1. Introduction

Telecom industry today has the most complex operations framework, involving many partners, vendors, customers, distributors, network providers. There are a lot of trust issues and transparency challenges due to the involvement of multiple entities, and no clear mechanism to track end-to-end activities of every entity and Blockchain can solve main issues in Telecom. Blockchain is a decentralized and distributed ledger technology, Trustless operability, Immutable and auditable.

1.1. Mission

The Hyperledger Telecom Special Interest Group is focused on technical and business-level conversations about appropriate use cases for blockchain technology in the Telecom industry.

1.2. Goals

The goals of the TCSIG will be one of the initial deliverables of the group as it starts to meet.

2. Special Interest Group Title

The name of this Special Interest Group shall be the Hyperledger Telecom Special Interest Group. Additional appropriate name references shall be:

- The Hyperledger Telecom Special Interest Group (external, formal)
- The Hyperledger TCSIG (external, informal)
- TCSIG (internal, informal)

3. Special Interest Group Scope

3.1. In Scope

The scope of the TCSIG shall include:

- Identifying related proofs of concepts, current pilot, use cases and functional architecture;
- Working towards building Telecom Blockchain consortium;
- Sharing stories of successes, failures, opportunities and challenges;
- Identifying conferences or other opportunities to connect face to face, as well as submit talks or present as a group at an event.

The TCSIG may form subgroups or task forces to support, emphasize, or promote any of those items listed above.

3.2. Out Of Scope (optional)

Information about what is out of scope may be added as the group as it matures.

4. Work Products

The initial work products will include a set of documents describing Telecom use cases, White Papers, Technical Solutions for blockchain technology. Some of the use cases (but are not limited to) SLA Management, ONAP, OSM, Multi-Domain Orchestrator, 5G, LF Edge, Network Slicing, IloT, SDN, NFV etc. This will be an inventory of example use cases which may suggest Telecom applications that are built or could be built using Hyperledger. The Telecom-sig may also host in-person meetings intended to accelerate the Special Interest group's mission.

5. Working in an Open Community
Hyperledger SIGs are open and global communities where anyone from anywhere can and should be able to participate, contribute, and access tools and information. For example, this means that even with meetings that are held via teleconference, we have to involve those not on the calls who are online. Best practice in an open and global community is to keep in mind time zone differences of the group participants and make sure to include non-meeting participants in group discussions and decisions by active use of the mailing list. All SIGs must adhere to the Hyperledger Code of Conduct and Anti-Trust Policy (see below) during meetings:

Anti-Trust Policy

Linux Foundation meetings involve participation by industry competitors, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

Examples of types of actions that are prohibited at Linux Foundation meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at [http://www.linuxfoundation.org/antitrust-policy](http://www.linuxfoundation.org/antitrust-policy). If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrove of the firm of Gesmer Updegrove LLP, which provides legal counsel to the Linux Foundation.

5.1. Transparency

Meeting details, meeting notes, and documentation shall be made publicly available. The following items shall be generated and made available to the community after each meeting:

- Wiki
- Mailing list
- Rocket.Chat channel
- Meeting recordings
- Github repositories (optional)
- Jira (optional)

6. Collaborations

This SIG will collaborate with other Hyperledger groups, project maintainers, the TSC, LF Networking, and Linux Foundation staff. The Telecom SIG is interested in collaborating with other Hyperledger and non-Hyperledger groups that aim to identify and share blockchain solutions that increase impact in global development.

7. Membership

7.1. Eligibility for SIG membership

TCSIG membership shall be free and open to members of the community who have an interest in issues as they relate to the SIG topic technologies in general, and blockchain technologies in specific. SIG membership is established by subscription to the mailing list.

All participation in the groups activities is voluntary. It is perfectly fine to listen in to a group and do nothing. Of course active contribution is our goal, but it is not a requirement for membership.

Anyone can propose agenda items, activities, and work products. In work products, the only requirement is there's enough buy-in from community members to want to volunteer to complete the product.

7.2 Governance

Governance of the TCSIG shall be managed through its membership in accordance with the guidelines and overriding jurisdiction of Hyperledger leadership.

Day-to-day management of the TCSIG shall be conducted by elected officer(s). Any actions taken on this basis and having direct effect on TCSIG membership shall be reported to membership in a timely manner through established channels of communications.

7.3 Leadership

TCSIG leadership is comprised of the following office role(s):

- Chair
- Vice-Chair (optional)

If more than one office role is available, an TCSIG officer shall not hold more than one office role at any given time.

7.3a Eligibility
For consideration of an office of TCSIG, an TCSIG officer-in-consideration must be:

- An active contributor within the TCSIG community

### 7.3b Election

The first interim Chair of a SIG is nominated by the initial proposer of the SIG and s/he serves for approximately 90 days or up to the first 6 meetings as long as the SIG has active participation and contributors. All future Chairs will be selected through an election process where group members vote.

An TCSIG officer shall be elected by membership into position through a simple majority vote, and with Hyperledger leadership approval.

When there are two or more candidates, officer election shall be determined through a plurality vote, and with Hyperledger leadership approval.

Candidate Nomination can happen in a few ways (to be decided by the community on which approach to employ):

1. Candidates email the mailing list individually and provide a statement of candidacy indicating why s/he are a good candidate for chair.
2. Candidates email the Hyperledger point of contact with their statement of candidacy. Once all are received, Hyperledger point of contact gathers all submissions and posts the names and candidate statements in the mailing list all together for the community to review.

### 8. Election Process

#### 8.1 Voting

All TCSIG members shall have one vote. All membership votes shall be based on a simple majority, unless otherwise noted.

Voting can take place in a few ways, to be determined by the community:

1. Community members submit votes to Hyperleder POC by email
2. Use a tool

The TCSIG shall follow the direction of Hyperledger POC for the voting process. In the event of a tied vote, a ranking TCSIG officer shall be granted a tie-breaking vote.

#### 8.2 Early Elections

In the case where an existing Chair is not able to complete their term, an early election can be called. For instance, if a Chair has a change at their work that causes them to not have the time to devote to the SIG or if a Chair is no longer performing the responsibilities assigned to the role of the office, then a new Chair will need to be elected. At any time over the course of an TCSIG officer’s tenure, TCSIG member(s) may identify whether the Chair is fulfilling the responsibilities.

A new election process can be started by having a discussion on the group’s list or by communication by the Hyperledger POC. In that discussion, the Chair may announce they are stepping down.

### 9. SIG Chair

#### 9.1 Responsibilities

An TCSIG Chair is responsible for the following items:

- Facilitating the group and helping ensure that the mission statement and goals are observed and met
- Scheduling and facilitating regular General Meetings open to all TCSIG membership
- Developing and distributing meeting agendas at least one business day before the scheduled meeting
- Ensuring that all group members have the opportunity to participate in decisions and provide input even when not attending a meeting. SIG communities are global and a chair should make efforts to ensure all are included in the community’s activities. This can be done by ensuring meeting notes are shared after calls and any major decisions are shared on the mailing list.
- Ensure recordings/minutes are taken during meetings which captures the discussion and includes a list of meeting participants, shared post meeting, and are added to the SIG wiki page
- Manage the SIG wiki page
- Generate Special Interest Group Quarterly Updates to present to Hyperledger POC in a timely manner and communicate regularly on any concerns or questions related to the SIG
- Serving as a proxy and ambassador for TCSIG membership (as appropriate)
- Enforcing adherence to the Hyperledger Code of Conduct and communicating the Anti-Trust Policy

#### 9.2 Term Length
An TCSIG officer shall serve for a period of one year from the start of the SIG group (for the first chair) or the last election date. An TCSIG officer may be elected into office for unlimited consecutive terms.

At such time a member is to be considered for the role of an TCSIG officer, or a sitting TCSIG officer is to be reconsidered for that role, an election process (as identified in the Election section) shall be commenced not less than four weeks in advance of the end of the current TCSIG term.

9.3 Removing an existing Chair

There are a few cases in which an existing SIG chair can be removed:

1. If a Chair stops participating in the group without announcing that they are stepping down, someone else may start the discussion about an early election and the Chair may or may not take part in that discussion.
2. In the event that a Chair is no longer performing chair responsibilities (see section 9.1) the Hyperledger POC will intervene.

If this were to happen, this prompts an early election.

Upon the determination that an TCSIG officer is no longer performing the responsibilities assigned to the role of the office, TCSIG member(s) may perform the following actions:

1. Notify the TCSIG officer in question, in writing, of all abdication(s) of responsibilities
2. If the TCSIG officer in question does not acknowledge, in writing and within five (5) days, the initial notice, TCSIG member(s) initiating the notification shall contact, in writing, Hyperledger POC
3. Hyperledger POC shall immediately (as practicable) attempt to contact, in writing, the TCSIG officer in question
4. If the TCSIG officer in question does not acknowledge, in writing and within five (5) days, at the request of Hyperledger POC, TCSIG member(s) initiating the notification shall begin a new election process.

10. Meetings & Communications

10.1 Cadence

Live meetings can be held weekly, bi-weekly, or monthly as determined by group members via teleconference. In addition, coordination and communication can also happen asynchronously online via the mailing list, chat, and wiki page as well.

10.2 Agenda

The ranking TCSIG officer will send out an agenda and a call for agenda items in advance (at least 2 days) through both the mailing list and chat channels to ensure that live or online attendees can contribute and know what will be discussed in advance of every meeting.

10.3 Recordings/Minutes

Recordings/minutes for each live meeting should be kept and shared out to TCSIG membership after the call.

10.4 Cancelling a Meeting

Meeting cancellations should be made at least 24 hours in advance of any meeting date.

All TCSIG membership meetings are placed on the Hyperledger Community Calendar. To ensure that a cancelled meeting is removed from the calendar, the person leading the meeting shall send a meeting cancellation request to zoom@hyperledger.org.

Additionally, a meeting cancellation notification shall be made to TCSIG membership through both the mailing list and chat channels.

11. Disbandment of SIG

Should the scope of the TCSIG reach completion, or conversely, the traffic on the various discussion forums, and/or the teleconference activity drop to very low levels, then the ranking TCSIG officer may ask Hyperledger POC to disband the Special Interest Group.

12. SIG Subgroups

Subgroups serve to direct membership efforts toward key areas of mutual or themed interest within the larger TCSIG general membership.

Like the parent TCSIG, subgroups are obligated to serve as a mechanism for productive and demonstrable work products under the guidance of a lead, who is responsible for transparently communicating subgroup status back to TCSIG leadership.

12.1 Creation of Subgroup
Any member of the TCSIG may recommend to TCSIG leadership the desire to form a subgroup with the intent to serve a specific need or set of needs not already served through the parent TCSIG or any existing TCSIG subgroup.

Upon approval, that member(s) must identify a subgroup lead, and work with TCSIG leadership to develop a subgroup charter.

12.2 Subgroup Charter

An TCSIG subgroup charter can follow the same template as the SIG charter.

13. Amendments to This Charter

This charter may be altered by a consensus resolution passed at a meeting of TCSIG members. All changes made to this charter shall receive final approval from Hyperledger POC.