

DLT Governance Principles Version 1.0 18 May 2022

This is a Non-binding Permanent Reference Document of the GSMA

Security Classification: Non-confidential

Access to and distribution of this document is restricted to the persons permitted by the security classification. This document is subject to copyright protection. This document is to be used only for the purposes for which it has been supplied and information contained in it must not be disclosed or in any other way made available, in whole or in part, to persons other than those permitted under the security classification without the prior written approval of the Association.

Copyright Notice

Copyright © 2022 GSM Association

Disclaimer

The GSM Association ("Association") makes no representation, warranty or undertaking (express or implied) with respect to and does not accept any responsibility for, and hereby disclaims liability for the accuracy or completeness or timeliness of the information contained in this document. The information contained in this document may be subject to change without prior notice.

Compliance Notice

The information contain herein is in full compliance with the GSM Association's antitrust compliance policy.

This Permanent Reference Document is classified by GSMA as an Industry Specification, as such it has been developed and is maintained by GSMA in accordance with the provisions set out in GSMA AA.35 - Procedures for Industry Specifications.

Table of Contents

1	Intro	duction	3
	1.1	Overview	3
	1.2	Scope	3
	1.3	Definitions	4
	1.4	Abbreviations	6
	1.5	References	6
	1.6	Conventions	6
2	DLT I	SIG and Subgroups	7
	2.1	DLT Technical (DLTT) Subgroup	7
	2.2	DLT Business (DLTB) Subgroup	8
	2.3	DLT Governance & Policy (DLTP) Subgroup	8
	2.4	DLT Leadership Group	8
3	DLT I	SIG and Reference Industry Implementation	9
	3.1	DLT ISIG AA.35 Responsibilities	9
	3.2	DLT Reference Industry Implementation	9
	3.3	DLT Operational Implementations	9
4	Refer	ence Industry Implementation (RII) Activities	9
	4.1	Reference Implementation Community and Support	10
	4.1.1	Making Contributions	10
	4.1.2	Contribution Management	10
	4.1.3	DLT ISIG Help Desks	11
	4.2	DLT ISIG Marketing and Promotion	11
	4.3	Blockchain 3.0 Reference Architecture	11
	4.4	Accessing DLT Software, and associated materials	11
	4.4.1	Voluntary Verification	12
5	RII R	elease Management	12
	5.1	Impact Analysis Guidelines	12
	5.1.1	Change Types	12
	5.1.2	Release Types	13
	5.2	Release Definition and Management Process	13
	5.2.1	Submission of requirements resulting in Substantive Changess to the	
		reference industry implementation	13
	5.2.2	Submission of requirements resulting in Non-Substantive Changes to the	
		reference industry implementation	14
	5.2.3	Specification Requirements	14
	5.2.4	DLT and DLT ISIG Subgroup review of future requirements	14
	5.2.5	Defining a release	14
	5.2.6	Vulnerability/Threat Management	14
	5.2.7	RII Release Rollout	15
	5.2.8	Release Documentation	15
	5.2.9	Known Issues List	15
An	nex A	Document Management	16
	A.1	Document History	16

A.2 Other Information

1 Introduction

1.1 Overview

Distributed Ledger Technology (DLT) refers to the technological infrastructure and protocols that allows simultaneous access, validation, and record updating in an immutable manner across a network that's spread across multiple entities or locations. Examples of DLT are, Ethereum, Hyperledger and Corda.

The Distributed Ledger Technology group is the GSMA Industry Specifications Issuing Group operating in accordance with AA.35 [1] ("DLT ISIG"). All activities undertaken in relation to the DLT ISIG are:

- (1) deemed "Industry Specification Activity" and governed by GSMA PRD AA.35 [1]; and
- (2) undertaken in full compliance with the GSMA antitrust compliance policy [4].

The DLT ISIG responsbilites are:

- identify key DLT use-cases in the industry and agree their technical & business scope;
- evaluate how different DLTs can be leveraged for an identified industry use-case;
- create, approve and maintain specifications for DLT implementations and identified use-cases;
- develop, approve and maintain reference industry implementations for DLT and identified use-cases;
- promote dialogue, collaboration and thought leadership through its events; and
- drive DLT education for GSMA members.

Note: The term "Blockchain", a form of DLT, has been used generically in the industry to capture the functions of DLT and may be used interchangeably with DLT for describing the DLT ISIG activities in this document.

DLT ISIG recognizes Blockchain implementations as an eco-system play requiring strong governance fundamentals for seamless operations. Participation in the DLTG ISIG is subject to AA.35 [1] rules. This document describes the governance procedures for DLT ISIG activities.

The DLT ISIG is ledger and technology platform agnostic and intends to work with varying technologies suitable for a given use case.

1.2 Scope

The following matters shall be in the scope of this document:

- describing the governance framework for the DLT ISIG and Subgroups;
- clarifying working procedures to create, approve and manage industry specifications as DLT ISIG; and
- setting out working procedures to develop, approve and manage DLT ISIG reference industry implementation work;

The following matters are out of scope of this document :

 defining the process to identify key DLT use-cases in the industry and agree their technical & business scope;

- defining the process to evaluate how different DLTs can be leveraged for an identified industry use-case;
- defining the process to promote dialogue, collaboration and thought leadership through DLT ISIG events;
- defining the process to drive DLT education for GSMA members; and
- defining the governance for operational industry implementation (refer Section 3.4 DLT Operational Implementations for details).

1.3 Definitions

Term	Description
Associate Member	defined in GSMA Articles of Association [3]
Distributed	means that information is shared among multiple IT systems which may also be in different locations.
Clarification Changes	 is a change resulting in insignificant and non-material impacts on the operations of RII and/or related operational reference implementations. Below are some examples of Clarification Changes on reference industry implementation and related documentation. Adding an explanatory text to clarify existing statements, without changing the initial intention Spelling, grammar and format adjustments
Distributed ledger	means a database that is consensually shared and synchronized across multiple sites, institutions, or geographies, accessible by multiple people.
DLT Contribution Community	The DLT Contribution Community includes: all GSMA Members who contribute to the RII as per roles described in Section 2 of this document; and SMEs that are members of the DLT ISIG and Subgroups
DLT User Communtity	consists of: (mobile) network operators, clearing houses, software companies, blockchain as a service providers, reference implementation node operators; or other companies/institutions or persons other than the members of the DLT Contribution Community but participating in the DLT ISIG and Subgroups or basing their operational implementation on the reference industry implementations. Any DLT User Community member is free to contribute to the DLT RII and join the DLT Contribution Community
DLT ISIG Participant	means a Member, Operator Member, Associate Member, Rapporteur or Participating Non-Member participating in a particular ISIG.
DLT Reference Industry Implementation or RII	is a joint software development of modular DLT building blocks under the governance of the DLT ISIG.
Emergency Releases	An Emergency Release is an immediate change(s) outside a planned release cycle resulting in significant or material impacts on the operations of RII and/or related operational reference implementations. Below are a few examples of categorisation of an Emergency Release for reference industry implementation and related documentation.

Term	Description
	implementation, where the error leads to severe impact of the business
	Rectification of urgent operational problems
Immutable	in context of blockchain means that once a valid transaction is included into a block, and the network has reached consensus about the new state of blockchain, neither the transaction nor the block can be altered.
DLT Software	refers to all the software contributed by the DLT ISIG particpants or third parties to the DLT ISIG. This does not include any proprietary or legacy OSS/BSS system implementations (refer Figure 4).
SMEs	group of individual subject matter expert invited by th DLT ISIG to particpate in any DLT Subgroups, subject to the requirement set out in GSMA Official Document AA.24 - Eligibility for Industry and Sector Membership and Activity Contributors
Substantive Changes and Non- Substantive Changes	means such changes as defined in AA.35 [1]
DLT	refers to the technological infrastructure and protocols that allows simultaneous access, validation, and record updating in an immutable manner across a network that's spread across multiple entities or locations. Some examples of DLT are, Ethereum, Hyperledger, and Corda.
DLTB Subgroup	means the DLT ISIG Business Subgroup
DLTP Subgroup	means DLT ISIG Governance & Policy Subgroup
DLTT Subgroup	means the DLT ISIG Technical Subgroup
Blockchain	means a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain. Each block in the chain contains a number of transactions, and every time a new transaction occurs on the blockchain, a record of that transaction is added to every participant's ledger.
Known Issues List	A document listing known issues such as application bugs or specification gaps.
Member	is defined in GSMA Articles of Association[3].
Non-Operator Member	means an Associate Member or Rapporteur.
Off-chain	means a process or transaction that is external to the Distributed ledger.
On-chain	means a process or transaction that takes place directly on the Distributed ledger network
Operator Member	is defined in GSMA Articles of Association [3]
Participating Non-Member	means any organisation other than an Operator Member, or Non-Operator Member that has:
	demonstrated that it has a directly and materially affected interest in a particular GSMA Industry Specification;
	a commercial interest related to a specific GSMA Industry Specification;
	signed an Industry Specification non-member participation agreement as proposed by the GSMA; and
Popportour	paid the applicable participation lees as specified by the GSMA.
Sebedulad	is defined in GSIVIA Articles of Association [3]
Scheduled	is a release within the planned release cycle.

Term	Description
Releases	
Subgroup(s)	means any "Subgroup" in accordance wit AA.35 [1] within a DLT ISIG.

1.4 Abbreviations

Term	Description	
BAU	U Business As Usual	
DLT	Distributed Ledger Technology	
DLTG	LTG Distributed Ledger Technology Group	
ISIG	Industry Specifications Issuing Group	
ISAG Industry Specifications Approving Group		
SME Subject Matter Expert		
WAS	Wholesale Agreements and Solutions Group	
IDS	Interoperability Data-specifications and Settlement Group	
RII	Reference Industry Implementation	
PRD	Permanent Reference Document	
KIL	Known Issues List	

1.5 References

Ref	Doc Number	Title
[1]	GSMA PRD AA.35	Procedures for Industry Specifications
[2]	GSMA PRD AD.08	WG Operating Procedures
[3]	GSMA Articles of Association	GSMA Articles of Association
[4]	GSMA Anti-trust Complianc Policy	https://www.gsma.com/aboutus/legal/anti-trust-policy- statement
[5]	RFC2119	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997. Available at http://www.ietf.org/rfc/rfc2119.txt

1.6 Conventions

The key words "must", "must not", "required", "shall", "shall not", "should", "should not", "recommended", "may", and "optional" in this document are to be interpreted as described in RFC2119[5]."

2 DLT ISIG and Subgroups

The DLT ISIG has 3 Subgroups:

- DLT ISIG Technical Subgroup ("DLTT") (see Paragraph 2.1);
- DLT ISIG Business Subgroup ("DLTB") (see Paragraph 2.2); and
- DLT ISIG Governance & Policy Subgroup ("DLTP")(see Paragraph 2.3).

DLT ISIG Subgroups report to and advise DLT ISIG on management of new blockchain innovation and operational BAU activities. The DLT ISIG makes decisions on all group and sub group activities, however, devolves day-to-day coordination of ISIG activities to DLT Leadership Group.



Figure 1 DLT ISIG and DLT ISIG Subgroups

2.1 DLT Technical (DLTT) Subgroup

DLTT Subgroup advises DLT ISIG on DLT related technical industry specifications and reference industry implementation work.

The DLTT Subgroup:

- develops industry technical specifications for the idenfitied use cases and makes these available to DLT ISIG Participants; and
- develops and maintains common DLT building blocks, related technical frameworks and respective industry tools.

All DLTT work is based on the GSMA DLT Web 3.0 reference architecture (refer Figure 4 in section 3.3 for Web 3.0 Architecture details), use case specific business requirements and any other implementation frameworks agreed by the ISIG participants. The use case specific business requirements may be submitted to the DLTT Subgroup from the DLTB Subgroup under DLT ISIG or from a group responsible for a use case outside the DLT ISIG.

The DLTT Subgroup typically comprises of technical architects, developers and technical thought leaders.

2.2 DLT Business (DLTB) Subgroup

The DLTB Subgroup advises DLT ISIG on DLT related functional discussions and business requirements specifications for each use case identified by the DLT ISIG Members. This Subgroup conceptualises new blockchain use cases, owns the product roadmap, evolves related products/ services with new features for making available to all community participants, and maintains existing business frameworks and respective industry tools.

The DLTB Subgroup activities are broken down into use case specific workstreams which act as business owners for the use case. Industry DLT use cases are being discussed in various groups of the GSMA and outside GSMA as well.

Therefore, a use case specific discussion shall take place either in:

- a dedicated DLTB Subgroup workstream, such as the Blockchain for Wholesale Roaming (BWR) work stream.
- a joint task force between a DLTB Subgroup workstream and a subject matter expert group within GSMA.
- a joint task force between a DLTB Subgroup workstream and a Subject Matter Expert (SME) group from outside GSMA.

For each of these activities collaboration is subject to GSMA liaison procedures with groups within and outside the GSMA, in accordance with PRD AA.35 [1] rules.

The DLTB Subgroup typically comprises of functional subject matter experts, blockchain business and thought leaders.

2.3 DLT Governance & Policy (DLTP) Subgroup

The DLTP Subgroup advises DLT ISIG on DLT governance criteria and operational procedures including DLT legal frameworks and policy matters.

This Subgroup:

- administers the DLT ISIG reference industry implementation;
- maintains its legal framework and policy guidelines for industry blockchain discussions within the DLT ISIG; and
- advises DLT ISIG on any process or procedural disputes in relation to the DLT ISIG activities.

The DLTP Subgroup typically comprises of technical subject matter, blockchain business, legal, regulatory and policy experts.

2.4 DLT Leadership Group

The DLT Leadership Group is responsible for the day-to-day coordination of the DLT ISIG and its Subgroup activities. Its scope, responsibilities and authority are determined by the DLT ISIG.

It is responsible for the DLT ISIG implementation of the RII roadmaps and their execution.

Overall decision making responsibilities remain with the ISIG in accordance with GSMA PRD AA.35 [1] rules. The DLT Leadership Group reports into the DLT ISIG which in turn reports into the ISAG as per PRD AA.35 [1] rules.

The DLT Leadership Committee comprises of Chair and Deputy Chair of the DLT ISIG and each of the Subgroups, and GSMA support staff.

3 DLT ISIG and Reference Industry Implementation

3.1 DLT ISIG AA.35 Responsibilities

As an ISIG the DLT ISIG will write normative specifications to evolve industry blockchain activities in accordance to the GSMA PRD AA.35 [1] and as articulated in Section 2 of this document.

3.2 DLT Reference Industry Implementation

"DLT Reference Industry Implementation" (or RII) is:

- a standard software built from common modular building blocks; and
- made available to the Industry to implement common base solution;

with the aim to reduce the cost and effort for DLT industry implementations.

The software for the modular building blocks will be based on the requirements set out in the DLT ISIG approved technical documentation. The documentation is intended to accomodate different prominent use cases.

3.3 DLT Operational Implementations

For each use case identified the responsible DLTB Subgroup workstream or SME group will agree requirements and the DLTT Subgroup will implement them. The RII use case implementation may or may not be production quality.

Operational implementation of any DLT solution within a production environment is outside the scope of the DLT ISIG governance structure. For example, GSMA's plans in relation to GSMA eBusiness Network.

4 Reference Industry Implementation (RII) Activities

The RII work is subject to the governance procedures of the DLT ISIG.

The DLT ISIG coordinates the day-to-day operations and progress of the RII work. DLT Leadership Group will provide regular updates to the DLT ISIG in accordance with DLT ISIG instructions.

In addition, the RII work requires some other functions which are described in this section for development and management of the respective reference implementations.



Figure 2 DLT ISIG, Commitees and Governance Where is the Leadership group

4.1 Reference Implementation Community and Support

This section describes the role and responsibilities of DLT ISIG participants (also referred as DLT ISIG community) and how their contributions towards RII are managed (refer Figure 3).



Figure 3 DLT ISIG Communities

4.1.1 Making Contributions

Any contributions to the:

- DLT Software are made under an Apache License, Version 2.0
- DLT Software are subject:
 - to acceptance at the sole discretion of the DLT ISIG, and
 - \circ to the licening terms set out in Section 4.4.

4.1.2 Contribution Management

As members of the DLT ISIG and DLT ISIG Subgroups, Members of the DLT ISIG Contribution Community and DLT ISIG User Community have following BAU responsibilities:

- Overseeing the overall RII work and encourage participation of industry experts particularly in cases where specific subject matter expertise is desired.
- Defining the RII blockchain network participation rules, e.g.how to get access rights, how can someone lose participation rights.
- Defining the reference implementation documentation, quality standards, tutorials and general working practises.
- Granting access to and approve and manage respective contribution channels like code management tools, collaboration platforms, wikis, forums.
- Acting as moderators on project Github wikis or forums.
- Idenitfying means to gamify the contribution experience, making it easier to contribute in different ways for instance feature contributions and community leadership.

4.1.3 DLT ISIG Help Desks

DLT ISIG help desk act as an entry gate to both the DLT Contribution and DLT User Communities. Any queries from DLT Contribution Community and DLT User Community respectively (refer Figure 3) can be shared to a dedicated helpdesk on dlt@gsma.com. The help desk managed by GSMA DLT staff manages any requests and inquiries, issues, proposals and requests from the community.

4.2 DLT ISIG Marketing and Promotion

The DLT ISIG will make a concerted effort to promote its and its Subgroup activities. The DLT ISIG will conduct industry events, webinars and guest speaker sessions as a means to promote the work.

4.3 Blockchain 3.0 Reference Architecture

Figure 4 illustrates the DLT ISIG proposed and approved architecture for the RII.



Blockchain 3.0 Reference Architecture

Figure 4 Blockchain Web 3.0 Referece Architecture

4.4 Accessing DLT Software, and associated materials

All DLT ISIG Participants, GSMA Members and GSMA non-members shall be entitled to have access to DLT Software, and associated materials under an Apache 2.0 licence subject to the provisions below.

The DLT Software can be downloaded from a GSMA GitHub repository and the code updates are maintained through the RII Release Management process in Section 5.

4.4.1 Voluntary Verification

All users are encouraged to self-declare the use of DLT Software by registering with GSMA as a verified user ("Verified User"). DLT Software users wanting to become Verified Users are prompted from "GitHub read me files" to do so.

Operator, Industry, and Rapporteur members of the GSMA are automatically classed as Verified Users. In the event of peer-to-peer sharing, the recipient user of the DLT Software is encouraged to register with the GSMA. Third party DLT Software users (non-members of GSMA) may ask the GSMA for additional verification. Such verification may be subject to a separate GSMA scheme.

All Verified Users shall have access to a GSMA register consisting of all Verified Users.

5 RII Release Management

5.1 Impact Analysis Guidelines

This section defines general guidelines to assist the DLT ISIG in conducting impact analysis and classifying release items into types of change and release. It also defines the categorisation of changes for RII and related documentation.

5.1.1 Change Types

5.1.1.1 Substantive Changess

As defijned in AA.35 [1], a Substantive Change is a change resulting in substantial or material impact on the operations of RII and/or related operational reference implementations. Below are a few examples of categorisation of Substantive Changesfor RII and related documentation

- A significant business process change
- Addition of data items, new business process integration etc.
- Changes of conditionality, new business rules etc.
- Any changes of DLT Web3.0 architecture, on-chain and off-chain mechasims, voting systems etc.

5.1.1.2 Non-Substantive Changes

A Non-Substantive Change is a change resulting in insignificant impacts on the operations of RII and/or related operational reference implementations. It is to be noted that any changes that require a new software build (a system change) are classified as Substantive changes and the definition of Non-Susbstantive Changes only includes configurable updates to the software. Below are a few examples of categorisation of Non-Sustantative changes for reference industry implementation and related documentation.

- Error severity level changes
- Changes, additions or removals of configurable validation rules
- Changes to allowed values for existing data items (for example new service codes)
- Addition of optional data items that do not force changes to the receiving system

5.1.2 Release Types

5.1.2.1 Scheduled Releases

From a service implementation point of view, it could be desirable to release Substantive DLT changes several times per year. However, in order to enable User Community to stabilise their systems in between Substantive Changes, and not to spend too much time and money on testing system changes, the frequency must not be too high. Typically, one Scheduled Release (potentially containing both Substantive Changes and Non- Substantive Changes, as well as clarification changes) could be issued per year for a given use case and/or architectural implementation.

5.1.2.2 Emergency Releases

Emergency Releases can be used only for urgent operational problems where any DLT ISIG or DLT ISIG Subgroup are seriously impacted. There are no deadlines for requirements; rather the impact analysis will tell how quickly a proposed change can be implemented. To approve the format specification, an ad-hoc DLT ISIG or relevant DLT ISIG Subgroup meeting can be called, all decision making shall be performed as defined in AA.35 [1].

Change request for Emergency Releases are always Substantive Changes and should be solely intended to rectify an emergency situation. No other changes should be included. The impact of the Emergency Release on future releases must be taken into consideration by the DLT ISIG and contribution owner for the Emergency Release.

Note: New specifications may need one or more Emergency Releases before stabilising. Post stabilisation the general release schedule can be used for release management.

5.1.2.3 Clarification Releases

Clarification Releases (being a release encompassing one or more Clarification Changes) can be used only for clarifications to existing rules and procedures, without changing the original intention of the existing text in DLT ISIG specifications or reference industry implementation documentation. As the need for these changes are almost always identified by the DLT ISIG and the relevant DLT ISIG Subgroup as a result from questions for clarification, there is no need to identify any deadlines for requirements; rather the AA.35 [1] rules for document approval must be followed for any specification changes and reference industry implementation documentation changes can be made once agreed with the group. Clarification Releases are always Non-Substantive Changes .

5.2 Release Definition and Management Process

Each defined release will have a dedicated contribution owner who will collate the prioritised requirements into a release package. New requirements can be submitted by any DLT ISIG Contribution or User Community participant and should be defined in detail by the contribution owner of the business requirements. Other GSMA groups may also have requirements for specific DLT ISIG work, however these always need to be addressed through the contribution owner.

5.2.1 Submission of requirements resulting in Substantive Changess to the reference industry implementation

Requirements resulting in Substantive Changess to the implementation must be submitted in writing to DLT ISIG, DLTT, DLTP or DLTB Subgroup workstream within the agreed timelines for being considered for the next planned release. Such requirements should be submitted via a Substantive Change request to upcoming planned release, with necessary approval where relevant. This may result in additional time needed before submission to meet the release timelines.

5.2.2 Submission of requirements resulting in Non-Substantive Changes to the reference industry implementation

Requirements resulting in Non-Substantive Changes to the implementation must be submitted in writing to DLT ISIG, DLTT, DLTP or DLTB Subgroup workstream within the agreed timelines for being considered for the next planned release. Such requirements should be submitted via a Non-Substantive Change request to the upcoming planned release, with necessary approval where relevant.

5.2.3 Specification Requirements

Where DLT ISIG specifications are impacted due to a reference industry implementation, updates to these specifications must be updated and approved in time for alignment with the planned reference industry implementation release date. A new (or any change to a) GSMA PRD that is a requirement on a use case or DLT specification must be analysed by the relevant DLT ISIG Subgroup before it can be included in a release. The responsible DLT ISIG Subgroup and release contribution owner will respond with a feasibility assessment and (potential) release date, as appropriate.

5.2.4 DLT and DLT ISIG Subgroup review of future requirements

When new requirements have been identified, they must be submitted to relevant DLTB Subgroup workstream for review. The DLTB Subgroup workstream will then analyse the requirements for feasibility, practicality and impact to the reference industry implementation (changes in architecture, change in overall scope etc.). If the responsible DLTB Subgroup workstream finds during this review that any requirement is not clearly defined, or the business benefit of the change does not justify the cost of the technical change, it will work with the individual or group submitting the requirement to further clarify the requirement. Once the requirement is fully clarified, the Subgroup raising the requirement will then submit the requirements for consideration to the necessary DLT ISIG release candidate selection and prioritisation process.

5.2.5 Defining a release

The DLT ISIG and DLT ISIG Subgroups along with the contribution owner will package together the submitted Substantive and Non-Substantive Changes to the DLT reference industry implementation for defining the release. The DLT ISIG will also agree the release date for the planned release. Following this the release package is approved by DLT ISIG and the release is frozen, which means that any further Substantive Changess will have to be deferred until the next scheduled release after the frozen release.

Non-Substantive Changes or improvements maybe made where relevant without needing a planned release, however, this must be agreed within the DLT ISIG prior to implementation.

5.2.6 Vulnerability/Threat Management

A process for continuously reducing and managing risks, threats and vulnerabilities must be in place and should follow security-defined best practice. Any vulnerabilities identified must be analysed and risk assessed and then either remediated or have their risk accepted in line with a well-defined and documented risk, control and assurance framework. Any high or critical vulnerabilities identified in a production environment must be reported on the day they are discovered. Potential vulnerabilities reported by external parties (e.g. security researchers) through responsible disclosure must be investigated and remediated within the same timescales as internally-identified vulnerabilities.

For each reference industry implementation release, a risk model must be defined to address business, process, governance, technical and policy/ regulatory risks. Based on the assessment, a threat model must be agreed by the DLT ISIG in order to identify and address

necessary security risks. A plan of action for each security risk must be in place prior to release and this should be seamlessly implemented where required. The threat model must include relevant point of contacts for reporting a threat and/or a vulnerability, and, an incident response team must be formed with appropriate commitments in place for timely responses. Additionally, easy to use interfaces should be in place for users to easily communicate potential risks.

5.2.7 RII Release Rollout

The release date for the scheduled release is set to give the DLT ISIG Contribution Community appropriate time for implementation. The time needed for RII release roll out will vary between different types of releases depending on their respective complexities and this will be agreed for each release.

5.2.8 Release Documentation

Each reference industry implementation release(please specify) will be documented on the GitHub and relevant GSMA Infocentre pages, including making available links to the appropriate documents and access to relevant software tools for Contribution Community and User Community.

5.2.9 Known Issues List

When a DLT ISIG Subgroup has identified an issue with (or an error in) a certain release, this must be documented in a "Known Issues List" document for that release on the Infocentre and GitHub.

The purpose of the Known Issues List is to give guidance to users of reference industry implementation to avoid known errors and to show the right approach or workaround that should be applied. There must be a Known Issues List for each format, even if there are no known issues for that format.

Each Known Issues List is maintained by the appropriate DLT ISIG Subgroup, and reviewed at every such DLT Subgroup's meeting after which the updated list is uploaded onto the Infocentre as well as posted to the DLT ISIG and relevant DLT Subgroup mailing lists.

The Known Issues List will include:

- an issue number, including the year in which the issue was raised;
- a brief description of the issue;
- a link to a document where more information about the issue can be found (typically the appropriate Subgroup meeting minutes);
- a link to the corresponding Substantive Change and Non- Substantive Change (and a reference to the Substantive Change and Non- Substantive Change number) that solves the issue (if applicable);
- a reference to the earliest release in which the issue has impact;
- a reference to the release in which the issue is solved (if applicable);
- a link to the reference industry implementation or format specification in which the issue is solved (if applicable); andthe status of the issue, for example submitted, pending approval, approved, implemented, under investigation, no change necessary, etc.

Annex A Document Management

A.1 Document History

Version	Date	Brief Description of Change	Approval Authority	Editor / Company
1.0	18/05/2022	DLT Governance Principles	ISAG	Shamit Bhat/ GSMA

A.2 Other Information

Туре	Description
Document Owner	Shamit Bhat
Editor / Company	GSMA

It is our intention to provide a quality product for your use. If you find any errors or omissions, please contact us with your comments. You may notify us at prd@gsma.com

Your comments or suggestions & questions are always welcome.