

## Revised OECD Price Benchmarking Baskets 2006

1. Following the Basket Revision Workshop held by the OECD and Teligen in Rome in June 2005, member countries have submitted evidence on traffic patterns and volumes. This data has been used to adjust the structures, weights and volumes of the OECD Price Benchmarking Baskets. This document describes the new basket definitions used from the beginning of 2006.

### PSTN baskets

2. The following tables show the structure of the OECD baskets for PSTN. A comparison with previous baskets is included ("Old" baskets).

#### *Call volumes and proportions*

3. The number of calls in each basket and the spread of calls by call type are shown in the two tables below. The volumes are given per user. This means that the Business SME basket will have 30 times this usage in total.

#### Number of calls per year

	Total calls	Fixed line	Mobile	International
Residential Low	600	456	114	30
Residential Medium	1200	900	276	24
Residential High	2400	1560	744	96
Old residential	1392	1200	120	72
Business Small	1800	1206	522	72
Business SME	2800	2016	560	224
Old business	4176	3600	360	216

#### Call proportions

	Total calls	Fixed line	Mobile	International
Residential Low	600	76.0%	19.0%	5.0%
Residential Medium	1200	75.0%	23.0%	2.0%
Residential High	2400	65.0%	31.0%	4.0%
Old residential	1392	86.2%	8.6%	5.2%
Business Small	1800	67.0%	29.0%	4.0%
Business SME	2800	72.0%	20.0%	8.0%
Old business	4176	86.2%	8.6%	5.2%

## ***Time of day variation***

4. The distribution of calls depending on time of day is divided into three parts: Fixed line calls, calls to mobile and international calls.

### **Fixed line time of day variation**

	<b>WD 11:00</b>	<b>WD 15:00</b>	<b>WD 20:00</b>	<b>WD 03:00</b>	<b>SA 11:00</b>	<b>SU 15:00</b>
Residential Low	30.2%	28.1%	23.6%	0.9%	8.2%	9.0%
Residential Medium	27.5%	28.0%	23.0%	2.0%	8.0%	11.5%
Residential High	30.0%	29.2%	23.8%	1.1%	7.3%	8.6%
Old residential	14.3%	22.1%	31.6%	3.0%	13.0%	16.0%
Business Small	39.5%	39.3%	7.5%	3.6%	5.5%	4.6%
Business SME	40.2%	40.5%	6.5%	3.4%	4.7%	4.7%
Old business	45.4%	40.6%	7.0%	0.8%	5.7%	0.5%

### **Call to mobile time of day variation**

	<b>WD 11:00</b>	<b>WD 15:00</b>	<b>WD 20:00</b>	<b>WD 03:00</b>	<b>SA 11:00</b>	<b>SU 15:00</b>
Residential Low	28.6%	28.6%	20.5%	0.6%	10.1%	11.6%
Residential Medium	29.1%	30.5%	20.5%	0.7%	8.5%	10.7%
Residential High	30.0%	30.4%	20.0%	0.6%	8.5%	10.5%
Old residential	14.3%	22.1%	31.6%	3.0%	13.0%	16.0%
Business Small	39.5%	39.5%	4.5%	0.3%	9.0%	7.2%
Business SME	44.0%	42.0%	1.2%	0.1%	6.3%	6.4%
Old business	45.4%	40.6%	7.0%	0.8%	5.7%	0.5%

### **International time of day variation**

	<b>Peak</b>	<b>Off-peak</b>
Residential Low	33.0%	67.0%
Residential Medium	33.0%	67.0%
Residential High	33.0%	67.0%
Old residential	25.0%	75.0%
Business Small	80.0%	20.0%
Business SME	80.0%	20.0%
Old business	75.0%	25.0%

### ***Distance variation for fixed line calls***

5. The distribution of national fixed line calls is related to distance, with defined km distances. 14 discrete distances from 3 to 490 km are used. The following rules apply:
- Tariffs will be assigned to the sum of call proportions related to the distances they cover. For example: A local tariff covering 0 to 20 km will attract the call proportions assigned to the distances of 3, 7, 12 and 17 km.
  - Proportions for distances that reach beyond the country borders will be assigned to the highest national tariff.
  - The percentages listed in this table will add up to 100%, and refer to the number of national fixed line calls in the basket.

#### **Fixed line distance variation**

	3	7	12	17	22	27	40	75	110	135	175	250	350	490
Residential Low	62.0%	14.5%	5.2%	3.1%	1.6%	2.1%	2.1%	2.1%	1.2%	1.0%	0.8%	0.8%	0.6%	2.9%
Residential Medium	56.7%	13.3%	4.7%	2.8%	1.4%	3.2%	3.2%	3.2%	1.9%	1.6%	1.3%	1.3%	1.0%	4.4%
Residential High	63.0%	14.7%	5.2%	3.1%	1.6%	1.9%	1.9%	1.9%	1.1%	0.9%	0.7%	0.7%	0.6%	2.7%
Old residential	60.0%	14.0%	5.0%	3.0%	1.5%	2.5%	2.5%	2.5%	1.5%	1.3%	1.0%	1.0%	0.8%	3.5%
Business Small	55.5%	13.0%	4.6%	2.9%	1.5%	3.3%	3.3%	3.3%	2.0%	1.7%	1.4%	1.4%	1.1%	5.0%
Business SME	57.2%	13.4%	4.9%	3.0%	1.5%	3.0%	3.0%	3.0%	1.8%	1.5%	1.2%	1.2%	0.9%	4.4%
Old business	53.0%	11.0%	7.0%	4.0%	2.5%	3.0%	3.5%	3.5%	2.5%	2.0%	1.5%	1.5%	1.0%	4.0%

## Call durations

6. Call durations for fixed line calls are assigned based on a Time of day / distance matrix, with distances defined below and above the average size of local calling areas. Call durations for mobile and international calls are assigned based on time of day only.

### Fixed line call duration (minutes)

	Local (below 26 km)						National (above 26 km)					
	WD 11:00	WD 15:00	WD 20:00	WD 03:00	SA 11:00	SU 15:00	WD 11:00	WD 15:00	WD 20:00	WD 03:00	SA 11:00	SU 15:00
Residential Low	3.7	3.7	4.7	4.7	4.5	4.5	4.4	4.4	7.0	7.0	6.6	6.6
Residential Medium	3.7	3.7	4.7	4.7	4.5	4.5	4.4	4.4	7.0	7.0	6.6	6.6
Residential High	3.7	3.7	4.7	4.7	4.5	4.5	4.4	4.4	7.0	7.0	6.6	6.6
Old residential	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	7.0	7.0	7.0	7.0
Business Small	1.9	1.9	2.1	2.1	2.3	2.3	2.2	2.2	3.0	3.0	3.1	3.1
Business SME	1.9	1.9	2.1	2.1	2.3	2.3	2.2	2.2	3.0	3.0	3.1	3.1
Old business	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5

Note: The "old" residential basket also included a different set of call durations for the distance range of 17 to 40 km. This will no longer be used.

### Call to mobile duration (minutes)

	WD 11:00	WD 15:00	WD 20:00	WD 03:00	SA 11:00	SU 15:00
Residential Low	1.8	1.8	2.1	2.1	1.9	1.9
Residential Medium	1.8	1.8	2.1	2.1	1.9	1.9
Residential High	1.8	1.8	2.1	2.1	1.9	1.9
Old residential	2.0	2.0	2.0	2.0	2.0	2.0
Business Small	1.6	1.6	1.7	1.7	1.7	1.7
Business SME	1.6	1.6	1.7	1.7	1.7	1.7
Old business	2.0	2.0	2.0	2.0	2.0	2.0

### International call duration (minutes)

	Peak	Off-peak
Residential Low	5.5	7.2
Residential Medium	5.5	7.2
Residential High	5.5	7.2
Old residential	3.0	5.0
Business Small	2.9	3.9
Business SME	2.9	3.9
Old business	3.0	5.0

*Note: All durations are given in minutes and fractions of minutes, i.e. 7.2 minutes equals 7 minutes 12 seconds.*

### Other basket rules

7. Only incumbent operators are covered.
8. Nonrecurring charges are covered using the simple average of the charge for a new installation of a service, and the charge for taking over an existing installation.
9. Nonrecurring charges are distributed over 5 years, except where the installation is a tradable asset (Japan) where the charge is distributed over 20 years.
10. All call costs are calculated as actual call costs as opposed to average, i.e. the real cost of a call with full unit charges is used.
11. Calls to mobile shall use a weighted average charge for calls to all national mobile networks, based on a subscriber number weight.
12. International calls to other OECD countries are included, with call charges weighted according to actual traffic volumes. This means that those destinations with most traffic will carry most weight.
13. For international call charges the highest charge is used for peak time, and the lowest is used for off-peak time.
14. For each operator a relevant number of tariff packages shall be included. Combinations of packages are allowed. Certain discount packages with "selective discounts" are not included for technical reasons.

*Note: Selective discounts mean discounts to a chosen set of numbers or destinations. Since no general algorithms exist to determine the number of calls to such destinations, such discount schemes cannot be included in the baskets.*

15. The 3 residential baskets and the "Small" business basket all include 1 line and 1 user. The "SME" business basket includes 30 lines and 30 users. This means that all relevant costs per line are multiplied with the number of lines (and users), i.e. 30.
16. Results are presented in US\$ per year, excluding VAT for Business baskets and including VAT for Residential baskets.

## Mobile baskets

17. The following tables show the structure of the OECD baskets for Mobile services. A comparison with previous baskets is included ("Old" baskets)

### *Call and message volumes*

18. Volumes of calls and messages are given per year

Volume	Voice	SMS	MMS
Low usage	360	396	8
Medium usage	780	600	8
High usage	1680	660	12
Old Low	300	360	
Old Medium	900	420	
Old High	1800	504	

### *Time of day variation*

19. The distribution of calls over time of day is given as a percentage of the number of voice calls.

ToD	Peak	Off-peak	Weekend
Low usage	48.00%	25.00%	27.00%
Medium usage	50.00%	24.00%	26.00%
High usage	60.00%	19.00%	21.00%
Old Low	38.00%	35.00%	27.00%
Old Medium	47.00%	30.00%	23.00%
Old High	63.00%	22.00%	15.00%

### *Call and message destinations*

20. The distribution of calls and messages over different (types of) destinations are given as a percentage of the total number of calls and messages.

Destinations	Local	National	Mobile On	Mobile Off	Voicemail	SMS On	SMS Off
Low usage	15.00%	7.00%	48.00%	22.00%	8.00%	65.00%	35.00%
Medium usage	14.00%	7.00%	48.00%	24.00%	7.00%	65.00%	35.00%
High usage	13.00%	7.00%	47.00%	26.00%	7.00%	65.00%	35.00%
Old Low	28.00%	14.00%	40.00%	18.00%			
Old Medium	24.00%	12.00%	43.00%	21.00%			
Old High	26.00%	14.00%	42.00%	18.00%			

## **Call durations**

21. The call durations are given for each type of call (Fixed corresponds to both local and national fixed line calls)

<b>Durations</b>	<b>Fixed</b>	<b>Mobile On</b>	<b>Mobile Off</b>	<b>Voicemail</b>
Low usage	1.5	1.6	1.4	0.8
Medium usage	1.8	1.9	1.7	0.8
High usage	1.7	1.9	1.8	0.8
Old Low	1.6	1.4	1.4	
Old Medium	2.1	1.9	1.9	
Old High	2.2	2	2.1	

*Note: All durations are given in minutes and fractions of minutes, i.e. 1.4 minutes equal 1 minute 24 seconds.*

## **Other basket rules**

22. Two largest operators are covered for each country, based on subscriber numbers. The operators covered should between them have at least 50% of the market share.
23. Tariffs shall be typical 2G services with the main focus on voice.
24. A range of relevant tariffs shall be covered, allowing the lowest cost tariff to be selected for each operator.
25. Nonrecurring charges are distributed over 3 years
26. All call costs are calculated as actual call costs as opposed to average, i.e. the real cost of a call with full unit charges is used.
27. Off-net M2M charges are weighted according to subscriber numbers for each country, where relevant for the pricing of calls.
28. The value of call and message allowances included in the tariff will be deducted from the usage element of the basket, up to the value of actual usage.
29. Results are presented in US\$ per year, including VAT.

## Leased Line Basket

30. The following table shows the structure of the OECD baskets for Leased Line services.

A comparison with the previous basket is included ("Old" basket).

### ***Circuit numbers and weights***

31. The basket results will represent the price of 1 circuit weighted over the distances covered.

	<b>circuits</b>	<b>2 km</b>	<b>20 km</b>	<b>50 km</b>	<b>100 km</b>	<b>200 km</b>	<b>500 km</b>
OECD basket	1	35%	20%	15%	20%	5%	5%
Old basket	100	40%	15%	15%	20%	5%	5%

32. The 2 km distance is considered a local circuit between two customer premises. Other distances are considered regional or long distance circuits between customer premises.

### ***Circuit bitrates***

33. The basket data covers the following bitrates:

- 64 kb/s
- 2 Mb/s
- 34 Mb/s \*

- *Note: Where 34 Mb/s is not offered, and 45 Mb/s is used instead, a conversion factor if  $34 / 45 = 0.75$  will be used on the price.*

### ***Other basket rules***

34. The basket shall include transparent end-to-end leased lines from the incumbent operators. Virtual circuits can be included in cases where traditional leased circuits do not exist any more; xDSL services, however, fall outside the scope of the basket.

35. Non-recurring charges (installation) are excluded from the basket. Only annual rental charges are included.

36. Circuits above 2 km shall include two 2 km local tail circuits within the defined distance. This means that, for example, a 50 km circuit will have 2 local tail circuits of 2 km, and a main circuit of 46 km. Some operators include the local tail circuits in the total price, some do not

37. Circuits are assumed to be within or out of the major city in the country. This means that the 2 km circuit is a local circuit within the major city, and the rest of the distances will have one end in the major city, and the other end outside.

38. Where the distance exceeds the possible distance for a country, the highest available price is used for that distance. This means that even when a circuit length would go beyond the borders of a country, this circuit is included in the basket, using the price of the longest possible circuit.

39. Results are presented in US\$ per year, excluding VAT.