Modification of a functional split in case of insufficient availabiliy of resources

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Invention

The invention relates to the telecommunications sector, and in particular to a method and a system for restoring a connection to a telecommunications network for fifth generation services. In telecommunications networks, failures are frequent events and produce a degradation of the transmitted signal. The invention allows the 5G network connection to be restored, by reducing the transmission speed below the speed required by the service itself, or by modulating the amount of data transferred.

The proposed invention can be applied to a wide range of network scenarios: 5G networks, metropolitan networks, cloud computing, network function virtualization (NFV).

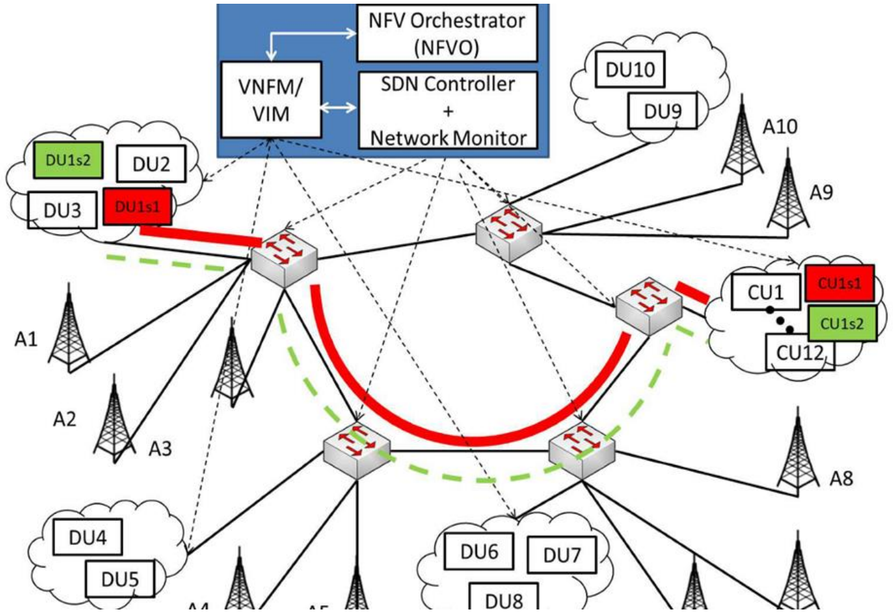
Networks still do not fully support 5G, especially with regard to network reconfiguration following failures.

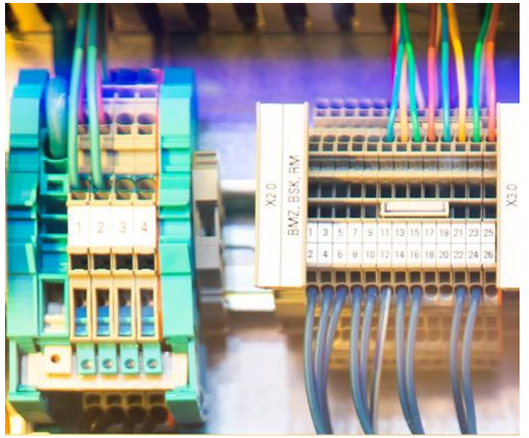
The proposed system comprises a central controller which identifies the availability, or not, of network resources and nodal devices for the transmission, transit and reception of data; the controller after the verification is able to restore the data traffic or modify the transmission of the data splitting it into two sequential data packets. This variability and modulation allows data traffic to be kept active even in the presence of faults.

The system grants greater reliability of 5G thanks to the pre-configuration of the central controller. The pre-instructed nodal device reacts immediately, avoiding notification of the controller and waiting for a response. Reducing traffic at the controller level.

The two-step recovery / modulation process allows, in case of impossibility of restoration, to modify split and lighten the connection.

Drawings
& pictures





Industrial applications

The main industrial applications are:

- 5G networks
- metropolitan networks
- cloud computing
- network function virtualization

Potential targets of interest:

- operators and service providers
- network element providers

Possible developments

The research group is interested in obtaining industrial collaborations aimed at increasing the technological maturity of the present invention or industrial partners interested in taking the license of the technology object of this patent.

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