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Mr Lumkile Qabaka

Independent Communications Authority of South Africa

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Via email: LQabaka@icasa.org.za

Dear Mr Qabaka

RE: TELKOM'S WRITTEN SUBMISSION ON THE DRAFT CONFORMITY ASSESSMENT FRAMEWORK FOR EQUIPMENT AUTHORIZATION

Telkom SA SOC Ltd ("Telkom") welcomes the opportunity to provide written comments pertaining to the draft Conformity Assessment Framework for Equipment Authorization, as published in Government Gazette No. 42108 on 13 December 2018 ("the draft Framework").

Please find herewith Telkom's written comments on the draft Framework. Telkom trusts that its comments will assist the Authority taking this matter forward.

Yours Sincerely

Siyabonga Mahlangu
Group Executive: Regulatory Affairs and Government Relations

Submission to the Independent Communications Authority of South Africa

Draft Conformity Assessment Framework for Equipment Authorization

Government Gazette No. 42108 of 13 December 2018

Telkom SA SOC Ltd

Submission date: 28 February 2019

1 Introduction

The Independent Communications Authority of South Africa ("the Authority" or "ICASA") published the draft Conformity Assessment Framework for Equipment Authorization in Government Gazette No. 42108 on 13 December 2018 ("draft Framework") and invited written representations by 30 January 2019. Subsequently, the Authority gave an extension for the submission of written comments to 28 February 2019.

Telkom's inputs are based on the current Type Approval Framework as prescribed by the Authority and specifically that type approval is limited to Radio Frequency and Telecommunication Terminal Equipment. Telkom's inputs are therefore focused on the two categories only.

Telkom's responses to the Authority's questions are contained in section 2.

2 Responses to the Authority's questions

2.1 Question 1

In your view, what are the benefits of having conformity assessment to support the regulations?

The draft Framework contains inputs taken from other jurisdictions although seemingly limited to the European Union (EU) and the United States of America (USA) (although the draft Framework indicates that the Authority benchmarked studies on all three ITU Radio Regions although only Regions 1 and 2 are reported) as well as Standards Development Organisations dealing with conformance (e.g. ISO). Benchmarking against the EU is important for South Africa being in the same ITU Radio Region. The consideration of ISO Recommendations and guidelines are also important because, amongst others, the close cooperation between the SABS and ISO on issues of standardisation.

Consideration of this is important for South Africa to adopt a more efficient, cost effective and modern conformance framework that will serve the needs of the market going forward.

Conformance assessment is important for Telkom and its consumers for various reasons. Network interoperability of Telecommunication Terminal Equipment (which is sold on the open or retail market) with electronic communications networks and protection of radio communication services against harmful interference are key concerns to be addressed through conformance assessment. Additionally, consumers need protection that equipment bought in the retail market will be interoperable with networks and can be safely used.

Additional benefits include:

1. Technical barriers to trade are reduced;
2. Reduction in costs for regulators, operators and market;
3. Uniform test methods allow for harmonisation, reduction in OEM (Original Equipment Manufacturer) supplier costs and improving competition;
4. Improved national, regional and international trade by guaranteeing that the conformed products meet the necessary requirements;
5. Reduction in time to place products on the market;

6. Improve regulatory certainty for manufacturers, suppliers, retailers and operators;
7. Boost consumer confidence;
8. Improved interoperability for operators and confidence in compliance to specified standards.

Telkom further recommends that the Authority considers a regional approach pertaining to conformance assessment. This will support the deployment of cross-border radiocommunication systems and frequency harmonisation and will support SADC market development.

2.2 **Question 2**

Do you see any benefits in risk profiling and the categorization of equipment in carrying out the conformity assessment?

Telkom is of the view that there are benefits in risk profiling as different conformity assessment rules could be applied to equipment categories based on its associated risk profile. Risk assessment should be considered from both the likelihood of occurrence and consequence of non-compliance. Consequences could vary; for example, these could be commercial such as loss of market reputation or costs for the vendor in replacing or repairing faulty equipment or could be related to health and safety consequences for consumers. Further, the costs and time associated with conformance assessment should be balanced against the risks of non-compliance.

"Risk" is defined in ISO Guide 73: 2009, *Risk management – Vocabulary*, with several accompanying notes, as follows:

> *"**Risk** – the effect of uncertainty on objectives"*
>
> ***NOTE 1:** An effect is a deviation from the expected - positive and/or negative.*
>
> ***NOTE 2:** Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).*
>
> ***NOTE 3:** Risk is often characterized by reference to potential events (3.5.1.3) and consequences (3.6.1.3), or a combination of these.*

> ***NOTE 4:*** *Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood (3.6.1.1) of occurrence.*
>
> ***NOTE 5:*** *Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of an event, its consequence, or likelihood.*

Telkom recommends that the above ISO Guide be considered when performing risk profiling.

Self-Declaration of Conformance (SDoC) should apply where there is a low risk to safety, health and environment (SHE) and a low probability of radio frequency interference. This could apply to certain telecommunication systems and ICT equipment such as laptops, computers, consumer devices, etc. SDoC may also be applied for some wireless radio communication systems.

To protect the market, where SDoC is applied, there should be a properly defined liability regime including:

1. the OEM supplier must be accountable for resolving all matters pertaining to compliance with relevant technical regulations and
2. incentives to OEM suppliers to place safe products on the market to avoid liability costs.

2.3 Question 3

With the recommended steps for using conformity assessment in support of the regulations (figure 10), which of the steps would you say are missing in the Approval Framework, and how can they help improve the Approval Framework efficiency?

The given eight steps are in line with the ISO CASCO conformity assessment tool. Nevertheless, it could be worthwhile to include an “implementation” step, between the current steps 6 (Communication) and 7 (Surveillance). Such a step would provide certainty on how the implementation of the approval framework would be carried out on a national basis.

Telkom agrees with the high-level approach as depicted in Figure 10 of the draft Framework. This framework should however be made specific for South Africa,

considering local responsible stakeholders, legislation, risk assessment, conformance assessment options, envisage surveillance, communication plans, etc.

2.4 **Question 4**

Can you suggest an appropriate conformity assessment approach that can address the current Approval Framework challenges?

Telkom can support the dynamic conformity assessment scheme, as depicted in Figure 11 of the draft Framework. What could be included in the dynamic conformity assessment scheme is the consideration of mutual recognition agreements with other regulatory bodies, if these ensure upholding of the necessary standards and processes. Also, the proposed scheme should address the consideration of equipment type approval exemption.

Another important element to be considered and included in the overall conformity assessment scheme, is the process of adoption of standards, which must be complied with. The adoption of regulated standards, which is prescribed in the Official List of Regulated Standards, are given in Figure 3 of the draft Framework. Telkom is of the view that the process is not captured accurately. The output of the National Standards bodies (e.g. TC74 and TC73) is a list of technical standards. This is published by the SABS as approved national standards. TC80 does not publish this list, as indicated in the figure. Even though TC80 has not been functional for many years, this has not stopped the SABS publishing national standards.

TC80 (when it was still functional) considered the list of technical standards and then recommended those considered necessary for regulation. Those standards recommended for regulation where then considered by ICASA and accordingly published in the Official List or Regulated Standards. Telkom recommends that TC80 and its role be reinstituted to ensure that the Official List remains relevant and up to date.

As part of the development and/or adoption of SABS National Standards, it is important to note the significance of ETSI (European Telecommunication Standards Institute) standards. South Africa, being part of Radio Region 1, aligns mostly with Europe and therefor adopts ETSI standards as National Standards. An important recent change

within Europe, which is related to standards development and conformance assessment, is the adoption of the Radio Equipment Directive ("RED") (2014/53/EU) on 22 May 2014.

RED repealed the previous Radio and Telecommunications Terminal Equipment (R&TTE) directive (1999/5/EC), and updated the rules and regulations related to placing radio equipment on the single market of the European Union. The new directive was applied from 13 June 2016, at which point the R&TTE directive was also repealed. However, manufacturers were given a further year, until 12 June 2017, to comply with the new directive or alternatively continue to apply the provisions of the R&TTE directive. RED introduced significant changes to the regulatory regime for Europe's telecommunications equipment market. A key change was the exclusion of wired telecommunications terminal equipment. A summary of significant changes include:

- The RED applies to equipment, in contrast with the R&TTED, which also applied to "relevant components" of radio equipment.
- The RED applies to radiodetermination equipment: equipment that uses the propagation qualities of radio waves to determine its position.
- The RED applies to all equipment which intentionally transmits or receives radio waves for communications or radiodetermination, regardless of its primary function. For example, a "connected" device that uses an embedded radio module for communications or to determine its position must meet the same radio requirements as a purpose-built radio equipment.
- Radio equipment covered by the RED is not subject to the Low-Voltage Directive or the Electromagnetic Compatibility Directive: the essential requirements of those directives are covered by the essential requirements of the RED, with certain modifications.
- The RED places additional emphasis on efficient and effective use of the spectrum. In particular radio equipment needs to demonstrate the performance of its receiver part, as well as its transmitter, as both are considered to affect the efficient and effective use of the spectrum.
- The R&TTED specifically excluded broadcast TV & radio receivers from its scope. These are now specifically included in the scope of the RED.
- The RED applies to radio equipment operating at frequencies below 3 000 GHz, including radio equipment operating below 9 kHz that was not covered by the R&TTED or by national frequency regulations.

The current approval framework is based on Type Approval (TA) and Labelling as prescribed by the Authority and applicable to all Radio Frequency and Telecommunication Terminal Equipment. Radio Frequency equipment includes non-telecommunication equipment such as Bluetooth speakers, etc.

Challenges encountered with the current framework include:

- Lengthy timelines to obtain TA certificates from the OEMs, which is required before commercial contracts can be concluded;
- Conformance testing reports are requested from the OEMs, but these could be registered with The Authority as part of the TA process and not easily obtainable;
- Telkom also considers the requirement for labelling of some equipment, for example “point-to-point radios” and “satellite equipment”, to be unnecessary and should be reconsidered. Labelling of retail equipment, such as mobile terminal equipment, is however essential to provide consumer confidence and protection.

2.5 **Question 5**

In South African context, what are the benefits for the Authority collaborating with other regulatory institutions/organizations/states?

See also Telkom responses to Question 1 and 4 above.

Telkom is of the view that there are significant benefits, both technically and economically, in harmonising not only standards but also conformance assessments across other jurisdictions. On a specific level within SADC alone, wider adoption would align with other areas of co-operation such as spectrum allocation. Collaborating with other institutions will have, amongst others, the following benefits:

- Remove the need to have multiple applications for approval for the same equipment or device.
- Reduced inconsistency through having similar applications in different jurisdictions.
- Reduced overall cost of regulation and therefore costs to consumers.
- Reduced regulatory burden.
- Improved allocation of human capital.

2.6 **Question 6**

Given table 3, which SDoC scheme/s would best suit the South African market, and why?

The Authority prefers SDoC I as part of its conformity assessment and provides details pertaining to this scheme. However, the Authority does not provide specific details pertaining to SDoC II, III and IV.

Telkom is of the view that the SDoC schemes presented in Table 3 are not entirely clear and not well described in the draft Framework. It should also be noted that the ISO/IEC standards are not freely available online and therefore it was not possible for Telkom to properly assess ISO/IEC 17050: *Conformity Assessment – Suppliers Declaration of Conformity*. Further, SDoC I and II provide examples related to Industry Canada and FCC, respectively, although no further detail regarding these are provided. It is therefore not possible for Telkom to determine which scheme is best suited for the South African market.

Notwithstanding the above, Telkom is of the view that SDoC III and IV are not appropriate for South Africa since the Test Facility does not need to be ISO/IEC 17025 compliant, which Telkom believes is an essential requirement for test facilities.

The difference between SDoC I and SDoC II seems to hinge only on the need for the equipment supplier to register the declaration with the Regulator. Based on this assessment, Telkom is of the view that “SDoC I” is more appropriate for South Africa.

As indicated in the draft Framework, post-market surveillance will be required to ensure effective implementation of conformance assessment. Nevertheless, care should be taken to ensure that the costs associated with post-market surveillance does not annul the benefits of SDoC.

2.7 **Question 7**

In your definition/understanding, what ICT equipment can be classified as low risk and may be considered for equipment authorization exemption?

In addition to the equipment categories listed in Table 4, Telkom considers equipment that is not sold in the retail market could, in some cases, be classified as having a lower risk (e.g. wireless communications equipment). Not all wireless communications equipment should however be considered for exemption. For example, equipment operating under the license exempt regulations (e.g. in the ISM (Industry Scientific and Medical) frequency bands). These considerations could be further considered during the envisaged stakeholder consultations pertaining to an exemption framework.

If not exempted from authorisation, SDoC must be considered for most wireless communication equipment. In addition, regardless of the Authority's equipment approval framework, operators are generally also subjecting such equipment to their own conformance testing. With the necessary standards prescribed, post-market surveillance should be able to address conformance issues.

Certain consumer uses of low power devices (e.g. Bluetooth speakers, earphones, etc.) should also be considered for exemption due to its low probability of interference. Again, SDoC should be considered if exemption is considered not appropriate. Nevertheless, exemption of consumer devices should be taken with care to ensure consumer protection and safety.

2.8 **Question 8**

What are the risks associated with exempting ICT equipment from Approval Framework, and how can they be mitigated or eliminated?

Exempting radiocommunication equipment from the Approval Framework may cause harmful interference, which could have major service disruptions and costs associated with the resolution thereof. Decisions to exempt equipment from the Approval Framework must therefore be taken with caution.

A further risk associated with exempting ICT equipment from the Approval Framework, is that equipment interoperability cannot be confirmed before market entry, leaving consumers to deal with difficult purchasing decisions, thereby impacting consumer confidence in the market. This risk can be mitigated by consistently applying the Approval Framework to all ICT equipment, for example in the case of retail equipment such as network terminal equipment.

It is also important to ensure that the necessary standards are specified for all radiocommunication equipment, which will also be used to resolve interference cases and during post-market surveillance.

2.9 **Question 9**

What would you propose the Authority do to effectively execute its responsibilities on market surveillance considering the current fiscal challenges?

Understanding that SDoC requires post-market surveillance, which requires constant testing and auditing using human capital, ways to address OPEX challenges could include regional remote monitoring using commercially available monitoring systems to do active surveillance.

The authority must use step 6 of Figure 10 of the draft Framework to effectively communicate with all stakeholders of the conformance assessment process and request the public to maintain vigilance in identifying non-conforming equipment, thus making post-market surveillance a joint responsibility of the Regulator and the public.

2.10 **Question 10**

What are the prevalent equipment authorization challenges that may be experienced by manufacturers, distributors, suppliers and retailers post- and pre-market surveillance?

For pre-market surveillance, obtaining certification is the first challenge, which can be expensive, especially for smaller players in the ecosystem. Enforcement of regulations can be a challenge for the Authority based on lack of resources such as technical skills,

availability of the latest test and measurement equipment, and requisite budgets that allow the post-market surveillance ecosystem. It is therefore important to consider mutual recognition and exemption as methods to lower the burden on the Authority while ensuring that consumers and the market are protected against sub-standard equipment, non-compliant standards, harmful interference, safety, etc.

Turn-around time affects product launch date. Pre-market surveillance requires faster turn-around time than post-market surveillance. Introducing SDoC as an example is aiming to, amongst others, increase the speed of bringing equipment to market. Pre-surveillance at point of entry must therefore be done only when necessary and then as quickly as possible else it will circumvent the benefits of SDoC. Post-market surveillance does have a higher risk of product re-call, which could have detrimental impacts on the economy and consumers.

In the pre-market surveillance period, any increased regulation of the industry will be experienced by manufacturers, distributors, suppliers and retailers as further delays in time-to-market. Post-market surveillance will be experienced as increased regulatory burden of doing business.