REPUBLIC OF SOUTH AFRICA

REPUBLIEK VAN SUID-AFRIKA

# Government Gazette
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## GENERAL NOTICE

### SOUTH AFRICAN TELECOMMUNICATIONS REGULATORY AUTHORITY

**NOTICE 168 OF 1999**

**NOTICE IN TERMS OF SECTIONS 96, 43(3) AND 44(5) OF THE TELECOMMUNICATIONS ACT, 1996 (ACT 103 OF 1996) INVITING WRITTEN REPRESENTATIONS ON DRAFT REGULATIONS WITH REGARD TO INTERCONNECTION AND FACILITIES LEASING GUIDELINES ON THE FORM AND CONTENT OF INTERCONNECTION AND FACILITIES LEASING AGREEMENTS**

1. Pursuant to the section 27 enquiry and the public hearings held on 13 and 14 November 1998, the South African Telecommunications Regulatory Authority ("the Authority") hereby gives notice of its intention to publish regulations and hereby invites the public to comment on interconnection and facilities leasing guidelines relating to the form and content of interconnection and facilities leasing agreements, under Sections 96, 43(3) and 44(5) of the Telecommunications Act, 1996 (Act 103 of 1996) ("the Act").

2. Interested persons are hereby invited to submit written representations only, including an electronic version of representations in Microsoft Word 6.0 or lower, of their views on –

   rules regarding the form and content of interconnection and facilities leasing agreements; and

   SATRA's Regulatory Policy Statement

   by no later than **16h00 on Friday, 12 March 1999**.

3. Furthermore, persons submitting representations to the Authority after Friday, 5 March 1999, are requested to submit twelve (12) copies of such submissions.

4. Written representations may be posted or hand delivered for the attention of Mr. Izaäk Coetzee –

   SATRA, Private Bag X1, Marlboro, 2063; OR
   SATRA, Block B, Pin Mill Farm, 164 Katherine Street, Sandton, Gauteng Province.

   Any enquiries in this regard can be forwarded to Mr. Izaäk Coetzee-
   Tel. (+27 11) 321 8369
   Fax (+27 11) 321 8536
   E-mail: IZAAK@satra.gov.za

5. All written representations and documents submitted to the Authority pursuant to this notice shall be made available for inspection by interested persons from Monday, 15 March 1999, during the business hours of the Authority, from 8h30 to 16h00, and copies of such representations and documents will be obtainable on payment of a fee.

6. At the request of any person who submits a written representation or document pursuant to this notice, the Authority may determine whether such representation or document, or a portion thereof, relates to the financial capacity or business plan of any person, or to any other matter reasonably justifying confidentiality, in which event such representation or document shall not be made available for inspection by members of public. If the request for non-disclosure to public is refused, the person making the request will be allowed to withdraw the representation or document in question.

7. The findings, recommendations and conclusions on Interconnection and Facilities Leasing Guidelines by the Authority following public comment, will be published as regulations in the Government Gazette in accordance with Sections 96, 43(3) and 44(5) of the Act.

**H.N.L. MAEPA, Pr. Eng. P.E.**
**CHAIRPERSON, SATRA**

# INTERCONNECTION GUIDELINES ISSUED BY THE AUTHORITY UNDER SECTION 43 OF THE TELECOMMUNICATIONS ACT 1996

1. **DEFINITIONS**

1.1 In these Guidelines the following words will have the meaning given to them unless the context otherwise requires:

**Calling Line Identity (CLI)** means the information generated by a telecommunications system which identifies the calling number and forwards that information through that telecommunications system and an interconnected telecommunications system.

**Customer** means a retail end user customer of the provider of a telecommunications service.

**Customer Service** means a telecommunications or related service which is facilitated in whole or in part by interconnection.

**Essential Service** means an interconnect service declared by the Authority in writing to be a essential service for the purposes of these Guidelines.

**Interconnect Capacity** means dedicated unswitched transmission capacity and other facilities for connecting the telecommunications systems of two telecommunications service providers so that telecommunications services may be passed efficiently between those systems.

**Interconnect Provider** means a provider of a telecommunications service who is required to provide interconnection under section 43 of the Telecommunications Act.

**Interconnecting Operator** means a provider of a telecommunication service who has interconnected or has requested that it be able to interconnect its telecommunications system to the telecommunications system of an Interconnect Provider.

**Interconnection Agreement** means an agreement (whether entered into before or after the date of these guidelines) in relation to the interconnection of telecommunication systems.

**Interconnection Information** means information in the possession or control of the Interconnect Provider that relates to an interconnection request and which may assist the Interconnecting Operator:

(a) to better formulate its request for interconnection;

(b) to plan, establish or maintain its telecommunication system or a telecommunication service for the purpose of interconnection including, but not limited to:

(i) technical, traffic and other relevant information;

(ii) system and facilities specifications; and

(iii) any material changes to that information or specifications which may impact on the Interconnecting Operator's interconnection arrangements or the services it intends to provide to customers by means of that interconnection.

**Major Operator** in relation to a form of interconnection means a telecommunications service provider declared by the Authority to be a major operator for that form of interconnection.

**Ministerial Guidelines** means the Ministerial Determination on Interconnection Guidelines dated 7 May 1997 Notice 771 of 1997.

**POI** means a Point of Interconnection that is a location that constitutes a point of demarcation between the telecommunication systems of an Interconnect Provider and an Interconnecting Operator

**Private Operator** means the provider of a private telecommunication network.

**Public Operator** means the provider of a public fixed telecommunications service or a public mobile cellular telecommunications service.

**Service Provider** means a provider of a telecommunications service other than a Public Operator or a Private Operator.

**Telecommunications Act** means the Telecommunications Act 1996 (Act No 103 of 1996) as amended.

**Third Anniversary Date** means 7 May 2000 the date of expiry of the Ministerial Guidelines as calculated under section 43(3)(c) of the Telecommunications Act.

1.2 Words used in these Guidelines that are not defined by these Guidelines but are defined by the Telecommunications Act shall have the meaning given to them by the Telecommunications Act.

## 2. APPLICATION OF INTERCONNECTION GUIDELINES

2.1 Subsection 43(3) of the Telecommunications Act requires the Authority to prescribe guidelines relating to the form and content of Interconnection Agreements including amongst other matters:

(a) the time by or period within which interconnection is to be carried out;

(b) the quality or level of service to be provided by the means of one telecommunication system for the other telecommunication service; and

(c) the fees and charges payable for such interconnection.

2.2 These Guidelines:

(a) are issued by the Authority under subsection 43(3) of the Telecommunications Act;

(b) will be applied by the Authority in the manner contemplated by section 43 of the Telecommunications Act;

(c) are intended to outline parts of the form and content of Interconnection Agreements;

(d) apply to all Interconnect Providers and Interconnecting Operators although specific parts of these Guidelines apply only to certain Interconnect Providers or certain Essential Services;

(e) do not restrict a person's rights under section 43 of the Telecommunications Act; and

(f) may be varied by the Authority from time to time by notice in the Gazette.

2.3 These Guidelines are intended to provide guidance to interconnecting parties and are not intended:

(a) to limit the matters which may be dealt with in an Interconnection Agreement but to provide a minimum set of issues which should be addressed.

(b) to prevent or delay parties from negotiating or entering into bilateral or multilateral agreements which deal with matters not addressed in these Guidelines;

2.4 Prior to the Third Anniversary Date the Ministerial Guidelines shall prevail where applicable, over these Guidelines in respect of interconnection to Telkom SA Ltd. These Guidelines shall replace the Ministerial Guidelines in their entirety from the Third Anniversary Date.

2.5 If anything in these Guidelines is inconsistent with the Ministerial Guidelines then:

(a) before Third Anniversary Date it will be applied so that it is consistent with the Ministerial Guidelines; and

(b) after the Third Anniversary Date it will be construed in accordance with its ordinary meaning.

## 3. CONTENTS OF AGREEMENTS BETWEEN PUBLIC OPERATORS

3.1 A written Interconnection Agreement between Public Operators must include each of the following matters unless it is not relevant to the form of interconnection that has been requested:

(a) the scope and specification of interconnection;

(b) access to all ancillary or supplementary services or access to and use of premises or land that may assist in the provision or support of interconnection or Customer Services;

(c) service levels and the maintenance of end-to-end quality of service;

(d) charges for interconnection

(e) billing and settlement procedures;

(f) ordering, forecasting, provisioning and testing procedures;

(g) the provision of POI, Interconnect Capacity and colocation;

(h) the transmission of CLI and the provision of Network Information;

(i) the provision of information regarding system modernisation or rationalisation;

(j) technical specifications, standards and interoperability tests;

(k) traffic and system management, maintenance and measurement;

(l) information handling and confidentiality;

(m) duration and renegotiation; and

(n) dispute resolution procedures.

## 4. PROMOTION OF USE OF SERVICES AND FACILITIES

4.1 The terms and conditions of an Interconnection Agreement must in the opinion of the Authority promote the increased public use of telecommunications services or more efficient use of telecommunication facilities.

## 5. INTERCONNECTION AGREEMENTS NOT TO PRECLUDE RIGHTS

5.1 An Interconnection Agreement must not:

(a) seek to preclude or frustrate the exercise of any statutory powers or prevent any person from seeking the exercise of statutory powers;

(b) impose any penalty, obligation or disadvantage on a person for seeking the exercise of any statutory powers;

(c) prohibit a person from providing a interconnection service which that person is lawfully able to provide; or

(d) frustrate the provision of a telecommunications service by a person which that person is lawfully able to provide.

5.2 A service acquired as part of interconnection may be used for any lawful purpose.

5.3 An Interconnecting Operator may at any time request that an Interconnect Provider vary any term or condition of an Interconnection Agreement. An Interconnect Provider may refuse that request but if it does so this will be a dispute for the purposes of section 43 of the Telecommunications Act.

## 6. REQUESTS FOR FURTHER INTERCONNECTION AND GOOD FAITH NEGOTIATIONS

6.1 An Interconnection Provider must provide Interconnection Information to an Interconnecting Operator that reasonably requests that Interconnection Information. An Interconnection Provider need not provide Interconnection Information if the Authority determines that it is not to be provided.

6.2 The parties to an Interconnection Agreement must negotiate in good faith and use their reasonable endeavours to resolve all disputes relating to the form of interconnection the subject of that agreement or any other form of interconnection.

## 7. MAINTENANCE OF ANY TO ANY CONNECTIVITY

7.1 The terms of each Interconnection Agreement must facilitate interconnection in a manner which promotes any to any connectivity including by ensuring that:

(a) a Customer of an Interconnecting Operator is able to call a Customer of any other telecommunications service provider on a non-discriminatory basis; and

(b) the transmission of calls across and within telecommunications systems should be seamless to both the calling and called parties.

7.2 An Interconnect Provider may not terminate an Interconnection Agreement unless:

(a) the termination is for fundamental breach of the Interconnection Agreement or the expiry of the term of that agreement;

(b) the Interconnect Provider gives reasonable written notice of its intention to terminate specifying the grounds of termination and, in the case of breach, requiring that the breach be remedied within the following notice period;

(i) Service Providers - not less than one month; and

(ii) Public Operators or Private Operators not less than 3 months; and

(c) the Interconnecting Operator has been given the opportunity to remedy the breach and has failed to do so.

(d) An Interconnect Provider of an Essential Service may not terminate an Interconnection Agreement without the Authority's consent.

7.3 An Interconnection Agreement must not allow the suspension of interconnection except where this is necessary to address material degradation of telecommunications systems or services.

7.4 An Interconnection Agreement must establish termination and suspension procedures that minimise any adverse affect of that termination or suspension on Customers.

## 8. NON-DISCRIMINATION PRINCIPLES

8.1 An Interconnect Provider must treat each:

(a) Interconnecting Operator on a basis that is non-discriminatory and no less favourable than the treatment which the Interconnection Provider affords to its subsidiaries, its affiliates, or other similarly situated telecommunications service providers;

(b) telecommunication service of an Interconnecting Operator on a basis that is non-discriminatory and no less favourable than the treatment which the Interconnect Provider affords to telecommunication services of itself, its affiliates, or other similarly situated telecommunications service providers;

(c) Customer of an Interconnecting Operator on a basis that is non-discriminatory and no less favourable than the treatment which the Interconnect Provider affords to its own Customers or the Customers of its subsidiaries, its affiliates, or other similarly situated telecommunications service providers.

## 9. QUALITY OF SERVICE

9.1 An Interconnection Agreement will contain services levels that reflect good interconnection practice and provide reasonable remedies for any failure to meet those service levels.

9.2 The parties to an Interconnection Agreement will comply with all relevant standards of the International Telecommunications Union and such other technical standards as the Authority may determine from time to time.

## 10. INTERCONNECTION CHARGING STRUCTURE

10.1 Charges for interconnection must be structured to match the pattern of underlying costs incurred and to distinguish and separately price the following aspects of interconnection:

(a) fixed once off charges for the establishment and implementation of physical interconnection;

(b) periodic rental charges for use of facilities, equipment and resources including Interconnect Capacity; and

(c) variable charges for telecommunications services and supplementary services.

10.2 All charges for interconnection shall be transparent and sufficiently unbundled so that the Interconnecting Operator does not have to pay for any thing that it does not require for that interconnection.

10.3 Charges for interconnection must not exceed retail charges for the provision of the equivalent services or facilities to be provided by that interconnection.

10.4 An Interconnecting Operator is free to acquire services from an Interconnect Provider at any retail price offered by the Interconnect Provider without prejudice to any rights to acquire the same or similar services under an Interconnection Agreement.

10.5 Interconnection charges that are found by the Authority at any time to not comply with these guidelines may be varied by determination of the Authority.

10.6 An Interconnection Agreement must provide for a determination of the Authority to operate retrospectively if the Authority so determines.

## 11. INTERCONNECTION CHARGES

11.1 Major Operators of Essential Services must provide those Essential Services for interconnection to any requesting Public Operator at the long run incremental cost (**LRIC**) of those Essential Services.

11.2 LRIC is to be calculated on the basis of relevant forward looking economic costs calculated for an efficient telecommunications service provider and including a cost of capital. LRIC will be calculated in accordance with such principles as the Authority may issue from time to time.

11.3 Major Operators of Essential Services must provide those Essential Services for interconnection to Service Providers at no more than the Major Operators best retail prices less avoidable costs provided that this price is not less than the LRIC of the Major Operator.

11.4 Major Operators may charge Service Providers no more than the fully allocated costs of the Major Operator for establishing a POI.

## 12. EFFICIENT PROVISIONING

12.1 The forecasting, ordering and provisioning of interconnection must be efficient and occur within reasonable time frames and must not include any unnecessary or inefficient steps.

12.2 The facilities or systems required for interconnection shall be provided in sufficient capacity to enable the efficient transfer of signals between interconnected telecommunication systems.

12.3 An Interconnecting Operators' request for interconnection should be given reasonable priority over the Customer orders of the Interconnect Provider.

## 13. REQUESTS FOR NEW SERVICES AND SYSTEM CHANGE

13.1 Where an Interconnecting Operator requests a new form of interconnection it must request that new form of interconnection in writing and provide the Interconnect Provider with reasonable information in relation to the following matters:

(a) the form of interconnection;

(b) the approximate date the interconnection is required; and

(c) an estimate of the capacity required.

13.2 All requests for new interconnection services shall be filed with the Authority.

13.3 The Interconnect Provider must inform the Interconnecting Operator in writing within 15 calendar days of the provision of the information:

(a) whether it is willing and able to supply the form of interconnection; and

(b) whether it will be able to do so within the time frames required by the Interconnecting Operator.

13.4 Where the Interconnect Provider has informed the Interconnecting Operator that it is able to provide the interconnection it must ensure that the system conditioning and provisioning procedures required to provide that interconnection are undertaken within the time required by the Interconnecting Operator.

13.5 A Major Operator that is an Interconnect Provider must provide six (6) months notice to Interconnecting Operators of planned changes to its telecommunications system that may materially impact the telecommunications services of the Interconnecting Operator.

## 14. ESTABLISHMENT AND LOCATION OF POIS

14.1 POIs must be established and maintained at any technically feasible point in a Major Operator's system requested by an Interconnecting Operator.

14.2 The Interconnecting Operator must provide sufficient details to the Interconnection Provider in relation to a POI to enable the Interconnect Provider to assess what system conditioning may be required and to estimate the costs of establishing the POI.

14.3 POIs shall be established as soon as practicable following a request and in any case not later than forty five (45) calendar days from the date of the request.

14.4 Where interconnection occurs between Public Operators each Public Operator must bear its own port, datafill and switch costs to support the POI and the parties shall share the cost of the Interconnect Capacity equally.

14.5 Where a party seeking interconnection from a Major Operator requests that facilities be co-located with the facilities of the Major Operator, such co-location shall be provided unless it is technically infeasible.

## 15. CLI

15.1 CLI and all necessary signalling data shall be passed between interconnecting parties in accordance with accepted international standards and all codes of conduct issued by the Authority.

## 16. INTER-OPERATOR WORKING GROUP

16.1 The parties to an Interconnection Agreement will form appropriate working groups to discuss matters relating to interconnection and to resolve any disputes that may arise.

## 17. CONFIDENTIALITY

17.1 All confidential information provided by a party to another party in relation to interconnection must:

(a) be kept confidential and only used in relation to the provision of interconnection except where the disclosure is authorised by the other party, authorised or required by law or is disclosed to the Authority; and

(b) only be disclosed to employees, agents or advisers who need to know that information for the purpose of the provision of interconnection or advising thereon.

17.2 Confidential information of a party received by the other party in relation to interconnection or information generated by the telecommunications system of a party as a result of providing interconnection must not be disclosed to any person involved in the development or provision of retail services of the other party or its subsidiaries or affiliates.

17.3 Confidentiality provisions of an Interconnection Agreement must not prevent or frustrate the public disclosure of any Interconnection Agreement by the Authority.

## 18. TRANSPARENCY OF AGREEMENTS

18.1 Where a major operator has entered into a written interconnection agreement for a particular interconnection service, the operator shall make that agreement publicly available.

## 19. PROCEDURES

19.1 The Authority is to be advised by the requesting party of any new request for an interconnection agreement with a Major Operator.

19.2 Prior to an operator or operators referring a dispute as to reasonableness or inability to negotiate to the Authority for a formal determination, either party may request the Authority's assistance in resolving the dispute through mediation.

19.3 Disputes between operators as to the reasonableness of a request for interconnection are to be referred to the Authority for a decision as to the reasonableness of the request.

19.4 Where an operator claims that another operator is unwilling to negotiate or agree on any term or condition on which interconnection is to be provided, the issue is to be submitted to the Authority for decision.

19.5 Where an operator or any other person alleges that there has been a contravention or failure to comply with:

- the provisions of the Act;
- the appropriate Guidelines; or
- an interconnection agreement,

then the Authority shall investigate and make a decision in response to the allegation.

# FACILITIES LEASING GUIDELINES ISSUED UNDER SECTION 44 OF THE TELECOMMUNICATIONS ACT 1996

1. **DEFINITIONS**

1.1 In these Guidelines the following words will have the meaning given to them unless the context otherwise requires:

**Essential Facility** means a facility provided by a Major Operator or a facility declared by the Authority in writing to be a essential facility for the purposes of these Guidelines.

**Facilities Acquirer** means a provider of a telecommunication service who has Leased facilities or has requested that it be able to Lease facilities from a Facilities Provider.

**Facilities Provider** means a provider of a telecommunications service who is required to Lease facilities under section 44 of the Telecommunications Act.

**Facilities Leasing Agreement** means an agreement ( whether entered into before or after the date of these guidelines) in relation to the leasing or otherwise making available of facilities.

**Facilities Information** means information in the possession or control of the Facilities Provider that relates to a facilities request and which may assist the Facilities Acquirer:

(a) to better formulate its request for facilities;

(b) to plan, establish or maintain its telecommunication system or a telecommunication service for the purpose of including but not limited to:

(i) technical, traffic and other relevant information;

(ii) system and facilities specifications; and

(iii) any material changes to that information or specifications which may impact on the Facilities Acquirer's Leasing arrangements or the services it intends to provide to customers by means of that Facilities Leasing.

**Facilities Leasing** means the leasing or otherwise making available of telecommunications facilities.

**Major Operator** in relation to a form of Facilities Leasing means a telecommunications service provider declared by the Authority to be a major operator for that form of Facilities Leasing.

**Private Operator** means the provider of a private telecommunication network.

**Public Operator** means the provider of a public fixed telecommunications service or a public mobile cellular telecommunications service.

**Service Provider** means a provider of a telecommunications service other than a Public Operator or a Private Operator.

**Telecommunications Act** means the Telecommunications Act 1996 (Act No 103 of 1996) as amended.

1.2 Words used in these Guidelines that are not defined by these Guidelines but are defined by the Telecommunications Act shall have the meaning given to them by the Telecommunications Act.

## 2. APPLICATION OF FACILITIES LEASING GUIDELINES

2.1 Subsection 44(5) of the Telecommunications Act requires the Authority to prescribe guidelines relating to the form and content of Facilities Leasing Agreements including amongst other matters:

(a) the time by or period within which Facilities Leasing is to be carried out;

(b) the quality of Facilities Leasing; and

(c) the fees and charges payable for Facilities Leasing.

2.2 These Guidelines:

(a) are issued by the Authority under subsection 44(5) of the Telecommunications Act;

(b) will be applied by the Authority in the manner contemplated by section 44 of the Telecommunications Act;

(c) are intended to outline parts of the form and content of Facilities Leasing Agreements;

(d) apply to all Facilities Providers and Facilities Aquirers although specific parts of these Guidelines apply only to certain Facilities Providers or certain Essential Facilities;

(e) do not restrict a person's rights under section 44 of the Telecommunications Act; and

(f) may be varied by the Authority from time to time by notice in the Gazette.

2.3 These Guidelines are intended to provide guidance to parties and are not intended:

:

(a) to limit the matters which may be dealt with in a Facilities Leasing Agreement but to provide a minimum set of issues which should be addressed; and

(b) to prevent or delay parties from negotiating or entering into bilateral or multilateral agreements which deal with matters not addressed in these Guidelines.

## 3. CONTENTS OF AGREEMENTS BETWEEN PUBLIC OPERATORS

3.1 A written Facilities Leasing Agreement between Public **Operators** must include each of the following matters unless it is not relevant to the Facilities Leasing that has been requested:

(a) the scope and specification of the facilities to be provided;

(b) access to all ancillary or supplementary services or access to and use of premises or land that are required to support the provision of facilities;

(c) service levels and the maintenance facilities;

(d) charges for the facilities;

(e) billing and settlement procedures;

(f) ordering, forecasting, provisioning and testing procedures;

(g) the provision of colocation for facilities;

(h) the provision of information regarding system modernisation or rationalisation;

(i) technical specifications, standards and interoperability tests;

(j) information handling and confidentiality;

(k) duration and renegotiation; and

(l) dispute resolution procedures.

## 4. PROMOTION OF USE OF SERVICES AND FACILITIES

4.1 The terms and conditions of a Facilities Leasing Agreement must, in the opinion of the Authority, promote the increased public use of telecommunications services or more efficient use of telecommunication facilities.

## 5. FACILITIES LEASING AGREEMENTS NOT TO PRECLUDE RIGHTS

5.1 A Facilities Leasing Agreement must not:

(a) seek to preclude or frustrate the exercise of any statutory powers or prevent any person from seeking the exercise of statutory powers;

(b) impose any penalty, obligation or disadvantage on a person for seeking the exercise of any statutory powers;

(c) prohibit a person from providing a telecommunications service or facility which that person is lawfully able to provide or;

(d) frustrate the provision of a telecommunications service or facility by a person which that person is lawfully able to provide.

5.2 A facility acquired under a Facilities Leasing Agreement may be used for any lawful purpose.

5.3 A Facilities Acquirer may at any time request that a Facilities Provider vary any term or condition of a Facilities Leasing agreement. A Facilities Provider may refuse that request but if it does so this will be a dispute for the purposes of section 44 of the Telecommunications Act.

## 6. REQUESTS FOR FURTHER FACILITIES LEASING AND GOOD FAITH NEGOTIATIONS

6.1 A Facilities Provider must provide Facilities Information to a Facilities Acquirer who reasonably requests that Facilities Information. A Facilities Provider need not provide Facilities Information if the Authority determines that it is not to be provided.

6.2 The parties to a Facilities Leasing Agreement must negotiate in good faith and use their reasonable endeavours to resolve all disputes relating to the facilities the subject of that agreement or any other facility.

6.3 All requests for new Facilities Leasing Agreements must be filed with the Authority.

## 7. CONTINUATION OF LEASING OF FACILITIES

7.1 A Facilities Provider may only terminate a Facilities Leasing Agreement where:

(a) the termination is for fundamental breach of the Facilities Leasing Agreement or the expiry of the term of that agreement;

(b) the Facilities Provider gives reasonable written notice of its intention to terminate specifying the grounds of termination and, in the case of breach, requiring that the breach be remedied within the following notice periods;

(i) Service Providers not less than one month; and

(ii) Public Operators or Private Operators not less than 3 months; and

(c) the Facilities Acquirer has been given the opportunity to remedy the breach and has failed to do so.

7.2 A Facilities Provider of an Essential Facility may not terminate a Facilities Leasing Agreement without the Authority's consent.

7.3 A Facilities Leasing Agreement must not allow the suspension of Facilities Leasing except where this is necessary to address material degradation of telecommunications systems or services.

7.4 A Facilities Leasing Agreement must establish termination and suspension procedures that minimise any adverse affect of that termination or suspension on Customers.

## 8. NON-DISCRIMINATION PRINCIPLES

8.1 A Facilities Provider must treat each:

(a) Facilities Acquirer on a basis that is non-discriminatory and no less favourable than the treatment which the Facilities Provider affords to its subsidiaries, its affiliates, or other similarly situated telecommunications service providers;

(b) telecommunication service of a Facilities Acquirer on a basis that is non-discriminatory and no less favourable than the treatment which the Facilities Provider affords to the telecommunication services of itself, its affiliates, or other similarly situated telecommunications service providers; and

(c) Customer of a Facilities Acquirer on a basis that is non-discriminatory and no less favourable than the treatment which the Facilities Provider affords to its own Customers or the Customers of its subsidiaries, its affiliates, or other similarly situated telecommunications service providers.

## 9. TIME FOR SUPPLY AND QUALITY OF FACILITIES

9.1 A Facilities Leasing Agreement will include time periods for the provisioning of each type of facility in each type of area which must not exceed forty five (45) calendar days or as directed by the Authority in writing for that type of facility for that type of area.

9.2 A Facilities Leasing Agreement will contain services levels that reflect good Facilities Leasing practice.

9.3 A Facilities Leasing Agreement must provide reasonable remedies for any failure to meet time periods for the provisioning of Facilities and service levels.

9.4 The parties to a facilities agreement will comply with all relevant standards of the International Telecommunications Union and such other technical standards as the Authority may determine from time to time.

## 10. EFFICIENT PROVISIONING

10.1 The Leasing of facilities by a Facilities Provider under a Facilities Leasing Agreement must be efficient and occur in accordance with the time table negotiated between the parties and specified in the Facilities Leasing Agreement.

10.2 The provisioning of facilities must be non-discriminatory as between the Facilities Acquirer and the Facilities Provider, and any subsidiaries, affiliates or related companies of the Facilities Provider.

10.3 Provisioning procedures must not include any unnecessary steps and requests for facilities must be provisioned in the order received and must not be provisioned after retail orders of the providing party, or orders of any affiliate or related party of the providing party.

## 11. FACILITIES CHARGING STRUCTURE

11.1 Charges for the provision of facilities shall be structured to distinguish and separately price the following aspects:

(a) the establishment and implementation (if any) of the physical facilities, including testing;

(b) rental charges for use of facilities, equipment and resources; and

(c) variable charges for ancillary and supplementary services.

11.2 All charges for the Leasing of facilities shall be transparent and sufficiently unbundled so that the party seeking facilities does not have to pay for system components or facilities that it does not require.

11.3 Charges for Facilities Leasing must not exceed retail charges for the provision of the equivalent services or facilities to be provided by that Facilities Leasing.

11.4 A Facilities Acquirer is free to acquire services from a Facilities Provider at any retail price offered by the Facilities Provider without prejudice to any rights to acquire the same or similar services under an Facilities Leasing Agreement.

11.5 Facilities Leasing charges that are found by the Authority at any time to not comply with these guidelines may be varied by determination of the Authority.

11.6 A Facilities Leasing Agreement must provide for a determination of the Authority to operate retrospectively if the Authority so determines.

## 12. CHARGING FOR MAKING FACILITIES AVAILABLE

12.1 Major Operators of Essential Facilities must Lease Essential Facilities to any requesting Public Operator at the long run incremental cost (**LRIC**) of those Essential Facilities.

12.2 LRIC is to be calculated on the basis of relevant forward looking economic costs calculated for an efficient telecommunications service provider and including a cost of capital. LRIC will be calculated in accordance with such principles as the Authority may issue from time to time.

12.3 Major Operators of Essential Facilities must Lease those Essential Facilities to Service Providers at no more than the Major Operators fully allocated costs for those Essential Facilities.

## 13. CONFIDENTIALITY

13.1 All confidential information provided by a party to another party in relation to Facilities Leasing must:

(a) be kept confidential and only used in relation to the Facilities Leasing except where the disclosure is authorised by the other party, authorised or required by law or is disclosed to the Authority; and

(b) only be disclosed to employees, agents or advisers who need to know that information for the purpose of the Facilities Leasing or advising thereon.

13.2 Confidential information of a party received by the other party in relation to the Leasing of facilities or information generated by the telecommunications system of a party as a result of Facilities Leasing must not be disclosed to any person involved in the development or provision of retail services of the other party or its subsidiaries or affiliates.

13.3 Confidentiality provisions of a Facilities Leasing Agreement must not prevent or frustrate the public disclosure of any Facilities Leasing Agreement by the Authority.

## 14. TRANSPARENCY OF AGREEMENTS

14.1 Where a major operator has entered into a written facilities leasing agreement for a particular service, the operator shall make that agreement publicly available.

## 15. PROCEDURES

15.1 The Authority is to be advised by the requesting party of any new request for a facilities leasing agreement with a Major Operator.

15.2 Prior to an operator or operators referring a dispute as to reasonableness or inability to negotiate to the Authority for a formal determination, either party may request the Authority's assistance in resolving the dispute through mediation.

15.3 Disputes between operators as to the reasonableness of a request for facilities leasing are to be referred to the Authority for a decision as to the reasonableness of the request.

15.4 Where an operator claims that another operator is unwilling to negotiate or agree on any term or condition on which facilities leasing arrangements are to be provided, the issue is to be submitted to the Authority for decision.

15.5 Where an operator or any other person alleges that there has been a contravention or failure to comply with:

- the provisions of the Act;
- the appropriate Guidelines; or
- a facilities leasing agreement,

then the Authority shall investigate and make a decision in response to the allegation.

# SOUTH AFRICAN TELECOMMUNICATIONS REGULATORY AUTHORITY

# INTERCONNECTION AND

# FACILITIES LEASING REGULATORY POLICY STATEMENT

**FEBRUARY 1999**

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## OVERVIEW OF THE REGULATORY POLICY STATEMENT

### 1. INTRODUCTION

1.1 The *Telecommunications Act 1996* (**Telecommunications Act**), together with its associated regulations and the licences issued under that legislative scheme, provides the foundations for South Africa's telecommunications regulatory regime up to and beyond the year 2000. The objectives of the Act provide the framework for South Africa's telecommunications policy.[1]

1.2 Interconnection and facilities leasing are an essential telecommunications policy issue for any jurisdiction that has introduced or has plans to introduce competition in telecommunications markets. These arrangements govern the nature of the wholesale relationships which will be established between providers of telecommunications services to ensure any-to-any connectivity across telecommunications networks.

1.3 The Authority has released this Regulatory Policy Statement and Interconnection Guidelines and Facilities Leasing Guidelines (**Guidelines**) for the following reasons:

- interconnection and facilities leasing[2] are critical issues for the development of South Africa's telecommunications services;
- interconnection and facilities leasing agreements raise issues regarding the appropriate treatment of incumbents and new competitors in emerging competitive environments;
- it is apparent that there is uncertainty within the industry regarding the manner in which interconnection and facilities leasing regulation will develop, including the scope of application of the Guidelines, and their relationship with the existing Ministerial Guidelines;
- to facilitate business planning, it is preferable that information regarding the future interconnection and facilities leasing regime is available as soon as possible; and
- many of the existing interconnection arrangements in the industry have been formulated under the regulatory environment in existence prior to the *Telecommunications Act*.

1.4 Under the *Telecommunications Act* the Authority is required to establish both interconnection and facilities leasing guidelines within which the industry will negotiate interconnection and facilities leasing agreements. The Authority also has the important task of adjudicating between industry players in relation to interconnection and facilities

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1 The objectives are reproduced as Attachment 1 to this Regulatory Policy Statement.

2 The term "facilities leasing" is used throughout this Regulatory Policy Statement for ease of reference and should be read as "leasing or otherwise making facilities available", the terminology used in section 45 of the Telecommunications Act.

leasing disputes. Many of the relevant considerations and processes are similar and it is therefore convenient to deal with the interconnection and facilities leasing regulation in one policy document.

1.5 The Authority does not intend that its Guidelines will replace the role of negotiation and commercial resolution. However the Guidelines have been developed to provide detailed guidance to industry participants as to the matters to be covered in interconnection agreements and facilities leasing agreements. The Authority believes that by providing the industry with a detailed set of guidelines it will reduce the time taken to negotiate interconnection agreements and facilities leasing agreements and assist in preventing unnecessary disputes. This will ultimately promote enhanced connectivity and the interests of the public.

## 2. OUTLINE OF THE REGULATORY POLICY STATEMENT

2.1 This Regulatory Policy Statement is divided into the following parts which seek to explain the regulatory environment in a logical manner:

- *Part 1 – the Authority's Role in the Regulation of Interconnection and Facilities Leasing* – This part outlines the statutory powers of the Authority in relation to interconnection and facilities leasing and explains the general statutory scheme for interconnection and facilities leasing regulation. It is useful for the industry to understand the Authority's current views regarding this statutory framework.

- *Part 2 – The Policy Environment for Interconnection and Facilities Leasing Regulation* – This part outlines the general policy framework within which interconnection and facilities leasing regulation should operate. In establishing principles for interconnection and facilities leasing the Authority will be mindful of a variety of broad policy settings including South Africa's international obligations, the current market structure, Telkom's exclusivity, rebalancing, universal access and competition law. The purpose of this section is to explain how the interconnection and facilities leasing regime fits within the broader policy framework that has been set by the Government.

- *Part 3 – Interconnection and Facilities Leasing Policy and Statutory Tests* – This part reviews the general principles of interconnection and facilities leasing policy and the economic rationale for those policies. It then reviews in some detail the statutory concepts and tests to be applied under sections 43 and 44. The purpose of this section is to give the industry a better understanding of the framework within which interconnection and facilities leasing disputes should be brought before the Authority for relevant decisions.

- *Part 4 – Price Aspects of Interconnection and Facilities Leasing* – This part (together with Part 5) examines price aspects of interconnection and facilities leasing, including the nature of the services and facilities where price regulation may be necessary, the rules and benchmarking principles that are relevant to assessing prices, the Authority's preferred approach to pricing methodologies, pricing systems for different types of operators, and the relevant procedures for significant call types.

- *Part 5 – Non-Price Aspects of Interconnection and Facilities Leasing* – This part reviews in more detail some of the critical non-price aspects of interconnection and facilities leasing.

- *Part 6 – The Process of Judgement and Review* – The purpose of this part is to give the industry some guidance regarding how interconnection agreements should be brought forward for the Authority's consideration in accordance with the *Telecommunications Act*.

2.2 The Authority has undertaken an extensive consultation process throughout 1998 and received extensive written and verbal submissions from the industry. The Authority has finalised this extensive Regulatory Policy Statement and the associated Interconnection Guidelines and Facilities Leasing Guidelines following a consideration of these views.

2.3 It is now necessary for the industry to advance the implementation of efficient interconnection in the best interests of the South African public. The Authority's role is not to tell the industry precisely how and when it should implement interconnection. Rather, its role is to provide appropriate guidance regarding the policy framework within which interconnection negotiations are to take place and then to discharge its statutory duties in relation to resolving any disputes that may arise from time to time. The industry must take responsibility for conducting interconnection negotiations efficiently and in a manner that will allow disputes to be resolved efficiently by the Authority.

# PART 1 – THE AUTHORITY'S ROLE IN THE REGULATION OF INTERCONNECTION AND FACILITIES LEASING

## 3. THE REGULATORY FRAMEWORK

### Functions of a Regulator

3.1 There are a number of different functions which regulatory bodies are commonly required to perform with respect to interconnection and facilities leasing which include the following.[3]

- Regulators can be required to perform pre-agreement "rule-making" functions, where they develop interconnection guidelines, principles or rules as standards which must be followed by the parties in negotiating their agreements.

- A regulator may perform an "eligibility" function, in determining whether a party is entitled to an interconnection agreement.

- Regulators may also have "determinative" functions for interconnection, where the regulator sets the terms and conditions on which interconnection is to be provided, either in every situation or in instances where the parties are unable to negotiate an agreement.

- A regulator may have an "adjudicative" function, where the regulator is involved in determining disputes which arise between interconnecting parties.

- Regulators may also be given a post-agreement "approval" role, where they have the power to decide whether a particular agreement complies with the prescribed regulatory principles or rules. In addition, regulators may have a role in "monitoring" the progress of interconnection negotiations.

### The Authority's Interconnection and Facilities Leasing Functions

3.2 The *Telecommunications Act* requires that the Authority carries out all of these functions to some degree. The scope and matrix of the Authority's functions with respect to interconnection provide the basis for the establishment of a comprehensive and effective interconnection regime in South Africa. The following table outlines the Authority's role and the respective legislative provisions in relation to each function.

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3 *The Report on Network Interconnection in the Domain of ONP, Study for DGXIII of the European Commission*, 1994 (WIK report) describes the different roles or functions regulators could carry out in relation to interconnection.

**THE AUTHORITY'S INTERCONNECTION AND FACILITIES LEASING FUNCTIONS**

| Function | The Authority's Function | Interconnection | Facilities Leasing |
|---|---|---|---|
| Rule-Making | The Authority sets guidelines | s.43(3) | s.44(5) |
| Monitoring | Parties notify the Authority of requests for interconnection | s.43(1)(e)(i) | s.44(3) and s.43(1)(c) |
| Approval | The Authority determines whether agreements are consistent with the guidelines | s.43(4) | s.44(6) and s.43(4) |
| Eligibility | The Authority determines the reasonableness of a request for interconnection | s.43(1)(e)(ii) | s.44(3) and s.43(1)(c)(ii) |
| Determination | The Authority declares terms and conditions where no agreement is reached | s.43(4)(b) | s.44(6) and s.43(4)(b) |
| Adjudication | The Authority investigates and makes orders or determinations re contraventions or failure to comply with an interconnection agreement | s.100(1)(a) | s.100(1)(a) |

3.3 The significance of the different regulatory functions of the Authority may also vary over time. Since there are few written interconnection agreements entered into to date, and there may be divergent views within the industry regarding when a party should be entitled to the benefit of a formal interconnection agreement, the Authority may face an active role in the short term in deciding when a request for interconnection is reasonable. In the medium term, the Authority's role may shift more towards the adjudicative aspect of determining disputes which arise.

**Guidelines Powers**

3.4 Sub-section 43(3) requires that the Authority prescribe guidelines relating to the form and content of interconnection agreements, and such guidelines must determine, amongst other things:

- the time by or period within which interconnection pursuant to the agreement shall be carried out;
- the quality or level of service to be provided by means of the one telecommunication system for the other telecommunication service; and
- the fees and charges payable for such interconnection.

3.5 The Authority is also required by section 44(5) to formulate guidelines relating to the form and content of agreements for leasing or otherwise making telecommunication facilities available. The section foreshadows that the guidelines will be formulated along the same lines as the interconnection guidelines taking account of the necessary changes to deal with the requirement of facilities leasing.

3.6 Both sets of guidelines have been released in conjunction with this Regulatory Policy Statement.

**Monitoring and Approval Powers**

3.7 Under section 43(2) and 44(4) parties to an interconnection and facilities leasing agreement must submit that agreement to the Authority (unless exempted by regulation). The Authority will then assess whether the agreement complies with the relevant interconnection or facilities leasing guidelines. If it does not, then those parts that do not comply will not be enforceable and the Authority may direct the parties to renegotiate those parts. Accordingly, the Authority is able to monitor agreements that have been reached commercially. Commercial agreements do not exclude the Authority's powers as there may be instances where, for one reason or another, a party is encouraged to enter into an interconnection agreement or a facilities leasing agreement that will have an adverse policy impact.

**Eligibility, Determination and Adjudication Powers**

3.8 If a party is required to provide interconnection under section 43 it must do so unless the request for interconnection is unreasonable. The Authority assesses the eligibility of interconnection requests against a standard of reasonableness under section 43 and will determine that the request is not unreasonable if the interconnection is technically feasible and will promote increased public use of telecommunications services or more efficient use of telecommunication facilities.

3.9 Section 43(4) addresses the powers of the Authority the Authority to adjudicate on interconnection disputes. Where the parties are unwilling or unable to negotiate or agree proposed terms and conditions that comply with the guidelines the Authority may declare the terms and conditions to be applicable between the parties.[4] The Authority may also determine that particular terms and conditions are not consistent with the guidelines and direct the parties to negotiate and agree on new terms and conditions.[5] The terms and conditions so declared are enforceable between the parties.[6]

**Authorisation Powers**

3.10 Section 44(7) also provides that, where the Authority is satisfied that Telkom is unwilling or unable to make suitable facilities available within a reasonable period of time, the

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4 See sub-section 43(4)(b).

5 See sub-section 43(5)(b).

6 See sub-section 43(6)(a).

Authority may authorise that person to provide or obtain the facilities other than from Telkom, notwithstanding the Telkom exclusivity.[7] Accordingly, a facilities leasing dispute can be addressed in two ways. Either the Authority will intervene and determine the relevant contractual terms, or, the access seeker may be authorised to provide its own facilities or to obtain those facilities from a third party.

**Investigation and Enforcement**

3.11 Finally, under section 100 the Authority has the power to investigate any alleged contravention of a licensee to comply with the *Telecommunications Act* or a licence or any relevant agreement for the interconnection or provision of telecommunications facilities under sections 43 and 44.

3.12 Accordingly, the Authority is involved in assessing whether a request for interconnection should be fulfilled, adjudicating any dispute should it not be fulfilled and finally investigating and adjudicating in relation to any failure to comply with any agreement.

## 4. THE RELATIONSHIP BETWEEN THE REGULATORY POLICY STATEMENT AND THE AUTHORITY GUIDELINES

**The Purpose of the Guidelines**

4.1 The Authority's Guidelines are an important component of the regulatory framework and are intended to be finalised as part of the Authority's review of interconnection and facilities leasing. The Authority's Guidelines are only a component of a regulatory framework that includes:

- the general policy framework for interconnection and facilities leasing;
- the statutory framework for interconnection and facilities leasing;
- the tests to be applied to assess whether interconnection or facilities leasing requests are unreasonable;
- the guidelines prescribing the form and content of interconnection and facilities leasing agreements;
- the determination of disputes regarding the terms and conditions of interconnection and facilities leasing agreements.

4.2 This Regulatory Policy Statement addresses each of these issues. It should be recognised that the guidelines have a specific place in the regulatory structure but are not intended to address all of these issues. Subsection 43(3) provides that:

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7 See sub-section 44(7).

*"The Authority shall prescribe guidelines relating to the form and content of interconnection agreements, and such guidelines shall determine, among others –*

*(a) the time by or period within which interconnection pursuant to the agreement should be carried out;*

*(b) the quality or level of service to be provided by means of the one telecommunications system for the other telecommunications system;*

*(c) the fees and charges payable for such interconnection."*[8]

4.3 Accordingly, the Guidelines are to assist in establishing the *form and content* of the interconnection and facilities leasing agreements and are therefore not meant to prescribe in complete detail all of the Authority's policies in relation to interconnection. The guidelines have specific functions within the regulatory framework and a paper such as this document is required to review broader issues.

4.4 The functions of the Guidelines include the following:

- they provide guidance to the industry for the purposes of commercial negotiations;
- they are guidelines to which the Authority will have regard in resolving interconnection disputes;
- the Authority reviews agreements against the guidelines to determine if their terms are inconsistent and therefore should not be enforceable;
- the Authority may then direct the renegotiation of clauses so they are consistent with the guidelines.

4.5 Each of these functions is reviewed in greater detail below.

**A Benchmark for Determinations**

4.6 Apart from providing guidance to the industry regarding the form and content of agreements which are finalised through commercial negotiation, the guidelines also have a role in the determination of disputes under subsection 43(4)(b). Where parties are unwilling or unable to negotiate or agree the Authority will propose terms and conditions in accordance with the guidelines which, subject to any negotiation, are to be agreed by the parties within such period as the Authority may specify, failing which it will declare the terms. Those declared terms and conditions will be enforceable between the parties under subsection 43(6)(a). Therefore, in settling interconnection disputes the Authority will have regard to the guidelines in determining those terms and conditions.

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8 A similar formulation applies to facilities leasing under section 44(5).

**A Benchmark for Agreements Lodged by Parties**

4.7 Where interconnection and facilities leasing agreements are commercially negotiated and finalised and submitted to the Authority for approval it also assesses those agreements against the guidelines. Under subsection 43(4)(c) where an interconnection or facilities leasing agreement is lodged as contemplated by section 43 and 44 the Authority will inform the parties whether it is satisfied that the agreement is consistent with the relevant guidelines or, where it determines that it is inconsistent, provide the parties with particulars of those terms and conditions and the reasons for its determination. The terms and conditions determined in this manner to be inconsistent with the guidelines will not be enforceable between the parties.

**Directions to Negotiate**

4.8 Finally, where the Authority determines that any terms and conditions are not consistent with the guidelines it may direct the parties to negotiate and agree on new terms and conditions that are consistent with the guidelines and which, subject to any negotiation, must be agreed by the parties within such period as the Authority may specify.

## 5. THE RELATIONSHIP BETWEEN THE MINISTERIAL GUIDELINES AND THE AUTHORITY'S GUIDELINES

5.1 There is a proviso to the Authority's power to introduce guidelines which states that within 12 months of the date of commencement of the *Telecommunications Act* the Minister is to determine by notice in the Gazette guidelines, in respect of Telkom SA Limited (**Telkom**), which will be in force until the third anniversary of the date on which the Minister issued a licence to Telkom in accordance with section 36(1)(a) of the *Telecommunications Act*. On 7 May 1997 the Ministerial Determination of Interconnection Guidelines was issued, and a copy is reproduced as Attachment 2 to this Regulatory Policy Statement. The Ministerial Guidelines in respect of Telkom state that they will lapse in favour of interconnection guidelines prescribed by the Authority under section 43 on or after 7 May 2000.

5.2 Ministerial Guidelines on interconnection are already in place with respect to all interconnection agreements where Telkom is a party (**Ministerial Guidelines**)[9]. The current Ministerial Guidelines have been issued under section 43 and no guidelines have been issued by the Minister under section 44. The Ministerial Guidelines deal with a number of significant interconnection issues, but not all interconnection issues. Those Guidelines do not apply to all interconnection arrangements (only interconnection with Telkom), and will not apply at all after May 2000. Further, there are no Ministerial Guidelines in place in relation to facilities leasing, so that the Facilities Leasing Guidelines will come into immediate effect.

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[9] The Ministerial Guidelines were issued in the Gazette by notice 771 of 1997.

**Issues of Application**

5.3 There appears to be no disagreement within the industry that the Ministerial Guidelines apply prior to 7 May 2000 in respect of Telkom in relation to the subject matter that they cover. Further, there is no disagreement that after 7 May 2000 the Guidelines will apply. The only issue in relation to which there appears to be industry confusion is whether Facilities Leasing Guidelines and augmenting Interconnection Guidelines may be introduced by the Authority before 7 May 2000.

5.4 The Authority's current views on the relevant issues of application are as follows:

- the Authority will not introduce Interconnection Guidelines prior to 7 May 2000 in respect of Telkom that are inconsistent with the Ministerial Guidelines;
- the Authority's Interconnection Guidelines may consistently augment the Ministerial Guidelines prior to 7 May 2000;
- the Authority may introduce Interconnection Guidelines applying to parties other than Telkom prior to 7 May 2000;
- the Authority may introduce Facilities Leasing Guidelines prior to 7 May 2000; and
- after 7 May 2000 the Authority's Interconnection Guidelines and Facilities Leasing Guidelines may apply in their entirety.

5.5 The industry should also note that if no guidelines exist this does not prevent disputes being brought before the Authority and resolved in accordance with the Telecommunications Act. Where there are no Ministerial Guidelines in place then the Authority must determine the appropriate policy to resolve disputes. It has provided some relevant guidance in this Regulatory Policy Statement. Further, the full the Guidelines will be in place within 13 to 14 months.

5.6 In summary, even where there are no guidelines currently in force, this does not prevent the resolution of disputes. However, it is incumbent on the industry to raise those disputes in a manner that allows them to be dealt with properly.

**Guidelines Are Not Required to Implement Interconnection**

5.7 Parties requiring interconnection should not be denied that interconnection either because guidelines are not in place nor because the guidelines that are in place do not deal with a particular issue in dispute. Telkom is obliged to interconnect and other parties are encouraged to interconnect.

5.8 The Authority therefore encourages the industry not to be distracted from finalising agreements, resolving disputes and implementing interconnection. Efficient interconnection will serve the interests of the public and this outcome should not be delayed by fundamental misunderstandings regarding the interconnection environment.

# PART 2 – THE POLICY ENVIRONMENT FOR INTERCONNECTION AND FACILITIES LEASING REGULATION

## 6. INTERCONNECTION IN THE SOUTH AFRICAN INDUSTRY CONTEXT

### Developing a South African Approach

6.1 The Authority considers that there are a number of key aspects of the environment within which an interconnection scheme which is specifically appropriate for South Africa must be developed including the following:

- South Africa's international obligations in relation to interconnection and facilities leasing.
- The broader telecommunications policy of the South African Government.

### International Obligations

6.2 South Africa has accepted a series of international obligations with respect to domestic interconnection arrangements, as a signatory to the World Trade Organisation (**WTO**) Basic Telecommunications Agreement within the broader General Agreement on Trade in Services (**GATS**). The Basic Telecommunications Agreement includes a Regulatory Reference Paper which deals specifically with interconnection.

6.3 In making its commitments within the WTO, South Africa has reflected the strong policy commitments that the Government has made towards universal and affordable service and redressing the needs of historically disadvantaged communities. Accordingly the liberalisation of services and the introduction of competition in various sectors is planned to take place over a five to six year period in order to ensure the primacy of those policy objectives.

6.4 In addition to these broad commitments, South Africa has accepted and committed to a number of regulatory principles set down by the WTO in the Regulatory Reference Paper. The Regulatory Reference Paper forms part of a multilateral commitment between WTO member states, including both developed and developing countries, to an agreed set of principles underlying interconnection. It sets out definitions and principles in relation to competitive safeguards, interconnection, universal service and the role of the national regulator.[10] Accordingly it is reasonable for the Authority to treat South Africa's WTO commitments as a minimum set of standards.

6.5 Although there is an evolving international consensus in relation to interconnection regulation, this does not mean that interconnection policy will or should be identical in every country. Clearly there are distinct differences between the level of general economic and telecommunications infrastructure development between countries. Accordingly, each country must adopt specific policy settings to meet specific objectives.

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[10] The full text of South Africa's WTO commitments to the WTO is Attachment 3 to this Regulatory Policy Statement.

However, neither does this mean that the experience of other countries is irrelevant. The Regulatory Reference Paper reflects a relatively common set of principles within which individual policies may be pursued.

6.6 The WTO Paper distinguishes between "major suppliers" and other industry operators, and contains the following requirements:

- interconnection with a major supplier will be ensured at any technically feasible point;
- interconnection will be provided under non-discriminatory terms and conditions;
- interconnection will be provided in a timely fashion;
- interconnection will be provided on terms and conditions and at cost-oriented rates that are transparent, reasonable and sufficiently unbundled such that a party is not required to pay for components or facilities that it does not require;
- the procedures that are applicable for interconnection to a major supplier will be made publicly available; and
- there should be a dispute settlement procedure in place that will enable disputes about interconnection to be resolved.

6.7 In addition to the WTO commitments the Authority's view is that international comparisons with more developed telecommunications markets should be applied, where relevant, while recognising that South Africa has:

- differently configured telecommunications markets, for example, it is a very large geographic region with reasonably well developed urban markets but very underdeveloped rural markets; and
- emerged from a unique political background and has very specific development objectives.

6.8 The Authority also recognises that comparisons with a number of lesser developed telecommunications markets should be subject to a critical assessment for the following reasons:

- many of them are in or will shortly be in a process of revising their regulatory regimes as part of new policy initiatives;
- South Africa wishes to take a pro-active approach to regulation and it has decided to be a regulatory leader not a follower in its region; and
- as the most extensive reviews of interconnection policy have been undertaken in the more liberalised nations it is better to begin with those more developed

principles and then assess whether there is a valid reason for excluding them from the South African environment.

6.9 The Authority will take advantage of the considerable amount of interconnection policy analysis that has taken place elsewhere, while ensuring that those principles are relevantly applied to South Africa to achieve South Africa's policy objectives set by the South African Government.

6.10 This approach is consistent with the policy of the South African Government set out in the White Paper and other documents. The Government has chosen to apply very progressive approaches to regulation, both through the WTO Agreement and domestic policy, while distinguishing the South African policy environment, to the extent that is necessary to support its specific policy objectives, particularly in relation to universal access.

## 7. A REGULATORY REGIME FOR THE CURRENT MARKET STRUCTURE

7.1 In the Consultation Paper, the Authority very specifically outlined that the interconnection policy it was formulating pertained to the existing market structure and not the next phase of liberalisation beyond 2002 and it stated that:

> *An interconnection regime cannot be developed in isolation from other policy objectives, including major liberalisation initiatives. While many of the principles outlined in this paper will continue to be applicable in various forms well into the future it must be recognised that interconnection regulation is a dynamic concept. All interconnection regimes are subject to revision and the Authority anticipates that it that will want to revisit interconnection regulation at a later date in the context of the broad set of policy considerations that are relevant to fixed line liberalisation.*
>
> *South Africa's approach to interconnection policy must be developed in the context of the current structure and state of the South African industry. The telecommunications industry in South Africa today is marked by the emergence of a diversity of new service providers entering those parts of the market which are open to competition. Core voice telephony services will continue to be provided exclusively by Telkom until 2002. The services covered by Telkom's monopoly include public switched telecommunication services, national long distance and international services, local access services and public pay telephone services.*

7.2 The Authority's interconnection policy has been developed in the context of the existing Government policy regarding market structure. Both the Government White Paper and the Telecommunications Act specifically contemplate the development of an interconnection regime from March 1996. Indeed, the Authority is required by the *Telecommunications Act* to develop interconnection guidelines and facilities leasing guidelines. Therefore, a failure to address interconnection would be inconsistent with current Government policy and the legislation.

7.3 The current market structure is a matter of stated Government policy and debate regarding these issues must take place in a different forum. Further, interconnection policy will be revisited as part of any consideration of further market restructuring during

the next phase of liberalisation to assess whether amendments should be made to the Authority's Guidelines.

## 8. INTERCONNECTION, EXCLUSIVITY, REBALANCING AND UNIVERSAL ACCESS

### Policy Goals

8.1 The Government has several goals for the telecommunications sector during Telkom's exclusivity period. The most important is the expansion of the telecommunications infrastructure and the promotion of universal service. This particular policy involves the following inter-related elements.

- Telkom must meet its target for increased line growth and part of its investment in those lines will be loss making;
- Telkom has the right to rebalance its charges which will progressively remove the loss making element of providing additional lines; and
- by virtue of its exclusivity, Telkom has access to secure and predictable sources of revenue and profit during the exclusivity period.

8.2 This balanced formulation therefore grants to Telkom a very significant benefit during the exclusivity period in return for its commitment to line growth. The benefits bestowed on Telkom allow it to derive a reasonable return on its capital investment in its business, even given its significant investment in additional lines.

### Telkom's Financial Position

8.3 There are no signs that Telkom's business is under any financial stress. Many incumbent operators face the onset of competition without the ability to rebalance loss making local charges. However, the existing Government policy provides Telkom with a managed transition by allowing for a process of rebalancing which will be complete prior to additional liberalisation of the market. The Government has also established the Universal Service Fund which may be employed to address any residual universal access contribution issues in an equitable manner.

8.4 In addition to all of these protective measures, the current Telkom interconnection arrangements have remained largely static since they were originally entered into some years ago. Further rebalancing has been occurring in accordance with the program defined by the Government. Therefore, since 1996 Telkom has held its exclusivities and enjoyed the additional benefit of the initial phases of rebalancing while interconnection developments have been predominantly static.

### Enhancing the Government's Objectives

8.5 The Authority has remained mindful of the Government's policy position, outlined in the White Paper, in formulating interconnection and facilities leasing principles. The

Authority is of the view that the principles outlined in this Regulatory Policy Statement best support and enhance the policy objectives of the South African Government.

8.6 The Authority remains prepared to revisit its policy should there be empirical evidence which suggests that this interconnection or facilities leasing regime is not achieving the Government's objectives. However, on balance this seems unlikely and to delay the formulation of interconnection principles will be harmful to the consumers.

8.7 The Authority must balance many competing interests in developing its views on interconnection and facilities leasing. While some industry participants may not always be satisfied with each and every outcome they must recognise that the Authority must serve the interests of the public, not individual operators. The South African telecommunications industry is in a critical development phase and it is unacceptable for operators to pursue their own interests to the detriment of the broader industry and the public.

8.8 The Authority will give close consideration to the industry's views and will make balanced decisions. Once this process has occurred it is important that implementation proceeds and the industry is able to get on with the job of efficiently deploying South Africa's resources within the telecommunications market.

8.9 The Government has been conscious for some time of the potential for delays in the implementation of interconnection and facilities leasing to permanently harm the industry. For example, the White Paper contains the following salient warning:

> "*There is a danger, ironically, that if the [exclusivity scheme] succeeds too well, and Telkom during the period of exclusivity is able to position itself in such a way that it can impede competitive venture. This has indeed been the case in many other countries where a strong incumbent operator so dominates a liberalised market that the benefits of competition are few. Thus, the Regulator has a difficult task of monitoring Telkom's activities to distinguish between actions that facilitate the central goals of the sector in terms of reconstruction and development and actions whose effect or position Telkom so powerfully as to undermine eventual competitors. This will not be easy, but must be done. The objective is not promoting competition per se, but of promoting of the welfare of the consumer. To the extent that competition facilitates that welfare, the Regulator should do what is necessary to establish a fair playing field.*"[11]

8.10 Further, as the Government has noted in the White Paper:

> "*Interconnection agreements assume great importance as the environment moves towards a network of networks, and no network player should be permitted to*

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[11] See paragraph 2.2.0 of the White Paper.

*erect bottlenecks. Hence, the Regulator is empowered to oversee and compel interconnection agreements and a set of appropriate formulae."*[12]

8.11 Accordingly, the Government has specifically contemplated the need for the Authority to regulate in a manner that carefully balances the competing interests at play and serves the public interest.

## 9. UNIVERSAL ACCESS AND INTERCONNECTION

### Overview

9.1 The Government's commitment to improving universal access is one of the primary telecommunications policy objectives of South Africa. The universal access policy is not open for debate within the interconnection regime. However the impact of interconnection on South Africa's universal access policy is relevant to this paper.

9.2 Currently the South African regulatory regime uses relatively approximate and indirect methods of providing funding for universal access. The current model is for rollout obligations to be imposed on licensees. In return, a licensee is able to operate in a specific regulatory environment that provides it with particular benefits.

9.3 The White Paper concludes that cross-subsidisation regimes implemented on the grounds of the attainment and social objectives should be transparent to the Authority using a chart of accounts and cost allocation manual. The Authority notes that the cross-subsidisation regime constituted by the Telkom exclusivity and its line changes are not currently transparent on this basis. However, it would appear that Telkom's exclusivities and rebalancing more than compensate it for its available cost of network rollout that it would not otherwise.

9.4 To understand this it is useful to briefly outline the relevant regulatory concepts including:

- the cost of Telkom's lines rollout which is imposed by regulation (rather than by ordinary investment criteria);
- the revenues that accrue to Telkom as a result of exclusivity and rebalancing; and
- how interconnection and facilities leasing may affect these revenues.

### The Cost of Universal Access

9.5 In the context of the Government's universal access policy it is necessary to understand the following principles:

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12 See paragraph 2.23 of the White Paper.

- there is no imperative to enhance Telkom's profitability, simply to support universal access commitments; and

- raw cost data made available by Telkom in relation to its investment in new lines does not equate to the cost of its universal access obligations.

9.6 There is a significant difference between the cost of network investment and the cost of regulatory obligations to provide increased lines.

- Regulatory induced costs need to be carefully assessed. . For example, it is possible that some new exchange serving areas will return a profit to Telkom as the relevant customers use profitable services to an extent that off-sets any loss Telkom may occur on basic line rental prior to the completion of rebalancing.

- Telkom's investment is also a long term investment that may progressively become profitable as rebalancing occurs pushing marginal customers into a profitable category as well as the benefits of so called "life cycle" effects where the customers themselves may move into higher socio-economic brackets and therefore begin to use more profitable services.

- New customers added to the total PSTN will use profitable telecommunication services and receive calls and this is revenue derived by Telkom that it would not have received had it not undertaken the rollout.

9.7 A typical formulation adopted in other countries to assess the regulatory induced cost of universal access or universal service is to calculate the avoidable costs of meeting those obligations and then subtract revenue derived from loss making services. Avoidable costs would be those costs that would not have been incurred in the absence of the obligation (given that Telkom would have incurred some of the total cost even if it had no universal access obligations).

9.8 A variety of mechanisms are deployed internationally to identify these amounts. They can be quite complex and is not appropriate to review them in this context. It is sufficient to note that the regulatory induced cost of universal access obligations is often significantly less than the absolute cost of network investment. This suggests that the authority should take a broad view of the inter relationship of various regulatory initiatives and their impact on profitability.

**Revenues and Traffic Migration**

9.9 Telkom's profit at the time mobile competition was introduced and its profits at the time the White Paper policy was concluded has not been compromised. Further improvements in the interconnection environment of the type proposed by the Authority may deliver additional net benefits to Telkom that could actually enhance its profits.

9.10 As the White Paper contemplates, the introduction of competitors to a market place and consequential interconnection and facilities leasing arrangements will often increase the revenue and profitability of the incumbent. This is because:

- new forms of service provision will add incremental traffic that would not have existed in the absence of new service providers;

- the price and quality improvements resulting from competition stimulate additional traffic so that the total volume of traffic across the PSTN actually increases and, while the incumbents retail market share may decrease, its total volume of retail traffic may actually increase; and

- the incumbent obtains significant revenue from interconnection services.

9.11 An example of the first dynamic is the introduction of mobile operators to South Africa's telecommunications markets. Of course, sometimes a person may choose to use a mobile phone as a substitute for a fixed line call. For example, a person could have access to a fixed line phone in an office or at home and still use a mobile service. However, such examples of substitutability should not involve a significant proportion of fixed line services as mobile networks, including GSM networks, are typically higher cost networks in the urban areas where they generally overlap and therefore the incentive for substitutability only occurs where fixed line prices are inappropriately above a fair return.

9.12 Telkom was granted exclusivity over certain services in 1996. These did not include cellular mobile services or related services such as public pay phones via cellular technology and there is no assumption that cellular mobile services may not attract some degree of substitutable traffic. In addition, VANS operators also generate a lot of incremental traffic and the current categories of VANS do not include voice resale. The manner in which these operators may attract traffic in a manner which would compromise Telkom's universal access obligations is therefore not readily apparent.

9.13 An example of the second dynamic may be found in a number of liberalised markets where incumbent revenues and profitability had increased despite very aggressive competition across all levels of the market. For example, BT in the United Kingdom and Telstra in Australia have exhibited such an increase in profitability. This is not to say that an incumbent's profitability could not decrease in a competitive environment, for example, in circumstances where it was regulated very strictly and there was no provision for rebalancing. However, this is not the case in South Africa and a large proportion of the market continues to be reserved exclusively to Telkom.

9.14 An example of the third dynamic may be found in most liberalised countries as the incumbent typically establishes a large wholesale business. While the incumbent's profits for each minute of wholesale traffic may not be as great as for each minute of retail traffic, it still receives a return on capital. That is, interconnection services are still profitable. The Authority's proposed pricing methodology observes this principle.

**Conclusions**

9.15 Accordingly, for the interconnection regime to have an adverse affect on universal access there would need to be a fundamental transition of a significant volume of existing traffic to the mobile operators that was not balanced by new incremental traffic and the revenue lost from the migration would need to reduce Telkom's profitability to at least below 1995/1996 levels to a point where it compromised its rollout plans.

9.16 Given the considerable delays that have occurred in implementing interconnection reform and the current significant profitability of Telkom, it would not appear to benefit any of South Africa's policy objectives to accentuate these delays any further. Nevertheless, the Authority may alter its interconnection policy should there be clear empirical evidence that the interconnection regime compromised Telkom's rollout commitments.

**Universal Access and Other Service Providers**

9.17 Telkom is the primary provider of telecommunications infrastructure in South Africa and the primary vehicle for improving universal access. However, other operators play a smaller part in meeting this important policy goal.

9.18 Telkom has significant rollout obligations but also significant exclusivities to compensate it for these rollout obligations and the benefits of a rebalanced environment when the exclusivity period ends. In a similar manner, the rollout obligations of MTN and Vodacom are balanced against their regulatory rights. Those rights included the ability to be the first cellular operators in South Africa and to launch at approximately the same time (albeit with a slight headstart by Vodacom) and to secure high value customers, establish their businesses and entrench their position in the market.

9.19 The entry conditions of further new operators may be quite different. While it is expected that they will be in a position to compete against existing players there may be a regulatory objective that they provide connectivity to underserved areas. However, those underserved areas alone may not provide a sustainable long term business proposition. In these circumstances the balance of rights and obligations must be assessed to ensure that it is fair.

## 10. INTERACTION WITH THE COMPETITION ACT

### Interconnection, Facilities Leasing and Competition

10.1 As the Authority outlined in the Consultation Paper there are important interrelationships between wholesale and retail regulation and general competition law, to the extent they all form part of the overall regulatory environment.[13]

10.2 Ultimately interconnection and facilities leasing regulation is designed to have a pro-competitive effect and to this extent it has similar objectives to the *Competition Act*. However, it is necessary to recognise that these are separate regulatory tools to be exercised by different authorities and there are very strong justifications for these different levels of regulation.

10.3 The Competition Act has been designed to provide generic competition laws for the South African economy. It is modelled in part on the general competitions laws of other countries and to this extent reflects international experience in the area of anti-trust regulation. It is new legislation, the implementation of which will need to be developed over the coming years.

10.4 In the vast majority of markets competition is the norm. A lack of competition is usually an exception found in certain parts of the economy, traditionally utility industries. Telecommunications is one such industry that has now been recognised internationally as potentially a highly competitive industry that should be liberalised. While other markets can at times exhibit harmful levels of concentration they begin as more diverse and competitive markets than a telecommunications industry emerging from a monopoly era.

10.5 In addition, networked industries such as telecommunications require that all participants interconnect and interoperate their networks to efficiently serve the public. Therefore, entrants to telecommunications markets are highly dependent on capacity and facilities inputs they acquire from incumbents and interconnection and facilities leasing regulation is essential for competition in the dependent markets for those services and facilities (i.e. the downstream markets that serve the needs of end-user customers). It can therefore be seen that in a networked industry that is transitioning from a monopoly to a highly competitive series of markets there is, particularly in the initial years of liberalisation, a need for quite prescriptive regulation.

10.6 It is for this reason that, *in addition to generic competition laws*, the telecommunications industry is subject to special legislation, and a specialist industry that has interconnection and facilities leasing powers. This is in recognition of the fact that generic competition laws are often insufficient to deal with many of the specific problems that arise in networked and highly concentrated industries such as telecommunications.

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13 At the Interconnection Hearing there was some discussion regarding the interaction between the interconnection regulatory regime and the new *Competition Act 1998*. Some industry participants proposed that the interconnection regime should in certain respects correspond to the *Competition Act*. There was also brief discussion regarding the relationship between the interconnection and facilities leasing regimes and the *Competition Act*.

10.7 General competition laws also require relatively complex analyses of market definition, market power and the anti-competitive purpose or effect of particular conduct. This can often take a significant amount of time. Telecommunications-specific regulation has been developed in recognition of the fact that certain activities may have an adverse impact on competition and should be regulated in a more time effective manner. It is therefore important that interconnection and facilities leasing regulation operate in a clear, consistent and timely manner.

10.8 The Authority is not charged with the obligation of administering the *Competition Act*. Rather the *Competition Act* makes provision for the Competition Commission to participate in the proceedings of any regulatory authority, advise and receive advice from any regulatory authority and negotiate agreements with any regulatory authority to co-ordinate and harmonise the exercise of jurisdiction over competition matters within the relevant industry or sector to ensure the consistent application of the principles of the Competition Act.[14]

10.9 The Authority will be mindful of the principles set out in the *Competition Act*, when it exercises its interconnection and facilities leasing powers. They are consistent with a number of objectives of the *Telecommunications Act* which seek to promote the provision of a wide range of telecommunications services, encourage investment and innovation and encourage the development of a competitive and effective telecommunications sector. However, in applying those principles in pursuit of these objectives the Authority will also be mindful of the other objectives of the Telecommunications Act, in particular the promotion of universal and affordable provision of telecommunications services.

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14 See section 21 of the Competition Act.

## PART 4 - INTERCONNECTION AND FACILITIES LEASING POLICY AND STATUTORY TESTS

### 11. ESSENTIAL SERVICE AND FACILITIES

#### Overview of Economic Principles

11.1 It is commonly understood that access regimes should apply to "bottleneck" facilities and services. In its strictest economic sense a service or facility will be a bottleneck where it is not possible (eg. as a result of the licensing regime) or economically viable to duplicate that service or facility. However, interconnection does not solely apply to recognised bottlenecks and it is also used to pursue a range of important policy goals.

11.2 This economic concept finds supports in the Competition Act's treatment of essential facilities and also finds support in the WTO Regulatory Reference Paper which requires that a major supplier must provide interconnection at any technical feasible point in its network. Under the Competition Act an essential facility is defined as an infrastructure or resource that cannot reasonably be duplicated, and without access to which competitors cannot reasonably provide goods or services to their customers.

11.3 Under the WTO Regulatory Reference Paper a "major supplier" is one that has the ability to materially effect the terms of participation (having regard to pricing and supply) in the relevant market for basic telecommunications service as a result of its control over essential facilities or the use of its position in the market. An essential facility is one that is part of a public telecommunications network or service that:

- is exclusively or predominantly provided by a single or limited number of suppliers; and
- cannot feasibly be economically or technically substituted in order to provide a service.

11.4 Applying these principles to South Africa, Telkom continues to hold the exclusive right to provide fixed line telecommunication services throughout the country. It therefore falls into the class of a "major supplier" in terms of the WTO principles both because of its exclusivity and because it can control prices in that market. It would also appear to be a supplier of essential facilities for the purposes of the Competition Act.

**The Removal of Bottlenecks**

11.5 As the fixed line market is liberalised, competition will develop at various levels of the fixed line service hierarchy and, as that competition expands, the need for regulatory intervention in the setting of access prices may dissipate. Of course, the Authority has not finalised a model for the introduction of fixed line competition. However, as a hypothetical, if the fixed line market were to be open at all levels it is possible that South Africa would see a pattern in the development of competition similar to other countries. This has involved the establishment of competitive facilities at higher levels of the network such as international gateways moving down through national long distance networks and ultimately, in the long term, into the local loop.

11.6 This suggests that interconnection regulation is a dynamic concept. As contestability occurs at different levels of the network hierarchy at different times it may be possible to progressively remove the need for regulated access pricing. However, there is still a significant period of time until South Africa allows this form of competition and a further significant period of time may be required to allow the level of competition to develop to a sufficient level of contestability.

**Major and Minor Operators**

11.7 The generally accepted view is that while all operators must meet the general obligations in relation to interconnect, a major operator in newly liberalised markets has market power and is likely to exercise that market power in any interconnect negotiations. Accordingly, it is necessary for the regulator to establish rules that constrain major operators, and provide an environment for minor operators that is conducive to resolving disputes.[15]

11.8 Common obligations that are placed on major operators are cost-based interconnect prices, unbundled interconnect services and the requirement to compile separate accounts for its interconnect business.[16] The rationale for removing barriers to entry for minor operators through the interconnection regime is to promote the growth of competition more rapidly, as well as to level the playing field in light of the anticipated advantages of the incumbent in the negotiating process.[17]

11.9 Distinctions between the interconnection requirements imposed on major and minor operators are also required by the Competition Act and WTO Regulatory Reference Paper. The Competition Act imposes certain obligations on dominant firms. The WTO Paper refers to "major suppliers" and defines this as a party who has the ability to materially affect the terms in the relevant market for basic telecommunications because of either its control over essential or bottleneck facilities or use of its position in the market. Similarly the European Union in its Interconnection Directive refers to

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15 David Lewin, Richard Kee "Interconnect a global guide to effective telecommunications" Ovum Study 1997 para C4.2

16 See the European Unions Full Competition Directive and Interconnection Directive, United States Local Competition Order.

17 Local Competition Order para 15. As the FCC has acknowledged in its Local Competition Order "an incumbent LEC has little incentive to assist new entrants in their efforts to secure a greater share of that market." Indeed the incumbent "also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supra-competitive prices or other unreasonable conditions."

organisations which have significant market power and imposes differential requirements on those organisations.[18]

11.10 The Authority does not wish to simply apply a "market power" concept within the interconnection regime as this may lead to delays in implementing beneficial interconnection arrangements while there is a debate regarding the existence or non-existence of market power. The Authority also sees that the current formulation of a major operator or minor operator may lead to disputes Accordingly, its preferred position is that it will identify major operators for particular services and may then determine that there are other major operators for particular services from time to time. The Authority will list a series of factors which it will take into account in making these decisions.

Initially the Authority proposes to use the definitions in the *Telecommunications Act* as definitions of the market for:

- public switched and telecommunications services;
- mobile cellular telecommunications services;
- national long distance telecommunication services;
- local access telecommunication services and public payphone services.

11.11 These definitions are not final but are convenient for initial definitions for the purposes of the interconnection and facilities leasing regimes. They are also broadly consistent with market definition in other countries.

11.12 By their very nature VANS are a diverse category and could fall into different markets. Accordingly, the Authority has not taken a view at this stage of a market analysis of VANS.

11.13 Accordingly, the Authority will regard Telkom as being a major operator in the market for public switched telecommunications services, national long distance telecommunication services and local access telecommunication services. The Authority will also regard Vodacom and MTN as major operators in the supply of mobile cellular telecommunication services.

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18 Article 4(2). Directive 97/EC of the European Parliament and of the Council on Interconnection In Telecommunications With Regard To Ensuring Universal Service and Interoperability through Application of the Principles of Open Network Provision (ONP)

**Designated Interconnect Services and Facilities**

11.14 The Authority does not believe that it is appropriate to engage in lengthy proceedings debating market definition and who are major or minor operators for a variety of facilities and services. Rather, it proposes to develop a list of interconnection services and facilities which will be subject to certain principles and this list may be amended from time to time. This approach is not dissimilar to the lists of interconnection services and facilities that have been developed by OFTEL in the UK and the process for service declaration in Australia.

11.15 The initial list of interconnection services and facilities that will be subject to these principles will include:

- all services that are supplied exclusively or the exclusive provision of which is a by product of other exclusivities;
- all termination services to end users that are connected directly to the network of a particular licensee; and
- roaming services provided by the mobile operators.

11.16 All of these services should be subject to an obligation to supply. This is also consistent with sections 43 and 44 which impose mandatory obligations on Telkom This list will be varied from time to time.

11.17 Other obligations will apply depending on whether an operator is a major or minor operator.

11.18 This arrangement effectively contemplates a range of categories for various obligations as follows:

- those obligations that apply to all interconnecting licensees;
- those obligations that apply to the licensee that supplies a designated service or facility; and
- those obligations that apply to major operators for the supply of those services for which they are major operators.

## 12. PARTIES ENTITLED TO AND THE SCOPE OF INTERCONNECTION AND FACILITIES LEASING

**Introduction**

12.1 A number of submissions have been made to the Authority regarding:

- those parties that are and are not entitled to participate in interconnection; and

- the scope of interconnection.

12.2 For example, some industry participants submitted that interconnection may only be made available between Telkom and mobile licensees and should, for example, exclude PTN's and VANS operators. These submissions appear to have been made on the basis that "interconnection" is in some way inherently restricted to these categories of operators. However, the Authority sees no statutory support for these views. Indeed, the *Telecommunications Act* is drafted more broadly than this.

12.3 The scope of the persons entitled to interconnection is outlined in section 43(1)(a) and (b). There are two elements to this scope:

- *Persons Included* - The nature of those persons that are or may be incorporated within the scope of the interconnection powers;

- *Ministerial Gazette* - In respect of any such persons other than Telkom, whether they are formally incorporated within that scope by a Ministerial notice published in the Gazette.

**The Scope of Section 43**

12.4 The persons who potentially fall within the scope of section 43 include any "person providing a telecommunications service".[19] This phrase is not defined in its entirety. However, a "telecommunications service" means any service provided by means of a telecommunications system[20] and "telecommunications system" is defined in section 1.

12.5 Accordingly The Telecommunications Act distinguishes between a "telecommunications service" and a "telecommunications system". The telecommunication system is the underlying network and the service is the telecommunications capacity provided over that network. Therefore, to provide a telecommunications service a person may not necessarily own or even operate a "telecommunications system".

12.6 The categories of persons who provide telecommunications services and therefore fall within the interconnection provisions include all those persons licensed under Chapter V of the Telecommunications Act. Under section 32 no person may provide a telecommunication service except in accordance with a licence issued under Chapter 5. Chapter 5 identifies a range of licensed categories,[21] however, further categories may be prescribed and the Authority may prescribe telecommunications services and activities

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19 This terminology is used in both paragraphs 43(1)(a) and (b).

20 See paragraph (xxvii) of section 1 of the Telecommunications Act.

21 See section 33 and sections 34(2)(a)(i) to (iv) and 39 to 41.

which may be provided or conducted without a licence (other than those specifically outlined in Chapter 5).[22]

12.7 Accordingly, at a minimum, the persons capable of interconnecting include:

- public switched telecommunications services licensees;
- mobile cellular telecommunication services licensees;
- national long-distance telecommunication service licensees;
- local access telecommunication services and public pay phone services licensees;
- value added network services licensees; and
- private telecommunication licensees.

12.8 Therefore, all telecommunications licensees, are capable of interconnecting. However, this does not necessarily mean that they must all interconnect on the same terms. In subsequent sections of this paper, the Authority has commented on appropriate terms of interconnection between various categories of licensees.

**Ministerial Gazettal**

12.9 Currently the obligation to interconnect under section 43(1)(a) is restricted to Telkom. The obligation for additional telecommunication service providers to interconnect is subject to subsection 43(1)(b) which provides that:

> *"With effect from a date be fixed by the Minister by notice in the Gazette, every person who provides a telecommunications service shall, when requested by any other such person, interconnect its telecommunications system to the telecommunications system of such other person unless such a request is unreasonable."*

12.10 Therefore, the statutory obligation to interconnect under section 43 requires a Ministerial notice to be gazetted to trigger the statutory obligations. Accordingly, the Authority has requested the Minister to gazette all necessary notices to give effect to the interconnection policy outlined in this paper.

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22 See section 33(1)(b) and (2).

**The Concept of "Interconnection"**

12.11 The concept of interconnect is broadly described in the Act as follows:

> *"Interconnect" means to link two telecommunications systems so that users of either system may communicate with users of or utilise services provided by means of, the other system or any other telecommunications system, and "interconnection" has a corresponding meaning"*[23]

12.12 This definition addresses the process of physical interconnection at the point of interface between two networks as well as the transmission of calls, the utilisation of services signalling, billing and other arrangements. The legislative concept of interconnection involves, at a minimum, linking two telecommunications systems so that users of one system may:

- communicate with users of the other system;
- use services provided by means of the other system; or
- use services provided by any other telecommunications system.

12.13 The first element facilitates communication between end users. For example, interconnection is required to enable one network to terminate a call originating on another telecommunications network. If a call is made from a mobile handset on the Vodacom network to a fixed line telephone on the Telkom network, Vodacom must acquire termination services from Telkom.

12.14 The second element facilitates all forms of indirect access. For example, if any telecommunications service provider wishes to access a customer directly connected to an existing mobile or fixed line network. If a VANS provider needs to access a fixed line customer on the Telkom network, then the capacity to reach that retail user depends on the provision of interconnection services.

12.15 The third element addresses access across a transit network. For example, if a new entrant fixed line operator is introduced at a later time, and an end user directly connected to the Telkom network wishes to access the services of a VANS provider where the VANS provider is only directly connected to the new fixed line provider, then the call must transit that new fixed line providers network.

12.16 The Authority considers that this definition of "interconnect" in the Act is very broad and includes a wide variety of capacity signalling, and associated services and other arrangements.

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23 *Telecommunications Act* 1996, s. 2.

## 13. OBLIGATION TO INTERCONNECT AND DIFFERENT TERMS OF INTERCONNECTION

### The Obligation to Interconnect

13.1 There is a statutory obligation imposed on Telkom to interconnect. Telkom's obligation to interconnect is embedded in section 43(1)(a) of the *Telecommunications Act* which provides that:

> *"Telkom shall, when requested by any other providing a telecommunications service, interconnect its telecommunication system to the telecommunication system of that person unless such request is unreasonable."*

13.2 The Telkom Licence and the Ministerial Guidelines indicate that Telkom will not be required to interconnect until it has reached an interconnection agreement with the other party. However, these guidelines cannot allow an incumbent to defeat the purposes of the Telecommunications Act, the primary enabling legislation. Parties who wish to interconnect should bear these other provisions in mind and work swiftly towards concluding an agreement and invoking the Authority's determination powers at an early stage to complete that agreement if it becomes necessary.

### Lack of Progress In Certain Respects Since 1996

13.3 The White Paper emphasises the need for interconnection with Telkom to proceed efficiently and states that:

> *"Telkom, as a common carrier, is obliged to connect all service providers and private networks without discrimination. But more can be done than at present. Telkom must not be able to put road blocks before providers wishing to connect into the PSTN, and must accommodate legitimate interconnection requests with reasonable promptness. The Regulator is empowered to enact mandatory interconnection policies if necessary. Where possible, Telkom should facilitate the growth services by offering interconnection in "unbundled", customised packages, and in which lesser quality or lesser extensive connections are reflected in lower interconnection charges. The regulator must oversee these practices."*[24]

13.4 There have not been many significant changes in Telkom's interconnection arrangements since the release of the White Paper and the Ministerial Guidelines. As far as the Ministerial Guidelines are concerned, it seems that a number of interconnection agreements have not been revised to address all of the issues contemplated by that document. Therefore there is a need for progress in the commercial implementation of interconnection and facilities leasing arrangements. It would be preferable if that progress could be achieved through commercial negotiations. However, given existing delays it would be unfortunate if such commercial negotiations did not lead to relatively rapid implementation.

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24 See paragraph 2.10.7 of the White Paper.

## 14. THE SECTION 43 TESTS

### Reasonable Requests for Interconnection

14.1 Consistently with most other regulatory regimes, the *Telecommunications Act* bestows significant powers on both the Minister and the Authority in relation to a range of regulatory initiatives, including interconnection and facilities leasing. Each particular set of legislative criteria of each country must be understood in its specific legislative and policy context and take account of any relevantly different policy objectives. Nevertheless, most interconnection regimes include an assessment of whether the form of interconnection:

- is technically possible or may adversely affect network integrity;
- promotes the long term interests of end users; and
- encourages the efficient use of infrastructure and promotes efficient investment.

### Reasonableness Tests

14.2 Under section 43 of the *Telecommunications Act* compliance with an interconnection request is mandatory unless that request is unreasonable. A request is not unreasonable where the Authority determines that the request:

- is technically feasible; and
- will promote increased public use of telecommunications services or more efficient use of telecommunication facilities.

14.3 Accordingly, the Authority proposes to apply a two stage test to determining whether an interconnection request is unreasonable. Its first consideration is whether the request is *technically feasible*. If it is technically feasible then the Authority will determine whether it promotes increased use of public telecommunications services or the more efficient use of telecommunications facilities.

### Technical Feasibility

14.4 The concept of technical feasibility involves an assessment of whether the proposed form of interconnection is technically possible, including by virtue of any network upgrades. It does not involve an assessment of economic viability (which may occur at the second stage of the Authority's analysis). It therefore requires the Authority to determine whether there is available technology that would or could, after technically feasible upgrades, allow the party from whom interconnection is requested to comply with that request.

14.5 This interpretation of technical feasibility is supported by the following:

- the public interest analysis in the second stage test allows the consideration of economic matters as part of the Authority's decision making process;
- the ordinary meaning of technical feasibility is that the implementation of the necessary technical configuration is possible or practicable;
- the concept is clearly different to "economic feasibility" or "economic viability"; and
- the access provider will be entitled to levy charges in accordance with the costing methodology determined by the Authority and this will address economic viability.

14.6 It will be "technically feasible" for an operator to comply with an interconnection request if it can do so using its existing telecommunications system as it stands or with upgrades using technology that is commercially available and able to be deployed within the network. However, this does not mean that an access seeker can request a form of interconnection that will involve very significant network upgrades and be guaranteed that this interconnection request will be upheld. If that interconnection request is technically possible but does not satisfy either of the consumer benefit tests then the Authority may decline to uphold that request.

14.7 Accordingly, the matters that are relevant to an assessment of technical feasibility include:

- whether the access provider's network can support the requested form of interconnection, either in its current form or with technical upgrades; and
- whether the interconnection request would adversely affect network integrity to an unwarranted extent.

14.8 The Authority considers that section 43 contemplates modifications to networks to facilitate interconnection. Prior to interconnection an incumbent network has been designed and configured for monopoly network operation. As a result, by its very nature, interconnection requires that this network be modified to ensure connectivity with other networks. Further, telecommunications networks are constantly being upgraded and re-configured to improve their efficiency and performance characteristics.

**Increased Public Use of Services**

14.9 If the technical feasibility threshold test is met then the Authority will assess whether interconnection will promote the increased public use of services or the more efficient use of facilities. The Authority proposes that the increased use of services would be sustained where there is evidence or analysis to indicate that:

- access to telecommunications networks will improve; or

- the usage of telecommunications services by persons connected to telecommunications networks will increase, including increased usage resulting from reductions in price and improvements in quality.

14.10 These two components of the first part of the public interest test reflect a number of the objectives of the *Telecommunications Act*. First the policy imperative to improve universal access through increasing the number of customers connected to the network. Secondly, the need to encourage competition to improve the quality, price and range of services provided over telecommunications networks.

**Increased Access to Telecommunications Networks**

14.11 The *Telecommunications Act* emphasises the need to promote increased access to telecommunications networks, particularly by those who are currently under served. Accordingly, interconnection and facilities sharing policies should not detract from increased access to public telecommunications networks in the absence of any countervailing public benefits.

14.12 However, this does not mean that interconnection determinations should simply favour those operators who are providing increased connectivity to telecommunications networks in under served areas. For the reasons outlined in this paper, reasonable interconnection requests will not have any material negative impact on teledensity levels and network rollout in the current regulatory environment. In assessing this criteria, the Authority will assess the implications of the broader regulatory environment and the relationship between interconnection and incentives to improve rollout.

14.13 It could be argued that increased profitability may lead to increased investment in new connections over and above universal access obligations. However, the correlation between revenue and investment is less clear and a rational business will only invest in these connections if, in the long term, business fundamentals justify that investment.

14.14 While the exercise of interconnection powers to achieve increased connectivity to telecommunications networks is a significant consideration its significance resides in the exercise of the power to encourage such increased connectivity over and above the targets of the prevailing operators that have been set in the context of particular benefits. As discussed above, it can reasonably be assumed that the current line rollout targets of all of the existing South African network operators (Telkom, Vodacom and MTN) will be more than met by internal funding mechanisms established within the regulatory environment.

14.15 However, a consideration may arise in the context of the introduction of further mobile licensees in South Africa which would be required to enter the market late, to compete with entrenched fixed line and mobile operators, with an objective to meet the expectations of currently under served customers. Arguments that the interconnection regime should be used to remove barriers to entry would find greater support in this context. Therefore the exercise of interconnection powers in favour of late entrants may well be supported by this consideration in certain circumstances.

**Increased Usage of Telecommunications Networks**

14.16 When users are connected to a telecommunications network then increased usage of the services offered over that network will occur when those services meet the needs of those users in terms of price, quality and features. Telecommunications services, like other services and goods, are subject to varying degrees of price elasticity. Accordingly, as prices fall the usage of services will increase. Levels of price elasticity will differ between different customers. For example, some corporate applications can command high prices because they are less price sensitive as quality is the major consideration. In these circumstances price is a factor but service qualities and features will also be an important driver of increased traffic.

14.17 However basic services can be quite price elastic, particularly national long distance and international services provided to small business and individuals. This is particularly the case in countries such as South Africa where there is a high level of unmet demand that may be addressed through increased connectivity and lower prices. All of these factors are best achieved through competition. This suggests that the interconnection regime should promote price and quality competition. This is also consistent with a number of objectives of the Telecommunications Act.

**More Efficient Use of Telecommunication Facilities**

14.18 Even in telecommunications markets that have achieved universal service and have had the opportunity to develop sophisticated fully digital end to end networks economic efficiency is a high priority.[25] This issue is of even greater significance in South Africa where a substantial portion of the community is not properly served by telecommunications networks. For example, if telecommunications facilities are being replicated in parts of Gauteng, and are not operating at optimal efficiency, then it is necessary to question whether firstly, that investment in infrastructure is efficient and secondly whether, to the extent that it is inefficient, it is attracting investment that could be better deployed to expand network connectivity elsewhere.

14.19 At its simplest level, a telecommunications facility is being used efficiently when it is being operated at an optimal level such that the long run incremental cost (LRIC) of each unit of usage is lower than at any other level of output. If network components are operating at higher levels of redundancy then the LRIC of each unit of output will be higher as costs that are more fixed in nature will be amortised over a lower aggregate output. It is also possible that at high levels of usage certain diseconomies could be introduced to increase the LRIC. However, this outcome is unlikely given the engineering of telecommunications networks.

14.20 The efficiency of any particular form of interconnection must be assessed in each case. It is therefore unwise to establish a detailed and economically prescriptive set of rules that leave little scope for a more precise balancing of policy considerations. Nevertheless, it is possible to identify that South Africa may significantly benefit from forms of

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25 For example, in Hong Kong economic efficiency has been highlighted as a key policy consideration even though basic network access requirements are fully satisfied and telecommunications users are relatively affluent.

interconnection and facilities leasing that increase the usage of particular elements and minimise unnecessary duplication.

14.21 A countervailing consideration is the degree to which South Africa wishes to promote infrastructure competition at various levels of the public switched telecommunications network. While certain forms of interconnection and facility sharing increase the usage of particular existing network elements, this will of course have an impact on the incentive of competitors to establish a new network or facility. New network facilities may be more cost effective and provide improved functionality and therefore result in a net consumer benefit in the long term.

14.22 Therefore, the efficient use of facilities may not be promoted in all circumstances at the expense of the duplication of facilities in certain areas. However, the additional benefits of facilities based competition are more obvious in telecommunications markets that have achieved universal connectivity and therefore efficient usage of existing facilities is likely to be of greater relative significance in South Africa. In addition, facilities based competition in fixed line services is still a number of years away for South Africa and will not even become a consideration until 2002.

**Process for Assessing the Relevant Tests**

14.23 Under section 43(1)(a) Telkom is under a positive obligation to provide interconnection unless such a request is unreasonable. The emphasis is therefore on mandatory interconnection and the exception is where the interconnection required is unreasonable. Therefore, the obligation to interconnect stands unless unreasonableness is proven. This suggests that the party requested to provide interconnection must display why it would be unreasonable to do so in the circumstances.

14.24 In addition, a party requesting interconnection is unlikely in many circumstances to be able to assess whether the request is unreasonable. For example, if a form of interconnection is unreasonable because of technical infeasibility then the requesting party may be unaware of the nature of the limitations within the network of the access provider. In these circumstances only the access provider will have access to the necessary information.

14.25 the Authority does not intend to impose any burden of proof in relation to assessing the application of the statutory tests except to the extent such a burden is a natural implication of section 43. However, the Authority does not support an outcome where an access provider simply states that a request is unreasonable and does not provide any justification for that position. The Authority would expect that where either party is arguing in favour of the application of the statutory test in a particular manner that they seek to provide more than just a rhetorical position and are prepared to argue their position in terms of economic principles and empirical evidence (to the extent that this is plausible for that party).

14.26 For example, the Authority does not believe that an appropriate response is that information is not available and therefore no action should be taken until information is available and that inaction is to the commercial benefit of the party unwilling or unable to provide the relevant information. This would establish a dynamic where it was in the

interests of a party to not fully participate in the provision of information relating to the determination.

14.27 The Authority may also choose to allocate little weight to statements and positions that are not justified by underlying empirical evidence or economic principle, particularly where the empirical evidence should be available or able to be generated by that party. The Authority also cannot be expected to take evidence from either party on face value, particularly where that evidence is of a technical or detailed financial nature. In these circumstances it may be necessary for the Authority staff or consultants to review that information in some detail, at the operator's expense.

14.28 In general, the Authority would expect that the process of assessing issues of unreasonableness should take place very openly and regulatory processes should not be delayed by parties declining to provide relevant information. The Authority has a number of formal information gathering powers which it may choose to exercise. However, it intends to approach determinations as an adjudicator of a dispute between parties who are willing to provide open and full information to the Authority. There should be no need for the Authority to use its investigative powers in the context of a determination. However, they will exist as an alternative if the determination process is not able to be conducted efficiently.

## 15. FACILITIES LEASING STATUTORY TESTS

### Making Available Facilities

15.1 Telkom is required under section 44(2) to lease or make available telecommunication facilities to any other service provider under an agreement reached between the parties unless that request is unreasonable. This is a potentially broad provision that reflects the Government's desire to ensure that facilities within the Telkom network are used efficiently.

15.2 A slightly different formulation applies to facilities leasing by Transnet and Eskom to Telkom. They must, when requested by Telkom, make available to it any of their, telecommunications facilities on negotiated and agreed conditions without undue delay unless Telkom's request is unreasonable.[26] Transnet and Eskom are required to make available their facilities unless there is no spare capacity on those facilities.[27] Further, Telkom is *required to make a request* where its own facilities are inadequate and it cannot itself obtain the necessary additional facilities economically, technically or in a timely manner or if the use of Transtel's or Eskom's facilities will facilitate the provision by Telkom of services.[28]

15.3 In this current facilities sharing scheme there is no requirement for operators other than fixed line providers to share with each other or with Telkom. This appears to have been

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26 See sub-section 44(1)(a).

27 See paragraph 44(1)(b).

28 See sub-section 44(1)(c).

predicated on the fact that only Telkom has significant national facilities and Transnet and Eskom, as the second largest providers of fixed line facilities should be required to work efficiently with Telkom. However there is no reason why efficient facilities sharing that meets the relevant statutory criteria should not be available at all levels of the industry and this should be facilitated.

15.4 The relevant statutory tests under section 44 are reviewed below.

**Statutory Tests Under Section 44**

15.5 Under sub-section 44(3) of the Telecommunications Act sections 43(1)(c), (d) and (e) apply to section 44 with necessary modifications. In a similar manner sub-section 44(6) incorporates sections 43(4) to (8) within section 44. The approach that the Authority takes to the application of these provisions within section 44 will be equivalent to the approach it takes in relation to section 43 and which is outlined elsewhere in this Regulatory Policy Statement.

15.6 It follows that the conceptual analysis should be the same where the tests are equivalent, although it needs to be applied in practice to different arrangements. Accordingly, in this part of the Regulatory Policy Statement the Authority only intends to review the different statutory tests that may be applied.

**Transnet and Eskom Supply to Telkom**

15.7 The White Paper indicated that Transnet and Eskom are allowed to continue to self-provide telecommunications facilities. That capacity should, where technically feasible, be leased to Telkom under mutually agreed commercial operational terms and conditions to foster South Africa's interests. The guiding principles should be that:

- Telkom will endeavour to make use of Transnet and Eskom's excess capacity.
- Transnet and Eskom will endeavour to minimise investment in any infrastructure that could result in unnecessary duplication. Some form of coordination with Telkom would be useful.
- Telkom is not empowered to forcibly "takeover" Transnet and Eskom's networks.[29]

15.8 This is the policy complimentarily outlined in the White Paper. It is a policy which the Authority will encourage.

15.9 Under the *Telecommunications Act* Transnet and Eskom should make available their facilities unless there is no spare capacity on those facilities.[30] Accordingly, there is a positive obligation on Transnet and Eskom to make available facilities, subject to

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29 See paragraph 2.16.1 and 2.16.2 of the White Paper.

30 See section 44(1)(b).

capacity constraints. This is a different formulation to the obligations imposed on Telkom and other providers of public fixed telecommunications services.[31] In that context there is a need to assess whether the request for facilities is unreasonable. There is no express mention of whether there is spare capacity on those facilities.

15.10 There is some logic to this as Telkom is able to replicate the Transnet and Eskom facilities and may not do so in certain circumstances. Further, Transnet and Eskom would presumably be willing to supply appropriate capacity on appropriate terms where that capacity was truly redundant and did not interfere with their own provisioning arrangements. However while Transnet and Eskom may have redundant capacity, they may not always dimension their networks to establish redundant capacity in the same manner as a public telecommunications service provider (which will often over dimension the network with the expectation of a growth in traffic at a later date).

15.11 Accordingly, it may be inequitable for Transnet and Eskom to be required to provide capacity where no spare capacity is available as this would then require them to provision new facilities at potentially greater cost. This explains the qualification to Transnet and Eskom's obligation to provide that capacity. If Transnet and Eskom have provisioned capacity for their own use over a period then the fact that they have spare capacity today does not mean that Telkom may take capacity for that period. The supply of capacity by Transnet and Eskom to Telkom should not require them to increase the cost of supply of capacity to themselves.

**Economically, Technically and Timeously**

15.12 Telkom is required to make a request for facilities from Transnet and Eskom if its own facilities are inadequate and it cannot itself obtain the necessary additional facilities economically, technically and timeously or if Transnet or Eskom's facilities will in any manner facilitate the provision by Telkom of services. This raises the following issues:

- when will Telkom's facilities be adequate;
- what would constitute an inability to obtain facilities economically, technically and timeously;
- when will the use of Transnet or Eskom's facilities facilitate the provision by Telkom of services.

15.13 As far as these tests are concerned this is not simply a subjective assessment for Telkom. Rather, the inadequacy, viability and timeliness of Telkom's facilities must be objectively measured against the tests in section 44. The purpose of this provision is to ensure the efficient use of South Africa's telecommunications services. Accordingly, where facilities are available from Transnet or Eskom at a lower price than Telkom may provision for itself, and which can be provided with better technical characteristics or in a

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31 See section 44(2).

materially faster timeframe, then Telkom should be obtaining those facilities from Transnet or Eskom.

**A Facilities Working Group**

15.14 Accordingly, it would seem reasonable that Telkom, Transnet and Eskom form a liaison committee as stated in s41(3)(b) of the Act to assess where it would be most efficient for Telkom to use the resources of either Transnet or Eskom respectively. This liaison committee should review the establishment of Telkom facilities and its need for facilities in areas where Transnet and Eskom facilities are in existence, or about to be provisioned, and assess the most efficient method of resolving the capacity needs of Telkom, on the one hand, and Transnet or Eskom on the other hand.

**Requests by Telkom as a Benchmark**

15.15 If Transnet or Eskom are able to provide facilities to Telkom of a particular quality, at a particular price in a particular time period and Telkom declines that offer then obviously Telkom is in a position to exceed those standards itself. It therefore follows that if a third party makes a request of Telkom under section 44(2) in equivalent circumstances for equivalent arrangements that Telkom will be able to satisfy that request on those terms because it has already confirmed that it is able to do so. Accordingly, the Authority will take note of the manner in which Telkom discharges its obligations under section 44(1)(c) for the purpose of assessing request for facilities leasing from Telkom.

## 16. AUTHORISING THE SUPPLY OF FACILITIES BY THIRD PARTIES

**Overview**

16.1 The Interconnection Hearing displayed that many licensees are more interested in facilities leasing than interconnection. It is in the supply of facilities that they have found delays that have affected their network rollout and service quality. There is only one source of supply for those facilities (i.e. Telkom). If it fails to perform then they have no choice but to accept facilities of inappropriate quality. Accordingly, there was very significant interest from the industry to ensure that the regime for the provision of facilities provided a significant stimulus for improvements in quality and performance in the supply of facilities.

16.2 New entrants are required to use the facilities of Telkom to establish their backbone transmission capacity until the market is subject to further liberalisation. Telkom's level of service is sometimes low and there are already in place private networks that may provide better service in certain areas than the Telkom network. Accordingly, the *Telecommunications Act* allows for the sharing of facilities in circumstances where Telkom is unwilling or unable to provide those facilities.

16.3 While Telkom maintains a complete exclusivity over facilities, it is potentially in a position to significantly slow the deployment of new networks. Telkom should not be entitled to obtain monopoly rents nor should inadequate support be encouraged.

**Government Policy**

16.4 The White Paper states that:

> *"Licensed service providers and private network users are ordinarily required to use Telkom infrastructure, including links and other associated equipment. However, if Telkom is unwilling or unable to provide a solution of acceptable quality within a reasonable period of time as determined by the regulator, these parties may elect to provide their own links under specified conditions set by the Regulator. In other words, Telkom must have the right of first refusal, but thereafter any other capable party (including Transtel and Eskom) may offer services. Because Transtel and Eskom may not, according to Government Policy compete with Telkom or provide end-user customers with telecommunication services at this time, they must lease their available links and associated equipment to Telkom. In parallel, Telkom must lease links and associated equipment from Transtel and Eskom, if these are available and Telkom cannot provide them, to a customer who requests them. The Regulator must oversee this leasing and final pricing to ensure fairness to all parties, including the end-customer."*[32]

16.5 Accordingly, the White Paper specifically contemplates a first right of refusal regime and notes that the Authority should regulate this process to make sure that it is fair to all parties and end user customers.

16.6 On the one hand it is important that Telkom's exclusivities are preserved where it is operating efficiently. On the other it would be unfortunate if Telkom was unable to properly serve other networks and its exclusive rights actually hindered the achievement of this important policy goal.

16.7 This is a necessary safeguard exception to Telkom's exclusivities to ensure that, unless it discharges its responsibilities efficiently as a monopoly provider, a party seeking facilities may pursue other alternatives. Telkom must either properly serve an access seeker that wishes to share facilities or accept that the access seeker may make other arrangements. This authorisation power, if properly implemented, could potentially have an important effect on the quality and timeliness of Telkom's provisioning, particularly in more remote areas.

**Issues For Review**

16.8 The most important policy objective is to establish a coherent and over-arching set of conditions which ensure that, on an ongoing basis, facilities can be rolled out to establish a network backbone, particularly into underserved regions. That system should be self-executing so that there is no scope for continued argument by the participants on an element by element and region by region basis. The Authority is of the view that the facilities sharing regime must observe Telkom's exclusivities but ensure that it performs

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32 See paragraph 2.14 of the White Paper.

to an appropriate level. This system needs to be relatively strict or it will break down in a series of disputes.

16.9 The following concepts are very important to the application of section 44(7):

- what constitutes "suitable facilities";
- what would be considered a reasonable period of time for those suitable facilities to be made available; and
- how may it be determined that Telkom is unwilling or unable to make them available.

**Suitable Facilities**

16.10 The Authority proposes to determine what are "suitable facilities" by reference to the use to which those facilities may be put for the period during which they are required to be made available. Suitability must also be determined by reference to the need to provide high quality telecommunications services to customers. The facilities required from Telkom by providers of telecommunications services are inputs to network processes designed to provide services to end users. Those services are essential to the national economy. It is therefore important that the upstream provision of facilities is of sufficient quality to ensure that the downstream supply of retail services meets all necessary standards.

16.11 Accordingly, it is reasonable that a person leasing facilities be able to specify requirements for facilities that will ensure that it is able to provide high quality downstream retail services, to the extent that this is technically feasible. This does not mean that suitability will be determined by reference to service attributes that are unnecessary for the requesting party. However, it is reasonable to request facilities that are technically feasible and which are or will be inputs to licensed telecommunications services.

16.12 The concept of "suitable facilities" must also be given some form of contractual meaning. Therefore the Authority would expect that the attributes and quality of facilities will be carefully specified and that there will be a meaningful financial commitment to levels of service. For example, there should be liquidated damages payable for any failure to comply with these commitments. Although those liquidated damages may be paid on breach or by way of a rebate on charges.

16.13 There is an important question of whether "suitability" is to be determined by reference to price alone. The Authority's preliminary view is that it will not regard facilities as unsuitable on the basis of small price differentials alone as, if Telkom is able to make suitable facilities available within a reasonable period of time, then the more appropriate course of action is for an appropriate price to be determined as a matter of dispute resolution. That is, section 44(7) addresses a failure to supply or an unacceptable delay in supplying and if price alone is the issue then Telkom may still be the supplier and the price will be determined by the Authority.

16.14 However, where the method of supply chosen by Telkom is inherently expensive and incurs a cost significantly higher than other available technologies then that would still constitute a lack of suitability. For example, if a particular facility was available from an alternate supplier at a particular cost and Telkom provided a different facility with the same attributes but which had a much higher cost then this would not be suitable.

16.15 For example, if Transnet or Eskom have installed a facility and can offer cost-effective leasing of that already installed facility. In those circumstances Telkom should not be offering to supply a brand new facility and requiring a party to pay for the entire cost of that facility, which may be significantly higher than that available from Transnet or Eskom. Telkom has access to the Transnet and Eskom facilities and indeed is mandated to use them where its own additional facilities cannot be put in place economically, technically and in a timely manner.[33] In these circumstances the obvious way to proceed would be for Telkom to acquire the facility from Transnet or Eskom and lease it to the third party on a pass through basis.

16.16 From the above description it can be seen that it is possible to require Telkom to supply facilities in an efficient and productive manner that is not dissimilar to that which would be encouraged by a competitive environment. However, this can be achieved without requiring Telkom to always compete to retain its exclusivities. Provided that facilities acquirers receive a facility at a time, a price and at a quality that could be achieved in a competitive market then that is sufficient. If Telkom can reasonably meet these standards then there is no need to authorise any other provider of facilities.

**Unwilling and Unable**

16.17 The final issue is how to determine when Telkom is unwilling or unable to supply suitable facilities at a reasonable time. Obviously if Telkom confirms either that it is unwilling or unable to do so then this will be sufficient. However, this may not clearly occur. Therefore, there needs to be a procedure which can be deployed to confirm Telkom's unwillingness or inability.

16.18 The most effective way to determine that Telkom is unwilling or unable is to put an offer to it requiring suitable facilities within a reasonable period of time and then allow it a period of time during which it may accept that offer. If it does not accept that offer then it may be concluded that it is either unwilling or unable to supply the suitable facilities. This is commonly known as a "right of first refusal". The Authority would propose to apply a system for conducting that right of first refusal that is time efficient but also fair.

16.19 That system may operate in the following manner:

- The party who requires the facilities will formulate a clear offer containing all of the material terms and will make that offer to Telkom in writing.

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33 See section 44(1)(c)

- Telkom will then have 5 business days to accept that offer although it may request a longer period from the Authority if the offer is complex.

- If Telkom does not accept that offer then the person requiring the facilities must deliver an application to the Authority in a form approved by the Authority which will attach the terms of the offer and confirm that Telkom does not accept that offer.

- The Authority will then write to Telkom and ask it to confirm whether the offer has been made. If the Authority is concerned about the suitability of the facilities, or the time in which they are required to be made available, it may also request further comment by Telkom on these matters. Telkom will already have had the period of the offer to consider its position and the Authority would therefore require a response in a few days.

- The Authority would then decide whether it would grant the authorisation.

16.20 If the Authority grants the authorisation then it will want to be satisfied that the alternate source of supply does meet the terms of the offer. Accordingly, where the person requiring the facilities proposes to acquire them from a third party on an arms-length basis a condition of the authorisation would be that the supply took place materially on those terms. The Authority would retain the right to revoke the authorisation if the supply then took place on materially less attractive terms that Telkom may have been willing to accept.

16.21 Where the person requiring the facilities actually intends to supply them itself then it is far more difficult to assess whether the terms of supply are being met. Accordingly, in those circumstances the Authority would need to be satisfied of the economic viability of that person supplying those facilities to itself on that basis.

16.22 Finally, the Authority will give closer consideration to proposals that may involve a significant volume of facilities and will be concerned to ensure that this process is not used simply as a device for circumventing the Telkom exclusivities. Rather, it will be concerned to ensure that it is used to preserve efficient sources of supply, with particular consideration of whether such supply assists in the achieving of the objectives of section 2 of the Act.

16.23 By adopting these and other checks and balances the Authority will seek to ensure that the interests of consumers are served and that the Telkom exclusivity is protected and Telkom is meeting reasonable performance benchmarks.

**A Reasonable Period of Time**

16.24 Many comments have been made by the industry that the provisioning time for facilities is unnecessarily slow, that the arbitrary 90 day period selected in the context of the MPIA which has become a de facto standard is unnecessarily long and, in many circumstances, even this period is not observed.

16.25 Obviously the time period for provisioning of facilities will depend upon the nature and scope of the facilities to be provisioned and the geographic area where they are to be provisioned. The Authority therefore does not favour a single period of time for facilities provisioning as that period may be too long in some cases and too short in others. Accordingly, the Authority proposes the following system:

- An outer time limit of 45 calendar days will apply from the date of request for those facilities and exceptions may be made for unusual requests (e.g. for facilities of a scale and scope that are abnormal).

- The Authority will develop with the industry reasonable and timely provisioning periods for standard facilities in standard geographic areas (e.g. leased lines in urban and rural areas respectively).

- Where the urgent supply of facilities is justified by the requesting party and an alternative source of supply can provide facilities in a shorter time period then this may be authorised as reasonable in the circumstances.

16.26 This system provides a set of relevant time periods for relevant facilities while allowing for flexibility in exceptional circumstances.

## PART 4 – PRICE ASPECTS OF INTERCONNECTION AND FACILITIES LEASING

### 17. OVERVIEW

17.1 This section addresses the interconnection charges for operators which the Authority believes will meet the tests set out in section 43 and section 44 in usual circumstances. That is, it must increase the public use of telecommunication services or result in the more efficient use of telecommunications facilities.

### 18. COMPETITIVE RULES AND BENCHMARKING PRINCIPLES

#### Introduction

18.1 Ultimately a specific pricing methodology should be applied to particular interconnection services at regular intervals, should commercial negotiations be unsuccessful. However, the Authority recognises the delays that may be introduced by detailed costing analyses. Further, there may be occasions when a number of benchmark principles can be employed to provide some guidance to the industry without the need for a full cost analysis. Such principles can be divided into two categories:

- *Competitive Rules* - pricing principles that are consistent with economic theory regarding pro-competitive conduct.

- *Benchmarking Principles* – those rules that may provide a guide to appropriate prices more simply than a full cost study.

18.2 These rules and principles would neither replace a full cost study, where appropriate, nor would they replace or represent the full coverage of competition regulation under the *Telecommunications Act* or the *Competition Act*. However, they may be useful proxies for the purposes of the interconnection environment. They would also be applied in a manner that is consistent with South Africa's universal access policy.

#### Competitive Rules

18.3 The Authority would propose to apply the following competitive rules in assessing charges:

- ***Cost-based charges*** - The price of interconnection and facilities leasing should not exceed the efficient forward-looking costs of providing the service or facility including a normal commercial return on an efficient investment.

- ***The price should increase rather than reduce competition in dependent markets*** - The access price should stimulate not retard the level of competition in a dependent market.

- ***Prices cannot be predatory*** - Access prices should not be predatory as that term is commonly understood as a matter of competition law.

- ***Non-discrimination*** - An access price should not discriminate between providers of telecommunications services in a manner that would reduce efficient competition. The price should allow more efficient sources of supply to displace less efficient sources of supply in dependent markets.

18.4 Not all forms of discrimination are to be discouraged. Different prices based solely on differences in cost induced by volume can be acceptable. Further, some forms of discrimination between different categories of providers of telecommunications services may be warranted by broader telecommunications policy objectives. For example, this Regulatory Policy Statement proposes a different pricing methodology for operators and service providers which recognises their differential commitment to infrastructure investment. However, the Authority would need to be convinced that such justification existed on economic or policy grounds.

18.5 The Authority discourages arguments that seek to *peg* higher prices based on a non-discrimination principle. For example, if an access provider happens to have commercially negotiated a higher price with a particular provider of telecommunications services that does not observe other rules or the applicable pricing principles then it is not open to that access provider to decline requests for interconnection and facilities leasing where those requests are consistent with the policy. Rather, all applicable arrangements should favour compliance with the Authority principles.

**Pricing Guides**

18.6 The Authority will consider the following pricing guides:

- a comparison of a price with the price of operators in other jurisdictions where those jurisdictions are sensibly comparable;
- a comparison of the price with the provider's internal transfer price for the same or an equivalent service;
- presumed variations in conditions over time;
- a comparison of access prices with retail prices;
- a comparison of a price with another observed price that is equivalent in whole or in part.

***Comparison of a price with the price of operators in other jurisdictions***

18.7 Different telecommunications markets are subject to different conditions both physically and in terms of their regulatory objectives. However, this does not mean that each market is entirely unique in all respects. There are consistent elements in all markets as well as variables. For example, networks covering large sparsely populated areas will have different costing considerations to geographically small and densely populated countries. Nevertheless, it may be possible to identify countries with similar physical features that have undertaken costing studies and then make sensible adjustments for

obviously different characteristics and also for different policy considerations. This process can provide a broad guide to the reasonableness of a price in South Africa.

***Comparison of the price with the provider's internal transfer price for the same or an equivalent service***

18.8 It is often useful to compare interconnection or facilities leasing prices with the provider's price to associated companies or to internal retail business units. This approach was proposed by a number of participants at the Interconnection Hearing, particularly those that are in direct competition with Telkom or its associates and are concerned that they do not have access to equivalent interconnection and facilities leasing arrangements.

18.9 The relevant internal transfer price may either be observed or estimated. Such a transfer price should not usually be lower than prices offered to third parties. However, the converse is not always true as it is quite possible that prices to associated companies or business units may be higher than would be warranted. For example, where the subsidiary or business unit has common ownership then the transfer price becomes somewhat immaterial to the corporate group's overall revenue and profit position. Where there are other significant unassociated shareholders or a lack of control then it is more likely that the arrangements will be on an arms-length basis.

18.10 The transfer price should never be below cost and therefore if the associate is receiving a lower price or better terms, then this strongly suggests that the price being offered to unrelated parties is above cost and may be reduced. Of course, these material differences may be the result of particular cost savings because of different supply conditions. However, this would need to be examined closely.

18.11 Apart from providing some indicative information regarding the ability to reduce prices to cost, such a comparison of internal transfer prices with external prices is also useful to assess whether anti-competitive price discrimination is occurring.

***Presumed variations in conditions over time***

18.12 Once an appropriate cost based price is set it may be possible to assess further variations to the price on a simpler methodological basis than conducting a full cost study. For example, if the Authority is satisfied that an appropriate price has been set then there may be standard variations to that price over a particular period until an additional full cost study is warranted. Even where the base price has not been fully assessed then it may be possible to determine that particular changes in price should occur until the base price is determined by the application of a cost methodology.

18.13 For example, it is commonly accepted that for certain facilities and services cost efficiencies will be achieved each year for improved work practices and technology. This suggests a reduction in price. However, the effects of inflation must also be taken into account as they may suggest increases. In South Africa's circumstances higher access prices may be justified by imbalanced local prices but this will change as rebalancing occurs and would suggest reductions.

18.14 In appropriate circumstances it may be possible to take into account all of these quantifiable changes and apply them to the price over a reasonable period.

***Comparison of access prices with retail prices***

18.15 The interconnection and facilities leasing costs may also be compared against equivalent retail prices. Normally retail telecommunications services will not be provided below cost and therefore if a retail price is less than the price to another provider of telecommunications services then this will not be justified. The obvious exception to this rule is where the retail price of the service is held below cost by regulatory price controls. In these circumstances the comparison is not particularly useful. Therefore, in general, the retail price of interconnection or facilities leasing will be an upper limit for the wholesale price. This rule applies not only to the standard retail tariff for the equivalent retail service or facility but any price offered to large retail customers at a discount off tariff.

***Comparison of a price with another observed price for an interconnection service or facility that is equivalent in whole or in part***

18.16 Many interconnection services and facilities may be very similar to other services offered by the provider, contain components that are constituted by other services and facilities offered separately or are themselves components of other more bundled services and facilities. In usual cases the price of supply of:

- like services should be similar;
- an unbundled service should be proportionally less than the price of a bundled service; and
- a bundled service should be similar to the combination of prices for a unbundled service.

18.17 Of course, in the case of bundled and unbundled services there may be technical or objective commercial justification for different terms. However, these would need to be examined and, in the absence of appropriate justification, a comparison could be made.

## 19. COSTING METHODOLOGIES

**Industry Views**

19.1 The Authority proposes to set charges based on Long Run Incremental Cost (LRIC). The Authority is not inclined to adopt efficient component pricing rule (ECPR) for interconnection purposes for reasons including the following:

- Other regulators throughout the world have not adopted this standard and indeed have expressly excluded ECPR.[34]

- ECPR theoretically preserves all of an incumbent's opportunity cost and profitability whether it serves a retail customer directly or one of its competitors. Therefore, market forces cannot cause competition to move prices towards reasonable incremental costs over time. This will result in higher prices to consumers.

- This is effectively a moot point because the current Ministerial Guidelines already require a price on the basis of a LRIC formulation.

19.2 The Authority's views are as follows:

- While the Ministerial Guidelines are in place, the LRIC-based formulation contained in those guidelines will apply to Telkom. These guidelines were formulated at the same time as general Government policy. Accordingly, the issue between now and 7 May 2000 is really THE APPLICATION OF that costing model.

- The costing model proposed by the Authority to apply after 7 May 2000 does allow for a reasonable allocation of joint and common costs.

19.3 In its Consultation Paper, the Authority provided a brief explanation of alternative costing methodologies and noted that forms of LRIC had the most significant international support. The following section provides a further explanation of LRIC principles. The Authority does not propose to impose a precise formula at this time. In other markets, regulators have typically identified the principles and methodology to be adopted and have not been overly prescriptive. In effect what the Authority proposes to do is to provide clear guidance to the industry to allow it to assess a spectrum of reasonable outcomes and to negotiate within that range. If those negotiations cannot be concluded, then the Authority will resolve any disputes in accordance with the *Telecommunications Act*.

19.4 However, the Authority believes that it is important that the industry is in a position to comply with the Authority's Guidelines from the date that they become effective. Accordingly, the Authority is prepared to undertake a more detailed assessment leading up to 7 May 2000 to ensure that appropriate charges will exist on and from this date. The industry is invited to make representations to the Authority regarding how such a process could be undertaken during 1999 so that it may be concluded prior to 7 May 2000.

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34 Telkom was asked at the interconnection hearing to identify other jurisdictions that had adopted ECPR for equivalent interconnection services and identified New Zealand as a best example. For example, New Zealand did not in fact specifically adopt ECPR's pricing model. Rather, it represents an unusual regulatory environment where there is no telecommunications specific regulator or access pricing regime. In the absence of any regulation, Telecom New Zealand was able to impose a price that did not exceed ECPR. However, the government has not consciously confirmed its support for this higher price and there has therefore been no conscious election of this model.

## 20. LONG RUN INCREMENTAL COST

### The Pricing Methodology Prior to 7 May 2000

20.1 Prior to the Effective Date the pricing methodology set out in clause 5(a) of the Ministerial Guidelines will apply in accordance with that clause:

> *Telkom's interconnection charges shall as soon as practicable be based on its long run incremental costs (**LRIC**) and interconnection charges based on LRIC shall be introduced after consultation with Telkom in a manner consistent with condition 8.4 of the Licence. Interconnection charges based on LRIC shall duly take account of all relevant costs and cost related elements, including, without limitation, common and stand-alone costs, cost of capital, costs of maintaining and replacing assets and economic depreciation. For the purposes of this Determination "common costs" shall mean costs that are incurred in the supply of all or a group of services provided by the firm and cannot be directly attributed to any one service and "standalone costs" shall mean the cost of providing a single service.*

20.2 Accordingly, the Ministerial Guidelines already adopt a form of LRIC-based charges for interconnection until 7 May 2000. The Authority has also proposed to adopt a form of LRIC which will have similar elements but may not necessarily be the same as the methodology set out in the Ministerial Guidelines. At this point, our interpretation of the standards established in the Ministerial Guidelines and the LRIC standards established by the Authority for beyond 7 May 2000 generally appear to be one and the same.

20.3 All of the participants in the original interconnection discussions between Telkom and the mobile operators have confirmed that the existing interconnection prices were not set on the basis of a cost methodology. Rather, they were simply amounts set by way of commercial negotiation. Accordingly, none of the current prices have been set on the basis of the LRIC methodology set out in the Ministerial Guidelines.

### The Ministerial Guideline Methodology Prior to the Effective Date

20.4 The Ministerial Guidelines specifically refer to all *relevant* costs. This indicates that the costs must be causally related to the interconnection and this distinguishes a LRIC price from a price based upon fully distributed costs (**FDC**). The Ministerial Guidelines clearly contemplate LRIC and it would be inappropriate to interpret the application of the LRIC methodology as equating to an FDC methodology. Therefore, a causal relationship should be established between all costs and interconnection based upon a long run incremental cost concept.

20.5 The Ministerial Guidelines methodology identifies a range of cost categories including common and stand-alone costs, costs of capital, costs of maintaining and replacing assets and economic depreciation. The Authority's methodology also analyses these cost categories. Taking into account the concept of *relevant costs* and the use of a current costing approach, then the significant issue remains the nature and proportion of common costs which may be allocated to the interconnection charge. As outlined below, this remains a significant issue in the context of the Authority's proposed methodology.

20.6 In summary, it would seem that the analysis provided by the Authority in relation to its proposed approach after 7 May 2000 can be applied in the context of the principles set out in the Ministerial Guidelines. To this extent, so far as pricing is concerned, the questions regarding the date of application of the various guidelines may not be relevant.

**The Authority's Pricing Methodology from the Effective Date**

20.7 LRIC is the incremental or additional cost a firm incurs in the long-term in providing a service, assuming all other production activities remain unchanged. It is the cost that would be avoided in the long-term if it ceased to provide the service. In this sense, the increment of demand in question is the *total service*. It includes the operations and maintenance costs that the firm incurs in providing the service, as well as a normal commercial return on capital. The form of LRIC that the Authority intends to apply also includes common costs that are causally related to the interconnection or facilities leasing. The treatment of some of these costs is outlined below.

20.8 The establishment of a LRIC-based charge would also then typically include some allocation of relevant joint and common costs that were not causally related or avoidable in relation to the provision of a specific service. This allocation of joint and common costs would typically be added to the LRIC cost for a service in establishing LRIC-based charges. LRIC-based charges, however, do not necessarily include an allocation of this latter category of joint and common costs. In this sense, the *LRIC cost* provides a floor for establishment of a *LRIC-based charge*.

**Operating Costs**

20.9 Operating costs are the ongoing operational costs of providing the interconnection service or facility, including the labour and materials costs that are causally related to the provision of the service. That is, the labour and materials that would not be required if the firm ceased to provide the service.

**Common Costs**

20.10 Common costs are those costs shared in the provision of a group of services. Most common costs will continue to be incurred if any one of the services within the group was no longer provided. For the sake of analysis common costs may be divided into:

- *Costs not common to wholesale interconnection facilities* - Such as retail and marketing costs and a number of corporate overheads of the firm. This group of common costs should not be recovered:

- *Costs that are common to the interconnection or facilities* – While this category is not incremental to a specific service it does need to be incurred by an efficient firm if it were to provide the service on a standalone basis. Efficient multi-product firms would expect to recover some of these common costs.

20.11 Accordingly, in assessing an access price the Authority would develop a view regarding the nature of the costs that are appropriate to be included in this category and an appropriate system for allocating those costs across a variety of services and facilities. This is a detailed process that the Authority will undertake once it is in receipt of sufficient information.

20.12 However, a number of principles may be outlined:

- Given that the provider will be a multi-product firm the total costs should not exceed the standalone costs that would be incurred in the provision of only the service under consideration.

- The common costs should not be over-recovered and therefore the allocation process should not involve recovery of all common costs.

- Common costs must be equitably allocated in some rational manner. For example, it would be unacceptable to over-allocate common costs to interconnection and facilities leasing which will reduce competition and under-allocate those costs to other services in a manner which would have an adverse effect on competition.

- Consistently with the principle of non-discrimination and a comparison of prices to associated and non-associated firms, common cost allocation may be assessed against the allocation in relation to associate transactions

**Capital Costs**

20.13 Once the nature of the costs that may be allocated has been determined it becomes necessary to determine the scope of those costs. This comprises three important analyses:

- valuing individual assets;

- determining an appropriate cost of capital; and

- determining the rate of depreciation (i.e. how the cost base and cost of capital will be applied over an appropriate period of time).

***Asset Valuation***

20.14 There are two particular forms of asset valuation that the Authority is most likely to consider:

- *historical cost* – the cost of acquiring and installing the asset;

- *current cost* – the current cost of replacing the asset with a more cost effective asset that has equivalent service attributes.

20.15 In general the current cost standard is more widely adopted than historical cost in the context of a LRIC formulation. The Authority would prefer to adopt current cost but is mindful of the following factors:

- developing current cost models can be detailed and time consuming;
- historical cost methods may also be detailed and time consuming, particularly if effective regulatory accounting procedures have not been adopted;
- historical costs may include inefficient costs;
- developing current costs for certain assets may produce higher figures than for historical costs, for example in circumstances where an asset has been fully depreciated, or is very labour intensive (e.g. trenching to lay cabling);
- some forms of forward-looking costing standards may not fairly reflect the costs of the provider because there have been sudden quantum leaps in technology or economic conditions that will produce a significantly different outcome.

20.16 Accordingly the Authority's starting position is to prefer current costs based on a forward-looking efficient technology standard. However, it will consider whether certain network elements have been fully depreciated such that a current cost would be significantly higher than actual cost in a manner that would have adverse competitive implications. It will also consider whether current technology standards and economic conditions are radically different from historical conditions to an extent that would be unfair to the service provider.

**Cost of Capital**

20.17 The cost of capital is the opportunity cost of the debt and equity funds to finance the operations of a firm. It should not exceed the normal commercial return which is the cost of capital earned by investments of a similar risk in the market. In this respect the cost of capital may vary for different businesses or different parts of a business as some telecommunications services and facilities are by definition a riskier investment than others.

20.18 The costs of capital may be calculated against the weighted average cost of capital of the access provider. However, adjustments could be made up or down where the service or facility being provided involved significantly more or less risk than the provider's entire business.

**Depreciation**

20.19 The depreciation represents the decline in the economic value of the assets used to provide the service. Where a current cost valuation is applied then the depreciation rate

may be developed on a sensible economic basis rather than an accounting basis. In determining the price a close review will need to be taken of a suitable depreciation profile.

## 21. CALL TYPES FOR INTERCONNECTION

21.1 The major inter-operator call types to be considered in the current market involving one fixed line operator and a number of mobile operators are :

- mobile to fixed local calls;
- fixed to mobile local calls;
- mobile to fixed national long distance calls;
- fixed to mobile national long distance calls;
- mobile to mobile local calls;
- mobile to mobile national long distance calls;
- mobile outgoing international calls;
- mobile incoming international calls; and
- fixed transit services.

21.2 Each of these call types are addressed below in the context of the above discussion of charging methodologies.

**Mobile to Fixed Local and National Long Distance and Fixed Transit Services**

21.3 The Authority is of the view that for these call types mobile operators should pay Telkom's LRIC for terminations of mobile to fixed local and national long distance calls and for fixed network transit services.

**Fixed to Mobile Calls - Asymmetric Charging**

21.4 The current interconnection arrangements between Telkom on the one hand and Vodacom and MTN on the other reflect an asymmetric charging model. In this model, despite being the retail provider, Telkom retains its LRIC rate and then transfers the retail revenue to the mobile network. This model has been adopted in a number of countries and reflects the incremental revenue a mobile network generates for fixed line networks. This policy is being revisited in some of the more developed markets where fixed line competition exists but this is not the case in South Africa.

21.5 There are significant reasons why the current method of asymmetric charging for fixed to mobile calls should be retained in South Africa. It involves a transfer of revenue to the terminating end of the call (i.e. the mobile) which is helpful in establishing their businesses. The Authority proposes that the current system be retained and will be reviewed as part of the review of interconnection arrangements for the next phase of liberalisation.

**Mobile to Mobile Calls**

21.6 Mobile to mobile traffic should be relatively balanced. If it is perfectly balanced then the price becomes immaterial as the net settlement will be zero. The Authority remains prepared to intervene if resolution cannot be achieved. This will be most likely where traffic imbalances exist. At this stage it is unclear whether there may be traffic imbalances between the existing and the new mobile operators. If there traffic imbalances exist in the Authority is likely to apply a LRIC standard.

**International Services**

21.7 If, Telkom's international terminating access was simply priced at LRIC then this could result in international call profits being competed away and the loss of an important cross subsidy for network rollout. For example, Telkom, MTN, Vodacom and the third and fourth mobile licensees may engage in a discounting war seeking to attract heavy users of international services, who are usually premium corporate, business and residential customers in more affluent areas. This would of course mean price benefits for those consumers. If the retail prices paid by those customers were to be used to fund network deployment in underserved areas then this opportunity would be lost.

21.8 However, simply concluding that the price will not be reduced to LRIC does not in itself achieve the ends of stimulating improved universal access. For this to occur, there would need to be some means of linking this additional profit from international services to investment decisions in relation to local facilities. Currently, that link is very indirect and simply results in revenues for Telkom that may or may not relate in some measured manner to the true regulatory induced cost of its network rollout. A methodology is required that establishes a stronger causal connection between profits and investment in new infrastructure, particularly in underserved areas.

21.9 At this point in time, the Authority cannot provide a final view on the methodology. However, it is of the view that the provider of international terminating access should receive its LRIC. There remains a question of how the current differential between the existing prices and LRIC should be addressed. The Authority's view is that part of this amount should be available to stimulate reduced retail prices but part should be available to stimulate universal access commitments, particularly in underserved areas, under a system that provides direct incentives.

21.10 Accordingly, the Authority would favour the existing mobile operators receiving further discounts off Telkom's retail price but possibly not a full LRIC price. However, the precise arrangements will need to be determined when the Authority has had the

opportunity to review prices in more detail and it has a better view of the commitments of licensees to new network roll out (over existing commitments).

21.11 For international inbound calls, the Authority would expect Telkom to pay the mobile operators the LRIC for the termination of international calls to mobile handsets. It is unlikely that the LRIC of mobile terminations would be the same as the LRIC of Telkom for fixed line termination. Mobile networks typically operate at a higher LRIC on a per minute basis. Further, the costs of capital of the mobile operators may be different given that they operate in a more competitive industry with less assured revenue streams than Telkom and therefore higher risk. Accordingly, for inbound international traffic to mobile handsets, Telkom would receive the settlement payment from foreign administrations and would then pay the mobile termination charge to the mobile operators.

21.12 In summary, the Authority would expect:

- international inbound calls to involve a payment to a terminating mobile operator that was cost based; and
- international outbound access charges for mobile originated calls to significantly reduce but possibly not to be subject to a LRIC formulation; and
- a closer review of these arrangements to ensure they are properly serving South Africa's universal access policy.

## 22. CALL TYPES FOR INTERCONNECTION BETWEEN TELKOM AND OTHER LICENSEES

### Private Network Operators

22.1 The Authority understands that the private network operators currently receive discounts off retail prices in recognition for the carriage of traffic within the networks. In effect Telkom treats the private networks like any other customer and their networks as equivalent to the ordinary wiring of any customer beyond the Telkom network. However, this does not take account of the significant value delivered by those networks. The argument for an interconnection agreement covering private networks is that the private network generates an additional network termination point, a high level of use of the telecommunications systems, ensures service provision to segments of the business community, and may allow business users to take advantage of technological innovations that the incumbent operator may not yet have adopted.

22.2 In addition, in a country where the network roll out is not yet complete, private networks can serve the function of extending the network and access, both relieving and enhancing the functions of the public switched network to the extent of the private network's presence and capacity. This is potentially a strong argument in South Africa, where two substantial private networks have been developed, and have been given separate recognition under the legislation. Finally, the private networks often carry traffic for a significant distance and should be accorded some recognition for their network investment and operation.

22.3 Significantly, unlike the VANS operators, the private network operators are not excluded from the ambit of clause 5(1) of the Ministerial Guidelines. Accordingly, the Ministerial Guidelines ostensibly require that LRIC access be provided by Telkom to the private network operators. In the case of Transnet and Eskom this makes some sense as they are infrastructure investors (albeit for a very large private network) and they do not derive significant revenues. Further, a LRIC price simply would allow these entities to serve their private customers at a lower cost, not to attract subscribers from the Telkom network. As those private customers are also important infrastructure providers it is sensible that they should not be subject to high business costs.

22.4 On general principles, allowing private networks to interconnect on the same basis as other interconnecting systems may also encourage more private networks, which could result in the incumbent making a competitive response in terms of both price and service. On balance, the Guidelines have been prepared to allow private network interconnection for the two major private network operators, on the basis that the private networks are distinctly different from other large corporate users, and the more appropriate relationship between Telkom and those networks in those circumstances is a wholesale arrangement.

22.5 Ostensibly, the Ministerial Guidelines require that PTNs are offered LRIC prices by Telkom. Accordingly, the Ministerial Guidelines are determinative of this methodology. However, the Authority would also support this view as it is consistent with the policy analysis outlined in this paper. The Authority therefore believes that the PTNs should be afforded LRIC prices in a similar manner to the mobile operators. This is not the current pricing arrangement that is in place and these arrangements should be revisited.

**VANS Providers**

22.6 On one view, VANS providers are very large customers, who should not be entitled to cost based interconnection rates but shall receive discounts off retail tariffs such as volume discounts or to reflect available costs. In this respect, the broad definition of interconnection in the Act suggests that interconnection applies to VANS services.

22.7 The alternative view is that given the high level of functionality and diversity of services they provide for end users and the quantity and level of service usage they both directly provide and indirectly stimulate, VANS operators should be entitled to share some of the benefits of an interconnection regime, allowing them interconnection with the PSTN at discounted prices with agreed quality levels, even if the discount is not as substantial as that provided to interconnecting network operators.

22.8 VANS providers have suggested that in the absence of an interconnection regime, the current pricing they are offered is not just the Telkom retail price but that retail price plus a premium.

22.9 The Ministerial Guidelines make the following statement regarding VANS prices in clause 5(b):

> *Notwithstanding the provisions of subsection (a) above, providers of Value Added Network Services, as such, shall be entitled to volume discounts at levels below prevailing retail prices but shall not be entitled to Interconnection Services on the*

*basis of charges described in subsection 5(a). Such discounts shall duly take account of operational savings which may arise from dealings with providers of Value-Added Network Services relative to the costs of supply to the generality of retail customers. For the purposes of this Determination "retail prices" means the fees and charges by which Telkom offers telecommunication services to its retail customers pursuant to Section 45 of the Act.*

22.10 Accordingly, the Ministerial Guidelines contemplate that the existing retail prices will represent a ceiling price for the VANS operators. Further, the VANS operators shall receive discounts that reflect operational savings from dealings with VANS. Comments made to the Authority throughout the interconnection consultation process suggest that this is not the current practice and therefore it should be revisited.

22.11 The Guidelines embody the view that as competition is permitted in the provision of VANS services, the interest in assisting and promoting the growth of efficient competition in this area warrants the provision of interconnection to VANS providers. As Telkom is engaged in the provision of value added services and thus is directly competing with other VANS providers, Telkom would be expected to unbundle its interconnection services to these providers and to treat them in a non-discriminatory manner as regards price and quality.

22.12 Accordingly, the Authority's current view is that VANs pricing should be set commercially but should be no worse than the best applicable retail price less avoidable costs. The Authority is prepared to intervene and set the VANs prices using alternative cost based methodologies if this pricing mechanism does not operate in the best interests of consumers.

**Radio Trunking and Mobile Data**

22.13 For the smaller service providers in South Africa, such as radio trunking and mobile data providers, different considerations arise. The Authority is of the view that some concerns about pricing levels may appropriately be met through regulation of facilities pricing. However, they should also be entitled to the same interconnection pricing benefits as VANs operators.

22.14 Given that interconnection is such a fundamental part of a competitive telecommunications market the requirement to supply interconnection services set out in the Authority's guidelines is mandatory for all licensed PTNs and VANs operators except where the Authority in the exercise of its functions under section 43 (1)(c) determines that the request is not reasonable.

## 23. MOBILE ROAMING

**Advantages of Roaming**

23.1 The advantages of domestic roaming for mobile operators without full national coverage are that, without the ability to roam across another network those operators would be viewed as providing inferior coverage thus making it more difficult for these operators to compete for market share. New entrants generally must be able to offer more than 90%

national coverage before they will attract subscribers from many sections of the market.[35] Failure to achieve market share would mean that revenues would diminish impacting on the operator's ability to complete a network rollout and to enhance competition within the market[36].

23.2 Without the ability to roam across the incumbent's networks the new entrants will face a significant time delay as well as extremely heavy capital costs in rolling out networks that are equivalent to that achieved by the existing operators. For example the advantages of roaming include that:

- it enables increased competition to be offered more quickly;
- it reduces the new entrants' capital outlays;
- it allows the new entrants to choose when and where to build their infrastructure; and
- it avoids uneconomic duplication of infrastructure especially in rural areas.[37]

23.3 Domestic roaming is seen as an essential element of the introduction of competition in the mobile market. This is particularly so where, for economic or efficiency reasons, the replication of network infrastructure is discouraged. Countries with developed economies and high teledensities may be able to afford to replicate facilities. However, in less developed telecommunications markets such as South Africa such duplication would be an inefficient use of resources. Accordingly the arguments for mandating roaming in a country like South Africa are far stronger than in a country where there is already intense competition and full network rollout.

**The Need for Intervention**

23.4 A number of respected reports have noted that national roaming is unlikely to be offered to rivals voluntarily unless the incumbents can charge retail prices and that regulatory action to introduce domestic roaming will be opposed on the basis that it constitutes a major competitive threat.[38] Some commentators have suggested that regulators should require incumbent mobile operators to provide national roaming for new entrants and this service should be priced using the same pricing standard the incumbents use for their interconnect services.

23.5 Accordingly, in these specific South African circumstances allowing commercial negotiations to set the roaming arrangements is likely to fail and will not produce the

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35 David Lewin, Richard Kee "Interconnect-A global guide to effective telecommunications" 1997 Ovum report p 158

36 Office of the Telecommunications Authority Hong Kong " Consultation Paper on Dual Band Operation and Domestic Roaming for Public Mobile Radiotelephone Services in the 800/900 MHzBand and Personal Communications Services in the 18 Ghz Band." 1998 para 11 OFTA paper

37 Ovum 159

38 Ovum Report p 159

policy outcome sought by the Government. Accordingly, the Authority proposes to establish guidelines for roaming at an early stage. This does not mean that the roaming arrangements will always need to be set by regulatory intervention. However, if the new mobile entrants are to launch in a workable market environment regulatory intervention is warranted at the outset.

23.6 During the interconnection consultation process, the existing mobile operators indicated that roaming should not be addressed as a matter of interconnection and that there should be no regulatory intervention, simply commercial negotiations. The Authority disagrees as it is of the view that roaming should form part of the interconnection regime. In any event, it is more important to grapple with the policy analysis of whether roaming would be beneficial for South Africa than to debate what should and should not conceptually be regarded as interconnection.

23.7 At a policy level, if roaming is beneficial to South Africa, then it is critical that it be able to be addressed within the interconnection regime. For the reasons outlined in this paper, the Authority believes that roaming may be very beneficial for South African consumers. Of course the form of roaming would need to be technically feasible and this is an analysis that the Authority would undertake pursuant to the interconnection powers. If the form of roaming is technically feasible, then it would seem that the only issue for the incumbent mobile operators is one of price. Of course, as the price reduces to the LRIC, this would provide a greater ability for new entrants to compete with the incumbent mobile operators for subscribers.

23.8 However, this alone is no reason to maintain high prices. For the same reason that LRIC prices are efficient when the existing mobile operators are acquiring services from Telkom, they may well be efficient between incumbent and new entrant mobile operators for roaming services. This readily suggests that the Authority should have the ability to intervene and be proactive in encouraging roaming arrangements that are in the best interests of South Africa.

**Pricing**

23.9 The pricing of roaming will be a critical factor. If the purpose of roaming is to avoid facilities duplication but not to have any impact upon services competition then a relatively high price for roaming may be acceptable. However, if a new licensee is to be able to compete for customers then its wholesale price will be critical.

23.10 The essential questions for the price of roaming is whether the wholesale charge should be developed on a "bottom up" or "top down" basis. A bottom up price would be developed from an accepted costing methodology with some form of return and the top down approach would begin with the roaming operator's retail price and then subtract certain cost elements.

23.11 In the Authority's view the maximum price for roaming in any circumstance should be a mobile operators best retail price (excluding below cost offers) less avoidable costs. Any pricing methodology that sought to establish a wholesale charge that was above this charge would be motivated by a desire to minimise competition. Further, to the extent that there are avoidable costs such as marketing and other overheads then they should be

subtracted from the retail price. This maximum price would then provide equivalent profit margins to the host network on a per call basis. Such a price would make roaming initially commercially possible without facilitating any price competition as a result of roaming.

23.12 The problem with the top down approach is that the current retail prices are not representative of future competitive practices. Existing retail prices are simply those which the market will bear within the tariff caps imposed on the cellular operators under their licences. There is evidence that they enjoy strong margins and therefore have scope for cutting their prices. In this context a bottom up pricing approach may avoid the wholesale charge becoming outdated with rapid fluctuations in retail charges and also instil some degree of price competition. It would also provide more predictable pricing.

**Conclusions**

23.13 While roaming initially existed between Vodacom and MTN, it was discarded in favour of network based competition. Accordingly, there is no apparent demand for roaming between these 2 mobile operators. The most likely demand will be from the new mobile licensees who wish to roam on the networks of MTN and Vodacom.

23.14 The successful tenderers for the third and fourth mobile licences may choose technologies that do not support roaming on the existing networks. If that is the case and roaming is technically infeasible, then there is no need to assess roaming any further until it becomes technically feasible. However, if those new licensees choose technology that allows them to roam on a technically feasible basis, then this should be supported.

23.15 The Authority does not intend to be prescriptive about pricing principles at this stage other than it is its view is that the price should be between the LRIC of the roaming service and the lowest general retail price less avoidable costs. The precise formulation will need to await the outcome of the third and fourth mobile licence bid. Where those successful bids reflect a strong commitment to South Africa's telecommunications policy objectives, then this may warrant a LRIC price.

23.16 The Authority does not propose to assess all these matters at the date a new mobile licensee proposes to launch its service. Rather, it would propose to develop a timetable so that all of the issues related to efficient roaming arrangements could be finalised in a manner that meets all necessary policy objectives, prior to the proposed launch of those services.

## 24. AVERAGING AND UNBUNDLING PRICES

24.1 Preliminary issues in relation to charging are averaging and unbundling. The averaging of interconnection charges over high cost regions such as rural areas and lower cost urban areas may be appropriate. For example, in the context of the South African environment averaging of charges will encourage the requesting party and new entrants to compete in the underserved rural areas, as the costs of providing service in these areas will be lowered by the averaging mechanism.

**Unbundled Pricing**

24.2 The Consultation Paper specifically outlined that interconnection prices and interconnection services were expected to be unbundled as this was consistent with South Africa's WTO commitments, the White Paper and prevailing international regulatory orthodoxy. It stated that:

> *On the other hand, unbundled costs allow the requesting party to ascertain where it would or would not be efficient to duplicate network elements. Unbundling pricing will also assist in providing competition by ensuring that an operator can purchase the necessary elements to offer its services rapidly without incurring excessive costs for elements that it does not require. Unbundling also helps to ensure that there is no unnecessary duplication of infrastructure by providing the right economic signals in terms of build or buy.*

24.3 However, the Authority specifically stated that this was an entirely different concept to local loop unbundling which was a policy decision which would only make sense if there was to be a fixed line competition and therefore did not need to be addressed at this time. Consequently, the Authority did not intend to address these issues.

24.4 Nevertheless, some submitting parties did not properly review the Consultation Paper and appeared to take the view that the physical unbundling of the local loop was being advocated. This was a misunderstanding on their part and this matter should now be clear.

25. **IDENTIFYING COSTS**

25.1 Under clause 8.4 of its licence, Telkom is not required to fully engage in regulatory accounting until 7 May 2002. One view is that this may make it difficult for the Authority to calculate interconnection charges based on the historical cost accounting information of Telkom. However, this would simply penalise access seekers and consumers. Further, as discussed above a historical cost standard may not be used by the Authority.

25.2 In these circumstances, one option would be for the Authority to use appropriate international benchmarks, possibly with some adjustment, as a proxy until appropriate costing information was available. A variation of this approach would be for benchmarks to be applied until the actual charges were calculated and then retrospectively settle any charging differential between the benchmark and the calculated charges. The Authority may also consider retaining consultants to produce a costs study to develop proxy costs for Telkom until Telkom's actual costs are available.

25.3 In summary, an inability to produce historical costing information should not justify a lack of cost based charges. The Authority therefore proposes to move forward as swiftly as possible to resolve a dispute in a manner that does not require a 2-3 year wait for the development of Telkom's accounting procedures. This will only be necessary if existing charges are not commercially negotiated to a point where access acquirers accept that are commercially acceptable. If this does not occur, then an access seeker should involve the Authority at an early stage so that a price may be determined.

## 26. FACILITIES PRICING

26.1 The Authority also proposes to apply LRIC principles to facilities leasing. To the extent that this pricing is efficient for the provision of services, it will also be efficient in the leasing of facilities. However, there will need to be an analysis of the allocation of common costs. In addition, where facilities may be reasonably replicated while achieving policy objectives, the more commercially based pricing may be appropriate.

## PART 5 - NON-PRICE ASPECTS OF INTERCONNECTION AND FACILITIES LEASING

**Provisioning, Technical and Operational Issues**

26.2 International experience with the establishment of interconnection arrangements has demonstrated that issues relating to the provisioning of the access provider's network to enable the interconnection services to be provided have created delays and difficulties in establishing services. To address this issue, the provisioning of interconnect services and facilities should occur in an efficient manner and in a timely fashion. They also require that the provider should not discriminate between different operators in the way it provides interconnection services nor should it discriminate between the provisioning services it supplies to its retail arm or to any subsidiary or associate.

26.3 Non discrimination is an extremely important concept in relation to various aspects of providing interconnection services, including provisioning. An incumbent has an incentive to discriminate against its competitors by providing them with less favourable terms and conditions of interconnection than it provides itself.[39] the Authority is of the view that interconnection services should be provided at a level of quality that is at least indistinguishable from that which the incumbent provides to itself, a subsidiary, an affiliate or any other party. In addition, incumbents may not discriminate against requesting parties based upon the identity of that party (for example, whether they are VANs, PTNs, or cellular operators).

26.4 The Authority's Guidelines also address a range of technical and operational conditions of interconnection, again prescribing the expected level of conduct in areas where difficulties have arisen in other regimes. In these areas the Guidelines do not attempt to be exhaustive, but reflect the fact that interconnection is not "a simple homogenous service which can easily be defined in a few words."[40] Amongst the technical and operational issues addressed are:

- the geographic locations of POIs
- whether co-location will be allowed
- the extent of unbundling that will be required
- the quality of service
- technical interfaces
- billing and payment arrangements.

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39 Local Competition Order para 218

40 The Changing Role of Government in an Era of Telecom Deregulation. Interconnection Regulatory Issues. Briefing Report No 4. ITU Regulatory colloquium NO. 4 Geneva 1995

**Points of Interconnect (POIs)**

26.5 Two issues arise in relation to points of interconnect. The first relates to the vertical distribution of POIs, and whether the points of interconnect are positioned at the trunk, junction or local exchange level. Generally the lower down in the hierarchy of exchanges the POI is located, the greater the number of those exchanges and the number of POIs required, imposing a greater cost of capital outlay for the party seeking interconnection. However, the lower down in the hierarchy a party interconnects the lower should be any cost based charges. Accordingly, the access seeker may assess the relative economics of using one or many POIs.

26.6 The second issue in relation to POIs is their geographical distribution. The geographic location of points of interconnect is important because the location of the POIs will affect the interconnect charges paid. The access providing operator may be able to increase the costs of interconnection to the access seeking operator, by artificially or unnecessarily restricting the potential locations for POIs, requiring traffic to be carried further by the access provider.[41] This is particularly the case in more remote areas where it may be necessary to acquire long distance services to reach a distant POI when local access services would be appropriate if a local POI were available.

26.7 The location of POI's for the new entrants with networks in more remote areas may be even more significant. If, a new entrant operates in underserved areas and those areas are of a low population density or do not support as many POI's, then this may have a significant impact on their costs. If Telkom has not established a POI within a particular call charging zone, then that may require the new entrants to route calls beyond that charging zone to a POI in another zone for ultimate termination. This can significantly increase the costs of interconnection.

26.8 It is particularly important that the POI costs not be prohibitive where POI's are numerous and geographically dispersed. Accordingly, the Authority is of the view that each party should bear its own port costs and data fill costs within its own network at their respective gateway exchanges. The cost of the interconnect link should then split equally between them. As it will be Telkom that establishes the interconnect link, at least during Telkom's exclusivity period, new entrants should be required to bear half of the cost of that interconnect link calculated on a LRIC basis.

26.9 The Authority anticipates that there may be technical problems with establishing points of interconnect in underserved areas where switches reflect superseded technologies that do not support interconnection functionality. Telkom should disclose precisely where these switches are and its plans for upgrades so that others may plan their networks. While Telkom cannot be expected to upgrade its network immediately, the Authority will remain vigilant in ensuring that Telkom does not fail to upgrade for competitive reasons

26.10 The Interconnection Guidelines specify that the relevant points of interconnection for a major operator should be at any technically feasible point. This will allow the access

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41 See discussion at para 9.2 of ITU Colloquium on Interconnection 1995.

seeking party to choose the points of interconnect provided that these can be managed technically.

**Unbundling Interconnection Services**

26.11 Unbundling is the process of disaggregating end to end telecommunications services into their constituent elements. Unbundling of interconnection services is a growing trend as regulators strive to ensure that new entrants into telecommunications markets have the maximum options available to them. At this stage the Authority is inclined to favour unbundled pricing and interconnection at any technically feasible level as the key policy considerations. Further, an access seeker should not be required to acquire more access services than it requires. However, more contentious forms of fixed line unbundling such as local loop unbundling need not be addressed in the current guidelines as this would only need to be considered in the context of fixed line liberalisation.

**Forecasting and Network Modernisation**

26.12 Forecasting procedures are a necessary part of any interconnect agreement. Forecasting, ordering and provisioning procedures are necessary from both the requesting operator and the access provider's point of view. The requesting operator will require certainty in relation to these matters to ensure that its interconnection needs will be met at the necessary times. The access provider will require the forecasting information provided to it by the requesting operator to be correct, as under-forecasting of traffic could lead to traffic congestion and the diversion of calls, while over-forecasting will lead to greater expense due to the access provider's undertaking of network conditioning or other work involved in installing capacity which is then not used by the requesting operator.

26.13 The Authority considers that forecasting is an important part of interconnection arrangements for very large operators with high volumes of interconnect traffic, but is most appropriately dealt with by agreement. Accordingly, under the Guidelines the issue must be dealt with between the parties and included in the written interconnection agreement. However, the Authority recognises that there can be difficulties in forecasting, particularly for new operators with less predictable businesses. It also recognises that forecasting regimes can be used to frustrate interconnection and impose unfair penalties on inaccurate forecasts. Accordingly, the Authority favours sensible arrangements that assist provisioning but do not penalise the forecasting operator.

26.14 Network modernisation is also an important part of any agreement as it will often be required by both the access provider and the requesting party in order to enable the provision of new services. However network modernisation, while having benefits for both parties, can also cause problems as the requesting party may require network modernisation before being able to offer particular services and if the access provider's program for network modernisation is delayed, then their ability to offer services will be affected.

26.15 It is also possible that network modernisation and rationalisation carried out by an access provider may cause problems for a requesting party who has placed POIs at switches which are to be eliminated or rationalised under network modernisation plans. Accordingly the Guidelines require that the interconnection agreement make provision

for adequate notice of network modernisation and rationalisation to be provided to requesting parties.

**Information**

26.16 Other issues that need to be addressed in interconnection guidelines are the information requirements to support interconnection. New entrants for example need information about the architecture and the configuration of the incumbent's network architecture in order to be able to make their interconnection requests and will require ongoing information about changes to the network once the request has been met.[42] Also in terms of negotiating interconnect arrangements where interconnect charges are fixed in relation to costs both the new entrant and the regulator will need to have information about the costs the incumbent incurs in providing interconnection services.

26.17 Other information issues relate to the confidentiality obligations that will be applied to information exchanged between the parties during an interconnection negotiation or during the operation of an interconnection arrangement.

**Inter-operator Working Group**

26.18 The Authority considers that it is of the utmost importance for the future development of the industry and services in South Africa that the interconnection regime put in place by the Guidelines functions smoothly in practice, with a clear mechanism in place for interconnecting parties to deal with the issues that will inevitably arise regarding interconnection as service provision continues.

26.19 To achieve the objective of ensuring that a long-term mechanism for ongoing discussion is in place, the Authority proposes the establishment of an Interoperator Working Group, for major interconnection arrangements (i.e. operator to operator), which would meet regularly both to monitor the practical operation of the guidelines, to deal with issues in dispute between the parties and to enable operators to raise and discuss issues that apply to more than one operator.

26.20 the Authority believes that this Working Group should be established on the basis that there are a number of issues on which commercial negotiations will be required and that by enabling a group of operators to come together common ground may be able to be achieved as opposed to conflict between two individual parties. In suggesting the Working Group the Authority acknowledges and hopes to build on the discussions that have already occurred between operators, and emphasises that the group does not preclude operators from forming additional forums with parties with whom they may have interconnection arrangements.

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42 Generally these issues are left to the parties to negotiate between themselves. See para 11.5 ITU Colloquium

## PART 6 – THE PROCESS OF LODGING AGREEMENTS

### 27. LODGEMENT OF INTERCONNECTION AGREEMENTS

#### Overview

27.1 Section 43(2) (in relation to interconnection) and section 44(4) (in relation to facilities leasing) require that all relevant agreements shall be lodged with the Authority to enable it to determine whether they are consistent with the relevant guidelines (unless exempted by regulation). This raises the following issues for consideration:

- the nature of the agreements that must be lodged; and
- those agreements that may be exempted.

27.2 Any failure to produce a relevant agreement would contravene the Telecommunications Act and could lead to an investigation by the Authority under section 100.

#### The Nature of the Agreements that Must be Lodged

27.3 The Authority is interested in reviewing entire agreements, not simply parts of the agreement which one or more of the parties may wish to lodge. The agreement which is to be lodged should include not only a written agreement but unwritten agreements and "side" arrangements . In the latter case the unwritten agreement should be reduced to writing and should be provided to the Authority. Further, it may be that the entire agreement is constituted by a number of written documents which may include a core on interconnection agreement as well as related agreements on "side letters". In these circumstances all of these documents are to be provided to the Authority if they are or could be relevant to its statutory functions.

27.4 Currently there are no exempting regulations in place and the Authority intends to address this. Until exempting regulations are introduced all interconnection and facilities leasing agreements are required to be lodged. It will be clear from the discussion in this paper that the concept of interconnection involves a broad scope. There are probably agreements falling within the statutory definitions that are not currently lodged, particularly those that are of less consequence which may be entered into on a relatively standardised basis. The Authority's current views on the different categories of agreements are as follows:

- It should be necessary to lodge all agreements between Telkom and a mobile operator, between mobile operators, between Telkom and mobile data and trunking operators and between Telkom and PTNs.
- To the extent that a standardised agreement exists between Telkom and VANs operators that has been lodged then agreements that do not materially depart from the standard form need not be lodged.

- The Authority will develop a materiality test for facilities leasing agreements based on monetary value and/or the term or scope of the agreement.

**Transparency of Agreements**

27.5 The Authority is of the view that interconnection agreements that fall into the category that must be lodged with the Authority should also be public documents. It is in the public interest that the terms and conditions of these agreements be publicly available. Accordingly, the primary rule should be that these documents will be available to the public. However, applications may be made to the Authority for parts of those agreements to be kept confidential, as provided for under section 93. The Authority will review these applications on a case by case basis.

27.6 Where there are likely to be many agreements in a category and each one is, in its own right, unlikely to have a significant impact on competition then the Authority need not review each and every agreement although it would wish to be satisfied of the basic form of those agreements. In relation to facilities leasing it is probably simplest to apply monetary value measures as the arrangements may either be for very large or very small quantities of facilities. The Authority is more likely to be interested in the major transactions.

**Scope of the Authority's Review**

27.7 The Authority's monitoring function in relation to lodged interconnection agreements and facilities leasing agreements is one that it will undertake diligently. However, the Authority's resources are not limitless and it may not always be in a position to give each and every agreement a very close review. Once the Authority has determined that an agreement is not inconsistent with the Guidelines it would not propose to give a later direction to renegotiate those provisions pursuant to sections 43 and 44. However, this does not mean that the Authority has determined that the agreement complies with every other part of the Telecommunications Act or any other legislative requirement. The lodgement and review process does not prejudice the application of any statutory provision or exercise of the Authority's powers.

27.8 Not surprisingly the Authority would not expect interconnection agreements and facilities leasing agreements to infringe any law or licence. However, it does not have the resources nor would it be in a position to assess all these complex matters when agreements are brought before it. The Authority will restrict its analysis to the requirements of the guidelines and this analysis is without prejudice to the exercise of any other power or the application of any other provision should this be necessary at a later time.

27.9 In particular section 53 of the Telecommunications Act provides:

> *"If it appears to the Authority that the holder of a telecommunication licence is taking or intends taking any action which has or is likely to have the effect of giving an undue preference to or causing undue discrimination against any*

*person or category of persons, the Authority may, after giving the licensee concerned an opportunity to be heard, direct the licensee by written notice to cease or refrain from taking such action as the case may be."*

27.10 This is a separate power to sections 43 and 44. The Authority may or may not choose to exercise this power in reviewing interconnection agreements and facilities leasing agreements. However, the Authority's strict function under sections 43 and 44 is to assess agreements against the relevant guidelines. In doing so it will often not be in a position to assess the application and provisions such as section 53 which may require further information and a different type of analysis and investigation.

## PART 7 – GUIDANCE ON THE AUTHORITY'S PROCESS WITH RESPECT TO DISPUTES ARISING IN RELATION TO AGREEMENTS

27.11 This section of the Regulatory Policy Statement raises for comment issues relating to the procedures the Authority should follow in exercising its powers and functions in relation to disputes arising out of interconnection or facilities leasing negotiations or agreements.

27.12 The types of functions that the Authority must engage in include:

- *Disputes About Reasonableness* - if there is a dispute about the reasonableness of the request the parties must refer the dispute to the Authority for its decision as to the reasonableness of the request.

- *Failure to Negotiate* - where the parties are unwilling or unable to negotiate or agree on any term or condition within the prescribed period or any extension, they must submit the issue to the Authority.

- *Determining Consistency with Guidelines* – As discussed in the previous section the parties must submit any agreement reached in relation to facilities leasing or interconnection to the Authority to enable it to determine whether the agreement is consistent with the relevant Guidelines.

- *Adjudication of Failure to Comply with an Interconnection Agreement* - the Authority shall investigate and adjudicate any alleged contravention or failure to comply with the provisions of the Act, a licence or an interconnection agreement.

27.13 The substantive provisions of sections 43 and 44 invoke a series of procedural steps which are available to parties in relation to specific types of disputes arising in relation to interconnection or facilities leasing. In addition to these constraints the Authority must also observe procedural requirements under the general law. Figures 4 and 5 illustrate the Authority's powers and the procedural steps required in the exercise of those powers.

**Reasonableness of a request**

27.14 Where a dispute relates to the reasonableness of a request for interconnection or facilities leasing the Authority must consider written representations and oral representations from the parties and make a determination as to whether the request is reasonable or unreasonable according to the criteria in s43(1)(c).

**Unwilling or unable to negotiate**

27.15 Where a dispute relates to the unwillingness or inability of parties to negotiate in relation to interconnection the Authority is required to consider written submissions and oral representations from the parties, and propose draft terms and conditions which the parties should be agreed between the parties within a time frame specified by the Authority s.43(4)(b). If the parties fail to agree on the proposed terms and conditions the Authority may declare those terms and conditions to be the enforceable terms and conditions on which interconnection is to be provided s.43(4)(b).

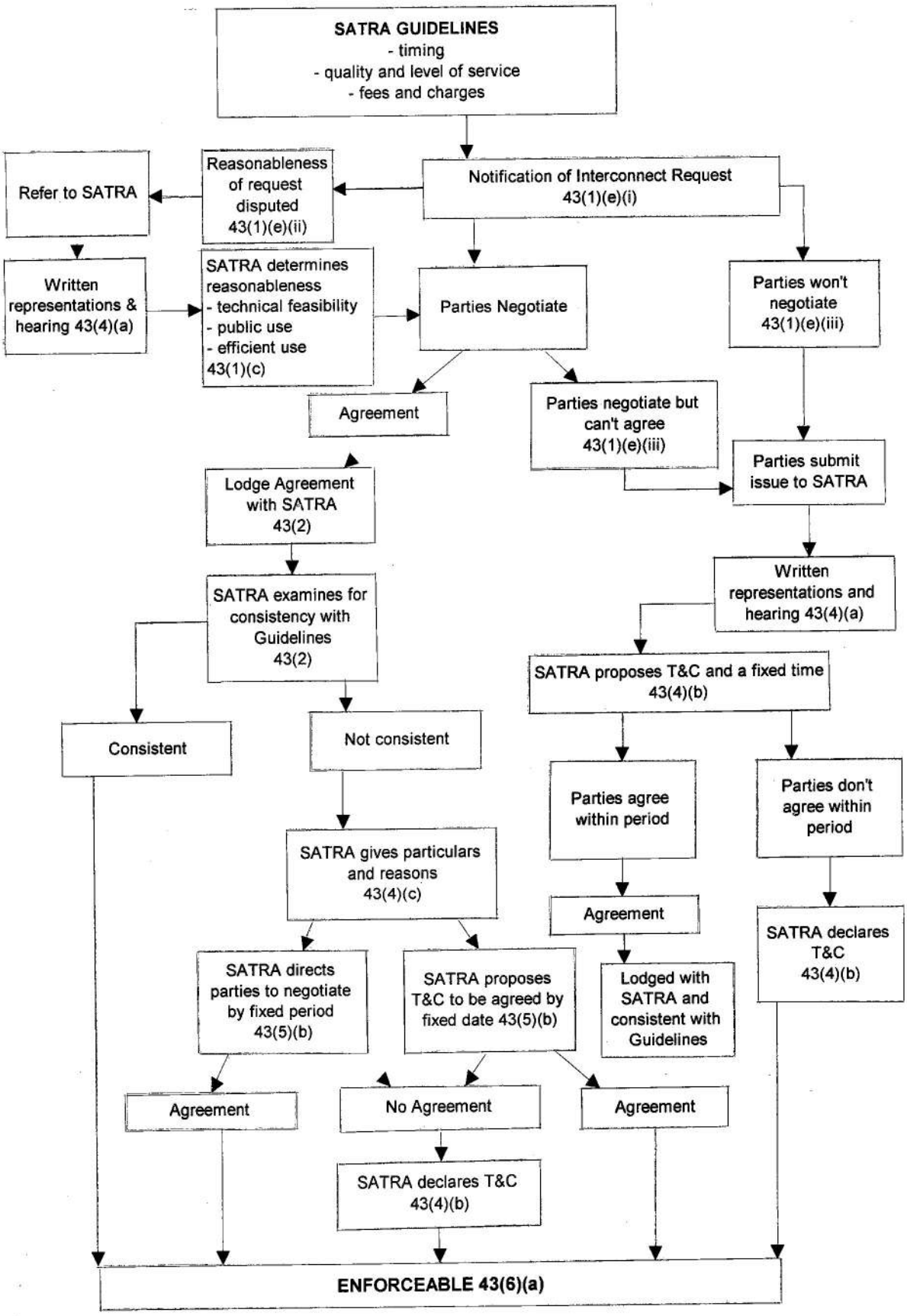
27.16 Where the dispute relates to facilities leasing the Authority is to follow the same procedural steps but if it reaches the view that Telkom was unwilling or unable to negotiate an agreement, it may authorise the requesting party to obtain any necessary facilities from a source other than Telkom on terms and conditions determined by the Authority.

**Consistency with Guidelines**

27.17 Where an interconnection or facilities leasing agreement is submitted to the Authority to determine its consistency with the Guidelines, the Authority must consider written representations and oral representations by the parties, and then inform them that it is satisfied that the agreement is consistent with the guidelines or where it determines that any term or condition is not consistent with the agreement provide the parties with a written determination of reasons why the agreement does not comply with the Guidelines s.43(4)(c).

27.18 The Authority may direct the parties to negotiate and agree on new terms and conditions within a proposed time frame or it may propose terms and conditions to be agreed between the parties during a set time frame s.43(5)(b). If the parties are unwilling to negotiate new terms and conditions then the issue must be submitted as a dispute to the Authority while if they fail to agree on the proposed terms and conditions, the Authority may declare that those terms and conditions will apply.

## FIGURE 4: SECTION 43 PROCESSES



**Contravention of an Agreement, Licence or Act**

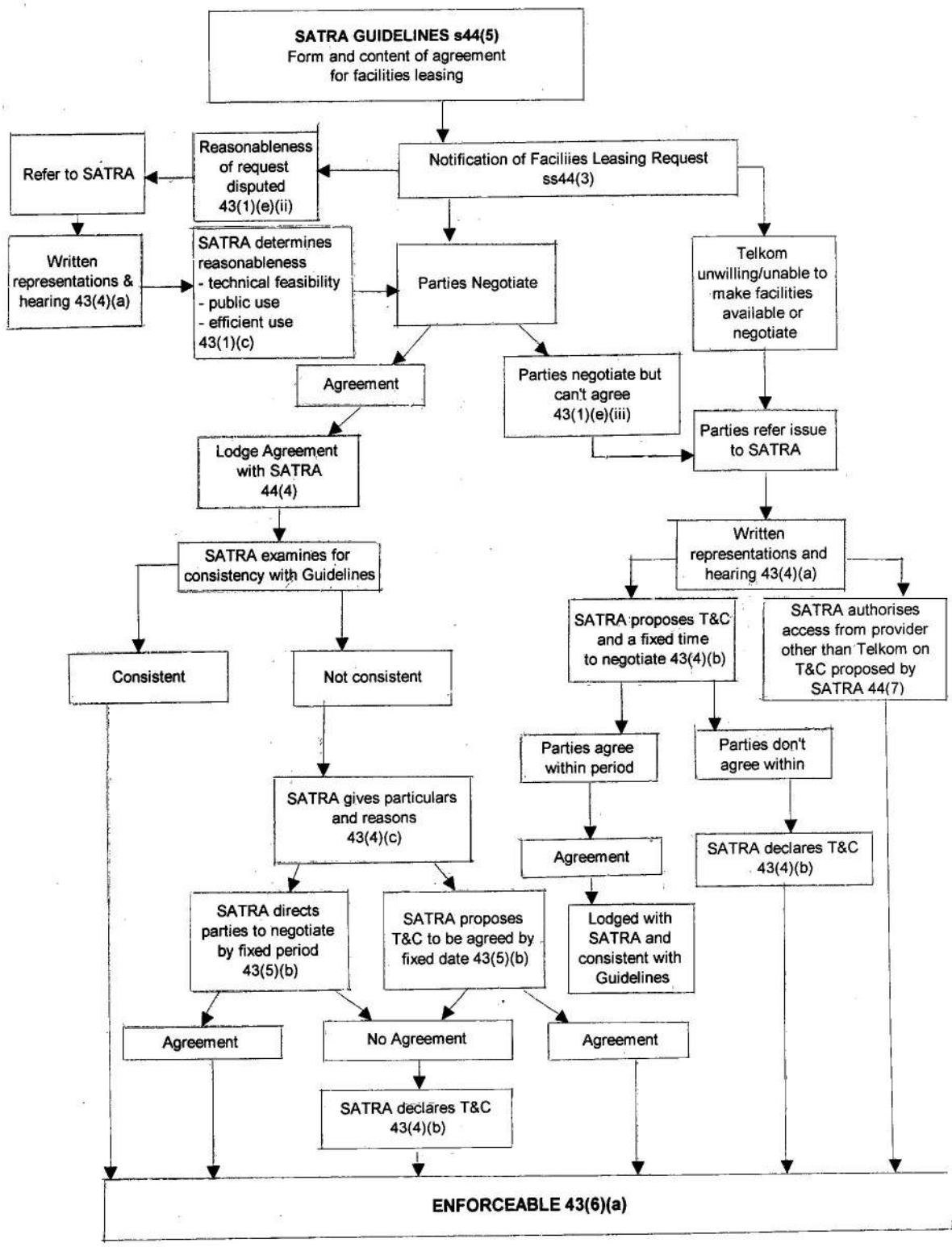
27.19 In addition to the Authority's powers under section 43 and section 44 the Act also provides under section 100 that the Authority shall investigate and adjudicate any dispute arising from an alleged contravention of the Act, a licence or a facilities leasing or interconnection agreement or a direction of the Authority. The section also endows the Authority with powers to summon and examine witnesses and call for the production of books and objects and provides for further procedural steps to be prescribed.

27.20 The Authority has been given additional procedural powers in relation to these disputes under Regulation No. R 346, which were promulgated in March 1998. The Regulation provides that where the Authority considers that a licensee has contravened or failed to comply with the provisions of the Act or terms and conditions of the relevant licence or agreement for the interconnection or leasing of telecommunications facilities then the Authority shall inform the licensee in writing of the alleged contravention or failure, require the licensee to submit written representations within 14 days after receipt of the notice, and investigate the matter in any lawful manner. This includes summonsing and examining witnesses, ordering the production of documents, and engaging and utilising the services of experts.

27.21 In addition under the Regulation, a "party aggrieved" by an alleged contravention or failure to comply with the provisions of a licence or an agreement dealing with interconnection or leasing of facilities may complain to the Authority setting out the details of the contravention and the relief sought. Prior to lodging the complaint with the Authority the party should serve a copy of the complaint on the alleged contravener.

27.22 Where the Authority determines that the alleged contravention or failure merits a formal hearing it shall advise the licensee of this fact, and of the date, time and the place where the hearing will be held and of the fact that the licensee is entitled to legal representation. Where the complaint does not merit a formal hearing the Authority shall advise the licensee of this fact and then proceed to hear the matter summarily. The Authority shall after due consideration of all evidence and reports before it make an appropriate order or determination, including issuing a directive, or imposing a fine of up to R500 000.

**FIGURE 5: SECTION 44 PROCESSES**



**Proposed Processes for section 43 and 44 disputes**

27.23 When the Authority is approached by a party to an interconnection or facilities leasing negotiation with a dispute, the Authority intends to operate in a manner that encourages a speedy resolution of disputes.

27.24 Accordingly parties should lodge with the Authority an application setting out the grounds of the dispute and a brief factual background. The Authority intends to initially assess applications to ensure that they are not vexatious or an abuse of process. In such cases the Authority will be willing to strike out such applications.

27.25 Where possible and appropriate and with the consent of the parties the Authority intends to attempt to initially resolve disputes by informal processes, such as, conciliation or mediation. In agreeing to conciliate or mediate negotiations between parties, consideration will be given to the extent to which the parties have attempted to resolve the disputes through commercial negotiation.

27.26 Should it prove necessary to resort to the more formal process under sections 43, and 44 the Authority proposes that the following procedures should apply:

- each party will be given the opportunity to present its case through written representations,.
- the written representations will be exchanged with each party being given the opportunity to comment on the other's position through further written representations;
- where appropriate, the Authority will seek independent legal advice on technical or other issues;
- if parties request the opportunity they will be able to make oral representations to the Authority although parties may waive their right to oral hearings;
- in disputes relating to the reasonableness of requests the Authority will issue a determination with reasons;
- in disputes relating to unwillingness or inability to negotiate the Authority will either issue draft terms and conditions on which the parties will have a short opportunity to agree or it may in the case of facilities leasing issue a determination authorising the requesting party to obtain any necessary facilities from a source other than Telkom.

If the parties fail to agree on the terms and conditions within the proposed period the Authority will declare through a final determination that the terms and conditions are to be enforceable between the parties.

27.27 The Authority will make its determinations based on its analysis of the facts and any written and oral representations received. While the Authority will endeavour to finalise all disputes as efficiently as possible its ability to do so is subject to the complexity of the issues and the obligation to observe the requirements of due process.

**Confidentiality of Information**

27.28 The Authority notes that in performing its role in relation to disputes the parties are likely to provide it with confidential commercial information. Accordingly as outlined in sections 43 and 44 either party may request the Authority to determine whether a particular part of that party's written or oral representations discloses confidential commercial information and should therefore not be disclosed to the other party. If the Authority determines the documents do not contain this type of information, the party may exclude the information from their representations.

**Costs of Determination**

27.29 The Authority proposes that the expenses incurred by it in relation to a determination will be allocated as it considers appropriate, given the matter under dispute and the conduct of the parties. Accordingly, in some situations a party may be requested to pay all costs while in other circumstances each party may be required to bear a portion of the costs.

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