

Concurrency governance cheat sheet

2 governance types are in place simultaneously



User-level limit

Defines limit per user and applies for specific authentication method and specific API. User-level limit defines maximum but does not guarantee minimum available due to account limit (10 requests for concurrent WS user (cWSu)* are not guaranteed).



Account-level limit

This limit applies to the combined total of SOAP Web Services (WS) and RESTlet requests per given account. Maximum request count is derived from the service tier, the number of SuiteCloud Plus (SC+) licenses and account type (developer accounts have base limit = 5).

API	Authentication Method				Service Tier	Account Base Limit*	1 SC+ Licence	2 SC+ Licence	10 SC+ Licence
	Request-level Credentials (RLC)	Login/Logout (L/L)	SSOLogin	Token-based (TBA)					
SOAP WS	1/10**	1/10	1/10	No limit per user	Shared, 3	5 concurrent requests for the entire account	5+1×10=15	5+2×10=25	5+10×10=105**
RESTlet	No limit per user	Not applicable	Not applicable	No limit per user	2	10	10+10	10+20	10+100**
					1, 1+, 0	15	15+10	15+20	15+100

* One concurrent WS user (cWSu) can be defined on employee record for each SC+ license you get
 ** 1/10 = 1 request/user OR max 10 requests/cWSu. You can have 1 concurrent request per user at given time OR maximum 10 concurrent requests if it is cWSu

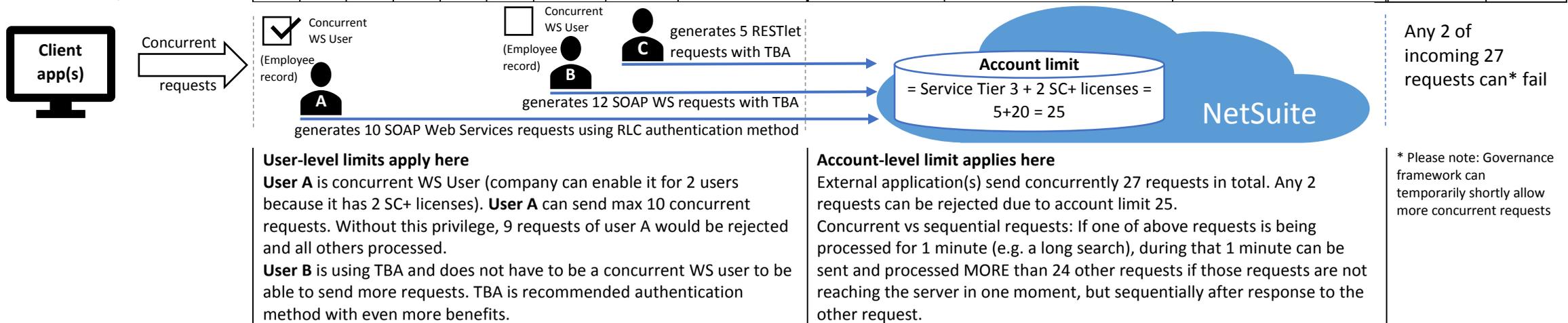
*The base limit is increased by 10 for each SC+ license. The number of SC+ licences may vary from 1 to many.
 ** Not a [standard license count](#) for this service tier

Sample Scenarios – how many concurrent requests can I have?

End users/Client application(s) are querying my company account with following amount of requests

Snapshot of all incoming requests at one time									Account			Requests status			
SOAP WS									RESTlet	Requests Total	Service Tier	SC+ License	Total Account Limit	Success	Fail*
RLC		L/L		SSOLogin		TBA									
user	cWSu	user	cWSu	user	cWSu										
2	n/a	-	n/a	-	n/a	2	-	4	Shared	0	5	4	0		
1	4	2	-	1	-	7	1	16	Shared	1	15	15	1		
-	n/a	-	n/a	-	n/a	6	2	8	3	0	5	5	3		
-	9	-	-	-	-	6	3	18	3	1	15	15	3		
-	10	-	-	-	-	12	5	27	3	2	25	25	2		

A scenario explained in detail:



See Help Center for [other scenario](#)

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Recommended Actions

- Analyse the frequency and level of concurrency peaks and consider rescheduling requests to be outside of regular peak times.
- Consider [if more SC+ licenses](#) are needed and learn on SC+ [settings](#).
- Handle the error codes in client application.
- Implement retry logic.
 - Retry gradually increasing the delay if more attempts needed.
- For non-concurrent users serialize your requests in client applications to not overlap.
- Use TBA to take advantage of a more flexible concurrency.
- Monitor trends in concurrency usage to prevent broken integrations (see Navigation table below).

Code example demonstrates basic handling of WS error codes

```
int i = 0;
int maxAttempts = 5; // try it 5 times, then fail for good

while (i < maxAttempts) {
    response = doWSCall();
    isSuccess = response.getIsSuccess();
    errorMsg = response.getErrorMsg();

    if (isSuccess == false && (errorMsg == WS_CONCUR_SESSION_DISALLWD || errorMsg == WS_REQUEST_BLOCKED)) {
        wait();
        i++; // try again
    } else {
        break; // end the cycle
    }
}
```

Method	Error codes	
	SOAP Fault	Error Message
Web Services + L/L or RLC	ExceededRequestLimitFault	WS_CONCUR_SESSION_DISALLWD
Web Services + TBA	ExceededConcurrentRequestLimitFault	WS_REQUEST_BLOCKED
RESTlet	HTTP error code: 400 Bad Request	
	SuiteScript error code: SSS_REQUEST_LIMIT_EXCEEDED	

Error can occur for any of the requests that exceed the limit at that moment

NetSuite navigation

What	Where
Account concurrency limit	Setup > Integration > Integration Management > Integration Governance
If account concurrency limit is enabled	
Total requests (number, ratio)	
Rejected requests	
Reports about rejected SOAP WS requests	Reports > New Search -> Web Services Operations
Reports about rejected RESTlet requests	RESTlet script record > Log
Details about SOAP WS requests that were rejected due to concurrency violation	Setup > Integration > Web Services Usage Log
Web Services performance dashboard	The Application Performance Management SuiteApp (link)
Concurrency Monitor dashboard, monthly/hourly overview (heatmap), charts showing concurrency usage with drill down possibility to seconds	
Scheduling of integrations	
Decision tree – considering additional license, what is appropriate account concurrency limit	Help Center article