UX Fault

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User documentation

To operate a network, it is important to get an overview about the currently raised alarms. The application offers basic fault management of devices supporting ONF-TR-532. The alarms are classified according to the severity level (warning, minor, major, critical).

Overview Fault management:

| CURRENT PROBLEM LIST ALARM NOTIFICATIONS (0) ALARM LOG | | | | | | | |
|--|------------------------|-----------|-------|-----------|------------|------------|--|
| | | | | | | ¢ C = : | |
| icon | Timestamp \downarrow | Node Name | Count | Object Id | Alarm Type | Severity | |
| A | 2021-02-10T07:22:36.5Z | sim2 | 0 | 2 | critical | NonAlarmed | |

Specification

"Fault" User Interface should be implemented to show the Alarm notifications of the devices.

Below are the UI elements to be implemented.

The graphical user interface is separated into three tabs:

- 1. Current Alarm Notifications
- 2. Alarm Notifications
- 3. Alarm Log

The table view implements the common ux-framework-table supporting sorting, filtering and pagination on the server.

The following tabs should show a table with its respective data.



Current Problem List

It lists all current active faults in the network. In addition, it also lists alarms sent by the SDN controller itself, which detects connection losses to the NetConf server (connectionLossOAM) or which detects connection loss to a device via a mediator to a device (connectionLossNeOAM).



: Reloads/Refresh the Current Problems List

Sync button

: Clears stuck alarms

The Current Alarm Notification panel shows the table with the below columns.

- icon
 Time Stamp
 Node Name
 Count
 Object Id
- 6. Alarm Type
- 7. Severity

| CURRENT PROBLEM LIST ALARM NOTIFICATIONS (0) ALARM LOG | | | | | | | |
|--|------------------------|-----------|-------|-----------|------------|------------|--|
| | | | | | | ¢ C ∓ : | |
| icon | Timestamp \downarrow | Node Name | Count | Object Id | Alarm Type | Severity | |
| A | 2021-02-10T07:22:36.5Z | sim2 | 0 | 2 | critical | NonAlarmed | |

Clear stuck alarms

The sync button allows refreshing the current alarms for the visual NEs.

If the alarms are not indicated as active anymore, they will be removed from the list.

Clear stuck Alarm icon will only be available when there are Faults available else it wont be visible.

Export

The "export to CSV" button will export the presented current problem list to a CSV File.

Alarm Notifications

As long as the page is not fully refreshed (the browser reloaded), it lists all alarm notifications reached by the SDN Controller. Previous alarm notification can be viewed in the alarm log.

Alarm Notifications should be collected in real-time via websockets.

The Alarm Notification panel shows the table with the below columns.

- 1. icon
- 2. Time Stamp
- 3. Node Name
- 4. Count
- 5. Object Id
- 6. Alarm Type
- 7. Severity

Alarm Log

Next to the currently active alarms, an alarm log lists all alarm notifications of the past.

The Alarm Log panel shows the table with the below columns.

- 1. icon
- 2. Time Stamp
- 3. Node Name
- 4. Count
- 5. Object Id
- Alarm Type
 Severity
- 7. Deventy

Reload Button

: Reloads/Refresh the Alarm log

| CURRENT PRO | BLEM LIST ALARM NOTIFICATIONS (0) | ALARM LOG | | | | | |
|-------------|-----------------------------------|-----------|-------|-----------|------------|------------|-----------|
| | | | | | | | G = : |
| icon | Timestamp \downarrow | Node Name | Count | Object Id | Alarm Type | Severity | Source |
| A | 2021-02-10T07:22:36.5Z | test84 | 0 | 2 | minor | NonAlarmed | undefined |

Fault status summary view

Elements like Screenshot below:

- 1. Elements are
 - a. Node status, showing the actually connected NEs number
 - b. Alarm Summary view
- 2. If Fault is enabled, status window is visible all the time, independent of the actually selected app.
- 3. If possible location is in the Title area at the right but left of Menue, Help or Logout
- 4. Order of Status element is the same, that is provided by order of left side menus entries
- 5. A click
 - a. onto the Alarm status area link to alarm app and alarm view
 - b. onto the Number of nodes links to the connect app
- 6. The layout needs to be adapted to React/Material layout.
- 7. Design discussion should be done: Is Node status part of Connect App and Fault part of Fault app or is both provided by Fault app?
- 8. Help Button in status bar is provided by help app. Framework provides information about actual selected app.

Screenshot with Summary view



Data Provider

The data is stored in an ElasticSearch database. The Data-Provider provides a REST-API to read the data.

- 1. Current Problem List
- a. get the current problem list: read-faultcurrent-list
- 2. Alarm Log
- a. get the alarm log: read-faultlog-list
- 3. Summary View a. get the fault status: read-status

Note: The alarm notifications are only updated via websockets. No REST-API is provided.