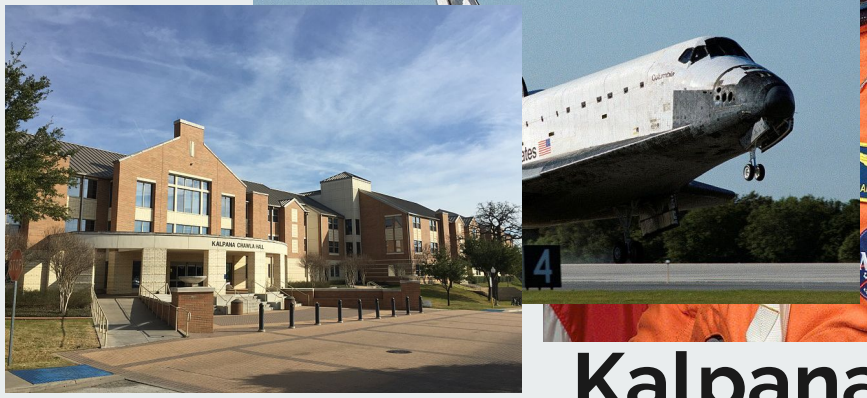
#OurGaintsAreFemale

Astronaut & Engineer

First Indian origin Female to enter Space

Robotic Arm operator



Kalpana Chawla

Ajay

Lead Test Engineer with Valeo Vision Systems,

Production testing and qualities for camera and ECU manufacturing in automotive space.

Spare time, develop plugins in LabVIEW.

Door to SaaS World

Python integration & framework used for connecting LabVIEW to SaaS world

AJ

Stay tuned & Don’t forget to hit that bell icon & Subscribe button

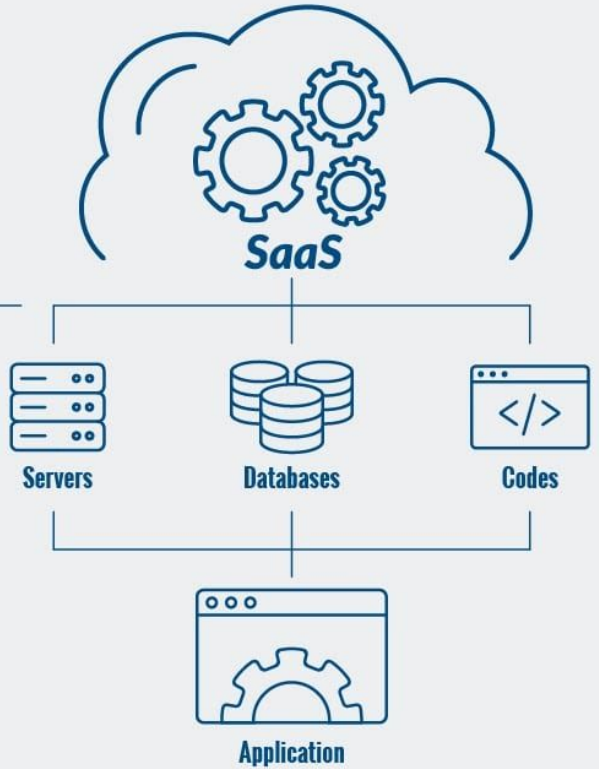
Welcome to the world of Software as a Service

Can you name few SaaS service that's your favourite or that you known of?

What is SaaS?

What is SaaS?
(Infrastructure as a Service)

Software as a Service is based entirely on the Internet, and it is an approach to software distribution by which software providers host a combination of servers, databases, and code to create applications that can be accessed by users from connected devices. Software as a Service (SaaS) brings the power of a firm's workflow to any user anywhere in the world at anytime.



SaaS Software

VS

Traditional Software

Subscription

Users subscribe to the software without paying any money up front

One-time fee

Users purchase the software up front and install it on their own computers

Multiple devices

Applications can be used across multiple devices with a single login, the application can be updated online instantaneously

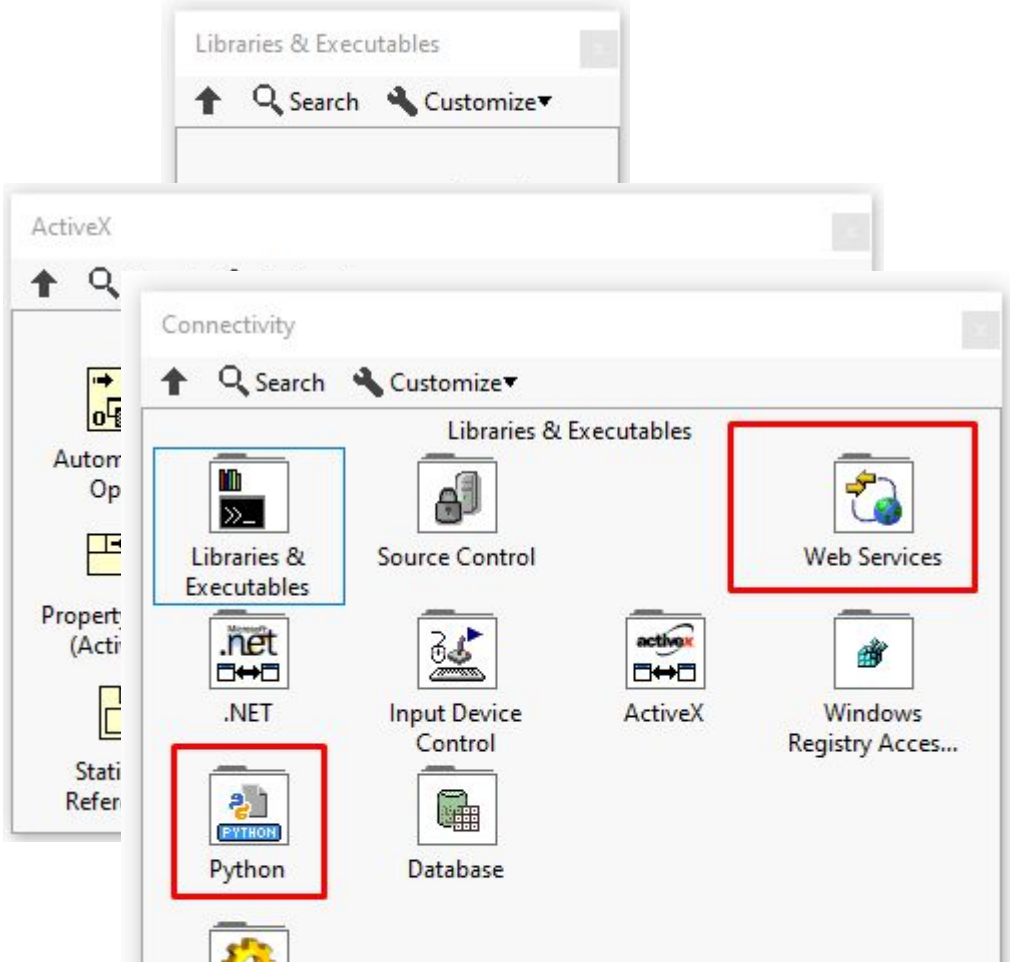
Single device

Licensed individually and usually limited to a single device and when updates come out, they must be downloaded or purchased and installed

What does it mean to our LabVIEWers?

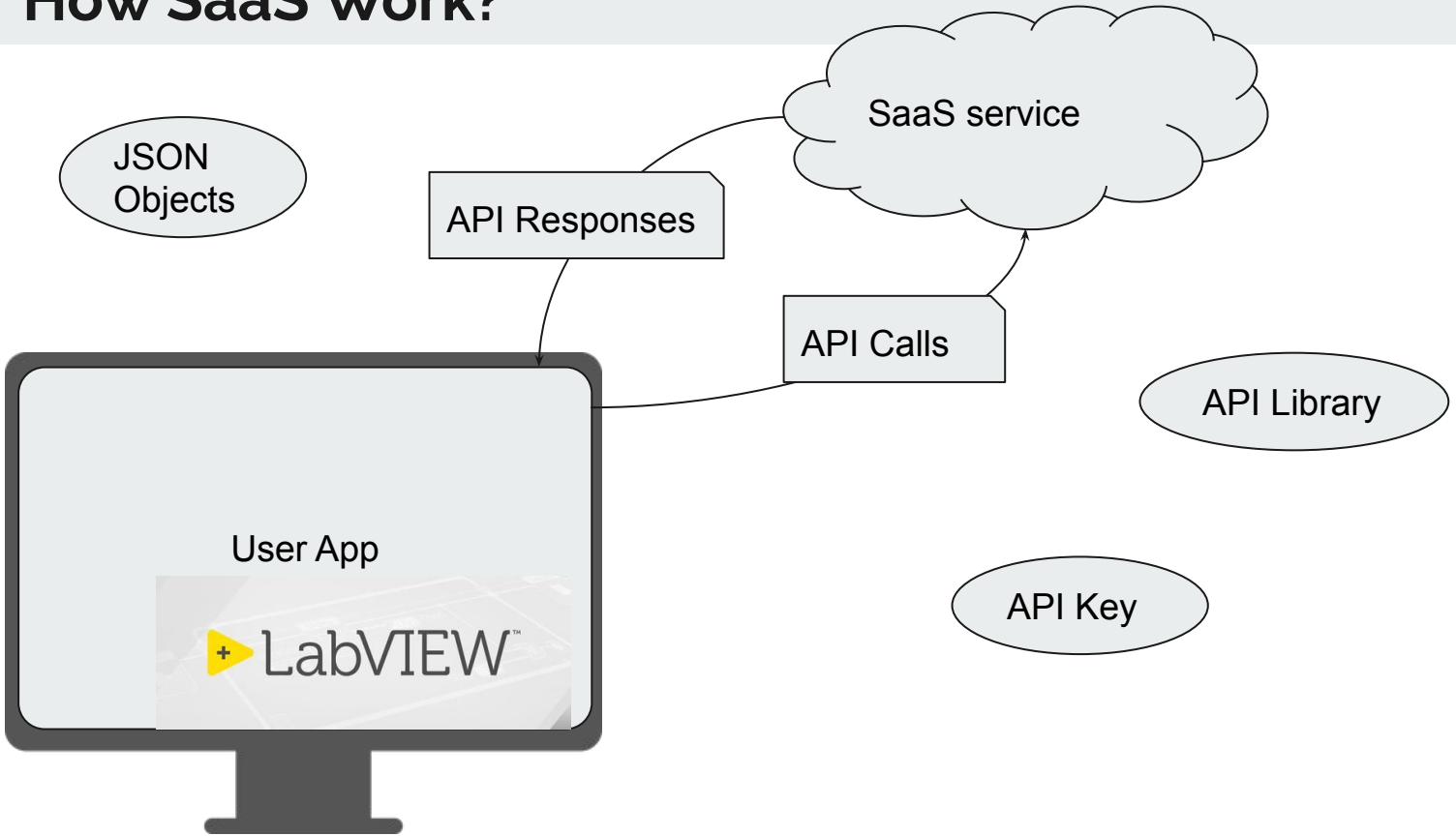
Traditionally we used various LabVIEW connectivity to connect to variou software locally in machine.

Now we started getting more connectivity to web based services



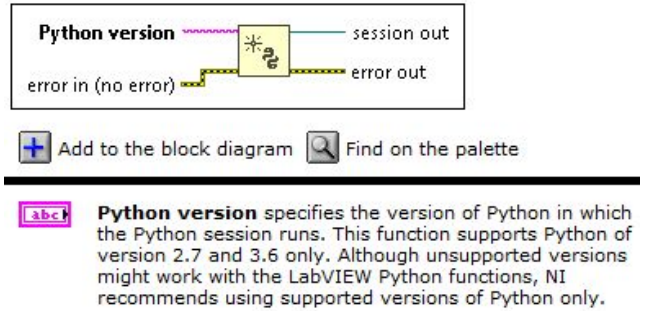
Traditional Software turning in to SaaS

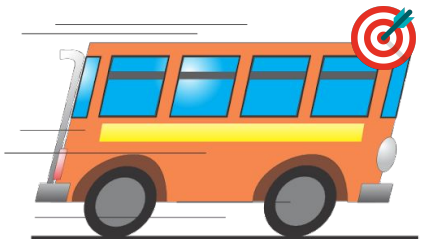
How SaaS Work?

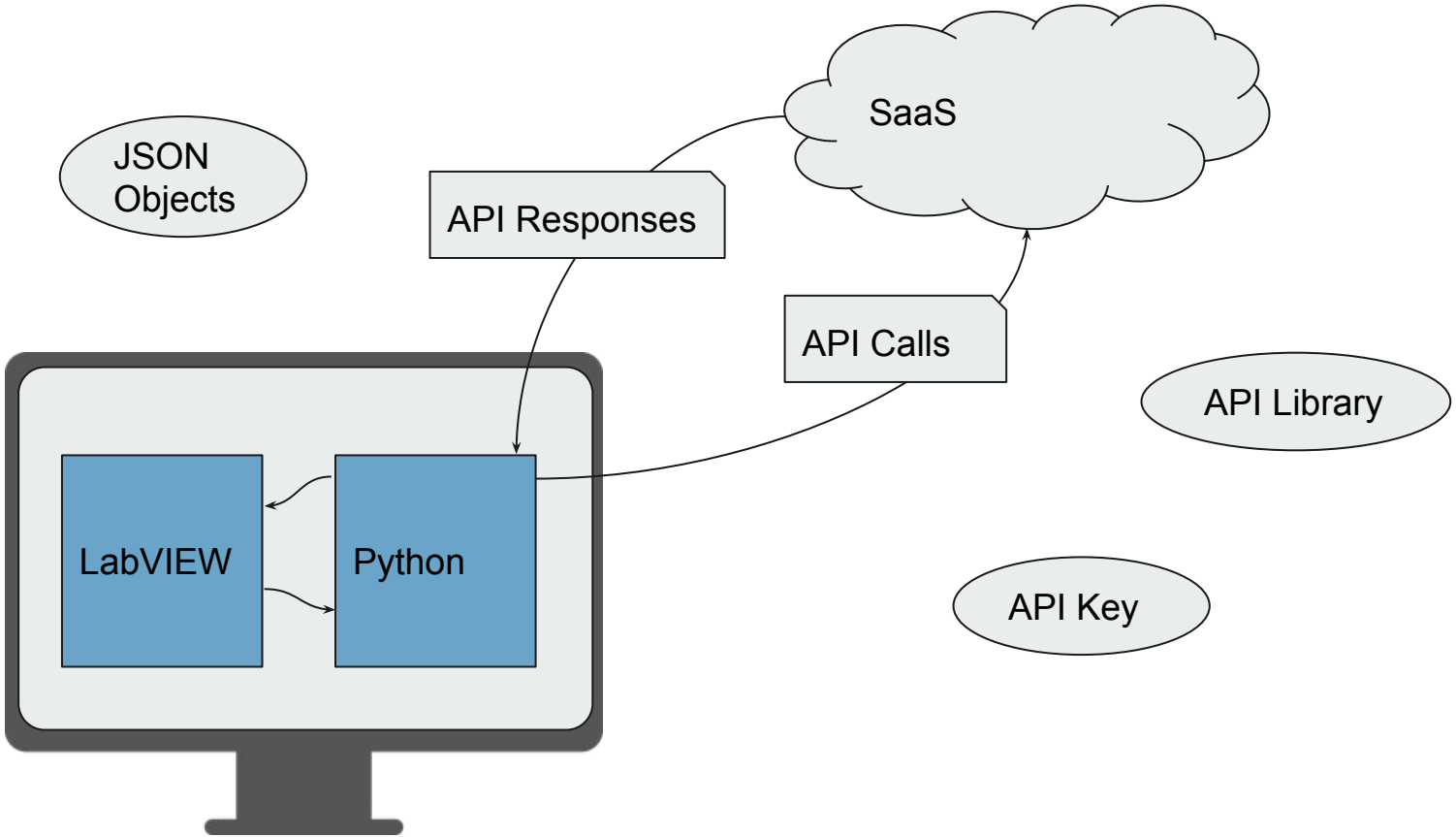


LabVIEW Direct Integration Challenges

- SaaS APIs usually released in python packages
- Python version issues for specific SaaS APIs
- Complex JSON data & its maintenance
- A moving target is best shot in the same moving platform



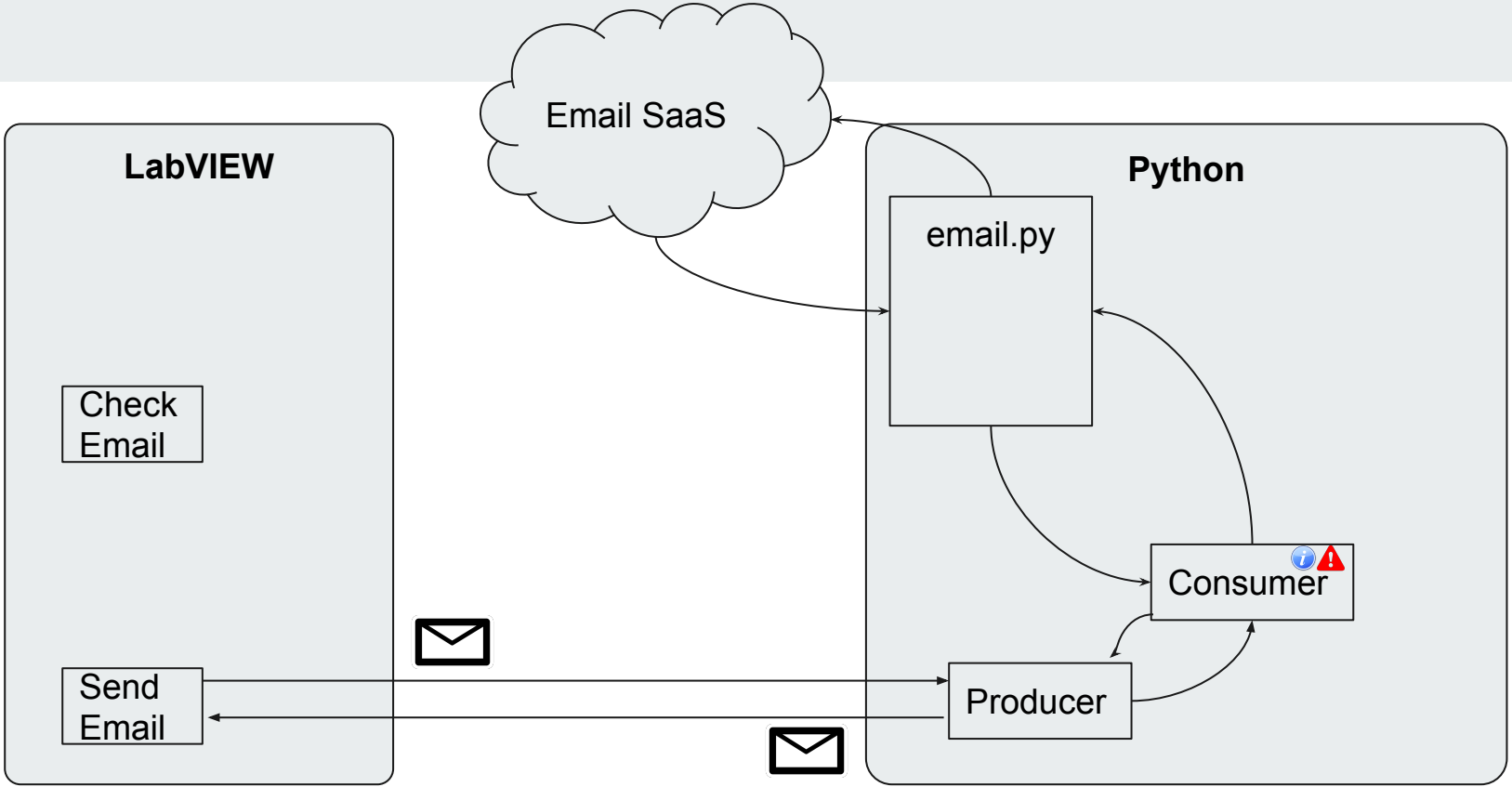



JSON
Objects
SaaS
API Responses
API Calls
API Library
LabVIEW
Python
API Key

Why Python Layer?

- Pretty much every SaaS product support Python API
- Easy to read, write and learn
- Unbelievable community support, online Q&A for any issues from very simple Qs to complex Q's
- Object orientation is quite simpler

LabVIEW & Python



LabVIEW & Python Architecture

Object References

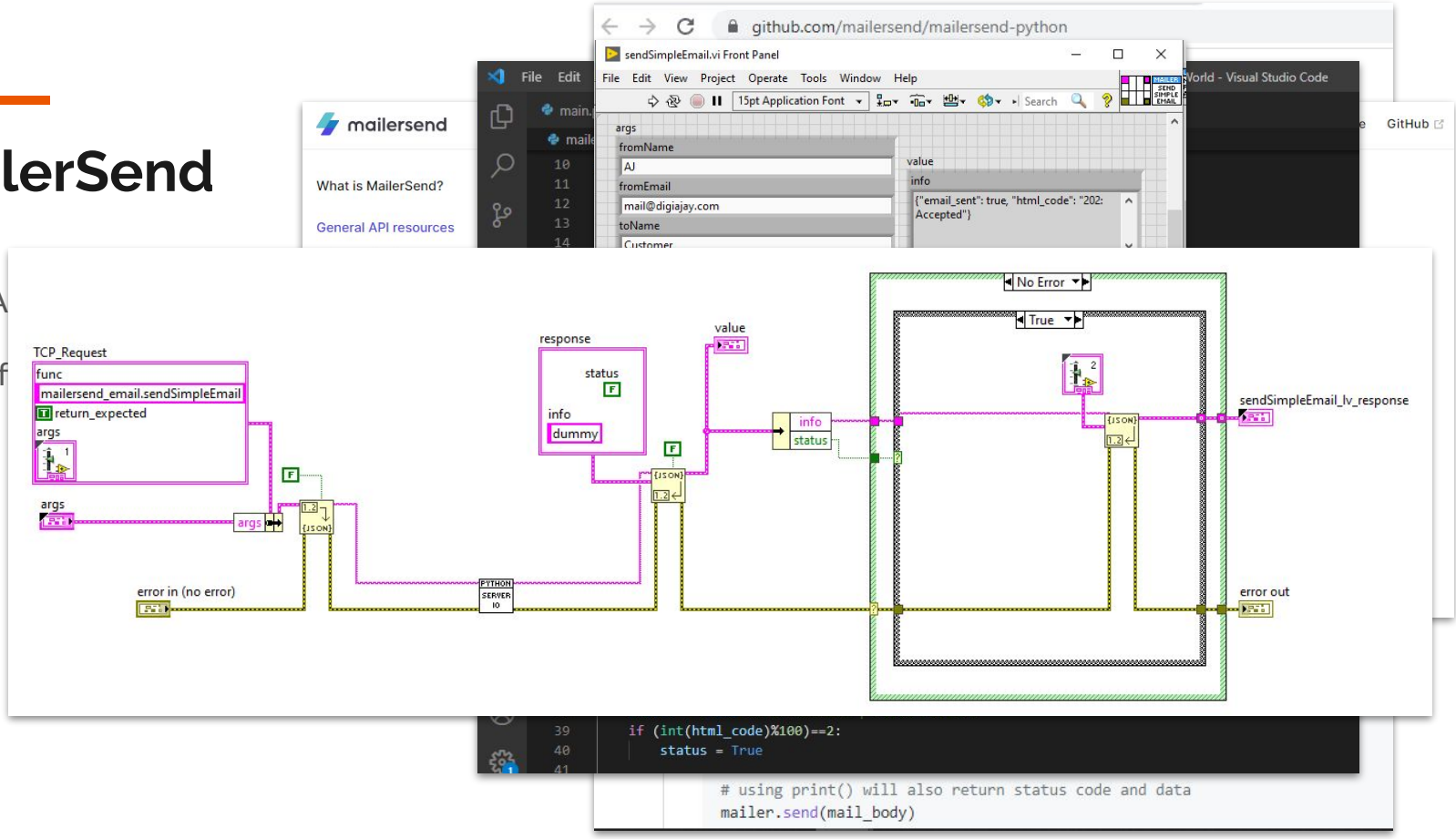
- Sockets opened
- API object opened
- All of them remain opened if we go with this method

Demo : An Email API

MailerSend

Go to A

Check f



Demo Video

How can we use
producer consumer in
Python
to integrate
SaaS
sevices with
LabVIEW
application via tcp/ip
socket messages
SaaS
20

Standalone Executable

```
>>> pyinstaller yourprogram.py
```

Questions & Clarifications

Thank You