CHPS-19.1.1 Installation Guide

This document will guide you through the CHPS installation. CHPS represents a number of components and individual applications that have been tied together and combined into a functional unit. The individual applications which are being delivered at this time within CHPS are listed below. Call the NCF at (301) 713-9344 and open a ticket on CHPS installation and open a Redmine ticket so O&M can keep track of the installations.

Please call O&M one business day prior to your scheduled installation day.

For all individual application packages:

- Please use the release and install notes for each component which can be found online here in VLab: https://vlab.ncep.noaa.gov/group/chps/wiki/-/wiki/OWP+Documentation/FrontPage

- All application packages (tar files) are included in this package in the CHPS-19.1.1 folder; therefore there is no need to download them from the FTP site (as may be noted in any of the CHPS component Install Notes).

Individual Application Packages:

- FEWS 2018.02
  
  o NWS201802_MC89626_OC89626.tgz

- OHD-CORE-CHPS-18.1.1
  
  o OHD-CORE-18.1.1.20191028.tar.gz

- HEC-RAS 5.0.7_19.1.1
  
  o hecras_5.0.7_19.1.1.10152019.tgz

- ResSim 3.3.1.145
  
  o ressim_3.3.1.145.20191009.tar.gz

All applications represent newly released software and should be installed by all RFCs. Sites that participated in the beta testing process should reinstall all new software components. Please contact O&M for installation support.
1. Log into any lx workstation as user `fews`. Navigate to the install location.

   ```
   $ cd /awips/chps_share/install/
   ```

2. Copy the CHPS 19.1.1 tar release package to the install location above.

   ```
   $ cp /data/fxa/INSTALL/CHPS-19.1.1.tar.gz .
   ```

3. Extract CHPS-19.1.1.tar.gz. You will see the installation packages and an installScripts directory.

   ```
   $ tar -xzf CHPS-19.1.1.tar.gz
   $ cd CHPS-19.1.1
   ```

4. After extracting CHPS-19.1.1, you can begin installing the individual components following the guidelines outlined in the steps below. Please read all documentation before installing.

   a. CHPS-19.1.1 needs to be installed and tested on your Dev/Test system RP3 (CHPS7,8,9) first, prior to installation on your Operational systems RP1 (CHPS1,2,3) and RP2 (CHPS4,5,6).

   b. Suspend any synchronization on MC02. Begin the CHPS upgrade procedures on RP3 starting with the Install Notes found online in VLab for FEWS, OHD-CORE, HEC-RAS and ResSim. After successful installation and testing of CHPS-19.1.1 on your Dev/Test system, you can move on to upgrading your Operational systems.

   c. Wait until all of your Operations have completed for the day before beginning the CHPS-19.1.1 upgrade for your Operational systems.

   d. Stop all synchronization between RP1 and RP2 in preparation for upgrading RP1. Note: Synchronization cannot occur between a system using FEWS-2017.02 and another using FEWS-2018.02. Therefore, after one Operational system has been upgraded to FEWS-2018.02 and the other is still on FEWS-2017.02, forecasts and states cannot be synchronized. This will have to wait until both systems are updated to FEWS-2018.02.

   e. Prepare RP2 for daily operations by failing over to the backup system.

   f. Begin the CHPS upgrade procedures on RP1 starting with the Install Notes found online in VLab for FEWS, OHD-CORE, HEC-RAS and ResSim. Once completed verify automated forecasts completes, clients can access master controller and submit forecasts, and data ingest/export processes are functioning.

   g. Perform operations on the upgraded primary system. If operations are successful, begin the CHPS upgrade procedures on RP2 as you did for RP1 starting with the Install Notes found online in VLab for FEWS, OHD-CORE, HEC-RAS and ResSim.
h. Upon successfully upgrading your RP2 to CHPS-19.1.1, verify automated forecasts completes, clients can access master controller and submit forecasts, and data ingest/export processes are functioning.

i. Upon successfully verifying your RP2 to CHPS-19.1.1, synchronization between RP1 and RP2 can be established again.