



Prepared for: **Network Rail**

Prepared by: **[REDACTED]**

Date issued: **March 2020**

Network Rail – NROD Service Report Period 12 2nd February 2020 – 29th February 2020

CCI – Client Confidential Information

OFFICIAL



Table of Contents

| | |
|---|----------|
| 1. Document Control & Sign Off | 3 |
| 1.1. Distribution | 3 |
| 1.2. Amendment History | 3 |
| 2. Introduction | 4 |
| 3. Management Summary | 4 |
| 3.1. Service Desk Management Summary | 4 |
| 3.2. Total Incident Summary | 5 |
| 3.3. Availability / Errors per Period – Data | 6 |
| 4. Problems for Period..... | 6 |
| 5. Change Requests for Period..... | 7 |
| 6. Major Incident Summaries | 7 |
| 7. Information Assurance | 8 |
| 8. Business Continuity and Disaster Recovery | 8 |
| 9. Risks and Issues | 8 |

1. Document Control & Sign Off

1.1. Distribution

| Copy Number | Name | Organisation |
|-------------|--|--------------|
| 1 | TEDTeam@networkrail.co.uk | Network Rail |
| 2 | ██████████@networkrail.co.uk | Network Rail |
| 3 | ██████████@networkrail.co.uk | Network Rail |
| 4 | ██████████@networkrail.co.uk | Network Rail |
| 5 | ██████████@networkrail.co.uk | Network Rail |
| 6 | ██████████@networkrail.co.uk | Network Rail |
| 8 | ██████████ | CACI Ltd |
| 9 | ██████████ | CACI Ltd |

1.2. Amendment History

| Version | Author | Date | Status | Comments |
|---------|--------|---------|----------|----------|
| 0.1 | ██████ | 08/2019 | Draft | |
| 1.0 | ██████ | 02/2020 | Revised | |
| 1.1 | ██████ | 03/2020 | Released | |

2. Introduction

This report covers Operational Support for reporting Period-12 of 2nd February 2020 to 29th February 2020.

Contract SLA Service Level Availability is agreed at 99.00%

The report covers the operational support provision of the service. RAG Statuses are provided to allow for rapid visual identification of areas of the service requiring attention and adopt the convention shown below. For elapsed times the calculation used is *target/actual*100*.

| | |
|-------|--------------|
| Green | 99.00-100% |
| Amber | >75 – 99.00% |
| Red | < 75% |

3. Management Summary

There has been a significant increase in incidents since Period 11 which was expected as we exit the Christmas/New Year period but there has been an increase in major incidents and upstream issues which affected the service resulting in more tickets logged than usual.

We recorded 3 x P1 incidents in this period stemming from the same cause and investigation was undertaken in a Problem ticket.

User impact this month has been significant due to 3 x P1 incidents causing outages and 2 x P2 issues causing significant latency or outage. In addition, there were 2 separate upstream issues affecting the availability of TPS and CIF data files which have been resolved by Network Rail but no feedback has been given as to the cause.

3.1. Service Desk Management Summary

This reporting period has seen 29 tickets raised within CACI Ltd ITSM Toolset. Below is a high-level view of the volume of issues received from the business and initiatives taken from the wider supporting group.

- During this reporting period there were 29 tickets which were comprised of:
 - 24 incidents of Priority 3 status
 - 3 P1 events recorded and resolved
 - 2 P2 events recorded and resolved
 - 0 Service Request recorded and completed
- Availability for this period exceeded the required 99.00%
 - Active user capacity for the period – 760/1000
 - Pending Users for the Period - 0

3.2. Total Incident Summary

| Priority 1 | Priority 2 | Priority 3 | Priority 4 | Requests | Rejected | Total |
|------------|------------|------------|------------|----------|----------|-------|
| 3 | 2 | 24 | 0 | 0 | 0 | 29 |

The below incident percentages are marked up accordingly and not encompassing future releases.

This provides an overall summary of performance against headline service levels for the month.

| Headline service level | Frequency | %age acknowledged within agreed service level | %age within agreed service level | RAG |
|---|-----------|---|----------------------------------|-----|
| Carried Over | 0 | | | |
| Opened | 29 | 100% | 100% | G |
| Closed | 29 | 100% | 100% | G |
| Priority 1 | 3 | 100% | 100% | G |
| Priority 2 | 2 | 100% | 100% | G |
| Priority 3 | 24 | 100% | 100% | G |
| Priority 4 | 0 | 100% | 100% | G |
| Request | 0 | | | |
| Changes / Code Release Implemented – Agreed | 0 | | | |
| Improvements | 0 | | | |
| Currently Work in Progress – | 0 | | | |
| Planned Maintenance | 0 | N/A | | N/A |
| Service reporting and service reviews | 1 | 100% | | G |
| Disaster recovery | 0 | 0 | | N/A |

3.3. Availability / Errors per Period – Data

| Service | Percentage Availability |
|---|-------------------------|
| Core ORDDS Website | 99.98% |
| Core ORDDS Message Processing | 99.98% |
| Outgoing CIF Data Provision | 100.00% |
| All TOC VSTP Channel | 99.46% |
| All Route TSR Channel | 99.50% |
| Route Specific TSR Channel | 99.48% |
| All Signalling Areas TD Channel | 99.55% |
| Signalling Area Specific TD Channel (TD_ANG_SIG_AREA) | 99.46% |

4. Problems for Period

There was 1 Problem recorded for this Period.

| Key | Created | Priority | Summary | Updated | Status |
|--|------------|----------|--|--|--------|
| CACI: 20200208 00003611 NR: ??? | 08/02/2020 | 3 | <p>There is a problem with NROD where Tomcat starts to consume a lot more memory/CPU causing latency to increase and message rates to drop</p> <p>Current workaround is to restart Tomcat on NROD FrontEnd</p> | <p>28/02: We have been analysing logs and identified 3 users who “flicker” their connections to NROD (Disconnect followed by a new connect) sometimes as much as 2 times per second. This has caused clean-up and expiry tasks to work overtime and push memory usage far beyond normal levels. This bypasses DDoS protection as they are legitimate actions. These 3 users are no longer doing this, and memory usage has been stable ever since.</p> | Closed |

5. Change Requests for Period

No changes or releases were deployed to production in this Period.

| Key | Ref | | Priority | CACI Priority | From Name | Summary | Agreement Made | Status |
|-----|-----|--|----------|------------------|-----------|---------|-------------------|--------|
| | | | | | | | | |
| | | | | | | | | |

6. Major Incident Summaries

There were 5 Major Incidents for this reporting period

| Ref | Date | Priority | Description | Impact | Root Cause (Summary) | Status | Degraded Service/Ou tage (Minutes) |
|---|------------|----------|---|---|---|---|--|
| CACI: 202002040 0006562 NR: 7281272 | 04/02/2020 | 1 | All Real-Time Feeds degraded or unavailable between 17:39 and 18:10 | All NROD Users subscribed to Real-Time Data Feeds unable to consume data. | Service Degradation and subsequent Outage was caused by a memory leak on the Front-End server which required a restart of the affected service. | Resolved | Latency Total: 19 Minutes Downtime: 10 Minutes |
| CACI: 202002070 0002293 NR: 7287663 | 07/02/2020 | 1 | All Real-Time Feeds degraded or unavailable between 11:13 and 12:23 | All NROD Users subscribed to Real-Time Data Feeds unable to consume data. | Service Degradation and subsequent Outage was caused by a memory leak on the Front-End server which required a restart of the affected service. | Resolved | Latency Total: 60 Minutes Downtime: 10 Minutes |
| CACI: 202002080 0003111 NR: 7288783 | 08/02/2020 | 1 | All Real-Time Feeds degraded or unavailable between 09:48 and 10:39 | All NROD Users subscribed to Real-Time Data Feeds unable to consume data. | Service Degradation and subsequent Outage was caused by a memory leak on the Front-End server which required a restart of the affected service. | Resolved Problem Ticket Opened | Latency Total: 39 Minutes Downtime: 10 Minutes |
| CACI: 202002170 0002891 | 17/02/2020 | 2 | Latency on the TD feed exceeded 60 seconds – | NROD users remained connected to the | A Change Activity completed by a Network Rail IT Supplier | Resolved | 203 Minutes |

| | | | | | | | |
|--|------------|---|---|---|---|----------|--|
| NR: 7302122 | | | Other feeds affected but latency was lower | service but received latent data | generated TBs worth of traffic which saturated network links into NRs datacentre | | |
| CACI: 202002240 0005089 NR: ??? | 24/02/2020 | 2 | Latency spikes due to high memory usage on NROD Front-End | Open Data Users experienced a few 5 minute periods of high message latency. | Latency Spikes of this nature are a precursor to the Memory Leak problem. We scheduled a maintenance window at 8pm to prevent a P1 incident which required 5 minutes of downtime. | Resolved | Latency Total: 15 Minutes Downtime: 5 minutes |

7. Information Assurance

No incidents for the reporting period.

8. Business Continuity and Disaster Recovery

No BCDR events for the reporting period.

9. Risks and Issues

None.