



# RIPE NCC Billing Procedures and Charging Scheme

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# General Information Billing

- LIR Service fees main source of income (95%)
- For an amount of around 12 MEUR in 2004
- Approximately 6,000 invoices sent per year
- Yearly billing gets around 25,000 e-mails
- In 2004 about 140 closures due to non-payment
- All payments in Euro



# Contents of Billing procedure

- Contact details
- Bank details
- Company/Tax information (VAT yes/no, No CIT etc.)
- Fee schedule
- Billing Score Algorithm
- Payment Procedure
- Payment possibilities (Bank transfer preferred!)

**<http://www.ripe.net/ripe/docs/billing-2004.html>**



# Billing Process

- September General Meeting Charging Scheme approval
- 30 September billing score determined. Notification send.
- Begin November Invoices send by e-mail and postal mail
- Phase 1 – 30 days after invoice. Reminder send to contact.
- Phase 2 - 60 days after invoice. Late payment charge of € 100 + interest over outstanding amount. No request approval.
- Phase 3 - 90 days after invoice. Service level is set to NONE. Only contact [billing@ripe.net](mailto:billing@ripe.net).
- Phase 4 - 120 days. PENDING\_CLOSURE. After 210 days the registry is permanently CLOSED.



# Billing communication

- Main contact via e-mail: [billing@ripe.net](mailto:billing@ripe.net)
- No ticketing system (mention reg –ID in e-mail)
- [billing@ripe.net](mailto:billing@ripe.net) only contact after Phase-3
- Begin October e-mail send about Billing Score
- Invoice information on LIR Portal
- Notification e-mails about Non Payment
- All communication in English



# Billing 2004

- Information on Billing Score e-mail sent
- Increased follow up of non paying registries
- Invoices in PDF format
- Invoices include Statement for Russia and Ukraine
- Improve Customer Service
- VAT number registration, EU countries

# Billing outlook

- Improve payment possibilities
  - Setting up new easier payment method(s) for bank transfer
  - Change credit card payment / administration
- Ticketing system, requests / questions in the billing mailbox get a reference number
- Yearly invoices for 2005 send in begin November
- Quarterly invoices for 2005 send in begin December
- Additional billing charge to 25 Euro



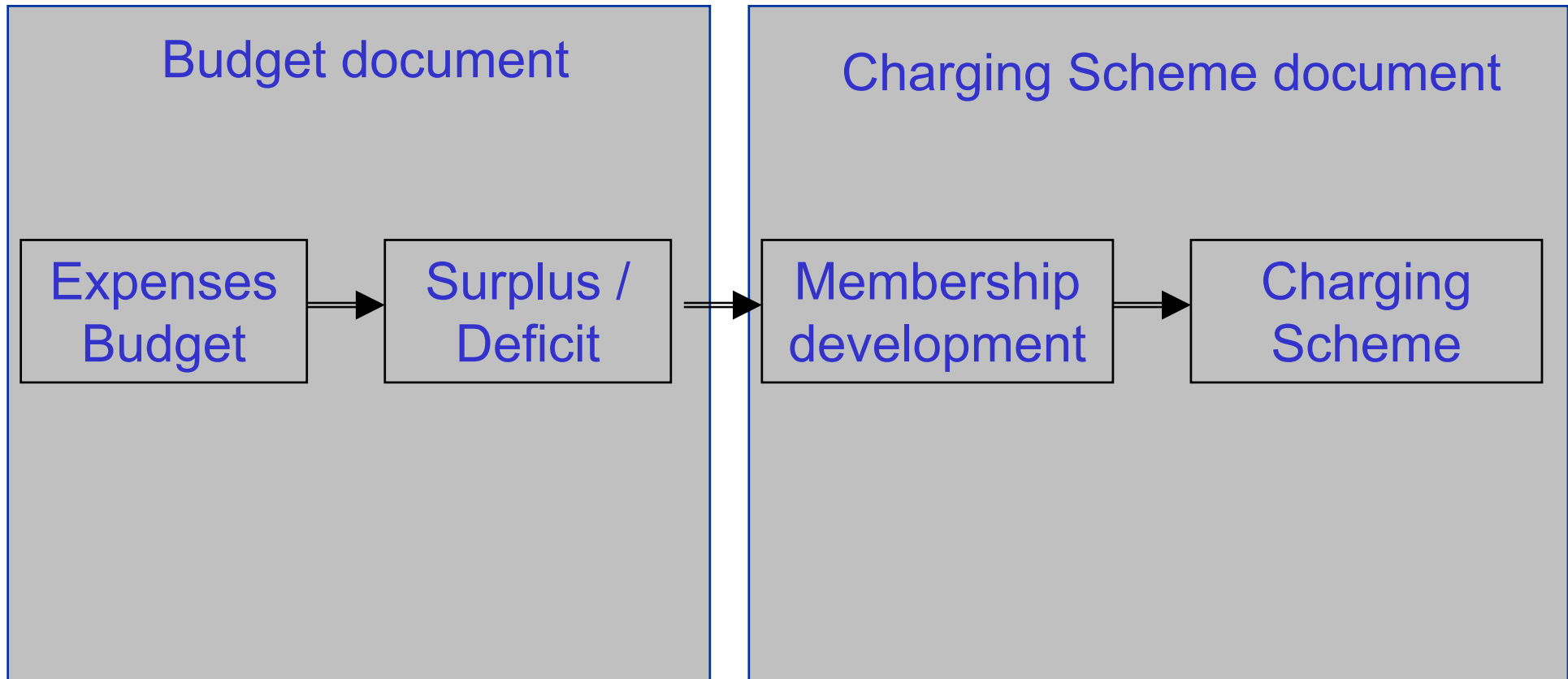


# Presentation on the Charging Scheme and the Scoring Algorithm

# Contents

- Charging Scheme process
- History of Charging Scheme developments
- Membership developments
- Charging Scheme
- Billing Score Algorithm

# Charging Scheme process



# Scoring Algorithm 2003

$N(R) =$



- $N(R)$ : Score of Registry  $N$
- $i$ : year
- $Y$ : Current Year
- $k_i$ : Number of IPv4 addresses allocated in year  $i$



# 2003 Scheme Problems

- Charging Scheme 2003 unclear, complex structure and did not meet the changes in our membership
- Charge linked to address space and not for services rendered
- Size cannot be calculated by LIRs as they cannot normalise their score versus the max score
- Only takes IPv4 allocations into account



# Requirements set for Charging Scheme 2004

- Simple and clear structure
- In line with the development and size of registries
- No direct charge for Addresses, improve charging for Services rendered
- Improve predictability of Income
- Service fee dependent of Financial developments



# Choices made for Charging Scheme 2004

- Expand the number of billing categories
- Include IPv6 and ASN requests
- Match the initial allocation request of IPv4, IPv6 and ASN
- Keep time factor in algorithm to reflect maintenance (conservation) services of address registration
- Match the boundaries with the existing Charging Scheme and try to determine “natural” boundaries

# Scoring Algorithm 2004

- Size is determined on basis of 2 variables
  - Prefix of the allocation/assignment
  - Age of the allocation/assignment

Registry score = (Alloc1 \* Time)+(Alloc2\*Time)+etc.

$$S(\text{reg}) = \sum_{i=1}^N a_i * t_i$$

$a_i$  = Scoring unit

$t_i$  = Time function of allocation/assignment  $i$  ( year of allocation – 1992 )

$N$  = Number of allocations/assignments

# Scoring Algorithm 2004 II

Prefix IPv4	Prefix IPv6	ASN	Scoring unit
IPv4 / 22	IPv6 / 34		0.25
IPv4 / 21	IPv6 / 33		0.5
IPv4 / 20	IPv6 / 32	1 ASN	1
IPv4 / 19	IPv6 / 31		2
IPv4 / 18	IPv6 / 30		4
IPv4 / 17	IPv6 / 29		8

# Billing score my.regid

Alloc/assign	Age	Alloc score	Age score	Score
IPv4 / 19	2000	2	8	16
IPv4 / 19	2002	2	10	20
IPv6 / 32	2003	1	11	11
ASN	2000	1	8	8
Total score my.regid				55

# Billing category my.regid II

Billing Category	2000	2001	2002	July 2003	Cumulative % 2004
Extra Small	-	-	-	-	20 %
Small	77 %	81 %	77 %	78 %	75 %
Medium	18 %	14 %	19 %	18 %	95 %
Large	5 %	5 %	4 %	4 %	99 %
Extra large	-	-	-	-	100 %

# Billing category my.regid III

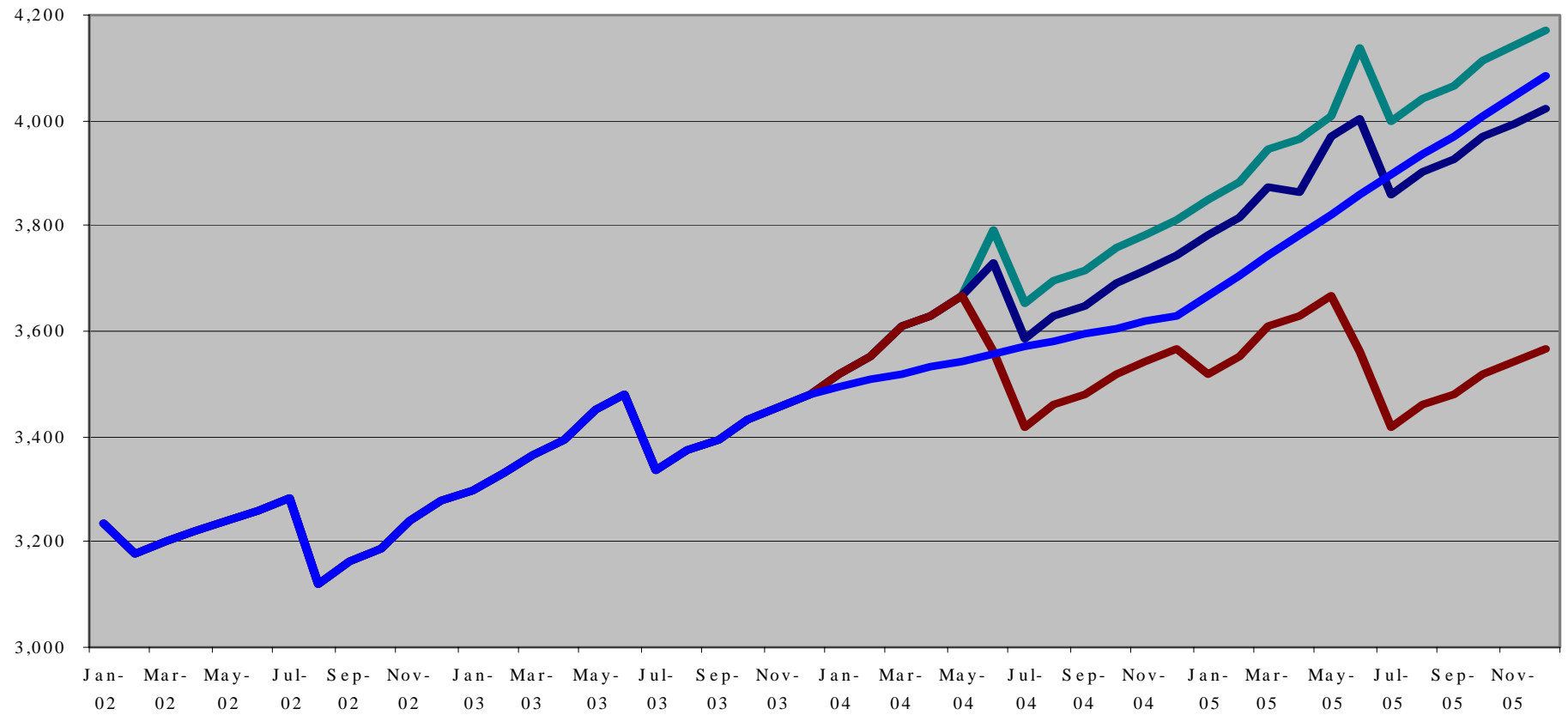
Category	Maximum score	Cumulative % of members
EXTRA SMALL	15	19.1%
SMALL	47	75%
MEDIUM	274	95%
LARGE	1,182	99%
EXTRA LARGE	14,320	100%

Category size of my.regid = MEDIUM



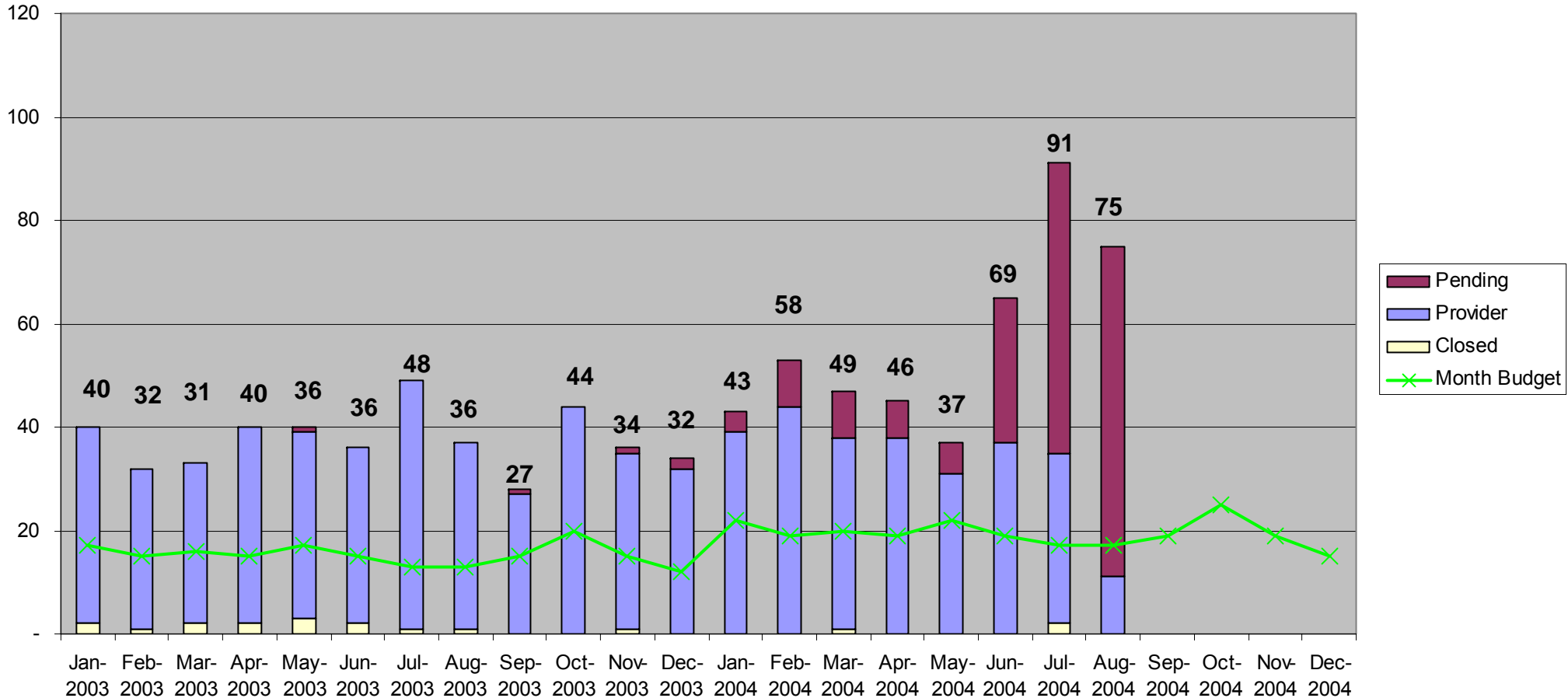
# Membership Growth I

Total Membership growth 2004 - 2005



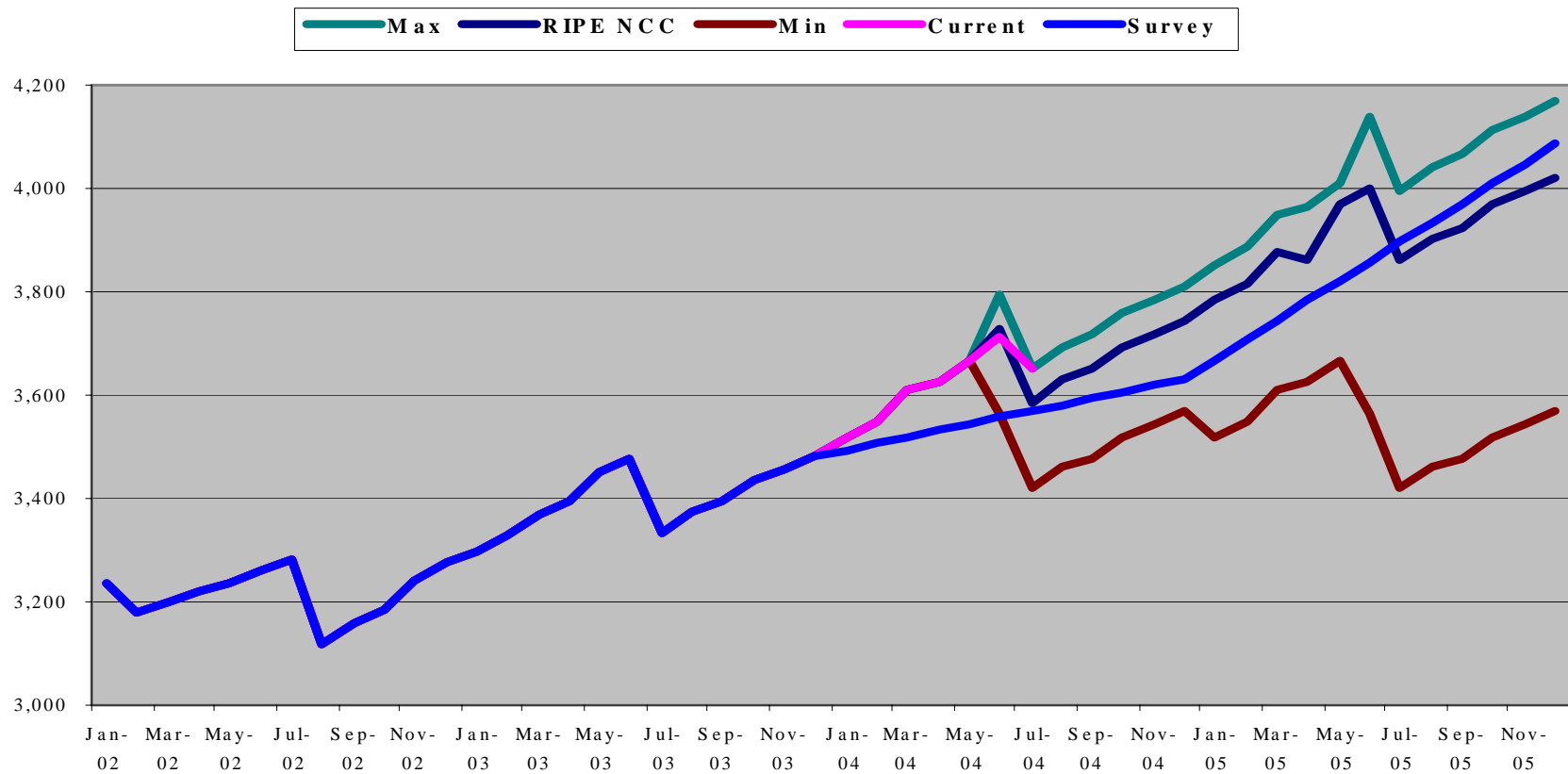


# Membership growth II



# Membership Growth III

**Total Membership  
Avg 12 Month growth %**





# Estimated Membership 2005

Number of LIRs	2001	2002	2003	Projection 2004	Budget 2005
Extra Small	-	-	-	729	1,156
Small	2,536	2,503	2,664	2,247	2,082
Medium	441	614	659	647	757
Large	145	152	165	130	151
Extra Large	-	-	-	33	38
<b>Total membership</b>	<b>3,122</b>	<b>3,269</b>	<b>3,488</b>	<b>3,786</b>	<b>4,184</b>
<b>Net Growth %</b>	<b>22 %</b>	<b>5 %</b>	<b>7 %</b>	<b>9 %</b>	<b>11 %</b>



# Requirements set for Charging Scheme 2005

- Fair and clear Charging Scheme structure
- Consistency, in line with membership developments and size of registries
- Reflecting all membership services the RIPE NCC provides its members
- Improve predictability of Income
- Stability in Income



# Changes made for Charging Scheme 2005

- Decrease in average Service Fee of 10%
- Sign-up fee decrease for new members of 20%
- New members initial category set at Extra Small
- Administration fee instead of Takeover fee
- PI IPv4 resources taken into account in the algorithm
- Change in Billing Score algorithm



# Changes Billing Score Algorithm 2005

- PI IPv4 addresses accounted for allocations / assignments of the past 12 months
- AS Numbers are scored for assignments of the past 12 months
- No change in the scoring of PA IPv4 and IPv6
- % of members per billing category as 2004
- Same algorithmic function

# Questions



# Proposed Charging Scheme 2005

LIR billing category	Fee per year
Very Small	€ 1,750
Small	€ 2,250
Medium	€ 3,150
Large	€ 4,750
Extra Large	€ 6,500
Administration fee	€ 1,250
Sign-up fee	€ 2,000

# Billing Score Table 2005

Prefix IPv4	Prefix IPv6	AS Numbers 2004	Prefix PI IPv4 2004	Scoring Unit
IPv4 / 21	IPv6 / 33		PI IPv4 / 25	0.5
IPv4 / 20	IPv6 / 32	1 ASN	PI IPv4 / 24	1
IPv4 / 19	IPv6 / 31	2 ASN	PI IPv4 / 23	2
IPv4 / 18	IPv6 / 30	4 ASN	PI IPv4 / 22	4