Major Changes in the TL 9000 R5.5 Measurements Handbook Addendum

IGQ Working Group
May 2017
Normalized One-year Return Rate (NYR)
Section 7.1

Change
- Removed NYR – still report ERI, YRR, and LTR

Reason
- NYR was developed to allow comparison of returns for different architectures
- NE using 4 plug-ins versus 12 plug-ins
- Not being used by customers or organizations
- Removal eliminates reporting of normalization, setting of objectives, etc.

Solution
- NYR and related rules have been removed from Section 7.1
Software Fix Quality (SFQ) Modification

Section 8.1

Reason

- Currently numerator-denominator timing mismatch
- Defective fixes are counted in numerator when no fixes are counted in denominator creating 1/0 monthly number
- Any single month the numerator can exceed the denominator so valid measurements can be greater than 100%
- Monthly value highly volatile

Solution

- Modified the SFQ measurement to follow the same methodology that Field Return measurements have used for years.
- Count 12 months of fixes in the monthly denominator modeling Field Return measurements
- Modified time frame for identification of defective fixes to a maximum of 12 months to match timing
- Modified Calculation as Annualized
Software Fix Quality (SFQ) Modification

old SFQ = \(100 \times \frac{\text{defective software fixes in month}}{\text{total number of fixes released in month}}\)

\(\%\) defective per month

new SFQ = \(100 \times \frac{\text{defective software fixes in month} \times A_{\text{factor}}}{\text{total number of fixes released in 12 months ending in month}}\)

\(\%\) defective per year
Incident Restore Rate (IRR)
New Section 9.3 – applies to categories 7.3.2 and 9.x

Purpose

▪ Quantify the responsiveness to Incidents and to facilitate prompt Restoration of normal service operation.

Description

▪ Measures the organization’s overall responsiveness to incidents.
▪ Applies to the restoration to normal service operation and its normal functionality
▪ Incidents classified as required and agreed between the customer and organization, normally with a formal agreement (Contract, Underpinning Contract Terms, OLA, SLA)
▪ Focus is on measuring the response performance to different agreements or internal target thresholds or the default targets where no formal target exists.
Incident Restore Rate (IRR)

Difference from FRT

- Not all incidents will be problem reports
- Incident restoration is normally measured in hours. FRT measures fix delivery and is typically measured in days and weeks.
- FRT and IRR default SLA values of 30 and 180 days versus 2 and 4 Hours.

Goal

- Improvement of the Incident Management process, thus ensuring that the best possible levels of service quality and availability are maintained for normal service operation.
- Reflects restored performance to agreed Service Levels or Targets. It is focused on the Operator’s Customer support desk and Network Operations Centre (NOC) managed by an Operator or a Supplier performing a Managed Service

Note: The measurement is reported on a monthly basis but can be used internally on a more frequent basis (typically weekly)
Incident Restore Rate (IRR)

3 Levels of Incident Management

1. Operator’s Service Desk supporting “End Customer”
   - Incidents created as a result of Customer Complaints
   - “SLA” normal for enterprise Customers
   - Product Category 9

2. Network Operations Centre
   - Incidents created as a result of Network Alarm Surveillance
   - Escalations to NOC from #1 al
   - Process executed by Operator or Supplier as a Managed Service
   - Product Category 7

3. Equipment supplier providing maintenance support
   - Subset of #2 incidents where the product supplier provides support
   - Not the focus for IRR
## Incident Restore Rate (IRR)

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Restore Target Reference</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irc</td>
<td>Agreed target</td>
<td>Number of Incidents closed on time</td>
</tr>
<tr>
<td>Ird</td>
<td>Agreed target</td>
<td>Number of Incidents due to be closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Title</th>
<th>Formula</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRR</td>
<td>Incident Restore Rate</td>
<td>100 x (Irc / Ird)</td>
<td>% closed on time</td>
</tr>
</tbody>
</table>
Incident Restore Rate (IRR)

Counting Rules

1. Incidents which are worked through an Incident Management process that are originated by a customer or notified via network surveillance processes shall be included.

2. The start of the interval for calculating Incident Restore Rate shall be the date and time when reported by a customer or when an incident is notified via network surveillance processes, depending on which sources of these first alert to the incident. Within the organization, the start time of the incident remains unchanged regardless of any subsequent change in severity.

3. The end of the interval for calculating Incident Restore Rate shall be the date and time when service or functionality has been returned to normal service operation as agreed or specified by the SLA / contract. Restoration does not necessarily include resolution of the underlying problem.
Incident Restore Rate (IRR)

Counting Rules

4. ...The end to end time to restore the service includes any time interval associated with the time spent by a supplier to support the restoration as defined within the contractual agreement e.g. Network Operations Centre, Field Operations, Third Party Technical Support or Suppliers.

5. ...incidents are counted once, ONLY in the month they are due to be restored and not in the month they are fixed or restored.

6. All times will be counted unless there is an Agreement or contract where specific areas of excessive delay may be discounted. By the nature of an incident restore, there is a need for the supplier and/or operator to work together with the customer to meet the necessary deadlines.
Incident Restore Rate (IRR)

Counting Rules

7. Any in-place Agreement or contracts should outline areas where excessive delays may be counted and have the delay period discounted from the restore measure, e.g. events where the customer specifically requests delay or reschedule of incident restore action, such as periods (weekend or holidays) when access to premises cannot be given.

8. If an Incident misses its restore due date and time when required by an Agreement, it is not counted in Incident Restore Rate again – even if a new due date is negotiated.
Incident Restore Rate (IRR)

Counting Rule Exclusions

1) The IRR measurement shall exclude the following because they do not meet the definition of TL9000 incidents:
   a) a report determined to represent an information request (IR), which need not be documented by the customer to the organization;
   b) a report determined to be a feature request by agreement between the organization and customer;
   c) a report related to use of the product in a manner not defined in the specification of the product by agreement between the organization and customer;

2) Incidents which are closed out through the initial operator contact center without the need for any escalation to the Incident Management Process are not included in this measurement.
Incident Restore Rate (IRR)

Counting Rule Exclusions - continued

3) The incident restore rate measurement is intended to quantify the organization’s performance in restoring normal service operations according to the agreement specified in the SLA. By default, all delays are included in the Incident Restore Rate, however specific causes of delays which are outside the control of the organization are excluded if documented in the SLA. The organization shall keep records of such delays with specific start and stop times as determined by the organization. Examples of these types of excessive delays are:

a) Inevitable, unpredictable, and unreasonably severe event caused by natural forces without any human interference, and over which an insured party has no control, such as an earthquake, flood, hurricane, lightning, snowstorm.

b) Some components of the measurement may be excluded based on contractual definitions (Agreements) or dependent on scope accountability, if they exist, e.g. incidents triggered by planned work may be excluded, if agreed in the contract or Agreement, if restored within the planned work activity time window. If an incident is active upon completion of the planned work activity time window, then the incident becomes unplanned and becomes part of the standard incident management process as well as the IRR measure.

c) In certain cases, restoration of normal service is dependent on another organization / 3rd party where a pre-existing SLA has or has not been defined. The time associated with the work carried out by the other organization / 3rd party is included in IRR unless the agreement specifies how these cases are handled.
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