Question / Problem:
What are the default communication intervals between the different Kofax RPA (Kapow) components?

Answer / Solution:

Management Console <-> Design Studio

Most connections are "on demand" type of connections and are started when robots and other resources are synchronized with Design Studio (to/from Management Console).
Also, the Design Studio will make an initial connection to the Management Console when it starts (for licensing information - to check for Design Studio seats available).

Afterwards, every 10 seconds, Design Studio will send a keep alive message to the Management Console and refresh the license (to let the Management Console know that the Design Studio seat that it got is still in use and from where - the IP of the host).

Management Console <-> RoboServer

Every second:
Management Console pings all RoboServers to see if they are still online. It tries to do this every second, but if there are many RoboServers it may do it less frequently.

A RoboServer that is online will respond to this ping and then Management Console will quickly send a new request asking the RoboServer for statistics (e.g. running robots and the other information to display in the Management Console GUI >RoboServers tab). Roboserver will then respond with this information.

Every minute:
Management Console sends activation requests (licensing information) to the RoboServers.
There is also a socket connection from Management Console to RoboServer where execution requests and results are sent (this depends on how often robots are started/stopped).

**Management Console <-> Desktop Automation**

At regular intervals (5 seconds by default), the Desktop Automation connects to the Management Console and sends the status. It is an HTTP request with a small JSON payload.

**Desktop Automation <-> Design Studio/RoboServer**

Design Studio/RoboServer connects with a TCP connection to the Desktop Automation and this is alive throughout the robot run. Commands and results are send back and forth but the bandwidth needed for communication is limited as images are rarely sent.

In the case of Design Studio and if the Desktop Automation Editor is open, Design Studio will connect via TCP on a secondary port (streaming port). On this connection images and tree changes are sent, therefore this connection has somewhat higher bandwidth needs depending on the application.

### Applies to:

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