

# FAQ — Licensing Enforcement Changes

UPDATE: InterSystems Webservice License Tracker, the utility to monitor web traffic to assist in determining license needs is now available in the [WRC](#).

## Contents

- Change in License Enforcement for Non-Core-Based Licenses ..... 1
- For Customers Who Have Already Upgraded ..... 2
- For Customers Prior to Upgrade ..... 3
- Understanding Message Traffic Volume ..... 3
- Concurrent Users and Enforcement ..... 4
- Additional Details on License Consumption ..... 5

## Change in License Enforcement for Non-Core-Based Licenses

**Q. What happened?**

**A.** Beginning with the release of InterSystems IRIS® data platform 2022.3, InterSystems corrected the license enforcement mechanism counting concurrent users to include inbound REST and SOAP requests.

**Q. What is the reason for this change?**

**A.** We made this change because customers have requested consistency between InterSystems Caché® and InterSystems IRIS® data platform in the enforcement of concurrent user licenses. This change aligns licensing enforcement for inbound REST and SOAP requests with our Terms and Conditions, and provides consistency moving forward across all InterSystems products.

**Q. What is the impact of this change?**

**A.** Due to this change, environments with non-core-based licenses that use REST or SOAP may experience greater license utilization after upgrading to version 2022.3 and later. Customers that upgrade to version 2022.3 and later may find that they have unintentionally exceeded user limits on their license and may have some of their traffic blocked.

**Q. Who does this affect?**

**A.** Customers using InterSystems products with non-core-based licensing could be affected. See below for additional details.

**Q. What happens if a customer exceeds the thresholds?**

**A.** The customer will get a <LICENSE LIMIT EXCEEDED> error message and might experience slow responses and blocked requests.

**Q. How can I tell if I have a concurrent user component in my license?**

**A.** If your license key has no concurrent-user limit (a “0” in the user field), you will **not** be impacted by this change after upgrading. Conversely, if your license key has a number other than “0” in the user field, you might be impacted. Customers upgrading from HealthShare® Health Connect, InterSystems Ensemble®, InterSystems IRIS, InterSystems IRIS® for Health, and InterSystems TrakCare® should check to see if they have concurrent user components in their licenses.

**Q. What if I don’t know how to administer licenses?**

**A.** Information about license management, including administration and troubleshooting, is in the InterSystems documentation for every product. For InterSystems IRIS, see [Managing InterSystems IRIS Licensing](#).

For Customers Who Have Already Upgraded

**Q. What do we do if we exceed the threshold?**

**A.** Contact the [InterSystems Worldwide Response Center \(WRC\)](#) and they will issue a new temporary (6 month) license key to eliminate the issue while we determine how to align your license usage with your contract. Our priority is to ensure that you do not experience any dropped messages or issues due to this change.

**Q. What do we do if we think we might exceed the threshold?**

**A.** Follow a similar process as you would if you’ve experienced a problem: contact your account representative or the [InterSystems Worldwide Response Center \(WRC\)](#) and they may issue a new temporary (6 month) license key to eliminate the risk while we work with you to determine your message traffic volumes. Our priority is to ensure that you do not experience any dropped messages or issues due to this change.

After being issued the new license key, customers should monitor traffic volumes over the 6-month period to track usage. Understanding the peak traffic load will allow us to work together to determine the best course of action to align license limits with actual usage. See below for details.

Customers in this situation can also scan their error logs for a <LICENSE LIMIT EXCEEDED> error message to determine if any message request had been denied prior to activating the temporary license key.

## For Customers Prior to Upgrade

### **Q. What should we do as we plan our upgrade?**

**A.** We recommend that customers test for this in a test environment prior to upgrading it in their live environment. In a load test using a post-2022.3 release with similar volume to peak real-life traffic, look for error messages indicating <LICENSE LIMIT EXCEEDED>. If these are detected, you should contact your account representative for proactive escalation.

If you have reasons for concern, you should contact your account representative for proactive escalation even if you have not conducted load testing. Our priority is to ensure that you do not experience any dropped messages or issues due to this change.

## Understanding Message Traffic Volume

### **Q. With this change, how can we determine the expected license capacity that is needed to run our application?**

**A.** The best way for you to know your volume is to have measurements in place in your environment – for example, API management software or web traffic management software that monitors peak usage over time.

### **Q. We do not have a way to monitor message traffic volumes. What should we do?**

**A.** InterSystems has released a web application utility, the Webservice License Tracker, designed to estimate peak web traffic license consumption. Customers can deploy the tool and send the output (called a license sizing report) to InterSystems monthly. The highest peak measured during the monitoring period will help customers and InterSystems correctly understand their usage and provide transparency for new license limits and proactively provision a license prior upgrade.

To download and set up the utility:

1. Download the **Webservice License Tracker** from the Worldwide Resource Center (WRC) [InterSystems Support Tools](#) page.
2. Unzip the **Webservice License Tracker** file.
3. Open the README file for additional instructions.
4. Review [this short video](#) for an overview of licensing enforcement changes and the utility.

## Concurrent Users and Enforcement

### **Q. How does InterSystems count concurrent users?**

**A.** “Concurrent user” is defined as follows:

- Each licensed user can have up to 12 concurrent connections or processes as described in the Terms and Conditions.
- Each person connecting from a single device counts as one user. A person connecting from multiple devices simultaneously counts as multiple users.
- In addition to people, each device (other than standard computer peripherals) counts as one user. For instance, each medical device, scientific instrument, piece of factory equipment, or interface counts as a user.
  - People or devices count as users whether they connect to the system directly or indirectly. If connection pooling or other hardware or software is used to multiplex access to the system, each person or device still counts as an individual user.

### **Q. How is this enforced?**

**A.** Beginning with release 2022.3, our enforcement of this in our software is as follows:

- An active human user or connected device (unique IP address) counts as a user.
- A user may have up to 12 concurrent connections as documented in the Terms and Conditions.
- When an endpoint (unique IP address) exceeds 25 simultaneous connections, it is considered a proxy, at which point each connection is counted as a separate user.
- For devices, sessions using Web Services or REST are also counted as user sessions (with version 2022.3 and later).

This enforcement is the same whether the Web Services or REST calls are used for database access or for integration.

### **Q. How did InterSystems enforce this prior to version IRIS 2022.3?**

**A.** Historically, Caché enforced licensing for Rest and Web Services. Ensemble did not enforce licensing for those two technologies. Prior to IRIS 2022.3, InterSystems did not turn on enforcement for Rest and Web Services. The integration of the Ensemble product suppressed this enforcement.

Rest and Web Service licensing is now enforced with InterSystems IRIS 2022.3.

### **Q. We are a Health Connect customer and our license is based on HLU. Could we be impacted?**

**A.** Health Connect customers may have a 25-concurrent-user limit regardless of the number of HLUs. Because this is a user-based license and not a core-based license, you are potentially impacted.

## Additional Details on License Consumption

### **Q. What error code do applications get if they are making REST or SOAP requests and hit the license limit?**

**A.** SOAP requests receive: 500 with an ERROR: #5915: Unable to allocate a license

REST requests receive: 503 with Service Unavailable

### **Q. What if we publish a web service and permit anonymous requests?**

**A.** Public web services that permit anonymous requests will count all anonymous requests as if they were from the same user, up to the point that there are many simultaneous connections, at which point the endpoint is considered to be a proxy and each connection is counted as a user. This means that such services are more likely to exceed licensing limits.

Even web services that require authentication can be at risk of hitting the threshold if processing of a request triggers several long running processes.

These cases are difficult to troubleshoot because they are both traffic-dependent and workload processing-dependent. If you have reasons for concern, you should contact your account representative.

### **Q. What about CSP connections?**

**A.** CSP connections are a special case for logins. InterSystems strongly recommends that CSP applications use the `%CSP.Session.Login()` method of the [%CSP.Session](#) class to identify a user for licensing purposes. If they do not, the web session ID is used as the license user ID, and each session consumes a license unit. In many cases, this is inaccurate; for example, a user can have several browser windows open concurrently.

For some applications, a user can connect via several different pathways. In this case, you can use the `%CSP.Session.Login(username, password)` method to perform an explicit license login for the session.

When a CSP session ends (from a logout or timeout) and the user has visited only one page, CSP does not immediately release the license. Instead, CSP reserves the license for that user for a grace period of up to 10 minutes.

### **Q. How are anonymous SOAP and REST calls treated?**

**A.** Anonymous SOAP and REST requests (requests that do not require instance authentication) consume a license unit for minimum of 10 seconds. Any SOAP or REST request that identifies the user requires a license because it is considered a “user request.”

### **Q. How does InterSystems IRIS count background processes?**

**A.** InterSystems counts background processes in the same way as all other processes. They are on behalf of a user and that user counts in our concurrent user definition.

**Q. What about tasks?**

**A.** Each task created using the **New Task** page (System Operation > Task Manager > New Task) (see [Using the Task Manager](#)) consumes a license unit; the license user ID is based on the InterSystems IRIS username specified by the value of the **Run task as this user** selector and the loopback IP address, 127.0.0.1, which is converted to the host IP address. This ensures that tasks running as a given user on different hosts are counted together against the maximum limit of processes for that user discussed in [Identifying Users](#).

**Q. Are there any other special cases?**

**A.** Processes started by the user startup routines (^%ZSTART and ^ZMIRROR) are another special case. The process running the routine has no parent process. Therefore, a login is performed for the user ID, User Startup, before the routine is called. Processes started by the Job command from the routine have this user ID.

If you prefer, you can call `$System.License.Login(UserId)` from the routine to change the user ID. This procedure means that the routine can start as many as one less than `maxconn` background processes and only consume one license.

If, according to the license terms and conditions, these processes should have a separate license (for example if they drive a piece of laboratory equipment that requires a separate license), you are required to call `$System.License.Login(UserId)` to obtain a license for an appropriate user ID.