New Features of SuperMap iServer 8C(2017)

Better performance, better service

SuperMap iServer 8C(2017) has made great improvement on service performance, not only the service usability of GIS service multiple instance has been improved, but also better service can be provided by constructing front processor. Meanwhile, the new service dispatch extension module provided by SuperMap iServer 8C(2017) allows easier connection with third-party platform. Vector styles of map give better viewing effects.

GIS service supports multiple instance: more reliable, more effective

Based on micro-service architecture, SuperMap iServer 8C(2017) supports activating multiple instances on GIS service. After activation of multiple instance, SuperMap iServer 8C(2017) will divide multiple service instances, every service instance occupies one isolated process (independent port), and services are mutually isolated and provide complete GIS functions to respond service requests.

For example, for map-China/rest service requests, in the single instance mode, system only has one port with name 8090 to respond. After activating 3 instances, there are instances with port name of 8091, 8092, 8093 to respond the service requests. Therefore, when there are requests of high-parallel situations, multiple instance can improve service quality. Meanwhile, the instances have mutual backup copies, when one of these has malfunction, the request will be transferred to other instance to ensure the usability of service.

Before activation of multiple instances in GIS service- waiting in queue
After activation of GIS multiple instances in service – parallel response to request

In addition, with the concept of heterogeneous service of micro architecture, service instance can also be heterogeneous. In a simple way, there are different service contents in different instance. Like the instances of port 8091 and 8092 provides map-China/rest service while port 8093 provides map-world/rest service.

Heterogeneous service instance means unequal of service instance, so the users can decide service instance number according to different service loading to maximize the utilization of hardware.

Heterogeneous service instance

iClient polling mechanism helps to construct better GIS application system

SuperMap iClient 8C(2017) for JavaScript has new polling mechanism. If you have already deployed multiple GIS servers, when processing user map service requests, SuperMap iClient will dispatch these responses to different servers, making servers process the requests to speed up user access speed; for query services, SuperMap iClient can request on servers, if the target server is not available, it will skip the
server and then send to other servers till get response, which greatly improved the service usability.

**iServer + iExpress + iClient combination of front processor to improve system performance**

In the front processor solution, SuperMap iExpress as the front processor of the client, processes requests on client through service agent, cache, technologies. This avoids direct interaction between client and GIS service center, making secure isolation of GIS service center. Furthermore, if you deploy multiple SuperMap iExpress and combine with SuperMap iClient polling mechanism, it avoids single-point failure to ensure the usability.

![Front processor diagram](image-url)