

Staff Workshop on 911 Reliability Certification Process

Public Safety & Homeland Security Bureau
June 2, 2014

John Healy
Associate Division Chief
Cybersecurity and Communications Reliability Division

Workshop Objectives

- **Discussion will be limited to the process by which covered entities will submit required information** and will not revisit the basis or need for the rules or interpret the certification obligations of specific entities.
 - Discussion on ways to collect information
 - Inputs from entities about the proposed process
 - Inputs from entities about the proposed templates

General Questions

- What technologies and processes should be used to collect certification information?
- Summary information on the face of the certification form is not confidential. What information should be included here?
- Which common categories should be used to organize alternative measures data elements?
- How will certifying entities explain “reasonable alternative measures” or claims of non-applicability?
- How should the certification work for small providers? Several parts of the certification may not apply to small providers. Is a web-based system the easiest way for small providers to input information? What other accommodations in the certification process can be made for small providers?
- What types of users should be on the system?
- How should we time the roll-out of the process?
- How should we ensure the security of the confidential information?
- How should we test the process?
- How should the process allow Certifying Officials from each company to attest to the accuracy of their filings?

Possible Ways to Input Information

- ❑ For companies with small number of reports, develop an online system.
- ❑ For companies with a large number of reports with alternative measures, use an Excel spreadsheet to prepare inputs to the online system.

In any event, the FCC needs an online system to store, aggregate and analyze the information

Proposed Template

Security Screen

Press **ENTER** or click **ACCEPT** to
continue.

***** **WARNING** *****

Security Notice:

You are entering an official United States Government System, which may be used only for authorized purposes. Unauthorized modification of any information on this system may result in criminal prosecution. The Government may monitor or audit the usage of this system, and all persons are hereby notified that use of this system constitutes consent to such monitoring and auditing.

***** **WARNING** *****

Accept

Cancel

Types of Users

- How many types of users from each company?
- Higher level users need to be screened – high level users have access to everything filed by their company
- Similar to NORS?

Proposed Template

Login Screen

Welcome to the 911 Certification System
Please Login

UserName: (case sensitive)

Password: (case sensitive)

LOGIN

CLEAR

If you don't have username/password, please click [here](#)

If you have forgotten your password, please click [here](#)

If you have questions about this web page, please contact [FCC_Certification_Help](#)

Proposed Template

Main Menu Screen

911 Certification System – Main Menu

- **Submit/Update Overall Certification Report**
- **Submit/Update Diversity Audit Report**
- **Submit/Update Back-up Power Report**
- **Submit/Update Monitoring Report**
- **Modify Password**

Proposed Template

Critical 911 Circuit Diversity

Within the past year, has the certifying entity:

- a) Conducted diversity audits of critical 911 circuits or equivalent data paths to every PSAP served,
- b) Tagged such critical 911 circuits to reduce the probability of inadvertent loss of diversity in the period between audits and
- c) Eliminated all single points of failure in critical 911 circuits or equivalent data paths serving each PSAP?

Yes

No but Alternative Measures to ensure 911 reliability have been used. For each PSAP for which a), b), or c) has not been completed, please provide the alternative measures that you have implemented to ensure the reliability of 911 circuits using the “Alternative Measures for Diversity Audit of Critical 911 Circuits”.

No. Please explain

Not applicable. Please explain:

Proposed Template

Central Office Backup Power

With respect to any central office that directly serves a PSAP, does the certifying entity:

- a) Provision backup power through fixed generators, portable generators, batteries, fuel cells, or a combination of such sources to maintain full-service functionality, including network monitoring capabilities, for at least 24 hours at full office load or, if the central office hosts a selective router, at least 72 hours at full office load?
- b) Test and maintain all backup power equipment in such central offices in accordance with the manufacturer's specifications?
- c) Design backup generators in such central offices for fully automatic operation and for ease of manual operation, when required?
- d) Design, install, and maintain each generator in any central office that is served by more than one backup generator as a stand-alone unit that does not depend on the operation of another generator for proper functioning?

Yes

No but Alternative Measures have been used. For each central office for which a), b), c) or d) has not been completed, please provide the alternative measures that you have implemented to ensure the reliability of back-up power using the "Alternative Measures for Back-up Power".

No. Please explain:

Not applicable. Please explain:

Proposed Template

Network Monitoring

Within the past year, has the certifying entity:

- a) Conducted diversity audits of the aggregation points that it uses to gather network monitoring data in each 911 service area?
- b) Conducted diversity audits of monitoring links between aggregation points and network operations centers (NOCs) for each 911 service area in which it operates?
- c) Implemented physically diverse aggregation points for network monitoring data in each 911 service area and physically diverse monitoring links from such aggregation points to at least one NOC?

Yes

No but Alternative Measures have been used. For each 911 service area for which a), b), or c) has not been completed, please provide the alternative measures that you have implemented to ensure the reliability of monitoring capabilities using the “Alternative Measures for Monitoring”.

No. Please explain

Not applicable. Please explain:

Proposed Template

Alternate Measures for Circuit Audit

PSAP name:

State (chosed from menu):
-AL
-AR
-CA

County Name:

Diversity Audit Conducted:
- No

Reason Diversity Audit Not Conducted:

911 Circuits Tagged:
- No

Reason 911 Circuits not Tagged:

Reasons Not Fully Diversified (chosed from menu):
- Only one DCS available
- Other

Proposed Template

Circuit Audit cont.

If "Other" Reason Selected above, Describe Why System Is Not Fully Diversified:

Alternative Measure Taken (chose from menu):

- Made circuits logically diverse
- Multiple circuit packs at each end
- Routed through different floors of same building
- Use secondary PSAP
- Two PSAPs treat each other as alternates
- Moved to NG 911 allowing automatic alternate route selection
- Other

If "Other" is Selected Above, Describe Alternative Measures Taken:

Date When Remediation Steps Will be Completed:

For Alternative Measures

- Do we need an option for users to select more than one alternative measure?

Proposed Template

Alternative Back-up Power

Central Office – CLLI code (fill in CLLI code):

State (chosed from menu)

- AK
- AL
- AR
- CA

Central Office Contains a Selective Router:

- Yes
- No

Has 72 Hours Back-Up (If SR) or 24 hours (If not SR, chose from menu):

- Yes
- Alternate Measures
- No

Proposed Template

Alternative Back-up Power cont.

Alternates for Amount of Back-up Power (chosed from menu):

- Have a portable generator available within 4 hours
- Zoning regulations restrict the amount of fuel onsite (Have procedures to bring in fuel)
- Zoning regulations do not allow a permanent generator (Have portable generator available)
- Other

If “Other” is selected above, Please provide a description:

Tests according Manufacturer’s Specs:

- Yes
- Alternate Measure
- No

Proposed Template

Alternative Back-up Power cont.

Alternates for Testing according to Manufacturers Specs (chosed from menu):

- Specs are out of date - Do follow reasonable testing procedures
- Test more frequently but for less time
- Modified testing because of noise restrictions
- Other

If “Other” is Selected Above, Please provide a description:

Generator can be started automatically or easily started manually:

- Yes
- Alternate Measure
- No

Alternate for Automatic Operation/Easy Manual (chosed from menu):

- Have documented procedures and trained technicians on the procedures
- Other

Proposed Template

Alternative Back-up Power cont.

If “Other” is Selected Above, Please Provide a Description of Procedures for Automatic/Easy Manual Operation:

Alternate for Tandem Generator (chosed from menu):

- Have load shedding arrangement so that CO will operate when one generator fails
 - Have a 2 out of 3 arrangement of generators
 - Other

If “Other” is Selected Above, Please Provide a Description of Alternates for Tandem Generators:

Proposed Template

Inputting and Editing Monitoring Report

911 Service Area:

Alternative measure for network monitoring (chosed from menu):

- Use a completely separate procedure to monitor equipment
- Do not use aggregation points in a 911 service area
- Other

If “Other” is Selected Above, Please Provide an Explanation of other Alternative Measure:

Attestation

- ❑ Must be attested to by the Certifying Official (a corporate officer with supervisory and budgetary authority over network operations)
- ❑ Possible ways
 - Separate letter from the Certifying Official
 - The system accepts a scanned letter from the Certifying Official
 - The Certifying Official has a login ID on the online system

Rolling out the Process

- ❑ Testing – 6 months before the initial certification is due.
- ❑ Formal certification system will be available 3 months before the initial certification is due.

Next Steps

- ❑ Plan and publicize **webinars for small providers.**
- ❑ Continue developing **online platform** for submission of certification information.