ngEO Task 4

Web Client

Installation, Operation and Maintenance Manual

document status sheet

| Version | Date | Pages | Changes |
| --- | --- | --- | --- |
| 0.1 | 11/10/2012 | 15 | First published version |
| 0.2 | 19/11/2012 | 15 | Add installation of test server |
| 0.3 | 18/01/2013 | 15 | First CDR delivery  Add note on how to modify the WebClient using the development version. |

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# Introduction

## Purpose

This document defines the Installation and Operation manual for the ngEO Web Client sub-system.

This document provides the installation of the web client as a stand-alone application using a test server.

This document will be updated during the ngEO project.

## Scope

This document does not include the User Manual.

# Applicable and Reference Documents

## Applicable Documents

The following documents, of the exact issue shown, form part of this document to the extent specified herein. Applicable documents are those referenced in the Contract or approved by the Approval Authority. They are referenced in this document in the form [AD.X]:

Table 2‑1 Applicable Documents

| Ref. | Title | Code | Version | Date |
| --- | --- | --- | --- | --- |
|  | Space Engineering - Software | ECSS-E-ST-40 | C | 6 March 2009 |
|  | SUBSYSTEM REQUIREMENT DOCUMENT FOR NGEO WEB USER CLIENT | ngEO-14-SRD-ELC-005 | 1.2 | 23 March 2012 |
|  | Installation Operation and Maintenance Manual | ngEO-WEBC-IOM | 0.1 | 15 October 2012 |
|  | INTERNAL INTERFACE CONTROL DOCUMENT WEB CLIENT - WEB SERVER | ngEO-14-ICD-ELC-075 | 1.2 | 29 March 2012 |

## Reference Documents

The following documents, although not part of this document, amplify or clarify its contents. Reference documents are those not applicable and referenced within this document. They are referenced in this document in the form [RD.X]:

Table 2‑2 Reference Documents

| Ref. | Title | Code | Version | Date |
| --- | --- | --- | --- | --- |
|  | ngEO-WEBS-IOM\_v1 0.docx |  |  |  |

# Terms, Definitions and Abbreviated Terms

## Definitions

Concepts and terms used in this document and needing a definition are included in the following table:

Table 3‑1 Definitions

| Concept / Term | Definition |
| --- | --- |
|  |  |

## Acronyms

Acronyms used in this document and needing a definition are included in the following table:

Table 3‑2 Acronyms

| Acronym | Definition |
| --- | --- |
| RPM | RPM Package Manager |
| OS | Operating System |
| OSS | Open Source Software |
| COTS | Commercial Off The Shelf |

# Installation Manual

## Overall Description and Flow Diagram

Web Client installation is very simple. The installation must be done on the same computer used for the Web Server. The Web Client is installed through rpm after web server one.

## Prerequisites

The Web Client needs a standard RedHat system (or any compatible system as CentOS) to be installed. The Web Client is collocated with the Web Server, see Web Server prerequisites.

There are no specific prerequisites on the hardware.

## OS Installation

Same as Web Server, see Web Server OS installation in [RD.1].

At least, httpd must be installed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***NGEO INSTALLATION PROCEDURE*** | | | | | |
| **Identifier** | | *NGEO-CTRL-INST-0010* | **Title** | | *OS Installation* |
| **Procedure Objective** | | | | | |
| Install and configure Operating System | | | | | |
| **Files needed** | | | | | |
|  | | | | | |
| **Step** | **Action** | | | **Expected output** | |
| *Step-10* | yum install httpd | | |  | |
| *Step-20* |  | | |  | |
| *Step-30* |  | | |  | |

## OSS/COTS Installation

Node.js is needed for the Web Client Test Server. The test server is not strictly needed for the production, but during integration phase.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***NGEO INSTALLATION PROCEDURE*** | | | | | |
| **Identifier** | | *NGEO-CTRL-INST-0020* | **Title** | | *OSS/COTS Installation* |
| **Procedure Objective** | | | | | |
| Install and configure Open Source Software / Common Of-The-Self Software  Note: this applies to software rpms not installed already in OS installation procedure. | | | | | |
| **Files needed** | | | | | |
| nodejs-0.8.11-1.x86\_64.rpm | | | | | |
| **Step** | **Action** | | | **Expected output** | |
| *Step-10* | rpm –Uvh nodejs-0.8.11-1.x86\_64.rpm | | |  | |
| *Step-20* | node –-version | | | v0.8.11 | |

## Component Installation

The component is installed through two rpms:

* esa-webclient-ngeo-XX-YY.noarch.rpm;
* esa-webclient-testserver-ngeo-XX-YY.noarch.rpm

XX is for the version

YY is for the release following <type><date> with type=SNAPSHOPT|BETA|FINAL and date is the date of the release.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***NGEO INSTALLATION PROCEDURE*** | | | | | |
| **Identifier** | | *NGEO-CTRL-INST-0030* | **Title** | | *Component Installation* |
| **Procedure Objective** | | | | | |
| Install and configure the NGEO component.  Notes:   * Since in V1 controller is not present, specify also any particular configuration needed after installation. * Include some steps to check that the installation was successful. | | | | | |
| **Files needed** | | | | | |
| esa-webclient-ngeo-XX-YY.noarch.rpm | | | | | |
| **Step** | **Action** | | | **Expected output** | |
| *Step-10* | rpm –Uvh esa-webclient-ngeo-XX-YY.noarch.rpm | | | *-* | |
| *Step-20* | rpm –q –a | grep esa-webclient-ngeo | | | esa-webclient-ngeo-XX-YY.noarch | |
| *Step-30* | ls /usr/local/ngeo/webclient/index.html | | | /usr/local/ngeo/webclient/index.html | |
| *Step-40* | rpm –Uvh esa-webclient-testserver-ngeo-XX-YY.noarch.rpm | | | - | |
| *Step-50* | ls /usr/local/ngeo/webclient-testserver/app.js | | | /usr/local/ngeo/webclient-testserver/app.js | |

## Uninstallation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***NGEO UNINSTALL PROCEDURE*** | | | | | |
| **Identifier** | | *NGEO-CTRL-INST-0040* | **Title** | | *Component unnstall* |
| **Procedure Objective** | | | | | |
| Uninstall the NGEO component. | | | | | |
| **Files needed** | | | | | |
| None | | | | | |
| **Step** | **Action** | | | **Expected output** | |
| *Step-10* | rpm –e esa-webclient-ngeo | | | None | |
| *Step-20* | rpm –qi esa-webclient-ngeo | | | Package esa-webclient-ngeo is not installed | |
| *Step-30* | ls /usr/local/ngeo/webclient/index.html | | | ls : cannot access /usr/local/ngeo/webclient/index.html: no such file or directory. | |
| *Step-40* | rpm –e esa-webclient-testserver-ngeo | | | None | |
| *Step-50* | rpm –qi esa-webclient-testserver-ngeo | | | Package esa-webclient-testserver-ngeo is not installed | |

# Operation Manual

WebClient is started/stopped with the WebServer, see [RD.1].

The following operations are to use the Web Client with its Test Server.

## Start

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***NGEO OPERATION PROCEDURE*** | | | | | |
| **Identifier** | | *NGEO-CTRL-OPE-0010* | **Title** | | *Component start* |
| **Procedure Objective** | | | | | |
| Start the test server. | | | | | |
| **Step** | **Action** | | | **Expected output** | |
| *Step-10* | Open a new terminal as root | | |  | |
| *Step-20* | node /usr/local/webclient-testserver/app.js | | | Express server listening on port 3000. | |

## Stop

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***NGEO OPERATION PROCEDURE*** | | | | | |
| **Identifier** | | *NGEO-CTRL-OPE-0020* | **Title** | | *Component stop* |
| **Procedure Objective** | | | | | |
| Stop the test server. | | | | | |
| **Step** | **Action** | | | **Expected output** | |
| *Step-10* | Ctrl^C in the node terminal | | | None | |

# Reference Manual

## Log Events

|  |  |  |
| --- | --- | --- |
| ***LOG EVENTS*** | | |
| **ID** | **Description and cause** | **How to proceed / recovery** |
|  |  |  |
|  |  |  |
|  |  |  |

# Maintenance Manual

## Periodic maintenance

Not applicable.

## Non-Periodic maintenance

Not applicable.

## Modifications

As stated in [AD.2], an administrator with HTML skills should be able to modify the GUI instances. The RPM delivered for WebClient contains a minified and optimized version that cannot be modified easily.

A RPM esa-webclient-dev-ngeo-XX-YY.noarch.rpm is also delivered to provide the clean sources and a way to modify the Web Client. The installation steps are the same as described in 4.5.

The development version can be tested using the ngeo test server (see how to start it in 5.1) and accessing the URL <http://localhost:3000/client-dev>.

Once modified, an optimized version can be produced by executing the script build.sh in the directory /usr/local/ngeo/webclient-dev/build.

cd /usr/local/ngeo/webclient-dev/build

./build.sh

The optimized version is put in /usr/local/ngeo/webclient-dev/build/output. It can be tested using URL <http://localhost:3000/client-opt>.

All contents of /usr/local/ngeo/webclient-dev/build/output must be copied to WebClient installation in order to update the production version.

cp –r /usr/local/ngeo/webclient-dev/build/output/\* /usr/local/ngeo/webclient

# Summary of steps

Not applicable.

# Summary of problems and their correction

Not applicable.

END OF DOCUMENT