Lucerne University of
Applied Sciences and Arts

HOCHSCHULE
LUZERN

Cometchat in Ilias

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Horw

FH Zentralschweiz

EFQM
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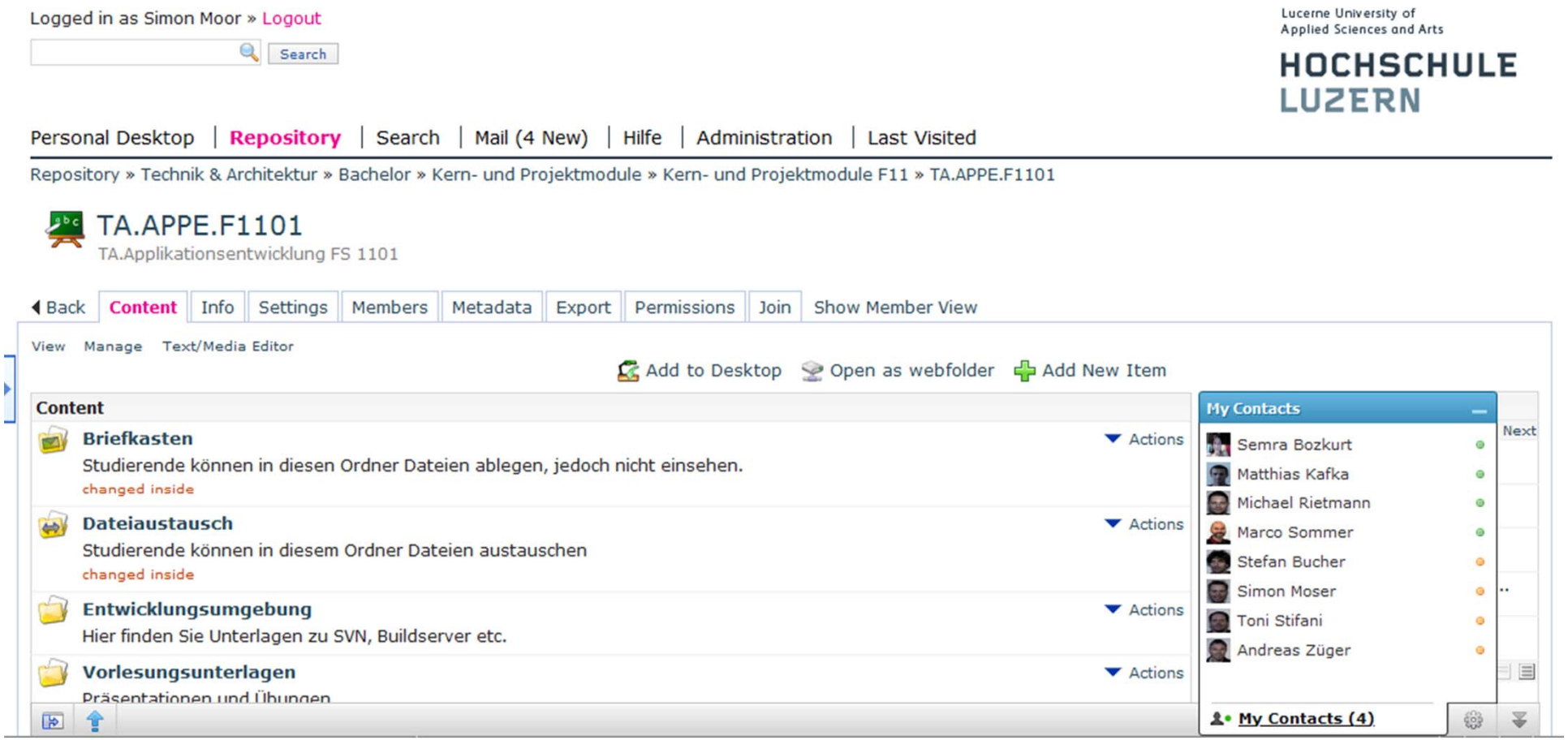
3 star

Cometchat in Ilias

- Implementierung
- Statistik
- Festgestellte Probleme
- Lösung
- Fazit -> Diskussion?

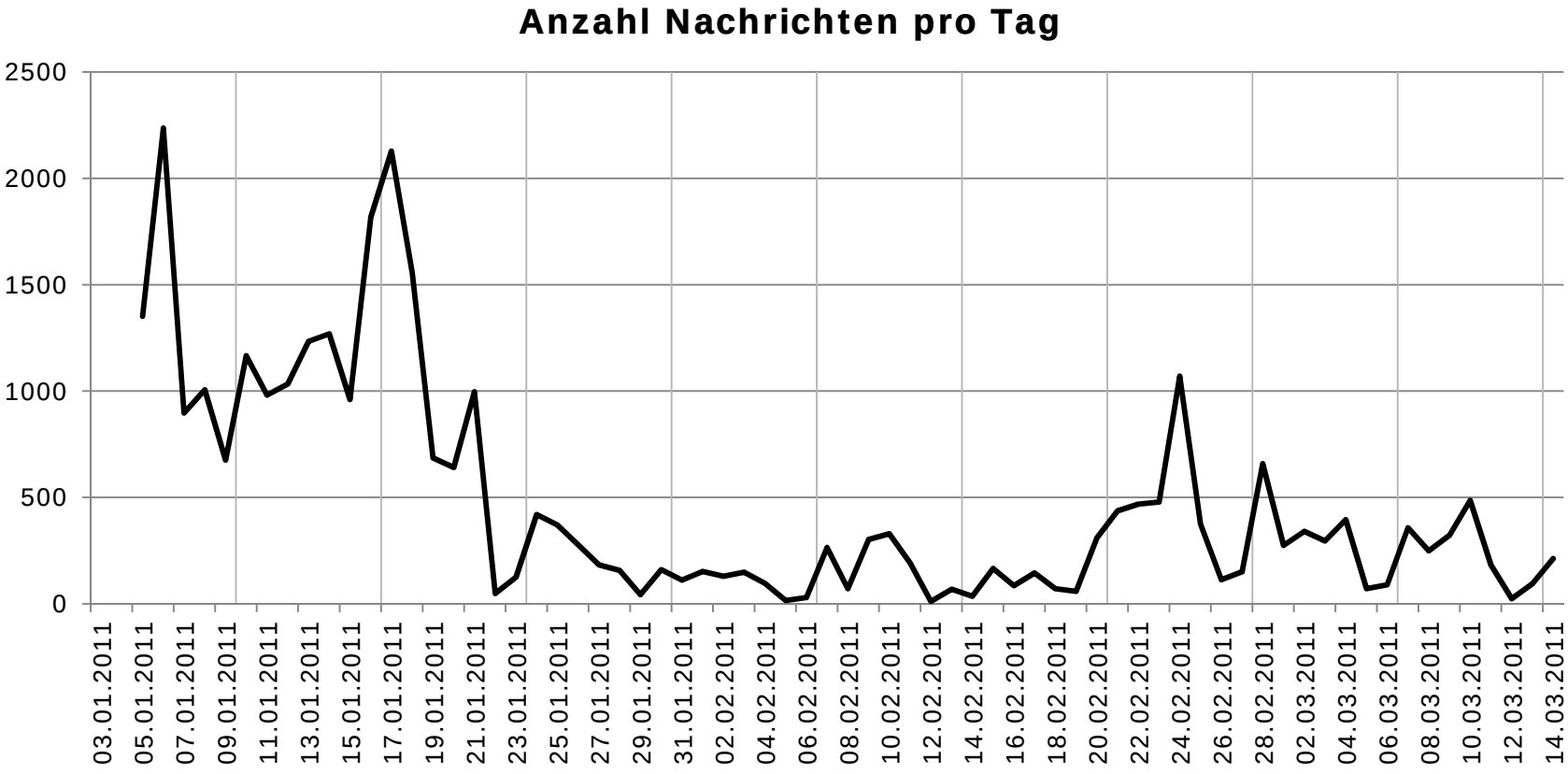
Implementierung Cometchat



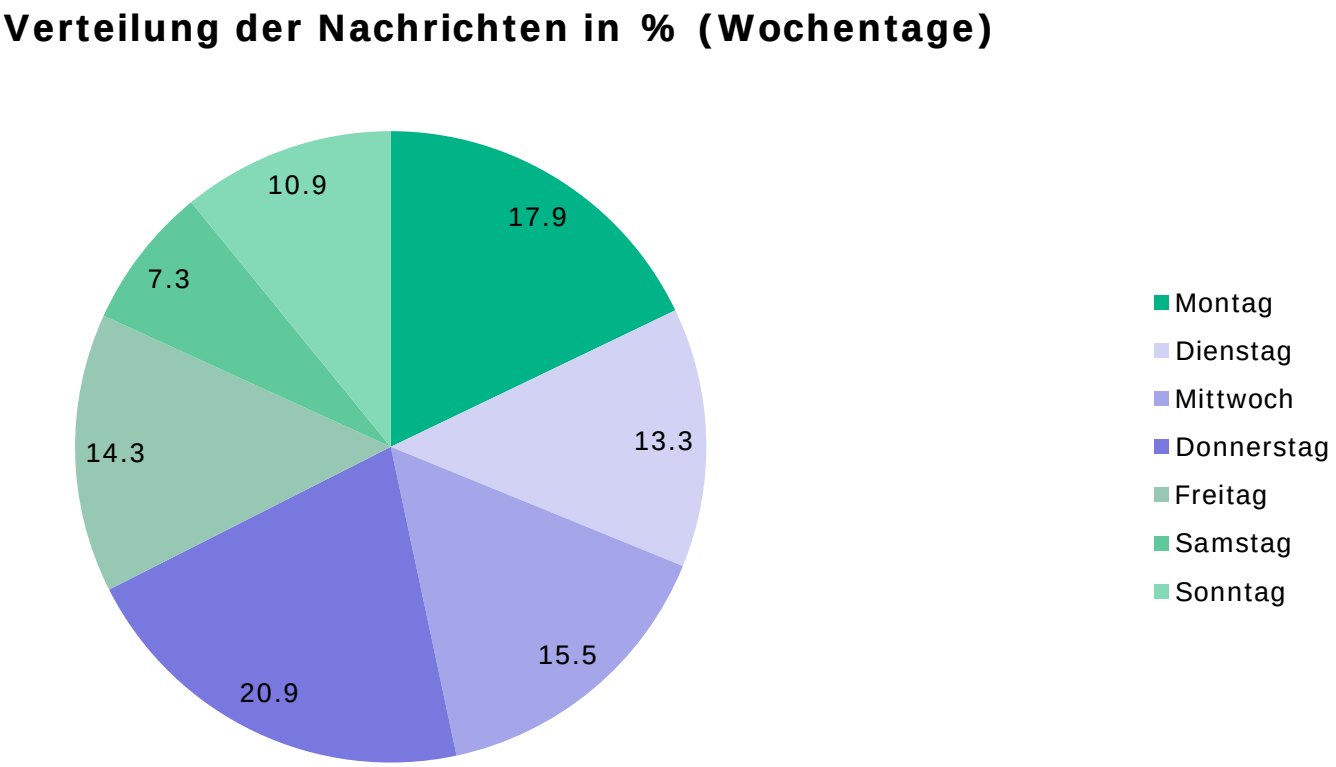
Statistik

- Periode: gute 2 Monate; vom 5.1.2011 bis 14.03.2011
- Total 34755 Messages
- Ca. 510 Messages pro Tag
- Ca. 1/3 der User (inkl. Studierende, Dozenten, Mitarbeiter) benutzen den Chat
- Knapp 10% dieser User stellen sich auf offline
- Durchschnittliche Message ist ca. 20 Zeichen

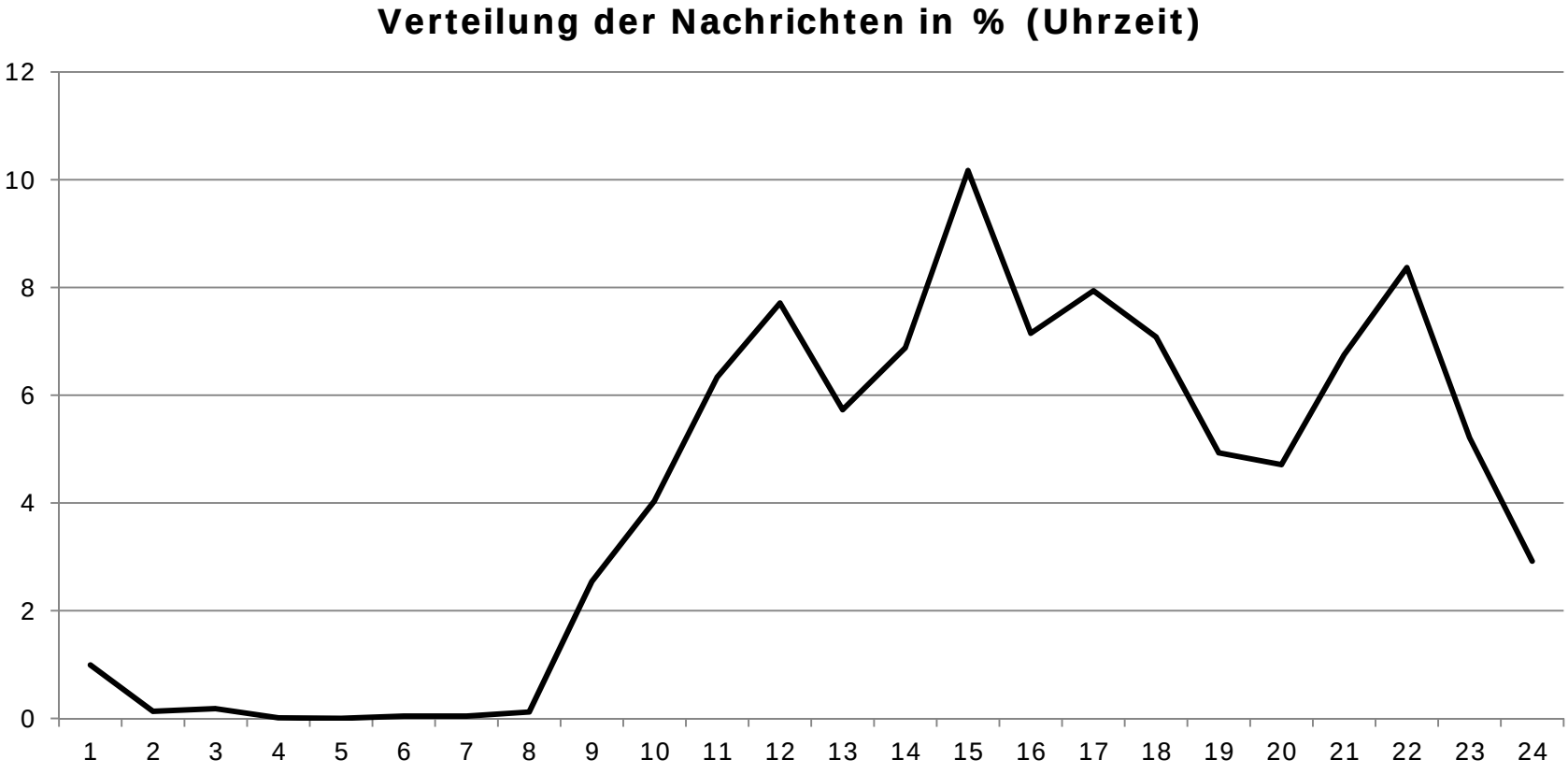
Statistik


Anzahl Nachrichten pro Tag
2500
2000
1500
1000
500
0
03.01.2011
05.01.2011
07.01.2011
09.01.2011
11.01.2011
13.01.2011
15.01.2011
17.01.2011
19.01.2011
21.01.2011
23.01.2011
25.01.2011
27.01.2011
29.01.2011
31.01.2011
02.02.2011
04.02.2011
06.02.2011
08.02.2011
10.02.2011
12.02.2011
14.02.2011
16.02.2011
18.02.2011
20.02.2011
22.02.2011
24.02.2011
26.02.2011
28.02.2011
02.03.2011
04.03.2011
06.03.2011
08.03.2011
10.03.2011
12.03.2011
14.03.2011

Statistik


Verteilung der Nachrichten in % (Wochentage)
17.9
13.3
15.5
20.9
14.3
7.3
10.9
Montag
Dienstag
Mittwoch
Donnerstag
Freitag
Samstag
Sonntag

Statistik


Verteilung der Nachrichten in % (Uhrzeit)
12
10
8
6
4
2
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Festgestellte Probleme

- Probleme ä ö ü (Name & Nachrichten)
- Profilfoto fehlt
- Chat Abfrage via Ajax, viele Datenbankverbindungen
- Auslastung DB-Server durch Chat hoch

Top Queries | Top Tables | Top Schemas | Top Users | Top States | Slow Queries | Locked Queries

This table shows the heaviest queries during the selected time frame. Optimizing these queries is often the fastest way to improve performance. Typically, these queries are either slow, or run very often.

Filter: contains

#	User	Schema	Query	Rating	Threads	Total Time
1	ilias_user	ilias_hslu4	select ... from cometchat where ((cometchat.to = ? and cometchat.direction <> ?) or (cometchat.from = ? and cometchat.direction <> ?)) and (cometchat.i...		0,423	8122,000 s
2	ilias_user	ilias_hslu4	select ... from cometchat_announcements where to = ? or to = ? or to = ? order by id desc limit ?		0,369	7092,000 s
3	ilias_user	ilias_hslu4	SELECT DISTINCT ... FROM rbac_ua ua JOIN rbac_fa fa ON fa.rol_id = ua.rol_id JOIN object_reference r1 ON r1.ref_id = fa.parent JOIN tree ON tree.child = r1....		0,127	2449,000 s
4	ilias_user	ilias_hslu4	UPDATE ut_online ... WHERE usr_id = ?	Good	0,108	2065,000 s
5	ilias_user	ilias_hslu4	SELECT ... FROM usr_session LEFT JOIN usr_data u ON user_id = u.usr_id LEFT JOIN usr_pref p ON (p.usr_id = u.usr_id AND p.keyword = ?) WHERE user_id !=...		0,084	1618,000 s
6	ilias_user	ilias_hslu4	UPDATE usr_session ... WHERE session_id = ?	EXPLAIN	0,061	1171,000 s
7	ilias_user	ilias_hslu4	SELECT ... FROM usr_session WHERE session_id = ?	EXPLAIN	0,046	893,000 s
8	ilias_user	ilias_hslu4	UPDATE read_event ... WHERE obj_id = ? AND usr_id = ?	EXPLAIN	0,044	848,000 s
9	ilias_user	ilias_hslu4	SELECT ... FROM rbac_pa WHERE ref_id = ?	EXPLAIN	0,042	798,000 s
10	ilias_user	ilias_hslu4	SELECT ... FROM object_data WHERE obj_id = ?	EXPLAIN	0,038	733,000 s
11	ilias_user	ilias_hslu4	SELECT ... FROM lng_modules WHERE lang_key = ? AND module = ?	EXPLAIN	0,031	600,000 s
12	ilias_user	ilias_hslu4	SELECT ... FROM object_reference WHERE ref_id = ?	Good	0,030	585,000 s
13	ilias_user	ilias_hslu4	SELECT ... FROM tree WHERE child = ?	EXPLAIN	0,026	498,000 s
14	ilias_user	ilias_hslu4	REPLACE INTO cache_text ...	EXPLAIN	0,022	430,000 s
15	ilias_user	ilias_hslu4	SELECT ... FROM tree JOIN object_reference ON tree.child=object_reference.ref_id JOIN object_data ON object_reference.obj_id=object_data.obj_id WHERE ...		0,022	429,000 s
16	ilias_user	ilias_hslu4	SELECT ... FROM tree t JOIN object_reference r ON r.ref_id = t.child JOIN object_data o ON o.obj_id = r.obj_id WHERE t.parent IN (?,?,?,?,?,?,?,?) AND o.typ...		0,020	391,000 s
17	ilias_user	ilias_hslu4	SELECT ... FROM tree t JOIN object_reference r ON r.ref_id = t.child JOIN object_data o ON o.obj_id = r.obj_id WHERE t.parent IN (?,?,?,?,?,?,?) AND o.type...	EXPLAIN	0,020	388,000 s

Lösungen

- Name & Nachrichten als UTF8 ausgeben
- Profilfoto aus Ilias Fotos laden
- SQL-Queries optimieren durch Subqueries oder Indexes

- Auslastung nach Optimierungen: Cometchat verschwunden

Top Queries | Top Tables | Top Schemas | Top Users | Top States | Slow Queries | Locked Queries

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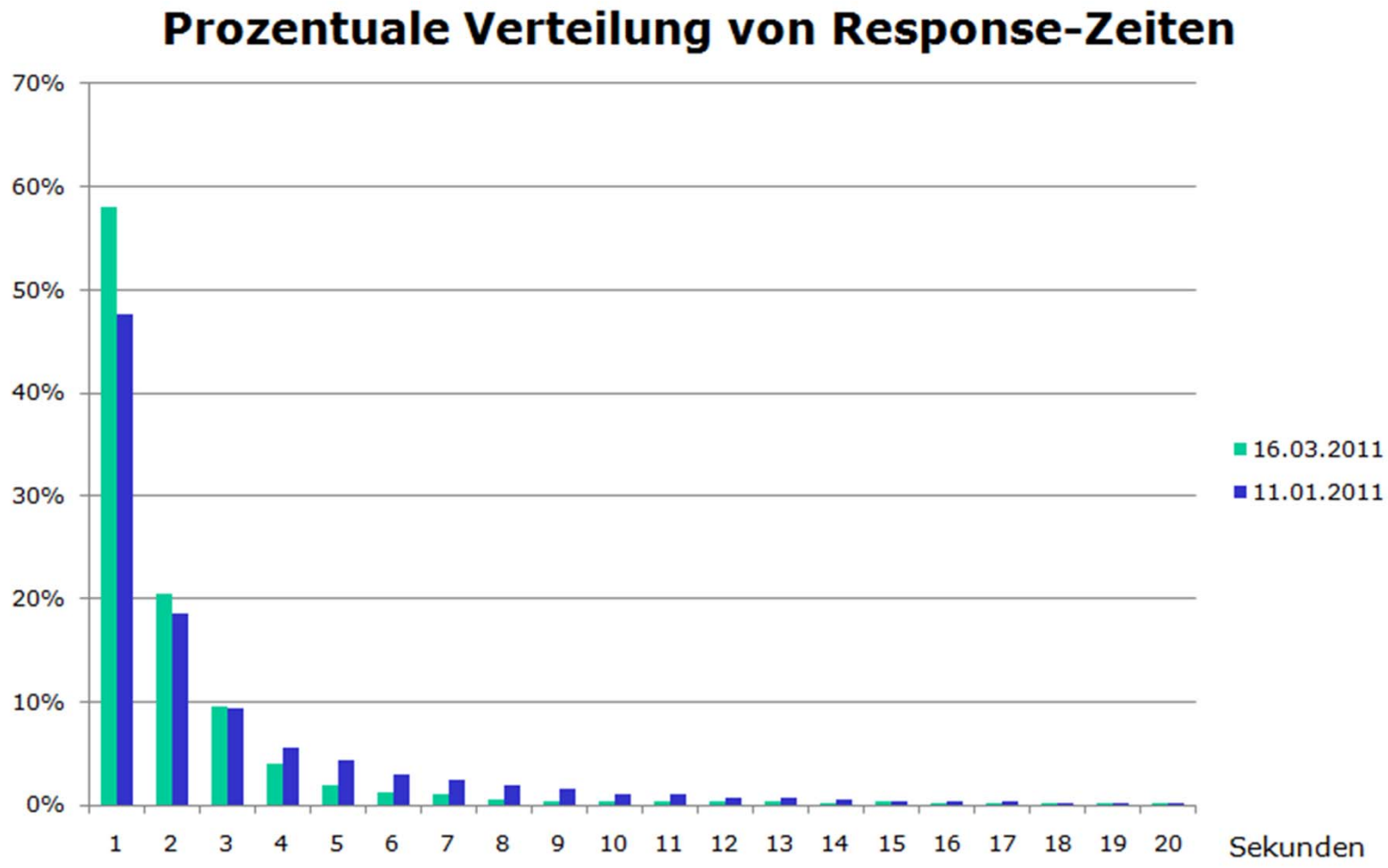
#	User	Schema	Query	Rating	Threads	Total Time
1	ilias_user	ilias_hslu4	SELECT ... FROM usr_session LEFT JOIN usr_data u ON user_id = u.usr_id LEFT JOIN usr_pref p ON (p.usr_id = u.usr_id AND p.keyword = ?) WHERE user_id !=...		0,048	1469,000 s
2	ilias_user	ilias_hslu4	UPDATE ut_online ... WHERE usr_id = ?	Good	0,038	1164,000 s
3	ilias_user	ilias_hslu4	SELECT DISTINCT ... FROM rbac_ua ua JOIN rbac_fa fa ON fa.rol_id = ua.rol_id JOIN object_reference r1 ON r1.ref_id = fa.parent JOIN tree ON tree.child = r1....		0,027	839,000 s
4	ilias_user	ilias_hslu4	SELECT ... FROM lng_modules WHERE lang_key = ? AND module = ?	Good	0,025	756,000 s
5	ilias_user	ilias_hslu4	SELECT ... FROM object_data WHERE obj_id = ?	Good	0,024	728,000 s
6	ilias_user	ilias_hslu4	SELECT ... FROM rbac_pa WHERE ref_id = ?	Good	0,024	724,000 s
7	ilias_user	ilias_hslu4	UPDATE usr_session ... WHERE session_id = ?	EXPLAIN	0,023	713,000 s
8	ilias_user	ilias_hslu4	SELECT ... FROM (SELECT * FROM cometchat WHERE cometchat.read !=? or cometchat.id > ?) AS unread WHERE ((unread.to = ? and unread.direction != ?...		0,021	653,000 s
9	ilias_user	ilias_hslu4	UPDATE read_event ... WHERE obj_id = ? AND usr_id = ?	EXPLAIN	0,020	609,000 s
10	ilias_user	ilias_hslu4	update usr_data ... where usr_id = ?	EXPLAIN	0,016	485,000 s
11	ilias_user	ilias_hslu4	SELECT ... FROM tree JOIN object_reference ON tree.child=object_reference.ref_id JOIN object_data ON object_reference.obj_id=object_data.obj_id WHERE ...		0,015	450,000 s
12	ilias_user	ilias_hslu4	SELECT ... FROM settings WHERE module=?	EXPLAIN	0,014	431,000 s
13	ilias_user	ilias_hslu4	SELECT ... FROM tree WHERE child = ?	EXPLAIN	0,014	421,000 s
14	ilias_user	ilias_hslu4	SELECT ... FROM object_reference WHERE ref_id = ?	EXPLAIN	0,013	401,000 s
15	ilias_user	ilias_hslu4	REPLACE INTO cache_text ...	EXPLAIN	0,010	300,000 s
16	ilias_user	ilias_hslu4	INSERT INTO object_data ...	N/A	0,008	251,000 s
17	ilias_user	ilias_hslu4	SELECT ... FROM object_data WHERE UPPER(title) LIKE(UPPER(?)) AND type IN (?,?) ORDER BY title	EXPLAIN	0,008	234,000 s

Status: idle

Wirksamkeit der Optimierungen



Fazit

- Chat ist sehr gute Erweiterung zu Ilias
- Chat wird rege benutzt
- > Idee gut, weiter verfolgen

- Cometchat falsche Software?
- Besser wäre Ajax Push Lösung