Disaster Recovery for Blockchain Nodes and Enterprise Workloads
Industry Connections Activity Initiation Document (ICAID)
Version: 2.0, 1 November 2022
<mark>IC20-022-02 Approved by the CAG 16 December 2022</mark>

Instructions

- Instructions on how to fill out this form are shown in red. Please leave the instructions in the final document and simply add the requested information where indicated.
- <mark>Spell out each acronym the first time it is used. For example, "United Nations (UN)."</mark>
- Shaded Text indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE SA) Industry Connections Committee (ICCom) Administrator at the following address: industryconnections@ieee.org.
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

Name: Jes Kiran, Syed Afser
Email Address: jechitti@in.ibm.com and syedafse@in.ibm.com
Employer: IBM
Affiliation: IBM

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

2. Participation and Voting Model

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

 "Individual-Based"

3. Purpose

3.1 Motivation and Goal
Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

Motivation is to provide disaster recovery capabilities for secured distributed financial applications. Financial workloads need a highly secure, trusted technology with decentralized, distributed transaction handling capability, where Blockchain plays a role. Disaster causes outages to entire Blockchain nodes and enterprise workloads. Disaster recovery at the backup geo location helps to continue Blockchain nodes and enterprise workloads. After unplanned disasters, it is not possible to have completely synchronized consistent data copy on the target site, when distance is longer between geo locations. The goal is to use predictive analysis on different rolling disaster failure events using Machine learning or Deep learning techniques and do a planned recovery before unplanned outages, so that the target site will have complete data copy and bring up Blockchain nodes and enterprise workloads. Planned recovery helps to drain all production site data to the target site gracefully, hence target site will have consistent synchronized copy.

3.2 Related Work
Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

No activity found on proposed areas.

3.3 Previously Published Material
Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

Do not have previous papers.

3.4 Potential Markets Served
Indicate the main beneficiaries of this work, and what the potential impact might be.

The following sectors would be highly benefited by enabling Disaster Recovery for Blockchain systems: Financial Sector, cyber security.

3.5 How will the activity benefit the IEEE, society, or humanity?
Describe how this activity will benefit the IEEE, society, or humanity.
This industry connect helps IEEE to focus on upcoming trends, which are needed for most of the companies for future growth.

4. Estimated Timeframe

Indicate approximately how long you expect this activity to operate to achieve its proposed results (e.g., time to completion of all deliverables).

Expected Completion Date: <mark>12/2024</mark>

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCom and the responsible committee of the IEEE SA Board of Governors. Should an extension be required, please notify the ICCom Administrator prior to the two-year mark.

5. Proposed Deliverables

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

- Workshop(s) about Disaster Recovery handling for Blockchain Systems.
- Identify the gaps in standards
- Propose new standards projects

5.1 Open Source Software Development

Indicate whether this IC Activity will develop or incorporate open source software in the deliverables. All contributions of open source software for use in Industry Connections activities shall be accompanied by an approved IEEE Contributor License Agreement (CLA) appropriate for the open source license under which the Work Product will be made available. CLAs, once accepted, are irrevocable. Industry Connections Activities shall comply with the IEEE SA open source policies and procedures and use the IEEE SA open source platform for development of open source software. Information on IEEE SA Open can be found at https://saopen.ieee.org/.

Will the activity develop or incorporate open source software (either normatively or informatively) in the deliverables?
No

6. Funding Requirements

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government, or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICCom.

Specify funding requirements and sources, if any.

No funding requirements

7. Management and Procedures

7.1 Activity Oversight Committee
Indicate whether an IEEE Standards Committee or Standards Development Working Group has agreed to oversee this activity and its procedures.

Has an IEEE Standards Committee or Standards Development Working Group agreed to oversee this activity?
No

If yes, indicate the IEEE committee's name and its chair's contact information.

IEEE Committee Name: Committee Name
Chair's Name: Full Name
Chair's Email Address: who@where

Additional IEEE committee information, if any. Please indicate if you are including a letter of support from the IEEE Committee that will oversee this activity.

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

7.2 Activity Management
If no Activity Oversight Committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc.).

This working group will have an executive committee with chair, vice chair, secretary etc. who'll monitor the progress of this program. If we create sub-groups, the chairs of the sub-groups will be part of the executive committee.

7.3 Procedures
Indicate what documented procedures will be used to guide the operations of this activity; either (a) modified baseline *Industry Connections Activity Policies and Procedures* (entity, individual), (b) *Abridged Industry Connections Activity Policies and Procedures* (entity, individual), (c) Standards Committee policies and procedures accepted by the IEEE SA Standards Board, or (d) Working Group policies and procedures accepted by the Working Group's Standards Committee. If option (a) is chosen, then ICCom review and approval of the P&P is required. If option (c) or (d) is chosen, then ICCom approval of the use of the P&P is required.

This activity will use the baseline Industry Connections Activity Policies and Procedures.

8. Participants

8.1 Stakeholder Communities

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity and will be invited to participate.

Blockchain Infrastructure Companies
Data Centers
Cloud Security
Cyber Security

8.2 Expected Number of Participants

Indicate the approximate number of entities (if entity-based) or individuals (if individual-based) expected to be actively involved in this activity.

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8.3 Initial Participants

Provide a few of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an individual-based activity:

Individual		Employer	Affiliation
Jes Kiran		IBM	IBM
Syed Afser		IBM	IBM
Abhinav Gambhir		HPE	HPE
Kishore Annam		VIDHYA SANGHA TECHNOLOGIES PVT LTD	VIDHYA SANGHA TECHNOLOGIES PVT LTD
Tim Cara		GeoWAN	GeoWAN
Ramesh Ramadoss		BitCasas	BitCasas

8.4 Activity Supporter/Partner

Indicate whether an IEEE committee (including IEEE Societies and Technical Councils), other than the Oversight Committee, has agreed to participate or support this activity. Support may include, but is not limited to, financial support, marketing support and other ways to help the Activity complete its deliverables.

Has an IEEE Committee, other than the Oversight Committee, agreed to support this activity? No

If yes, indicate the IEEE committee's name and its chair's contact information.

IEEE Committee Name: Committee Name

Chair's Name: Full Name
Chair's Email Address: who@where

Please indicate if you are including a letter of support from the IEEE Committee.