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1 - EXECUTIVE SUMMARY

Public telecommunications numbers are an essential component of telecommunications services, both for network routing purposes but also because they can serve to provide information to customers and service providers about both the type of service being called and the associated cost.

Communications Alliance (CA) is proposing that the management of telecommunications numbering be transferred from the Australian Communications and Media Authority (ACMA) to itself, as the peak body representing the telecommunications industry.

In 2015, following consideration of a proposal put forward by industry, the Government introduced the following enabling legislation to Parliament:

- the Communications Legislation Amendment (Deregulation and Other Measures) Bill 2015\(^1\) (2015 Bill); and
- what is now the Telecommunications (Numbering Charges) Amendment Act 2016\(^2\).

The 2015 Bill lapsed when the 2016 Federal election was called. The Communications Legislation Amendment (Deregulation and Other Measures) Bill 2017\(^3\) (Bill), on substantially similar terms to the 2015 Bill, was introduced to Parliament on 29 March 2017.

CA’s proposal presents an opportunity to introduce a framework that is more efficient and enhances both innovation and agility in numbering management. The new framework is expected to be better prepared to deal with the ongoing changes in telecommunications technology that impact numbers, including convergence and the Internet of Things.

The proposed arrangements are designed to:

- promote both user interests and the national interest;
- allow for community, government and industry involvement in future decisions on number management;
- be competitively neutral and support competition;
- create an agile environment to support innovation;
- simplify processes to reduce service provider costs, which can flow through to benefits for end users in a competitive market;
- support the collection of Commonwealth revenue i.e. ACMA will remain responsible for calculating and collecting the Annual Numbering Charge (ANC) and the charges for Smartnumbers on behalf of the Commonwealth;
- preserve the existing Smartnumbers rights of use (ROU) and continuation of the Smartnumbers allocation process; and
- provide ongoing support for the use of emergency call services.

This paper sets out the preferred approach for CA to take on the management of numbering. CA invites comment from stakeholders in reply to the specific questions asked in this consultation paper, and on the following matters:

- the anticipated benefits and costs of the reform proposal, for consumers, industry and Government;
- the suitability of the proposed organisational structure and governance arrangements to implement the proposal;
- the alignment of the proposal with the principles in the Bill;
- the general approach to revising the fees (excluding the ANC and Smartnumbers charges) to make them more equitable and sustainable;
- the proposed approach and timeline for implementing the transition from the current arrangements to the new arrangements under CA;

• the identifications and mitigation of the risks associated with the proposed changes;
and
• any other matters considered relevant.

The outcome from this consultation will be used to develop a final proposal for consideration by the Minister for Communications (Minister).

**SUBMISSION OF COMMENTS**

Submission of comments on this consultation paper are due by 5p.m. (AEST) on 23 June 2017. Comments can be submitted to CA via the Public Comment webpage at: [http://commsalliance.com.au/Documents/public-comment](http://commsalliance.com.au/Documents/public-comment)

or via mail to:

Communications Alliance  
P.O. Box 444  
Milsons Point  
NSW 1565

All submissions received will be made publicly available on the Communications Alliance website unless the submitter requests otherwise.
2 - INTRODUCTION

Numbering is Important for Users and Providers of Telecommunications Services

Telecommunications numbers are a key identifier used to facilitate the delivery of telecommunications services. These services depend upon orderly and structured arrangements for numbering, as well as timely access to existing number ranges and early identification and processes for developing new number ranges. The arrangements proposed in this consultation paper will enable service providers to meet customer expectations in today's dynamic telecommunications environment.

Management of Numbering Has Evolved over Time

Government policy in the late 1980s recognised the need for greater competition and this resulted in the formation of the regulator (AUSTEL), which later became the Australian Communications Authority, and is now ACMA.

During the AUSTEL phase there was a clear role for Government management of numbering, as the pathway for competition needed to be developed, there was potential for significant community impact from the required changes, and there was no industry capacity to take on this role.

Competition in the telecommunications industry has now been in place for many years. CA is now operating as a mature industry body, through which industry has been able to take on large scale challenging tasks, such as developing, implementing and managing the efficient day to day operation of number portability solutions. Industry also has many years of experience in successfully delivering certain number management services through Industry Numbering Management Services Ltd (INMS). This experience includes reliably delivering number allocation and portability functions to meet the needs of consumers (within the constraints of the ACMA's Numbering Plan) and at low cost to industry.

Current arrangements

The current structural arrangements for the delivery of number allocation and related services are illustrated in Figure 1 below and the responsibilities of the various entities are summarised as follows.

ACMA

The ACMA has a statutory obligation to make, maintain and enforce the regulations for telecommunications numbers in Australia. This includes the Numbering Plan which sets out the high-level rules for the allocation and use of numbers. The ACMA is also responsible for administering numbers in accordance with the numbering regulations, including the allocation of numbers and the collection of the ANC and Smartnumbers charges on behalf of the Commonwealth. Since 2015, ZOAK Pty. Ltd (ZOAK Solutions) has been contracted by the ACMA to deliver a numbering management service that includes the allocation of numbers and enabling the collection of ANC and Smartnumbers charges.

CA

CA is responsible for the development and maintenance of various codes, guidelines and guidance notes that provide detailed guidance for the allocation and use of numbers, including number portability. Registered codes are approved and enforced by the ACMA. Working groups have been established within CA to oversee the development and ongoing management of these documents. Three administration groups have also been established for the ongoing efficient operation of portability arrangements; these are the inbound number portability, local number portability and mobile number portability administration groups.
INMS

INMS is an incorporated company responsible for the electronic sharing of information between service providers to facilitate network conditioning to support the activation of newly allocated numbers and the porting of free and local rate numbers between service providers. Paradigm One Pty. Ltd (Paradigm.One) is contracted by INMS to deliver this functionality. An electronic interface is maintained between the ZOAK Solutions and Paradigm.One systems to automate the updating of information in the relevant databases as changes to numbers are made.

Current arrangements for the management of numbering

The ACMA has tendered out numbering services and industry currently oversees and manages number portability arrangements through the relevant CA administration groups, and ensures the efficient use of numbering through the development of various industry codes, guidelines and guidance notes related to numbering. Also, while the ACMA retains a statutory role in numbering, it has reduced its involvement in day-to-day numbering operations. As a result, CA believes industry is now in a good position to pick up the residual responsibilities from the ACMA (except for the collection of the ANC and Smartnumber charges) and take overall responsibility for the management of numbering. The numbering management solution proposed by CA in this consultation paper is expected to enable faster decisions and allow service providers to be more agile in response to consumer demand, while also being more sensitive to the overall end-to-end costs associated with numbering management.
The proposed changes are consistent with Government commitment to effective industry self-regulation

The Bill, and CA’s proposal, are generally consistent with the Government’s longstanding commitment to effective industry self-regulation, as reflected in section 4 and Part 22 of the Telecommunications Act 1997.

Further, in December 2015 the Government introduced to Parliament, in response to an industry proposal:

- the Communications Legislation Amendment (Deregulation and Other Measures) Bill 2015 (2015 Bill); and
- what is now the Telecommunications (Numbering Charges) Amendment Act 2016.

The 2015 Bill lapsed when the 2016 Federal election was called. The Communications Legislation Amendment (Deregulation and Other Measures) Bill 2017 (Bill), on substantially similar terms to the 2015 Bill, was introduced to Parliament on 29 March 2017. The Bill amends (among other legislation) the Telecommunications Act 1997 and the Telecommunications (Consumer Protection and Service Standards) Act 1999 to enable the development of an alternative industry-based scheme for the management of telephone numbering resources. This:

- specifies the high-level objectives of an industry numbering scheme; and
- enables the numbering scheme to be made and managed by the telecommunications industry via an industry entity (the numbering scheme manager).

Similarly, the Telecommunications (Numbering Charges) Amendment Act 2016 amends the Telecommunications (Numbering Charges) Act 1997 to make consequential amendments to reflect that the allocation to and holding of numbers by carriage service providers (CSPs), for which charges arise under the Act, could in future be managed in accordance with an industry-based scheme.

Transition to industry management will not occur unless the Minister is satisfied that it would be consistent with a number of key principles. As stated in the Explanatory Memorandum to the Bill:

“The transition to an industry managed numbering scheme would only occur once the Minister was satisfied (after consulting the ACMA and ACCC) that the proposed scheme manager would administer a numbering scheme in accordance with the key principles set out in proposed section 454C.”

This consultation explains the approach proposed by CA to deliver an industry managed numbering scheme in accordance with the Bill. It assumes the Bill will be passed in the near future without major change.

About Communications Alliance

CA is the primary telecommunications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and...
internet service providers, content providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to provide a unified voice for the telecommunications industry and to lead it into the next generation of converging networks, technologies and services. The prime mission of CA is to promote the growth of the Australian communications industry and the protection of consumer interests by fostering the highest standards of business ethics and behaviour through industry self-governance. For more details about CA, see http://www.commsalliance.com.au.
3 - PROPOSAL FOR COMMUNICATIONS ALLIANCE TO MANAGE NUMBERING

Industry Management of a Numbering Scheme by Communications Alliance

This paper sets out a proposal to transfer to CA the numbering rule making, numbering allocation and management responsibilities that are currently undertaken by the ACMA. CA would then undertake these responsibilities on behalf of the telecommunications industry. CA would:

- become the “numbering scheme manager” as defined in the Bill;
- make and enforce rules about numbering; and
- be required to operate in a manner consistent with the numbering scheme principles in s454C of the Bill.

Assuming the Bill is passed by Parliament in the near future and with little modification from its current form, CA would submit the final version of its proposal to the Minister for his consideration. The Minister would then determine, via legislative instrument, that CA would become the numbering scheme manager. This submission to the Minister would only occur after appropriate consultation is completed with regulatory and industry stakeholders and the public. This paper forms part of that consultation process.

A consequence of such a Ministerial determination would be that an industry ‘Plan for Telecommunications Numbering’ would replace the ACMA Telecommunications Numbering Plan 2015, and be managed by CA.

CA is expecting the proposal to be beneficial for both consumers and industry stakeholders because it will rationalise resources and streamline processes to reduce the costs of services to consumers, and improve the agility of industry to respond to customer needs. The new arrangements will also be less prescriptive and provide greater flexibility for adapting to future number allocation scenarios and the rapid evolution of the telecommunications market. Industry has self-interest in ensuring that number management is run in the most practical and cost effective way for the benefit of consumers and the industry.

CA notes that this proposal is supported by industry’s experience and track record in managing many aspects of numbering in Australia, including:

- sixteen years of operating numbering allocation and porting functions for inbound (13/1300/1800) and premium (19nn) numbers through INMS;
- working together in the relevant number portability administration groups to ensure the efficient delivery of number portability;
- industry entities being able to work cooperatively to deliver efficient services for their customers and end users without impacting the high level of competition within the industry, e.g. agreeing on and implementing a solution on the number that would be used for the National Emergency Warning Service; and
- the ability of industry to resolve urgent numbering problems when needed, such as the rapid rearranging of number assignments so that customers associated with a failed company continue to have service.

CA notes that the internet runs on the basis of industry arrangements for the management of IP addresses, domain names, etc. There is no reason why a similar approach cannot work for telecommunications numbering. Industry has an established set of codes, guidelines and industry guidance notes that deal with both day to day operations of number management and arrangements to deal with those situations where a service provider collapses or fails.

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9 s454A(1) of the Bill states “The Minister may, by legislative instrument, determine that a specified person is to manage the numbering scheme.”
High level overview

Figure 2 is a high-level overview of the number management framework to support the proposed industry arrangements. More detail about the structural and governance arrangements is provided in section 4.

**Government**
- Sets legislation for industry to develop plan for numbering
- Ongoing oversight

**ACMA**
- Sets ANC and collects ANC and Smartnumber revenue from CSPs
- Compliance directions to CSPs (last resort)

**Communications Alliance**
- Sets rules for allocating and managing numbers (in accordance with legislated principles)
- Specifies numbers
- Enforces compliance with rules

**Communications Alliance through contracts with Paradigm One Pty Ltd and ZOAK Solutions Ltd**
- Defines B2B processes for allocation and management of numbers
- Operates IT systems to deliver the processes
- Enforces compliance with the processes

**Telecommunications Act**

**Determinations on Annual Numbering Charges**

**Plan for Numbering, Industry Codes, Guidelines and Guidance Notes**

**Implementation of process rules**

**FIGURE 2**
Overview of proposed industry managed numbering scheme
CA will create a ‘Plan for Telecommunications Numbering’ that would set out the high-level principles for the allocation and use of numbers. This would be supported by industry codes and related documents that set out the business rules for the assignment and use of numbers, and specifications detailing the business-to-business (B2B) processes used to implement the business rules.

**New Zealand Experience**

In forming this proposal, CA has also considered the New Zealand experience of industry managing numbers.

The allocation of numbers in New Zealand has been managed by industry since 1997. The New Zealand management model is not identified in legislation but is instead formed through a Number Administration Deed (NAD). The NAD is a multilateral agreement between the industry holders of number allocations for the centralised and independent administration of New Zealand’s telecommunication numbering resources. Subsequent to the formation of the NAD, the Telecommunications Carriers’ Forum (TCF) was established as the industry representative body in New Zealand (somewhat analogous to CA in Australia) and was given responsibility for number portability.

CA discussions with NAD staff and industry in New Zealand indicate that the arrangements are generally working effectively and there have been very few disputes. NAD staff could only recall one formal dispute during the previous seven years, involving an operator which fell into financial difficulty, refused to pay fees and eventually exited the market.

The New Zealand example demonstrates that industry can manage numbers effectively and this gives us further confidence in pursuing an industry management arrangement in Australia.

CA has considered the feasibility of adopting the New Zealand model in Australia, but concluded that it would be difficult to replicate the same model given the different legislative framework in Australia, and the larger number of service providers using numbers which would lead to a large and unwieldy multilateral agreement.

**QUESTIONS FOR COMMENT:**

1. What is your view of the industry proposal to create an industry managed numbering scheme? Why?

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\[11\] These codes would not be registered under Part 6 of the Telecommunications Act 1997
4 - PROPOSED ORGANISATIONAL STRUCTURE AND GOVERNANCE

Objectives

The industry solution is required to:

- Deliver a numbering management solution that is more cost effective, more agile in responding to customer needs, and provides greater flexibility for future innovations involving the use of telecommunications numbers.
- Meet the requirements of the Bill for an industry body to be appointed as the numbering scheme manager. On this point, the Minister may not determine that a person will be the numbering scheme manager unless the Minister:
  - is satisfied that the person will manage the numbering scheme in accordance with the numbering scheme principles - if not then the Minister must not determine the person as the numbering scheme manager; and
  - first consults with the ACMA and the Australian Competition and Consumer Commission (ACCC).
- Be representative of industry and allow all industry members to have a voice in relation to numbering decisions which affect them.
- Provide for sound decisions to be made in a timely manner.
- Have flexibility to respond to changes in industry, technology and legislation.
- Provide for sound corporate governance.

The solution also needs to make provision for input from the Government, ACMA, ACCC, industry and consumers on significant numbering policy matters i.e. matters which have the potential to impact on the supply of new services, market dynamics or consumers (through changes to their rights to use existing numbers or any changes to their ongoing use of telecommunication services).

Functions that need to be delivered

Two functions need to be delivered by the industry solution:

- A policy function which oversees the maintenance and development of the numbering regulatory framework.
- An operational function which oversees the delivery of the numbering allocation related services currently provided by ZOAK Solutions.

Additionally, there is also opportunity for the operational function to manage the delivery of other numbering services such as the number activation and inbound number porting services currently delivered by INMS.

Choosing a preferred option

As outlined in the section ‘The preferred solution – CA policy committee and subsidiary operations company’ below, CA’s preferred option to deliver the above objectives and functions is to establish a policy committee within CA and a wholly owned subsidiary company to undertake operational matters.

In reaching the conclusion that this is the preferred option, a wide range of options were considered. These options involved various combinations of entities within and outside CA. Consideration was also given to whether the policy and operational functions should be delivered by the same entity or separate entities.

The entities considered in the different options included:

- One or more management committees within CA;
- A subsidiary company under Communications Alliance e.g. CA Operations Ltd); and
- A company external to CA – a new company and/or the existing INMS entity.
The following factors were considered in choosing the preferred approach for the organisational structure of the industry solution:

Ease of establishment

It is expected to be simpler and faster to locate the new functions under the umbrella of an existing entity, like CA, rather than establishing a new external entity. It is also easier to establish a management committee under CA compared to establishing a new legal entity (either as a subsidiary of CA or as a separate entity). It may also be easier to attract committee members rather than board members (due to the latter involving greater responsibility and liability).

Cost

Locating the numbering management within CA is likely to be the lowest cost option as there is no need to set up and operate a new company, and it offers the greatest opportunity to leverage existing CA resources and processes to minimise ongoing costs. Reducing the number of different entities involved will also assist to minimise costs.

Alignment with related CA activities

It is important that the numbering management framework is aligned with the work on related telecommunications policies and processes within CA, so that effective and efficient end-to-end solutions can be designed for customers. This outcome is most likely to be achieved by locating the management of numbering within CA. Locating some or all of the numbering management function in an entity outside CA creates the risk of that entity pursuing a different agenda and fragmenting industry solutions.

Quality of decision making

The decisions of a management committee may not be as robust as those made by a board where directors may be subject to greater legal liability if a decision is made that, in hindsight, produces a negative outcome for the relevant company.

Decision making can be made more robust and transparent by separating the policy and rule making decisions from the commercial and operational decisions which implement the policies and rules. This is similar to the argument that agencies which implement government regulation should operate at arms-length from those government agencies that create the regulation. Individuals with policy expertise are not necessarily the best people to make commercial or operational decisions. The reverse is also true.

Timeliness of decision making

A committee within CA is likely to be more agile at making decisions than the board of a CA subsidiary company or an external company. This is because the directors of a board have additional legal responsibilities and need to take time to ensure that more extensive due diligence is applied in their decision making. However, certain committee decisions may also take longer because of the need also to refer them to the CA Board.

Again, separating policy and rule making decisions from decisions about the operational arrangements is likely to be beneficial.

Independence of decision making

There is little differentiation between the options. A separate legal entity outside CA may be less likely to be influenced by agendas within CA. On the other hand, the wide range of interests within CA (representing majority wide range of industry users of numbers) means that it would be difficult for a CA committee or subsidiary company to make decisions that are not neutral or favour the interests of a subset of CA members. In all options the risk of decisions not being impartial can be mitigated by appointing an independent chair, designing the membership (of a committee or board) to allow opportunity for representation.
from a wide range of industry interests, and providing for recourse to an independent external party to resolve disputes.

Ease of scaling for other self-regulatory opportunities

Consideration needs to be given to the possibility of the numbering management model being scaled up to incorporate other industry regulatory self-management opportunities that might be contemplated in the future. It is likely to be easier and more cost effective to do this using a numbering management model under the CA umbrella - rather than having to establish new external entities, or seeking to expand the scope of an existing external entity which has been established for a specific purpose.

Commercial and legal risk

Hosting numbering management within CA has the advantage of more fairly sharing the commercial and legal risks associated across a broader industry base. The exposure of the CA Board and members to liability can be partly managed by locating the higher risk activities (e.g. commercial contracts and gathering of fees) within a subsidiary company. Locating numbering management in an external company would mean that the risks are unfairly shouldered by only a few industry members (i.e. the directors of that external entity).

Support from industry, government and regulatory stakeholders

CA and its predecessor ACIF have been in place since 1997 and since then has developed a high level of trust and respect with industry, government and other regulatory stakeholders. It has good working relationships with these stakeholders. The proposed model leverages the sound governance and reputation that already exists for CA. Stakeholders are likely to be more cautious about plans to host numbering management in an external entity which they are not familiar with.

The preferred solution - CA policy committee and subsidiary operations company

After considering and weighing up all these factors, CA believes that the following organisational structure would be most effective:

- Locate the numbering management function within CA.
- Establish a CA policy committee to be responsible for the numbering policy and regulatory framework. This committee will also have an oversight role of the operations of the subsidiary company referred to below and a dispute resolution function.
- Establish a subsidiary company under CA to manage the implementation and operational delivery of the framework, including the number allocation activities that are currently outsourced by the ACMA to ZOAK Solutions and the network activation and porting functions that are currently managed by INMS in conjunction with Paradigm-One. For the purpose of this consultation paper this subsidiary is referred to as CA Operations Ltd (CAOPS). It is envisaged CAOPS could also be a vehicle for other operational activities in the future (e.g. centralised management of all number portability functions or other non-number related industry self-regulation opportunities).

Integration of INMS into CAOPS

Consideration was given to several options involving the expansion of INMS to undertake some or all of the numbering management responsibilities. However, these were discounted as they had a number of downsides. In particular, the solutions involving INMS were likely to be more costly and slower to establish, create a greater long term risk of misalignment with other CA regulatory activities, and be less suited for scaling to take on other industry self-regulation opportunities (not related to numbering) that may emerge.

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12 For example, the current review of the ACMA has flagged that the management of the Do Not Call Register (DNCR) and Integrated Public Number Database (IPND) could potentially be managed by industry,
However, it was considered there would be benefit in merging the INMS activities with the activities to be undertaken by CAOPS. Such a merger would be expected to reduce costs as all centralised numbering operational activities would then be managed by a single entity and thus allowing overhead costs to be rationalised. It would also prepare the way for savings from a more fundamental rationalisation of the platforms and applications in the longer term. This approach would result in INMS being wound up, after the transition of its activities to CAOPS.

**Views of the Communications Alliance and INMS Boards, ZOAK Solutions and Paradigm.ONE**

The preferred structure has been discussed with the CA and INMS Boards. Both parties agreed that this approach has merit and supported it being explored further.

The solution has also been discussed with ZOAK Solutions and Paradigm.ONE and they are both open to the concept being explored further.

**QUESTIONS FOR COMMENT:**

1. Do you agree that establishing a numbering policy committee and subsidiary company to manage the implementation and operational delivery of the framework is likely to be the best approach to delivering industry management of numbering, after taking all factors into consideration? Why or why not?

2. Are there any alternative structure options that you think would be more optimal? Why?

**Proposed governance arrangements**

The proposed governance arrangements for the CA solution are illustrated in Figure 3 below. The diagram summarises the various entities that would be involved in delivering the numbering management solution, and how they relate to each other. The role of each entity is explained in more detail below. These governance arrangements would be fully documented, for example, in a terms of reference and the constitutional documents for CAOPS.

**CA Board**

The CA Board would have overall responsibility for the management of numbering. To achieve this, it would be required to:

- Establish and oversee the terms of reference for the Numbering Policy Committee.
- Establish CAOPS and nominate one CA director as a director of CAOPS.
- Approve the appointment of the key personnel to the Numbering Policy Committee and the board of CAOPS, including the independent chairs.

The CA Board will seek to delegate as much responsibility as possible to the Numbering Policy Committee and CAOPS to ensure that these entities can be agile in their decision making.

**Numbering Policy Committee (NPC)**

The NPC is responsible for developing and overseeing the industry managed numbering scheme through policy and regulatory instruments that make up the framework for the management and use of numbers. The key instruments are:

- The industry managed Plan for Telecommunications Numbering which sets out the high-level principles to guide the allocation, use, transfer and surrender of numbers;
- The industry codes which set out the operational rules that must be followed to give effect to principles in the Plan for Telecommunications Numbering; and
• Other policies, codes and guidance documents that may be required to ensure that the principles in the Plan for Telecommunications Numbering are achieved.

It will also be responsible for monitoring the allocation of the numbering resource and taking steps to mitigate any shortfalls that might emerge.

The NPC will be chaired by a person who is independent of any industry party using numbers to provide telecommunications services. It is envisaged that the NPC chair will be a paid part-time role. To ensure adequate industry representation, while still being a manageable number for decision making, it is proposed that up to 8 (additional) committee members be appointed. Those committee members would not be paid.

Since larger service providers have responsibility for the greatest number of customers using numbers it is suggested that four of the committee member positions be initially offered to the four companies with the largest allocations of numbers. Any of these positions that are not taken up, along with the other remaining four positions, would then be made available for nominations from other providers. A ballot process involving all holders of numbers would be invoked in the unlikely event that the number of nominations exceeds the number of available positions. This approach should ensure that there is a reasonable balance between the representation from larger and smaller holders of numbers.

The distribution of numbers allocated to CA members and non-CA members is summarised in Table 1 below. Only 28% of the holders of numbers are CA members, but the vast majority of numbers (84% in total) are allocated to these entities. To ensure that there is opportunity for participation in the decision making by parties other than CA members, it is proposed that up to two of the committee positions can be filled by industry parties from outside the CA membership.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of organisations</th>
<th>Quantity of geographic numbers allocated</th>
<th>Quantity of mobile numbers allocated</th>
<th>Quantity of 13/1300 numbers allocated</th>
<th>Quantity of 1800 numbers allocated</th>
<th>Total quantity of numbers allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA members</td>
<td>17 (28%)</td>
<td>77,269,900 (75%)</td>
<td>68,820,000 (97%)</td>
<td>139,119 (68%)</td>
<td>112,134 (69%)</td>
<td>146,341,153 (84%)</td>
</tr>
<tr>
<td>Non-CA members</td>
<td>43 (72%)</td>
<td>25,438,000 (25%)</td>
<td>1,890,000 (3%)</td>
<td>64,737 (32%)</td>
<td>49,427 (31%)</td>
<td>27,442,164 (16%)</td>
</tr>
</tbody>
</table>

**TABLE 1**

Quantities of numbers allocated to CA members and non-CA members

It is envisaged that the NPC will meet on at least a quarterly basis.

The NPC will establish a Numbering Working Group (NWG) to consider solutions to issues and manage the detailed drafting and maintenance of the scheme documents. CA members and non-CA members will be eligible to participate in the work of the NWG but no more than 25% of the group are to be non-CA members. At least one representative from CAOPS will also be required to participate - to ensure that operational perspectives are properly reflected in the drafting work. All scheme documents prepared by the NWG must be approved by the NPC (after considering the views of stakeholders), before they come into force.

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13 Based on data sourced from the October 2016 ZOAK Solutions database and CA members from the published April 2017 CA membership list. Note: Symbio Networks is part of the MNF (MyNetFone) Group and has been treated as one organisation for the purpose of preparing this table.
The NWG would also take on the responsibility of providing oversight and guidance for the existing number portability administration groups (i.e. Inbound Number Portability Administration Group, Local Number Portability Administration Group and the Mobile Number Portability Administration Group).

To ensure views of stakeholders outside the NPC are heard and considered, the Numbering Policy Committee will establish a Numbering Advisory Panel (NAP). The Chair of the NPC will chair this panel. It will be an open forum with representatives invited from users of numbers and organisations such as the Department of Communications and the Arts (DoCA), the ACMA, the ACCC and ACCAN. Members of the public are also welcome to attend meetings. The NAP will provide advice to the NPC on issues that need be addressed and proposed changes to scheme documents in the numbering framework. The NPC will consider the recommendations of the NAP but will not be bound to implement these.

It is envisaged that most decisions made by the NPC would be by consensus but where this is not possible, it is suggested that decisions be voted on the following basis:

- One vote per member;
- Decisions would typically be by a simple majority (i.e. 50%) vote and the chair will not have a casting vote; and
- Certain decisions may require a prescribed majority – similar to the procedures in a CA Working Committee where 80% of members must respond and two thirds must be in favour.

CA Operations Ltd (CAOPS)

CAOPS will be responsible for the efficient delivery of the number allocation, network conditioning and other operational services that are required by industry to deliver telecommunications services. The functions to be undertaken include:

- Delivering systems and processes to enable the allocation of new numbers, changes to the allocation of existing numbers and network conditioning;
- Responding to inquiries from industry and consumers about the allocation of numbers and other services offered by CAOPS;
- Resolving any disputes that may arise with the recipients of numbers (excluding disputes within the remit of the Telecommunications Industry Ombudsman (TIO) or which are referred to the NPC), including referring matters to an external adjudicator where this may be necessary;
- Monitoring KPIs and continuously improving the operations; and
- Providing advice to the NPC on trends in number use and the effectiveness of the numbering framework.
Communications Alliance (CA) Board

Numbering Policy Committee (NPC)
Responsible for numbering policy and regulation including direction and oversight of NWG, NAP, and number portability administration groups; and approval of and managing compliance with instruments.
Committee Members: Part time Independent Chair (Up to 8 industry reps with no more than 2 who are not CA members), Observers: CA CEO, CA Operations Ltd Chair.

Numbering Working Group (NWG)
Responsible for development and ongoing maintenance of the industry plan for numbering instruments, such as Codes, Guidelines and Guidance notes.
Members: Reps from CA members, non-CA members and CAOPS Numbering Support team

Numbering Advisory Panel (NAP)
A forum for canvassing stakeholder views on numbering policy issues and changes to instruments and processes
Members: Reps from industry users of numbers and organisations such as ACMA, DoCA, ACCC and ACCAN

CA Operations Ltd (CAOPS)
Responsible for delivering efficient number allocation, network conditioning and other operational services – including process and vendor management, responding to inquiries, managing compliance with CAOPS processes, resolving disputes, billing, and providing advice on KPIs and forecasting trends in number use.
Board Members: Part time independent Chair, a minimum of 1 CA director and 2 directors from CA membership*, plus CAOPS CEO and CA CEO as observers

Management - Part time CEO responsible for business planning and reporting, staff, vendor contracts, compliance and dispute resolution (including all referrals to external adjudicator from CAOPS or NPC)

Numbering support
2 PTE responsible for managing inquiries, complaints, compliance monitoring, process design and oversight, vendor issues, and providing reports/analysis/advice on KPIs and use of numbers

Adjudicator

ACMA

Paradigm.One

ZOAK Solutions

CA Administration
CA CEO
Secretarial support
Financial services
Legal services
Communications
Project management
Document drafting

Notes: * A maximum of 1 director per CA member.
As already noted, the responsibilities of CAOPS may be expanded in future to take on the delivery of other regulatory self-management opportunities on behalf of industry.

The chair of the CAOPS Board will be appointed by the CA Board and will be someone who is independent of any party that uses numbers for telecommunications services. To ensure adequate industry representation, while still being a manageable number for decision making, it is proposed that up to 8 additional directors be appointed.

Since the CAOPS Board is not responsible for policy or regulatory decisions, and only responsible for operational activities, CA sees no need to make provision for the appointment of non-CA members as directors. This also addresses any concern that the CA Board might have about non-CA members influencing the operations of CAOPS and exposing CA, as the parent company of CAOPS, to additional commercial risk. For these reasons, it is proposed that all the directors (other than the chair) must be from CA member entities. Only one director may be nominated per CA member. Of course, a non-CA member can always join CA to be eligible for nomination.

To ensure a workable CAOPS Board, it is recommended that a minimum of three directors must be appointed, with at least one of these also being a current director on the CA Board to facilitate transparency from a CA Board perspective. The CAOPS CEO will be invited to join the CAOPS Board and the CA CEO will be invited to join the CAOPS Board meetings as an observer to facilitate transparency and collaboration between the entities.

The independent chair of the CAOPS Board will be a paid position and the other directors of CAOPS will be unpaid positions.

The CAOPS Board would initially be appointed by:

- Inviting CA members to nominate directors in writing, with no more than one director being nominated by any individual member; and
- If there are more nominations than positions vacant then the CA Board would vote to determine the final appointments.

Board appointments would be for a fixed term, with the option of reappointment. A cap may be imposed on the maximum number of terms for a director (other than the CAOPS CEO).

CA notes that to ensure a smooth transition of the current INMS responsibilities to CAOPS, it is desirable that some of the existing INMS directors are appointed to the CAOPS Board, even if only for a limited period.

It is proposed that decisions of the CAOPS Board be voted on the following basis:

- One vote per director;
- Decisions would typically be by a simple majority (i.e. 50%) vote and the chair will not have a casting vote; and
- Certain decisions may require a prescribed majority - similar to the procedures in a CA Working Committee where 80% of members must respond and two thirds must be in favour.

It is envisaged that the CAOPS Board would meet quarterly, and more often as required.

It is also envisaged that CAOPS will initially be run by a part time CEO and two part-time staff. The CEO would be responsible for business planning and reporting, staff management, vendor contracts, compliance issues and dispute resolution (including all referrals to an external adjudicator). The two part-time staff will be responsible for handling inquiries, complaints, vendor issues, monitoring compliance, providing advice on process design, and preparing reports on KPIs and the use of numbers. Two part-time staff are proposed so that the role is shared and staff can cover each other in the event of an absence.
CA Administration

The existing core capabilities of the CA team will be leveraged to provide the NPC and CAOPS with generic administrative and document drafting services on a commercial arms' length basis. These services will include secretarial support, financial advice, legal advice, IT support, communications, document drafting and project management.

Resolution of disputes

It is anticipated that most disputes concerning the numbering management arrangements will be resolved with the assistance of the independent chairs of the NPC and CAOPS. Disputes which remain unresolved will generally be referred to an independent external adjudicator. CAOPS will be responsible for engagement with the adjudicator. The Bill provides that the ACMA may also be requested to direct a carrier or CSP to comply with a rule or process published by the numbering scheme manager. This avenue may therefore also be used to resolve disputes as a last resort.

ACMA - Revenue and tax collection

The ACMA will continue to have responsibility for calculating and collecting the revenue from the sale of Smartnumbers and the ANC. CAOPS will be required to provide information and functionality for the ACMA to manage these responsibilities. A mutually acceptable agreement to support this will need to be reached between CAOPS and the ACMA.

As noted in the previous comments on dispute resolution, the ACMA may also be requested to direct a carrier or CSP to comply with a rule or process published by the numbering scheme manager.

ZOA Solutions

ZOA Solutions is currently contracted by the ACMA to deliver the number allocation functionality. The proposed solution involves establishing a new contract between ZOA Solutions and CAOPS for the delivery of this functionality.

The current contract between the ACMA and ZOA Solutions will need to be terminated at the same time the ZOA Solutions service is transferred to CAOPS. This means that CA, ZOA Solutions and the ACMA will need to negotiate that termination and the new contract between CAOPS and ZOA Solutions. A key requirement is that parties are not financially disadvantaged and the new arrangements support the overarching objective of creating a more efficient numbering management solution for industry.

Paradigm.One

The proposed solution involves CAOPS acquiring the numbering network conditioning services that are currently delivered by INMS. Paradigm.One is currently contracted for the delivery of these services, so negotiations will be required to transfer this contractual arrangement from INMS to CAOPS, either by novating the existing contract or terminating the existing contract and establishing a new contract. Again, a key requirement is that parties are not financially disadvantaged and the new arrangements support the overarching objective of creating a more efficient numbering management solution for industry.

Proposed changes to numbering regulatory instruments

The key regulatory instruments that underpin the current numbering management arrangements are summarised in Table 2 below.
<table>
<thead>
<tr>
<th>Regulatory instruments in current numbering arrangements</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecommunications Act 1997</td>
<td>Part 22 of the Telecommunications Act 1997 requires the Australian Communications and Media Authority (ACMA) to make a Telecommunications Numbering Plan.</td>
</tr>
</tbody>
</table>
| Telecommunications Numbering Plan 2015                 | The Telecommunications Numbering Plan 2015 specifies the numbers that are for use in connection with the supply of carriage services to the Australian public. The Numbering Plan is for:  
- the use of numbering all carriage services in Australia;  
- specifying the number types for use in connection with the supply of carriage services to the public; and  
- the allocation and portability of numbers. |
| Rights of Use Code of Numbers Industry Code C566: 2005 | This code specifies what is meant by a customer's rights of use (ROU) of their number(s) and the obligations of CSPs when the customer's number(s) is reserved, issued and in quarantine. |
| Local Number Portability Industry Code C540:2013       | This code specifies local number portability requirements. |
| Mobile Number Portability Industry Code C570:2009      | This code specifies mobile number portability requirements. |
| Inbound Number Portability Industry Code C657:2015     | This code specifies inbound 13/1300/1800 number portability requirements. |

**TABLE 2**

Existing numbering instruments

Table 3 below summarises the proposed set of instruments that will underpin the new numbering scheme managed by CA. It also identifies the changes to existing instruments. The changes are designed to simplify and streamline the framework through focusing the new Industry Plan for Telecommunications Numbering on the high-level principles to be followed, and moving the detailed requirements in the current Numbering Plan to the relevant subservient instruments. The new framework will also seek to avoid duplication across instruments and remove any provisions which are obsolete and no longer relevant.
<table>
<thead>
<tr>
<th>Regulatory instruments in new numbering scheme</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Telecommunications Act 1997</td>
<td>On 29 March 2017 the Communications Legislation Amendment (Deregulation and Other Measures) Bill 2017 was introduced to Parliament.</td>
</tr>
<tr>
<td>Telecommunications (Consumer Protection and Service Standards) Act 1999</td>
<td>This Bill amends (among other legislation) the Telecommunications Act 1997 and the Telecommunications (Consumer Protection and Service Standards) Act 1999 to enable the development of an alternative industry-based scheme for the management of telephone numbering resources.</td>
</tr>
<tr>
<td>Industry Plan for Telecommunications Numbering</td>
<td>This new Industry Plan for Telecommunications Numbering establishes a common set of principles for the allocation and use of numbers. It includes a standardised approach to dealing with the configuration of numbers and requirements relating to allocation, issue, transfer, surrender, porting, withdrawal, and quarantine of numbers for each number type.</td>
</tr>
<tr>
<td>Use of Numbers Industry Code</td>
<td>This new Code describes the rights and obligations of all parties in relation to the use of numbers, and the processes to be undertaken by CSPs to support these obligations and rights. It includes information that was previously in the current Rights of Use of Numbers Industry Code C566:2005 and the 2015 Telecommunications Australian Numbering Plan.</td>
</tr>
<tr>
<td>Number Administration Industry Code</td>
<td>This new code sets out the administrative rules and functions that apply to the allocation, transfer, surrender and withdrawal of numbers by CSPs. It includes information that was previously in the Telecommunications Numbering Plan 2015 and captures new administration arrangements that are not included in current regulatory instruments, for example, the manual processes used for administration of certain number types that are not included in the current ZOAK Solutions system.</td>
</tr>
<tr>
<td>Local Number Portability Industry Code C540 :2013</td>
<td>No material changes to these codes are anticipated as part of the transfer of the management of numbering from the ACMA to industry. Any changes are expected to be limited to correcting references to other instruments in the new framework. However, Industry is currently reviewing number portability more generally, with the intention of implementing a single portability solution in the longer term.</td>
</tr>
<tr>
<td>Mobile Number Portability Industry Code C570 :2009</td>
<td></td>
</tr>
<tr>
<td>Inbound Number Portability Industry Code C657 :2015</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 3**

Proposed numbering instruments

CA will be consulting on the changes to the instruments as part of planning for the transition to the new numbering scheme outlined in this paper.
Recovery of costs

The costs of running the CAOPS and the NPC functions will be recovered through fees charged to the holders of numbers. Further information about the proposed model for structuring the fees is provided in section 6.

Benefits

The following benefits are anticipated from the implementation of the new numbering management arrangements outlined in this section:

- Greater flexibility and agility to meet the needs of customers for number related services.
- Initial operating efficiencies of up to around $200,000 per annum, assuming suitable commercial agreements that do not financially disadvantage CA can be reached between parties.
- Potential for future efficiency benefits through actions such as rationalising and streamlining numbering services, including incorporating a centralised approach to number portability.
- More flexibility for investment in number management infrastructure to be better leveraged over the long term (i.e., not tied into government procurement processes and life cycles).
- Preparing the way for benefits from other industry self-regulation opportunities in the future that industry may decide to pursue.

QUESTIONS FOR COMMENT

4. Do you agree that the proposed governance arrangements are appropriate for delivering the industry management of numbering outcome? Why or why not?

5. Are there any variations that you think should be considered? Why?
5 - ALIGNMENT WITH LEGISLATED PRINCIPLES

CA Proposal: Management of Numbering by CA

The NPC and CAOPS would have specific objectives aligned with the Bill. The Bill sets out, in a new section 454C of the Telecommunications Act 1997, the principles for an industry managed numbering scheme. The principles are:

1. There must be an adequate and appropriate supply of numbers for carriage services;
2. Future needs for numbering must be planned for, having regard to community needs, industry needs and global trends;
3. Numbering arrangements must be effective and efficient and support the effective and efficient supply of carriage services;
4. Numbering arrangements must have regard to recognised international standards and ensure that numbering in Australia operates in conjunction with international numbering arrangements;
5. There must be fair and transparent access to numbers for all carriage service providers, and numbering arrangements must support competition in the supply of carriage services;
6. The interests of users of carriage services must be protected, including in relation to the use and portability of numbers;
7. The numbering scheme’s provisions for the portability of numbers must be consistent with any directions by the ACCC to the ACMA under s458(2) in relation to portability of numbers;
8. The numbering scheme must support the use of emergency call services;
9. Numbering arrangements must meet the requirements of Australian law enforcement and national security agencies;
10. Numbering arrangements must provide for the collection of charges imposed under the Telecommunications (Numbering Charges) Act 1997;
11. The Register (see the proposed new section 465 of the Telecommunications Act 1997) must be kept up to date;
12. The rules and processes of the numbering scheme, including a plan for numbering of carriage services:
   a. must be adhered to by the numbering scheme manager; and
   b. must be published and available at no charge.
13. The numbering scheme must include compliance mechanisms to provide for enforcement of scheme rules;
14. The numbering scheme must make effective complaints processes available to both the telecommunications industry and users of carriage services;
15. The recovery of costs in relation to the management of the numbering scheme must reasonably reflect costs and must be fair and transparent;
16. Public consultation must be undertaken before any significant change to the numbering scheme;
17. Any additional principles determined by the Minister by legislative instrument.

CA has designed the new arrangements to be consistent with the principles in the Bill. These arrangements would be captured in an overarching industry Plan for Telecommunications Numbering as a set of guiding principles and associated industry codes would set out the detailed obligations relating to numbering management.

The industry Plan for Telecommunications Numbering would replace the existing Telecommunications Numbering Plan 2015 prepared by the ACMA, assuming the Minister determines that CA should become the numbering scheme manager.

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The proposed section 454C of the Telecommunications Act 1997, as contained in the Bill, includes as a principle that the Minister may determine additional principles.
The intent is to operate the numbering scheme in an efficient and effective manner, considering the overall costs and impacts on end users and the industry, including both the impacts from the operation of the numbering system(s) to support transactions related to numbering and the compliance and complaints handling processes in case any issues arise.

Any numbering scheme has to continually adapt and evolve to meet the needs of end users and the telecommunications industry as they change over time. An industry managed numbering scheme is expected to be more appropriate for future needs as industry members are more familiar with international trends, the likely impacts of adopting innovative products and services and the timing of their possible introduction in Australia.

The remainder of this section looks in more detail at each of the principles set out in the Bill and how an industry scheme would meet them. Comments are invited on the alignment of the proposed industry solution with the principles.

**PRINCIPLE 1: AN ADEQUATE AND APPROPRIATE SUPPLY OF NUMBERS**

To ensure there is an adequate supply of appropriate numbers CAOPS will be required to generate reports on number allocations and monitor use against availability. The NPC will use these reports, in conjunction with advice from CAOPS, holders of numbers and the NAP, to identify any future potential shortfall in available numbers and make timely arrangements for continuity of supplies of numbers (e.g. by opening up new number ranges).

**PRINCIPLE 2: PLANNING FOR FUTURE NEEDS FOR NUMBERING**

Similar to Principle 1, to ensure numbers are available for future needs, CAOPS will generate reports on number allocations and monitor use against availability. The NPC will use these reports, in conjunction with advice from CAOPS, holders of numbers and the NAP, to identify any future potential shortfall in available numbers and make timely arrangements for continuity of supplies of numbers.

The NPC will leverage the knowledge of its members and the broader industry to monitor emerging local and international trends to identify products or services that may require new number ranges. The NPC will be required to be responsive to such needs so that new products can be brought to market in a timely fashion for the benefit of consumers and the community more generally, while also maintaining alignment with international numbering arrangements.

The frequency of changes to numbers should be kept to a minimum.

**PRINCIPLE 3: EFFECTIVE AND EFFICIENT ARRANGEMENTS, SUPPORTING SUPPLY OF CARRIAGE SERVICES**

Industry has self-interest in ensuring that number management is run in the most practical and cost effective way for the benefit of consumers and industry. Industry also the deepest operational understanding of number use by consumers and industry and is therefore in the best position to design efficient solutions.

The proposed industry solution will be designed to deliver effective and efficient arrangements, for the support of carriage services by:

- Simplifying and removing complexity from the current framework - both through the structure of the new framework and through a culture of continuous improvement to further simplify and rationalise the framework, and streamline processes;
- Being responsive to consumer and business needs by making new number ranges available in a timely fashion;
- Avoiding unnecessary future expenses and workarounds by seeking to take a longer term and end-to-end view of consumer and industry needs when making new
allocations and other changes to numbering arrangements (e.g. building a number portability requirement into new number allocations is likely to be more efficient than attempting to introduce it at a later stage in the life cycle of the associated products);

- Enabling the flexible and timely resolution of numbering issues through an environment in which industry led solutions can be discussed, agreed and implemented at short notice (e.g. being able to rapidly rearrange the number allocations when an individual CSP fails to maintain consumer access to their numbers for ongoing service continuity); and

- Numbers should be allocated as efficiently as possible from available numbers.

Industry anticipates specific cost savings from the proposed industry management of numbering which will benefit both industry and consumers. Examples of these future savings are as follows:

- Savings from fewer parties being involved in number management decision making and processes e.g. there is no longer a need for both CA and ACMA resources to be involved in making changes to the Numbering Plan and associated codes, and a single entity (CAOPS) takes on the responsibilities that were previously managed by the ACMA and INMS;

- Savings through avoiding some Government regulatory processes which are bureaucratic and introduce delays (e.g. sunsetting requirements that require the ACMA Numbering Plan to be renewed every 10 years and regulatory impact statements);

- Savings from the economies of being able to better integrate different numbering functions e.g. portability, allocations, network conditioning; and

- Savings from the use of industry procurement rather than Government procurement processes, e.g. the speed of conducting processes, less bureaucracy and no requirement for public reporting.

**PRINCIPLE 4: ARRANGEMENTS IN AUSTRALIA OPERATE IN CONJUNCTION WITH INTERNATIONAL NUMBERING ARRANGEMENTS**

CA notes that DoCA has responsibility, as the representative for the Australian administration at the International Telecommunications Union (the ITU), for international numbering matters. This industry proposal concerns national numbering for telecommunication services and does not propose any changes to the current engagement with the ITU on numbering matters.

CA will continue to ensure that the numbering management framework is consistent with the ITU numbering related Recommendations (e.g. E.164 on the international public telecommunication numbering plan). CA will work with DoCA and the government more generally to provide expert advice and advocate for change relating to the ITU framework.

A number of Australian service providers are either industry members of the ITU or are associated to parent companies that are industry members of the ITU. It is also in their interest to ensure that the new arrangements are consistent with the ITU framework.

**PRINCIPLE 5: FAIR AND TRANSPARENT ACCESS TO NUMBERS FOR ALL CSPS**

All CSPs will have fair and equal access to numbers. Without limitation:

- Membership of CA will not be a prerequisite for accessing numbers; and

- The fees for numbering transactions (e.g. allocation, quarantine, surrender, transfer, withdrawal) will be the same for members and non-members of CA, and will be designed so they are affordable to smaller operators.

As required under principle 12, the documents defining the numbering arrangements (e.g. the industry Plan for Telecommunications Numbering, the Number Management industry
code and related guidelines and specifications) will be published and made available at no charge to the public. The register of numbers required under legislation will publicly identify the CSP holding each number. These measures will assist to ensure that all CSPs not only have fair and transparent access to numbers but also have transparent access to information about the numbering arrangements.

The allocation and any withdrawal of Numbers must be fair, transparent and without favour to any member of the industry.

**Continuity of the Smartnumbers enhanced ROU to 18 and 13 numbers**

CA recognises that the existing enhanced ROU to 18 and 13 numbers must be protected and effectively transitioned into any new arrangements for managing the numbering scheme, and that an ongoing process for the supply of Smartnumbers must remain in place. CA will make arrangements so that:

- The industry Plan for Telecommunications Numbering would continue to specify the number ranges for Smartnumbers;
- The ACMA will continue to collect on the behalf of Government any revenue required to be collected under the Telecommunications (Numbering Charges) Act 1997 for the allocation of Smartnumbers (if the function is delegated by the ACMA to industry); and
- Integration with other number allocation processes, as delivered by the existing ACMA-ZOAK Solutions contract, would continue so that there is a “one stop shop” for numbers.

**PRINCIPLE 6: PROTECTION OF INTERESTS OF USERS OF CARRIAGE SERVICES, INCLUDING NUMBER USE AND NUMBER PORTABILITY**

CA is committed to protecting the interests of users of carriage services. The competitive nature of the telecommunications industry means that it is also incentivised to ensure that customer interests are protected and enhanced. Principles 7, 8, 12, 14 and 16 also provide mechanisms to protect consumer interests.

**Number portability**

There is strong industry support for number portability as an enabler of customer choice of service provider and industry recognition of the importance of number portability to consumers. The ongoing obligation for certain numbers to be portable would be incorporated into the new principles based industry Plan for Telecommunications Numbering, and supported by existing industry codes on portability.

As part of industry’s desire to manage numbering arrangements and put this into effect, the present number portability rules for inbound numbers (e.g. 13, 1800) that are currently contained within the INMS Business Rules are being moved to a new industry code that will apply to all CSPs, not only those that are members of the INMS.

Industry has also been discussing how to improve efficiencies in number portability arrangements for a simpler, faster and more consumer-friendly model, particularly for geographic number services. The CA proposal, because it will be more efficient and agile, will enable a faster and smoother transition to any new portability arrangements in the future, with a generic number portability solution that is not tied to service type or service characteristics.

**Ensuring customers ongoing use of Issued numbers**

Industry has led many of the discussions and arrangements that have been required when a CSP has encountered difficulty, such as liquidation or receivership, to ensure that customers were not unduly affected by such events. Industry has always taken the initiative to ensure that customers continue to enjoy beneficial use of numbers by putting in place alternative
arrangements, such as another CSP taking over the number range used by the customers of a CSP that has gone into liquidation.

CA has an established Service Continuity Working Group to quickly deal with situations where a CSP has failed. This Group takes steps, such as transferring numbers to other CSPs, to ensure affected consumers enjoy ongoing use of their service. Industry also has access to the expert resources in its number portability Administration Groups to quickly identify and put into place any required action plan to ensure ongoing service continuity for consumers (subject to suitable commercial arrangements being resolved with the administrator, liquidators, etc.).

Customers, upon being issued a number by their CSP, have ROU of that number, including where available a right to port that number to another CSP. Each customer should be given, as far as practical, the ability to retain a number issued to them, regardless of their CSP and any changed arrangements in that CSP continuing to provide carriage services. Any existing enhanced ROU to 1800/13/1300 numbers must be maintained.

Where any change to numbers is required, disruption and inconvenience to individual customers should be kept to a minimum. The withdrawal of numbers must be fair, transparent and done with appropriate consultation with users and advance notification to individual users who will be directly affected.

**PRINCIPLE 7: THE NUMBERING SCHEME’S PROVISIONS FOR NUMBER PORTABILITY TO BE CONSISTENT WITH ACCC DIRECTIONS TO THE ACMA UNDER S458 (2)**

Compliance with number portability obligations is and will continue to be consistent with ACCC directions to the ACMA under s458(2) of the Telecommunications Act 1997.

Such compliance is largely a self-management activity at present with CA’s number portability Administration Groups playing a key role in the efficient operations of number portability and monitoring compliance with the relevant industry codes.

CA manages Mobile Number Portability through its Mobile Number Portability (MNP) Administration Group (MAG) and Fixed Line Service Portability through its Fixed Line Administration Groups (FLAG). Inbound Number Portability has similar supporting arrangements through INMS.

These arrangements would come under the domain of the NPC, with any matters that were unable to be resolved by the relevant number portability Administration Group being escalated to the chair of the NPC.

**PRINCIPLE 8: THE NUMBERING SCHEME MUST SUPPORT THE USE OF EMERGENCY CALL SERVICES**

The proposed industry managed numbering scheme will be designed to continue to support core government policy requirements for the use of emergency call services, such as Triple Zero for emergency calls, through compliance with legislation and the current Emergency Call Service Requirements Industry Code.

**PRINCIPLE 9: ARRANGEMENTS MUST MEET THE REQUIREMENTS OF AUSTRALIAN LAW ENFORCEMENT AND NATIONAL SECURITY AGENCIES**

The new numbering arrangements will be designed so as not to impede the requirements of law enforcement and national security agencies.
PRINCIPLE 10: ARRANGEMENTS PROVIDE FOR THE COLLECTION OF CHARGES IMPOSED UNDER THE TELECOMMUNICATIONS (NUMBERING CHARGES) ACT 1997

The proposed industry managed numbering scheme will provide for information to be made available to the ACMA to identify the numbers held by CSPs for the purposes of calculating the ANC. CA will also continue to provide functionality for the ACMA to collect revenue from the sales of Smartnumbers. CA will expect to recover any costs associated with providing these services. The delegations and cost recovery arrangements will be resolved in consultation with the ACMA, DoCA and industry as part of finalising the new scheme.

PRINCIPLE 11: THE REGISTER OF NUMBERS MUST BE KEPT UP TO DATE

Industry has a strong commercial incentive to keep the register of numbers up to date, as required under section 465.

If the register of numbers is not maintained then the routing of telecommunications services would become less efficient or simply not work, with commercial consequences for industry in terms of customer dissatisfaction, lost revenue and reputational damage.

CAOPS will be responsible for effective monitoring of the integrity of the register.

PRINCIPLE 12: THE NUMBERING SCHEME RULES AND PROCESSES MUST BE ADHERED TO, PUBLISHED AND AVAILABLE AT NO CHARGE

Consistent with the current CA practice for other telecommunications industry publications, the proposed industry managed numbering scheme rules and processes would be drafted in a plain English style, published on the CA website and available at no charge, in the interests of supporting transparency, accountability and competitive neutrality.

Adherence to the numbering scheme rules and processes will be an obligation on all users of the scheme. CAOPS would have a role to oversee the quality of such adherence (e.g. via CSP use of ISO quality management processes), to investigate further where required, and to escalate as appropriate. See below under Principle 13 for more information on ‘How the new model would enforce numbering rules’.

PRINCIPLE 13: THE NUMBERING SCHEME HAS COMPLIANCE MECHANISMS TO ENFORCE SCHEME RULES

Industry members have a strong self-interest to ensure that number management is effectively controlled. The existing number portability administration groups also have a long history of monitoring and self-regulating compliance with portability obligations. CA notes that INMS successfully managed service provider compliance against the relevant INMS rules for the allocation of 18, 13 and 19 numbers over a period of more than 14 years.

After numbers are allocated, each industry participant with a network needs to configure or ‘condition’ its network(s) to correctly route the calls associated with the allocated numbers. Industry members monitor network activity and the advertised use of numbers. To date it is industry that has typically raised concerns to the ACMA about the use of some number types. This self-monitoring activity would continue under the proposed arrangements except that any compliance issues would be dealt with directly by CAOPS (and potentially also the NPC).

Based on this experience, CA will manage compliance through the measures outlined below.
How the new model would enforce numbering rules

CAOPS will be responsible for monitoring and enforcing compliance with the numbering scheme policies and rules. In the first instance, any concerns about compliance would be addressed to the CAOPS CEO for consideration.

CAOPS will also provide information and advice to the NPC about compliance trends, including any aspects of the industry numbering scheme that may need to be reviewed to ensure that the overall objectives of the scheme are achieved.

The allocation rules in the numbering scheme will be structured to provide incentives for a service provider to adhere to agreed industry practices. If a dispute exists then a graduated escalation process, as outlined in more detail below, could be applied to encourage compliance. This may include stopping a breaching service provider accessing new number allocations and eventually (in an extreme case) this may result in the CSP being referred to the ACMA or the ACCC for direction under section 454G.

The independent NPC chair would play a central role in ensuring all numbering related activities are compliant with the industry Plan for Telecommunications Numbering and associated industry codes for Number Management and for number portability, and that compliance measures are applied in a fair and even handed manner.

Compliance would be enforced through a graduated process involving a series of escalation steps - for example, after the CAOPS CEO receives a complaint about a breach, he or she could be required to work through the following steps:

- Review the complaint, assess its severity and decide whether there is a case for further investigation;
- Offer the alleged offender an opportunity to explain and/or remedy any breach;
- Issue an initial warning notice requesting that the breach be remedied within a specified time frame;
- Issue a final warning notice requesting that the breach be remedied within a specified time frame to avoid being barred from new number allocations;
- Stop the offending party from accessing new number allocations;
- Issue a public notice warning customers about the non-compliance of the offending party; and
- Refer the CSP to the ACMA or the ACCC for enforcement under section 454G.

This is similar to the current ACMA practice for non-payment of outstanding number allocation charges.

CAOPS would reserve the right to recovering costs associated with any complaint investigation and subsequent action. This may include costs of legal action.

It is anticipated that the CAOPS Board would be kept informed of any serious situations and the CAOPS chair could also offer advice on such matters.

Any dispute about the above process would be referred to the external adjudicator. The NPC chair and the CAOPS chair and CEO and would also have discretion to seek the opinion or advice of other parties in forming views on a breach.

It is proposed that it would only be in urgent or very serious circumstances, that cannot be resolved by the above process, that CAOPS would refer a non-compliance matter to the ACMA or the ACCC to seek a direction under the proposed new section 454G of the Telecommunications Act.

**PRINCIPLE 14: THERE ARE EFFECTIVE COMPLAINTS PROCESSES FOR BOTH INDUSTRY AND USERS**

**Customer complaints**

Individual customer complaints about numbering matters should be raised with the service provider concerned in the first instance and escalated to the TIO if needed.
If the TIO, industry or other parties identify systemic issues with the numbering policy and regulatory framework that are affecting multiple customers then these should be raised with the NPC.

**Industry Complaints**

Operational issues from or about individual CSPs, including billing, process and code compliance matters, would be raised with and addressed by CAOPS in the first instance.

**Other queries or concerns**

Other queries or complaints about numbering policies, the industry Plan for Telecommunications Numbering and the associated instruments and fees charged to industry, whether from industry or users, should be addressed to the NPC.

**Dispute Resolution**

For disputes outside the remit of the TIO, the NPC chair or CAOPS chair, as appropriate, would, in the first instance, seek to have the disputing parties resolve a matter. If that fails, then the matter would be referred to the external adjudicator. Service providers would be bound by their terms of participation to accept the decision of the adjudicator. (In much the same way that service providers are bound to accept the decisions of the TIO.)

**PRINCIPLE 15: FAIR AND TRANSPARENT COST RECOVERY FOR SCHEME MANAGEMENT MUST REASONABLY REFLECT COSTS**

Fees under the proposed industry managed numbering scheme would be transparent and based on the principle of cost recovery. They would take into account the total “end to end” costs of number management rather than the fragmented costs that currently exist, requiring CSPs to consider costs imposed by each party (e.g. the ACMA and INMS) involved in number management processes to identify their ‘end to end’ costs.

As explained in section 6, CA is proposing to restructure the fees (associated with the ZOAK Solutions service) at the commencement of the numbering scheme to make them more equitable and sustainable.

To ensure there is transparency, the CAOPS accounts would be audited and available to CA members.

**PRINCIPLE 16: PUBLIC CONSULTATION BEFORE SIGNIFICANT CHANGE TO THE NUMBERING SCHEME**

In line with the processes for developing industry codes, public consultation on any substantive changes to the proposed industry managed numbering scheme and the associated industry Plan for Telecommunications Numbering, Number Management industry code and associated documents would be an essential component of any new arrangements under an industry managed numbering scheme.

In addition to a public consultation process, the stakeholders to be consulted before any significant change to the proposed industry managed numbering scheme would include:

- End user representative organisations (e.g. ACCAN);
- Industry recipients of number allocations;
- Relevant regulators i.e. the ACCC and ACMA; and
- DoCA.

**PRINCIPLE 17: ANY ADDITIONAL PRINCIPLES DETERMINED BY THE MINISTER**

Industry recognises the Minister retains a reserve power via the Bill to create additional principles.
The NPC will be committed to playing a constructive role in working with Government in relation to public policy matters both in considering policy suggestions put forward by Government and also in pro-actively identifying areas of policy reform that would benefit the community and the industry.

**QUESTIONS FOR COMMENT:**

6. Does the proposal to create an industry managed numbering scheme satisfactorily address the principles in the new section 454C of the Telecommunications Act 1997 to be introduced by the Communications Legislation Amendment (Deregulation and Other Measures) Bill 2017?

7. If not, which principle, in what way, and what should be done to address that?

8. Are there other principles or matters that need to be considered?
6 - FEES

Introduction
The costs of managing numbering in the current environment are recovered as follows:

- The in-house ACMA costs are recovered from industry through the Annual Carrier Licence Charge (ACLC).
- The ACMA recovers most of the cost of the ZOAK Solutions contract from industry through numbering transaction fees that are administered by ZOAK Solutions. Exceptions are the ZOAK Solutions costs attributed to the calculation of the Annual Number Charge and the collection of the revenue from the sale of Smartnumbers. The former are recovered through the ACLC and the latter are recovered directly from the Smartnumbers revenue.
- INMS recovers the costs of its costs of its contract with Paradigm One, and other in-house costs, from industry through transaction fees.

A similar set of costs will need to be recovered by CA on not-for-profit basis in the new environment. Users of the ZOAK Solutions and Paradigm One services will be charged fees to recover the costs of the contracts with these two providers, along with the in-house costs that will be incurred by CA (mainly through CAOPS) in delivering its responsibilities under the new arrangements.

The current ACMA costing model for recovering the ZOAK Solutions costs is based entirely on transaction fees. This model seems to unfairly place most of the cost burden on users of inbound numbers (13/1300/1800 numbers). For example, in the 2015/16 financial year more than 90% of the cost recovery was obtained from new allocations of inbound numbers. In addition, it has proven difficult to forecast the usage of inbound numbers and this has led to significant under recovery of costs in one year and the consequent need to increase costs in subsequent years. This is an undesirable situation for users of such numbers.

INMS also recovers its fees using a transactional model but this does not appear to have the same equity and forecasting problems that the ACMA has experienced with the recovery of the ZOAK Solutions costs.

CA proposes to introduce a new fees model to address the current deficiencies in the recovery of the ZOAK Solutions costs, as well as recovering the in-house costs that will be incurred by CA. Key objectives are to more equitably distribute the cost of the ZOAK Solutions service among users of all types of numbers, and provide more stability in the fees so they don’t change greatly from year to year and create uncertainty for both CSPs and end users.

Proposed Charging Structure
The suggested charging model is based on a three-tier approach consisting of an:

- annual registration fee;
- annual operations and maintenance fee; and
- transaction fees for new activations and other user initiated activities.

It is also proposed that the number allocation database be made available free of charge to non-registered persons who wish to access the database, e.g. to look up the current allocation of a particular number. This is consistent with the current ACMA arrangements.

Annual Registration Fee
A modest annual registration fee would be charged to all CSPs who have numbers allocated to them, to cover the costs of establishing and maintaining their user accounts on systems. This would be obligatory for all CSPs who have numbers allocated to them. It is anticipated this fee would be in the order of several hundreds of dollars per annum, depending on the number of user accounts involved.
Annual Operations and Maintenance Fee (O&M Fee)

An annual O&M fee would be charged to each CSP that has numbers allocated during a year based on the aggregate of all numbers allocated to that CSP. The numbering systems and framework need to be maintained on an ongoing basis, independent of the number of transactions taking place. The O&M fee would approximately reflect the quantity of database space and system resources used by each CSP. It is proposed that this fee be based on the number of records held in the database for each CSP and would, for example, be based on blocks of 1000 numbers for geographic numbers, blocks of 100,000 numbers for mobile numbers and individual numbers for inbound numbers.

Transaction Fees

Transaction fees will be charged to cover the costs of user initiated activities in the ZOAK Solutions and Paradigm.One systems.

In the case of ZOAK Solutions it is expected that a flat fee will apply to the activation of any number type, as the activation costs are similar regardless of the type of number. This means that the fee charged for each inbound number would be the same as that for each block allocation of geographic and mobile numbers.

Transaction fees to recover Paradigm.One costs are expected to be similar to those already in place for the environment managed by INMS.

Charges Remaining Under ACMA Control

The ACMA will continue to be responsible for the calculation and collection of the ANC and the Smartnumber charges. The numbering system will be used to provide data to the ACMA to enable it to collect these amounts and the cost of this functionality will need be recovered by CAOPS, either directly from the ACMA or through an increase in user fees.

Summary

More work needs to be done to determine the actual fees and their relative contributions to the costs. Further analysis will be carried out, and users of the numbering services will be consulted regarding detailed proposals, prior to presenting a final proposal for the new fees.

The above approach will help to ensure:

- all users of the numbering services are registered and up to date in the systems;
- the costs are spread more equitably between parties involved in transactional activity and holders of existing number allocations;
- the fees are relatively stable from year to year, due to a portion of the fee revenue being fixed and based on the quantity of numbers held by each user; and
- it does not discriminate against new or smaller users of the numbering services.

QUESTIONS FOR COMMENT:

9. Is the proposed approach to structuring the fees reasonable? If not, please explain why.
10. Are there any alternative approaches to structuring the fees that should be considered? Please explain any such approaches and the rationale for them.
7 - Transition Plan

Transition from Existing Regulatory Arrangements

Transition to an industry based numbering management scheme is dependent on a number of legislative and contractual arrangements being successfully negotiated, including:

- The successful passage of the Bill. The Bill has been introduced to Parliament and is now progressing its passage in parallel with this consultation.
- Agreement of the CA and INMS Boards to the proposed changes, once finalised.
- Agreement with the Commonwealth to acquire the IP rights in the current numbering system and entry into an agreement with 2DK Solutions to continue operation of that numbering system.
- Agreement with INMS and Paradigm.One to migrate the INMS responsibilities to CAOPS, including the transfer of the contract with Paradigm.One.
- Determination by the Minister for Communications, by legislative instrument, of the numbering scheme manager, which requires the Minister to be satisfied the numbering scheme will be managed in accordance with the principles set out in the Bill.
- The replacement of the current ACMA Numbering Plan and revision of related CA documents to reflect the new CA arrangements.

Once the Bill has been passed, CA anticipates subsequent activities to take place fairly quickly. At this stage, the intention is to complete the transition by 1 July 2018.

A decision to proceed with the new numbering scheme proposed in this paper will ultimately be dependent on whether efficiencies envisioned by industry taking on management of the numbering scheme can be realised.

CA will continue to discuss the proposed arrangements with key stakeholders before making final commitments to establish CAOPS and enter binding arrangements with other parties. For example, CA is participating in ongoing discussions with the DoCA, ACMA and 2DK Solutions to ensure all transition activities have been identified as part of the new scheme development. This will ensure the continuity of processes such as the allocation, transfer, surrender and withdrawal of numbers through any transition period.

CA has commenced drafting the new scheme documentation in anticipation of the Bill being successfully passed. Further consultation has been built into the timetable below to ensure all stakeholders have visibility of the new scheme arrangements and have an opportunity to provide feedback, or identify concerns, before the scheme is implemented. This will assist CA in providing evidence to the Government and the Minister that development of the new scheme has achieved sufficient transparency and community engagement.

Options for transition timing

CA has considered two options for the timing of the transition. These are:

Option 1: Implement all of the new arrangements at the same time i.e., a ‘big bang’ approach.

- **Pros**: There is less risk of service providers being confused about which party (the ACMA or CA) is responsible for the different functions at any point in time.
- **Cons**: A high risk of the transition being stalled or delayed due to any individual decision or contractual agreement not being completed on time

Option 2: Move the INMS and Paradigm.One functions to CA Operations Ltd independent of and ahead of the transition of the functions from the ACMA i.e., a phased approach.
This option provides flexibility for CA to establish the new CAOPS entity and transfer the INMS responsibilities to CAOPS while finalising the arrangements for the transfer of responsibilities from the ACMA to CA and CAOPS.

- **Pros:** There is less risk of a delay to the overall timeline due to any individual decision or contractual agreement not being completed on time. Further, spreading the transition work out over time, and allowing work to be completed in parallel, this approach is expected to be more efficient and result in the overall timeline being shortened.
- **Cons:** CA is required to commit to the new structure, establish CAOPS and transfer the INMS responsibilities before the ACMA responsibilities are transferred. There is a risk that CA takes these steps but then the direction necessary to transfer arrangements from the ACMA to CAOPS is not made by the Minister, and the greater reform objectives are not achieved.

CA prefers Option 2 because it offers the greatest opportunity for an early and successful transition.

It is expected that the Minister’s direction confirming CA’s appointment as the numbering scheme manager, when issued, will provide that it will not take effect until a period of time has elapsed, allowing for an orderly transition to occur.

To facilitate transition arrangements between CA and INMS through the transition period and the early days of any new operational structure under CAOPS, CA anticipates inviting some of the existing INMS directors to join the CAOPS Board to help provide continuity for the current operations.

**Indicative timetable**

Assuming the legislative changes are passed in a timely fashion (by Q3 2017) it is envisaged the transition activity will include the steps outlined in the following table. It is anticipated that some steps will be completed in parallel.

<table>
<thead>
<tr>
<th>Transition steps</th>
<th>Completion timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of the first round of industry consultation process</td>
<td>Q2 2017</td>
</tr>
<tr>
<td>• Review and resolution of comments</td>
<td></td>
</tr>
<tr>
<td>• Update of draft operating arrangements.</td>
<td></td>
</tr>
<tr>
<td>CA completes drafting of governance documents for the NPC and CAOPS, and the new suite of numbering instruments (including any amendments arising from the final outcome of the new legislation).</td>
<td>Q2 2017</td>
</tr>
<tr>
<td>Enabling legislative amendments passed by Parliament.</td>
<td>Q3 2017</td>
</tr>
<tr>
<td>CA undertakes second round of stakeholder engagement (for a maximum of 6 weeks) on the new numbering instruments and fee structure proposals.</td>
<td>Q3 2017</td>
</tr>
<tr>
<td>Agreements completed with the ACMA and ZOAK Solutions, and with INMS and Paradigm.One, which in each case will be conditional on the Minister making a determination that CA will be the numbering scheme manager.</td>
<td>Q3 2017</td>
</tr>
<tr>
<td>Event Description</td>
<td>Timeframe</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Preparation and submission of final industry proposal for consideration by the Minister and Government.</td>
<td>Q4 2017</td>
</tr>
<tr>
<td>Anticipated Government consultation with stakeholders in preparation for the making of a Ministerial determination, including consultation required with ACMA and the ACCC, as contemplated by the proposed new section 454A(4) in the Telecommunications Act 1997.</td>
<td>Q4 2017</td>
</tr>
<tr>
<td>Completion of any final amendments to arrangements to allow for the making of the Minister’s determination.</td>
<td>Q4 2017</td>
</tr>
<tr>
<td>Anticipated Ministerial determination appointing CA as the numbering scheme manager at an agreed transition date (at this stage anticipated to be 1 July 2018).</td>
<td>Q4 2017</td>
</tr>
<tr>
<td>Establish CAOPS including:</td>
<td>Q1 2018</td>
</tr>
<tr>
<td>• Constitution and registration with ASIC;</td>
<td></td>
</tr>
<tr>
<td>• CA Board approval of CAOPS structure and governance;</td>
<td></td>
</tr>
<tr>
<td>• Creation of new corporate functions.</td>
<td></td>
</tr>
<tr>
<td>Completion of amended contractual arrangements between INMS and Paradigm.One and CAOPS. Transfer of INMS functions to CAOPS.</td>
<td>Q1 2018</td>
</tr>
<tr>
<td>Finalisation of any outstanding issues (which were not material to the Minister’s decision) relating to the new contract with ZOAK Solutions and transitional arrangements between ACMA, CA and CAOPS. Establish the NPC.</td>
<td>Q2 2018</td>
</tr>
<tr>
<td>New scheme commences. Implementation of legislative instruments citing CAOPS as numbering scheme manager. Transfer of ACMA functions to the NPC and CAOPS including commencement of changes to numbering instruments, transfer of administrative arrangements to CA for allocating numbers, and the introduction of changes to the processes for the collection of the ANC and Smartnumber charges.</td>
<td>1 July 2018</td>
</tr>
</tbody>
</table>

**TABLE 4**

Indicative timetable for transition
QUESTIONS FOR COMMENT:

11. Is the proposed approach and sequencing of events to managing the transition the best approach? If not, why not?

12. Do you agree that a phased transition of arrangements from INMS and ACMA to CA and CAOPS offer the greatest opportunity for a successful transition? If not, why not?

13. Are there any additional transitional issues that an industry managed numbering scheme should address? If so, what are they?

14. Are there any additional dependencies CA should address when considering transition to an industry managed numbering scheme?
8 - RISK ASSESSMENT

As with the implementation of any new or changed arrangement there is some uncertainty, with associated risks, in moving the management of numbering from the ACMA to CA. Tables 4 and 5 below identify the main risks, the impact and likelihood of these risks, and the measures that can be adopted to manage the risks.

Implementation Risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>Impact</th>
<th>Likelihood</th>
<th>Mitigation measures</th>
</tr>
</thead>
</table>
| Proposed changes are stalled or delayed due to lack of support from Government, Parliament, regulatory agency, consumer, industry or vendor stakeholders | High   | Low        | • Explain the benefits of the changes to stakeholders, including the few industry parties who are not members of CA  
• Hold a robust public consultation process with all stakeholders and address any concerns arising from this process  
• Keep stakeholders informed throughout the transition process |
| Anticipated cost savings and other benefits are not realised         | Medium | Medium     | • Seek a firm commitment from the ACMA to transfer its cost savings (due to the ACMA no longer managing numbering) to industry  
• Careful design of the new framework and arrangements with vendors to maximise benefits for industry |
| Some industry members may be reluctant to pay increased user fees for the allocation of numbers | Medium | Medium     | • Consult with industry users and implement a new fees model which more fairly distributes the costs across users and limits the increase in transaction fees  
• Clearly explain the net benefits to industry |
| Unplanned costs and delays in transitioning the numbering management arrangements to CA. Includes the risk that agreement is not reached with ZOAK Solutions and the ACMA after CAOPS is established. | Medium | Medium     | • Engage early with the ACMA, ZOAK Solutions, INMS and Paradigm. One to agree on a detailed transition plan  
• Establish a Heads of Agreement between stakeholders to gain high level commitment to the transition plan, before CAOPS is established.  
• CA to appoint a project manager to oversee the transition |
### Ongoing Operational Risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>Impact</th>
<th>Likelihood</th>
<th>Mitigation measures</th>
</tr>
</thead>
</table>
| CA is liable for debts incurred in delivering the numbering management arrangements | Medium | Medium     | • Careful design of the CAOPS governance and agreements with suppliers to minimise CA’s exposure  
• Regular monitoring of CAOPS financials  
• Regular reviews of fees to ensure that the costs are recovered on an ongoing basis and without incurring debt.  
• A slight over recovery of costs is likely to be necessary to establish a small buffer fund that can offset the risk of future under recovery events. |
| CA incurs legal costs and/or reputational damage due to inadequacies in the numbering framework or the services delivered by CAOPS | Medium | Medium     | • Careful design of the framework in consultation with all stakeholders  
• CAOPS implements robust contracts with suppliers (including ZOAK Solutions and Paradigm.One) and customers  
• Support sound decision making through separating the policy and operations functions, appointing professional independent chairs, and establishing an independent dispute resolution process |
| CAOPS incurs costs from damage claims and/or reputational damage due to system or process failures | Medium | Medium     | • Ensure robust systems and processes are in places including redundancy and backup arrangements  
• Regular testing of backup arrangements  
• Strict change control measures  
• Adequate insurance cover to cover any claims |

### TABLE 5

**Assessment of ongoing operational risks**

**QUESTIONS FOR COMMENT**

15. Do you agree with the assessment of the risks in Table 3? If not, please explain what changes should be considered.

16. Are there any other significant risks that need to be added to the analysis?
## Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCC</td>
<td>Australian Competition and Consumer Commission</td>
</tr>
<tr>
<td>ACMA</td>
<td>Australian Communications and Media Authority</td>
</tr>
<tr>
<td>ANC</td>
<td>Annual Numbering Charge</td>
</tr>
<tr>
<td>CA</td>
<td>Communications Alliance</td>
</tr>
<tr>
<td>CAOPS</td>
<td>CA Operations Limited</td>
</tr>
<tr>
<td>CSP</td>
<td>Carriage Service Provider</td>
</tr>
<tr>
<td>DoCA</td>
<td>Department of Communications and the Arts</td>
</tr>
<tr>
<td>FLAG</td>
<td>Fixed Line Administration Group</td>
</tr>
<tr>
<td>INMS</td>
<td>Industry Number Management Services</td>
</tr>
<tr>
<td>MAG</td>
<td>MNP Administration Group</td>
</tr>
<tr>
<td>Minister</td>
<td>The Minister for Communications</td>
</tr>
<tr>
<td>NAP</td>
<td>Numbering Advisory Panel</td>
</tr>
<tr>
<td>NPC</td>
<td>Numbering Policy Committee</td>
</tr>
<tr>
<td>NWG</td>
<td>Numbering Working Group</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
</tr>
<tr>
<td>ROU</td>
<td>Rights of Use</td>
</tr>
<tr>
<td>TIO</td>
<td>Telecommunications Industry Ombudsman</td>
</tr>
</tbody>
</table>
QUESTIONS FOR COMMENT

PROPOSAL FOR COMMUNICATIONS ALLIANCE TO MANAGE NUMBERING
1. What is your view of the industry proposal to create an industry managed numbering scheme? Why?

PROPOSAL ORGANISATIONAL STRUCTURE AND GOVERNANCE
2. Do you agree that establishing a numbering policy committee and subsidiary company to manage the implementation and operational delivery of the framework is likely to be the best approach to delivering industry management of numbering, after taking all factors into consideration? Why or why not?
3. Are there any alternative structure options that you think would be more optimal? Why?
4. Do you agree that the proposed governance arrangements are appropriate for delivering the industry management of numbering outcome? Why or why not?
5. Are there any variations that you think should be considered? Why?

ALIGNMENT WITH LEGISLATED PRINCIPLES
6. Does the proposal to create an industry managed numbering scheme satisfactorily address the principles in the new section 454C of the Telecommunications Act 1997 to be introduced by the Communications Legislation Amendment (Deregulation and Other Measures) Bill 2017?
7. If not, which principle, in what way, and what should be done to address that?
8. Are there other principles or matters that need to be considered?

FEES
9. Is the proposed approach to structuring the fees reasonable? If not, please explain why.
10. Are there any alternative approaches to structuring the fees that should be considered? Please explain any such approaches and the rationale for them.

TRANSITION PLAN
11. Is the proposed approach and sequencing of events to managing the transition the best approach? If not, why not?
12. Do you agree that a phased transition of arrangements from INMS and ACMA to CA and CAOPS offer the greatest opportunity for a successful transition? If not, why not?
13. Are there any additional transitional issues that an industry managed numbering scheme should address? If so, what are they?
14. Are there any additional dependencies CA should address when considering transition to an industry managed numbering scheme?

RISK ASSESSMENT
15. Do you agree with the assessment of the risks in Table 3? If not, please explain what changes should be considered.
16. Are there any other significant risks that need to be added to the analysis?