| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

# Maintenance/Incident Notification

## 1    Purpose

The purpose of this procedure is to establish and maintain a standard method for notifying stakeholders of the Fort Worth Regional Radio System (FWRSS) when potential and realized planned and unplanned disruptions and degradation of services occur. The procedure outlined in this document is intended to represent the minimum standards for notification. Managers should employ their judgment during events and incidents to ensure stakeholders are notified of updates whenever appropriate.

## 2    Scope

This procedure is applicable whenever incidents, planned or unplanned, on the FWRRS infrastructure managed by the City of Fort Worth has the potential to adversely affect performance for users of the system. These processes will apply for system notifications to agencies internal and external to the City of Fort Worth.

## 3    References

ITS-Radio-012 – Failure & Fallback Procedures

## 4    Conditions for Exemption

Exceptions to the procedure must be approved by the Senior Manager over Wireless Communications.

## 5    Justification

The FWRRS provides common infrastructure shared by multiple jurisdictions. The integration of this infrastructure can result in planned and/or unintended disruptions or degradations in performance when maintenance, changes or incidents occur in any of components of the shared infrastructure. To provide opportunities for agencies' adequate planning and communication to their respective user communities, a standard and reliable notification procedure is required.

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

# 6 Notification Procedures

Notifications will be provided through three principal methods:

- <u>Everbridge/Nixle</u> – Used primarily for notifications of unplanned outages via text messages.
- <u>Email</u> – Used for notification of planned maintenance and changes.
- <u>Radio</u> – Used primarily for notification to dispatch centers immediately before, during and after planned maintenance and changes.

## 6.1 User Registration

Users from agencies external to the City of Fort Worth should register for notifications through the Wireless Communications website (http://fortworthtexas.gov/itsolutions/cfwradios/). If the user desires notifications for outages and planned events, the request should include the user's email address and mobile number.

Upon receipt of a request, the Wireless Operations Manager or designee will update distribution lists and provide an acknowledgment email to the user within two business days.

Agencies will be responsible for ensuring their notification lists are updated as required. The Wireless Operations Manager or designee will conduct an audit of distribution lists in January of each year.

## 6.2 Planned Events

### 6.2.1 Major/Significant Changes
Major or significant changes are changes which present a reasonable risk of impacting services for an extended period. System upgrades and hardware replacements are examples of major changes.

The Wireless Operations Manager will notify stakeholders via email of major or significant changes four weeks prior to the scheduled commencement of the change. The notification will include at least the following information:

- Scheduled date, time and duration of the change
- Description of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
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The Wireless Operations Manager will again notify stakeholders via email one week prior to the scheduled commencement of the change. The notification will include at least the following information:

- Scheduled date, time and duration of the change
- Description of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change

The Wireless Operations Manager will notify stakeholders via email the day prior to the scheduled commencement of the change. The notification will include at least the following information:

- Scheduled date, time and duration of the change
- Description of the change
- Leader of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change
- Contact information for the change leader

Fifteen minutes prior to the commencement of work, the change leader will notify partners by radio on LAW I/O Call to ensure no incidents are underway that would require postponement of the change. The notification will include at least the following information:

- Scheduled start time of the change
- Scheduled duration of the change
- Expected impact of the change on services
- Instructions for reporting issues during the change window

Upon completion of the scheduled work, the change leader will notify partners by radio on LAW I/O Call that the change has been completed, and that subsequent issues experienced by the partners should be reported through normal channels.

### 6.2.2 Routine/Preventative Maintenance
Routine and preventative maintenance changes are generally those that are performed on a regular basis using standard operating procedures and which pose limited or no risk of disruptions to services. Examples may include monthly patching, simple configuration changes and other low risk activities.

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

The Wireless Operations Manager will notify stakeholders via email of routine changes one week prior to the scheduled commencement of the change. The notification will include at least the following information:

- Scheduled date, time and duration of the change
- Description of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change

The Wireless Operations Manager will notify stakeholders via email the day prior to the scheduled commencement of the change. The notification will include at least the following information:

- Scheduled date, time and duration of the change
- Description of the change
- Leader of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change
- Contact information for the change leader

Fifteen minutes prior to the commencement of work, the change leader will notify partners by radio on LAW I/O Call to ensure no incidents are underway that would require postponement of the change. The notification will include at least the following information:

- Scheduled start time of the change
- Scheduled duration of the change
- Expected impact of the change on services
- Instructions for reporting issues during the change window

Upon completion of the scheduled work, the change leader will notify partners by radio on LAW I/O Call that the change has been completed, and that subsequent issues experienced by the partners should be reported through normal channels.

### 6.2.3  Emergency Changes
On very infrequent occasions, a change may require implementation to correct significant services issues urgently with insufficient time to provide reasonable notice to stakeholders. In those instances, the Wireless Operations Manager will notify stakeholders via email as soon as possible with the following information:

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

- Scheduled date, time and duration of the change
- Description of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change

In addition, the Wireless Operations Manager will notify stakeholders via Everbridge/Nixle of the imminent emergency change. The text message should include the following information:

- Scheduled date, time and duration of the change
- Reason for the change
- Planned impact of the change

If more than one day's notice was provided for the emergency change, the Wireless Operations Manager will notify stakeholders via email the day prior to the scheduled commencement of the change. The notification will include at least the following information:

- Scheduled date, time and duration of the change
- Description of the change
- Leader of the change
- Reason for the change
- Planned impact of the change
- Instructions for reporting issues during the change
- Contact information for the change leader

Fifteen minutes prior to the commencement of work, the change leader will notify partners by radio on LAW I/O Call to ensure no incidents are underway that would require postponement of the change. The notification will include at least the following information:

- Scheduled start time of the change
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Upon completion of the scheduled work, the change leader will notify partners by radio on LAW I/O Call that the change has been completed, and that subsequent issues experienced by the partners should be reported through normal channels.

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

## *6.3   Unplanned Incidents*

Unplanned incidents are disruptions or degradations in services that are not scheduled or anticipated with planned events such as major or significant changes or routine/preventative maintenance. Examples could include microwave fade during storms, hardware failure, unscheduled failover to Dynamic System Resilience (DSR), or failed changes.

### *6.3.1   Lower Priority Incidents*

For lower priority incidents, the City of Fort Worth senior technical coordinator will generate notifications via Everbridge/Nixle during business hours.  Outside normal business hours, the City of Fort Worth on-call technician will generate notifications.

If the incident was brief (such as rain fade on a microwave link), only one notification is required. It should include:

- Time of incident
- Duration of incident
- Apparent cause of incident

For all other lower priority incidents, a notification should be generated at the beginning of the incident. Notifications should include:

- Time of incident start
- Brief description of incident
- Status
- Estimated time to resolution, if known.

When the incident is resolved, a notification should be generated with the following information:

- Time of incident
- Duration of incident
- Apparent cause of the incident.

### *6.3.2   High and Critical Priority Incidents*

For high and critical priority incidents, the Wireless Operations Manager will generate notifications via Everbridge/Nixle.

A notification should be generated at the beginning of the incident; once per hour; whenever a significant change occurs. Notifications should include:

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|--------|-----------------------------------|---------|---------------|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

- Time of incident start
- Brief description of incident
- Status
- Estimated time to resolution, if known.

When the incident is resolved, a notification should be generated with the following information:

- Time of incident
- Duration of incident
- Apparent cause of the incident

## 6.4    Incident Follow-Up

For all high priority incidents, the Wireless Operations Manager will provide via email a follow-up notification detailing:

- Time and duration of incident
- Description of the incident and its impact to the system and its users
- Root cause of incident
- Corrective actions taken, if any

The follow-up notification will be generated within five business days of incident resolution.

At the Wireless Operations Manager's discretion, a follow-up notification may be provided to stakeholders following failed changes and lower priority incidents.

| Title: | Maintenance/Incident Notification | SOP No: | ITS-RADIO-019 |
|---|---|---|---|
| Revision: | 1.0 | Effective Date: | March 9, 2018 |
| Owner: | Wireless Operations Manager | Department: | IT Solutions |

## *Version Control*

| Version | Date | Description | Author |
|---|---|---|---|
| 1.0 | 3/9/2018 | Original Version | Chris Dusseau Alan Girton |
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