

TDC NET

TECHNICAL OPERATIONS MANUAL

Document ID: SOP-002

Title: Service Degradation Troubleshooting

Category: Major

Equipment Types: Nokia 7750, Juniper MX960

Applicable Fault Codes: 600.1, 700.2, 800.3

Last Updated: 2025-10-04

SERVICE DEGRADATION RESOLUTION - ERROR CODE 600.1

INITIAL ASSESSMENT:

1. Check system alarms on Nokia 7750 SR router
2. Review traffic patterns for last 24 hours
3. Identify affected service areas and customer count
4. Determine if issue is localized or widespread

DIAGNOSTIC PROCEDURE:

1. Access router CLI and run diagnostic commands:
 - show router interface
 - show router bgp summary
 - show router ospf neighbor
2. Check interface utilization and error counters
3. Verify routing table consistency
4. Test connectivity to upstream providers

RESOLUTION STEPS:

1. If interface errors detected:
 - Clean fiber connections
 - Replace suspect SFP modules
 - Check cable integrity

2. If routing issues identified:

- Restart BGP sessions if necessary
- Verify route advertisements
- Check for configuration drift

3. If hardware issues suspected:

- Schedule maintenance window
- Prepare backup equipment
- Coordinate with NOC for traffic rerouting

MONITORING:

1. Monitor interface statistics for 30 minutes

2. Verify customer service restoration

3. Check for recurring alarms

4. Update incident tracking system

ESTIMATED TIME: 2-4 hours REQUIRED SKILLS: Router configuration, fiber optics
TOOLS REQUIRED: Optical power meter, laptop with console access

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