

# Prepare Upgrade Package

## OPERATING INSTRUCTIONS

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# 1 Introduction

This document describes the preparation phase of a software upgrade.

A software upgrade has a limited time window during which some planned service impact is allowed. The preparation phase has no service impact. It is therefore recommended to perform it outside the upgrade time window during normal “traffic hours”. Use the upgrade time window only for the execution phase of the software upgrade. The execution phase is described in [Upgrade Using One-Step Activation](#).

This preparation phase consists of the following:

- Generates target upgrade folder and package.
- Creates the upgrade package, by making the upgrade package visible in the Managed Object Model.
- Prepares the upgrade package, by performing the relevant software upgrade package extraction activities or integrity checks. The integrity check performs checksum checks or equivalent (oblivious hashing, check and guard system, active or passive tamper resistance) and is needed to secure that the correct upgrade package has been fetched.
- Verifies the Management Element (ME) ability to activate the upgrade package.

The procedure in this document is illustrated by an example where a software version with product name `IPWORKS.base`, product number `AVA90133`, and product revision `3.0.0-2` is running in the system. A software upgrade package `IPWORKS.base-AVA90133-3.0.0-2`, which is designed to upgrade this software version to product revision `3.0.0-2`, is going through the preparation phase.

## 1.1 Prerequisites

This section describes the prerequisites, which must be fulfilled before using the procedure.

### 1.1.1 Conditions

The following conditions must apply:

- The ME has passed a health check routine.
- The target upgrade related files are present under a known directory `/cluster/UP`.



- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.
- There are no black patches on the site.
- A manual backup must be done before the upgrade.



## 2 Procedure

To prepare an upgrade package:

1. Navigate to the **SwM** Managed Object (MO), for example:

```
>dn ManagedElement=<Node Name>,SystemFunctions=1,SwM=1
```

2. Create an upgrade package MO by importing the software upgrade package file from a remote repository, for example:

```
(SwM=1)>createUpgradePackage --uri sftp://<UserName>@<MIP_OAM_IP>:/cluster/UP --password <Password>
```

```
reportProgress=4 <read-only>
  actionId=4 <key> <read-only>
  actionName="CreateUpgradePackage" <read-only>
  additionalInfo <read-only>
  ""
  progressInfo="Create UpgradePackage" <read-only>
  progressPercentage=100 <read-only>
  result=SUCCESS <read-only>
  resultInfo="CreateUpgradePackage executed successfully" <read-only>
  state=FINISHED <read-only>
```

3. Verify the result for a successfully triggered operation:

```
(SwM=1)>show -v
```

The following example output shows the final result. If `state=RUNNING`, the creation is not yet completed. Result `result=FAILURE` means that the creation failed.

```
SwM=1
[...]
  reportProgress=4 <read-only>
  actionId=4 <read-only>
[...]
  progressPercentage=100 <read-only>
  result=SUCCESS <read-only>
  resultInfo="CreateUpgradePackage executed successfully" <read-only>
  state=FINISHED <read-only>
[...]
```

4. Navigate to the **UpgradePackage** MO:

```
(SwM=1)>UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2
```

5. Prepare the upgrade package:

```
(UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2)>prepare
```

The system returns output `true` or `false`.

6. Verify the preparation:

```
(UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2)>show -v
```



The following is an example output, which shows the final result. If a transient result is shown, where state=RUNNING, the operation is not yet completed.

```
UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2
  activationFallbackTimer=0 <read-only>
  created="2018-02-11T14:02:45" <read-only>
  creatorActionId=4 <read-only>
  execMethod=ONE_STEP
  ignoreBreakPoints=true <default>
  password=[] <empty>
  state=PREPARE_COMPLETED <read-only>
  upgradePackageId="IPWORKS.base-AVA90133-3.0.0-2"
  uri="sftp://root@10.170.64.164:/cluster/UP"
  userLabel=[] <empty>
  activationStep[@1] <read-only>
    description="not yet supported" <read-only>
    name="not yet supported" <read-only>
    serialNumber=1 <read-only>
  administrativeData[@1] <read-only>
    description="" <read-only>
    productionDate="2018-02-11" <read-only>
    productName="IPWORKS.base" <read-only>
    productNumber="AVA90133" <read-only>
    productRevision="3.0.0-2" <read-only>
    type="OTHER" <read-only>
  reportProgress <read-only>
    actionId=5 <read-only>
    actionName="Prepare" <read-only>
    additionalInfo <read-only>
      "Package is marked as ONE-STEP upgrade, modification of execMethod"
    progressInfo="Prepare UpgradePackage" <read-only>
    progressPercentage=100 <read-only>
    result=SUCCESS <read-only>
    resultInfo="Prepare successfully executed" <read-only>
    state=FINISHED <read-only>
    step=1 <read-only>
    stepProgressPercentage=0 <read-only>
    timeActionCompleted="2018-02-11T14:18:07" <read-only>
    timeActionStarted="2018-02-11T14:11:50" <read-only>
    timeOfLastStatusUpdate="2018-02-11T14:18:07" <read-only>
```

#### 7. Verify the upgrade package:

```
(UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2)>verify
```

The system returns output true or false.

#### 8. Verify the result:

```
(UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2)>show -v
```





The following is an example output:

```
UpgradePackage=IPWORKS.base-AVA90133-3.0.0-2
[...]  
state=PREPARE_COMPLETED  
[...]  
reportProgress  
[...]  
    actionName="Verify"  
[...]  
    result=SUCCESS  
[...]  
    state=FINISHED  
[...]
```

This output shows the final result. If `state=RUNNING` is shown, the operation is not yet completed. Result `result=FAILURE` means that the creation failed, refer to the section [Error: Campaign Failed Verification in IPWorks Troubleshooting Guideline](#) . If the issue remains, contact with next level support. After the issue is fixed, try to perform this preparation again.