Closing the loop in change management – the customer experience perspective

Side-effects of service environment changes are often a major contributing factor in negative customer viewing experiences. Operators can manage these changes efficiently and effectively – and close the loop in the change management process – with a customer experience centric approach and a data-driven way of working.

TV distribution today depends on the proper functioning of thousands of network nodes, servers and applications supporting a multitude of services and being operated by a number of teams across the operator organisation. All of these elements are frequently being updated and reconfigured to implement new services, to correct issues and to optimise distribution. Aggregated over the end-to-end service delivery chain, this means that thousands of changes are implemented every year. In addition, there are the new releases on player or set-top box software that are being introduced. There is no doubt that change and release management are some of the operators’ most frequently executed processes.

Many operators have implemented change and release management solutions to support the workflow in managing changes and software updates. Interestingly, however, most of these solutions don’t provide the answer to the central question: ‘How is the customer actually affected by the change?’ The customer experience perspective should be one of the most significant considerations when managing any adjustments to the service.

It is possible to divide this question into two parts: Did the change have the desired effect? And, were there any unwanted side-effects? Answering these questions, again from a customer experience perspective, is vital to closing the loop in the change and release management process. This is also necessary to quickly analyse whether to continue operations with the change or to perform a rollback to minimise problems affecting the customers.

The missing aspect

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Awareness and speed is key

Most operators are likely to benefit greatly from having increased control and confidence in their change and release management processes. To be able to ensure that the changes introduced have the expected result and that no undesired side-effects are introduced, operators need to have the relevant ‘before’ metrics as well as rapid access to the comparable ‘after’ metrics. This must not only be on a technical Quality of Service level, but also on an objective Quality of Experience level for all the affected customers. All this is essential in order to be certain of the effects; to be able to quickly decide if there is a customer experience problem that is so bad a rollback is required; or to ascertain whether it’s a problem that can be troubleshot in production.

With the means to efficiently analyse, validate and trouble-shoot impacts of changes and new software releases, operators can also enhance the customer experience in case of issues, lower cost for introducing new features, for example; and, increase service innovation speed.

By implementing a mission-focused and holistic support solution for service quality and customer experience monitoring, assurance and analytics, operators can gain the awareness and support needed to achieve all of this.

Requirements on a solution

To implement a good workable solution that really supports an efficient change and release management process, it is vital to include these aspects:

- **Overall compound KPIs on the service level**
  When introducing changes there are a lot of things that can go wrong and vast numbers of detailed parameters that could be measured to find any issues. But at the end of the day, delivered service quality as perceived by the consumer is what matters. One or a few compound QoE focused metrics allow for a quick and easy evaluation and analysis of the effects of a change.
• **Near real-time reporting and interaction**
  When introducing a change in your distribution solution you typically have only a limited amount of time to assess if the change is successful or if a rollback is needed – preferably before customers are negatively affected. To facilitate this, and to minimise maintenance window usage, rapid interaction with and reporting of data is essential; waiting for hours or even days just won’t do.

• **The possibility to aggregate on affected service consumption**
  Changes can be made in many dimensions: it could be a change affecting certain channels; a change somewhere in the network; or, a change in the end device. The solution must be able to select and aggregate data from the affected customers only to create the relevant basis for fact-based decision making.

**The data-driven way of working**
Applying a data-driven and more informed way of working to change management can lead to a better controlled outcome, improved efficiency, and less disturbances for the customer. A systematic process based on objective data and supported by a powerful support solution toolset enables an organisation to make informed decisions in striving for cost-efficient operations and improved customer satisfaction.