

Install-related Data Models for Cisco 8000 Series Routers

First Published: 2019-06-14

Data Models Related to Install Operation

This document helps you get familiar with the data models that are specific to installing Cisco IOS XR7 software on the router.

The data models are in the `.yang` format. Each data model can be identified as one of the following functionalities:

- `-oper` in the model name indicates an operational model. For example, `Cisco-IOS-XR-install-oper.yang` and `Cisco-IOS-XR-install-augment-oper.yang` are operational models for install operation.
- `-cfg` indicates a configuration model. For example, `Cisco-IOS-XR-install-cfg.yang` is a configuration model for install operation.
- `-act` indicates a NETCONF action model. For example, `Cisco-IOS-XR-install-augment-act.yang` and `Cisco-IOS-XR-install-act.yang` are action models for install operation.

The supported data models for install operation are:

Cisco-IOS-XR-install-act

Action model to perform basic install operations and software upgrade.

The module is represented as follows:

```
module: Cisco-IOS-XR-install-act

  rpcs:
    +---x install-replace
      | +---w input
      |   +---w source-type?  replace-source-type
      |   +---w source        string
      |   +---w file          string
      |   +---w commit?      boolean
      |   +---w config?      config-type
    +---x install
      | +---w input
      |   +---w packages
      |     | +---w packagename*  string
      |     +---w update-all?    boolean
      |     +---w source-type?    packages-source-type
      |     +---w source?        string
    +---x install-commit
```

where the arguments indicate:

- **source-type:** enumeration, defaults to `local` file path. Other options are: `http`, `ftp`, `https`, `scp`, `tftp`, `sftp`

- **source:** string, contains path to .iso location
- **file:** file name of .iso
- **commit:** boolean, defaults to `False`
- **config:** enumeration, defaults to `ignore`. Determines how to handle the configuration present in the GISO. Options are `ignore`, `merge`, `replace`
- **packages:** list of strings of package names, unused in upgrade scenario
- **update-all:** boolean, defaults to `False`

Example usage:

```
<install>
  <packages>service_pack_file</packages>
  <source>file:///path/to/location/</source>
</install>
```

Cisco-IOS-XR-install-augmented-act

Action model to perform more flexible install operations, including controlling the exact timing of system reloads and rolling back to a previous commit.

The module is represented as follows:

```
module: Cisco-IOS-XR-install-augmented-act

rpcs:
  +---x install-package-add
  | +---w input
  |   +---w packages
  |     | +---w packagename*   string
  |     +---w source-type?    install-act:packages-source-type
  |     +---w source?         string
  +---x install-package-remove
  | +---w input
  |   +---w packages
  |     +---w packagename*   string
  +---x install-package-upgrade
  | +---w input
  |   +---w packages
  |     | +---w packagename*   string
  |     +---w source-type?    install-act:packages-source-type
  |     +---w source?         string
  +---x install-package-downgrade
  | +---w input
  |   +---w packages
  |     | +---w packagename*   string
  |     +---w source-type?    install-act:packages-source-type
  |     +---w source?         string
  +---x install-package-replace
  | +---w input
  |   +---w source-type?    install-act:replace-source-type
  |   +---w source          string
  |   +---w file            string
  +---x install-package-rollback
  | +---w input
```

```

|      +---w transaction-id      uint32
+---x install-rollback
|      +---w input
|      +---w transaction-id      uint32
|      +---w commit?             boolean
+---x install-apply
|      +---w input
|      +---w apply-method        apply-type
+---x install-package-abort
|      +---w input
|      +---w abort-type          abort-type

```

where the arguments indicate:

- **packagename:**
- **source:** string, contains path to .iso location
- **source-type:** enumeration, defaults to `local` file path. Other options are: `http`, `ftp`, `https`, `scp`, `tftp`, `sftp`
- **file:** file name of .iso
- **commit:** boolean, defaults to `False`
- **transaction-id:**
- **apply-method:**
- **abort-type:**

Cisco-IOS-XR-install-augmented-oper

Augmented operational model that displays information about packaging, atomic changes and history of install operation on the router.

The module is represented as follows:

```

module: Cisco-IOS-XR-install-augmented-oper
+--ro install
|   +--ro history
|   |   +--ro latest-transaction
|   |   |   +--ro transaction-info
|   |   |   |   +--ro started-by-user-request
|   |   |   |   |   +--ro unknown-packages
|   |   |   |   |   |   +--ro package-name*   String1
|   |   |   |   |   |   +--ro install-packages
|   |   |   |   |   |   |   +--ro package-name*   String1
|   |   |   |   |   |   |   +--ro remove-packages
|   |   |   |   |   |   |   |   +--ro package-name*   String1
|   |   |   |   |   |   |   +--ro upgrade-packages
|   |   |   |   |   |   |   |   +--ro package-name*   String1
|   |   |   |   |   |   |   +--ro downgrade-packages
|   |   |   |   |   |   |   |   +--ro package-name*   String1
|   |   |   |   |   |   |   +--ro request?           Inst-request
|   |   |   |   |   |   |   +--ro replace-iso?       String1
|   |   |   |   |   |   |   +--ro rollback-to-transaction?   uint32
|   |   |   |   |   |   |   +--ro transaction-id?     uint32
|   |   |   |   |   |   |   +--ro status-history* []
|   |   |   |   |   |   |   |   +--ro status?       Inst-trans-status
|   |   |   |   |   |   |   |   +--ro reason?       String1

```

```

| | | | +--ro time?      string
| | | | +--ro event-id? uint32
| | | | +--ro nodes* []
| | | |   +--ro node?    String1
| | | |     +--ro event* []
| | | |       +--ro event?    Inst-node-event
| | | |       +--ro time?     string
| | | |       +--ro reason?   String1
| | | |       +--ro event-id? uint32
| | +--ro atomic-changes
| |   +--ro atomic-change* [index]
| |     +--ro index          uint32
| |     +--ro packaging-operations
| |       +--ro packaging-operation* [index]
| |         +--ro index          uint32
| |         +--ro packaging-operation-errors-nodes
| |           +--ro packaging-operation-errors-node* [node]
| |             +--ro node      xr:Node-id
| |             +--ro lines*   String1
| |         +--ro packaging-operation-info
| |           +--ro request
| |             +--ro operation
| |               +--ro unknown-packages
| |                 +--ro package-name* String1
| |                 +--ro install-packages
| |                   +--ro package-name* String1
| |                   +--ro remove-packages
| |                     +--ro package-name* String1
| |                   +--ro upgrade-packages
| |                     +--ro package-name* String1
| |                   +--ro downgrade-packages
| |                     +--ro package-name* String1
| |                 +--ro request?      Inst-request
| |                 +--ro replace-iso?  String1
| |                 +--ro rollback-to-transaction? uint32
| |             +--ro abort-operation
| |               +--ro abort-type?     Inst-package-abort
| |               +--ro packaging-operation* uint32
| |             +--ro reason?          Inst-req-reason
| |         +--ro index?              uint32
| |         +--ro error-string?      String1
| |         +--ro status-history* []
| |           +--ro status?          Inst-pkg-op-status
| |           +--ro reason?          String1
| |           +--ro time?            string
| |           +--ro event-id?        uint32
| |         +--ro nodes* []
| |           +--ro node?              string
| |           +--ro download-size?    uint64
| |           +--ro installed-size?   uint64
| |           +--ro package* []
| |             +--ro package
| |               +--ro name?          string
| |               +--ro version?      String1
| |               +--ro architecture? String1
| |             +--ro action?          Inst-pkg-op-act
| |         +--ro packages-no-action* []
| |           +--ro package
| |             +--ro name?            string
| |             +--ro version?        String1
| |             +--ro architecture?  String1
| |           +--ro reason?          Inst-no-action-reason
| |         +--ro veto-notification* []
| |           +--ro notification-trigger

```



```

| | | | | +---ro impacted-process* []
| | | | | | +---ro name? string
| | | | | | +---ro change? Inst-proc-change
| | | | | | +---ro pid? uint32
| | | | | +---ro changed-feature* []
| | | | | | +---ro feature-name? string
| | | | | | +---ro change? Inst-feature-change
| | | | | +---ro client-type? Inst-client
| | | | | +---ro legacy-client? boolean
| | | | +---ro client? string
| | | +---ro description? string
| | +---ro sent-time? string
| +---ro response-status? Inst-notif-res
| +---ro error? String1
| +---ro response-time? string
| +---ro veto-reason? String1
| +---ro reload-reason* []
| | +---ro node? string
| | +---ro reason? String1
| +---ro extra-time-request* []
| | +---ro time? string
| | +---ro extra-time? uint32
+---ro apply-notification* []
| +---ro notification-trigger
| | +---ro trigger-changeset
| | | +---ro reload-reasons
| | | | +---ro packages
| | | | | +---ro package-name* String1
| | | | +---ro too-many-processes? boolean
| | | | +---ro client* []
| | | | | +---ro name? string
| | | | | +---ro jid? string
| | | | | +---ro reason? string
| | | +---ro changed-file* []
| | | | +---ro path? string
| | | | +---ro change? Inst-file-change
| | | +---ro impacted-process* []
| | | | +---ro name? string
| | | | +---ro change? Inst-proc-change
| | | | +---ro pid? uint32
| | | | +---ro changed-feature* []
| | | | | +---ro feature-name? string
| | | | | +---ro change? Inst-feature-change
| | | +---ro client-type? Inst-client
| | +---ro legacy-client? boolean
| +---ro client? string
| +---ro description? string
| +---ro sent-time? string
| +---ro response-status? Inst-notif-res
| +---ro error? String1
| +---ro response-time? string
| +---ro veto-reason? String1
| +---ro reload-reason* []
| | +---ro node? string
| | +---ro reason? String1
| +---ro extra-time-request* []
| | +---ro time? string
| | +---ro extra-time? uint32
+---ro further-apply-notification* []
| +---ro notification-trigger
| | +---ro trigger-changeset
| | | +---ro reload-reasons
| | | | +---ro packages
| | | | | +---ro package-name* String1

```



```

| | | | | +---ro too-many-processes?  boolean
| | | | | +---ro client* []
| | | | |   +---ro name?      string
| | | | |   +---ro jid?       string
| | | | |   +---ro reason?    string
| | | | | +---ro changed-file* []
| | | | |   +---ro path?      string
| | | | |   +---ro change?    Inst-file-change
| | | | | +---ro impacted-process* []
| | | | |   +---ro name?      string
| | | | |   +---ro change?    Inst-proc-change
| | | | |   +---ro pid?       uint32
| | | | | +---ro changed-feature* []
| | | | |   +---ro feature-name? string
| | | | |   +---ro change?    Inst-feature-change
| | | | | +---ro client-type?    Inst-client
| | | | | +---ro legacy-client?  boolean
| | | | | +---ro client?         string
| | | | | +---ro description?    string
| | | | | +---ro sent-time?       string
| | | | | +---ro response-status? Inst-notif-res
| | | | | +---ro error?           String1
| | | | | +---ro response-time?  string
| | | | | +---ro veto-reason?     String1
| | | | | +---ro reload-reason* []
| | | | | | +---ro node?        string
| | | | | | +---ro reason?     String1
| | | | | +---ro extra-time-request* []
| | | | |   +---ro time?       string
| | | | |   +---ro extra-time?  uint32
| | | | | +---ro post-apply-notification* []
| | | | | +---ro notification-trigger
| | | | | | +---ro trigger-changeset
| | | | | | | +---ro reload-reasons
| | | | | | | | +---ro packages
| | | | | | | | | +---ro package-name* String1
| | | | | | | | +---ro too-many-processes?  boolean
| | | | | | | | +---ro client* []
| | | | | | | |   +---ro name?      string
| | | | | | | |   +---ro jid?       string
| | | | | | | |   +---ro reason?    string
| | | | | | | +---ro changed-file* []
| | | | | | |   +---ro path?      string
| | | | | | |   +---ro change?    Inst-file-change
| | | | | | | +---ro impacted-process* []
| | | | | | |   +---ro name?      string
| | | | | | |   +---ro change?    Inst-proc-change
| | | | | | |   +---ro pid?       uint32
| | | | | | | +---ro changed-feature* []
| | | | | | |   +---ro feature-name? string
| | | | | | |   +---ro change?    Inst-feature-change
| | | | | | | +---ro client-type?    Inst-client
| | | | | | | +---ro legacy-client?  boolean
| | | | | | | +---ro client?         string
| | | | | | | +---ro description?    string
| | | | | | | +---ro sent-time?       string
| | | | | | | +---ro response-status? Inst-notif-res
| | | | | | | +---ro error?           String1
| | | | | | | +---ro response-time?  string
| | | | | | | +---ro veto-reason?     String1
| | | | | | | +---ro reload-reason* []
| | | | | | | | +---ro node?        string
| | | | | | | | +---ro reason?     String1
| | | | | | | +---ro extra-time-request* []

```

```

| | | | | +---ro time?          string
| | | | | +---ro extra-time?   uint32
| | | | | +---ro post-post-apply-notification* []
| | | | | +---ro notification-trigger
| | | | | | +---ro trigger-changeset
| | | | | | | +---ro reload-reasons
| | | | | | | | +---ro packages
| | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro too-many-processes?  boolean
| | | | | | | | | +---ro client* []
| | | | | | | | | | +---ro name?          string
| | | | | | | | | | +---ro jid?          string
| | | | | | | | | | +---ro reason?       string
| | | | | | | | | +---ro changed-file* []
| | | | | | | | | | +---ro path?          string
| | | | | | | | | | +---ro change?       Inst-file-change
| | | | | | | | | +---ro impacted-process* []
| | | | | | | | | | +---ro name?          string
| | | | | | | | | | +---ro change?       Inst-proc-change
| | | | | | | | | | +---ro pid?          uint32
| | | | | | | | | +---ro changed-feature* []
| | | | | | | | | | +---ro feature-name?   string
| | | | | | | | | | +---ro change?       Inst-feature-change
| | | | | | | | | +---ro client-type?       Inst-client
| | | | | | | | | +---ro legacy-client?    boolean
| | | | | | | | | +---ro client?          string
| | | | | | | | | +---ro description?     string
| | | | | | | | | +---ro sent-time?       string
| | | | | | | | | +---ro response-status?  Inst-notif-res
| | | | | | | | | +---ro error?          String1
| | | | | | | | | +---ro response-time?   string
| | | | | | | | | +---ro veto-reason?     String1
| | | | | | | | | +---ro reload-reason* []
| | | | | | | | | | +---ro node?          string
| | | | | | | | | | +---ro reason?       String1
| | | | | | | | | +---ro extra-time-request* []
| | | | | | | | | | +---ro time?          string
| | | | | | | | | | +---ro extra-time?   uint32
| | | | | | | | | +---ro event* []
| | | | | | | | | | +---ro event?       Inst-node-event
| | | | | | | | | | +---ro time?       string
| | | | | | | | | | +---ro reason?     String1
| | | | | | | | | | +---ro event-id?   uint32
| | | | | +---ro latest-packaging-operation
| | | | | | +---ro packaging-operation-errors-nodes
| | | | | | | +---ro packaging-operation-errors-node* [node]
| | | | | | | | +---ro node          xr:Node-id
| | | | | | | | +---ro lines*       String1
| | | | | | +---ro packaging-operation-info
| | | | | | | +---ro request
| | | | | | | | +---ro operation
| | | | | | | | | +---ro unknown-packages
| | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro install-packages
| | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro remove-packages
| | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro upgrade-packages
| | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro downgrade-packages
| | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro request?       Inst-request
| | | | | | | | | +---ro replace-iso?     String1
| | | | | | | | | +---ro rollback-to-transaction? uint32

```

```

| | | | +--ro abort-operation
| | | | | +--ro abort-type?          Inst-package-abort
| | | | | +--ro packaging-operation* uint32
| | | | | +--ro reason?              Inst-req-reason
+--ro index?          uint32
+--ro error-string?   String1
+--ro status-history* []
| +--ro status?      Inst-pkg-op-status
| +--ro reason?      String1
| +--ro time?        string
| +--ro event-id?    uint32
+--ro nodes* []
| +--ro node?                string
+--ro download-size?         uint64
+--ro installed-size?        uint64
+--ro package* []
| +--ro package
| | +--ro name?              string
| | +--ro version?          String1
| | +--ro architecture?    String1
| | +--ro action?          Inst-pkg-op-act
+--ro packages-no-action* []
| +--ro package
| | +--ro name?              string
| | +--ro version?          String1
| | +--ro architecture?    String1
| | +--ro reason?          Inst-no-action-reason
+--ro veto-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name* String1
| | | | | +--ro too-many-processes? boolean
| | | | | +--ro client* []
| | | | | +--ro name?          string
| | | | | +--ro jid?          string
| | | | | +--ro reason?       string
| | | +--ro changed-file* []
| | | | +--ro path?          string
| | | | +--ro change?        Inst-file-change
| | | +--ro impacted-process* []
| | | | +--ro name?          string
| | | | +--ro change?        Inst-proc-change
| | | | +--ro pid?           uint32
| | | +--ro changed-feature* []
| | | | +--ro feature-name?  string
| | | | +--ro change?        Inst-feature-change
| | +--ro client-type?      Inst-client
| | +--ro legacy-client?    boolean
| +--ro client?             string
| +--ro description?        string
| +--ro sent-time?          string
| +--ro response-status?    Inst-notif-res
| +--ro error?              String1
| +--ro response-time?      string
| +--ro veto-reason?        String1
| +--ro reload-reason* []
| | +--ro node?             string
| | +--ro reason?           String1
| +--ro extra-time-request* []
| | +--ro time?             string
| | +--ro extra-time?       uint32
+--ro prepare-veto-notification* []

```

```

| | | | +---ro notification-trigger
| | | | | +---ro trigger-changeset
| | | | | | +---ro reload-reasons
| | | | | | | +---ro packages
| | | | | | | | +---ro package-name* String1
| | | | | | | | +---ro too-many-processes? boolean
| | | | | | | | +---ro client* []
| | | | | | | | | +---ro name? string
| | | | | | | | | +---ro jid? string
| | | | | | | | | +---ro reason? string
| | | | | | | | +---ro changed-file* []
| | | | | | | | | +---ro path? string
| | | | | | | | | +---ro change? Inst-file-change
| | | | | | | | +---ro impacted-process* []
| | | | | | | | | +---ro name? string
| | | | | | | | | +---ro change? Inst-proc-change
| | | | | | | | | +---ro pid? uint32
| | | | | | | | +---ro changed-feature* []
| | | | | | | | | +---ro feature-name? string
| | | | | | | | | +---ro change? Inst-feature-change
| | | | | | | | +---ro client-type? Inst-client
| | | | | | | | +---ro legacy-client? boolean
| | | | | | | | +---ro client? string
| | | | | | | | +---ro description? string
| | | | | | | | +---ro sent-time? string
| | | | | | | | +---ro response-status? Inst-notif-res
| | | | | | | | +---ro error? String1
| | | | | | | | +---ro response-time? string
| | | | | | | | +---ro veto-reason? String1
| | | | | | | | +---ro reload-reason* []
| | | | | | | | | +---ro node? string
| | | | | | | | | +---ro reason? String1
| | | | | | | | +---ro extra-time-request* []
| | | | | | | | | +---ro time? string
| | | | | | | | | +---ro extra-time? uint32
| | | | +---ro prepare-notification* []
| | | | | +---ro notification-trigger
| | | | | | +---ro trigger-changeset
| | | | | | | +---ro reload-reasons
| | | | | | | | +---ro packages
| | | | | | | | | +---ro package-name* String1
| | | | | | | | | +---ro too-many-processes? boolean
| | | | | | | | | +---ro client* []
| | | | | | | | | +---ro name? string
| | | | | | | | | +---ro jid? string
| | | | | | | | | +---ro reason? string
| | | | | | | | +---ro changed-file* []
| | | | | | | | | +---ro path? string
| | | | | | | | | +---ro change? Inst-file-change
| | | | | | | | +---ro impacted-process* []
| | | | | | | | | +---ro name? string
| | | | | | | | | +---ro change? Inst-proc-change
| | | | | | | | | +---ro pid? uint32
| | | | | | | | +---ro changed-feature* []
| | | | | | | | | +---ro feature-name? string
| | | | | | | | | +---ro change? Inst-feature-change
| | | | | | | | +---ro client-type? Inst-client
| | | | | | | | +---ro legacy-client? boolean
| | | | | | | | +---ro client? string
| | | | | | | | +---ro description? string
| | | | | | | | +---ro sent-time? string
| | | | | | | | +---ro response-status? Inst-notif-res
| | | | | | | | +---ro error? String1
| | | | | | | | +---ro response-time? string

```

```

| | | | | +---ro veto-reason?          String1
| | | | | +---ro reload-reason* []
| | | | | | +---ro node?          string
| | | | | | +---ro reason?       String1
| | | | | | +---ro extra-time-request* []
| | | | | |   +---ro time?         string
| | | | | |   +---ro extra-time?   uint32
| | | | | +---ro event* []
| | | | |   +---ro event?          Inst-node-event
| | | | |   +---ro time?          string
| | | | |   +---ro reason?        String1
| | | | |   +---ro event-id?      uint32
| | | | +---ro latest-atomic-change
| | | | +---ro packaging-operations
| | | | | +---ro packaging-operation* [index]
| | | | |   +---ro index                uint32
| | | | |   +---ro packaging-operation-errors-nodes
| | | | | | +---ro packaging-operation-errors-node* [node]
| | | | | |   +---ro node              xr:Node-id
| | | | | |   +---ro lines*           String1
| | | | | +---ro packaging-operation-info
| | | | |   +---ro request
| | | | | | +---ro operation
| | | | | | | +---ro unknown-packages
| | | | | | | | +---ro package-name*   String1
| | | | | | | +---ro install-packages
| | | | | | | | +---ro package-name*   String1
| | | | | | | +---ro remove-packages
| | | | | | | | +---ro package-name*   String1
| | | | | | | +---ro upgrade-packages
| | | | | | | | +---ro package-name*   String1
| | | | | | | +---ro downgrade-packages
| | | | | | | | +---ro package-name*   String1
| | | | | | +---ro request?           Inst-request
| | | | | | +---ro replace-iso?       String1
| | | | | | +---ro rollback-to-transaction? uint32
| | | | | +---ro abort-operation
| | | | | | +---ro abort-type?         Inst-package-abort
| | | | | | +---ro packaging-operation* uint32
| | | | | | +---ro reason?            Inst-req-reason
| | | | | +---ro index?              uint32
| | | | | +---ro error-string?        String1
| | | | | +---ro status-history* []
| | | | | | +---ro status?            Inst-pkg-op-status
| | | | | | +---ro reason?           String1
| | | | | | +---ro time?            string
| | | | | | +---ro event-id?        uint32
| | | | | +---ro nodes* []
| | | | |   +---ro node?              string
| | | | |   +---ro download-size?     uint64
| | | | |   +---ro installed-size?    uint64
| | | | |   +---ro package* []
| | | | | | +---ro package
| | | | | | | +---ro name?            string
| | | | | | | +---ro version?        String1
| | | | | | | +---ro architecture?   String1
| | | | | | +---ro action?          Inst-pkg-op-act
| | | | | +---ro packages-no-action* []
| | | | | | +---ro package
| | | | | | | +---ro name?            string
| | | | | | | +---ro version?        String1
| | | | | | | +---ro architecture?   String1
| | | | | | +---ro reason?          Inst-no-action-reason
| | | | | +---ro veto-notification* []

```

```

| | | | | +---ro notification-trigger
| | | | | | +---ro trigger-changeset
| | | | | | | +---ro reload-reasons
| | | | | | | | +---ro packages
| | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro too-many-processes?  boolean
| | | | | | | | | +---ro client* []
| | | | | | | | | | +---ro name?      string
| | | | | | | | | | +---ro jid?      string
| | | | | | | | | | +---ro reason?   string
| | | | | | | | | +---ro changed-file* []
| | | | | | | | | | +---ro path?      string
| | | | | | | | | | +---ro change?   Inst-file-change
| | | | | | | | | +---ro impacted-process* []
| | | | | | | | | | +---ro name?      string
| | | | | | | | | | +---ro change?   Inst-proc-change
| | | | | | | | | | +---ro pid?      uint32
| | | | | | | | | +---ro changed-feature* []
| | | | | | | | | | +---ro feature-name?  string
| | | | | | | | | | +---ro change?   Inst-feature-change
| | | | | | | | | +---ro client-type?   Inst-client
| | | | | | | | | +---ro legacy-client?  boolean
| | | | | | | | | +---ro client?      string
| | | | | | | | | +---ro description?  string
| | | | | | | | | +---ro sent-time?     string
| | | | | | | | | +---ro response-status?  Inst-notif-res
| | | | | | | | | +---ro error?      String1
| | | | | | | | | +---ro response-time?  string
| | | | | | | | | +---ro veto-reason?   String1
| | | | | | | | | +---ro reload-reason* []
| | | | | | | | | | +---ro node?      string
| | | | | | | | | | +---ro reason?   String1
| | | | | | | | | +---ro extra-time-request* []
| | | | | | | | | | +---ro time?      string
| | | | | | | | | | +---ro extra-time?  uint32
| | | | | | | | | +---ro prepare-veto-notification* []
| | | | | | | | | +---ro notification-trigger
| | | | | | | | | | +---ro trigger-changeset
| | | | | | | | | | | +---ro reload-reasons
| | | | | | | | | | | | +---ro packages
| | | | | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | | | | | +---ro too-many-processes?  boolean
| | | | | | | | | | | | | +---ro client* []
| | | | | | | | | | | | | | +---ro name?      string
| | | | | | | | | | | | | | +---ro jid?      string
| | | | | | | | | | | | | | +---ro reason?   string
| | | | | | | | | | | | | +---ro changed-file* []
| | | | | | | | | | | | | | +---ro path?      string
| | | | | | | | | | | | | | +---ro change?   Inst-file-change
| | | | | | | | | | | | | +---ro impacted-process* []
| | | | | | | | | | | | | | +---ro name?      string
| | | | | | | | | | | | | | +---ro change?   Inst-proc-change
| | | | | | | | | | | | | | +---ro pid?      uint32
| | | | | | | | | | | | | +---ro changed-feature* []
| | | | | | | | | | | | | | +---ro feature-name?  string
| | | | | | | | | | | | | | +---ro change?   Inst-feature-change
| | | | | | | | | | | | | +---ro client-type?   Inst-client
| | | | | | | | | | | | | +---ro legacy-client?  boolean
| | | | | | | | | | | | | +---ro client?      string
| | | | | | | | | | | | | +---ro description?  string
| | | | | | | | | | | | | +---ro sent-time?     string
| | | | | | | | | | | | | +---ro response-status?  Inst-notif-res
| | | | | | | | | | | | | +---ro error?      String1
| | | | | | | | | | | | | +---ro response-time?  string

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| | | | +---ro veto-reason?          String1
| | | | +---ro reload-reason* []
| | | | | +---ro node?          string
| | | | | +---ro reason?       String1
| | | | +---ro extra-time-request* []
| | | | | +---ro time?         string
| | | | | +---ro extra-time?   uint32
| | | | +---ro prepare-notification* []
| | | | | +---ro notification-trigger
| | | | | | +---ro trigger-changeset
| | | | | | | +---ro reload-reasons
| | | | | | | | +---ro packages
| | | | | | | | | +---ro package-name*   String1
| | | | | | | | | +---ro too-many-processes?  boolean
| | | | | | | | | +---ro client* []
| | | | | | | | | | +---ro name?         string
| | | | | | | | | | +---ro jid?         string
| | | | | | | | | | +---ro reason?       string
| | | | | | | | +---ro changed-file* []
| | | | | | | | | +---ro path?         string
| | | | | | | | | +---ro change?       Inst-file-change
| | | | | | | | +---ro impacted-process* []
| | | | | | | | | +---ro name?         string
| | | | | | | | | +---ro change?       Inst-proc-change
| | | | | | | | | +---ro pid?         uint32
| | | | | | | | +---ro changed-feature* []
| | | | | | | | | +---ro feature-name?   string
| | | | | | | | | +---ro change?       Inst-feature-change
| | | | | | | | +---ro client-type?     Inst-client
| | | | | | | | +---ro legacy-client?   boolean
| | | | | | | +---ro client?           string
| | | | | | +---ro description?        string
| | | | | | +---ro sent-time?          string
| | | | | | +---ro response-status?    Inst-notif-res
| | | | | | +---ro error?              String1
| | | | | | +---ro response-time?      string
| | | | | | +---ro veto-reason?       String1
| | | | | | +---ro reload-reason* []
| | | | | | | +---ro node?          string
| | | | | | | +---ro reason?       String1
| | | | | | +---ro extra-time-request* []
| | | | | | | +---ro time?         string
| | | | | | | +---ro extra-time?   uint32
| | | | | +---ro event* []
| | | | | | +---ro event?          Inst-node-event
| | | | | | +---ro time?          string
| | | | | | +---ro reason?       String1
| | | | | | +---ro event-id?     uint32
| | | +---ro atomic-change-info
| | | | +---ro index?            uint32
| | | | +---ro requested-apply-method?  Inst-activation
| | | | +---ro least-impactful-apply-method?  Inst-activation
| | | | +---ro install-restart?       boolean
| | | | +---ro status-history* []
| | | | | +---ro status?            Inst-atomic-status
| | | | | +---ro reason?          String1
| | | | | +---ro time?           string
| | | | | +---ro event-id?       uint32
| | | | +---ro nodes* []
| | | | | +---ro changeset
| | | | | | +---ro reload-reasons
| | | | | | | +---ro packages
| | | | | | | | +---ro package-name*   String1
| | | | | | | +---ro too-many-processes?  boolean

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```

| | | | +---ro client* []
| | | | | +---ro name? string
| | | | | +---ro jid? string
| | | | | +---ro reason? string
| | | | +---ro changed-file* []
| | | | | +---ro path? string
| | | | | +---ro change? Inst-file-change
| | | | +---ro impacted-process* []
| | | | | +---ro name? string
| | | | | +---ro change? Inst-proc-change
| | | | | +---ro pid? uint32
| | | | +---ro changed-feature* []
| | | | | +---ro feature-name? string
| | | | | +---ro change? Inst-feature-change
| | | +---ro node? string
| | +---ro pre-pre-apply-notification* []
| | | +---ro notification-trigger
| | | | +---ro trigger-changeset
| | | | | +---ro reload-reasons
| | | | | | +---ro packages
| | | | | | | +---ro package-name* String1
| | | | | | +---ro too-many-processes? boolean
| | | | | | +---ro client* []
| | | | | | | +---ro name? string
| | | | | | | +---ro jid? string
| | | | | | | +---ro reason? string
| | | | | +---ro changed-file* []
| | | | | | +---ro path? string
| | | | | | +---ro change? Inst-file-change
| | | | | +---ro impacted-process* []
| | | | | | +---ro name? string
| | | | | | +---ro change? Inst-proc-change
| | | | | | +---ro pid? uint32
| | | | | +---ro changed-feature* []
| | | | | | +---ro feature-name? string
| | | | | | +---ro change? Inst-feature-change
| | | | +---ro client-type? Inst-client
| | | | +---ro legacy-client? boolean
| | | +---ro client? string
| | | +---ro description? string
| | | +---ro sent-time? string
| | | +---ro response-status? Inst-notif-res
| | | +---ro error? String1
| | | +---ro response-time? string
| | | +---ro veto-reason? String1
| | | +---ro reload-reason* []
| | | | +---ro node? string
| | | | +---ro reason? String1
| | | +---ro extra-time-request* []
| | | | +---ro time? string
| | | | +---ro extra-time? uint32
| | +---ro pre-apply-notification* []
| | | +---ro notification-trigger
| | | | +---ro trigger-changeset
| | | | | +---ro reload-reasons
| | | | | | +---ro packages
| | | | | | | +---ro package-name* String1
| | | | | | +---ro too-many-processes? boolean
| | | | | | +---ro client* []
| | | | | | | +---ro name? string
| | | | | | | +---ro jid? string
| | | | | | | +---ro reason? string
| | | | | +---ro changed-file* []
| | | | | | +---ro path? string

```



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| | | | +--ro change?  Inst-file-change
| | | | +--ro impacted-process* []
| | | | | +--ro name?  string
| | | | | +--ro change?  Inst-proc-change
| | | | | +--ro pid?    uint32
| | | | +--ro changed-feature* []
| | | | | +--ro feature-name?  string
| | | | | +--ro change?      Inst-feature-change
| | | | +--ro client-type?   Inst-client
| | | | +--ro legacy-client? boolean
| | | | +--ro client?       string
| | | | +--ro description?  string
| | | | +--ro sent-time?    string
| | | | +--ro response-status? Inst-notif-res
| | | | +--ro error?       String1
| | | | +--ro response-time? string
| | | | +--ro veto-reason?  String1
| | | | +--ro reload-reason* []
| | | | | +--ro node?      string
| | | | | +--ro reason?   String1
| | | | +--ro extra-time-request* []
| | | | | +--ro time?      string
| | | | | +--ro extra-time? uint32
+--ro apply-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name*  String1
| | | | | +--ro too-many-processes? boolean
| | | | | +--ro client* []
| | | | | | +--ro name?      string
| | | | | | +--ro jid?      string
| | | | | | +--ro reason?   string
| | | | +--ro changed-file* []
| | | | | +--ro path?      string
| | | | | +--ro change?   Inst-file-change
| | | | +--ro impacted-process* []
| | | | | +--ro name?      string
| | | | | +--ro change?   Inst-proc-change
| | | | | +--ro pid?      uint32
| | | | +--ro changed-feature* []
| | | | | +--ro feature-name?  string
| | | | | +--ro change?      Inst-feature-change
| | | | +--ro client-type?   Inst-client
| | | | +--ro legacy-client? boolean
| | | | +--ro client?       string
| | | | +--ro description?  string
| | | | +--ro sent-time?    string
| | | | +--ro response-status? Inst-notif-res
| | | | +--ro error?       String1
| | | | +--ro response-time? string
| | | | +--ro veto-reason?  String1
| | | | +--ro reload-reason* []
| | | | | +--ro node?      string
| | | | | +--ro reason?   String1
| | | | +--ro extra-time-request* []
| | | | | +--ro time?      string
| | | | | +--ro extra-time? uint32
+--ro further-apply-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages

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| | | | | | +---ro package-name*   String1
| | | | | | +---ro too-many-processes?  boolean
| | | | | | +---ro client* []
| | | | | | | +---ro name?      string
| | | | | | | +---ro jid?       string
| | | | | | | +---ro reason?    string
| | | | | | +---ro changed-file* []
| | | | | | | +---ro path?      string
| | | | | | | +---ro change?    Inst-file-change
| | | | | | +---ro impacted-process* []
| | | | | | | +---ro name?      string
| | | | | | | +---ro change?    Inst-proc-change
| | | | | | | +---ro pid?       uint32
| | | | | | +---ro changed-feature* []
| | | | | | | +---ro feature-name?  string
| | | | | | | +---ro change?    Inst-feature-change
| | | | | | +---ro client-type?    Inst-client
| | | | | | +---ro legacy-client?  boolean
| | | | | | +---ro client?        string
| | | | | | +---ro description?    string
| | | | | | +---ro sent-time?      string
| | | | | | +---ro response-status? Inst-notif-res
| | | | | | +---ro error?         String1
| | | | | | +---ro response-time?  string
| | | | | | +---ro veto-reason?    String1
| | | | | | +---ro reload-reason* []
| | | | | | | +---ro node?       string
| | | | | | | +---ro reason?    String1
| | | | | | +---ro extra-time-request* []
| | | | | | | +---ro time?       string
| | | | | | | +---ro extra-time?  uint32
| | | | | | +---ro post-apply-notification* []
| | | | | | | +---ro notification-trigger
| | | | | | | | +---ro trigger-changeset
| | | | | | | | | +---ro reload-reasons
| | | | | | | | | | +---ro packages
| | | | | | | | | | | +---ro package-name*   String1
| | | | | | | | | | | +---ro too-many-processes?  boolean
| | | | | | | | | | | +---ro client* []
| | | | | | | | | | | | +---ro name?      string
| | | | | | | | | | | | +---ro jid?       string
| | | | | | | | | | | | +---ro reason?    string
| | | | | | | | | | | | +---ro changed-file* []
| | | | | | | | | | | | | +---ro path?      string
| | | | | | | | | | | | | +---ro change?    Inst-file-change
| | | | | | | | | | | | +---ro impacted-process* []
| | | | | | | | | | | | | +---ro name?      string
| | | | | | | | | | | | | +---ro change?    Inst-proc-change
| | | | | | | | | | | | | +---ro pid?       uint32
| | | | | | | | | | | | +---ro changed-feature* []
| | | | | | | | | | | | | +---ro feature-name?  string
| | | | | | | | | | | | | +---ro change?    Inst-feature-change
| | | | | | | | | | | | +---ro client-type?    Inst-client
| | | | | | | | | | | | | +---ro legacy-client?  boolean
| | | | | | | | | | | | +---ro client?        string
| | | | | | | | | | | | +---ro description?    string
| | | | | | | | | | | | +---ro sent-time?      string
| | | | | | | | | | | | +---ro response-status? Inst-notif-res
| | | | | | | | | | | | +---ro error?         String1
| | | | | | | | | | | | +---ro response-time?  string
| | | | | | | | | | | | +---ro veto-reason?    String1
| | | | | | | | | | | | +---ro reload-reason* []
| | | | | | | | | | | | | +---ro node?       string
| | | | | | | | | | | | | +---ro reason?    String1

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| | | | +---ro extra-time-request* []
| | | | | +---ro time? string
| | | | | +---ro extra-time? uint32
| | | +---ro post-post-apply-notification* []
| | | | +---ro notification-trigger
| | | | | +---ro trigger-changeset
| | | | | | +---ro reload-reasons
| | | | | | | +---ro packages
| | | | | | | | +---ro package-name* String1
| | | | | | | | +---ro too-many-processes? boolean
| | | | | | | | +---ro client* []
| | | | | | | | | +---ro name? string
| | | | | | | | | +---ro jid? string
| | | | | | | | | +---ro reason? string
| | | | | | | +---ro changed-file* []
| | | | | | | | +---ro path? string
| | | | | | | | +---ro change? Inst-file-change
| | | | | | | +---ro impacted-process* []
| | | | | | | | +---ro name? string
| | | | | | | | +---ro change? Inst-proc-change
| | | | | | | | +---ro pid? uint32
| | | | | | | +---ro changed-feature* []
| | | | | | | | +---ro feature-name? string
| | | | | | | | | +---ro change? Inst-feature-change
| | | | | | | | +---ro client-type? Inst-client
| | | | | | | | +---ro legacy-client? boolean
| | | | | +---ro client? string
| | | | | +---ro description? string
| | | | | +---ro sent-time? string
| | | | | +---ro response-status? Inst-notif-res
| | | | | +---ro error? String1
| | | | | +---ro response-time? string
| | | | | +---ro veto-reason? String1
| | | | | +---ro reload-reason* []
| | | | | | +---ro node? string
| | | | | | +---ro reason? String1
| | | | | +---ro extra-time-request* []
| | | | | | +---ro time? string
| | | | | | +---ro extra-time? uint32
| | | +---ro event* []
| | | | +---ro event? Inst-node-event
| | | | +---ro time? string
| | | | +---ro reason? String1
| | | | +---ro event-id? uint32
| +---ro transactions
| | +---ro transaction* [transaction-id]
| | | +---ro transaction-id uint32
| | | +---ro transaction-info
| | | | +---ro started-by-user-request
| | | | | +---ro unknown-packages
| | | | | | +---ro package-name* String1
| | | | | +---ro install-packages
| | | | | | +---ro package-name* String1
| | | | | +---ro remove-packages
| | | | | | +---ro package-name* String1
| | | | | +---ro upgrade-packages
| | | | | | +---ro package-name* String1
| | | | | +---ro downgrade-packages
| | | | | | +---ro package-name* String1
| | | | | +---ro request? Inst-request
| | | | | +---ro replace-iso? String1
| | | | | +---ro rollback-to-transaction? uint32
| | | | +---ro transaction-id? uint32
| | | +---ro status-history* []

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| | +--ro status?      Inst-trans-status
| | +--ro reason?     String1
| | +--ro time?       string
| | +--ro event-id?   uint32
| +--ro nodes* []
|   +--ro node?      String1
|     +--ro event* []
|       +--ro event?      Inst-node-event
|       +--ro time?       string
|       +--ro reason?     String1
|       +--ro event-id?   uint32
+--ro atomic-changes
  +--ro atomic-change* [index]
    +--ro index          uint32
    +--ro packaging-operations
      +--ro packaging-operation* [index]
        +--ro index          uint32
        +--ro packaging-operation-errors-nodes
          +--ro packaging-operation-errors-node* [node]
            +--ro node      xr:Node-id
            +--ro lines*   String1
        +--ro packaging-operation-info
          +--ro request
            +--ro operation
              +--ro unknown-packages
                +--ro package-name* String1
              +--ro install-packages
                +--ro package-name* String1
              +--ro remove-packages
                +--ro package-name* String1
              +--ro upgrade-packages
                +--ro package-name* String1
              +--ro downgrade-packages
                +--ro package-name* String1
              +--ro request?      Inst-request
              +--ro replace-iso?  String1
              +--ro rollback-to-transaction? uint32
            +--ro abort-operation
              +--ro abort-type?      Inst-package-abort
              +--ro packaging-operation* uint32
            +--ro reason?          Inst-req-reason
          +--ro index?          uint32
          +--ro error-string?   String1
          +--ro status-history* []
            +--ro status?      Inst-pkg-op-status
            +--ro reason?     String1
            +--ro time?       string
            +--ro event-id?   uint32
          +--ro nodes* []
            +--ro node?      string
            +--ro download-size?  uint64
            +--ro installed-size? uint64
            +--ro package* []
              +--ro package
                +--ro name?      string
                +--ro version?   String1
                +--ro architecture? String1
                +--ro action?    Inst-pkg-op-act
            +--ro packages-no-action* []
              +--ro package
                +--ro name?      string
                +--ro version?   String1
                +--ro architecture? String1
              +--ro reason?    Inst-no-action-reason

```

```

+--ro veto-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name* String1
| | | | +--ro too-many-processes? boolean
| | | | +--ro client* []
| | | | | +--ro name? string
| | | | | +--ro jid? string
| | | | | +--ro reason? string
| | | +--ro changed-file* []
| | | | +--ro path? string
| | | | +--ro change? Inst-file-change
| | | +--ro impacted-process* []
| | | | +--ro name? string
| | | | +--ro change? Inst-proc-change
| | | | +--ro pid? uint32
| | | +--ro changed-feature* []
| | | | +--ro feature-name? string
| | | | +--ro change? Inst-feature-change
| | +--ro client-type? Inst-client
| +--ro legacy-client? boolean
+--ro client? string
+--ro description? string
+--ro sent-time? string
+--ro response-status? Inst-notif-res
+--ro error? String1
+--ro response-time? string
+--ro veto-reason? String1
+--ro reload-reason* []
| +--ro node? string
| +--ro reason? String1
+--ro extra-time-request* []
| +--ro time? string
| +--ro extra-time? uint32
+--ro prepare-veto-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name* String1
| | | | +--ro too-many-processes? boolean
| | | | +--ro client* []
| | | | | +--ro name? string
| | | | | +--ro jid? string
| | | | | +--ro reason? string
| | | +--ro changed-file* []
| | | | +--ro path? string
| | | | +--ro change? Inst-file-change
| | | +--ro impacted-process* []
| | | | +--ro name? string
| | | | +--ro change? Inst-proc-change
| | | | +--ro pid? uint32
| | | +--ro changed-feature* []
| | | | +--ro feature-name? string
| | | | +--ro change? Inst-feature-change
| | +--ro client-type? Inst-client
| +--ro legacy-client? boolean
+--ro client? string
+--ro description? string
+--ro sent-time? string
+--ro response-status? Inst-notif-res
+--ro error? String1

```

```

|         |         |         | +---ro response-time?          string
|         |         |         | +---ro veto-reason?           String1
|         |         |         | +---ro reload-reason* []
|         |         |         | | +---ro node?                string
|         |         |         | | +---ro reason?             String1
|         |         |         | +---ro extra-time-request* []
|         |         |         | | +---ro time?                 string
|         |         |         | | +---ro extra-time?          uint32
|         |         |         | +---ro prepare-notification* []
|         |         |         | | +---ro notification-trigger
|         |         |         | | | +---ro trigger-changeset
|         |         |         | | | | +---ro reload-reasons
|         |         |         | | | | | +---ro packages
|         |         |         | | | | | +---ro package-name*   String1
|         |         |         | | | | | +---ro too-many-processes? boolean
|         |         |         | | | | | +---ro client* []
|         |         |         | | | | | | +---ro name?           string
|         |         |         | | | | | | +---ro jid?            string
|         |         |         | | | | | | +---ro reason?         string
|         |         |         | | | | | +---ro changed-file* []
|         |         |         | | | | | | +---ro path?            string
|         |         |         | | | | | | +---ro change?          Inst-file-change
|         |         |         | | | | | +---ro impacted-process* []
|         |         |         | | | | | | +---ro name?            string
|         |         |         | | | | | | +---ro change?          Inst-proc-change
|         |         |         | | | | | | +---ro pid?              uint32
|         |         |         | | | | | +---ro changed-feature* []
|         |         |         | | | | | | +---ro feature-name?    string
|         |         |         | | | | | | +---ro change?          Inst-feature-change
|         |         |         | | | | | +---ro client-type?      Inst-client
|         |         |         | | | | | +---ro legacy-client?    boolean
|         |         |         | | +---ro client?                 string
|         |         |         | | +---ro description?            string
|         |         |         | | +---ro sent-time?              string
|         |         |         | | +---ro response-status?        Inst-notif-res
|         |         |         | | +---ro error?                  String1
|         |         |         | | +---ro response-time?          string
|         |         |         | | +---ro veto-reason?           String1
|         |         |         | | +---ro reload-reason* []
|         |         |         | | | +---ro node?                string
|         |         |         | | | +---ro reason?             String1
|         |         |         | | +---ro extra-time-request* []
|         |         |         | | | +---ro time?                 string
|         |         |         | | | +---ro extra-time?          uint32
|         |         |         | +---ro event* []
|         |         |         | | +---ro event?                 Inst-node-event
|         |         |         | | +---ro time?                  string
|         |         |         | | +---ro reason?                 String1
|         |         |         | | +---ro event-id?              uint32
|         |         |         | +---ro atomic-change-info
|         |         |         | | +---ro index?                  uint32
|         |         |         | | +---ro requested-apply-method? Inst-activatio
|         |         |         | | +---ro least-impactful-apply-method? Inst-activation
|         |         |         | | +---ro install-restart?        boolean
|         |         |         | | +---ro status-history* []
|         |         |         | | | +---ro status?              Inst-atomic-status
|         |         |         | | | +---ro reason?              String1
|         |         |         | | | +---ro time?                string
|         |         |         | | | +---ro event-id?            uint32
|         |         |         | +---ro nodes* []
|         |         |         | | +---ro changeset
|         |         |         | | | +---ro reload-reasons
|         |         |         | | | | +---ro packages
|         |         |         | | | | +---ro package-name*     String1

```

```

| | +--ro too-many-processes?  boolean
| | +--ro client* []
| |   +--ro name?      string
| |   +--ro jid?       string
| |   +--ro reason?    string
| +--ro changed-file* []
| |   +--ro path?      string
| |   +--ro change?    Inst-file-change
| +--ro impacted-process* []
| |   +--ro name?      string
| |   +--ro change?    Inst-proc-change
| |   +--ro pid?       uint32
| +--ro changed-feature* []
| |   +--ro feature-name?  string
| |   +--ro change?        Inst-feature-change
+--ro node?                  string
+--ro pre-pre-apply-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name*  String1
| | | | | +--ro too-many-processes?  boolean
| | | | | +--ro client* []
| | | | |   +--ro name?      string
| | | | |   +--ro jid?       string
| | | | |   +--ro reason?    string
| | | | | +--ro changed-file* []
| | | | |   +--ro path?      string
| | | | |   +--ro change?    Inst-file-change
| | | | | +--ro impacted-process* []
| | | | |   +--ro name?      string
| | | | |   +--ro change?    Inst-proc-change
| | | | |   +--ro pid?       uint32
| | | | | +--ro changed-feature* []
| | | | |   +--ro feature-name?  string
| | | | |   +--ro change?        Inst-feature-change
| | +--ro client-type?      Inst-client
| | +--ro legacy-client?    boolean
| +--ro client?              string
+--ro description?          string
+--ro sent-time?            string
+--ro response-status?      Inst-notif-res
+--ro error?                 String1
+--ro response-time?         string
+--ro veto-reason?           String1
+--ro reload-reason* []
| | +--ro node?      string
| | +--ro reason?    String1
+--ro extra-time-request* []
| +--ro time?      string
| +--ro extra-time?  uint32
+--ro pre-apply-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name*  String1
| | | | | +--ro too-many-processes?  boolean
| | | | | +--ro client* []
| | | | |   +--ro name?      string
| | | | |   +--ro jid?       string
| | | | |   +--ro reason?    string
| | | | | +--ro changed-file* []

```

```

| | | | +---ro path?      string
| | | | +---ro change?   Inst-file-change
| | | +---ro impacted-process* []
| | | | +---ro name?     string
| | | | +---ro change?   Inst-proc-change
| | | | +---ro pid?      uint32
| | | +---ro changed-feature* []
| | | | +---ro feature-name? string
| | | | +---ro change?   Inst-feature-change
| | +---ro client-type?   Inst-client
| | +---ro legacy-client? boolean
| +---ro client?         string
| +---ro description?   string
| +---ro sent-time?     string
| +---ro response-status? Inst-notif-res
| +---ro error?         String1
| +---ro response-time? string
| +---ro veto-reason?   String1
| +---ro reload-reason* []
| | +---ro node?        string
| | +---ro reason?     String1
| +---ro extra-time-request* []
| | +---ro time?        string
| | +---ro extra-time?  uint32
+---ro apply-notification* []
| +---ro notification-trigger
| | +---ro trigger-changeset
| | | +---ro reload-reasons
| | | | +---ro packages
| | | | | +---ro package-name* String1
| | | | +---ro too-many-processes? boolean
| | | | +---ro client* []
| | | | | +---ro name?      string
| | | | | +---ro jid?       string
| | | | | +---ro reason?   string
| | | | +---ro changed-file* []
| | | | | +---ro path?     string
| | | | | +---ro change?   Inst-file-change
| | | +---ro impacted-process* []
| | | | +---ro name?     string
| | | | +---ro change?   Inst-proc-change
| | | | +---ro pid?      uint32
| | | +---ro changed-feature* []
| | | | +---ro feature-name? string
| | | | +---ro change?   Inst-feature-change
| | +---ro client-type?   Inst-client
| | +---ro legacy-client? boolean
| +---ro client?         string
| +---ro description?   string
| +---ro sent-time?     string
| +---ro response-status? Inst-notif-res
| +---ro error?         String1
| +---ro response-time? string
| +---ro veto-reason?   String1
| +---ro reload-reason* []
| | +---ro node?        string
| | +---ro reason?     String1
| +---ro extra-time-request* []
| | +---ro time?        string
| | +---ro extra-time?  uint32
+---ro further-apply-notification* []
| +---ro notification-trigger
| | +---ro trigger-changeset
| | | +---ro reload-reasons

```



```

| | | | +---ro packages
| | | | | +---ro package-name*  String1
| | | | +---ro too-many-processes?  boolean
| | | | +---ro client*  []
| | | | | +---ro name?    string
| | | | | +---ro jid?     string
| | | | | +---ro reason?  string
| | | | +---ro changed-file*  []
| | | | | +---ro path?    string
| | | | | +---ro change?  Inst-file-change
| | | | +---ro impacted-process*  []
| | | | | +---ro name?    string
| | | | | +---ro change?  Inst-proc-change
| | | | | +---ro pid?    uint32
| | | | +---ro changed-feature*  []
| | | | | +---ro feature-name?  string
| | | | | +---ro change?    Inst-feature-change
| | | | +---ro client-type?    Inst-client
| | | | +---ro legacy-client?  boolean
| | | | +---ro client?        string
| | | | +---ro description?   string
| | | | +---ro sent-time?     string
| | | | +---ro response-status? Inst-notif-res
| | | | +---ro error?        String1
| | | | +---ro response-time? string
| | | | +---ro veto-reason?   String1
| | | | +---ro reload-reason*  []
| | | | | +---ro node?    string
| | | | | +---ro reason?  String1
| | | | +---ro extra-time-request*  []
| | | | | +---ro time?    string
| | | | | +---ro extra-time?  uint32
+---ro post-apply-notification*  []
| | +---ro notification-trigger
| | | +---ro trigger-changeset
| | | | +---ro reload-reasons
| | | | | +---ro packages
| | | | | | +---ro package-name*  String1
| | | | | +---ro too-many-processes?  boolean
| | | | | +---ro client*  []
| | | | | | +---ro name?    string
| | | | | | +---ro jid?     string
| | | | | | +---ro reason?  string
| | | | | +---ro changed-file*  []
| | | | | | +---ro path?    string
| | | | | | +---ro change?  Inst-file-change
| | | | | +---ro impacted-process*  []
| | | | | | +---ro name?    string
| | | | | | +---ro change?  Inst-proc-change
| | | | | | +---ro pid?    uint32
| | | | | +---ro changed-feature*  []
| | | | | | +---ro feature-name?  string
| | | | | | +---ro change?    Inst-feature-change
| | | | | +---ro client-type?    Inst-client
| | | | | +---ro legacy-client?  boolean
| | | | | +---ro client?        string
| | | | | +---ro description?   string
| | | | | +---ro sent-time?     string
| | | | | +---ro response-status? Inst-notif-res
| | | | | +---ro error?        String1
| | | | | +---ro response-time? string
| | | | | +---ro veto-reason?   String1
| | | | | +---ro reload-reason*  []
| | | | | | +---ro node?    string

```

```

| | +--ro reason?   String1
| | +--ro extra-time-request* []
| | +--ro time?     string
| | +--ro extra-time? uint32
+--ro post-post-apply-notification* []
| +--ro notification-trigger
| | +--ro trigger-changeset
| | | +--ro reload-reasons
| | | | +--ro packages
| | | | | +--ro package-name*   String1
| | | | | +--ro too-many-processes? boolean
| | | | | +--ro client* []
| | | | | +--ro name?           string
| | | | | +--ro jid?            string
| | | | | +--ro reason?        string
| | | | +--ro changed-file* []
| | | | | +--ro path?           string
| | | | | +--ro change?         Inst-file-change
| | | | +--ro impacted-process* []
| | | | | +--ro name?           string
| | | | | +--ro change?         Inst-proc-change
| | | | | +--ro pid?            uint32
| | | | +--ro changed-feature* []
| | | | | +--ro feature-name?   string
| | | | | +--ro change?         Inst-feature-change
| | | +--ro client-type?       Inst-client
| | | +--ro legacy-client?     boolean
| | +--ro client?              string
| | +--ro description?         string
| | +--ro sent-time?           string
| | +--ro response-status?     Inst-notif-res
| | +--ro error?               String1
| | +--ro response-time?       string
| | +--ro veto-reason?         String1
| | +--ro reload-reason* []
| | | +--ro node?             string
| | | +--ro reason?           String1
| | +--ro extra-time-request* []
| | +--ro time?               string
| | +--ro extra-time?         uint32
+--ro event* []
| +--ro event?               Inst-node-event
| +--ro time?                 string
| +--ro reason?               String1
| +--ro event-id?             uint32
+--ro packages
| +--ro cached
| | +--ro summary
| | | +--ro package* []
| | | | +--ro name?           string
| | | | +--ro architecture?   string
| | | | +--ro version?         string
| | | | +--ro release?         string
| | | | +--ro epoch?           Install-opt-string
| | +--ro all
| | | +--ro package* []
| | | | +--ro name?           string
| | | | +--ro architecture?   string
| | | | +--ro version?         string
| | | | +--ro release?         string
| | | | +--ro epoch?           Install-opt-string
| +--ro available
| | +--ro summary
| | | +--ro inaccessible-repository* String1

```

```

|     | +--ro package* []
|     | | +--ro name?      string
|     | | +--ro architecture? string
|     | | +--ro version?   string
|     | | +--ro repository? string
|     | | +--ro cached?    boolean
|     | | +--ro release?   Install-opt-string
|     | | +--ro epoch?    Install-opt-string
|     +--ro all
|         +--ro inaccessible-repository* String1
|         +--ro package* []
|             +--ro name?      string
|             +--ro architecture? string
|             +--ro version?   string
|             +--ro repository? string
|             +--ro cached?    boolean
|             +--ro release?   Install-opt-string
|             +--ro epoch?    Install-opt-string
+--ro internal
|   +--ro packages
|     +--ro pkgmgr
|       +--ro nodes
|         | +--ro node* [node]
|         | | +--ro node      xr:Node-id
|         | | +--ro package* []
|         | | | +--ro name?      string
|         | | | +--ro architecture? string
|         | | | +--ro version?   string
|         | | | +--ro release?   string
|         | | | +--ro epoch?    Install-opt-string
|         +--ro summary
|           +--ro package* []
|             +--ro name?      string
|             +--ro architecture? string
|             +--ro version?   string
|             +--ro release?   string
|             +--ro epoch?    Install-opt-string
+--ro request
|   +--ro verbose
|     +--ro available-actions
|       | +--ro available-action* Inst-action
|     +--ro current-activity?   Inst-activity
|     +--ro time-started?      String1
|     +--ro next-activity?     Inst-activity
|     +--ro node-request?      Inst-node-req
|     +--ro node-request-time? String1
|     +--ro node-request-time-left? uint32
|     +--ro nodes-responded?   uint32
|     +--ro nodes-total?      uint32
|     +--ro nodes-req-status* []
|       +--ro packaging-operation-status
|         | +--ro stage?      Inst-pkg-op-stage
|         | +--ro percentage-progress? uint32
|         | +--ro packages-complete?  uint32
|         | +--ro packages-total?    uint32
|       +--ro client-notification-status
|         | +--ro notification-phase? Inst-notif-phase
|         | +--ro time-sent?         string
|         | +--ro clients-responded* String1
|         | +--ro clients-waiting*   String1
|       +--ro node?                 string
|       +--ro current-request?      Inst-node-req
|       +--ro time-started?         String1
+--ro version

```

```

|   +--ro detail
|   |   +--ro label?                string
|   |   +--ro copyright-info?      string
|   |   +--ro hardware-info?       string
|   |   +--ro uptime?              string
|   |   +--ro location?            Install-opt-string
|   |   +--ro modified-since-label? boolean
|   |   +--ro processor?          Install-opt-string
|   |   +--ro package* []
|   |   |   +--ro name?            string
|   |   |   +--ro version?        string
|   |   |   +--ro built-by?       string
|   |   |   +--ro built-on?       string
|   |   |   +--ro workspace?     string
|   |   |   +--ro build-host?    string
|   +--ro brief
|   |   +--ro label?                string
|   |   +--ro copyright-info?      string
|   |   +--ro hardware-info?       string
|   |   +--ro uptime?              string
|   |   +--ro location?            Install-opt-string
|   |   +--ro modified-since-label? boolean
|   |   +--ro processor?          Install-opt-string
|   |   +--ro package* []
|   |   |   +--ro name?            string
|   |   |   +--ro version?        string
|   |   |   +--ro built-by?       string
|   |   |   +--ro built-on?       string
|   |   |   +--ro workspace?     string
|   |   |   +--ro build-host?    string
+--ro rollback
|   +--ro rollback-points
|   |   +--ro rollback-point* [id]
|   |   |   +--ro installed-packages
|   |   |   |   +--ro changes
|   |   |   |   |   +--ro package* []
|   |   |   |   |   |   +--ro package
|   |   |   |   |   |   |   +--ro name?            string
|   |   |   |   |   |   |   +--ro architecture?   string
|   |   |   |   |   |   |   +--ro version?        string
|   |   |   |   |   |   |   +--ro release?         string
|   |   |   |   |   |   |   +--ro epoch?          Install-opt-string
|   |   |   |   |   |   |   +--ro action?        Inst-pkg-op-act
|   |   |   |   +--ro top-level
|   |   |   |   |   +--ro package* []
|   |   |   |   |   |   +--ro name?            string
|   |   |   |   |   |   +--ro architecture?   string
|   |   |   |   |   |   +--ro version?        string
|   |   |   |   |   |   +--ro release?         string
|   |   |   |   |   |   +--ro epoch?          Install-opt-string
|   |   |   +--ro id                uint32
+--ro fixes
|   +--ro available
|   |   +--ro fixes* []
|   |   |   +--ro ddts?            string
|   |   |   +--ro package* []
|   |   |   |   +--ro name?            string
|   |   |   |   +--ro architecture?   string
|   |   |   |   +--ro version?        string
|   |   |   |   +--ro repository?    string
|   |   |   |   +--ro cached?        boolean
|   |   |   |   +--ro release?       Install-opt-string
|   |   |   |   +--ro epoch?        Install-opt-string

```

Cisco-IOS-XR-install-cfg

Configuration data model to specify the location of the install source.

The module is represented as follows:

```
module: Cisco-IOS-XR-install-cfg
  +--rw install
    +--rw repositories
      +--rw repository* [id]
        +--rw url?          string
        +--rw description? string
        +--rw id            string
```

where the arguments indicate:

- **url:** string, contains the URL of the install repository
- **description:** string, contains the description of the install repository
- **id**

Example usage:

```
<install-replace>
  <file>image.iso</file>
  <source-type>http</source-type>
  <source>/server/location/</source>
</install-replace>
```

Cisco-IOS-XR-install-oper

Operational data model to view details related to basic package information, active and committed packages and fixes.

The module is represented as follows:

```
module: Cisco-IOS-XR-install-oper
  +--ro install
    +--ro version
      | +--ro label?          string
      | +--ro copyright-info? string
      | +--ro hardware-info?  string
      | +--ro uptime?        string
      | +--ro location?      Install-opt-string
      | +--ro modified-since-label? boolean
      | +--ro processor?     Install-opt-string
      | +--ro package* []
      |   +--ro name?        string
      |   +--ro version?     string
      |   +--ro built-by?    string
      |   +--ro built-on?    string
      |   +--ro workspace?   string
      |   +--ro build-host?  string
    +--ro fixes
      | +--ro active
      | | +--ro fixes* []
      | |   +--ro dfts?    string
```

```

| |      +---ro package* []
| |      +---ro name?      string
| |      +---ro architecture? string
| |      +---ro version?   string
| |      +---ro release?   string
| |      +---ro epoch?     Install-opt-string
| +---ro committed
|   +---ro fixes* []
|     +---ro ddt?        string
|     +---ro package* []
|       +---ro name?      string
|       +---ro architecture? string
|       +---ro version?   string
|       +---ro release?   string
|       +---ro epoch?     Install-opt-string
+---ro packages
| +---ro committed
| | +---ro nodes
| | | +---ro node* [node]
| | |   +---ro node      xr:Node-id
| | |   +---ro package* []
| | |     +---ro name?      string
| | |     +---ro architecture? string
| | |     +---ro version?   string
| | |     +---ro release?   string
| | |     +---ro epoch?     Install-opt-string
| | | +---ro summary
| | |   +---ro package* []
| | |     +---ro name?      string
| | |     +---ro architecture? string
| | |     +---ro version?   string
| | |     +---ro release?   string
| | |     +---ro epoch?     Install-opt-string
| | +---ro active
| | | +---ro nodes
| | | | +---ro node* [node]
| | | |   +---ro node      xr:Node-id
| | | |   +---ro package* []
| | | |     +---ro name?      string
| | | |     +---ro architecture? string
| | | |     +---ro version?   string
| | | |     +---ro release?   string
| | | |     +---ro epoch?     Install-opt-string
| | | +---ro summary
| | |   +---ro package* []
| | |     +---ro name?      string
| | |     +---ro architecture? string
| | |     +---ro version?   string
| | |     +---ro release?   string
| | |     +---ro epoch?     Install-opt-string
+---ro request
  +---ro request?      string
  +---ro state?        Inst-req-state
  +---ro timestamp?   string
  +---ro error?        string

```

where the arguments indicate:

- **label:**
- **copyright-info:**
- **hardware-info:**

- **uptime:**
- **location:**
- **modified-since-label:**
- **processor:**
- **name:**
- **version:** Install version information
- **built-by:**
- **built-on:**
- **workspace:**
- **build-host:**
- **architecture:**
- **release:**
- **epoch:**

Cisco-IOS-XR-shellutil-copy-act

Action model to copy files on the router from a source location.

The module is represented as follows:

```

module: Cisco-IOS-XR-shellutil-copy-act

rpcs:
  +---x copy
    +---w input
      | +---w sourcename?          string
      | +---w destinationname     string
      | +---w sourcefilesystem    string
      | +---w destinationfilesystem string
      | +---w sourcelocation?     string
      | +---w destinationlocation? string
      | +---w vrf?                string
      | +---w recurse?           boolean
    +--ro output
      +--ro response?            string
  
```

where the arguments indicate:

- sourcename
- destinationname
- sourcefilesystem
- destinationfilesystem
- vrf

- recurse
- response

