Configuration

Main stand configuration

Main stand configuration parameters are set in `stand.conf/wcs-stand.conf` file as environment variables:

```
CONTAINER_PREFIX=wcs-oam-test
IMAGE_PREFIX=wcs_oam_test
DOCKER_NETWORK=bridge

CDN_NODES=o-test1,o-test2,e-test1,e-test2,e-test3,e-test4,t-test1,t-test2
CDN_ENTRY_POINT=o-test1
FFMPEG_NODE=ffmpeg

WCS_PATH=/usr/local/FlashphonerWebCallServer
```

Where

- `CONTAINER_PREFIX` - container name prefix
- `IMAGE_PREFIX` - docker image prefix
- `DOCKER_NETWORK` - docker network
- `CDN_NODES` - test WCS CDN node names
- `CDN_ENTRY_POINT` - CDN entry point node
- `FFMPEG_NODE` - node name to publish RTMP streams to CDN using ffmpeg
- `WCS_PATH` - WCS installation path

Docker network configuration

To set IP addresses explicitly to test nodes, a separate docker network should be set in main stand configuration file

```
DOCKER_NETWORK=stand
DOCKER_SUBNET=172.16.11.1/24
DOCKER_GATEWAY=172.16.11.1
DOCKER_HOST_IFACE=iface
```

Where

- `DOCKER_NETWORK` - docker network
- `DOCKER_SUBNET` - docker network IP subnet

- `DOCKER_GATEWAY` - docker network gateway
- `DOCKER_HOST_IFACE` - external docker host interface

The network should be created using `stand-network` script

```
sudo ./stand-network start
```

Docker network interface will be set as `br-$DOCKER_NETWORK`, `br-stand` for example. Packet forwarding rules will be added to iptables:

```
iptables -A FORWARD -i br-$DOCKER_NETWORK -o $DOCKER_HOST_IFACE -j ACCEPT
iptables -A FORWARD -i $DOCKER_HOST_IFACE -o br-$DOCKER_NETWORK -j ACCEPT
```

Node configuration

Node configuration file `node.conf` should be placed to `stand.conf` folder, to subfolder named as node. The node settings are environment variables depending on node type. Also, there can be addition configuration files placed to node subfolder, those files will be copied to node container

The following parameters are mandatory for all the nodes

- `NODE_IP` - node IP address
- `NODE_PORTS` - node ports available from docker host and external networks

Additional parameter can be set

- `CHECK_PORT` - TCP port to check node availability

WCS node configuration

WCS node configuration file `node.conf`

```
NODE_IP=""
NODE_PORTS=22,554,1935,8080-8084,8443-8445,8888,9091,30000-33000/tcp,30000-
33000/udp
JAVA_VERSION=8
JAVA_GC=CMS
JAVA_HEAP=2g
WCS_LICENSE="Put-your-license-key-here"
CDN_ROLE=origin
PRODUCT_LINK="https://flashphoner.com/downloads/builds/WCS/5.2/FlashphonerWebCal
5.2.XXX.tar.gz"
PRODUCT_ACCESS_LOGIN=staff
PRODUCT_ACCESS_PASSWORD=X5RLgmrTiK25
```

Where

- `JAVA_VERSION` - JVM version (8 or 12)
- `JAVA_GC` - GC to use (CMS or ZGC)
- `JAVA_HEAP` - Java heap size in Gb
- `WCS_LICENSE` - WCS license number
- `CDN_ROLE` - CDN node role
- `PRODUCT_LINK` - WCS build download link
- `PRODUCT_ACCESS_LOGIN` - login to access WCS download link (for enterprise customers only)
- `PRODUCT_ACCESS_PASSWORD` - password to access WCS download link (for enterprise customers only)

Also, the following files can be placed to node configuration folder:

- `flashphoner.properties`
- `wcs-core.properties`
- `*.sdp`
- `cdn_profiles.yml`
- `wss.jks`

Those files are copied to container "as is", without any changes.

The node CDN role can be set as parameter or can be detected by node name:

- `o-*` - Origin
- `t-*` - Transcoder
- `e-*` - Edge

Also, node CDN role can be set explicitly in `flashphoner.properties` file to be copied to the container

RTMP streams publisher node configuration

RTMP stream publisher node configuration file node.conf

```
NODE_IP=""
NODE_PORTS=22
MEDIA_MOUNT=/home/media
```

Where

- MEDIA_MOUNT - docker host folder to mount to the container

A docker host folder should be set to mount to the container, the `*.mp4` files to publish should be placed to this folder

Also, the following files can be placed to node configuration folder:

- `*.mp4` files to copy to `MEDIA_MOUNT` folder
- `*.sh` files to copy to `MEDIA_MOUNT` folder

RTMP streams publishing to Origin servers

If there are publishing scripts in `MEDIA_MOUNT` folder, the scripts will be executed for every node with Origin role set by node configuration or node name. In this case, node IP address is passed to the script as parameter.

If node roles are set in `flashphoner.properties` files only, the publishing scripts are executed without passing node IP address. In this case, node IP addressee to publish shold be set in the script.

If there are `*.mp4` files in `MEDIA_MOUNT` folder, and there are no any publishing script, every media file will be published to every node with `Origin` role set by node configuration or node name.