RIPE NCC Charging Scheme 1998

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Updates: ripe-146

1. Scope

This document defines the 1998 RIPE NCC charging scheme. It is based on the same model used in 1997; "RIPE NCC Charging Scheme 1997" (ripe-146). This model was approved at the 1996 contributors meeting and has met with success.

Using the 1997 model we have developed the charging scheme presented in section two below. Section three details further steps to implement the scheme. Section four provides details of the reasoning behind this scheme both for the record and those interested.

2. Charging Scheme

The charges for 1998 will be fixed annual charges to be paid in advance and based on the size category of a local registry. A minimum size category will be determined based on address space allocations held by the registry on November 1st 1997. Registries can be assigned a size category higher than their minimum category upon request. The categories will be published. New local registries established during 1998 will be charged a sign-up fee and 25% of the yearly fee for each quarter that they are a local IR; their initial minimum size category will be SMALL. Enterprise registries are classed as small registries for charging purposes. The amount of the charges are as follows:

Charge	**1998**	1997	1996
Yearly SMALL	**2450**	2200	1500
Yearly MEDIUM	**3400**	3000	4500
Yearly LARGE	**4500**	4000	8500
Sign-Up	**2000**	1300	2000

Discussion

Due to inflation and increasing costs the yearly charges for all registry types will have to rise by approximately 10% in 1998. By increasing charges evenly in percentage terms any cross subsidies are prevented.

The costs of the services to be provided for local IRs starting in 1998 is substantially higher than that in 1997. The reasons for this are a planned increase in the number of local IR courses given, and an increased effort on the NCCs part to improve the present web site documents and make new web site help aids. In addition it is experienced that the average number of questions a starting local IR asks ha noticeably risen over the last 12 months , which required more NCC resources to answer the questions.

In light of the substantially higher costs the sign-up fee, from which these costs have to be covered, has also been correspondingly risen. The new sign-up fee of ECU 2000 will ensure that new registries cover their own costs and no subsidising of new registries by old registries occurs.

We used the 1997 charging model algorithm to determine the minimum size category for each registry, based on the address space allocations the registry holds. We still consider this algorithm very fair, because the distribution it generates clearly suggests the three size categories. Also the total number of registries per category is not dramatically different from the current distribution. There is however a trend that registries are growing in size, which is a sign of healthy industry growth. The following table compares the distribution of current size categories with that of the minimum size category determined from allocation data on September 1st 1997:

Category	**New Minimum**	Current
Small	**71%**	79%
Medium	**21%**	15%
Large	**8%**	6%

While the distributions themselves suggest that few changes are happening, the breakdown of changes below shows that 16.5% of all registries will have a minimum size category that is larger than their current one and 4.5 % will have the possibility to change to a smaller category than they have currently chosen.

%	Current	New Minimum
66	SMALL	SMALL
13	SMALL	MEDIUM
8	MEDIUM	MEDIUM
5	LARGE	LARGE
4	MEDIUM	SMALL
3	MEDIUM	LARGE
0.5	SMALL	LARGE
0.5	LARGE	MEDIUM

The minimum size category for each registry, for the purpose of charging, will be determined based on the address space allocations held by that registry on November 1st 1997. Up to this date the minimum size category for all registries based on allocations received before September 1st 1997 can be found at `ftp://ftp.ripe.net/ripe/local-ir/category` and the allocation data this is based on together with current registry size can be found at `ftp://ftp.ripe.net/ripe/local-ir/allocs` All registries are encouraged to check this data and report any inconsistencies to `<billing@ripe.net>`.

Conclusion

We strongly believe that the charging model used in 1997 is fair, equitable and practical. Therefore the 1998 charging scheme follows exactly the same principles. We are confident that this scheme as well as being fair to all contributors will provide adequate stability for the NCC, since it will generate sufficient revenue to cover costs and planned for surpluses.

3. Steps to Implementation

8 Sep 97

1998 charging scheme published

Preliminary allocation listing per registry published.
Preliminary minimum size category listing published.

23 Sep 97

RIPE NCC Contributors meeting.

1998 Charging Scheme approved.

8 Sep-31 Oct 97

Registries can review preliminary data and request any corrections.

The NCC will verify allocation time lines of previous years.

1 Nov 97

Billing procedures (methods of payment credit management procedures) for 1998 published.

Complete allocation listing per registry published.
Complete minimum size category listing published.

15 Nov 97

Deadline for registries requesting to be moved to a larger category. If no response is received it will be assumed that a registry wishes to be in the minimum category allocated on 1 November 1997.

25-29 Nov 97

Invoices and contracts for services in 1998 sent out.

31 Dec 97

Deadline for receipt of payment of invoice for 1998 services.

1 Jan 98

New charging scheme in effect for new local registries.

All registries are kindly requested to note and abide by the time schedule.

4. Detailed Reasoning of Charging Model

This section aims to describe the reasoning behind the choice of the charging model laid down in section 2. Since section 2 is intended as a stand alone description of the charging scheme itself some degree of repetition is inevitable in this section. It should be noted that the basis document upon which this reasoning is founded is ripe-143. To that end this section should be read in conjunction with ripe-143. The following three sub-sections will expound in turn on the determination of a registry's size, the revenue required for 1998, and the mechanics of the charging model.

4.1. Determination of Minimum Registry Size

To determine a registry's size, we have defined a measure N(reg) which produces a value in the range {0,1,2,...,100}. N(reg) is a simplification of the charging measure discussed in Appendix C of ripe-143, and is described briefly below.

Let k(reg,i) be the number of addresses allocated to the registry "reg" in year i.

Let w(i) = i - 1992.

Define use(reg) = sum(i in 1993 to 1997) k(reg,i) * w(i).

Let MAX = max{use(reg)} be the maximum use measured for all registries.

The normalised usage for a registry "reg" is then defined as:

N(reg) = (use(reg) * 1000) / MAX

Based on this measure rounded to the nearest integer, we could clearly identify three distinct groups of registries. Those with:

N(reg) <= 10 (SMALL)
11 <= N(reg) <= 100 (MEDIUM)
110 < N(reg) (LARGE)

This algorithm provides a distribution quite similar to the current distribution of size categories.

4.2. Revenue Required for 1998

RIPE NCC's required revenue for 1998 consists of two parts. Firstly enough revenue has to be generated to cover the operating costs for 1998, which amount to kECU 3457. Secondly surplus has to be earned in order to build up sufficient reserves to cover any RIPE NCC liabilities. At the 1996 annual NCC contributors meeting it was agreed that the size of these reserves should be equal to one years salary costs. The period of time over which these reserves should be built up has been adjusted to three years. This leads to a surplus of kECU 285 which needs to be earned in 1998.

Therefore in total 3457 + 285 = kECU 3742 of revenue has to be generated.

With the expected growth in the number of local IRs, as detailed in 'RIPE NCC Activity and Expenditure Plan 1998' (ripe-162), combined with the charges proposed in this document the target revenue of kECU 3742 will be achieved.

4.3. Charging Scheme Mechanics

The 1997 charging model ensured that every registry regardless of size pays a high enough yearly contribution to cover their own costs, and thus no cross subsidies occur. The stratification of size by means of charge that was the outcome met with approval and was implemented. The aim of the 1998 charging scheme is to again ensure that all registries cover their costs and that the stratification of size by charge stays. If as proposed all registries have their contributions raised by approximately 10 % then these aims will be achieved.

This does not however generate enough revenue to cover any registry start-up fees or the majority of the reserves to be built up in 1998. Therefore the only variable that can be altered, if contributions are only to be raised by 10 %, in order to increase revenue is the sign-up fee. If the sign-up fee is raised to ECU 2000 (the pre-1997 level), sufficient revenue will be generated to cover all start-up costs and the remaining reserve build up.