My CoRE project

ownCloud beta service load compared to estimate

Reference N/A
Last update 20/08/2015
Version 1.1
Responsible CNRS (D. Rousse)
Other documents/info. load estimate at https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods

Object The aim of this document is to compare Apache, SQL and network load mesured during My CoRe beta service to estimate made before launching the service.

Content :

Sheet 1 : This sheet
Sheet 2 : Comparison sheet

Table des mises à jour du document		
Version	**Date**	**Objet de la mise à jour**
1.0	08/10/2015	Initial release
1.1	20/10/2015	Some update

	BDD		Web		Network			
	Number of SQL (requests per second)		Number of web sessions (per day)		Bandwith usage upload (Mb/s)		Bandwith usage download (Mb/s)	
Number of users	**Simulation**	**Real load**	**Simulation**	**Real load**	**Simulation**	**Real load**	**Simulation**	**Real load**
585	558	371	88	15	8	Not available	22	Not available
754	723	505	113	27	10	Not available	29	Not available
1018	976	465	153	31	14	Not available	39	Not available
1128	1081	1085	169	42	16	4.5	43	8.1
1196	1146	475	179	35	17	4.05	46	4.35
1215	1165	482	182	46	17	3	46	6
1251	1199	323	188	36	17	3	48	6
1284	1231	323	193	33	18	2.4	49	4.5
1306	1252	418	196	33	18	2.4	50	4.5
To be continued								

Nota and comments :

We consider that 15 % of users are active (regarding the figures in https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods)

Service is available for production only after 1500 end users accounts

Simulation figures are extracted from https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods)

Real load figures are extracted from internal CNRS monitoring tool (Centreon system)

At present time, differences between simulation and real load could be explained by the service status: service is only beta so end users do not use it as a real production service. Some other statistics extracted from Dashboard ownCloud app, used in My CoRe, seems to confirm that : there are few shares, few data and files stored are on average small (for 1306 users, we have 1249 shares, 591 Gb files stored and average file size is 858 kB). This hypothesis needs to be confirmed within a few months.

Sheet dedicated to create Comparison tab

Total (INSERT + SELECT + UPDATE) *From https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods*

	1	1000	5000	30000	50000	70000	100000
0.05	5.930092593	365.9490741	1829.74537	10978.47222	18297.4537	25616.43519	36594.90741
0.1	5.930092593	662.4537037	3312.268519	19873.61111	33122.68519	46371.75926	66245.37037
0.15	5.930092593	958.9583333	4794.791667	28768.75	47947.91667	67127.08333	95895.83333
0.2	5.930092593	1324.907407	6624.537037	39747.22222	66245.37037	92743.51852	132490.7407
0.3	5.930092593	2056.805556	10284.02778	61704.16667	102840.2778	143976.3889	205680.5556
0.5	4.541203704	2270.601852	11353.00926	68118.05556	113530.0926	158942.1296	227060.1852

Total (INSERT + SELECT + UPDATE) *Calculated from tab above. Bold line used in the comparison sheet*

	1	585	754	1018	1128	1196	1215	1251	1284	1306
0.05	6	214	276	373	413	438	445	458	470	478
0.1	6	388	499	674	747	792	805	829	851	865
0.15	**6**	**561**	**723**	**976**	**1082**	**1147**	**1165**	**1200**	**1231**	**1252**
0.2	6	775	999	1349	1494	1585	1610	1657	1701	1730
0.3	6	1203	1551	2094	2320	2460	2499	2573	2641	2686
0.5	5	1328	1712	2311	2561	2716	2759	2841	2915	2965

Clients connexions *Extract from “Clients connexions » in https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods and used for « Number of web sessions (per day »)*

	1	1000	5000	30000	50000	70000	100000
0.05	1	50	250	1500	2500	3500	5000
0.1	1	100	500	3000	5000	7000	10000
0.15	**1**	**150**	**750**	**4500**	**7500**	**10500**	**15000**
0.2	1	200	1000	6000	10000	14000	20000
0.3	1	300	1500	9000	15000	21000	30000
0.5	1	500	2500	15000	25000	35000	50000

« Number of web sessions (per day ») for 15% of active users

585	87.75	87.75
754	113.1	
1018	152.7	
1128	169.2	
1196	179.4	
1215	182.25	
1251	187.65	
1284	192.6	
1306	195.9	

Download

Total download *From https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods*

	1	1000	5000	30000	50000	70000	100000
0.05	0.25462963	12.73148148	63.65740741	381.9444444	636.5740741	891.2037037	1273.148148
0.1	0.25462963	25.46296296	127.3148148	763.8888889	1273.148148	1782.407407	2546.296296
0.15	0.25462963	38.19444444	190.9722222	1145.833333	1909.722222	2673.611111	3819.444444
0.2	0.25462963	50.92592593	254.6296296	1527.777778	2546.296296	3564.814815	5092.592593
0.3	0.25462963	76.38888889	381.9444444	2291.666667	3819.444444	5347.222222	7638.888889
0.5	0.25462963	127.3148148	636.5740741	3819.444444	6365.740741	8912.037037	12731.48148

Bandwith usage download (Mb/s)

585	22
754	29
1018	39
1128	43
1196	46
1215	46
1251	48
1284	49
1306	50

Upload

Total upload *From https://github.com/CNRS-DSI-Dev/mycore_press/blob/master/CNRS-LINAGORA-ownCloud-load-estimate.ods*

	1	1000	5000	30000	50000	70000	100000
0.05	0.092592593	4.62962963	23.14814815	138.8888889	231.4814815	324.0740741	462.962963

0.1	0.092592593	9.259259259	46.2962963	277.7777778	462.962963	648.1481481	925.9259259
0.15	0.092592593	13.88888889	69.44444444	416.6666667	694.4444444	972.2222222	1388.888889
0.2	0.092592593	18.51851852	92.59259259	555.5555556	925.9259259	1296.296296	1851.851852
0.3	0.092592593	27.77777778	138.8888889	833.3333333	1388.888889	1944.444444	2777.777778
0.5	0.092592593	46.2962963	231.4814815	1388.888889	2314.814815	3240.740741	4629.62963

Bandwith usage upload (Mb/s)	
585	8
754	10
1018	14
1128	16
1196	17
1215	17
1251	17
1284	18
1306	18

How to find statistics

Internal CNRS source for real load statistics

Number of users	
585	BL_0017_20150316_Métriques_Techniques_FW11/20150316 - My CoRe – Indicateurs.pdf et Point_COPIL_17032015.pdf
754	BL_0023_20150430_Métriques_Techniques_FW17/20150427 - My CoRe – Indicateurs.docx et Point_COPIL_21042015.pdf
1018	BL_0028_20150601_Métriques_Techniques_FW22/20150601 - My CoRe – Indicateurs.pdf et Point_COPIL_01062015.pdf
1128	BL_0030_20150617_Métriques_Techniques_FW24/20150615 - My CoRe - Indicateurs.pdf
1196	BL_0031_20150629_Métriques_Techniques_FW25_26/20150622 - My CoRe – Indicateurs.pdf
1215	BL_0031_20150629_Métriques_Techniques_FW25_26/20150629 - My CoRe - Indicateurs.pdf
1251	BL_0032_20150706_Métriques_Techniques_FW27/20150706 - My CoRe - Indicateurs.pdf
1284	BL_0034_20150717_Métriques_Techniques_FW28/20150713 - My CoRe - Indicateurs.pdf
1306	BL_0035_20150720_Métriques_Techniques_FW29/20150720 - My CoRe - Indicateurs.pdf