

DATE: June 20, 2025

TO: 911 Emergency Response Advisory Committee

FROM: Connie Shepperd, Sparks Police Department, Police Service Manager, 775-353-2241 ext. 5550, cshepperd@cityofsparks.us

THROUGH: Chris Crawford, Chief of Police

SUBJECT: REQUEST FOR FUNDING FOR AI NON-EMERGENCY CALL HANDLER SOFTWARE LICENSING WITH 'DESKOFFICER' [For possible action] - A review, discussion, and possible action to approve, deny or otherwise modify a request to fund the costs associated with procuring licensing for an AI non-emergency call handler software with 'DeskOfficer' for implementation in the Sparks PSAP, for a two-year contract in an amount not to exceed \$100,000.00; and if approved, forward such recommendation to the Board of County Commissioners.

SUMMARY

A review, discussion, and possible action to approve, deny or otherwise modify a request to fund the costs associated with procuring licensing for an AI non-emergency call handler software with 'DeskOfficer' for implementation in the Sparks PSAP, for a two-year contract in an amount not to exceed \$100,000.00; and if approved, forward such recommendation to the Board of County Commissioners.

Non-emergency and administrative lines into Sparks PSAP are a part of the enhanced telephone system. Nevada Revised Statutes (NRS) 244A.7645 3.A.3 authorizes the use of E911 surcharge funds for "Purchasing, leasing or renting the equipment and software necessary to operate the enhanced telephone system, including, without limitation, equipment and software that identify the number or location from which a call is made;" and "Paying costs associated with any maintenance, upgrade and replacement of equipment and software necessary for the operation of the enhanced telephone system."

Sparks PSAP receives over 84,000 non-emergency calls annually in their 911 center. The majority of these calls are administrative calls with routine inquiries that do not require a first responder to be dispatched; While the staffing plan for Sparks PSAP is for 23 dispatchers, the center is currently staffed at 70% with 16 dispatchers, resulting in struggles to manage high call volumes, causing lengthy citizen wait times and potential customer dissatisfaction on the non-emergency lines.

The Call Handler software through 'DeskOfficer' is an AI-powered virtual call-taker, which speaks over 30 languages, that answers administrative calls, handles routine inquiries, and intelligently routes callers, all while sounding indistinguishable from a human. It would eliminate the need for an outdated phone tree system and reduce the burden on Sparks 911 dispatchers, while improving community access & customer service, and saving valuable time. It is estimated that it will save 1 minute on all

transferred calls and 5 minutes on the administrative calls it handles, saving dispatchers approximately 560 – 2,100 hours annually.

With implementation of the AI call handler software, Sparks 911 dispatchers could focus on 911 calls and radio communications, while the software would serve as a routing assistant for callers who need services unrelated to dispatching, redirecting them to the right department or providing them with the information requested. Frequently asked questions would be addressed automatically, reducing the burden on Sparks 911 dispatchers, allowing them to focus on more urgent or complex issues.

The system provides several safeguards and contingencies to ensure sensitive or complex calls are routed to human personnel. For example, if a person calls the non-emergency line with an emergency, the AI software is trained to detect emotional distress and listen for certain keywords and will automatically route the caller to a human dispatcher in these situations. Additionally, the system offers the ability to monitor AI calls in real-time and allows staff to instantly take over any live call.

Funding is requested to acquire and implement the proposed AI call handler software. This investment will optimize operations in the Sparks PSAP by helping manage call surges and long wait times and reducing the number of abandoned calls and dispatcher workloads.

NRS APPLICABLE:

NRS 244A.7645 provides approval of costs associated with maintenance, upgrade, and replacement of equipment necessary for the operation of the enhanced telephone system.

STAKEHOLDER REVIEW(s)

Stakeholder is a primary Public Safety Answer Point (PSAP) – Sparks Dispatch.

PREVIOUS ACTION & BACKGROUND

The 911 Emergency Response Advisory Committee has previously approved funding for other various software licensing that assists the stakeholders and PSAPs.

May 15, 2025, the 911 Emergency Response Advisory Committee approved funding for Scribe Training and Documentation Software.

April 17, 2025, the 911 Emergency Response Advisory Committee approved funding for Washoe County Sheriff's Office Communications for Priority Dispatch AI SkillLab & Frontline Public Solutions Quality Assurance and Quality Improvement Tracker.

September 19, 2024, the 911 Emergency Response Advisory Committee approved funding for Sparks for Live911 software and approved Carbyne 911 for Washoe County Sheriff's Office.

Annually, the E911 Emergency Response Advisory Committee has approved funding for the ProQA software licenses for the Priority Dispatch protocols as well as AQUA software for case review.

Annually, the E911 Emergency Response Advisory Committee has approved funding for Fire First Due software and Fire Station Alerting.

FISCAL IMPACT

The Enhanced 9-1-1 Fund is a special revenue fund which receives revenue pursuant to NRS 244A.7643 in the form of telephone surcharges collected to support the emergency reporting system.

RECOMMENDATION

It is recommended that the E911 Emergency Response Advisory Committee approve the request to fund the costs associated with procuring licensing for the AI non-emergency call handler software with 'DeskOfficer' for implementation in the Sparks PSAP, for a two-year contract in an amount not to exceed \$100,000.00.

POSSIBLE MOTION

Move to approve that the E911 Emergency Response Advisory Committee approves the request to fund the costs associated with Sparks PSAP procuring licensing for the AI non-emergency call handler software with 'DeskOfficer', for a two-year contract in an amount not to exceed \$100,000.00.

DESKOFFICER PROPOSAL

Sparks Police Department DeskOfficer Proposal

Prepared for Chief Chris Crawforth

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EXECUTIVE SUMMARY

Sparks Police Department receives approximately 84,000 non-emergency calls per year. Many of these calls involve routine administrative questions or require being routed to other units—tasks that place a significant burden on staff time and city resources.

DeskOfficer is an AI-powered virtual call taker that answers administrative calls, provides information, and routes inquiries—without the need for outdated phone trees or manual transfers. It sounds like a real person, speaks 30+ languages, and is fully configurable to Sparks PD's workflows.

Compared to the current manual call handling process, DeskOfficer is projected to reduce the department's annual call-handling workload from 7,560 hours to 4,900 hours—a savings of 2,660 staff hours. This translates to a labor cost reduction of approximately \$159,600 per year. After accounting for the \$50,000 annual DeskOfficer subscription, Sparks PD is projected to achieve net annual savings of ~\$109,600, while improving public service and operational efficiency.

DeskOfficer offers the greatest return on investment compared to maintaining the status quo or implementing a phone tree. It modernizes the department's non-emergency communications while freeing up valuable staff time to focus on higher-priority responsibilities.

INTRODUCTION

DeskOfficer is an AI-powered virtual police officer that answers administrative calls, handles routine inquiries, and intelligently routes callers — all while sounding indistinguishable from a human. By eliminating the need for outdated phone tree systems and reducing the burden on call takers, DeskOfficer improves community access and saves valuable time and budget.

PROBLEM

In 2024, Sparks PD received 84,000 non-emergency calls, many of which were routine inquiries such as “Where can I get a copy of a report?” or “What are your hours of operation?”

These calls currently require a human to answer and either forward the call or provide basic information. Sparks PD has considered implementing a traditional phone tree, but this would decrease community satisfaction and still result in most calls being transferred to humans (as callers tend to press 0 to bypass menus).

The City is also facing a \$12M budget deficit, with labor costs accounting for a large portion of city expenditures. There's a clear need to do more with less, without compromising public service quality.

SOLUTION

DeskOfficer replaces the need for a phone tree and reduces demand on human staff. It can:

- Answer and triage all administrative calls
- Sound like a real person
- Speak 30+ languages
- Instantly provide answers or route calls more intelligently

Impact:

- Save 1 minute per call on all 84,000 calls
- Fully automate 30% of calls, saving 5+ minutes per call in these cases

Cost Savings Calculation

Assumptions

- 1 full-time call taker costs \$120,000/year (salary + benefits)
- Average call lasts 5 minutes

Save ~1 minute on all transferred calls

1 minute × 33,600 transferred calls = 33,600 minutes = 560 hours saved annually
560 hours = \$33,600 in value

Fully automate 30% of calls, saving 5 minutes each

5 minutes × 25,200 calls = 126,000 minutes = 2,100 hours saved
2,100 hours = \$126,000 in value

Total Annual Time Saved: ~2,660 hours

Estimated Total Cost Savings: ~\$159,600/year

FEATURES

- **Custom Agent Flow:** Tailored to Sparks PD's call types and workflows
- **Knowledge Base Integration:** Access information from websites and documents
- **Multilingual Support:** Understands and responds in over 30 languages
- **Call Forwarding:** Seamlessly transfers to the correct human when needed
- **Audio Recording & Archiving:** Securely store all interactions for QA and auditing
- **Safeguards & Fallbacks:** Ensures sensitive or complex calls go to humans
- **Live Listen-In:** Supervisors can monitor AI calls in real time
- **Call Takeover:** Staff can instantly take over any live call
- **Call Analytics Dashboard:** View call volumes, automation rates, and outcomes
- **Post-Call Summarization:** Automatically generates summaries of all interactions
- **Continuous Learning:** Improves over time as new call patterns emerge

PRICING

2-Year Contract: \$100,000

This includes:

- Deployment and configuration
- Ongoing updates and support
- 24/7 Coverage
- Custom knowledge base management

COST COMPARISON

Below is a cost analysis comparing three approaches: continuing the current manual process, implementing a phone tree, or deploying DeskOfficer, an AI-powered call handler.

Assumptions

- **Annual call volume:** 84,000
- **Labor cost:** \$120,000/year per employee $\approx$ \$1 per minute
- **Call distribution:**
 - 40% of calls (33,600) are transferred to another unit
 - 60% of calls (50,400) are resolved directly by the call taker
- **Call duration:**
 - Transferred calls take 6 minutes (1 minute to transfer + 5-minute conversation)
 - Direct calls to non-emergency take 5 minutes
- **Phone tree behavior:**
 - 60% of callers press 0 and are routed to a human¹

¹ <https://hd.egain.com/ivr-customer-experience-report.pdf>

- 40% of callers are automatically routed without a human intermediary
- **DeskOfficer performance:**
 - Eliminates 1-minute transfer time for all transferred calls
 - Fully automates 30% of all calls (25,200), saving 5 minutes each

Option 1: Do Nothing (Manual Call Handling)

Under the current process, all 84,000 non-emergency calls are handled manually by Sparks PD staff.

Call Breakdown:

- **33,600 calls (40%)** are transferred to another unit or city service
 - Each takes **1 minute to transfer** and **5 minutes to resolve = 6 minutes per call**
- **50,400 calls (60%)** are resolved directly by the call taker
 - Each takes **5 minutes per call**

Total Time:

- $33,600 \times 6 \text{ minutes} = 201,600 \text{ minutes}$
- $50,400 \times 5 \text{ minutes} = 252,000 \text{ minutes}$
- **Total: 453,600 minutes = 7,560 hours**

Total Cost to Operate Non-Emergency Line: ~\$453,600/year

Option 2: Phone Tree System

A phone tree would attempt to route calls without human involvement, but many callers are likely to bypass the menu and request an operator.

Call Breakdown:

- **33,600 calls (40%)** would still need to be routed to other units or city services:

- **60% of those (20,160 calls)** would press 0 and be routed manually
 - Each takes **6 minutes** (1-minute transfer + 5-minute resolution)
- **40% of those (13,440 calls)** would use the tree successfully
 - Each takes **5 minutes** (directly handled by the destination unit)
- **50,400 calls (60%)** are standard and still handled by staff
 - Each takes **5 minutes**

Total Time:

- $20,160 \times 6 \text{ minutes} = 120,960 \text{ minutes}$
- $13,440 \times 5 \text{ minutes} = 67,200 \text{ minutes}$
- $50,400 \times 5 \text{ minutes} = 252,000 \text{ minutes}$
- **Total: 440,160 minutes = 7,336 hours**

Total Cost to Operate Non-Emergency Line: ~\$440,160/year

Time Saved vs. Do Nothing: 224 hours/year

Cost Savings vs. Do Nothing: ~\$13,440/year

Option 3: Deploy DeskOfficer (AI Call Handler)

DeskOfficer replaces the phone tree with AI that can answer, route, and fully resolve many calls without a human. It provides a better experience for the public and reduces staff workload.

Call Efficiency Gains:

- **33,600 calls (40%)** DeskOfficer handles routing automatically, saving **1 minute per call = 33,600 minutes saved**
- **25,200 calls (30%)** are fully automated (DeskOfficer can answer general questions so it doesn't have to transfer to a human), saving **5 minutes per call = 126,000 minutes saved**

- **50,400 calls (60%)** are transferred to a non-emergency call taker by DeskOfficer, still taking **5 minutes per call**

Total Time Saved:

- $33,600 + 126,000 = 159,600$ minutes = 2,660 hours

Adjusted Workload:

- Original: 453,600 minutes = 7,560 hours
- After DeskOfficer: 294,000 minutes = 4,900 hours

Total Cost to Operate Non-Emergency Line:

- Labor: ~\$294,000
- DeskOfficer subscription: \$50,000
- **Total: ~\$344,000/year**

Total Cost to Operate Non-Emergency Line: ~\$344,000/year

Time Saved vs. Do Nothing: 2,660 hours/year

Cost Savings vs. Do Nothing: ~\$109,600/year

Annual Cost Comparison

SCENARIO	COST TO OPERATE	HOURS SAVED	COST SAVINGS
Do Nothing	~\$453,600	-	-
Phone Tree	~\$440,160	224 hrs	~\$13,440
DeskOfficer	~\$344,000	2,660 hrs	~\$109,600