Timing Infrastructure Implementation Checklist

Pre-Installation Phase

Site Assessment

☐ **Conduct physical site survey**

☐ **Document existing network topology**

☐ **Identify equipment locations**

☐ **Verify power requirements**

☐ **Assess GNSS antenna placement options**

☐ **Check cable routing paths**

☐ **Evaluate environmental conditions**

☐ **Document current timing requirements**

Network Readiness

☐ **Verify switch PTP/timing support**

☐ **Confirm network capacity**

☐ **Document VLAN configurations**

☐ **Check QoS settings**

☐ **Verify cable specifications**

☐ **Confirm redundant paths**

☐ **Test network latency**

☐ **Document current timing topology**

Hardware Preparation

☐ **Verify TimeProvider® equipment specifications**

☐ **Confirm rack space availability**

☐ **Check power redundancy**

☐ **Prepare mounting hardware**

☐ **Verify antenna cables and connectors**

☐ **Test backup power systems**

☐ **Prepare network cables**

☐ **Document hardware inventory**

Installation Phase

Physical Installation

☐ **Mount TimeProvider equipment**

☐ **Install GNSS antenna**

☐ **Route antenna cables**

☐ **Connect network cables**

☐ **Establish power connections**

☐ **Label all connections**

☐ **Verify physical security**

☐ **Document installation photos**

Network Configuration

☐ **Configure IP addressing**

☐ **Set up VLANs**

☐ **Configure QoS settings**

☐ **Enable PTP on network devices**

☐ **Set up redundant paths**

☐ **Configure management access**

☐ **Test network connectivity**

☐ **Document network settings**

Timing Configuration

☐ **Set up PTP profiles**

☐ **Configure NTP services**

☐ **Set timing parameters**

☐ **Configure redundancy**

☐ **Set up monitoring**

☐ **Configure alerts**

☐ **Test failover scenarios**

☐ **Document timing settings**

Testing Phase

Initial Testing

☐ **Verify GNSS reception**

☐ **Check PTP operation**

☐ **Test NTP services**

☐ **Verify timing accuracy**

☐ **Check management access**

☐ **Test redundant paths**

☐ **Verify monitoring systems**

☐ **Document baseline performance**

Performance Verification

☐ **Measure timing accuracy**

☐ **Check phase alignment**

☐ **Verify frequency stability**

☐ **Test holdover performance**

☐ **Check client synchronization**

☐ **Verify redundancy switching**

☐ **Test failure scenarios**

☐ **Document performance metrics**

Security Implementation

☐ **Enable access controls**

☐ **Configure authentication**

☐ **Set up encryption**

☐ **Configure audit logging**

☐ **Test security features**

☐ **Verify secure access**

☐ **Document security settings**

☐ **Complete security checklist**

Post-Installation Phase

Documentation

☐ **Complete as-built drawings**

☐ **Update network diagrams**

☐ **Document configurations**

☐ **Create backup copies**

☐ **Store passwords securely**

☐ **Update inventory system**

☐ **Create maintenance schedule**

☐ **File test reports**

Training

☐ **Train operations staff**

☐ **Review monitoring procedures**

☐ **Cover troubleshooting steps**

☐ **Explain maintenance tasks**

☐ **Review security policies**

☐ **Document training completion**

☐ **Provide reference materials**

☐ **Verify staff competency**

Handover

☐ **Transfer documentation**

☐ **Provide contact information**

☐ **Review support procedures**

☐ **Explain escalation process**

☐ **Confirm warranty details**

☐ **Schedule follow-up**

☐ **Get sign-off**

☐ **Archive project files**

Ongoing Operations

Monitoring Setup

☐ **Configure performance monitoring**

☐ **Set up alert thresholds**

☐ **Establish reporting schedule**

☐ **Create dashboard views**

☐ **Test notification systems**

☐ **Verify data collection**

☐ **Set up trend analysis**

☐ **Document monitoring procedures**

Maintenance Planning

☐ **Schedule routine checks**

☐ **Plan software updates**

☐ **Set maintenance windows**

☐ **Create backup schedule**

☐ **Plan performance reviews**

☐ **Schedule security audits**

☐ **Document procedures**

☐ Assign responsibilities

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