

Public Utilities Commission of Anguilla

Telecom Decision PUC 2006-101

The Valley, Anguilla – 31 March 2006

In the matter of a new public voice service proposed by Cable and Wireless (West Indies) Limited (C&W) with the brand name of ‘Netspeak’ to be offered in Anguilla

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Summary

Cable & Wireless (West Indies) Limited (C&W or the Company) is a licensed telecommunications network operator and service provider in Anguilla. C&W is the incumbent operator and their new license was granted by the Public Utilities Commission of Anguilla (Commission/PUC) on 14 December 2004. Under C&W's present license, the main services provided are public telephone services and the two main networks are a fixed network and a mobile network for the provision of these public telephone services.

C&W submitted to the Commission a letter of 'notice' dated 6 September 2005 informing the Commission they intended to introduce a new public voice service. The new service is to be provided, in part, using the Internet Protocol (IP) and such voice services are generally referred to as Voice over Internet Protocol (VoIP). C&W filed a confidential version (four-page letter and two-page attachment) and an abridged version of their letter of 6 September 2005. The Company filed a further submission dated 21 September 2005 with the Commission and advised that they had amended the initial submission. By way of a letter dated 27 September 2005, the Commission advised C&W that there were insufficient details on the new service in their abridged filing of 21 September and requested that an amended filing of the 'abridged' version be filed. The Company made an amended filing dated 29 September 2005.

Finding that the 'new' service being proposed by the Company is similar to, and a possible substitute, depending on a customer's usage pattern, for the current licensed public voice services being provided by C&W, the Commission concludes that the proposed service should therefore be added to the list of regulated services described in Annex 1 of part I of Annex E of the Company's license.

Finding that the new service, 'Netspeak', will provide International Direct Dialed (IDD) public voice calling and also domestic public voice calling in Anguilla, the Commission concludes that the two relevant markets pursuant to Section 17(6) of **the Telecommunications Act R.S.A. c. T6 (the Act)** are: (a) the IDD market; and (b) the domestic public fixed access and voice calling market.

Finding that the empirical evidence presented by C&W on their current market share in the IDD market does not support the conclusion that the Company is non-dominant and also the evidence available to the Commission shows that C&W remains the dominant provider of domestic fixed access and calling, the Commission concludes that it would be premature to de-regulate these markets at this time.

Finding that the use of non-national numbers in the provision of public telephone services using IP-based networks raises matters such as access to emergency service, the

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Commission will initiate a proceeding pursuant to Section 52 of **the Act** on the matter of forbearing with respect the requirement in **C&W's license**, Section 13, that national numbers be used to provide licensed services.

Finding that customers to C&W's new public voice service will not have free and effective access to national emergency numbers such as '911' contrary to section 18 of the Universal Service Regulation nor access to 'information services' contrary to s.12 of the license, the Commission directs C&W to initiate the new public voice service commencing with phase 2 having regard to the above-mentioned procedure to be initiated by the Commission to consider forbearing regarding the use of non-national numbers.

Included in this decision are a number of '**Directions on Procedure**' (see Section IV) in order to facilitate the final approval of the service description and prices of the Company's new public voice service and thereby permit the introduction of their new public voice service, 'Netspeak'.

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I Background

Scope of Proceeding

1. Section 4(1) of the **Telecommunications Act R.S.A. c. T6 (the Act)** requires that every person operating a public telecommunication network or providing a public telecommunication service in Anguilla must have a license granted by the Public Utilities Commission (the Commission or PUC).

2. Cable & Wireless (West Indies) Limited (C&W) is a licensed telecommunications network operator in Anguilla. C&W is the incumbent operator and was granted a new license by the Commission on 14 December 2004.

3. The scope of C&W's license is described, in part, in S. 3.9 as follows:

'For avoidance of doubt, nothing in this Licence and these Authorisations grants to the Licensee and the Authorisation Holder the right to establish or operate any telecommunications network, provide any telecommunications service or use any frequency bands other than as set forth in the Act, the Regulations, the Telecommunications Code or this Licence and these Authorisations.'

4. In Annex B (Licensed Networks) of C&W's current license the following description of the licensed networks is provided:

'1.1 Any telecommunications networks in use as of the Effective Date and used by the Licensee at and after the Effective Date to provide any of the telecommunications services listed on Annex A, including domestic and international fixed line, wireless and mobile networks, whether using switched or packet technologies or any other form or combination of telecommunications technologies.'

1.2. Any enhancements, augmentations, updates, upgrades, replacements and routine or normal expansions of the networks described in Clause 1.1, at the Licensee's discretion and subject to any applicable enactments and required permissions and approvals. Such enhancements, augmentations, updates, upgrades, replacements and routine or normal expansions include, but are not limited to:

1.2.1 new fixed line or wireless loops that connect to such networks;

1.2.2 replacement of components of such networks (e.g., copper with fiber optic cable); and

1.2.3 upgrading or constructing new transmission towers, poles, ducts and other associated facilities'. (Emphasis added)

5. In Annex A (License Services) of C&W's current license the following description of the licensed services is provided:

'1.1 All telecommunications services that require a licence under the Act and that the Licensee provides in Anguilla on the Effective Date and without regard to whether such services are dedicated or switched (whether packet- or circuit-switched), and without regard to the telecommunications networks by which such services are provided, including, but not limited to:

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1.1.1 Domestic and international public telephone services, including analogue and digital fixed and mobile telephone service (regardless of payment mechanism, including pay phones, credit cards and calling cards) and regardless of the type of customer premises equipment that may be attached thereto.

1.1.2 Domestic and international data services (including leased lines, paging, frame relay and virtual private network services).

1.1.3 Domestic and international text (including telex and telegram) transmission services.

1.1.4 Any present or future modifications, upgrades or enhancements to telecommunications services included in this Clause 1.1. '(Emphasis added)

6. Section 1.3 of Annex A also identifies those services in respect of which C&W is considered dominant and reads as follows:

'1.3 For purposes of this Licence, the Licensee is dominant with respect to the following telecommunications services in Anguilla:

1.3.1 Domestic public telephone services provided over the Licensee's fixed network.

1.3.2 International public telephone services provided over the Licensee's fixed network.

1.3.3 Services of terminating mobile telephone calls on Licensee's own mobile or fixed network'. (Emphasis added)

7. This proceeding primarily relates to Section 17(6) of **the Act**, Section 17(6) reads as follows:

'(6) For purposes of this Act, the Commission may determine that an operator or service provider is dominant with respect to a telecommunications network or a telecommunications service where, individually or jointly with others, it enjoys a position of economic strength affording it the power to behave to an appreciable extent independently of competitors and users and, for such determination, the Commission shall take into account the following factors—

(a) the relevant market;

(b) technology and market trends;

(c) the market share of the operator or service provider;

(d) the power of the operator or service provider to introduce and sustain a material price increase independently of competitors;

(e) the degree of differentiation among networks and services in the market; and

(f) any other matters that the Commission deems relevant.' (Emphasis added)

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8. The Commission also notes that pursuant to S17 (7), a service provider having been deemed dominant that considers it has lost its dominance may apply to the Commission to be classified as 'non-dominant' in a particular market. Section 17(7) reads as follows:

'(7) Where an operator or service provider deemed dominant by the Commission pursuant to subsection (6) considers that it has lost its dominance with respect to a telecommunications network or a telecommunications service, it may apply to the Commission to be classified as non-dominant in a particular market and, should the Commission so classify, the applicable licence shall be amended to reflect such classification.'

9. A similar condition is set out in the Company's current license, Annex A, part 1.4 reads as follows:

'1.4 Nothing in this Annex A shall prevent the Licensee from applying, pursuant to Clause 1.3 of Schedule 1, to have the Commission determine that the Licensee is not dominant in one or more geographic or service markets in which the Licensee provides the services listed in Clause 1.3 of this Annex A.' (Emphasis added)

10. Prior to making a determination in the matter of dominance, the Commission is obligated to issue a public notice in the Gazette pursuant to S17(8) of **the Act**. S17(8) reads as follows:

'(8) Before determining that an operator or service provider is dominant, or has lost its dominance, with respect to a telecommunications network or a telecommunications service, the Commission shall publish the matter for decision in the Gazette.' (Emphasis added)

The Proceeding

11. C&W submitted to the Public Utilities Commission a letter of 'notice' dated 6 September 2005 informing the Commission they intended to introduce a new public voice service. The new service is to be provided, in part, using the Internet Protocol (IP) and such voice services are generally referred to as Voice over Internet Protocol (VoIP). C&W filed a confidential version (four-page letter and two-page attachment) and an abridged version of their letter of 6 September 2005.

12. A further submission by C&W, dated 21 September 2005, was made to the Commission for the purpose of providing notice to the Commission of a change in the new voice service previously described in C&W's letter of 6 September 2005. The changes related to the 'optional packages' described in the original submission. A confidential (two-page letter and two-page attachment) and an abridged version of the letter was filed with the Commission.

13. The Commission informed C&W by letter dated 27 September 2005 that there was insufficient information in the 'abridged' version of their submissions of 6 and 21

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September. In their letter the Commission noted that there should be sufficient information on the public record to enable an interested party to consider whether to submit comments on the key issues related to the question of dominance as set out in Section 17(6) of **the Act**.

14. C&W's letter dated 29 September 2005 provided the Commission with an amended submission related to the proposed new public voice service. A confidential version (five-page letter and two-page attachment) and an abridged version (four-page letter and two-page attachment).

15. A description of the proposed service included in C&W's letter of 29 September 2005 (Abridged version) reads, in part, as follows:

'Netspeak Service provides the ability to place voice calls from Anguilla to any domestic or international destination using a Terminal Adapter and any high-speed Internet Access service. The only restrictions on the High-Speed Internet Access service are that the customer's Internet Service Provider not block access to Voice over Internet Protocol ("VOIP") services, and that the customer have a minimum speed of 128 kbps (recommended to ensure sufficient bandwidth to run simultaneously NetSpeak and Internet Access services without impacting the quality of the NetSpeak Service).... (Paragraph 3)..... (And further at paragraph 5)
.....The Basic Service includes # _____ # calls to telephone numbers in Canada and the United States, including toll free numbers¹, as well as several features free of charge, including Call Waiting, Caller ID, Call Return, Redial, Three-Way Calling, Call Blocking, Do Not Disturb, Speed Dial, Language selection, and Call Forwarding. The NetSpeak Service customer will also receive Voicemail services free of charge, including the option to receive voicemail messages either by dialing into the platform, accessing their account on the Internet, or as links on an e-mail message(s).' (Emphasis added)

16. In the above quotation from the material filed by C&W on 29 September, in footnote 1 on page 2, reference is made to 'a second phase' when 'domestic services' will be made available. A further reference is made to 'a second phase' in the footnote related to paragraph 9 in the abridged version of C&W's filing of 29 September. The footnote explains that '911' services will only be made available during the second phase.

17. As noted above, the primary matter being considered in this proceeding is the question of dominance, in particular, the factors identified in S17 (6) (a) to (e) of **the Act**. C&W proposes to rollout the 'new' services in two phases. In phase one, the new service will provide International Direct Dial calling (IDD) employing a high speed internet connection and an adaptor at the customer premise (see Interrogatory response PUC09Dec05, pages 7 and 8). In addition, during phase 1 C&W proposes to provide the service by employing non-national telephone numbers and assign them to customers in

¹ *The Basic Service will also include an Anguillan telephone number and the ability to make and receive domestic calls, including calls to 911 Emergency Services. These domestic services will be available in a second phase of the rollout of the service.* (Emphasis added)

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Anguilla (see C&W 'Further Reply Comments' (abridged version), 27 January 2006, page 7, paragraph 22).

18. A number of secondary matters that arise as a result of the proposed new service are matters related to phase 1 with respect to the use of non-national numbers and the unavailability of 911 emergency calling.

19. The Commission published a public notice in the Gazette dated 31 October 2006 pursuant to section 17(8) of **the Act**. Submissions were invited on the matter of whether C&W should be considered dominant with respect to the provision of the proposed services.

20. C&W and Caribbean Cable Communications each filed a submission dated 30 November 2005 in response to the public notice.

21. By letter dated 10 December 2005, the Commission invited interested parties to submit reply comments on the submissions of 30 November 2005. The submissions were due on or before 10 January 2006. In addition, the Commission forwarded a set of interrogatories to C&W pursuant to subsection 16(1) of the Telecommunications Administration Procedure Regulations and responses were due on 10 January 2006.

22. A letter dated 10 January 2006 was filed by CCC requesting an extension to the time period for filing comments in order to provide them with sufficient time to review the interrogatory replies to be filed by C&W on 10 January 2006.

23. C&W filed responses dated 10 January 2006 to the Commission's interrogatories of 10 December 2005. An abridged and a confidential version of the replies were submitted by C&W.

24. A C&W letter addressed to the Commission and copied to CCC dated 11 January 2006 requested the Commission to deny CCC's request of 10 January for an extension to the time period for comments.

25. CCC filed a further letter dated 11 January and requested that the date for filing their response be 20 January 2006. The Commission in a letter dated 12 January 2006 advised the parties that the date for CCC to file final comments was on or before 19 January 2006 and that C&W's final reply comments were due on or before 26 January 2006. CCC filed their final comments on 19 January 2006.

26. C&W by way of an email dated 26 January 2006 filed a request for an extension of one day to the date for filing their final comments. The Commission granted C&W's request. C&W filed their final reply comments on 27 January 2006.

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Confidentiality

27. The **Telecommunications Administrative Procedure Regulation 2004 (Procedure 2004)**, section 18, sets out the procedures regarding matters of confidentiality.

28. C&W filed a request for confidentiality pursuant to section 18 of the **Procedure 2004** and section 41 of **Public Utilities Act (2003)**. In the case of the original application dated 6 September 2005 and the amended application dated 21 September 2005, C&W filed an abridged and confidential version of their application.

29. As previously noted in paragraph 13, the Commission's letter to C&W dated 27 September 2005 responded to these initial requests for confidentiality. The letter reads, in part, as follows:

'The Commission is required to issue a public notice and invite comments on the proposed new service pursuant to Section 17(8) of the Act. However, the information contained in the 'abridged' version of your letters of 6 and 21 September 2005 provide insufficient information for parties to consider and comment on the proposed new service in the context of whether the service should be subject to regulation. There should be sufficient information on the public record to provide any interested party meaningful information so as to adequately consider whether to submit comments on the key issues related to the question of dominance as set out in Section 17(6) of the Act(and further).....

We therefore seek your views on what additional information could be placed on the public record in order to provide interest parties with sufficient information to comment on the key factors that the Commission must consider as set out in Section 17(6) of the Act. We are also mindful of your application for confidentiality set out in paragraph 14 of your letter of 6 September 2005.

30. In response to the Commission's letter, C&W filed an amended submission dated 29 September 2005. Abridged and confidential versions of the submission were filed and C&W requested that the abridged version be placed on the public record and not the abridged versions of their submissions of 9 and 21 September 2005.

31. The Commission accepted the revised abridged filing by C&W dated 29 September 2005 as sufficient to provide interested parties with suitable information to prepare an informed response to the required public notice.

Notice and Responses

32. On 31 October 2005, a Public Notice was published in the Gazette announcing that C&W had filed notice with the Commission of their intention to offer a new voice service and advising that submissions may be filed with the Commission on or before 30 November 2005.

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33. A response to the Public Notice was received from Caribbean Cable Communications (CCC) (a four page submission dated 30 November 2005) with copies provided to C&W's Mr. Hodge, Mr. Small and Mr. Vandendries. C&W also filed a response consisting of a seven page submission dated 30 November 2005.

34. The Commission, having reviewed the submissions filed in response to the Public Notice by CCC and C&W, advised the parties by way of a letter dated 10 December 2005 that they may file reply comments on or before 10 January 2006. In addition, the Commission issued a set of seven interrogatories to C&W seeking additional information on the proposed service. Responses to the interrogatories were to be filed on or before 10 January 2006.

35. C&W filed their reply comments and responses to the Commission's interrogatories under a covering letter dated 10 January 2005. C&W's reply comments dated 10 January 2005 consisted of five pages with a copy provided to CCC. In addition, C&W filed an abridged version (18 pages) and a confidential version (18 pages) of their responses to the Commission's interrogatories.

36. Reply comments (4 pages) were filed by CCC under a covering letter dated 19 January 2005. C&W filed their further reply comments under a covering letter dated 27 January 2006.

II Commission Analysis and Findings

1.0 Categorization of 'New' public telephone service

37. The definitions offered in Section 1 of **the Act** for public telecommunication and public telephone service are as follows:

"public telecommunications service" means a telecommunications service, including a public telephone service, offered to members of the general public, whereby one user can communicate with any other user in real time, regardless of the technology used to provide such service, but does not include a service that modifies a communication, restructures, adds or supplies, or permits user interaction with, information unless such service is offering a public telephone service;

"public telephone service" means the commercial provision to the public of the direct transport and switching of voice telephony in real time from and to network termination points;'

38. The Commission notes the initial interpretation by C&W of the Commission's public notice of 31 October 2005 in the Gazette was that the matter under consideration by the Commission in this proceeding is whether C&W is dominant in the provision of VoIP services in Anguilla. For example, C&W's letter of 30 November 2005 reads, in part, as follows:

'...the attached comments in response to the notice published by the Commission in the Gazette, regarding whether to consider Cable & Wireless dominant with respect to the provision of "Voice over Internet Protocol" or "VoIP" services in Anguilla.'

39. C&W also submits at paragraph 1 of their submission of 30 November that it would be inappropriate for the Commission to conclude in this proceeding that C&W is dominant in the provision of VoIP services. Their comments read, in part, as follows:

'Because VoIP services are IDD communication services, it would, therefore, be inappropriate for the PUC to deem Cable & Wireless dominant in the provision of VoIP services.'

40. The Commission concurs, in part, with C&W on this point, that is, the position that their new VoIP-based services in phase 1 are International Direct Dialed (IDD) public voice services.

41. Cable & Wireless (West Indies) Limited (C&W) in their submission to the Public Utilities Commission (the Commission or PUC) of 29 September 2005, at paragraph 13, submit that the rates for their new voice service, 'Netspeak', should be set according to the principles set out by subsection 20(1) of the **Act**. Paragraph 13 reads as follows:

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'These rates were established using the principles set out by subsection 20(1) of the Telecommunications Act. C&W does not believe that clause 12.9 and Annex 1 to Part I of Annex E of its License apply to these rates, in particular to the rates listed in the first table above, as the service is fundamentally different from any of the services listed in that Annex 1. Nevertheless, C&W notes that none of the rates above exceed the equivalent rate set out in Annex 1, where one exists.' (Emphasis added)

42.C&W's position is that the prices for their new public voice service should be unregulated as the service is '*fundamentally different*' from any of their currently regulated services. In addition, C&W submits that the proposed rates for their new voice service do not exceed the already approved equivalent rates in Annex 1 of their license (see further comments on present and proposed rates in Section 4.0).

43.The Company's licensed services subject to price regulation are identified and described in Annex 1 to Part I of Annex E of their license. Examples of the services listed in Annex 1 under the heading of 'Public Telecommunications Services' are as follows: 1. Connection and Reconnection Charges; 2. Line Rental Charges; and 6. International Direct Dialed Telephone Calls.

44.A further description of the services and service packages in Part 2 of Annex 1 to Part I of Annex E of C&W's license reads as follows:

'2. Line Rental Charges

- a) The monthly business line rental charge shall not exceed EC\$87.*
- b) The monthly residential line rental charge shall not exceed EC\$42.*
- c) Packaged Offerings*

SmartChoice Residential Packages

A: EC\$60

B: EC\$73

C: EC\$87

SmartChoice Business Packages

A: EC\$105

B: EC\$110

C: EC\$115'

45.In addition, on reviewing the service descriptions in Annex A (Licensed Services) of C&W's license and the description of their proposed new public voice service, the Commission finds that the description of the 'new' service is not fundamentally different from that found in Annex A.

46.As noted above in paragraph 44, in Part 2 of Annex 1 to Part I of Annex E of C&W's license, one type of service offered under 'Public Telecommunication Services' are designated 'Package Offerings' and provide for basic monthly access, domestic calling, standard IDD calling plus a discounted IDD package.

47.The following statement is contained in the final paragraph of the description of the 'Packaged Offerings' in Annex 1 to Part I of Annex E of C&W's license:

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'Subject to the requirements of the Act and this Licence, the Licensee may market modified or additional bundled offerings of telecommunications services to a user based on the Licensee's revenues from, or the Licensee's traffic volumes generated by, such user, provided that the Licensee shall provide any such services on a stand-alone basis.' (Emphasis added)

48. The description of the 'package offerings' set out in C&W's license is similar to the types of services being proposed under the 'Netspeak' brand name, that is, public telecommunication services offering access to the PSTN, domestic calling and IDD at a discounted price from the 'basic' IDD price. Having regard to the definitions for public telecommunications service and public telephone service found in Section 1 of **the Act** and the descriptions of C&W licensed services in Annex A and E of their license, the Commission finds that these 'new packages' of public voice services; namely, the proposed 'Netspeak' packages, fall within the present categorization of such services in Annex E of their license.

2.0 Dominance and the Relevant Markets

2.1 Framework for Analysis

49. A decision on the matter of whether to regulate or forbear must be addressed in the context of section 17(6) of **the Act**. Section 17(6) identifies the following factors as those to be considered by the Commission when making a determination as to whether an operator or service provider is dominant:

- (a) the relevant market;*
- (b) technology and market trends;*
- (c) the market share of the operator or service provider;*
- (d) the power of the operator or service provider to introduce and sustain a material price increase independently of competitors;*
- (e) the degree of differentiation among networks and services in the market; and*
- (f) any other matters that the Commission deems relevant.'*²

2.2 Relevant Market

50. In considering the matter of dominance, the Commission is obliged to consider the factors identified in S17(6) of the **Act** and C&W supports such an approach as noted in paragraph 7 of their submission of 30 November that reads, in part, as follows:

'...the first step in any competitive analysis is to determine the relevant market for analysis.....the relevant market has both a product and a geographic dimension.'

² Telecommunications Act (2003), Section 17(6).

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51.A description of the ‘relevant market’ is presented at paragraph 9 of C&W’s submission of 30 November and reads as follows:

‘In fact, if you continue to apply this test you are likely to arrive at a product market that includes all international direct dial communication services, regardless of technology. IDD services can be provisioned using “PSTN” circuit-switched fixed-line technology, wireless technology, coaxial cable technology, cellular mobile technology, as well as VoIP technology.’(Emphasis added)

52.And further in paragraph 9, the following definition of the relevant market is put forward by C&W:

‘We conclude, therefore, that VoIP is one of many means by which international calls services may be provided and all such means should be included in the relevant product market – we will call the market “IDD communication services.” (Emphasis added)

53.The Commission notes the proposed description put forward by C&W for the ‘relevant market’ as the ‘IDD communications services’ market and has a number of concerns with respect to C&W’s proposed definition of the ‘relevant market’ in the context of this proceeding. First, this proceeding relates to C&W’s new ‘public voice’ service, in fact, as previously noted, the proposed new service may be considered a ‘new’ package of C&W’s already licensed public IDD and domestic public voice services. Secondly, the connotation in the expression ‘communication’ is not consistent with the terms and definitions in Section 1 of the **Act** such as public telephone service or public telecommunications service.

54.In terms of defining the relevant markets, CCC’s comments of 30 November appear to confirm the views of the Commission and C&W that the markets in question are the international and the domestic voice communications markets. CCC’s states their position as follows:

‘C&W has proposed to the Commission that it be permitted to offer a VoIP based service that for all intents and purposes mirrors those voice services now provided by C&W over its fixed line network. These services include (1) overseas calling and (2) local calling to and from other networks in Anguilla apparently including C&W fixed line and cellular service, CCC fixed line service, Digicel cellular and Weblinks Cellular.’³ (Emphasis added)

55.C&W’s description of the new public voice service in phase 2 includes both an international and domestic public voice service. Therefore, there are two relevant markets to be considered. Both these markets are distinct segments of the public voice market.

56.Subsequently in the proceeding, (see C&W’s ‘Further Reply Comments’, 27 January 2006, paragraphs 1 to 4 inclusive, page 2) C&W acknowledges that the broader question of dominance is being addressed, that is, the ‘relevant’ market in phase 1 is the entire IDD calling market for calls originating in Anguilla.

³ CCC submission dated 30 November 2005, paragraph 2, page 1.

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57. In phase 2, the Commission recognizes the ‘relevant’ markets to be the IDD market as well as the market for domestic calling and local access service. In particular, C&W’s comments at paragraph 3 and 4 of their submission of 27 January confirms their broader view of the relevant market and read, in part, as follows:

‘This is despite CCC’s recognition – which C&W completely agrees with – that VoIP is “...just another technical means of delivering telephone services to the customer.” (And further at paragraph 4..... The immediate issue should, therefore, be whether C&W holds a dominant position with respect to the supply of IDD communications services – delivered using whatever technologies are or may become available – rather than its position in either the very narrowly defined “market” for VoIP services or the very broadly defined “market” for fixed line services.’(Emphasis added)

58. However, in paragraph 4, C&W appears to limit the ‘relevant market’ to the IDD communications market thereby overlooking the fact that their new service will serve both the IDD market and the domestic calling and fixed line access market as well.

59. Since the final version of C&W’s proposed ‘Netspeak’ service will provide both IDD and domestic calling, the Commission views the relevant markets to be both the IDD market as well as the domestic market for fixed line access and calling services.

60. Having considered the evidence and in light of the above analysis, the Commission finds that the relevant markets in the context of s17 (6) of **the Act** are the IDD public telephone market and the domestic public telephone market.

2.3 Technology and Market Trends

61. Referring to item (b) in s17(6), of **the Act** technology and market trends, the Commission notes the comments contained in a recent paper⁴ presented at the ITU’s 2005 ‘Global Symposium for Regulators’ on the matter of regulating in the transition to IP networks. The following comments highlight the issue of technology trends and also the relative prices of PSTN versus IP-based access:

‘A vital task for regulators and policy makers is to manage the transition to the new world of IP networks. These include:

- how long a PSTN network should be maintained;’*

62. C&W proposes to offer their ‘Netspeak;’ service by way of an ‘expanded’ fixed network (C&W Further Reply Comments -27 January, Appendix –Confidential Version) that is an integrated network combining the present fixed network operated by C&W as well as the added ‘succession network’ for interfacing the PSTN with the ‘Netspeak platform. Based on C&W’s proposed integrated circuit-switched and IP-based network and designated ‘expanded fixed network’ proposal for offering their ‘Netspeak’ service,

⁴ ‘VoIP Regulation’, ITU 6th Global Symposium for Regulators, 14-15 November 2005, Section 4, page 19.

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the transition from a circuit-switched network to an IP-based network has already commenced.

63.C&W describes the ‘expanded’ fixed voice network in Anguilla as consisting of their current network plus the new ‘C&W succession network’. The Commission finds that the definition of licensed networks in C&W’s current license encompasses the ‘expanded’ fixed network described in C&W’s response to interrogatory PUC09Dec05-01 (Abridged version), pages 7 and 8.

64.As a result of this technology trend, the transition from circuit-switched to IP-based networks, the supply of public voice services is also shifting to the provision of numerous ‘calling’ packages and expanded market segmentation.

2.4 Market Share

65.C&W’s reply comments of 30 November 2005 provide several references to the means of defining a ‘relevant’ market and the test of dominance.

66.At paragraph 3, page 2 of 7, C&W makes the following submission:

‘While these factors (factors cited in S17 (6) of the Act (2003)) provide a useful guide to the elements of a competitive analysis, they do not supply a “bright line” test that can be used in a proceeding to determine when existing or potential competitors discipline a market price sufficiently that a provider can be deemed not to be dominant in the provision of a particular service. In fact, there are no numerical standards readily available to determine when market forces are sufficient to ensure that competition is working effectively such that there is no need for specific regulation.’ (Emphasis added)

67.The Commission notes the use of one numerical standard known as the Herfindahl-Hirschman Index (see <http://www.usdoj.gov/atr/public/testimony/hhi.htm>). The description of the index on the United States Department of Justice website that reads, in part, as follows:

“HHI” means the Herfindahl-Hirschman Index, a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers.’

However, even in the absence of a readily available numerical standard such as the HHI, the Commission is not relieved of the responsibility to make a finding pursuant to S.17 (6) of the Act.

68.In terms of market share and domestic fixed-line calling and fixed access market, C&W continues to retain a significant market share as CCC has only recently launched their fixed-line service and is still in the process of finalizing domestic and international interconnection arrangements.

69.The following comments were submitted by CCC in terms of C&W’s market share in the fixed access and domestic fixed-calling market:

‘1. Cable & Wireless is the Dominant Telephone Carrier
VoIP is simply another technology for delivery of voice services. It is rapidly increasing

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in usage even by traditional telecom companies and carriers. Even CCC uses a form of VoIP as an integral part of its telecommunications system.

*However, there are significant differences between the likes of Vonage, Net2Phone and others vs. the proposed NetSpeak services. First, Cable & Wireless is clearly dominant in the provision of fixed line telephone service in any format. In fact, they have better than **98 percent** market share.⁵*

70. On the matter of whether C&W should be considered dominant in the IDD market, C&W makes the following submission in concluding their comments of 30 November 2005:

'In summary, the market forces in Anguilla suggest that competition in the market for IDD communication services, including VoIP services, is already significant, and will soon become even more intense.'

71. In order to determine the extent of competition or at least the impact of competition on C&W's IDD services, the Commission sought further evidence on the C&W's IDD service and the overall trend in demand by way of interrogatory PUC09Dec05-02. C&W's reply provided the total minutes of originating and terminating traffic on their fixed and mobile networks for the years from 2003 to 2005 and an estimate for 2006. While the specific data is filed in confidence with the Commission and therefore specific details may not be made public, a general observation based on the data provided by C&W for 2003, 2004 and 2005 is that there is no evidence of any erosion of their market share for total fixed and mobile IDD originating minutes. Nor was there any conclusive evidence filed by C&W supporting the premise that the market has grown to the extent that C&W is no longer the dominant supplier.

72. The Commission notes C&W's submission on the matter of market share and that there are other providers of IDD minutes such as other VoIP operators. However, as noted above, the actual calling data provided by C&W do not reflect an erosion of demand for C&W's fixed and mobile IDD calling services. On the contrary, demand for IDD minutes has increased each year based on both the historic data and the estimates for 2006. While there has been some shift in demand between fixed and mobile, overall originating demand has continued to increase each year.

73. On the matter of market erosion, the Commission notes C&W's statement in the abridged version of their reply to interrogatory PUC09Dec05-07, page 3 and 4, that reads in part as follows:

'It is statistically impossible that over 50% of broadband customers would not make IDD calls unless there is some other factor at work to influence the lack of calling.'

74. It is difficult to reconcile the growth in overall fixed and mobile demand for outgoing IDD calling data provided in reply to interrogatory PUC09Dec05-02 and the above-

⁵ CCC submission dated 19 January 2006, page 1.

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mentioned statement in the reply to interrogatory PUC09Dec05-07. One partial explanation may be related to what period C&W made the observations that 'more than half of its customers that have a broadband connection made limited if any use of C&W IDD services. It is even more difficult to reconcile the two statements contained in the same paragraph on page 1 of their reply which read as follows:

'...C&W has determined that more than half of its customers that have a broadband connection made limited if any use of C&W IDD services. ... and later in the paragraph ...'the fact that over half of C&W's broadband customers do not make ANY international calls cannot be explained....'

75. Further evidence provided by C&W in response to interrogatory PUC09Dec05-07, that '*...C&W believes that there are up to 500 persons in Anguilla using a network-agnostic VoIP service*' is difficult to reconcile with subsequent statement in the same reply as to the percentage of C&W's broadband customers '*already using a competitive VoIP offering*.' Ambiguous statements give rise to uncertainty, encumber the analysis and detract from a submission. In terms of actual data, the Commission notes the data presented in an OECD report⁶ at page 7 that reflects the VoIP share of international traffic minutes to have been 12.8% in 2003.

76. Based on the evidence presented in this proceeding and the above observations, the Commission concludes that C&W continues to hold a dominant share of the IDD market. Based on the empirical evidence submitted on minutes of use, the Commission concludes that C&W continues to hold a greater share of the IDD market than the total share held by the newly license fixed and mobile operators combined. With respect to the domestic voice-calling market, the Commission finds that C&W also continues to hold a dominant market share.

2.5 Market Power

77. In paragraph 4 of their submission of 30 November, C&W submits that a quantifiable test of market dominance, at least in theory, is whether a firm is able to earn more than a 'normal' rate of return by maintaining prices above their 'competitive' level for a significant period of time. C&W notes, however, that a practical shortcoming of such a test would be the question of determining a 'competitive price level'. While economic theory and practice provide guidance in terms of measuring long run incremental costs and average costs to determine the level of efficient prices, the practical applications in dynamic markets and multinational firms with diverse product lines may limit any conclusive results from such an analysis.

78. C&W submits at paragraph 5 and 6 of their 30 November submission that a more accurate measure of market power may be determined by evaluating barriers to entry and

⁶ OECD paper entitled 'VoIP: Developments in the Market' (Working Party on Telecommunication and Information Services Policies) 10 January 2006.

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expansion faced by competitors in Anguilla and the degree to which such new entrants may overcome whatever barriers to entry remain. Paragraph 6 reads, in part, as follows:

'Even in a market where customers may currently have no alternative source of supply, with low barriers to entry a price increase would still attract entrants as long as they could make a profit at the higher market price. Entry would then provide substitutes to which consumers could shift, and the contemplated price increase would again turn out to be profitable for the firm in question.'

79. However, in the case of the mobile market and IDD calling prices, the Commission notes that the basic IDD prices to US, UK and Canada advertised by C&W and Digicel in 'The Anguillian' of 17 February 2006 were as follows: (a) C&W – Days- 90 cents, Evenings 80 cents and Weekends 70 cents EC and (b) Digicel – a flat rate of 50 EC cents. Similarly, for fixed line access prices where CCC advertised a price for basic monthly access of EC \$35.00 (The Anguillian, 20 January 2006, page 21), C&W continues to maintain their basic residence access price at EC \$42.00. A firm with meaningful market power is less likely to respond to the prices of new entrants than one with little or no market power in terms of pricing.

80. The question of dominance is addressed in the current C&W license, Section 1.3 of Annex A (licensed Services) and reads as follows:

'1.3 For purposes of this Licence, the Licensee is dominant with respect to the following telecommunications services in Anguilla:

1.3.1 Domestic public telephone services provided over the Licensee's fixed network.

1.3.2 International public telephone services provided over the Licensee's fixed network.

1.3.3 Services of terminating mobile telephone calls on Licensee's own mobile or fixed network.

1.4 Nothing in this Annex A shall prevent the Licensee from applying, pursuant to Clause 1.3 of Schedule 1, to have the Commission determine that the Licensee is not dominant in one or more geographic or service markets in which the Licensee provides the services listed in Clause 1.3 of this Annex A'

81. In the present filing for their Netspeak service, C&W did not submit a related application pursuant to Clause 1.3 of Schedule 1 of their license. As noted above, C&W has exhibited an ability to maintain prices above 'competitive' levels in the case of both IDD and domestic fixed line access prices. The Commission's findings on the matter of market share in section 2.4 of this decision are also supports this finding on market power, that is, the Company retains a sufficient degree of market power to be considered dominant pursuant to section 17(6) of **the Act**.

2.6 Degree of Differentiation

82. The definitions in Section 1 of **the Act** for public telecommunication and public telephone service are as follows:

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"public telecommunications service" means a telecommunications service, including a public telephone service, offered to members of the general public, whereby one user can communicate with any other user in real time, regardless of the technology used to provide such service, but does not include a service that modifies a communication, restructures, adds or supplies, or permits user interaction with, information unless such service is offering a public telephone service;

"public telephone service" means the commercial provision to the public of the direct transport and switching of voice telephony in real time from and to network termination points;

83. Since the proposed service is a 'public voice telephone' service and C&W's current license includes a description of 'Domestic and international public telephone services' in Annex A, and having regard to Part II, Section 1.0 of this decision (Categorization of 'New' public telephone service), the term IDD and domestic public telephone services appears to best describe the relevant markets.

84. In the context of differentiation, C&W's current license specifies the type of services and networks being offered and operated by C&W at the time the license was issued. The license remains in effect for a period of ten years from the effective date (Section 4.1 of C&W License).

85. Based on the description of the networks that C&W is licensed to operate in Anguilla and the services they are licensed to provide, the current 'new service' being proposed by C&W in phase 1, an IDD service, and in phase 2, domestic calling and access services over the fixed network, are already licensed services to be provided, in part, over their currently licensed network and proposed expanded 'fixed network'.

86. The 'new services' being proposed by C&W under the trademark name of 'Netspeak' in phase 1, the IDD service, is an international public telephone service as described in Section 1.1.1 of Annex A of the license. The prices for the service were initially approved as part of the C&W license, Annex E, Part 1, Section 6 reads as follows:

'6. International Direct Dialed Telephone Calls

The charges for international direct dialled ("IDD") calls shall not exceed the rates set out on Attachment B, the billing for which shall be per second.'

87. The Commission notes the reference in C&W's abridged version of their letter of application dated 29 September, 2005 at paragraph 13 which reads in part as follows:

'Nevertheless, C&W notes that none of the rates above exceed the equivalent rate set out in Annex 1, where one exists'

88. One set of rates for the proposed Netspeak service is that for domestic calling which is the same set of rates currently approved for fixed line domestic public voice of EC\$

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0.09, 0.07 and 0.06 for day, evening and weekend calling per minute. Therefore the basic NetSpeak service will include flat rate calling to the United States and Canada plus domestic calling at the same per minute prices as those applied by C&W domestic public telephone calls on the present fixed-line network. The proposed domestic price structure for the Netspeak service does not specify a per minute price for domestic calls between Netspeak customers and C&W is requested to clarify the proposed prices for domestic Netspeak calls when filing their price structure (see **Directions on Procedure**, paragraph 162).

89.The Commission also notes that the proposed prices for calls from Netspeak customers to C&W mobile customers as set out in the submission of 29 September 2005, paragraph 11 ('C&W Anguilla Mobile (day/evening/weekend), of EC\$ 0.68, 0.67 and 0.65), exceed the prices set out in Annex 1 of their license. In filing Netspeak prices pursuant to paragraph 162 in the **Directions on Procedure**, C&W may wish to review these prices in the proposed Netspeak price structure.

90.As noted above, the proposed 'new service' in phase 1 is an IDD service that C&W proposes to 'package' and provide a bulk discount. This package of IDD service is similar to the 'packages' described in C&W's license, Section 2 of Annex 1 to Part I of Annex E, with the trademark name 'SmartChoice' Residential and Business Packages.

91.Pursuant to Annex 1 to Part I of Annex E (Interim Rebalancing Schedule) of C&W's license, the company is also permitted to '*market modified or additional bundled offerings of telecommunications services*'. The following note forms part of Part 2 (Line Rental Charges), Section C (Packaged Offerings):

'The SmartChoice packages listed above are described on Attachment A.

Subject to the requirements of the Act and this Licence, the Licensee may market modified or additional bundled offerings of telecommunications services to a user based on the Licensee's revenues from, or the Licensee's traffic volumes generated by, such user; provided that the Licensee shall provide any such services on a stand-alone basis.'

92.As noted above in paragraph 95, there is considerable similarity between the calling packages now included in Annex E of C&W's license and those proposed for 'Netspeak'. The Commission notes the requirement in the description of the 'SmartChoice' packages that '*the Licensee shall provide any such services on a stand-alone basis.*'

93.The degree of differentiation between C&W's new public voice service and their present public voice service is primarily due to pricing. The means of access to the new service, the use of high speed Internet access, is similar to presently offered public voice

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services by C&W. In the case of fixed ‘access’⁷, using C&W’s Internet Service, the initial network component is generally C&W’s local loop. The same local loop employed to provide access to C&W’s public service telephone network (PSTN).

94. Having regard to the Commission’s findings in Part II, Section 1.0 (Categorization of ‘New’ public telephone service) and also in Section 2.2 (Relevant Markets), the Commission finds that the degree of differentiation between C&W’s present public telephone service and the new Netspeak service is minimal.

3.0 Summary of Findings

95. The above sections of the decision, Part II, Sections, 1 and 2, paragraphs 37 to 93, provide the Commissions’ analysis and findings pursuant to section 17(6) of **the Act**.

96. The Commission having considered C&W’s submission of 29 September 2005 and their subsequent filings as well as the submissions of CCC has determined that C&W’s proposed new voice service under the brand name of Netspeak be categorized as a public voice service and that C&W is presently dominant in both the IDD and domestic public voice market segments. As a result, the Commission finds that the prices associated with the new public voice service are subject to price regulation pursuant to Section 12.9 of C&W’s license. (see **Directions on Procedure**, paragraph 162)

97. The issue of whether to regulate or not regulate VoIP-based voice services is not unique to Anguilla and has been and is being addressed by policy makers and regulators in many countries. A recent study by the OECD⁸ provides a summary of the regulatory approaches to VoIP in various countries. Paragraph 174 of the report reads as follows:

‘174. Some OECD countries have, so far, imposed only minimum regulations or have no special regulations pertaining to VoIP services. These countries include Austria, Belgium, Czech Republic, France, Germany, Hungary, Ireland, Italy, Slovak Republic, Turkey, and United States. On the other hand, other countries essentially regard VoIP services, if they are offered to the public, as a form of telecommunications service and hence make the services subject to the same or similar regulations as those for traditional PSTN services. These countries include Australia, Canada, Denmark, Finland, Greece, Iceland, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.’ (Emphasis Added)

98. Given the early stage of liberalization in Anguilla and indeed the current startup stage of alternative service providers in the mobile, fixed access, domestic calling and IDD markets, the position taken by countries such as Canada, Japan, New Zealand and the

⁷ See Telecommunications Interconnection and Access to Facilities Regulations, Section 16.

⁸ OECD paper entitled ‘VoIP: Developments in the Market’ (Working Party on Telecommunication and Information Services Policies) 10 January 2006, paragraph 174, page 39.

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United Kingdom in terms of the regulation of VoIP-based services, appears to be the prudent one for the Commission at this time.

99. Notwithstanding the Commission's finding regarding the regulation of Netspeak prices, the Commission notes that in the past their level of regulatory oversight of IDD prices has been 'light-handed', with proposed price reductions being filed with the Commission and implemented without undue delay. As previously noted, C&W may file an application seeking a determination from the Commission that they are not dominant in either the IDD market segment and/or the domestic calling market segment pursuant to Clause 1.3 of Schedule 1 of their license.

III Other Matters

1.0 Phase 1

1.1 Assignment of Non-national Numbers

100. C&W proposes to provide 'Netspeak' in Phase 1 be employing the use of non-national numbers (C&W submission of 27 January 2006, paragraph 22, Abridged version) whereas in Phase 2, a national number is to be employed to provide local access for both domestic calling and IDD.

101. C&W's comments on numbering for their 'Netspeak' service in their submission of 27 January 2006 at paragraph 22 read as follows:

'For clarity, C&W would be using local telephone numbers in association with NetSpeak Service in Phase 2 of the roll-out, i.e., when NetSpeak is more closely integrated into the domestic network and local services are included with the service. During Phase 1, the only telephone numbers offered in connection with the service will be overseas telephone numbers.'

C&W notes that the Telecommunications Numbering Regulations 2004 govern how "Ordinary Numbers", i.e. numbers from central office codes in the 264 NPA, are to be assigned. One of the terms and conditions of assignment is that the resource only be used for the purposes specified at the time of application.(5) However, these Regulations do not regulate, or prevent, the use of non-Anguillan telephone numbers in association with incoming international services provided to customers in Anguilla by a service provider licensed in Anguilla.(6) In any event, C&W's use of Anguilla telephone numbers in Phase 2 of the NetSpeak roll-out will be in full compliance with the Regulations and the National Numbering Plan'. (Emphasis added)

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102. While concurring with C&W's above submission on the absence of a prohibition in the Numbering Regulations on the use of non-national numbers, the Commission notes that more explicit requirements on the employment of national numbers are set out in both the interim Numbering Plan and also in **Section 13** of C&W's license.

103. The Interim Numbering Plan for Anguilla specifies the numbers to be employed for the provision of telecommunication services in Anguilla and reads, in part, as follows:

'The Telecommunications Act 2003 stipulates under section 31 that the Minister shall develop a plan for the numbering of telecommunications services and shall administer and manage such numbers.

The Minister of Infrastructure, Communications, Utilities and Housing (MICUH), the Valley, Anguilla, announces the following Interim National Numbering Plan for Anguilla.

Anguilla is in the World Zone 1 (WZ1) Plan, Country Code = "1", NPA = 264.'

104. In addition, the current C&W license describes the numbering requirements for licensed services provided by C&W. **Section 13** of C&W's license contains the following directions on numbering:

'13. NUMBERING

13.1 The Licensee shall operate its Licensed Networks and provide its Licensed Services in accordance with the numbering plan established pursuant to section 31 of the Act' (Emphasis added)

105. The Commission having found (see Part II, Section 1.0) that the proposed new public voice service, 'Netspeak', is a licensed service pursuant to **the Act** and also to C&W's current license. Section 13.1 of C&W's current license specifies that services are to be provided 'in accordance with the national numbering plan that is established pursuant to section 31 of **the Act**' and therefore national numbers are to be employed for the purpose of providing public telephone service in Anguilla.

106. Therefore, presently the provision of call-origination via the proposed Netspeak service must be by way of the national numbers of Anguilla. However, the Commission is prepared to consider forbearing pursuant to S. 52(1) of **the Act** on the numbering requirements pursuant to section 5(1) (d) of **the Act** and section 13.1 of C&W's license and will issue the relevant public notice forthwith.

1.2 Access to Emergency and Information Services

107. Section 18 of the Universal Service Regulation reads as follows:

'Emergency telecommunications

18. (1) A service provider providing a public telephone service shall ensure that end users are able to have access to emergency telecommunications, including the ability to call the emergency services free of charge, by using the Anguilla

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emergency call number “911” and any other national emergency call number that may be specified by the Commission.

(2) A service provider shall, as soon as practicable, make caller location information available to authorities handling emergencies, to the extent technically feasible, for all calls to the Anguilla emergency call number “911” and any national emergency call number that may be specified by the Commission.’

108. The Commission notes the following comments on the availability of ‘emergency numbers’, access to 911 services, in C&W’s evidence of 29 September 2005 at page 2, footnote 1 and at page 3, footnote 4. The footnotes specify that 911 services will only be available in phase 2 of the Netspeak service rollout.

109. As the emergency calling arrangements required pursuant to section 18 of the Universal Service Regulation will not be provided in phase 1, C&W is permitted to introduce the service by commencing the rollout with phase 2 and the use of national numbers and thereby providing the emergency calling arrangements required pursuant to s.18 of the Universal Service Regulation.

110. In addition, a requirement for the provision of ‘information services’ is specified in section 12 of C&W’s license and reads as follows:

‘The Licensee shall, in accordance with the Act, take such steps as are necessary to ensure that, in relation to its Licensed Services, users can reasonably and reliably have access to information services to assist them with queries relating to the Licensed Services, including installation, fault reporting, billing and directory assistance.

The Licensee shall provide (directly or indirectly), free of charge to all users of its public telephone services, a directory of listings of telephone numbers of its subscribers in hard copy (such as paper or other media), without charging any persons listed therein for such listing’.

111. Based on the description of the phase 1 service provided by C&W, the Commission concludes that the information services required to be provided for license services as set out in section 12 of C&W’s license will not be provided in phase 1. However, as previously mentioned, C&W is permitted to introduce the service by commencing the rollout with phase 2 and the use of national numbers and thereby providing the required information services pursuant to section 12 of their license.

1.3 Subcontracting

112. Pursuant to s.8 of C&W’s license, it is not permissible for all or part of a licensed service to be provided or operated by way of a subcontracting arrangement. Section 8 reads as follows:

‘8.0 SUBCONTRACTING

The Licensee may employ one or more subcontractors to install and maintain, but not to operate or provide, some or all of the Licensed Networks or the Licensed Services.

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Any subcontract shall provide that the subcontractor agree to comply with the terms and conditions of this Licence, the Telecommunications Code, the Regulations and the Act. Use of a subcontractor shall not relieve the Licensee or the Authorisation Holder of any of its obligations under this Licence or these Authorisations'. (Emphasis added)

113. The description of C&W's 'Netspeak' service during phase 1 of the rollout suggests to the Commission that the service may be provided by way of a subcontracting arrangement and thereby be contrary to s.8 of C&W's license. In reply to interrogatory PUC09Dec05-01, (Abridged Version), page 2 of 8, C&W describes the provision of the phase 1 service as follows:

'During the initial (or "Phase 1") rollout of Netspeak Service, the Netspeak VoIP platform would be connected only with overseas PSTN networks and, as a result, the service would support only incoming and outgoing international calls.'

114. In addition, references to the phase 1 service, provided at page 7 of 8 of the reply, do not provide details of how the non-national numbers are obtained or assigned to C&W customers in Anguilla. Therefore, based on the information provided by C&W in their evidence and in subsequent responses and in reply comments, the Commission concludes that during phase 1 the Netspeak service proposed to be offered by C&W may, in part, be provided by another party by way of a subcontracting arrangement contrary to s.8 of C&W's license. Should this be the case and C&W still wishes to proceed to offer the Netspeak service they may do so by rolling out the service commencing with Phase 2 assuming this version of the service offering does not involve any subcontracting arrangement contrary to s.8 of their license.

115. The Commission will also seek evidence from C&W on the nature of any contracting arrangements in the phase 2 stage in order to verify that any such arrangements are consistent with the requirements of s.8 of C&W's license. (see **Directions on Procedure**, paragraph 163)

2.0 Phase 2

2.1 Assignment of National Numbers

116. C&W proposes to use the central office code 724 for their 'Netspeak' service and notified the Commission in a letter dated 9 July 2005 that they intended to change the use of the central office code from Paging Service to their new 'Netspeak' service.

117. In C&W's submission of 27 January 2005, paragraph 22, page 7, the following comments are included on the matter of changes in use of in assigned numbers:

'C&W notes that the Telecommunications Numbering Regulations 2004 govern how "Ordinary Numbers", i.e. numbers from central office codes in the 264 NPA, are to be assigned. One of the terms and conditions of assignment is that the resource only be used for the purposes specified at the time of application. (5)

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118.A footnote (5) to the above-mentioned comments at page 7 of the January 27 submission refers to s. 7(2) of the Telecommunication Numbering Regulations 2004 and reads as follows:

(5) Regulation 7(2). In this instance, C&W has applied for a change in specified purpose, from one fixed service, paging, to another, NetSpeak / VoIP.

119.Section 7(2) reads as follows:

(2) Resource Users shall use the numbers assigned to them for the purpose specified in the application. Misuse, hoarding, or illicit use of numbers shall be cause for the Commission to rescind primary assignments, or impose other sanctions as appropriate.'

120.With respect to the application from C&W for a change in the use of the central office code '724', the Commission notes that the current 'Interim Numbering Plan' assignments for central office codes in the 700 series has two wireless services assigned, that is , 729 is assigned to pre-paid GSM and 772 is assigned to pre-paid TDMA. In addition, the post-paid TDMA is assigned the 235 central office code and dial-up internet service is assigned the 292 central office code. In view of the inevitable phasing out of the TDMA service and the present assignment of pre-paid GSM service in the 700 series, the Commission notes the following statement in the Interim Numbering Plan:

'Central Office Codes

This document outlines the current allocation of Central Office (CO) codes within the Numbering Plan Area (NPA) Code "264". Note the use of the word "allocation" intentionally to differentiate between it and "assignment". To allocate a numbering resource is to identify its intended use, e.g., geographic, wireless, special services, by the telecommunications sector. To assign a numbering resource is to reflect the allocation by actually assigning a specific block(s) of the resource to service providers to use for the stated purpose (allocation).

These allocations are based on the premise that "achieving the objective of clearly distinguishing the type of service is more important than distinguishing the specific company providing the service".

121.Based on the stated intention in the Interim Numbering Plan for Anguilla that the allocation of central office codes is to '*distinguish the type of service*', the Commission concludes that the most appropriate central office code for new VoIP-type services would be the 200 series as opposed to the 700 series which in the long term is intended for use by wireless services. Therefore, C&W should apply for a 200 series central office code for their Netspeak service. (see **Directions on Procedure**, paragraph 164).

3.0 Interested Party Views

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3.1 Nature of Submission

122. In response to the Commission's Public Notice, Caribbean Cable Communications (CCC) filed reply comments dated 30 November 2005. They raised a number of issues in the form of 'questions' (see CCC submission, pages 1 and 2, questions 1 to 9). In addition, CCC filed final reply comments dated 19 January 2006.

123. In response to CCC's submission of 30 November 2005 and the Commission's directions on procedure of 10 December 2005, C&W filed reply comments dated 10 January 2006. At paragraph 2 of their response C&W makes the following submission:

'In summary, Cable & Wireless submits that CCC's comments are in fact outside the scope of this proceeding and should be disregarded.'

124. C&W's submission is that the comments and questions raised by CCC, while related to C&W's proposed new service, are not directed at the central issue identified in the Public Notice, that is, the question of dominance. C&W submits at paragraph 6, page 2 the following comments:

'The Commission should, therefore, dismiss CCC's comments as outside the scope of the Commission's proceeding and irrelevant to a determination of whether Cable & Wireless is dominant in the provision of IDD communication services or VolP services in Anguilla.'

125. However, C&W's submission of 10 January 2006 does proceed to respond to a number of the matters raised by CCC as they believe that a number of statements made by CCC need to be '*addressed and corrected*'.

126. The Commission concurs with C&W position on the general nature of CCC's submission, that a number of issues raised in CCC's submission do not directly address the question of dominance. While a number of matters raised by CCC are related to the nature and provisioning of the C&W's new voice service, one in particular is directly related to the question of whether such a service should be regulated or unregulated. The question of whether to regulate is related to the issue of dominance.

3.2 Interconnection

127. On the matter of interconnection, as raised in 'question 3' of CCC's submission of 30 November, C&W does provide a material response to the interconnection issues, at paragraphs 11 to 14 of their reply comments of 10 January 2006. In addition, C&W provides further details of the proposed interconnection arrangements between their Succession Network and other fixed operators in Anguilla in their reply to interrogatory PUC09Dec05-01, pages 7 and 8.

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128. As a permanent interconnection arrangement between CCC and C&W is not yet completed, and as the testing and implementation is scheduled to start in March 2006, the Commission acknowledges and appreciates the concerns raised by CCC in their submission and also the explanation provided by C&W and notes the assurances provided in their statement at paragraph 13 of their submission of 10 January which reads, in part, as follows:

'Cable & Wireless notes that, at the present time, interconnection of public voice networks on a TDM C7 basis remains the preferable option. TDM C7 is a widely used and well tested standard for network interconnection, and includes robust feature sets to insure transparency between network operators. VoIP, at present, has many signalling options, none of which replicate all the functions of TDM C7 and may also limit interoperability between networks.'

129. The Commission appreciates C&W's explanation on this important issue notwithstanding the fact that it is not the central issue in this proceeding. However, the matter of timely and effective network interconnection between incumbent and new entrants is a vital prerequisite for the development of a competitive market that is sustainable and, in turn, the de-regulation of such markets.

130. The issue of 'IP interconnection' raised by CCC, in particular, the concern regarding excessive latency, concerns the Commission with respect to the provision of effective interconnection between all public telecommunication networks operating in Anguilla. The concerns raised by CCC on this matter are, in part, stated in paragraph 3, page 3 of their submission of 30 November 2005 and read as follows:

'Thus a local call from a C&W NetSpeak customer would make a roundtrip of several thousand miles literally to go next door. Not only does this waste bandwidth it also degrades quality – perhaps to an unacceptable level. To preserve quality (and a level playing field) C&W and CCC would need to identify local calls and directly route those calls through an IP interconnection in Anguilla. Just how that might be done (or whether it is technically feasible) is unknown to us and not addressed by C&W. Without an Anguilla-based IP interconnection C&W could use NetSpeak to gain an unfair advantage in providing its Internet service. We believe that NetSpeak will not work reliably over CCC's Internet platform without an Anguilla-based IP voice interconnection. Without a local voice inter-connection ALL traffic, local and long distance, originated by Netspeak on CCC's Internet platform would go to Miami and would comeback to C&W's server and go out bound from there. By introducing multiple hops latency would increase substantially and voice quality could be reduced to unacceptable levels. Due to no fault of CCC's Netspeak might be unusable on CCC's Internet platform without an Anguilla based voice IP Interconnection.'

131. The obligation to provide effective and interconnection between all public networks and services in Anguilla is set out in Section 17(2) of **the Act** and reads, in part, as follows:

'(c) provide the elements of interconnection, to other operators and service providers, in a manner that is at least equal in both quality and rates to that provided by the operator

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or service provider to its own business units or to any body corporate with which it is affiliated or to any other party to which the operator or service provider provides interconnection and without regard to the types of users to be served, or the types of services to be provided, by such other operator or service provider;

132. In final reply comments of 27 January, paragraphs 12 to 21, C&W provides a further response on the matter of interconnection and the quality of service to be provided to their Netspeak customers, whether they access the service via C&W's or CCC's high speed internet service.

133. Given the above-mentioned requirement for interconnection, and confirmation of the 'neutrality' of C&W's Netspeak service as stated in C&W's submissions in this proceeding, that is, the ability of any high speed (minimum speed of 128 kbps –C&W evidence of 29 September 2005, paragraph 3) Internet customer in Anguilla to subscribe to the service and realize a similar quality of service for both domestic and international calls, the Commission will seek confirmation on the performance of the service from each Internet service provider, C&W, CCC and Weblinks, that access to Netspeak is provided to all Internet customers on a neutral and equitable basis and that the quality is not impaired due to inferior interconnection arrangements, improper or inferior customer attachments provided in connection with the Netspeak service, or limits or restrictions due to the service provided by an Internet service provider. (see **Directions on Procedure**, paragraph 165)

3.3 Quality of Service

134. The matter of timely and effective interconnection between the incumbent and new entrants is a vital prerequisite for the provision of a good quality of service and the development of a competitive market. Whether the networks are IP-based or circuit-switched, the quality of interconnection should be similar and uniform for all market participants. In particular, in the transition period from circuit-switched to IP-based networks, the maintenance of effective and uniform interconnection arrangements is essential to the development and sustainability of competitive markets.

135. The following statement in C&W's submission of 10 January 2006 at page 3, paragraph 12, is indicative of the absence of clarity in the initial and subsequent explanations provided by C&W as to the nature of the proposed service and the means of providing the service as well as having effective interconnect with other public networks operating in Anguilla:

'Further, it is not appropriate to use the introduction of an IDD service, which uses IP transmission, as the justification for the domestic IP telephony interconnection of two public voice networks.'

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136. C&W's description of their Netspeak service indicates that it will provide both IDD and domestic public voice calling, therefore, the reference to only the introduction of an IDD service only partially describes what is proposed as the full Netspeak service. Given the proposed provisioning of domestic calls and the use of Internet service to originate and terminate such calls, using 'domestic' numbers does raise the matter of a call from a CCC Internet customer employing Netspeak to a C&W Internet customer also employing Netspeak and the routing and resulting quality of such a call.

137. The issue of excessive latency in IP networks such as the Internet and the impact of such latency on voice applications is a common concern when considering the provisioning of VoIP services. Internet peering arrangements determine the routing of a VoIP call using Internet routers. The following comments are made on the quality of service aspect of VoIP services in the

'The quality of service (QoS) for voice transmission over IP can be defined in a number of different ways, depending on whether it is considered from a user or a technical perspective. The users' perceptions of service quality can be measured through subjective quality assessment. The most common consumer-based method to quantify QoS in telecom services is the Mean Opinion Score (MOS) described by the E-model from ITU-T. It is based on a variety of statistical tools and aims to represent the user perceptions of service quality.'⁹

138. Without conducting specific tests on a number of calls between the various end-users, it would not be possible to predict the overall performance of the interconnected networks. For this reason, the Commission has requested that the performance of the Netspeak service be tested from a customer location associated with each of the Internet service providers in Anguilla. (see **Directions on Procedure**, paragraph 167)

3.4 Interconnection Prices

139. The matter of pricing and interconnection is raised by CCC at page 3, question 9, of their submission of 30 November and reads as follows:

'9. It appears that C&W proposes a rate structure less expensive and substantially different from its present wire line offerings. The expected lower prices suggest that Netspeak will require a new lower rate structure for interconnection. How this would operate is neither disclosed nor addressed. A full disclosure of this issue is essential to assure a thorough and thoughtful consideration of their application to offer Netspeak'.

⁹ 'VoIP Regulation', ITU 6th Global Symposium for Regulators, 14-15 November 2005, Section 5.1, page 30.

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140. Based on the service description, prices and interconnection arrangements described by C&W in their evidence, the termination fee for calls from another operators' fixed network to a Netspeak customer would be the same as the presently approved PSTN termination fee. Similarly, calls from a Netspeak customer to a mobile network in Anguilla would incur the same mobile termination charge of 40 EC cents per minute. The matter of whether the cost to terminate a call on C&W's Netspeak service is the same as that to terminate on C&W's PSTN network requires further review. Such a review will be conducted in the context of an overall review of interconnection prices as set out in Decision PUC 2005-102 of 22 November 2005, paragraph 37. The Commission notes the following C&W's comments at paragraph 12 of their submission of 29 September 2005:

'Please note that rates for calls to other licensed operators in Anguilla will be determined as and when interconnection arrangements with those operators are approved.'

Based on the above submission, the Commission concludes that C&W proposes to assess the same termination fee for calls to their Netspeak customers as they do for calls to their fixed line customers on the PSTN. C&W is requested to confirm the relevant interconnection termination fees. (see **Directions on Procedure**, paragraph 166)

141. The matter of VoIP and interconnection is raised in the ITU paper¹⁰ on VoIP and regulation and the following comments are made:

4.7 VoIP and Interconnection Models

VoIP services challenge current interconnection models in several respects, both from an economic and structural perspective. Again it is helpful to separate what may happen in the short-term during the transition period and in the longer-term when most networks are IP-based. In the short-term, the main interconnections will be between IP networks and the PSTN. In the long run, the interconnections will mainly occur directly between IP networks.'

142. The Commission accepts C&W's assurances that currently the most effective and efficient interconnection arrangements are those presently in place or proposed. However, as the transition to IP-based networks continues the Commission expects C&W to initiate a planning process and to provide sufficient advance notice to other interconnected service providers in Anguilla as to the timing for the provision of interconnection on an IP basis. (see **Directions on Procedure**, paragraph 165)

143. On the specific matter of interconnection costing and pricing, the following comments are made in the above-mentioned ITU paper at page 28 and 29:

'Short-term interconnection issues: Current interconnection models are increasingly based on cost-based charges. The disruptive factor for current interconnection arrangements introduced by VoIP services is the likely difference of investment scale

¹⁰ 'VoIP Regulation', ITU 6th Global Symposium for Regulators, 14-15 November 2005, Section 4.7, page 28.

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between IP-based networks and PSTN networks. Although views differ as to the exact scale of difference, the cost of IP networks is significantly lower. There is not likely to be any major conflict when the call comes from an IP-based network to the PSTN as the receiving PSTN operators normally charge the same termination fee regardless of which network the call is coming from. However, when the call originates on the PSTN network and terminates on the IP network, the termination cost is difficult to determine. The relevant elements to assess the actual costs are unclear. Thus PSTN to IP interconnection is likely to create a difficult debate between the different players and may require greater regulatory oversight and intervention.'

144. The issue raised by CCC regarding interconnection and pricing will become a significant issue in the transition process from circuit-switched to IP-based networks. The matter of the differences in termination costs between an IP-based network and the PSTN requires further review and consideration. In this regard, as noted in paragraph 140 above, the Commission will review of interconnection prices related to IP-based networks in the context of an overall review of interconnection prices.

4.0 Price Level for New and Current Fixed Access Service

145. The matter of the relative prices for VoIP services versus traditional public telephone prices was addressed in a recent OECD report¹¹. The following comments are contained in paragraph 43 of the report:

'VoIP market trends

Even though VoIP services have existed for several years, it is only recently that they have been commercially exploited to provide voice data over the Internet. The development of recently emerging VoIP market has largely been promoted by several factors. The first factor has been the relatively high prices for calls, especially time-based charges, and in particular the price of international calls. The ability to provide charges not based on geographic distance helped promote the use of VoIP services. The call market for domestic calls has recently become the target for VoIP services.' (Emphasis added)

146. As C&W currently provides both IDD and domestic calling, the pricing decisions they make on the relative price levels of their circuit-switched calling services and their proposed VoIP services will determine not only their competitive position but also the degree of migration from their current switched network to their IP-based network.

¹¹ OECD paper entitled 'VoIP: Developments in the Market' (Working Party on Telecommunication and Information Services Policies) 10 January 2006, paragraph 43, page 18.

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147. The degree of competition in these relevant markets is also, in part, a product of the relative price levels for the products in each market segment. The OECD report¹² comments on this aspect of such competition:

'.....The extent to which operators providing VoIP services will have an impact depends on how competitive the PSTN market is and how expensive PSTN tariffs are. For example, the take up of VoIP services in Japan has been relatively high (about four million subscribers) partly because prices from the existing PSTN operators are still comparatively high. In contrast, in the US calling plans that offer large amounts of (or unlimited) usage for a flat rate have already become very popular among customers of circuit-switched services, both wireline and wireless. This may have mitigated the price incentive for customers to adopt VoIP offerings.' (Emphasis added)

148. The matter of relative prices for VoIP services in general and C&W's prices was raised in C&W's reply to interrogatory PUC09Dec05-07, at page 3, and reads, in part, as follows:

'If C&W does not offer competitive rates (we believe we have done so), or offers a product of inferior quality (we believe this is not the case), customers will not subscribe to C&W or will be able to easily switch to other providers of VoIP service.' (Emphasis added)

149. While this statement by C&W refers to the relative price of their proposed VoIP products to their competitors' VoIP products, the same potential substitution exists between C&W's domestic access and calling prices and their VoIP alternatives. For example, given the current price of C&W's 'SmartChoice Residential C' package at EC \$87.00 per month and their proposed price for the basic Netspeak service (C&W Submission, 29 September 2005, Netspeak Rate Sheet – Confidential version) providing local access with comparable per minute domestic call charges plus flat rate calling to the USA and Canada, the proposed C&W VoIP basic service package appears to be a very attractive economic alternative and one that could stimulate the migration of minutes from C&W's circuit-switched products to their VoIP service packages.

150. The issue of the PSTN network and customer migration from traditional networks to IP-based networks was commented on in the OECD¹³ report as follows:

There are several developments that are expected to boost the uptake of VoIP services. The growing diffusion of broadband Internet access will accelerate the use of voice over broadband resulting in a lesser need to depend on traditional PSTN for telecommunications. In turn, the lower prices for VoIP are likely to stimulate demand further and encourage the replacement of PSTN networks. (Emphasis added)

¹² Ibid. paragraph 45, page 18.

¹³ Ibid. paragraph 10, page 7.

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151. As noted in the above comments from the OECD report, the potential migration of customer and minutes from traditional PSTN networks to IP-based ones is partially a function of relative price. Consequently, the Commission has concerns with C&W's present level of basic fixed line monthly residence access prices relative to the access prices proposed by C&W for the 'Netspeak' service.

152. The Commission previously commented on the level of C&W's monthly fixed access price in an earlier decision on interconnection (**Telecom Decision PUC 2005-101**, 12 October 2005).

153. In **Decision 2005-101**, the Commission made reference to the use of the term 'normal commercial rates' as it is employed in s10(1) of the Universal Service and Public Telecommunications Regulations (2004) (**USAPT Regulations 2004**). Section 10(1) of the **USAPT Regulations 2004** reads as follows:

'Costing of universal service obligations

10. (1) Where a specified provider is unable to charge normal commercial rates with respect to a universal service for which it has been designated pursuant to section 8, it may seek to receive funding for the net costs of meeting the obligation concerned by submitting to the Commission a written request for such funding.' (Emphasis added)

154. And further at paragraph 135, page 30 of **Decision 2005-101**, the Commission comments as follows:

'..... the Commission is not aware of any prohibitions that would prevent C&W from charging 'normal commercial rates' for a universal service. In fact, the current monthly access prices in Anguilla are considerably higher than those in most other regional jurisdictions and could lead one to conclude that the prices for such services in Anguilla may be above 'normal commercial rates'.

155. In terms of a point of reference for 'normal commercial rates', the Commission made reference in **Decision 2005-101** to a recent World Bank Study (June 2005) and made the following comments at paragraph 154, page 33 and included the following Table:

'A recent study by the World Bank entitled 'Telecommunications Reform in the OECS – Impacts on Prices and Services'¹⁴ (a joint report of the Eastern Caribbean Telecommunications Authority and the World Bank Group) provides some further insight on retail(s) prices in the OECS. The following Table presents a summary of the prices for local access from the study with the addition of Anguilla prices:

Table 1: Basic Monthly Access Prices (EC\$)		
OECS State	Business	Residence

¹⁴ Website address - <http://lnweb18.worldbank.org/ict/resources.nsf/InfoResources/97B1AB475D36D3288525702E0058301B>

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1. Anguilla	87.00	42.00
2. Dominica	48.00	24.00
3. Grenada	48.00	24.00
4. St. Kitts & Nevis	48.00	26.40
5. St. Lucia	48.00	26.40
6. St. Vincent & the Grenadines	48.00	20.40

156. Whereas the proposed 'Netspeak' service will provide domestic calling at comparable per minute prices as the present PSTN service, the relative level of monthly access charges will also be a factor considered by residence customers in making a decision on whether to retain their present fixed line service or migrate their calling to 'Netspeak'. Internet customers with less than 100 minutes of voice calling to the US and/or Canada may find it economically attractive to migrate from their present PSTN service to Netspeak having regard to the savings of EC\$42.00 in monthly fixed access costs.

157. Having regard to the above observations on the current monthly fixed residence access price, C&W may wish to further review the relative price level for their current fixed residence service compared to the proposed Netspeak pricing.

III Concluding Comments

158. Information networks and services are increasingly based on IP technologies and as a result not only must service providers and operators adjust to this new environment but government policy and regulation must also respond. As noted in the recent ITU report to the Global Symposium for Regulators:

'Current regulatory practice for telephone service was devised at a time when circuit switched technology was dominant and is therefore historically based on this technology. This approach treats different types of networks differently. Future regulation should, however, be based on a fundamental recognition of the convergence of telecommunications, broadcasting, media and information technology sectors which means that all transmission networks and services should be addressed by a single regulatory framework model.'

159. As noted above and also in section 2.3 (Technology and Market Trends), the transition from circuit-switched networks to IP based networks is already in progress. Comments on this transition in a report¹⁵ to the ITU's Global Symposium for Regulators. read, in part, as follows:

'A vital task for regulators and policy makers is to manage the transition to the new world of IP networks. These include:

¹⁵ 'VoIP Regulation', ITU 6th Global Symposium for Regulators, 14-15 November 2005, Section 4.1, pages 19 and 20.

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- *how long a PSTN network should be maintained;*
- *assessing how much time is needed to make changes to existing legislation or rulings to provide legal stability in a time of flux;*
- *how quickly competition policy should change or adjust to reflect an IP based network rather than a PSTN era;*

The pace at which these issues are decided may not necessarily be determined by government or the regulator as the market changes are already underway in many different forms, both for legal operators and currently illegal or grey market service providers'. (Emphasis added)

160. The Commission commends C&W for taking the initiative to introduce IP-based voice services. Their comments and concerns regarding regulatory lag are noted. The Commission, pursuant to section 3(d) of the **Act**, must ensure fair competition among all licensees and operators and thereby provide all companies with an equal opportunity to compete. Transparency and candidness by both the regulated and the regulator will contribute to reducing regulatory lag and providing all companies with an equal opportunity in the marketplace.

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IV Directions on Procedure

161. The following directions on procedure are issued pursuant to section 31 of the **Telecommunications Administrative Procedures Regulations**.

162. The Commission directs C&W to file for approval pursuant to s.12.9 of their license a complete tariff for their Netspeak service packages, including the price and components incorporated into each package, any non-recurring/activation charges and the prices per minute for domestic calls to other segments of C&W's network as well as to other mobile and fixed operators and the charges for domestic calls between Netspeak customers located in Anguilla employing national numbers. C&W is requested to file with the Commission, as part of this tariff filing, a copy of the Netspeak service customer contract. (see also paragraphs 95 to 99 and also 145 to 157)

163. On the matter of subcontracting, C&W is directed to file any contractual arrangements with other entities that relate to the operation or provision of their Netspeak service. (see also paragraphs 112 to 115)

164. C&W is directed to submit an application to the Commission for use of a 200 series central office code for numbering assignments associated with their Netspeak service. (see also paragraphs 116 to 121)

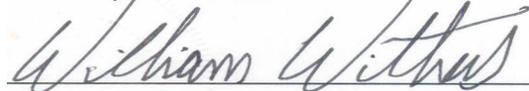
165. On the matter of IP interconnection for domestic networks, C&W is directed to file with the Commission on or before 30 June 2006 their current planning view on the integration of IP and circuit switched components of their network, including a proposed date for the provision of domestic IP interconnection. (see also paragraphs 127 to 133)

166. On the matter of interconnection fees for call termination on the Netspeak portion of C&W's expanded fixed network, prior to launching the Netspeak service, the company is directed to file confirmation with the Commission that interconnection termination prices for calls from other licensed network operators in Anguilla with network interconnection agreements with C&W to their Netspeak customers are the same as the current prices for fixed network termination. (see also paragraphs 139 to 144)

167. The Commission directs that C&W arrange for appropriate testing of their Netspeak service with each Internet Service Provider (ISP) in Anguilla. Such tests to include comparable measurements of quality including latency from several customer terminations. The test results are to be shared with the ISPs and provided to the Commission within 60 days of the commencement of the initial offering of C&W's Netspeak service to the public. (see also paragraphs 134 to 138)

Valley, Anguilla on this 31st day of March 2006

Issued by the Commission at the



Public Utilities Commission of Anguilla

Executive Chairman, Public Utilities Commission