Remedy License Management

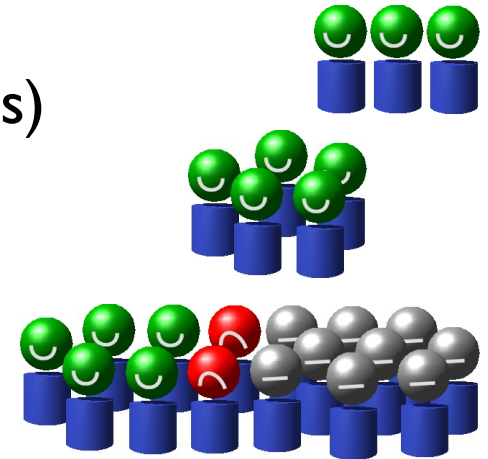Misi Mladoniczy

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Misi Mladoniczky

- 13 years of AR System development

- Remedy Approved Instructor since version 2.1

- RAC certified (former)

- Founder of RRR Scandinavia AB www.rrr.se

How does AR System licensing work

- AR System

  - Server Licenses (includes 3 fixed user licenses)

  - AR System Fixed User Licenses

  - AR System Floating User Licenses

- Applications

  - Server Licenses

  - Application User Fixed Licenses

  - Application User Floating Licenses

Read, Write or Restricted Read?

Read – Submitter of requests

- End Customer (the submitter of requests)

- Reporting and monitoring

Write (fixed or floating) - Modify records

- HelpDesk

- 1ˢᵗ, 2ⁿᵈ and 3ʳᵈ line

Restricted Read – Shared accounts, multiple IP

- Submitting anonymous web-surveys

- Anonymous reporting and statistics

Read, Write or Restricted Read?

	Write	Read	Restricted Read
Search for records	✔	✔	✔
View records	✔	✔	✔
Create new records	✔	✔	✔

Modify Records:

	Write	Read	Restricted Read
All	✔	✔ *	✘
Created by the user	✔	✔ *	✘
Created by others	✔	✔ *	✘

*) If submitter mode is set to locked and ('Submitter' = $USER$)

Floating Licenses

When no more **Floating Tokens** are available, the user is assigned a **Read License** instead.
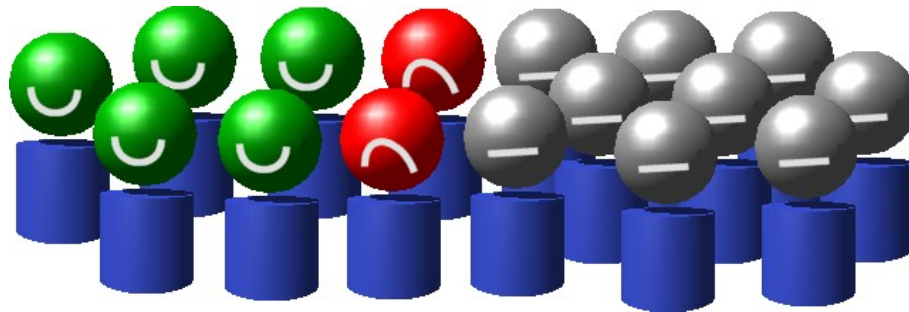
- 5 floating licenses owned
- registered floating users
- 7 logged in users
- 5 write licenses

News in version 7.1

- Nothing has changed

- License key handling has been simplified

  - Accessible through BMC Remedy User only

  - Licenses stored in the database

  - You can import your old license file

- No keys for user licenses, just specify any number you like, and then submit a Purchase-Order to your Remedy Partner!!!

Adding user licenses in 7.1

Adding user licenses in 7.1

- We now have 1234 + 3 fixed licenses in our system

Multiple Servers in 7.1
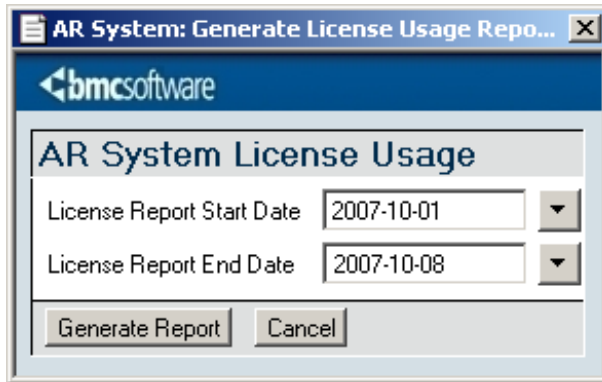
- You can add the licenses for all servers that will connect to the same database, for example a server group or hot backup server

- The Host-ID is not needed when submitting licenses, it is only needed when you request license keys from BMC

- Do not worry about the *"ARWARN [469] Warning, this key is not valid for this server"* message, the key will be picked up by the correct server

- This screen shot shows all you need to enter:

License Type*	AR Server		Number of Licenses*	1
License Qualifier	MULTISERVER;ID=1125308082;	...	Key	YGR-137499
Expiration Date				

How is licensing enforced?

You can be requested to generate a
license report by BMC Remedy Support

Bad for the license "buffer"

- Event-triggered Active-Links that access the server

- Users configuring Auto-Refresh

- Users not logging out when they are done

- Web users closing their browser (instead of logging out)

- A shortage of licenses will make your user protective of the license they have managed to grab

10 timeouts per day, at the one hour timeout setting,

will cost you 1 Floating License!

Strategy "in a nutshell"

- A user who works **more** should have a **Fixed**

- A user who works **less** should have a **Floating**

- A user **not** requiring a **Write** license should have a **Read** instead of a Fixed or Floating

Strategy "advanced"

- Identify your peak hours

- Measure individual user activity during your peak hours

- Assign your **Fixed** licenses to the highest rating users

- A Fixed License costs only 40% of a Floating License. Base your license distribution on this number.

When to measure - don't forget...

- Users in multiple timezones

- Holiday season

- Variations in activity at start or end of month

- Vacations for individual users

- External problems or events that affect user access to your system

Measure at least 4-6 weeks during "standard" conditions

How to measure – AR User/Admin

- By looking at the current user list in AR Admin (< 7.x) or AR User (in version 7.x)
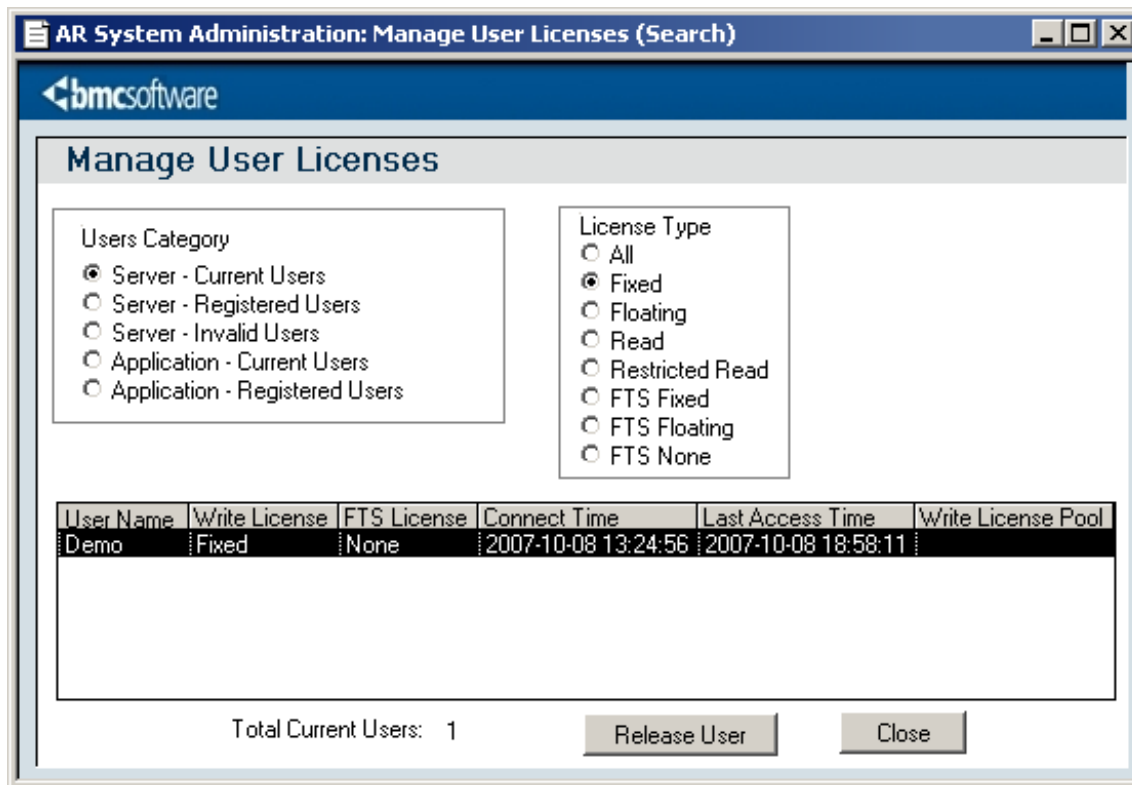
- a lot of manual work
- difficult to draw conclusions

+ you can manually release users if there is a shortage

How to measure – User Log File

```
<USER> /* sept 30 2007 08:58:24.1379 */ FLOAT GRANT WRITE    morhun01 (74 of 81 write)
<USER> /* sept 30 2007 08:58:25.7325 */ FLOAT NO WRITE FREE micmac04 (all 81 write in use)
<USER> /* sept 30 2007 08:58:33.4837 */ READ  RELEASE        kerrin03
<USER> /* sept 30 2007 08:58:44.3420 */ FIXED GRANT WRITE    livyok01
```

+ Everything is here, but it is - hard to read manually

- Difficult to draw conclusions

- License Pool information is missing

License Pools
are bad for
optimization anyway

+ Very detailed statistics per individual user

+ Historical data

+ Very accurate (except, in my experience, when using server groups)

How to measure - Server Statistics

+ Good summary

+ Easy to create reports

- No statistics for individual users

Configured under **Server Information -> Advanced**

Server Statistics :
Server Recording Mode ○ Off ● Cumulative Queue ○ Cumulative and Individual Queue
Recording Interval (seconds) : 60

- *Add a filter to notify you when there is a shortage...*

Server Statistics (Modify)

Server Statistics - Matching   1:42

Queue	Modified Date	
CUMULATIVE	2007-10-08 18:35:27	

Time	18:35:27	...
Queue	CUMULATIVE	...

API Calls Count	7940
Bad Password Attempts	0
API Requests Proc-Time	8
Floating Write Token Denied	0
Floating FTS Token Denied	0
Number of Current Users	1
Fixed Write Lic Connections	1
Floating Write Lic Connections	0
Read Only Lic Connections	0
Fixed FTS Lic Connections	0
Floating FTS Lic Connections	0
Non FTS Lic Connections	1

Application Licenses

Very similar to AR System Fixed/Floating Licenses

Example of optimum license assignment for one user

- AR System User Fixed

- BMC:Asset Mgmt Floating

- BMC:Problem Mgmt Floating

- BMC:Incident Mgmt Fixed

Bob works mostly with Incident Mgmt, but also needs access to Problem Mgmt and Asset Mgmt.

News in ITSM 7

- Floating Application Licenses are now enforced

- Application Licenses are now logged in the User Log

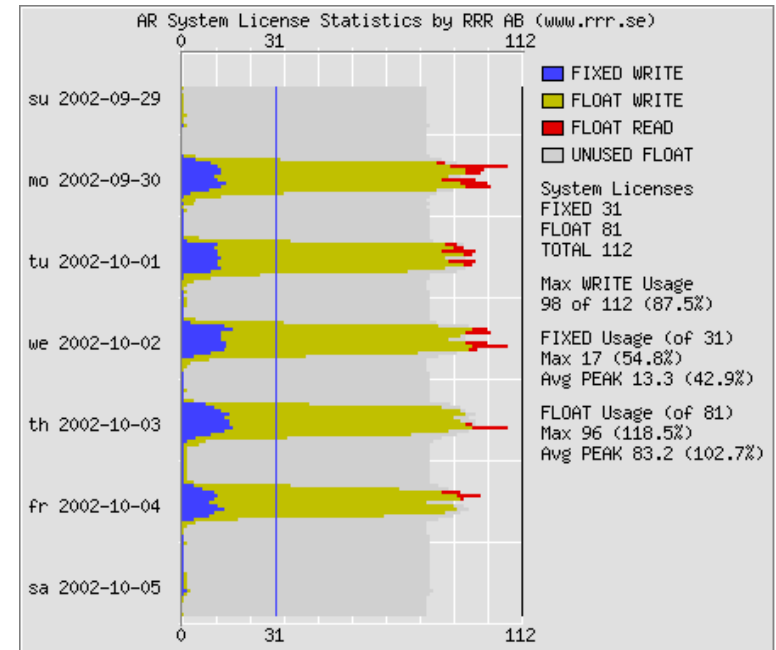# Application 7 Licenses Tokens

- Forms are "tagged" by the Application they belong to

- Any operation to any form (except opening the form window) will grab the AR System License Token, if one is available

- Any operation to a "tagged" form will grab the Application License Token

- Timeout for an Application License happens when the "tagged" forms have not been accessed during the timeout period

Case study – RRR License

- Customer had a significant shortage of licenses during peak hours

- **Fixed** usage was low

- They had the wrong mix of fixed/floating licenses in their system)

- The User Log used was 6 weeks in length

- A shortage of 15 Floating Licenses was turned into a significant License Buffer

AR System License Statistics by RRR AB (www.rrr.se)

FIXED WRITE
FLOAT WRITE
FLOAT READ
UNUSED FLOAT

System Licenses
FIXED 31
FLOAT 81
TOTAL 112

Max WRITE Usage
98 of 112 (87.5%)

FIXED Usage (of 31)
Max 17 (54.8%)
Avg PEAK 13.3 (42.9%)

FLOAT Usage (of 81)
Max 96 (118.5%)
Avg PEAK 83.2 (102.7%)

Case Study – File Upload

- A 6-week User Log was uploaded to RRR License

- An ARX-export from the User form was also uploaded

- Some information not contained in these files were entered

Case Study – Peak Hours

- Shortage of Floating Licenses during Peak Hours only

These are the peak 20.0% of the logged hours.

Date	Weekday	Hour	Max READ	Max FIXED	Max FLOAT	FIXED+FLOAT
2002-09-30	mo	9	2	12	96	108
2002-09-30	mo	10	1	13	87	100
2002-09-30	mo	11	3	13	86	99
2002-09-30	mo	12	1	11	77	88
2002-09-30	mo	13	1	12	85	97
2002-09-30	mo	14	1	15	86	101
2002-09-30	mo	15	3	13	89	102
2002-10-01	tu	8	2	12	79	91
2002-10-01	tu	9	3	11	82	93
2002-10-01	tu	10	1	12	85	97

Case Study – User Statistics

- The login percentage during peak hours is calculated for each user

- There are too few Fixed licenses in the system

User License Tuning Exchangelist

With your current license mix, this is a list of users you should move from **FIXED** to **FLOAT**.

Rank	User	License	Logintime %	Peaktime %	Usage Trend	Sessions	Float Rejects	Timeouts
1	marstr01	FIXED	0.0	0.0	+0.00	0	0	0
21	micmac03	FIXED	16.8	74.7	-0.48	143	0	0
22	deahun01	FIXED	25.5	71.0	+0.13	271	0	0

With your current license mix, this is a list of users you should move from **FLOAT** to **FIXED**.

Rank	User	License	Logintime %	Peaktime %	Usage Trend	Sessions	Float Rejects	Timeouts
1	chamla02	FLOAT	32.2	99.3	-0.14	298	2	6
2	diryok02	FLOAT	24.0	95.2	-0.15	222	2	2
3	micwhi02	FLOAT	26.4	94.1	-0.13	209	1	3

The Pivot-Point is ~**71%**, but should be **40%**.

Case Study – User Exchange Only

- 22 users moved from **Fixed** to **Floating**

- 22 users moved from **Floating** to **Fixed**

- Shortage of 15 Floating has been reduced to a shortage of 3

- High use of the **Fixed** Licenses
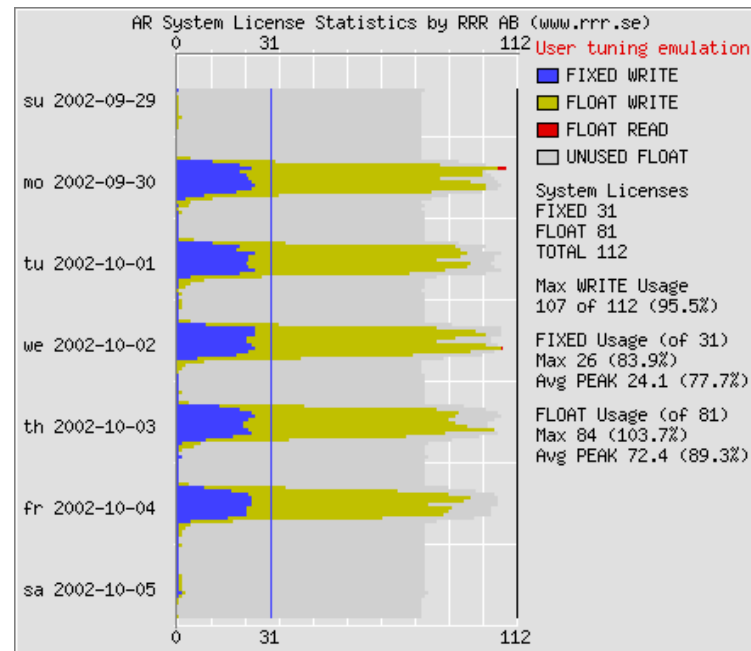
Case Study – Server License Mix

- Fixed and Floating Licenses can typically be exchanged at an exchange rate defined by the current USD price-list

- The rate between Fixed and Floating has been 40% for a long time

AR System License Statistics by RRR AB (www.rrr.se)
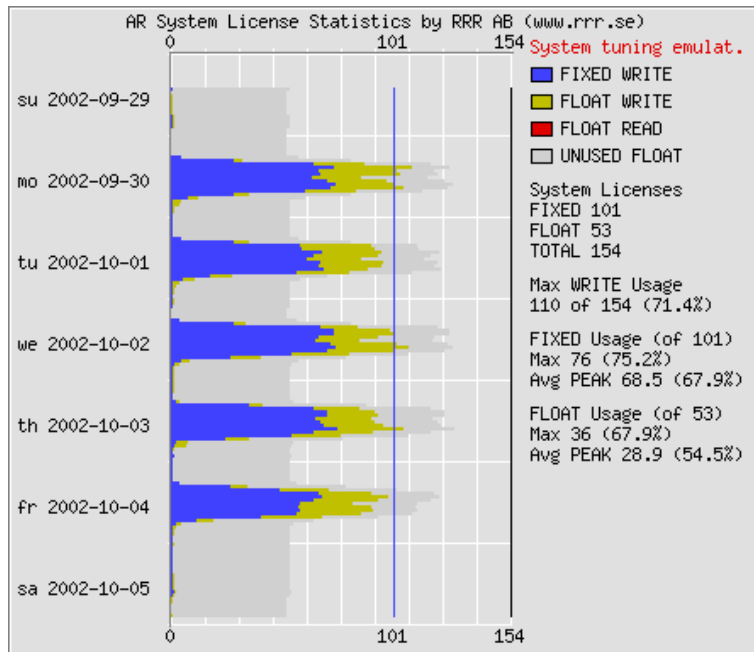
- You get 2.5 Fixed Licenses for each Floating
- We moved our **Pivot-Point** to 40% by way of exchanging 28 of the floating licenses to 70 Fixed
- Normal/Optimum **Fixed** usage around 70%

Case Study - Results
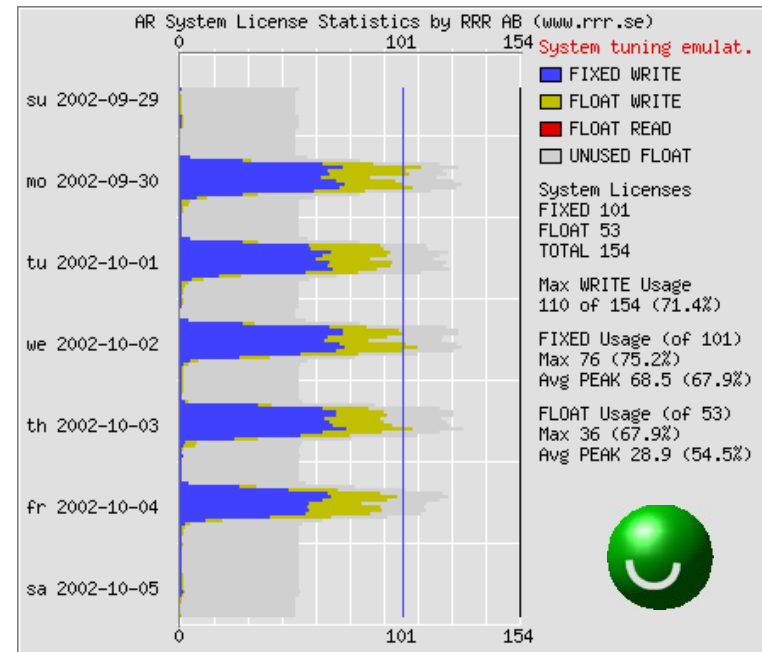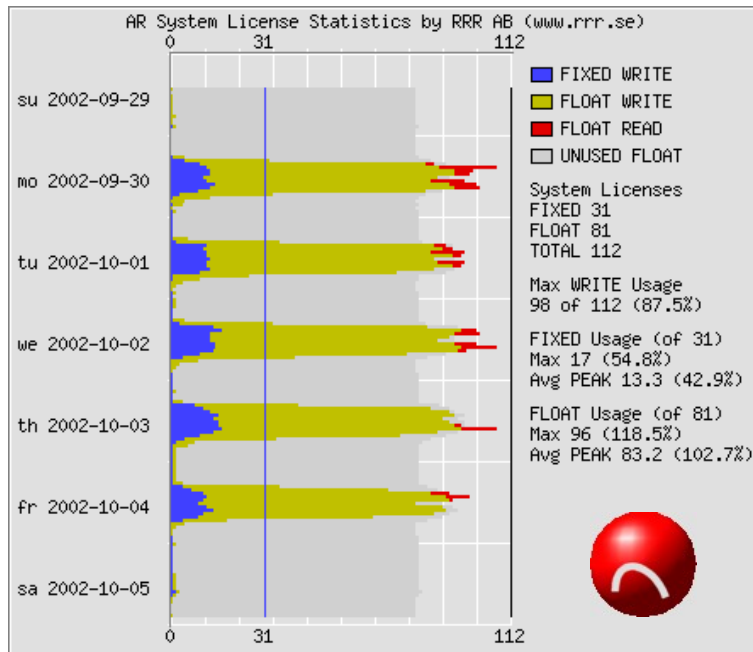
- 2002 before: **31 Fixed**, **81 Floating**, 434 Users, Shortage **15**

- 2002 after: **101 Fixed**, **53 Floating**, Buffer of **17**

- Today 2007: **230 Fixed**, **77 Floating**, 1220 Users

Add Users not Licenses!

- Download this presentation at www.rrr.se/doc

- Try the demo version of RRR License to see how your system is tuned

- Online and Offline versions are available

www.rrr.se