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System Maintenance

Licensing, Internal certificate structure, upgrade, rollback, backup and restore, transplant configuration, roll-out installation

AppGateSDP

Access, evolved.

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Overview

- Licensing
- Rolling out an AppGate Installation
- Upgrading an AppGate System and Roll-back
- Backup and restore of a AppGate system

Licensing

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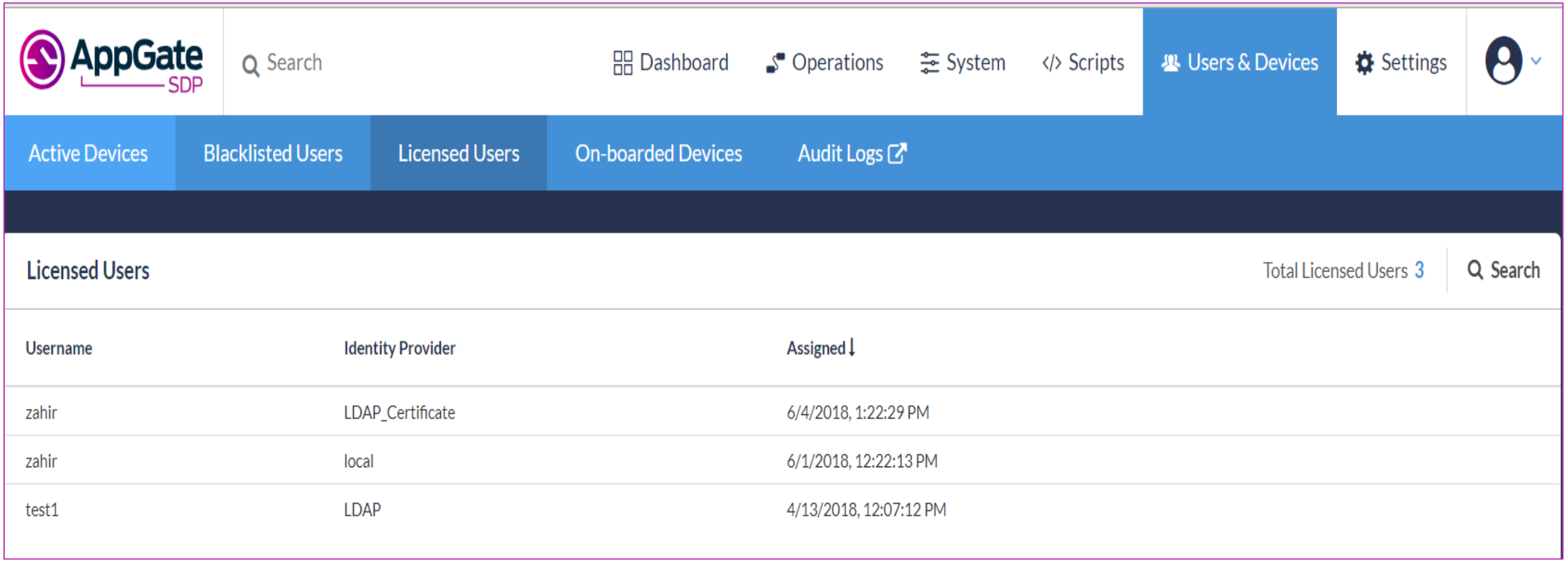
Licensing (1/2)

- AppGate runs on a appliance
  - Buy a HW appliance from Cyxtera to run on
  - Pay-as-you go from cloud market places, or bring you own license
  - Run on premise virtualized appliance from Cyxtera
- License Model:
  - Named license per unique user.
- Unique users can connect n-times consuming only 1 single license

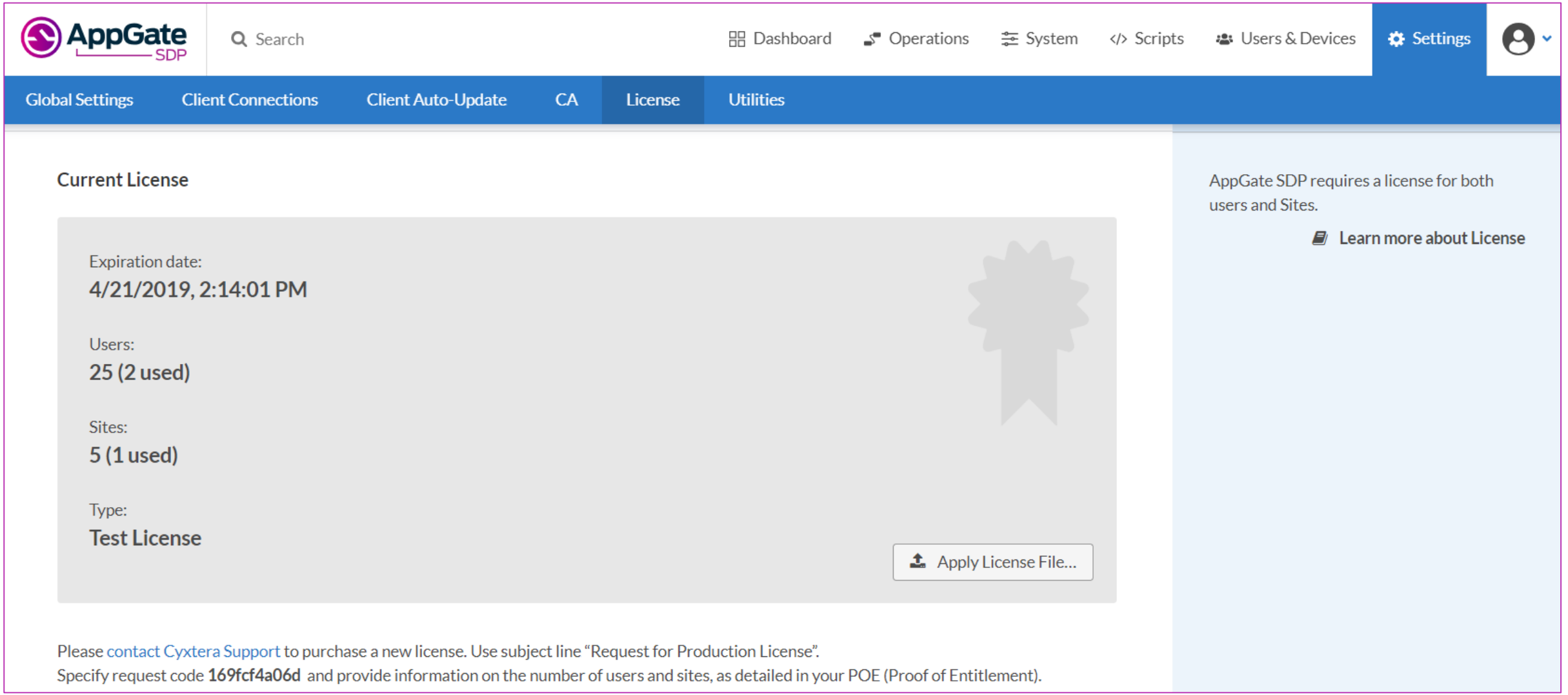
Licensing (2/2)

- You license for:
  - Users, incl. 24/7 support
  - Sites, incl. 24/7 support
  - HW maintenance, yearly up to 3 yrs.
- Default license on AppGate:
  - 2 Users
  - 1 Site
- Adding a license will **replace the** current license
- High Availability/multiple gateways **no need** for a license.

Example: Licensed users



License management in the UI



Certificate Structure

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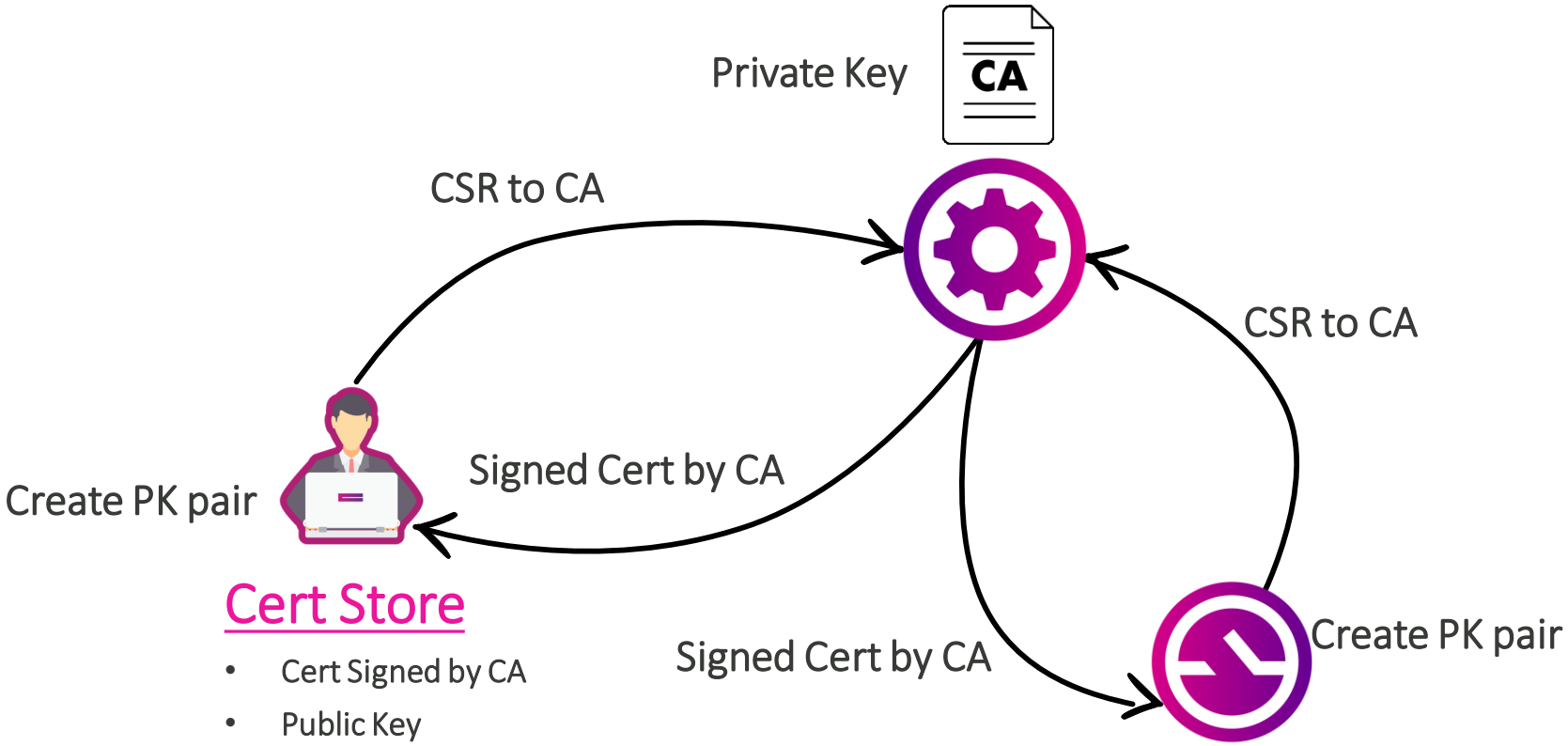
Certificate Structure



Cert Store

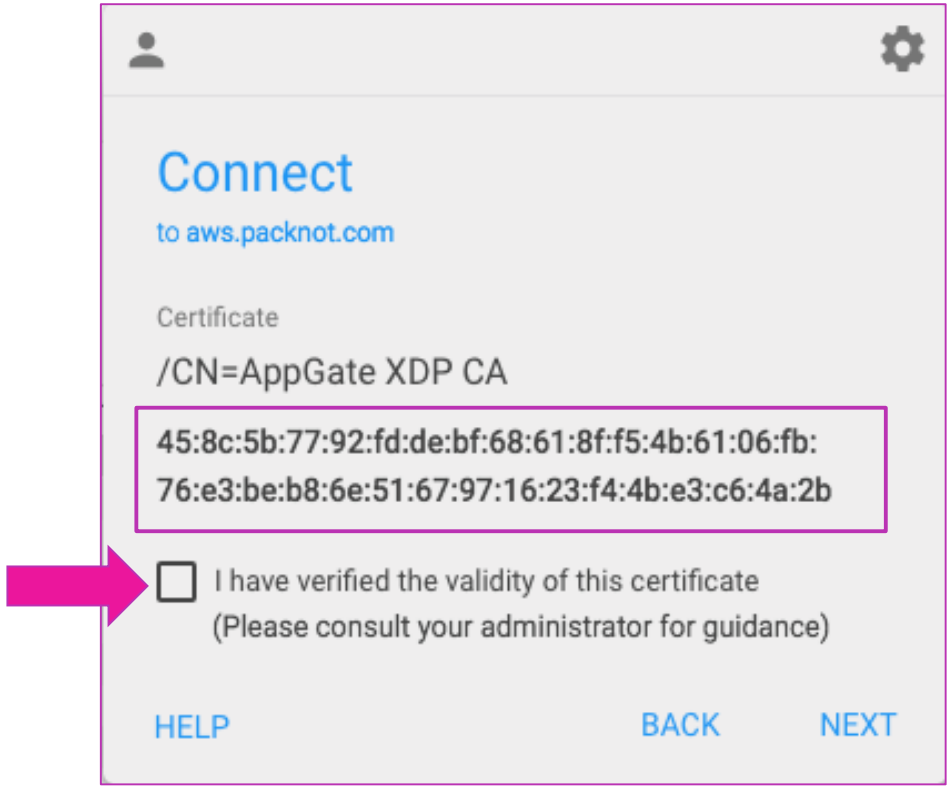
- Cert Signed by CA
- Public Key
- Private Key
- Cert from CA/Puk

Local

- Cert Signed by CA
- Public Key
- Private Key
- Cert from CA/Puk

Good to know

- CA certificate can pushed to cert stores
- Certificate renewal
  - Change of static IPs on interfaces
    - Not if DHCP as in NAT/cloud
  - Change of Hostnames (Controller)
    - Peer interface
    - Client interface
- Certificates are self signed
- Currently not possible to add own cert as the signing authority



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Rolling out an AppGate installation

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Rolling out clients first time - preconditions

- There is an installation on place aka "Proof Of Concept"
- You have an adoption group of users you are rolling out first to
  - People with different job functions
  - People which are most reflecting the overall population of users
- Clean install requires Admin privileges

Requirements

- Port:
  - 443: clients connect to appliances
- SPA:
  - Application aware (layer 4) firewalls must not drop the SPA handshake package
    - Allow TCP on port 443
- List of supported Operating system:
  - Check Cyxtera site
- Check full pre-install check list in the manual

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Upgrade the AppGate System
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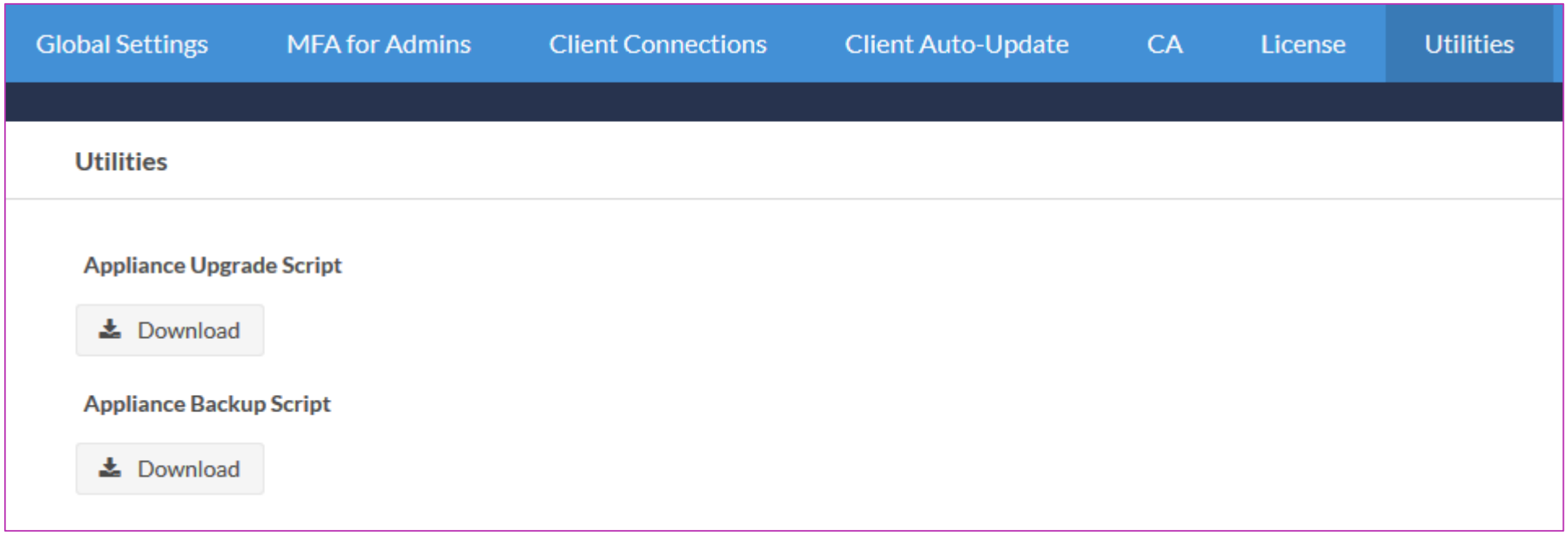
Upgrading a system

- Run the upgrade script ,otherwise do it manually



Roll back

- Make sure you have always **IRMC (Management console for HW Appliances)** in place or access the **terminal console for VM Appliances**
- Reboot and use the GRUB menu
  - Only two choices: current | previous
- Or do manually, configure partition NR
  - Find the active partition nr:

```
cz@owl-1:~$ cat /mnt/state/volume-number
1
```

  - `cz-install -n N`, where N= {1|2}
- Note you booting into another partition:
  - Not the same state
  - Useful when rolling back to an old version after upgrading

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Backup & Restore
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Backup & Restore AppGate

- It's meant for the Controller
- **cz-backup**: Backups everything on the controller
  - Zip file

```
cz@sdp:~$ sudo cz-backup 26-sep-2018
[sudo] password for cz:
Starting backup of sdp.appgate.lab...
Dumping database...
Creating backup archive...
tar: Removing leading `/' from member names
Backup of sdp.appgate.lab done, the backup file was saved to /home/cz/26-sep-2018
cz@sdp:~$
```

- You can run the backup script that performs various types of backup from just one Controller to the entire Collective

Backup & Restore AppGate

- **cz-restore**: Restore on a appliance
  - New appliance or existing appliance
  - Appliance version of source and target must be same

```
cz@sdp:~$ sudo cz-restore 26-sep-2018
Starting restore...
Versions match, proceeding with restore from backup...
Wiping appliance...
Waiting for wipe...

Extracting...
tar: mnt/state/config/default-config/local.json: time stamp 2018-08-22 13:06:17 is 1025145.816514722 s in the future
tar: mnt/state/config/default-config/remote.json: time stamp 2018-08-22 13:06:17 is 1025145.815681663 s in the future
```

- Allows you to migrate/transplant a system
- Restore is only supposed to be performed when you have no working Controllers that you can use. If using a multi-Controller group then only use Restore if both Controllers are unavailable.

Backup & Restore AppGate

- If you do have a working Controller then you should always try to deactivate the broken Controller and then re-seed a new appliance as a second Controller.
- The restore will generate a functional single controller.
- If you had a multi-Controller group then the admin UI needs to be used to deactivate the other broken Controller and then re-seed a new appliance as a second Controller.
- Restore will permanently destroy all current data

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System Maintenance

The end

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