

Introducing Carrier Selection & Carrier Pre- Selection in Malta

Consultative Paper

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1 Introduction

A well-defined carrier selection scheme is a key enabler for effective competition in a liberalised telecommunications environment. Carrier Selection (CS) and Carrier Pre-Selection (CPS) enables consumers to avail themselves of telecommunications services best suited to their specific needs, particularly in terms of price and quality. The existence of such services also brings pressure on incumbent operators to lower prices, reduce their cost base and introduce new services more quickly, thus bringing the benefits of competition to all consumers.

The objectives of this consultative paper are to seek the views of operators and interested parties on the phased introduction of Carrier Selection and Carrier Pre-Selection. The MCA is proposing the introduction of this facility with the introduction of Carrier Selection and Carrier Pre-Selection for **international calls** originating from Malta. Above all, the Malta Communications Authority would like to seek the views of all interested parties on:

- a. Which operators providing an access network should be obliged to offer carrier selection and/or pre-selection to their subscribers,
- b. Which operators should be entitled to provide carrier selection,
- c. Whether mobile operators should be obliged to offer carrier selection and/or pre-selection to their subscribers,
- d. Whether operators providing an access network should be obliged to bill the customer on behalf of selected operators, and,
- e. Other issues that are related to interconnection, costs or general telecommunications regulation.

This paper is not a legal document and is being published without prejudice to the legal position or the rights and duties of the MCA to regulate the market generally.

2 Defining Carrier Selection

Carrier Selection is a facility that enables subscribers connected to one operator to choose to have some of their telephone calls carried by that operator or by another operator. When a subscriber uses Carrier Selection, the call is routed through the selected operator rather than the operator to which that subscriber is physically connected. The calls made through Carrier Selection are charged at the rates offered by the selected operator rather than those available from the operator providing network access to the subscriber.

This facility enables operators who do not have their own directly connected users to provide services to subscribers who are directly connected to another operator. Operators with their own directly connected subscribers may also provide services to other subscribers as a result of carrier selection.

Three technical alternatives can be distinguished for implementing carrier selection:

Call-by-call Carrier Selection

Call-by-call carrier selection (from now on referred to as Carrier Selection) refers to the ability of the user to choose an operator on a per-call basis when dialling. The choice is usually indicated by a carrier selection prefix dialled before the sequence of digits, which is used to reach the called party without carrier selection.

The operator providing network access to the subscriber will then analyse the dialled prefix (which identifies the selected operator) and route the call to the particular operator via the closest point of interconnection. It is then the responsibility of the selected operator to check that the subscriber is authorised to use its services.

Carrier Pre-selection

With Carrier Pre-Selection, one or several default operators are programmed into the exchange of the operator providing network access to the subscriber according to the subscriber's choice. The choice of this carrier applies to each call and the carrier selection prefix is not needed. Pre-selection is usually made off-line by the operator providing the access network.

Carrier Pre-selection with override

With this option in place, a pre-selected operator is used unless the user overrides the pre-selection on a per-call basis by dialling a carrier selection prefix. This third solution combines the first two solutions mentioned above.

3 The Need for Carrier Selection and Carrier Pre-Selection

The need for competition in telecommunications has been recognised in many countries because of the benefits it brings to consumers in terms of choice, quality of service and price. Competition in this sector has also proved to make this industry more operationally efficient.

Historically, monopoly incumbent operators have kept prices in the access network low mainly for political and social reasons, and also by way of expanding telephony penetration quickly. In order to subsidise the access network, international call tariffs remained high making the market for international gateway services extremely attractive for competition. Incumbents have reacted by re-balancing their tariffs reducing international tariffs and increasing access network tariffs and/or rentals.

Subscribers wishing to use Carrier Selection or Pre-Selection services will be able to do so upon entering into an agreement with the operator of their choice. It will be important that subscribers understand the differences between the two services. Having opted to use Carrier Pre-Selection for certain call types, those calls will automatically be carried by the chosen operator and not by the operator providing the access network, without dialling any extra digits. If an override code is dialled, an operator other than the pre-selected operator can carry the call.

4 Legislative Background

4.1 Maltese Legislation

Article 24 of the Telecommunications Services (General) Regulations states that an operator of a public fixed telecommunications system or of a fixed wireless system having a dominant market position providing telephony services is required to allow its subscribers to choose any other operator interconnected to its service for their telecommunications transport by enabling carrier pre-selection or selection on a call-by-call basis. Call-by-call selection is to be provided to subscribers by dialling a short prefix before the number of the requested operator.

These Regulations provide for pricing of carrier selection and pre-selection to be cost-oriented and that charges to subscribers must not discourage the use of such service. The cost to provide carrier selection or pre-selection is to be funded either through internal funding by the enabling operator, or on the basis of an interconnection agreement between the originating operator and the pre-selected interconnected operator subject to the MCA's approval.

4.2 EU Legislation

EU Directives in force require the following services to be available:

- Call-by-call carrier selection should have been offered by all fixed local access providers with significant market power since 1 January 1998 in all Member States where full liberalisation was due by that date. In Member States where additional transition periods have been agreed, carrier selection should have been in place by the end of that additional period.
- By 1 January 2000, carrier pre-selection, with the default carrier to be determined by the subscriber and with call-by-call override to be available to the user, should have been offered by all fixed local access providers with Significant Market Power (SMP) in all Member States.¹ In Member States where additional periods were agreed for full liberalisation, carrier pre-selection was put in place two years after the date of liberalisation at the latest.

The European Commission has referred to these services as key facilitators of consumer choice and effective competition in a liberalised

¹ Directive 98/61/EC of the European Parliament and of the Council amending Directive 97/33/EC with regard to operator number portability and carrier pre-selection.

telecommunications environment. EU Directives do not prescribe in any detail either how Member States should introduce these services, or how the costs should be shared between operators. Thus, within the context of the overall principles of the Interconnection Directive, as amended, and other relevant EU legislation, National Regulatory Authorities (NRAs) may make their own arrangements adapted to specific national market situations.

EU Directives do, however, impose duties on NRAs concerning costs, charges, and other matters relevant to these services. These duties require NRAs to:

- Ensure that charges are to be cost oriented (Article 1(3) of the Directive amending the Interconnection Directive);
- Ensure that direct charges to customers for carrier pre-selection should not act as a disincentive for the use of the facility (Article 1(3) of the Directive amending the Interconnection Directive);
- Exercise their responsibilities regarding interconnection in a way that provides maximum economic efficiency and gives the maximum benefit to end-users. Relevant considerations include the need to ensure satisfactory end-to-end communications for users, the need to stimulate a competitive market, and the need to ensure the fair and proper development of a harmonised European telecommunications market (Article 9 of the Interconnection Directive); and
- Ensure effective competition and/or interoperability of services (Article 9 of the Interconnection Directive).

Article 19 of the New Universal Service Directive² provides that fixed undertakings with SMP are required to offer Carrier Selection and Carrier Pre-Selection. In addition, NRAs may extend this obligation to mobile operators with SMP (Recital 29). NRAs will have to ensure that the pricing for access and interconnection related to the provision of Carrier Selection and Carrier Pre-Selection is cost oriented and that any direct charges to end users do not discourage subscribers from using the facility.

² Directive 2002/22/EC of the European Parliament and of the Council on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

5 The proposed Carrier Selection and Carrier Pre-Selection Schemes

Carrier Selection and Carrier Pre-Selection as envisaged in the Telecommunications Services (General) Regulations is not limited to any specific type of calling. There is thus a reasonable expectation that all call types, including local calls, could ultimately be included in these options.

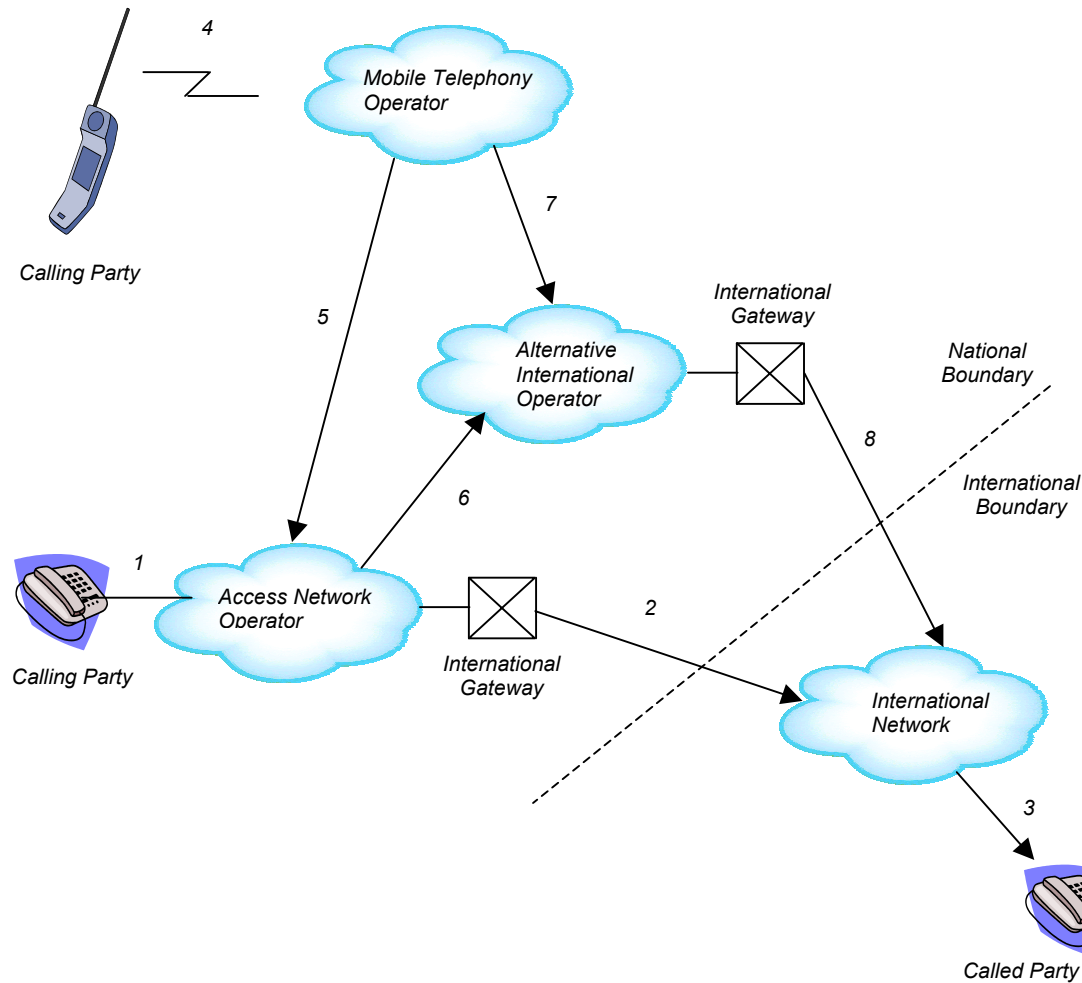
The MCA believes that the introduction of complex schemes would not be in the best interests of either the consumer or competition. Complex schemes are likely to prove unattractive to consumers and would also add to the costs and time-scales of introducing these services, with few counterbalancing benefits.

The MCA therefore considers that the best approach to implementing Carrier Selection and Carrier Pre-Selection options which include all types of calls would be on a phased basis. This would allow for the introduction of simpler schemes initially, with the addition of more call types as competition and user requirements develop, and interconnection and retail tariffs evolve.

Any option which includes local calls (fixed local calls and/or fixed-to-mobile calls) may not initially be commercially viable for all of the competing operators. In addition, consideration would need to be given to the impact of routing local calls. The MCA thus proposes that initially Carrier Selection and Carrier Pre-Selection should only be available for international calls. The MCA will review this proposal in the future to consider how additional call types could be incorporated.

Q1. Do you agree with the proposal for a phased introduction of Carrier Selection and Pre-Selection schemes with only international calls being available initially?

Carrier Selection and Carrier Pre-Selection for International Calls



Present scenario:

dialled number: international prefix + called number

- overseas call from PSTN, path of call: 1 → 2 → 3
- overseas call from mobile, path of call: 4 → 5 → 2 → 3

Carrier Selection:

dialled number: international prefix + called number

- overseas call from PSTN, path of call: 1 → 2 → 3
- overseas call from mobile, path of call¹: 4 → 5 → 2 → 3

dialled number: carrier selection prefix + international prefix + called number

- overseas call from PSTN, path of call: 1 → 6 → 8 → 3
- overseas call from mobile, path of call²: 4 → 7 → 8 → 3

Carrier Pre-selection with Override

dialled number: international prefix + called number

- call is automatically routed via the pre-selected international carrier

dialled number: carrier selection prefix + international prefix + called number

- overseas call from PSTN, path of call: 1 → 6 → 8 → 3
- overseas call from mobile, path of call²: 4 → 7 → 8 → 3

¹ assuming that the default international carrier chosen by the Mobile Operator is the Access Network Operator's International Gateway

² assuming that the default international carrier chosen by the Mobile Operator is the Access Network Operator's International Gateway and that the user dialled the carrier selection prefix of the Alternative International Carrier

6 DMP Fixed Telephony Operators Providing an Access Network are required to offer Carrier Selection / Pre-selection to their Subscribers

The Telecommunications Services (General) Regulations provide that ‘an operator of a public fixed telecommunications system or of a fixed wireless system having a dominant market position providing telephony services shall allow its subscribers to choose any other operator interconnected to its service for their telecommunications transport by enabling carrier pre-selection or selection on a call-by-call basis.

In the early stages of competition in a previously monopolised environment, all subscribers are connected to the access network of the incumbent operator. This high market share positions such an operator in an unqualified dominant market position.

In May 2002, Maltacom was designated as having a dominant market position in the public fixed telephony market. This status places an obligation on Maltacom to provide Carrier Selection and Carrier Pre-Selection to its subscribers for as long as it holds a dominant market position.

7 Rights of Operators offering International Voice Telephony to Carrier Selection and Carrier Pre-Selection

The MCA is of the opinion that all operators offering international calls should be able to obtain carrier prefixes enabling them to provide their network services on a call-by-call basis.

With regards to carrier pre-selection in the early stages of competition, it may be difficult for a new operator to offer a 'full' international service. These operators may opt to offer this service only to specific regions or countries. In the end, the choice of a pre-selected carrier should be made by the customer himself. The MCA is of the opinion that all operators offering international calls should be allowed to offer carrier pre-selection.

Q2. Should all operators offering an international voice telephony service be allowed to offer Carrier Pre-Selection and/or obtain carrier prefixes enabling them to provide their network services on a call-by-call basis?

8 Mobile Network Operators' obligation to offer their subscribers Carrier Selection and/or Pre-Selection in International Calls.

Mobile operators are not specifically covered by the Carrier Pre/Selection obligation in the Telecommunications Services (General) Regulations, and a decision must be taken if and when it is appropriate for Carrier Selection and/or Carrier Pre-Selection services to be applied to them.

Presently, international calls from mobile networks are routed from the national mobile operators to the international connections of Maltacom since mobile networks do not own an international gateway. Mobile networks are access networks to international calls in a way similar to fixed access networks. Mobile subscribers should be able to choose their international carrier in the same way as they do in the fixed network. For international calls, competition would bring benefits to mobile subscribers in the form of price cuts. The volume of these calls is increasing rapidly and they are becoming an important component of telecommunications expenditure.

Although the mobile market in Malta is growing rapidly, there may be further ground to be made up when compared with other EU countries in terms of penetration and tariffs. A number of countries already require mobile operators to provide these services. The MCA must also take into account the benefits that would be brought to consumers by extending the obligation to mobile.

Q 3. Should mobile operators be obliged to offer their subscribers Carrier Selection and/or Carrier Pre-Selection in international calls?

9 Consumer Issues

9.1 General

Operators will be required to 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 operate. In particular, consumers should fully understand that Carrier Pre-Selection will be different from Carrier Selection in the automatic nature of Carrier Pre-Selection, the types of calls covered by the schemes and the other services that they are to retain.

9.2 Requirement for a Code of Practice

As experience in other countries has shown, measures will need to be in place to protect subscribers from operator misuse of the Carrier Pre-Selection facility. The most notable form of misuse is often referred to as 'slamming'. Slamming is the implementation of pre-selection without the full, conscious consent of the subscribers. 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 would follow and would address the following:

- Customer contracts,
- Use of customer information,
- Promotion of CPS,
- The order handling process,
- Bill payment,
- Complaint and enquiry handling,
- Tariff publication.

Q 4. Do you agree that a Code of Practice should be implemented and if so please provide your views on the scope of such Code? If you do not agree please give your reasons.

9.3 Consumer Billing

Billing is a critical issue for operators, since it is key to their revenue streams and relationships between operators and consumers. Responsibility for billing calling subscribers using Carrier Selection and Pre-Selection usually rests with the CS/CPS operator. The consumer is not directly charged for accessing the CS/CPS operator's switch by the local access provider. This is charged between operators as part of an interconnection agreement. The local access provider is responsible for billing calls not subject to Carrier Selection or Pre-Selection and for line rental.

The introduction of these services is likely to result in the subscriber receiving two or more bills for one telephone line. However, industry trends are pointed towards simplifying billing for consumers as much as possible.

Billing arrangements should be discussed and agreed upon between operators as part of their interconnection negotiations and agreement.

Q 5. Please give your views on whether there should be a facility whereby the local access provider would bill the consumer directly for CP/CPS calls on behalf of Carrier Selection/CPS operator.

10 Cost Apportionment

This section considers the costs associated with the provision of Carrier Selection and Carrier Pre-Selection and examines the proposed rules for allocating these costs. There are one off and recurring costs associated with the provision of Carrier Selection and Carrier Pre-Selection. Charges to cover these costs, if any, should only recover the costs of an efficient operator using an efficient technical solution. Pricing for interconnection relating to the provision of Carrier Selection and Carrier Pre-Selection must be cost oriented and direct charges to consumers, if any, must not act as a disincentive to the use of the service.

10.1 Cost Categories

Costs associated with the provision of Carrier Selection and Carrier Pre-Selection may be broken down into three categories as follows: -

- a. General system provisioning costs: These are one-off costs mainly incurred by the incumbent operator in modifying network and support systems to enable Carrier Selection and Carrier Pre-Selection. System provisioning costs are independent of operator demand.
- b. Operator-specific enabling costs: These are the costs of enabling Carrier Selection and Carrier Pre-Selection for any individual operator, including the setting up of commercial arrangements for the electronic transfer of customer orders. It should be possible to isolate individual operator enabling costs as a sub-set of the overall provisioning cost.
- c. Per-line administration costs: These are the mainly administrative costs of implementing Carrier Pre-Selection for individual customer lines. It should be noted that there are no per-line administration costs for Carrier Selection.

10.2 Principles for Cost Apportionment

The MCA must determine how the costs identified in Section 10.1 should be apportioned. A number of guiding principles have been identified which have been used by other regulators as a basis for determining Carrier Selection and Carrier Pre-Selection cost allocation:

- a. Cost causation: the party responsible for causing costs should help to bear the costs.
- b. Distribution of benefits: the party(ies) benefiting from the process should help to bear the costs.

- c. Effective competition: the cost allocation mechanism should inherently encourage competition.
- d. Cost minimisation: the cost allocation mechanism should encourage operators to minimise costs and in particular to adopt technically efficient solutions.
- e. Reciprocity: charges between operators should be equal for the same service
- f. Practicability: the allocation mechanism should be practical to implement.
- g. Relevance: charges should represent the costs of an efficient operator using a least cost approach.

10.3 Proposed cost apportionment

The MCA would like the views of the operators and other interested parties on the best way that the costs associated with Carrier Selection and Carrier Pre-Selection are to be apportioned in line with the principles set out in Section 10.2. The MCA proposes that the allocation of such costs are apportioned as follows.

10.3.1 General System Provisioning Costs

If the obligation is extended to operators without DMP, the MCA believes that operators should meet their own general system provisioning costs. However, the MCA suggests that if the obligation falls only upon the DMP operator, general system provisioning costs are to be shared between the DMP operator and the other operators, then: -

- This could be achieved by charging a supplement for all relevant originating call minutes.
- Relevant call minutes are all calls of a type available under the CPS scheme.
- The recovery of the costs could take the form of a supplemental charge to normal (call origination) interconnection charges.
- The charge would recover only the costs of an efficient operator using an efficient technical solution.

10.3.2 Per-Line And Operator-Specific Enabling Costs

- Per-line and operator-specific enabling costs will be recovered from CPS operators directly, not through interconnection charges.
- The operators are free to pay the per-line enabling cost on behalf of the consumer, and recover it in some way other than by a direct charge to the consumer. This is a commercial decision for each CPS operator.

- Per-line and operator-specific charges recover only the costs of an efficient operator using an efficient technical solution.

Q 6. Do you agree with the defined cost categories?

Q 7. Do you agree with the proposed cost allocations?

11 Number Designation for Carrier Selection

11.1 Carrier Prefixes for Carrier Selection

Numbering arrangements for carrier selection should ensure that users have easy and efficient access to this service. The new Numbering Plan for the Maltese Islands mandates the use of 10XX for carrier selection access. This number format will facilitate competition in the Carrier Selection market. The plan further mandates that calls to 10XX Carrier Selection codes should be routed to the particular carrier that is identified by 'XX'.

Initially the codes 10X0 will not be used. This is to avoid confusion when the carrier access code is followed by the international (00) prefixes.

11.2 Application for Carrier Prefixes

An application and allocation procedure has been developed, as outlined in Annex 1. Interested operators will in the future be able to choose a preferred Carrier Selection prefix.

12 Proposed Timeframes

12.1 Carrier Selection

The MCA is of the opinion that Call-by-Call Carrier Selection for international calls should be made available in Malta by 30 April 2003.

12.2 Carrier Pre-Selection with override

The MCA is of the opinion that Carrier Pre-Selection with override for international calls should be made available in Malta by 31 October 2003.

Q 8. Do you agree with the proposed timeframes? If not, how should they be modified? Give details.

13 Consultation Framework

The MCA wishes to invite comments from interested parties in relation to any of the issues raised in this document. The consultation period will run until 12.00pm on Tuesday 31 October 2002. Comments should be sent to:

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Written comments will be made publicly available at the MCA unless confidential. Respondents are therefore asked to separate out any confidential material into a clearly marked annex. Respondents are also kindly requested to refer their comments to the specific sections of this document.

Annex1 - Application for Access Codes

Eligibility

- Carrier Selection Prefixes will be allocated to authorised providers licensed by the MCA under the Telecommunications Act,
- Only one carrier selection code will be allocated to any telecommunications authorised provider,
- Applicants will be required to justify their requirement for carrier selection, or carrier access codes by reference to provision of telecommunications services to the public,
- All eligible applicants will have equal access to the available carrier access codes,
- Initially, carrier access codes will only be available for routing from the public switched telephone network to alternative networks via NNI interconnection points.

Selection of Code

- Qualifying applicants will be given the option to indicate their preferred choice from the available access codes. Preferences should be indicated using the application form attached.
- Applications will be evaluated by the MCA. In case of simultaneous requests for the same code, the code will be allocated by lottery.
- Carrier Selection Prefixes shall only be used for providing access to selected carriers; use for any other purpose other than that described above may result in the withdrawal of the code.

Withdrawal

A Carrier Selection code may be withdrawn by the MCA if it is not being used to provide a telecommunications service to the public or if the operator to whom it has been allocated is found to be in breach of the conditions of allocation, is declared bankrupt, or if withdrawal is in the overall public interest. The MCA will consult the applicant before the code is withdrawn.

Transfer and Ownership

Allocation of numbers grants the right to use the allocated numbers but is not a property transfer. Therefore, a Carrier Selection code shall not be transferable, and may only be used to route telecommunications services to the operator to whom it has been allocated by the MCA.

Publication

The MCA will publish details of which codes have been allocated and to which applicants.

Application Forms

In the future, interested operators may apply for Carrier Selection codes in accordance with this document. The applicant is to indicate its preferred codes on the application form provided.

**APPLICATION FORM FOR THE ALLOCATION OF A CARRIER
SELECTION PREFIX**

Applicant Details

Name or Company _____

Address _____

Contact _____

Tel. _____

Fax. _____

E-mail _____

Application

We hereby apply for the allocation of a Carrier Selection code.

We request any code with no particular preference.

We request one of the following codes in order of preference:

1 st choice	10	___	___
2 nd choice	10	___	___
3 rd choice	10	___	___
4 th choice	10	___	___
5 th choice	10	___	___

Applicant's signature _____

Date