

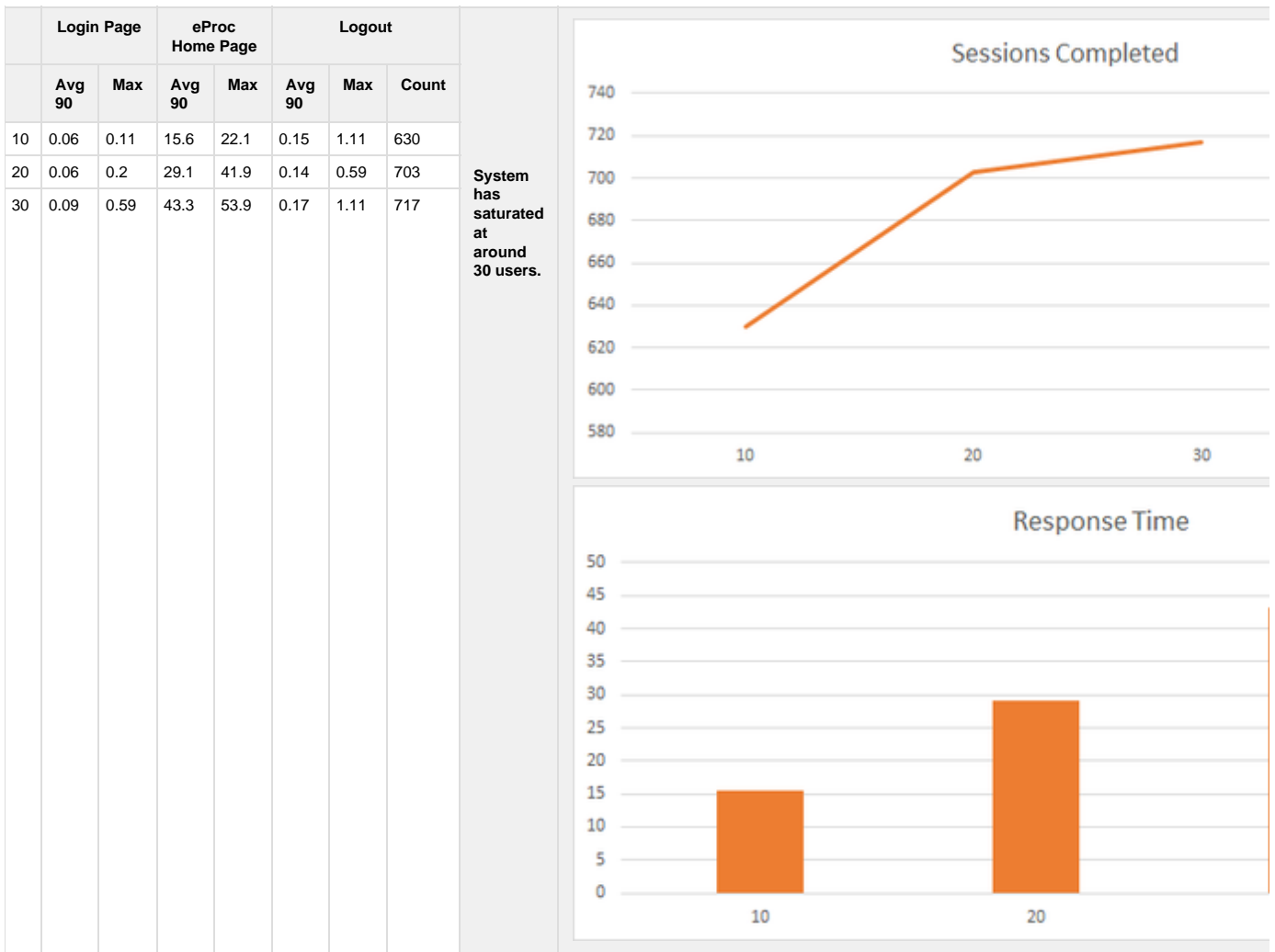
Dew Drops Eproc Result and Observation

CMD: API count on the basis of Client IP

30 users base Line Test Ran for 15 Minutes (no static calls)

	URL	Avg 90	Max
1	Login Page	0.09	0.59
2	eProc Home Page	43.3	53.9
3	Logout	0.17	1.11

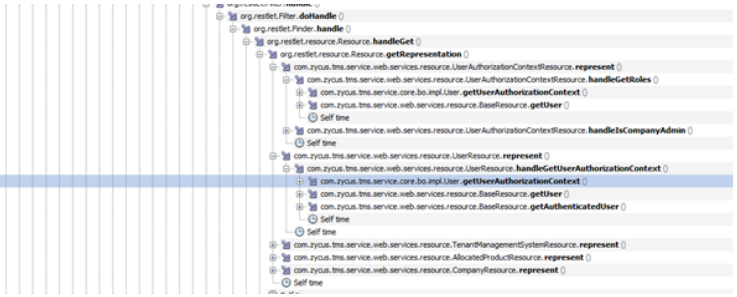

Result comparison with 10/20/30 users: (No static pages)

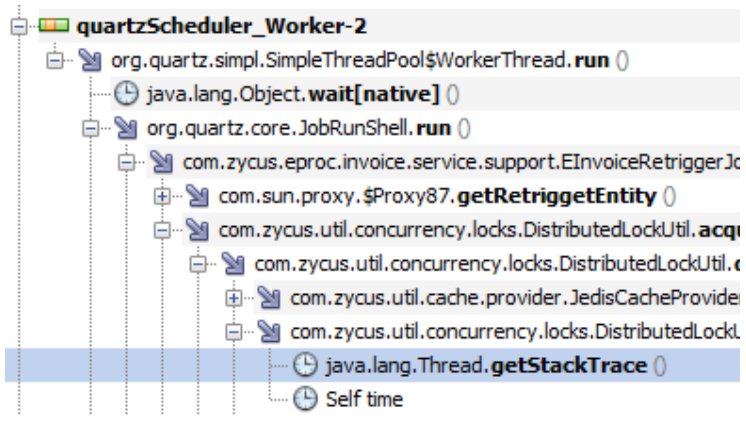


Response Time Data with Static Pages:

Load Generator	No Of Users	No Of Session Completed	Login Page	eProc Home Page		Logout Page

			Avg 90	Max	Avg 90	Max	Avg 90	Max
AWS	5	268	0.24(1.38)	30.1(4.04)	16.7(20.5)	42.6(43.5)	0.6(0.6)	0.17(0.17)
Local	5	171	0.15(1.91)	1.05(3.33)	14.4(25.1)	16.4(27.4)	0.14(0.14)	0.31(0.31)

	Issue	Recommendation
1	51 calls made to backed (Excluding static page calls).	Combine calls to the BFF layer. From BFF layer fan out the respective calls on underlying Java layer. Pattern in following https://community.apigee.com/questions/28886/how-to-implement-concurrentparallel-c
2	Multiple Call of https://ddeproclab.zycus.net/api/a/eproc/configs/getDetailsByLevel	Observed that around 9 calls of the same request body make this call as single call.
3	Fonts are served from internet "fonts.gstatic.com"	Fonts file to be served from Ngnix or CDN
4	Two Get calls during the login for: " https://ddeproclab.zycus.net/api/a/eproc/users/\${userId}/getScope "	'getScope' are making two call during the loading home page. This call is Get call only with same request.
5	Static contents is coming without gzip . High network bandwidth consumption.(Around 50 MBPS for 10 users)	Static contents are not sent as gzip.
6	Data for the Tabs which are not directly visible like requisition/purchase Order / Punchouts etc should not request data on page load.	Make calls from not visible tabs only when user clicks on the tab.
7	GetAuthorizationContex two call making in single thread stack trace while doing the getRepresentation	it should happen only once refer the attached screen shot for more details. 
8	getEprocSystemTenantConfig are coming from Redis	It is recommended to make it JVM cache. 

11	Avoid getting stackTrace see if some exception is thrown intentionally	<p>Avoid getting stackTrace see if some exception is thrown intentionally</p> 												
12	Observed that to almost 50 times more call than the session completed from BFF layer to TMS with API "/sso/servicehandler&action=validate" . Same was only 4 times in Classic.	<p>Reduce the number of calls to TMS from BFF for the "/sso/servicehandler&action=validate"</p> <table> <thead> <tr> <th>API</th> <th>Client-IP</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>/sso/servicehandler&action=validate</td> <td>10.90.4.37</td> <td>38,343</td> </tr> </tbody> </table> <p>In Classic same calls call get called from eProc that to only 3 times than session compl</p> <table> <thead> <tr> <th>API</th> <th>Client-IP</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>/sso/servicehandler&action=validate</td> <td>10.90.4.23</td> <td>12,952</td> </tr> </tbody> </table>	API	Client-IP	Count	/sso/servicehandler&action=validate	10.90.4.37	38,343	API	Client-IP	Count	/sso/servicehandler&action=validate	10.90.4.23	12,952
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13	Observed that to almost 50 times more call than the session completed from BFF layer to TMS with API "/sso/servicehandler&action=validate_session_reformed" . Same was only 4 times in Classic.	<p>Reduce the number of calls to TMS from BFF for the "/sso/servicehandler&action=validate_session_reformed"</p> <table> <thead> <tr> <th>API</th> <th>Client-IP</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>/sso/servicehandler&action=validate_session_reformed</td> <td>10.90.4.37</td> <td>38187</td> </tr> </tbody> </table> <p>In Classic same calls call get called from eProc that to only 3 times than session compl</p> <table> <thead> <tr> <th>API</th> <th>Client-IP</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>/sso/servicehandler&action=validate_session_reformed</td> <td>10.90.4.23</td> <td>12,810</td> </tr> </tbody> </table>	API	Client-IP	Count	/sso/servicehandler&action=validate_session_reformed	10.90.4.37	38187	API	Client-IP	Count	/sso/servicehandler&action=validate_session_reformed	10.90.4.23	12,810
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14	Observed that "/sso/servicehandler&action=validate_session_reformed" call get from eCatalog to TMS only during the DewDrops and not in classic.	Reduce the call from eCatalog to TMS in Home page.												
15	Observed that 22 times more call than session completed from eProc to CMD with API "/imaster/rest/cmd/scope/resolveOrgaStructureWithUserScope" same was only twice in Classic.	Reduce the number of calls eProc to CMD.												
16	Observed that /imaster/rest/cmd/scope/resolveOrgaStructureWithUserScope" more than 3 times than session completed from eCatalog and same was not in Classic.	Can we reduce the calls from eCatalog to CMD in home page loading.												
17	Observed that "/imaster/rest/cmd/exchangerate/searchCurrencyExchangeRates" calls from eProc to CMD has been increased to twice as compared to classic.	To check why the calls got increased as compared to classic.												
18	Load was not distributing on both the eProc java server.	Load should get distributed from BFF layer to both eProc Java server.												

CPU Utilization :



Top API Response Time from eProc/TMS/CMD:

Eproc					
URL Name	50th Percentile	90th Percentile	95th Percentile	99th Percentile	Average
/eproc/soa-services/restapi/requisition/filter	16,276.83	19,792.24	20,887.17	23,035.92	15,567.4
/eproc/soa-services/restapi/purchaseOrder/filter	5,388.70	15,265.30	16,759	18,710.32	7,098.88
/eproc/soa-services/restapi/previouslyUsed/items/filter	438	1,157.77	1,402.70	1,953.86	584.298
/eproc/soa-services/restapi/category/filter	12.583	919.333	1,300.69	1,890.25	284.529
/eproc/soa-services/restapi/punchouts/filter	81.714	859.554	1,227.96	1,961.06	285.944
/eproc/web/services/rest&method=master.components.currency.searchCurrencyExchangeRates	131.727	310.13	379.00	520.35	171.256

TMS						
URL name	50th Percentile	90th Percentile	95th Percentile	99th Percentile	Average	Count
/sso/tenant/userauthorization/getRoles	140.333	615.806	789.817	1,148	243.672	2,147
/sso/servicehandler	7.73	10	12	136.853	11.194	47,725
/sso/login	2	3	6	129.68	6.292	1,082

CMD							
URL name	50th Percentile	90th Percentile	95th Percentile	99th Percentile	Average	Count	Observation
/imaster/rest/cmd/scope/resolveOrgaStructureWithUserScope	17	72.051	148.804	273.444	34.683	11,139	This call are getting called multiple time so can we make this call as cache.
/imaster/rest/cmd/exchangerate/searchCurrencyExchangeRates	64.617	208.7	286.8	463.2	79.467	1,446	
/imaster/rest/cmd/category/searchCategories	19	92.4	140	263.96	36.566	1,384	
/imaster/rest/cmd/geography/getAddresses	6	11.15	36.533	234.62	14.876	1,432	
/imaster/rest/cmd/component/searchUOM	68.167	365.667	475.55	648.41	147.653	711	
/imaster/rest/cmd/component/searchCurrency	28	179.2	221.8	372.5	62.678	712	

CMD: API count on the basis of Client IP (Dew Drops) session Completed 730			CMD: API count on the basis of Client IP (Classic) session Completed 3907		
API	Client-IP	Count	API	Client-IP	Count
/imaster/rest/cmd/geography/getAddresses	BFF Layer	1,510	/imaster/rest/cmd/accounting/searchAllowedCategoryGeneralLedger		
/imaster/rest/cmd/category/searchCategories	eProc Java Layer	1,487	/imaster/rest/cmd/category/getCategoryGroupTree		
/imaster/rest/cmd/component/searchCurrency	BFF Layer	764	/imaster/rest/cmd/component/getCurrencyByCode		
/imaster/rest/cmd/component/searchUOM	BFF Layer	763	/imaster/rest/cmd/component/searchCurrency		
/imaster/rest/cmd/exchangerate/searchCurrencyExchangeRates	eProc Java server	1,528	/imaster/rest/cmd/component/searchUOM		
/imaster/rest/cmd/scope/resolveOrgaStructureWithUserScope	eCatalog Java Server	2,234	/imaster/rest/cmd/costing/searchAllowedCostCenters		
/imaster/rest/cmd/scope/resolveOrgaStructureWithUserScope	eProc Java server	16,364	/imaster/rest/cmd/exchangerate/searchCurrencyExchangeRates		
			/imaster/rest/cmd/geography/getLocations		
			/imaster/rest/cmd/scope/resolveOrgaStructureWithUserScope		
			/imaster/rest/cmd/scope/searchAllowedMasterEntity		

TMS: API count on the basis of Client IP (Dew Drops) session Completed 730			TMS: API count on the basis of Client IP (Classic) session Completed 3907		
API	Client-IP	Count	API	Client-IP	Count
/sso/login	10.90.4.60	1,781	/sso/login	10.90.4.60	8,64
/sso/servicehandler&action=invalidate	BFF Layer	853	/sso/servicehandler&action=validate	eProc Java Layer	12,5
/sso/servicehandler&action=validate	BFF Layer	38,343	/sso/servicehandler&action=validate_session_reformed	eProc Java Layer	12,8
/sso/servicehandler&action=validate_session_reformed	BFF Layer	38,187	/sso/tenant/abstractcompany	eProc Java Layer	4,25
/sso/servicehandler&action=validate_session_reformed	eCatalog Java Server	884	/sso/tenant/company	eProc Java Layer	4,25
/sso/servicehandler&action=validate_session_reformed	10.90.4.123	3	/sso/tenant/companyuser	eProc Java Layer	8,61
/sso/tenant/companyuser	BFF Layer	921	/sso/tenant/getUserByIdFromTMS	eProc Java Layer	4,30
/sso/tenant/getUserByIdFromTMS	eProc Java Layer	1,349	/sso/tenant/getUserByIdFromTMS	eCatalog Java layer	18
/sso/tenant/getUserByIdFromTMS	eCatalog Java layer	870	/sso/tenant/getUserInstance	eProc Java Layer	12,5
/sso/tenant/getUserInstance	BFF Layer	905	/sso/tenant/user/	eProc Java Layer	8,55

/sso/tenant/userauthorization	eProc Java Layer	1,345	/sso/tenant/userauthorization	eProc Java Layer	8,60
/sso/tenant/userauthorization	eCatalog Java layer	883			