

CONSULTATION

Carrier Pre-selection

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A Consultation issued by the Telecommunications
Regulatory Authority
24 December 2003



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1 Introduction

Legislative Decree No. 48 of 2002 promulgated the Telecommunications Law for the Kingdom of Bahrain. Among other things, the Telecommunications Law formed the Telecommunications Regulatory Authority (TRA or Authority), a body that has responsibility for the regulation of telecommunications of Bahrain.

Section 40 of the Telecommunications Law states that public telecommunications operators with significant market power shall, from the 1st April 2004, provide carrier pre-selection (CPS). This is a facility whereby any subscriber of a telecommunications operator can, by default, access the services of an interconnected operator that holds a telecommunications license

In pursuance of its duties, the Authority has prepared this Consultation document, the principal aim of which is to propose a basis for the implementation of carrier pre-selection in Bahrain. The proposals in this Consultation relate to the processes that may be required and the costs that may be incurred by telecommunications operators in Bahrain in this regard. As such this Consultation is relevant to all licensed operators, other organisations that may be considering such becoming an operator and other interested parties.

1.1 Document approval and issue

This document is issued pursuant to Section 3(f) and Section 40 of the Telecommunications Law. It is made publicly available via the TRA web site in order that interested parties may comment. Anybody who wishes to do so should respond in writing to the TRA during the public consultation period. Responses must be received no later than 5.00pm on the 21st of January 2004.

Following consideration of the responses the TRA will then issue another consultation paper detailing operational details and then issue a regulation on CPS for implementation by the operators in Bahrain.

The address for responses to this Consultation is:

The General Director
Telecommunications Regulatory Authority
PO Box 10353
Manama
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Alternatively, e-mail responses may be sent to the Authority's e-mail address at consult@tra.org.bh

1.2 Brief description of Carrier Pre-Select

As part of the process of increasing competition in the telecommunications market in the Kingdom of Bahrain, new fixed line operators can apply for licences from 1st July 2004. It is unlikely that new operators will provide fixed telephone services via

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complete new infrastructure; instead they will offer services via the existing infrastructure owned by Batelco. If a customer wishes to utilise the services of one of the new operators they will have to “pre-select” the new operator so that Batelco’s systems will forward calls for delivery via the new operator.

Customers apply to the new operator for the service and when accepted, from that time forward, calls made by that customer will be carried by the new operator.

It is possible that carrier pre-select can apply to international calls only, national calls only or both.

1.3 Scope and Timing

While it remains in consultation form, this document has no status other than as a basis for discussion. Once this consultation is complete, a report will be produced that sets out the principles for implementing CPS in Bahrain. This report will be used as a basis for a more detailed consultation paper that proposes the implementation, operational and cost details needed to affect CPS. This second consultation will result in a CPS regulation for Bahrain. The TRA plans to issue the report on this consultation before the end of January 2004. The second CPS consultation, which puts forward prescriptive detail for CPS implementation will be issued in mid February for comment by mid March. Thereafter, the TRA aims to issue a draft regulation, allowing two weeks for comments on this draft regulation before releasing the final regulation in early April 2004.

1.4 Structure of the Paper

This consultation is structured into a number of main sections, as follows:

- The next section identifies which operators are obliged to provide carrier pre-selection facilities
- Section 3 outlines what qualification criteria will apply to determine which operators will be eligible to provide CPS services to the public.
- Section 4 discusses the factors to be considered when determining what call categories should be included in a pre-selection scheme and how many pre-selections should be available. The section concludes by proposing a CPS scheme for Bahrain.
- Section 5 describes the switching and routing functionality that will be required to support CPS.
- Section 6 considers consumer issues, notably, whether a CPS Code of Practice is required and what issues the Code should address.
- Section 7 outlines the costs involved in providing CPS and considers how these costs should be apportioned and recovered.
- Section 8 addresses the main inter-operator operational processes that need to be established in order to support an efficient and effective CPS service.

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2 Which operators are obliged to implement CPS?

2.1 Fixed Network Operators with Significant Market Power (SMP)

At this time, the only national fixed services licensee in Bahrain is Batelco and this will remain the case until July 2004 at the earliest. It is stated in Section 40 of the Telecommunications Law that a public telecommunications operator with significant market power shall, from the 1st April 2004, provide the facilities that enable carrier pre-selection. Following the TRA determination of Batelco's market dominance of 9th August 2003, it is obliged to install the capability and take other steps to provide CPS from the 1st April 2004.

The TRA is keen that there should be clear understanding of how CPS works. In general, it should allow consumers, including those using ISDN, to access, as a default, any interconnected provider of publicly available telecommunications services. This means that consumers should be able to choose these services by means of pre-selection – their preference should be held in a customer profile by the operator to whom they are directly connected.

2.2 Fixed Network Operators Without Significant Market Power

Licences for alternative fixed service licencees in Bahrain will be available from July 2004. Only if any of these licencees achieves significant market power will they will be obliged, like Batelco, to offer CPS.

2.3 Mobile Network Operators

Although not explicitly excluded in Law, it is the view of the TRA that mobile operators should not specifically be obliged to offer CPS.

Mobile operators have traditionally argued that CPS is not necessary, as there is already intense competition between operators in the mobile market, and that the cost of switching between operators is less significant than on the fixed network.

Mobile operators also argue against the CPS obligation on the basis that substantial investment is required to roll-out mobile networks, and this would be undermined by the introduction of CPS.

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The TRA seeks respondent's views on the types of operators (fixed, mobile or both) to whom obligations for providing CPS should apply

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3 Which operators are eligible for Pre-Selection

Operator eligibility in other countries where CPS is in operation is generally dependent on the licensing scheme of the relevant jurisdiction. Some countries require that an operator has significant network infrastructure deployment before being considered as a candidate.

The TRA proposes that operators with a National Fixed and/ or an International Service licence should be eligible for pre-selection by customers of operators obliged to provide CPS. New and existing licensees will be required to justify their eligibility for pre-selection by reference to their provision of telecommunications services to the public, in addition to meeting the normal licensing criteria.

In addition, the TRA is minded to require that a consumer Code of Practice for CPS be established (see section 6). If this is mandated, operators must be in a position to accept and comply with that Code of Practice.

Consultation

The TRA seeks respondents views on (a) the types of operators eligible for CPS, (b) the need for and contents of a code of practice related to CPS and (c) the eligibility criteria for pre-selection

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4 The CPS Scheme

4.1 Factors to Consider in Determining a CPS Scheme

In determining the number and type of services which can be pre-selected, the TRA believes that introducing a complex pre-selection scheme would not be in the best interests of either the consumer or competition. Ease of use is therefore a prerequisite for any pre-selection scheme.

In the context of this requirement for simplicity, allowing pre-selection for each and every call is likely to prove unattractive to consumers. This form of pre-select would add to the costs and time-scales of introducing the service, with few counterbalancing benefits. In addition, given that the margins are narrower on certain calls than others, it is unlikely that an operator would choose to enter markets based on individual pre-selects.

4.2 The Proposed CPS Scheme for Bahrain

Taking account of the above, the TRA believes that the introduction of a relatively simple pre-selection scheme will facilitate implementation and encourage consumer acceptance of the concept.

The TRA therefore proposes a pre-selection scheme in which consumers can select one alternative operator for all of their national calls and one for all of their international calls.

This option would enable customers to pre-select a maximum of two alternative operator. One may be chosen for all their international calls (an international call being defined as a call requiring the dialling of the '00' international prefix), another, which may be the same operator, for all national calls.

In both cases, it is proposed that the pre-selected operator would contract directly to their customers and would, therefore, be responsible for billing their customers for the service they receive.

It should be made clear that customers who pre-select a preferred alternative operator would continue to have their access line provided and maintained by their existing operator and because the line will still be owned and maintained by their existing operator, there will be a standing charge still payable to the existing operator. Also, calls for which the customer does not pre-select an operator would continue to be routed by the existing operator. It is not proposed that calls could be de-selected from the alternative operator on a call-by-call basis.

Finally, customers who wish to continue to take all of their call services from their existing operator should not need to do anything. The provision of their calls will be unaffected by the introduction of the CPS service.

Consultation

The TRA seeks respondents' views on the options proposed for a CPS scheme to be applied in Bahrain.

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5 Switching and Routing Requirements

5.1 General Requirements

The TRA proposes that the switching and routing requirements applicable to operators with significant market power include:

- They will not provide CPS on public payphone lines.
- They will route calls which are subject to pre-selection to a point of interconnection, agreed between the customer's pre-selected operator and the operator to whom the customer's line is connected.
- All calls subject to a CPS mechanism will be routed without alteration to the digit string dialled by the customer. Calling Line Identity (CLI) will also be passed through for billing purposes.
- Calls not subject to a pre-selection, calls to emergency services and short code calls will continue to be routed without transfer to another operator.
- Where a call is to be routed by CPS, the forwarding operator will prefix the customer's dialled digits with an agreed CPS Routing Code. The aim of this coding is to facilitate routing through the originating network to the appropriate point of interconnection
- Existing facilities on the customer's line should not be affected by the addition of the CPS facility.
- The process of initially enabling CPS on a customer's line must also support continuity of primary telephone service for the customer during the switchover.
- There should be no noticeable degradation in service quality by the addition of CPS, e.g. in call set-up time.

5.2 Multi-line and Virtual Private Network Customers

CPS will be provided to multi-line customers and customers with Private Branch Exchange (PBX) installations. However it might not be possible to provide different selection schemes to individual extensions on a PBX, e.g. where a PBX is supplied by a 30 channel ISDN Primary Rate circuit, then a single CPS scheme might have to be applied to all 30 channels, and would be available to all extensions on the PBX.

CPS could also be provided to any Virtual Private Network (VPN) customers. On-net calls do not need CPS capability, but customers should have the capability to direct specific types of off-net traffic to CPS operators.

Consultation

The TRA seeks respondents' views on (a) the switching and routing requirements proposed to apply to operators with significant market power and (b) whether such requirements should be included in the CPS regulation, in an industry code or elsewhere.

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6 Consumer Issues

6.1 General

Network operators must develop adequate customer information and consumer protection procedures to assist the public to understand the choices they will have, and how the new services will work. In particular, consumers should fully understand that CPS will be different from other operator access options in the automatic nature of CPS, the types of calls covered by the CPS scheme and the impact on other services that they are to retain.

6.2 Requirement for a Code of Practice

As experience in other countries has shown, measures will need to be in place to protect customers from operator misuse of the CPS facility. The most notable form of misuse is often referred to as 'slamming'. This is the implementation of pre-selection without the full, conscious consent of the customer. Slamming is not a practice in which reputable operators engage but nevertheless safeguards do need to be put in place. This may require the development of a Code of Practice. A Code of Practice would set out the rules and procedures that operators wishing to offer CPS services in Bahrain would follow.

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The TRA seeks respondents' views on (a) the requirement for a Code of Practice relating to the offering of CPS, (b) the timing and process for preparing a Code of Practice, (c) whether the Code of Practice should be legally binding and (d) what role the TRA should play in drafting and enforcing the Code of Practice.

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7 Cost Apportionment

7.1 Introduction

This section considers the costs associated with the provision of CPS and examines the proposed rules for allocating these costs.

In developing a methodology for cost allocation, three broad cost categories associated with the provision of CPS are identified:

1. General system provisioning costs: These are once-off costs mainly incurred by a licensee with significant market power in modifying network and support systems to enable CPS. System provisioning costs are independent of operator demand.
2. Operator-specific enabling costs: These are the costs of enabling CPS for any individual operator, including the setting up of commercial arrangements for the electronic transfer of customer orders.
3. Per-line enabling costs: These are the mainly administrative costs of implementing CPS for individual customer lines.

7.2 Cost apportionment

Six guiding principles for cost apportionment have been used to determine the TRA's initial proposals for apportioning the three types of costs identified above. The six principles are:

1. Cost causation: the party responsible for causing costs should help to bear the costs.
2. Distribution of benefits: the party(ies) benefiting from the process should help to bear the costs.
3. Effective competition: the cost allocation mechanism should inherently encourage competition.
4. Cost minimisation: the cost allocation mechanism should encourage operators to minimise costs and in particular to adopt technically efficient solutions.
5. Reciprocity: Charges between operators should be equal for the same service
6. Practicability: the allocation mechanism should be practical to implement.

In principle, CPS should be regarded as an adjunct to an interconnection arrangement. The principles of cost determination and recovery, therefore, should generally conform to the overall framework of interconnection regulations.

The system modifications, including the cost of subscriber and office data changes, required to implement CPS form part of system set up costs for providing interconnection between a licensee with significant market power network and that of any alternative conveyance network.

The set up cost involved and the manner in which it will be reimbursed to a licensee with significant market power could differ from case to case depending upon the interconnection scenario between the parties involved.

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The burden of general system provisioning costs could be shared between Incumbent and the CPS operators. This is justified on the basis of effective competition and distribution of benefits, given that all customers, including Batelco, will benefit from the increased competition brought about by CPS. Arguments about practicability and cost minimisation tend to support the same conclusion.

7.3 Eligibility of costs for recovery

A number of important guiding principles based upon which set-up costs will be worked out are given below. These principles are proposed by the TRA for use by operators as a basis for their mutual negotiations.

In order to establish that costs are eligible for recovery, an operator should conclusively show in its proposal and its calculations that such costs:

- would not have been incurred by the operator but for the implementation of carrier pre-selection; and
- were incurred for provision of carrier pre-selection and are directly attributable to the same.

In measuring eligible costs, the criteria would be as follows:

- Eligible costs constitute dedicated costs, portions of joint costs, and certain incremental overheads.
- Dedicated costs are the costs of investments or expenses that are dedicated exclusively to the provision of carrier pre-selection functions.
- Joint costs of providing carrier pre-selection are costs associated with new investments or expenses that directly support the provision of carrier pre-selection functions and also support at least one other function.

The portion of joint costs that represents an eligible cost constitutes the difference between the total cost of an item with the carrier pre-selection functionality and the total cost of the item without the carrier pre-selection functionality.

The burden shall be on Batelco to demonstrate what portion, if any, of such joint costs should be attributed to carrier pre-selection.

Batelco may include incremental overheads as eligible costs only to the extent that it can demonstrate that such incremental overheads:

- are incurred specifically in the provision of carrier pre-selection; and
- are actually new costs incremental to and resulting from the provision of carrier pre-selection.

Costs recoverable through pre-selection cost recovery mechanisms may not be included in other cost recovery mechanisms.

Consultation

The TRA seeks respondents' views on the principles set out for apportionment of costs between operators in establishing CPS.

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8 New Operational Processes for Providing CPS Services

8.1 Background

The introduction of CPS will impact on existing operational processes, most notably billing, order handling, service provisioning and fault handling. Modifications or additions to operators' existing operational support systems will be required in order to support CPS. In addition, CPS will introduce new operational processes that require an interface between operators to be established. This section considers these processes.

In designing the processes to support CPS, prime consideration should be given to the ease of serving a customer's request. The process by which a customer's carrier pre-select options are registered must be neither complex nor cumbersome. In addition, the processes must be adequate to give consumers confidence that their interests are being protected.

Clearly, a detailed set of inter-operator processes and charges need to be developed for operators to support CPS. The TRA intends to issue a second CPS consultation that builds on the principles established in this first consultation to propose such detail.

8.2 The Main Inter-Operator Processes

The TRA believes that there are four main inter-operator processes to be developed or modified:-

- **Order Handling and Provisioning:** The process for the exchange of orders to allow the setting up, changing and removal of the CPS service on a customer's line. This includes the identification of invalid orders.
- **Complaint and Fault Handling:** The changes required to existing processes to recognise customers with carrier pre-select and to appropriately respond to reported faults based on this. It may also include the passing over of faults between operators when appropriate.
- **Inter-Operator Billing:** The changes required to existing inter-operator billing processes to cater for the addition, changing and removing of CPS services on customers' lines. The recovery of CPS costs may be part of any inter-operator billing requirement, depending on how these costs are allocated and recovered.
- **Management Information Statistics:** Provision of management information statistics to measure inter-company performance and to demonstrate achievement of the target quality of service levels set for operators in Bahrain.

8.3 Order Handling and Provisioning Process

The development of the order handling and provisioning process is likely to be main issue in support of carrier pre-select. By way of guidance, the TRA proposes an outline order handling process for consideration:

1. When a customer elects to use a CPS service, they should contact the CPS operator directly.
2. The CPS operator should request a signature on a part of the form that instructs the customer's existing operator to program the customer's CPS options.

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3. On receipt of the signed form, the chosen CPS operator will then contact the customer's existing operator about the new arrangement for that customer. This installation order should be sent by electronic means on the day of receipt of the form. The CPS operator should at this time also set up the service internally and inform the customer that the order has been placed with the existing operator.
4. On receipt of the electronic installation order, the customer's existing operator will return a positive acknowledgement for every order that can be fulfilled. If an order cannot be accepted, the reason for rejecting the order is returned. This positive/negative acknowledgement should be returned within two working days.
5. The customer's existing operator then programs the customer's local exchange to route appropriate calls through to the CPS operator's network. The deadline for completion of activation is five working days from receipt of electronic order. This assumes that a longer 'cooling-off' period is not required for consumer protection.
6. The customer's existing operator confirms to the CPS operator that CPS has been activated on the customer's line.

The finally agreed process must also take account of:-

- The options available in the pre-selection scheme
- Customers subsequently changing their pre-selected operator
- Cancellation of CPS orders in progress
- Multi-line customers
- Change of a customer's telephone number
- The definition of a date on which the change will take place

An order handling system designed to cater for an agreed volume of orders needs to be put in place to handle this process efficiently and accurately. An electronic order handling system would allow for greater volumes of CPS orders to be processed and would facilitate the required audit trail for CPS transactions. The TRA suggest that a solution that utilises e-mail would be a reasonable interface, at least initially.

Successful process development and implementation is reliant on all operators involved in CPS. A sufficient commitment of resources and a willingness to develop sustainable processes is required from all participants.

8.4 Other processes

An effective and efficient Order handling and provisioning is clearly key to the introduction of CPS. Once this process is in place, the remaining processes should be relatively straightforward.

For Complaint and Fault Handling, the records established at the order stage provide a record of which operator is responsible for each part of a customer's service thus providing a basis for ascertaining the responsible party in the event of a fault or customer complaint. This process should be designed to ensure that faults are correctly allocated.

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For Inter-Operator Billing the order process should again provide the necessary records that allow a customer's bill to be apportioned correctly.

For Management Information Statistics, it is suggested that the record of a customer's movement between operators is the only mandatory requirement. This provides a basis for measuring churn between operators. The fault data for CPS customers should be included as part of the normal quality of service reporting for each operator.

Consultation

The TRA seeks respondents' views on the proposals for operational processes to support the provision of CPS.