How to use Key Manager tool

App infra offers keybag obfuscation tool which obfuscates the keys or credentials. This is not part of app infra software component.

A MAC application is developed which takes service discovery excel as input which contains keys in a specific service id and produces two output one among them is obfuscated key bag json to be placed on the app side and the other one is same excel updated with indexes assigned to those keys which is uploaded to service discovery cloud.

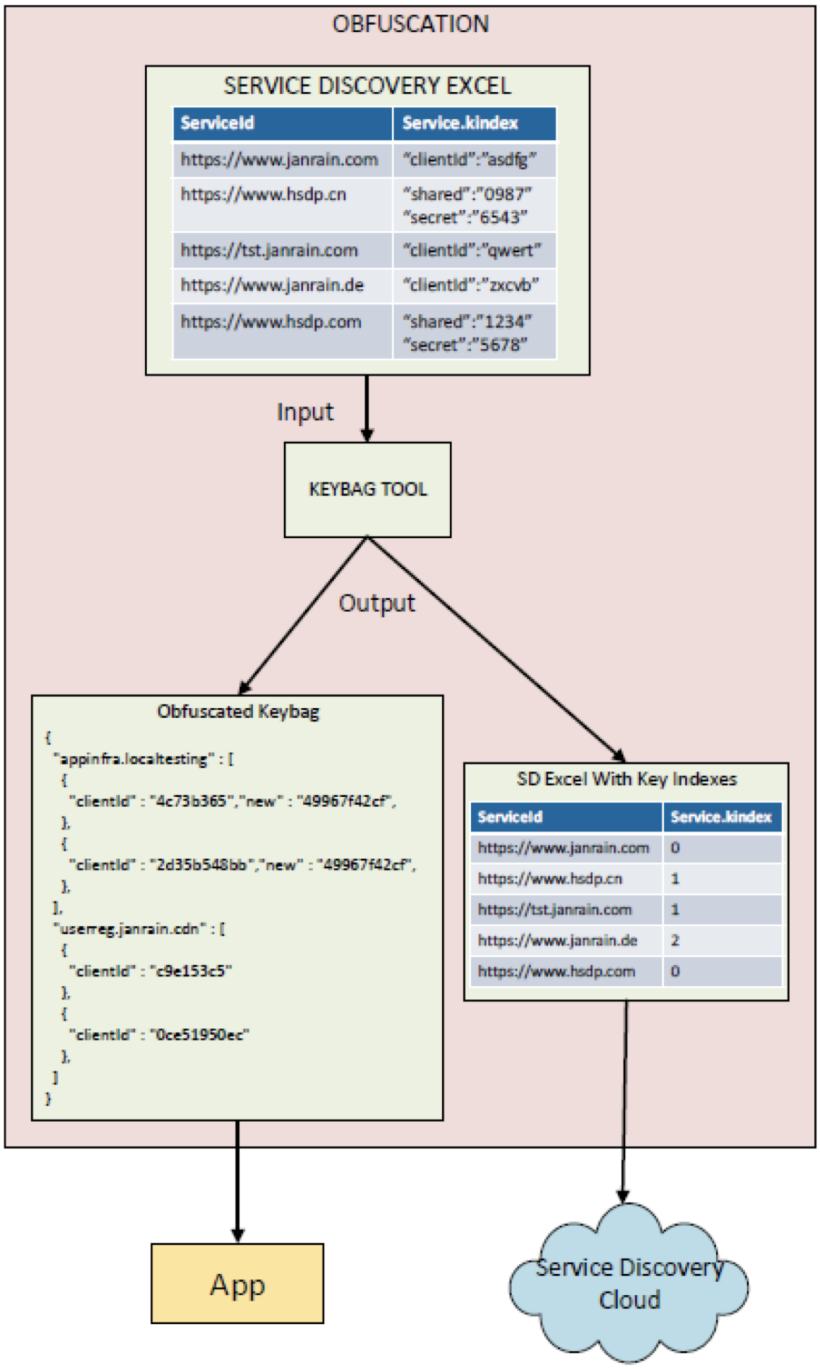
The tool applies LFSR algorithm to obfuscate the key and the seed is dynamically generated based on service id name, index and key name.

Prerequistes:

1. Propositions are expected to define a service id appending with ".kindex" and assign keys like shown in below diagram.

Ex: If there is a service id "abc.def" which contains service URLs, keys should be defined in another service id called "abc.def.kindex".

1. Though the tool automates the generation of indexes to the keys, it is the responsibility of propositions to maintain those indexes in service discovery cloud so that it is well aligned with client side (key bag on app side) by doing an impact analysis using staging environment on current and future releases of the apps in playstore.



Running the tool

Key bag tool is part of Appinfra repo. (ssh://tfsemea1.ta.philips.com:22/tfs/TPC_Region24/CDP2/_git/ail-ios-appinfra)

The xcode project path: /Source/KeyManagerTool/KeyManagerTool.xcodeproj

Mac application path : /Binary/KeyManagerTool.app

When we run the tool the below screen will appear

When we select the file and pressing encrypt will ask to save the json and csv files. This json file should be bundled with the application and csv can be uploaded to service discovery server.

Working

Input to the tool is the service discovery excel sheet in csv format. The keys should be placed in a separate column with service id : <service id>.kindex. For example if we want to define keys for service id "appinfra.testing" then there will be two service ids in the excel "appinfra.testing" and "appinfra.testing.kindex". former will contain the URLs and later will contain the key values in json format.

	A	B	C	D	E
1	Locale	Tag	Environment	appinfra.testing	appinfra.testing.kindex
2	ar_RW	apps++env+acc	Acceptance	https://philips.com	{"key1":"value1"}
3	ar_RW	apps++env+dev	Development	https://philips.com	{"key2":"value2","key3":"value3"}
4	ar_RW	apps++env+prod	Production	https://philips.com	{"key2":"value2","key3":"value3"}
5	ar_RW	apps++env+stage	Staging	https://philips.com	{"key2":"value2","key3":"value3"}
6	ar_RW	apps++env+test	Testing	https://philips.com	{"key2":"value2","key3":"value3"}
7	bg_BG	apps++env+acc	Acceptance	https://philips.com	{"key1":"value1"}
8	bg_BG	apps++env+dev	Development	https://philips.com	{"key1":"value1"}
9	bg_BG	apps++env+prod	Production	https://philips.com	{"key1":"value1"}
10	bg_BG	apps++env+stage	Staging	https://philips.com	{"key1":"value1"}

The tool will generate obfuscated Key bag json and actual service discovery csv file. The keys will be replaced with URL(with keyindex) in the csv file. Keyindex are integer values mapped to keys.

The above input will be converted to

```
{
  "appinfra.testing" : [
    {
      "key1" : "45957465f82f"
    },
    {
      "key3" : "3684fee25d57",
      "key2" : "f1a1decb58b9"
    }
  ]
}
```

	A	B	C	D	E
1	Locale	Tag	Environment	appinfra.testing	appinfra.testing.kindex
2	ar_RW	apps++env+acc	Acceptance	https://philips.com	https://philips.com/0
3	ar_RW	apps++env+dev	Development	https://philips.com	https://philips.com/1
4	ar_RW	apps++env+prod	Production	https://philips.com	https://philips.com/1
5	ar_RW	apps++env+stage	Staging	https://philips.com	https://philips.com/1
6	ar_RW	apps++env+test	Testing	https://philips.com	https://philips.com/1
7	bg_BG	apps++env+acc	Acceptance	https://philips.com	https://philips.com/0
8	bg_BG	apps++env+dev	Development	https://philips.com	https://philips.com/0
9	bg_BG	apps++env+prod	Production	https://philips.com	https://philips.com/0
10	bg_BG	apps++env+stage	Staging	https://philips.com	https://philips.com/0

The json file will contain array of keys for that particular service id. Generated csv file will contain URL with key index. This keyindex will point to the key in the json with the same array index.

Note : Updating or adding new keys to locales is not taken care and it is proposition responsibility