anniversary of this license or on another date agreed upon by the Parties. The report will include:
  - i. suggestions and feedback regarding the ShakeAlert Materials, including, but not limited to, functionality, design, usability, bugs, based on results of any pilot testing and License to Operate (LtO) operations, as applicable;
  - ii. the number and type of end users served;
  - iii. the number and type of alerts processed and passed to end users; and
  - iv. a summary of compliance with performance benchmarks including elapsed time from when ShakeAlert Messages were received from USGS and when alerts were delivered by Licensee to end users (e.g., commercial subscribers or clients) with a precision of one (1) second or better.
- b. The USGS is free to share feedback not classified as proprietary or confidential with ShakeAlert Partners as identified in Appendix D, and to use and incorporate any feedback in USGS' products, without payment of royalties or other

consideration to Licensee, so long as adoption by USGS does not infringe any active patents, copyrights, or trade secret of Licensee.

#### 6.2. Post-Alert Performance Reporting.

- a. Licensee will provide performance data to USGS within five (5) business days of an alert or upon written request by USGS, in accordance with Appendix A, Section 3.VI. (Performance Reporting).
- b. The USGS is free to share report data not classified as proprietary or confidential with ShakeAlert Partners as identified in Appendix D.

### 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 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 and (or) efforts as described in Appendix A and (or) Appendix B that is permitted by this Agreement, then Licensee upon written approval by USGS, must give appropriate credit to the USGS as the source of the ShakeAlert Materials and (or) to ShakeAlert® as the source of the earthquake early warning data. Licensee is permitted to use the name, USGS and ShakeAlert®, in black and white, non-stylized text for limited purpose of USGS attribution in a scientific publication. For use of actual “USGS” mark, Licensee must follow USGS Office of Communications and Publishing recommendations regarding appropriate format. Licensee must send notice to USGS as indicated in Section 17 (Notices) of this Agreement for file and requested color. Guidance is 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, including the EEWDisplay module, to themselves, to unauthorized clients, or to the public under this Agreement unless specifically identified in

Section 1.1.a., or as amended by the Parties in writing, or Licensee's pilot license is converted to 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. During the pilot phase or the license to operate phase, 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.

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 Licensee, including its employees, assigns, and insurers.

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

**[Legal Name of 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.

Notwithstanding Section 10.1, Licensee warrants that:

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

- d. they will not use or manufacture a technology in the performance of this Agreement that infringes or otherwise adversely impacts any third-party intellectual property rights.

### 10.3. USGS Warranties.

Notwithstanding Section 10.1, 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. Authorization and Consent

- a. In order to avoid any possible interruption in the performance of this Agreement, USGS hereby gives the U.S. Government's authorization and consent (without prejudice to any rights of indemnification) for all use and manufacture of any invention covered by a U.S. patent in the performance of Licensee's responsibilities and obligations under this Agreement, including the performance of such responsibilities and obligations by Licensee's contractors, subcontractors, and agents.
- b. Notwithstanding Section 10.5 below, and any amendment, in the event that the United States Government incurs any liability for the use or manufacture of inventions covered by a United States patent either as royalties owed under an existing United States Government license or as an unlicensed practice of such patent, and such liability is incurred as a result of Licensee and (or) any of Licensee's contractors', subcontractors', or agents' performance of Licensee's responsibilities and obligations under this Agreement and exclusively from Licensee's products or services, Licensee agrees to indemnify and hold the U.S. Government harmless against such liability, including infringement costs and reimbursement for expenses incurred by the United States Government in defending against any suit or claim for such royalties or infringements.

### 10.5. Liability and Indemnification.

- a. Liability. In this Section 10.5, "**Liability**" means any liability, whether under contract, tort (including negligence), or otherwise and whether or not foreseeable or contemplated by the Parties.
- b. Indemnification. Licensee agrees to indemnify and hold the USGS, the United States Government, and its employees and its officers, agents, and employees harmless from and against any and all claims, suits, losses, damages, costs, fees, and expenses attributable to Licensee or its employees, agents, contractors, or subcontractors and arising out of or in connection with Licensee's or its

employees', agents', contractors', or subcontractors' use of ShakeAlert Materials, including but not limited to use of Licensee's products or services.

## 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 thirty (30) days prior written notice, provided that if Licensee's pilot license is converted to an LtO under this Agreement, USGS will provide ninety (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 other 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.
- c. Licensee will notify end users of the termination of their product or service with sufficient lead time to allow them to put alternatives in place.

## 12. Governing Law.

This Agreement will be governed by and interpreted in accordance with United States Federal Law.

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. If the Parties are unable to reach an agreed resolution, this Agreement will be governed by and construed in accordance with the federal laws of the United States, and the Parties agree to submit to the jurisdiction of a federal court of the United States with respect to all disputes or matters arising out of or pertaining to this Agreement.

### **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 will 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 will 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 not to allow any foreign personnel that is engaged by 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 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 Amendment)."*
- c. *"USGS grants to 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 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.p., *"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. 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 is attached to Appendix B and 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 ShakeAlert Materials and subject matter identified in Appendix A and supersedes all prior or contemporaneous, oral, or written agreements concerning use of the ShakeAlert Materials 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 and E-mail

**USGS**

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Printed Name of Signatory

\_\_\_\_\_  
Title and Name of Organization

\_\_\_\_\_  
Phone and E-mail

## Appendix A

# ShakeAlert™

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

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

The United States Geological Survey (USGS) seeks well qualified pilot phase 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 complete but alert servers are operational in California, Oregon, and Washington.

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. Licensee may develop and test products and services under this Agreement, but not on sale or offered for sale without a License to Operate (LtO). LtO may be approved for 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 Delegates) for the specific applications described in the Statement of Work included in this Appendix A.

Licensee will develop its application(s) based on an understanding of the behavior and limitations of the ShakeAlert system and the content and behavior of the stream of ShakeAlert Messages. Licensee's distribution of alerts must 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 A;
- internally recognize the possibility that ShakeAlert Messages may contain incorrect magnitudes, event locations and (or) intensity estimates. This includes the possibility that the ShakeAlert system might issue a ShakeAlert Message when there was no recorded earthquake or fails to issue a ShakeAlert Message for an earthquake that meets alert delivery thresholds;

- have the capability to be tested using test ShakeAlert Message in order to demonstrate compliance with performance standards; and
- make reasonable 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 (aka scenario) service, and live streams from ShakeAlert alert servers. The USGS will provide 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 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  
 525 S. Wilson Ave.  
 Pasadena, CA 91106  
 (626) 583-7225

rdegroot@usgs.gov

Licensee must be able to interact with ShakeAlert Technical Engagement Regional Coordinators. ShakeAlert Regions are southern California, northern California, Oregon, and Washington to obtain additional guidance on the USGS education and training. 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 new and (or) amend existing 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 must substitute a replacement acceptable to the other Party within sixty (60) days.

**2. Notices.**

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

<b>USGS:</b>	<b>Licensee:</b>
<b>Technical:</b>	<b>Technical:</b>
Douglas Given 525 S. Wilson Ave. Pasadena, CA doug@usgs.gov (626) 583-7812	
<b>Administrative:</b>	<b>Administrative:</b>
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 <a href="http://earthquake.usgs.gov">http://earthquake.usgs.gov</a>	
	<b><u>Team Leads:</u></b>

**3. Pilot Application:**

**I. Goals or Specific Aims of Pilot Project**

**II. Pilot Scope**

**III. Licensee’s Obligations**

Licensee, in support of this agreement, will develop one or more products or services based on ShakeAlert Materials and demonstrate their suitability for their intended purpose as described in the Statement of Work. Typically, this must include, first demonstration in an internal, pilot, non-commercial testing environment and then in the final operational environment in which it will be deployed. Licensee must create and successfully complete a Test Plan subject to approval by USGS. In addition, Licensee must:

[Add additional Licensee Obligations here.]

**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 Messages 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 test server (“Scenario Server”) that provides on-demand replay of synthetic and recorded events; and
- operate and curate a resource repository with documentation and sample code for the benefit of ShakeAlert Licensee.
- provide a Test Plan Template.
- evaluate Licensee’s Test Plan and approve it if appropriate

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 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 Message (alert) servers subject to the conditions of this 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:

## **VI. Performance Reporting**

- a. USGS is free to provide performance report data to the public, unless stated in Appendix D.
- b. For any alert delivered by Licensee for an earthquake with an estimated magnitude of 4.0 or larger, resulting in notification to end users using any modality (e.g. cell phones and other personal devices, sirens, PA systems in public spaces, automated systems), Licensee must provide a performance report

that includes the following information:

- i. The total number of devices alerted;
- ii. Any notable or unexpected behavior in alert delivery that was observed
- iii. The time ShakeAlert Messages were received by Licensee from USGS servers; and
- iv. The time alerts were delivered to all devices in one (1) second bins and further broken down by mode of delivery, WiFi™ or cellular.

## **Appendix B: License to Operate Amendments**

To be determined 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. If this is not applicable, please write N/A in this section.

## **Appendix E: List of Users**

List of Users for Each Connection Requested in Section 1.2.n.

(Must include name and organizational Email)