

**Social Media Audit
August 2013**

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Social Media Audit

Table of Contents

	<u>Page</u>
Executive Summary	1
Audit Scope and Methodology	3
Background	3
Detailed Audit Findings	5

Social Media Audit



Office of the City Auditor

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Executive Summary

Adequate controls over social media are in place, but a lack of monitoring exists

The City's social media policy contains elements identified as best practice

Opportunities for Improvement

- *Promote cohesive brand*
- *Maintain social media accounts in accordance with policy*
- *Identify unauthorized, dummy accounts*
- *Track social media performance*
- *Require strong passwords*
- *Establish incident response plan*
- *Delegate authority to create social media accounts*

As part of the Fiscal Year 2013 Annual Audit Plan, the City Auditor's Office conducted an audit of social media. The audit was conducted in accordance with generally accepted government auditing standards, except for peer review. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The objectives of the audit were to:

- ensure that the City can adequately address security and other risks introduced by social media;
- ensure that the City is protected from negative publicity;
- determine if social media accounts are being used effectively to inform and interact with citizens; and,
- determine the effectiveness of the City's usage of social media to promote the City's brand.

The City of Arlington has multiple social media accounts to help engage citizens. Among the ten departments that manage social media accounts, Facebook is the most commonly used site. Site content is mostly informational and there is minimal dialogue with citizens and/or collaboration with other departments.

The City has established a city-wide Social Media Policy to enhance communication with stakeholders in support of City goals and to facilitate discussion of City issues, operations and services. City departments are given the opportunity to create their own social media policy, as long as their departmental guidelines comply with the city-wide policy. However, the City Auditor's Office noted that departmental social media accounts are not created and maintained in accordance with the city-wide policy. For example, social media accounts did not have approved social media plans; site content was not monitored or updated; and sites did not include the required disclaimers.

The City Auditor's Office also identified several dummy accounts and only four of the ten divisions using social media track social media performance. The Office of Communications (OOC)

tracks the number of likes and followers for some of the remaining six departments; however, the departments don't do any tracking or use the information reported by the OOC. Without established goals, the reporting of the number of likes/followers may not be indicative of whether a particular site is meeting management's expectations.

Security and operational risks related to passwords were noted, and security incidents had not been adequately addressed. Strong passwords used to access social media accounts are not required, nor are passwords required to be periodically changed. There was also no documented incident response plan.

These findings and recommendations are discussed in the Detailed Audit Findings section of this report.

Audit Scope and Methodology

The audit was conducted in accordance with generally accepted government auditing standards, except for peer review. The following methodology was used in completing the audit.

- Surveyed departments concerning their use of social media
- Interviewed City social media moderators
- Reviewed controls over access, security and performance
- Reviewed content on City social media pages
- Compared the City's social media pages to those of other cities

Background







Social media is a form of electronic communication through which users create online communities to share information, ideas, personal messages and other content. Social media allows users to engage in conversations and participate in the development of content in a way that traditional media never has. Social media sites are numerous and include Facebook, Twitter, YouTube, Pinterest, LinkedIn, Flickr and FourSquare. These sites are easy to access, navigate and are free to use. Users are able to connect with people and businesses, while creating and updating their own content. However, the formats for each site are different. For instance, Facebook allows user to create personal pages to share information via text, pictures or video. Other users can respond with comments or posts that become part of the user's page. Facebook also allows users to create pages for community organizations, businesses or public figures. These pages can have multiple administrators that share information with those who "like" their page. According to Facebook, there were over a billion monthly active users as of December 2012. Twitter allows users to post messages known as "tweets" that are limited to 140 characters. Users can follow each other and share tweets (known as re-tweeting).

Social media has become popular not only among individuals, but businesses and government. Social media platforms provide businesses with a free tool to reach consumers and share information and promotions. Governments use social media to keep citizens informed and garner public opinion on city issues and operations.

The City of Arlington has multiple social media accounts on various sites including Facebook, Twitter, YouTube, Pinterest, Flickr and FourSquare. As seen in the chart on page 4, Facebook is the most used site in the City, with 112 accounts. Ten departments within the city are currently using social media. These pages post information relative to City news and events along with pictures and videos in an effort to: 1) enhance communication with stakeholders in support of City goals, and 2) facilitate discussion of City issues, operations and services. For example, the City Hall Facebook page posts links to news stories and events in Arlington. The Animal Services Division uses social media to publicize events and showcase animals available for adoption.

As the City's use of social media increases, many departments are striving to engage citizens in different ways. For example, the Arlington Police Department recently began the use of a Tweet-

Along Program, which allows Twitter followers a virtual ride along as officers patrol City streets. The department was awarded the 2012 Best of Texas award for its innovative use of Twitter. Additionally, the Parks and Recreation Department partnered with the City of Grand Prairie to create Brand-Aid, a two-day conference that taught marketing through social media to municipal professionals.

Number of Accounts By Department						
Departments	<i>Facebook</i> 	<i>Twitter</i> 	<i>YouTube</i> 	<i>Pinterest</i> 	<i>FourSquare</i> 	<i>Flickr</i> 
Code Enforcement	1					
Convention Center	1	1				
Fire	1	1				
Financial & Management Resources	1	1	1	1		
Library	3	2	2	1		1
Municipal Court	1					
Parks & Recreation	95	6	1	1	61 *	
Police	4	1	1			
Public Works	3					
Water Utilities	2					

* Updating not required; check-in function only.

Detailed Audit Findings

1. Social media sites do not depict an identifiable brand that is unified across City departments.

The Arlington City Council chose defining an identifiable brand as one of its FY2013 priorities. With increased popularity of the internet and an increased use of smartphones and tablet computers, social media has become a primary means by which the City's brand can be identified.

One component by which cities are judged is the quality of service provided. As noted in the Background section of this report, the City of Arlington has chosen to create several social media sites by which City services are promoted. Since information contained within these social media sites represents City programs and services, it is pertinent that the image of the City's brand appear uniform and representative of the City as a whole. It is also important that social media sites designed for dialogue be created and maintained to engage citizens through dialogue, not to just provide information.

Social media is defined as the means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks. By allowing dialogue between citizens and City staff, the City is provided opportunities to receive feedback regarding its strengths, weaknesses, opportunities, and threats. For example, the City is able to see how competitive it is compared with other municipalities and/or private companies that provide the same or similar service.

During audit testing, the City Auditor's Office found that social media is effective when users are engaging, interacting and collaborating with the public and not simply providing information. However, the content of departmental social media pages is mostly informational and there is little to no interaction with other City departments, local businesses or other organizations. Additionally, some sites have not been updated. Social media provides a unique opportunity to quickly and easily create a dialogue with citizens to gather feedback, but the City may be missing out because content is either not posted or only informational in nature. Additionally, the City could be missing opportunities to reach citizens and promote City events by not collaborating with other departments and organizations. Audit testing indicated that departments largely operate independently of each other. The lack of cohesiveness may have contributed to over 120 Facebook and Twitter accounts, 101 of which belong to the Parks and Recreation Department as noted on page 4, and does not facilitate the promotion of an identifiable brand.

The City Auditor's Office also compared the City's social media pages to those of other cities and noted that some other cities' pages are frequently updated and content is presented to encourage feedback. The City Auditor's Office also noticed that these cities have a portion of the city's website dedicated to social media, including a matrix of City departments and social media sites, making it cohesive and easy for citizens to find information.

Recommendation:

The Chief Financial Officer should ensure that the Office of Communications, in conjunction with user departments, modify the City's website to make it easier for citizens to find information.

Management's Response:

Concur. Currently, there are links on the City's main website to all City social media sites including Facebook, Twitter, Pinterest and YouTube. But, there are not links to the social media sites for other City departments like Police, Fire, Library and Parks and Recreation. Office of Communications will create a dashboard page that will contain a link to all of those pages as a part of the website relaunch.

Target Date: August 30, 2013

Responsibility: Web Designer

Recommendation:

The Office of Communications should provide guidance to City departments regarding how they can collaborate to promote an identifiable brand while engaging citizens through social media.

Management's Response:

Concur. The City is currently in the process of evaluating its current brand and developing a new cohesive brand strategy. This project is being conducted in conjunction with the redesign of the City's website. The new brand will then be incorporated into the City's social media sites through logos, consistent design, and key phrasing.

Target Date: July 2014

Responsibility: Jay Warren, Marketing Communication Manager

2. Social media accounts are not created and managed in accordance with the City's Social Media Policy.

The Office of Communications has established a city-wide Social Media Policy that details requirements concerning the creation and ongoing management of social media accounts. The purpose of the policy is to enhance communication with stakeholders in support of City goals and to facilitate discussion of City issues, operations and services. Good business practice would suggest that proper oversight is essential.

The following requirements are noted within the established Policy.

- 1) A detailed social media plan must be approved by the department head, Director of IT, Marketing and Communications Manager and Deputy City Manager prior to the account being created.
- 2) A site must be maintained effectively, and must be monitored and updated regularly.

- 3) Content must be managed, stored and retrieved in a way that complies with the Texas Public Information Act and e-discovery laws.
- 4) Employees should be trained with regard to the City's policy.
- 5) The IT Department and the Office of Communications should maintain a list of the City's social media sites and services.
- 6) Each site should include an introductory statement which clearly specifies the purpose and topical scope of the blog or social networking site, City contact information and a standard disclaimer referring to the City's rights and actions about comments.

The City Auditor's Office noted the following exceptions to policy during audit testing.

- 1) Ten of the 34 sampled accounts were created after the City's Social Media Policy. Eight of those 10 sample accounts did not have a social media plan that had been approved by a Department Head, Director of IT, Communications Manager and Deputy City Manager. The City Auditor's Office noted during audit testing that two departments were unaware that a social media plan was required by City policy.
- 2) Eleven (11) of the 34 sampled accounts had not been updated in three or more months. Three of the 11 were created as far back as 2011, but had never been updated.
- 3) The OOC does not provide guidelines to users concerning state laws on records retention. The State has not specifically addressed social media content in regard to records retention. However, based on prior standards, the content (both City posted and outside user content) would be subject to record retention requirements. The City Auditor's Office noted that social media sites such as Facebook and Twitter auto delete content after a period of time. In addition, the City Auditor's Office noted that one department has deleted negative feedback from its social media site.
- 4) There are no procedures in place to ensure that departments are trained or are aware of the City's Social Media Policy.
- 5) The IT Department does not maintain a list of social media accounts, and the OOC's list of City social media sites did not include all Facebook, Twitter, Pinterest, Google+ and Flickr accounts which had been created by City departments. There does not appear to be a valid reason why two departments would maintain a list of social media accounts. It appears to be redundant.
- 6) From a sample size of 28 sites, audit testing revealed that seven standard disclaimers, two contact information and eight purpose and scope statements were excluded from departmental social media sites. The remaining six sites in the sample of 34 accounts were related to FourSquare, which does not allow the posting of standard disclaimers, contact information and purpose and scope statements on the site.

While the OOC appears to have taken a lead role by creating the city-wide policy, the Policy does not address procedures or assign responsibility for monitoring user departments to ensure that social media accounts are created and managed in accordance with policy. Per the city-wide Social Media Policy, the IT Department is responsible for approving social media plans. However, the IT Department indicated that aside from signing the form, IT does nothing else to ensure compliance.

The lack of centralized governance concerning social media has likely contributed to the exceptions noted. As a result, the City cannot be assured that departments are utilizing social media in accordance with the City's goals and objectives, as outlined in the Social Media Policy.

Recommendation:

The City Manager should require that Department Heads ensure compliance with the city-wide Social Media Policy.

Management's Response:

Concur. The Office of Communications will update the Social Media Policy and distribute it annually to all Department Heads, at the direction of the City Manager.

Target Date: September 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager

Recommendation:

The Chief Financial Officer should ensure that social networking moderators are trained regarding the city-wide Social Media Policy, including updating, records retention, and disclosure requirements.

Management's Response:

Concur. The Office of Communications will distribute the updated Social Media Policy to all social networking moderators. Additionally, each moderator will receive a training guide with guidance on updating sites, branding, records retention and disclosure requirements.

Target Date: September 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager

Recommendation:

The Chief Financial Officer should ensure that the Social Media Policy is revised to no longer require that two departments maintain a list of the City's social media sites and services.

Management's Response:

Concur. Moving forward, OOC will maintain the only list of social media sites for the City. This change will be reflected in the updated Social Media Policy.

Target Date: September 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager

3. Social media sites are not routinely monitored to identify inappropriate feedback or unauthorized accounts.

All businesses are concerned with protecting their image, but this is of particular importance to municipal government since it represents the public. This concern is greater when using social media since users can legally (and easily) comment, post and even create accounts using the City's name and information. Best practices recognize fraudulent or hijacked accounts as a vulnerability and recommend prevention such as clear guidelines and internet scans to mitigate the risk.

During testing, the City Auditor's Office noted that five of 28 sampled social media pages do not address citizens' posts or feedback. This includes the City's main Facebook page (City of Arlington, TX – City Hall) and the main Arlington Police Department Facebook page (Arlington Police Department) which do not allow citizens to post to their page. Since the City Hall and Police Department pages do not allow posts, many citizens are using the recommend function to post questions and comments that are not being addressed by the City. Not responding to feedback reflects poorly on the City.

A key word search of Facebook, Twitter and YouTube also identified several accounts that appear to be unauthorized or dummy accounts.

- Citywide - A Twitter account, not belonging to the City, was identified that uses the City's logo as a profile picture. While the page states that it is not affiliated with the City, the use of the City logo could cause confusion for some citizens. Additionally, this use of the City logo is prohibited by the Flag and Logo Chapter of the City's Code of Ordinances. As of March 3, 2013, the account was current and contained content that the City would consider inappropriate.
- Police - An Arlington Police Department Facebook page and YouTube account were identified that do not appear to be authorized by the Police Department. The Police Department was not aware of these accounts prior to this audit.
- Mayor and Council - A fake Twitter account existed that used the name and picture of a City of Arlington elected official. The account tweeted profanity and obscene, inappropriate material. Upon notification by Internal Audit, this account was deactivated. The fact that the account existed increased the City's risk of false information, perceptions, etc. being sent to the public. Another Twitter account had been created prior to this audit, mentioned in the local newspaper and deactivated by management.

Recommendation:

The Chief Financial Officer should ensure that the city-wide Social Media Policy is updated to address how staff should respond to negative and inappropriate feedback and should include procedures that help identify and deactivate unauthorized social media accounts in a timely manner.

Management's Response:

Concur. Social media is a constantly evolving medium and as such the City's policy dealing with social media should be periodically updated. Office of Communications will update the

City's Social Media Policy with provisions for responding to negative/inappropriate feedback and comments on City social media sites. Additionally, the policy will be updated with a guideline for deactivating City maintained social media sites that are updated infrequently.

Target Date: September 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager

4. Social media performance is not tracked.

Best practices indicate that measurement and evaluation are essential features of any communication strategy or tactic. In order to gain a clear understanding of the effectiveness of social media use, best practices suggest that the City track the performance of its social media accounts. Without clear goals or pre-determined measures, the City is unable to track the performance of its social media pages.

The City Auditor's Office discussed tracking and performance measurement tools with user departments noting that, of the ten divisions contacted, six do not track performance of their social media accounts. While the OOC tracks the number of likes/followers for some of the six divisions, department staff did not utilize the information reported by the OOC nor did they track any alternative performance measures. While this is not required by the City's Social Media Policy, there are a number of options, free and fee-based, that exist to monitor and track performance of social media sites.

- Facebook Insights is a free tool available that tracks information including the number of "likes", people reached and types of posts. Facebook Insights is updated and provided to users weekly.
- Twitter Counter is a site with free and paid tools to manage and track performance.
- Many subscription-based sites are available that can track activity, generate reports of traffic and geo-locations, etc.

A 2012 study by the University of Illinois at Chicago indicated that cities can contribute to civic engagement by providing information about the government or community and by providing opportunities for citizens to interact with City representatives online. Since the City's goal is to facilitate discussion of City issues with citizens, these methods of civic engagement are applicable to the effectiveness of social media use.

During testing, the City Auditor's Office reviewed content for a sample of the City's social media accounts noting that most of the content was informational in nature. There were very few questions, polls or other means, used to prompt discussion. Since key metrics have not been identified and measured, City departments have no way of determining if social media is meeting established goals. As a result, departments may not identify the need to modify their strategy to reach more citizens.

Recommendation:

The Chief Financial Officer should ensure that the city-wide Social Media Policy is updated to address the establishment of key metrics by which data can be collected and used to measure and report performance.

Management's Response:

Concur. For the past several years, the Office of Communications has tracked key metrics of the City's social media pages, providing detailed comparisons of the City's individual department social media pages and comparisons to the social media sites of surrounding cities. OOC will continue to track these key metrics. Additionally, the updated Social Media Policy will direct moderators of individual departmental social media sites to collect their own key metrics.

Target Date: September 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager

5. The City's social media policy does not require the use of strong passwords for social media accounts.

Best practices for local government use of social media indicate that governments should be particularly mindful of security risks and should take appropriate measures to prevent fraud or unauthorized access. A security risk is associated with passwords. According to the Information Technology Department's strong password procedure, "Strong passwords are used to slow down those automated robot programs that attempt to 'guess' our passwords. Humans are creatures of habit and we've tended to pick easy passwords. Hackers and spammers know this and regularly code into their programs databases of "known" passwords. No password is perfect, and even the best system can be broken with enough time, money and computing power. But by using creative techniques like these, you will create better passwords and ultimately strengthen security." The City of Arlington, therefore, requires the use of strong passwords to access the network.

A strong password has the following characteristics:

- does not contain the user name, real name or organization name
- does not contain a word found in the dictionary, in any language
- is at least 8 characters long (the longer, the better)
- is significantly different from the previous password
- is made up of a character from 3 of the 4 character sets found on the keyboard

In addition to strong passwords, the City requires that network passwords be changed every 90 days. However, the City's social media policy does not require the use of strong passwords that are changed periodically. As discussed in the Executive Summary of this report, some departments have implemented departmental policies, in addition to the City-wide Social Media Policy. Upon review of these departmental policies, the City Auditor's Office noted the following:

- None of the ten departments contacted require strong passwords
- Four of the ten require passwords to be changed periodically
- Four of the remaining six departments have not changed the password since their initial use of social media

The City is at a higher risk of imposter takeover or impersonation through social media by not requiring strong, periodically changed passwords. Several recent examples, including Burger King and Jeep, have shown that imposter takeover of a social media account can cause headaches, bad press, and reputational damage.

Citizens rely on the City's social media pages to provide accurate information. If the City's accounts are filled with unauthorized, inaccurate, derogatory or virus-filled content, the posts can be deleted and pages restored. However, reputational damage is much more difficult to correct.

Recommendation:

The Chief Financial Officer should ensure that the city-wide Social Media Policy is updated to mandate the use of strong passwords that are periodically changed.

Management's Response:

Concur. Strong passwords that are changed on a regular basis should be utilized for all City social media sites. OOC will send a quarterly email reminder to all city employees responsible for monitoring social media sites, directing them to change their passwords and recommending those passwords conform to City guidelines for strength.

Target Date: August 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager

6. The city does not have a documented incident response plan.

Incident response plans are important to organizations in order to mitigate risk, protect the organization's reputation and ensure that the system is functional and available. Best practices suggest a documented incident response plan to address outages, network failure, network attack, social media hacking or other issues with as little down time as possible. As noted in previous findings, the City is at an increased risk of social media hacking and it is important that users know how to remedy an account hijacking or similar incident (change passwords, contact site administrators, etc.). Being able to quickly and effectively remedy such issues could lessen or prevent reputational damage.

The City's Information Technology Department began the process to create an incident response plan in 2010 when a draft plan was created. However, the plan was never finalized. The draft plan included many essential elements identified in best practices, such as requirements to test and revise the plan often, create a final report and steps to prevent reoccurrence. Many incident response plans also identify a team with specific responsibilities and include procedures related to identification of an incident, containment, eradication, recovery and follow-up. Without a documented plan, the City risks confusion or delayed resolution of an incident. Additionally, the

City could be subject to down time, lost productivity, damage or lost information and a higher risk of reoccurrence.

In a recent general controls review, consultant CliftonLarsonAllen also noted that no formal computer incident plan exists. A recommendation was made to create such a plan and test it on an annual basis. According to guidance issued by the Information Systems Audit and Control Association (ISACA), such a plan should specifically address social media risks.

Recommendation:

The Chief Information Officer should require that a documented Incident Response Plan be implemented that addresses social media risks.

Management's Response:

Concur. As part of the overall formal IT security program development, IT will publish standards for security administration and incident response for Social Media. Included in this publication will include expectations of users and departments on such topics as UserID and Password standards, business unit department incident response requirements and other areas of functional capability under the City of Arlington's control.

Target Date: December 31, 2013

Responsibility: Dennis John, Chief Information Officer

7. The Social Media Policy does not give clear authority to individual staff members to legally bind the City in agreeing to terms with social media providers.

The City Manager's Office authorizes individual City staff members to initiate and/or sign documents as indicated on the "Authorized Signature List" form. Generally, only department heads and above are authorized to initiate and sign contracts per the departmental authorized signature lists. However, it is generally lower level staff members that establish social media sites by agreeing to "clickwrap" license agreements as part of the account creation process. "Clickwrap" license agreements are legal contracts, and they often contain terms and conditions that create risks for the account creator and the City (for officially-recognized City accounts). For example, staff members could potentially be violating state contracting laws and rules by signing an unauthorized contract on behalf of the City.

Although the Social Media Policy requires Department Head and Deputy City Manager approval, the Policy does not specifically indicate that this approval is delegating authority for contract signature to lower level staff members. However, according to the City Attorney's Office (CAO), contract terms established by the major social media sites (Facebook and Twitter) were reviewed by the CAO when the Social Media Policy was developed. The CAO will review contract terms for new sites unless the platform was previously reviewed and no real changes in the terms have occurred. The CAO could not provide a complete listing of social media sites for which they have reviewed the contract terms. However, of those sites reviewed, the CAO indicated that any issues identified were deemed acceptable by policy makers given the risk.

It appears that when the Social Media Policy was developed, the authors did not consider the impact of staff members agreeing to licensing terms. One possible way to mitigate the risks associated with this is to specifically delegate authority to account administrators to create official social media accounts through approval of the social media plan.

Recommendation:

The Chief Financial Officer should ensure that staff, upon City Manager approval, updates the Social Media Policy to specifically delegate authority to account administrators to create social media accounts.

Management's Response:

Concur. The Office of Communications will work with the CAO to include appropriate guidelines regarding website agreements in the updated Social Media Policy.

Target Date: September 30, 2013

Responsibility: Jay Warren, Marketing Communications Manager