

## Ongoing Help Desk Management Plan

### HELP DESK IMPLEMENTATION /MANAGEMENT

The Vendor shall provide in its Response to DIR a Help Desk Implementation Plan which shall include, but not be limited to:

**a. Customer Care technician standard skills, certifications and qualifications**

The Hughes Help Desk is staffed with professional, experienced technicians. These technicians go through a formal training process that covers a wide range of topics that includes system architecture, troubleshooting, and problem resolution. The Help Desk technicians have access to the Customer Gateway as well as a library of knowledge base articles, which provide a full suite of diagnostic, configuration, and status tools. In addition, customized training in Customer care procedures and the Web-based Customer Gateway trouble ticketing system are also provided.

**b. Standard business hours and after-hours support coverage**

The Hughes Help Desk operates 24x7 and can be reached at 866-889-3234.

**c. 24x7 standard technical support procedures for all Service disruptions when:**

• **Reported by DIR or a DIR Customer or**

The Hughes Help Desk's role is to perform Tier 3 troubleshooting and to attempt to recover a site remotely before dispatching a field service technician. When a service disruption is reported by DIR or a DIR Customer (either via telephone or via the Customer Gateway), a trouble ticket will be opened to track this problem resolution. The Help Desk technicians have many real-time tools available for their troubleshooting efforts and knowledgebase articles to assist in the diagnosis and isolation of remote issues. If it is determined to be necessary, the Help Desk will dispatch a field service technician to the remote site to troubleshoot and replace any failed equipment.

• **Detected by the Vendor via monitoring activities or systems.**

As part of our managed service, Hughes proactively monitors all elements of the network and will automatically generate a trouble ticket if a service disruption is detected.

Once the Tier 1 process is completed by the DIR or DIR Customer Tier 1 Help Desk, the ticket (which is accessed via the Hughes Customer Gateway) can be closed by the Tier 1 Help Desk (problem resolved) or escalated to the Hughes Tier 3 Help Desk for resolution.

Any issues that are determined to be network issues (and not unique to a particular remote site) are immediately escalated to the Hughes Network Engineering for problem isolation and resolution. The Network Engineering team is responsible for network troubleshooting, database changes, network event status updates and escalations to network engineering. In the event of a network issue, the Hughes Help Desk will open a trouble ticket and provide the ticket information to DIR and DIR Customer's Help Desk. The Network Engineering team will provide status updates and event notifications.

**d. Joint technical support to DIR and any other TEX-AN NG Vendor(s) in order to re-solve Service disruptions efficiently and expeditiously**

Hughes will work with DIR and any other TEX-AN NG Vendor(s) to resolve Service disruptions efficiently and expeditiously. This is accomplished via our experienced 24x7 support team of Help Desk personnel, network engineers, and operational support staff. Based on our 20+ years of experience of supporting critical enterprise and government networks, the team has created a support process that ensures that the proper people and systems are available to respond to problems when they occur, but more importantly, prevent problems from occurring in the first place. The Hughes team understands that this requires accurate and timely communications among Customers, Hughes, and other vendors that are involved in the overall network.

**e. 24x7 technical support for emergency Customer events**

Hughes will provide 24x7 technical support for emergency Customer events. Requests for this type of support can be made via the Customer Gateway and the ticketing system or by contacting the Hughes Program Manager directly. All Hughes Program Managers are on call 24x7 with a backup process to ensure Customer calls are answered. Technical support is provided by the Network Engineering team, under the direction of the Program Manager, but deep technical support is also available through the Hughes development engineering team.

**f. Support procedures during natural disasters**

Hughes has a great deal of experience in providing support during natural disasters. The best way to respond to natural disasters is to be prepared before the fact.

The satellite services included in this proposal provide path-diverse, highly available networking solutions that can serve as an insurance policy for continuity of government operations, especially in crisis situations. Additionally, we can provide emergency Internet access with nationwide reach, and vehicle-mount, on-the-move terminals, and flyaway kits that set up quickly.

After an emergency occurs, Hughes can provide a true alternative infrastructure that stays up and running when terrestrial systems fail. Typically, communications can be restored within 48 hours and our solutions are ideal for providing temporary service while primary communications are being restored after an emergency.

The Hughes Help Desk and Program Management team will be available to help DIR and DIR Customers with disaster recovery planning and put the systems and procedures in place so that communications to critical government agencies can quickly be restored.

**g. Description of access procedures to any Web-based Customer interface for DIR use as necessary to support Customer Care functions including trouble ticket system and self help tools**

For Managed Services, the Web-based Customer Gateway is the primary interface for:

- Creating and monitoring trouble tickets
- Monitoring installation activities
- Accessing real time status of network elements and other fault management related data
- Accessing performance management reports

Any authorized DIR or DIR Customer personnel will be provided a secure login ID and password so they can access the Customer Gateway. Appropriate DIR personnel will be given access privileges that allow DIR to provided ongoing management of IDs and passwords.

**h. Description of trouble ticket life cycle management, including ticket status update timeframes**

The Hughes Help Desk will perform Tier 3 troubleshooting and to attempt to recover a site remotely before dispatching a field service technician. The Help Desk has many real-time tools available to support troubleshooting efforts and knowledgebase articles to assist in the diagnosis and isolation of remote issues. The Hughes Help Desk will contact DIR personnel to report potential network issues discovered through trending and as reported by the agency users. The Help Desk will provide ticket monitoring, interim updates, and automatic escalations. Technicians provide assistance to field service representatives.

For Managed Services, Hughes also offers the option to the Customer for email alerts whenever an automatic ticket is opened by the Proactive Monitoring system. This option can also be extended to include an automatic prompting of the Customer's Tier 1/Tier 2 Help Desk should an automatically generated trouble ticket not be acted upon by the Customer's Help Desk within a fixed amount of time. This is configurable feature enabled upon Customer's request.

Site level proactive monitoring tickets are created in the Customer Gateway based on the alarms from the Fault Management system when there is a service disruption at an individual site. The system automatically clears the tickets when service is restored.

When a remote site does not respond to network polls from the network management system, a Major Alarm is generated against that site. If there is no response from the site for a configurable period of time (default 15 minutes), the system escalates the alarm severity to Critical and sends a message to the Customer Gateway to create a trouble ticket against that site. These tickets can be viewed along with the other tickets in the Customer Gateway.

The Proactive Monitoring system receives the trouble ticket number from the Customer Gateway and displays it in the notification log. The ticket is automatically cleared by the system when service is restored.

Network level tickets are created by the Proactive Monitoring system when service is disrupted in the network infrastructure. These alarms are calculated using correlation techniques, network hierarchy, and predetermined threshold levels. The thresholds are defined for each logical group based on prior experiences. These alarms are generated in anticipation that if multiple devices have multiple alarms (more than the defined thresholds), there is a high probability that the root cause of the problem is at a higher level network element.

When the network level alarms are generated, all the associated individual alarms for the remote sites are suppressed. A trouble ticket is opened in the Customer Gateway based on the network level alarm. This network level trouble ticket contains the list of all the Customers affected by the outage and all the sites affected for each Customer. The network level ticket is directly assigned to the operations team and the resolution process starts immediately.

**i. Standard definitions for trouble ticket priorities with translations to the following:**

- 1. Critical;**
- 2. TSP;**
- 3. High;**
- 4. Medium; and**
- 5. Low;**

Hughes has a wide range of trouble ticket “types,” which translate to different priorities. The standard types and our suggested translation to the DIR priorities are:

- Account Change (Low)
- Advanced Technical Support (High)
- Configuration Change (Low)
- Emergency (Critical)
- Inquiry (Low)
- Install (High)
- Network Outage (Critical)
- Move/Add/Change (Medium)
- RMA Request (Low)
- Technical (High)
- Upgrade Request (Low)

It is important to note that the Customer has the ability to escalate any ticket at any time.

**j. Description of training for DIR and its Customers**

Courses taught at the Hughes training facility are hands-on courses dealing with equipment installation, maintenance and operation. This training is not required for customers using Hughes managed network services, but is available for those individuals who want to have a detailed knowledge of the technical aspects of Hughes products.

Hughes will also provide training to Texas DIR on use of the Customer Gateway. This training is typically conducted online and can be easily conducted in one or two hour long sessions. Topics include:

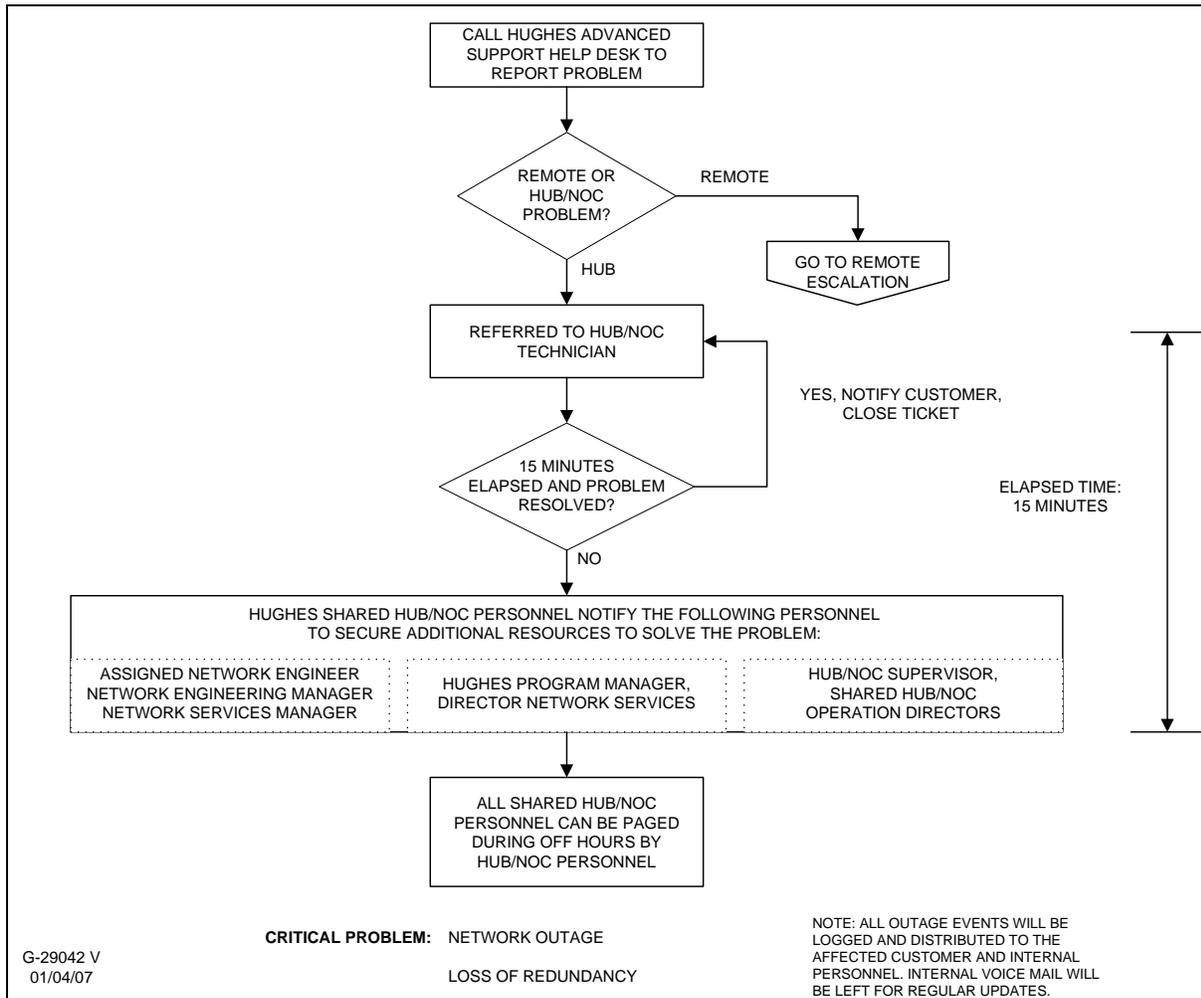
- Login and Navigate the Customer Gateway
- Manage their account password
- View scheduled installation activities
- Report and view the Remote, Network Management and Network Engineering related issues
- Update site information and locate sites
- View the reports and documentation provided by Hughes
- Report and view Quality issues
- View Hughes company contacts

The Customer training will ensure that once the network implementation begins, the appropriate Texas DIR personnel are familiar with Hughes products and services and will know how to access the proper information that they need to do their jobs.

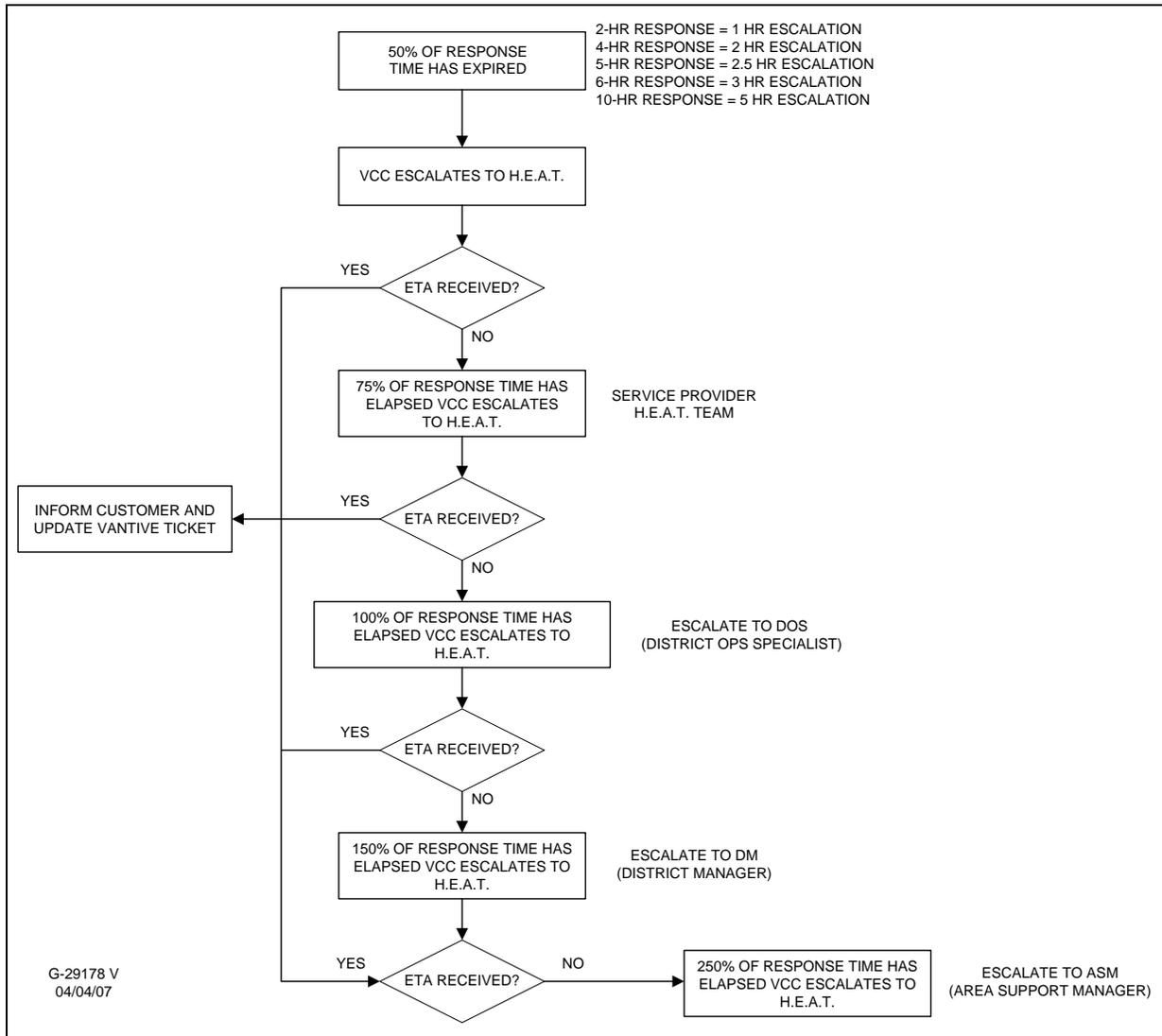
**k. Escalation procedures**

Hughes escalation policies provide a communication path for the Hughes team to solve network problems. In the event that traffic is not interrupted and the customer agrees on the status, a noncritical problem notification will be sent to the Network Engineering team. However, if traffic is interrupted and/or there is a disagreement on the status, the critical problem notification procedure is followed.

- In the event of a problem, affected customers are notified immediately. When a problem is observed or reported, a Network Management ticket is opened and subsequent status entries displayed on the Customer Gateway.
- Hughes provides customers with status reports. Verbal updates are provided for critical outages and through the Program Manager when multiple customers are involved. Status entries are also displayed on the Customer Gateway. The ticket through the Customer Gateway is updated later and made visible when approved.
- On the next business day, the details of an outage are investigated and an AAR is prepared. This AAR is submitted to the Program Manager for review and approval. Once the Program Manager releases the AAR, it is provided to the customer and posted to the outage ticket in a form viewable by the customer on the Customer Gateway.
- Critical problems that cannot be resolved within 15 minutes are escalated.
- Escalation policies can be used for Network or remote service problems the customer is experiencing. All requests for escalations related to Network or remote issues are submitted to the Hughes Help Desk. The Hughes Help Desk escalates the request through all appropriate channels.



**Figure 1. Remote Maintenance Support Procedure**



**Figure 2. Customer ETA Escalation**

**1. Procedures for logging, tracking, managing, and reporting for the following:**

**1. Security incidents**

In the event of a security incident, affected customers are notified immediately. When the incident is observed or reported, a Network Management ticket is opened and subsequent status entries displayed on the Customer Gateway.

Hughes provides customers with status reports. Verbal updates are provided for critical security incidents and through the Program Manager when multiple customers are involved. Status entries are also displayed on the Customer Gateway. The ticket through the Customer Gateway is updated later and made visible when approved.

On the next business day, the details of an outage are investigated and an AAR is prepared. This AAR is submitted to the Program Manager for review and approval. Once the Program Manager releases the AAR, it is provided to the customer and posted to the security incident ticket in a form viewable by the customer on the Customer Gateway.

## **2. Network Faults**

In the event of a problem, affected customers are notified immediately. When a problem is observed or reported, a Network Management ticket is opened and subsequent status entries displayed on the Customer Gateway.

Hughes provides customers with status reports. Verbal updates are provided for critical outages and through the Program Manager when multiple customers are involved. Status entries are also displayed on the Customer Gateway. The ticket through the Customer Gateway is updated later and made visible when approved.

On the next business day, the details of an outage are investigated and an AAR is prepared. This AAR is submitted to the Program Manager for review and approval. Once the Program Manager releases the AAR, it is provided to the customer and posted to the outage ticket in a form viewable by the customer on the Customer Gateway.

## **3. ESecS (E Security Systems) Faults.**

In the event of an ESecS fault, affected customers are notified immediately. When a fault is observed or reported, a Network Management ticket is opened and subsequent status entries displayed on the Customer Gateway.

Hughes provides customers with status reports. Status entries are also displayed on the Customer Gateway. The ticket through the Customer Gateway is updated later and made visible when approved.

On the next business day, the details of the ESecS fault are investigated and an AAR is prepared. This AAR is submitted to the Program Manager for review and approval. Once the Program Manager releases the AAR, it is provided to the customer and posted to the ESecS fault ticket in a form viewable by the customer on the Customer Gateway.

## **Ongoing Help Desk Management**

The Vendor shall provide DIR with an Ongoing Help Desk Management Plan in its Response which discloses the Vendor's processes and procedures for ongoing management of the Help Desk which shall include, but not be limited to:

### **a. Process for responding to a report request from DIR or DIR Customers**

Reports are available on the Customer Gateway. Authorized DIR and DIR Customer personnel may access these reports and download them at any time. If there is a problem or a requirement for a custom report, then the Hughes Program Manager can be contacted.

**b. Process and procedures to support DIR Customers in Transition**

Hughes will use the same process and procedures to support DIR Customers in Transition as that is being used to support other DIR Customers. If there are special requirements for Customers in Transition the Hughes Program Manager will work with the appropriate DIR representatives to develop custom processes for those unique requirements.

**c. Process for responding to a general information request**

General information requests should be directed to the Hughes Program Manager and the Hughes Account Executive.

**d. Support for at DIR Customer conferences, at no cost to DIR, including, but not limited to conferences pertaining to the following:****Briefings on CTSA and Service offerings**

Hughes will provide support DIR Customer conferences at no cost to DIR, for conferences pertaining to briefings on CTSA and Service offerings.

**Training sessions**

Hughes will provide support at DIR Customer conferences, at no cost to DIR, for conferences pertaining to briefings on CTSA and Service offerings.

**AAR briefings**

Hughes will provide support at DIR Customer conferences, at no cost to DIR, for conferences pertaining to AAR briefings.

**On-site representative(s) to answer questions and document special topic issues**

Hughes will provide on-site representatives, at no cost to DIR, to answer questions and document special topic issues. Note that Hughes has an Account Executive based in Austin, Texas.

**Demonstrations of new or Emerging Technology offerings.**

Hughes will provide demonstrations of new or Emerging Technologies, at no cost to DIR.

**e. Description of reports generated by the Vendor's Customer Care system(s) which shall be routinely provided to DIR.**

Managed Services monthly customer reports provide detailed information and analysis regarding aspects of the network and its performance. Each month a report package will be posted to the Customer Gateway consisting of:

- Monthly availability analysis percentage in bar chart format
- Outage analysis detail report
- Remote outage analysis percentage report
- Master site list summary
- Master site list report
- Newly commissioned sites list
- Customer remote service performance summary
- Remote maintenance field services metrics

This report package, which is compiled from Hughes' in-house database, is posted within the first 10 days of each month. The following paragraphs contain a detailed description of the monthly report components.

**Monthly Availability Analysis % in Bar Chart Format**

This report is a bar graph that shows a sliding 12-month breakdown of the NOC, remote, and network availability (weighted mean average). A line of data at the bottom of the columns shows the number of active sites recorded in the database.

**Outage Analysis Detail Report**

This report contains trouble ticket breakdown with Case ID, Site ID, Reported Problem, Resolution Code, Resolution Description, Covered Hours, Elapsed Hours, Outage Time, % of Service Lost, Non-Available Hours, Date Resolved, and Date Opened. The outage analysis detail and outage analysis percentage report from the Hughes Ticket System database allows you to view the breakdown by problem, date and time the trouble ticket was opened, date and time it was closed, site number, who the problem was assigned to, and the covered and elapsed hours. Outage analysis by site lists each site that had an outage during the reporting month.

**Remote Outage Analysis**

This analysis includes a breakdown of the trouble tickets for the reporting month, by cause, in the form of a color pie chart. In addition to the total number of sites in your network, the MTTR for both clock and actual outage period are provided.

**Trouble Tickets**

Actual trouble tickets from Hughes Ticket System are available through the Customer Gateway. Tickets can be selected for viewing on the Case Search screen using such selections as date ranges and case status. Categories of tickets can be selected for viewing or printing from the Problem Status screen. The various categories include Open, Hold, Pending, Closed, or (All). Any of the categories can be selected with a specific date range specified. Any ticket that can be viewed can be printed using the Print Frame capability under the File Selection.

**Master Site List Summary**

This summary provides a count of the total number of sites broken down by Active Sites, Inactive Sites, Not Yet Commissioned Sites, Decommissioned Sites, Decommissions in Progress, Installations in Progress, and the Total # of Sites. This report is produced at the beginning of the month as well as mid-month to accommodate customer billing cycles.

**Master Site List**

This list contains a listing of all customer-commissioned sites to date. This information comes from data gathered by Hughes CRM Ticket System database. This list is sorted by site ID number and includes the following fields: Site ID, Site Status, location name, Site address, City, State, ZIP code, Primary contact name, Primary phone number, Date created, Adapter model, NOC, Commission date, and Decommission date. This report is produced at the beginning of the month as well as mid-month to accommodate customer billing cycles.

**Newly Commissioned Sites List**

This list shows all the sites that were commissioned during the reporting month. The information, which is gathered through Hughes' database, lists the site ID number and includes the following fields: location name, site address, city, state, contact name and phone number,

commission date, type of unit installed, and the National NOC facility on which the site is supported.

**Customer Remote Service Performance Summary**

This summary lists the total number of commissioned sites to date, total number of decommissioned sites to date, total number of active sites at the end of the reporting month, total available hours (for remote network), total non-available hours (for remote network), Mean time between maintenance activity (remote network), remote availability, percent of tickets requiring remote dispatches, and percent of tickets not requiring dispatch. In addition, the report includes a table that displays a breakdown of the trouble tickets for the reporting month by cause area, total count by cause area, % of cause of breakdown by area, hours of outage by area, and the average outage time by breakdown area.

**Remote Maintenance Field Service Metrics**

These metrics contain the Number of Sites, Contract Calls, Monthly Contract Call Rate, First Call Fixed, % of First Call Completion, Dispatches Meeting Response Time, Dispatches Meeting Restore Time, Average Response Time (Hrs), % of Response Time within Target, Average Restoral Time (Hours), % of Restoral time within Target, Calls Open > 24 hours, Calls Open > 48 hours, % of Calls Open > 24 Hours, and % of Calls Open > 48 Hrs.

**m. The Vendor shall create a trouble ticket for the following:****Any Service disruption reported by DIR or Customer, or detected by the Vendor or its Subcontractor(s);**

Hughes will create a trouble ticket for any Service disruption reported by DIR or Customer, or detected by the Hughes Proactive Monitoring system.

**Any hazardous condition that has the potential for major Service impact (e.g., fire in a node);**

Hughes will create a trouble ticket for any hazardous condition that has the potential for major Service impact.

**Failure of network management system that results in loss of visibility to network and telemetry data;**

Hughes will create a trouble ticket for any failure of the network management system that results in loss of visibility to network and telemetry data.

**Any other Fault, event or request that DIR determines should be monitored or tracked through the Customer Care organization.**

Hughes will create a trouble ticket for any other fault, event, or request that DIR determines should be monitored or tracked through the Customer Care organization.

**n. The Vendor shall maintain the following data elements for each trouble ticket, at a minimum:****Trouble ticket number**

Hughes will maintain the trouble ticket number for each trouble ticket.

**Fault description and definition of problem**

Hughes will maintain the fault description and definition for each trouble ticket.

**Fault date and time of detection**

Hughes will maintain the fault date and time for each trouble ticket.

**Identification of Customers affected by the Fault**

Hughes will maintain the identification of Customers affected for each trouble ticket.

**Service(s) and locations affected by the Fault**

Hughes will maintain the Services and locations affected for each trouble ticket.

**Information about detection of Service-affecting Faults for peripheral network re-sources indicating whether the Fault is internal or external to the Vendor's network**

Hughes will open a trouble ticket if there are Service-affecting faults for peripheral network resources for tracking purposes.

**Estimated time to resolve**

Hughes will maintain the estimated time to resolve for each trouble ticket.

**TSP or Non-TSP Service; and**

Hughes will maintain within each trouble ticket number whether or not the Service is TSP.

**Affected SLA**

Hughes provides standard SLA performance reports.

**Help Desk Reporting**

The Vendor shall provide monthly Customer Care reports to DIR as follows: Hughes will submit all reports in an electronic format. Initial requirement is Tab Delimited file delivery. Files will be provided in this way until such time as Vendor and DIR mutually agree on XML interface specifications. DIR acknowledges that Hughes may need to perform software development work in order to deliver files in an XML format and DIR agrees that Hughes will acquire Customers on the Tex-an NG Contract prior to initiating this XML format change.

**Trouble Ticket Aging Report by Customer**

Hughes will make available on the Customer Gateway monthly reports on trouble ticket aging by Customer.

**SLA Non-Compliance Report**

Hughes will make available on the Customer Gateway monthly reports on SLA Non-Compliance.

**Local Services Sales Report**

This information is available in the standard Newly Commissioned Sites List monthly report.

**SOHO Sales Report**

Hughes will provide a monthly report on SOHO Sales.

**Internet connectivity for non-State agencies; and**

Hughes will provide a monthly report on Internet connectivity for non-State agencies.

**Marketing Report, including:**

- Date(s) of marketing effort;
- Marketing venue;
- Description of marketing effort
- Target market;
- Marketing lead responsible for effort; and
- Effectiveness of effort.

The Hughes Account Executive will provide a monthly report on marketing efforts, including but not limited to:

- Dates of marketing efforts
- Marketing venue
- Description of marketing effort
- Target market
- Marketing lead responsible for effort
- Effectiveness of effort

**Other reports that shall be provided by the Vendor as requested by DIR are:****AAR**

On the next business day after a critical outage, the details of an outage are investigated and an AAR is prepared. This AAR is submitted to the Program Manager for review and approval. Once the Program Manager releases the AAR, it is provided to the customer and posted to the outage ticket in a form viewable by the customer on the Customer Gateway.

**Various reports of information in order to determine performance quality of Customer Care organization, and**

The Hughes Program Manager and Customer Care organization will work together to create the necessary reports of information in order to determine the performance quality of the Hughes Customer Care organization. This is typically reviewed in Quarterly Program Reviews.

**Other ticket information as requested by DIR.**

Hughes will provide any other ticket information as requested by DIR.

**The Vendor shall submit all reports to DIR in an electronic format.**

Hughes will submit all reports in an electronic format.

Initial requirement is Tab Delimited file delivery. Files will be provided in this way until such time as Vendor and DIR mutually agree on XML interface specifications. Texas acknowledges that a software development work may need to be incurred and budgetary dollars established to fulfill this request.