Selling the Spoke way

Prasad Akella, Mark Interrante
Spoke Software, Inc.
577c College Avenue, Palo Alto CA 94306
mark@spoke.com, p.akella@ieee.org

Mark Granovetter
Stanford University
Sociology, Bldg 120, Stanford CA 94305
granovet@leland.stanford.edu

"Inviting every employee to every pipeline meeting"

1. Introduction

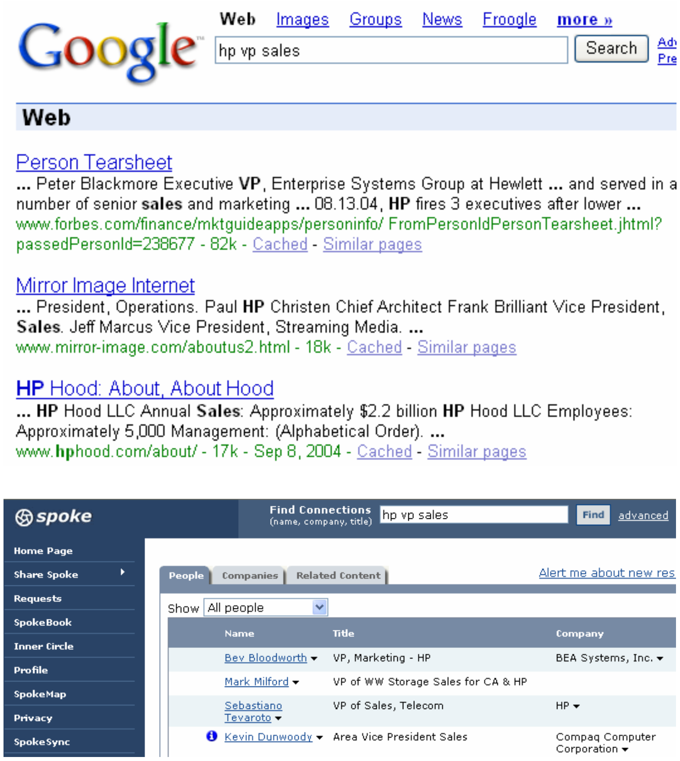
Spoke Software provides enterprise tools for sales professional to help them manage their personal Relationship Capital[1] and tap the Relationship Capital of their entire enterprise in order to grow sales and revenue. By leveraging the relationships of every participating employee, Spoke reduces the cost (both time and money) of discovering relationships in target accounts. Spoke helps the salesperson leverage existing employee connections to provide valuable access and insights into potential sales opportunities.

Consider the following example: Joe Salesman is assigned Hewlett Packard as an account. His targets are the different Vice-Presidents in the HP Sales organization(s). Prior to Spoke, Joe would have followed one of several paths including:

- Checked his company's SFA (Sales Force Automation) system to identify any existing HP contacts;
- Typed "HP VP Sales" on Google or another search engine;
- Called people in his Rolodex who might be able to help;
- Sent an all-company email asking "Do you know anyone at HP who can get me to their Sales VP(s)?"

All of these approaches are inefficient. Corporate SFA and CRM systems are often limited and/or out-of-date in their contact information. The results from Google (shown in Figure 1) demonstrate the limitations of using a search engine for this type of query. Haphazardly placing calls or sending emails is based more on the hope of getting a lucky connection than on a clear strategy to pinpoint the desired individuals. The "success rate" for all of these approaches is relatively low, typically <10% -- meaning that less than 10% of these activities actually result in an introduction to the targeted individual.

By contrast, a query on Spoke immediately provides Joe a high quality set of names of people he can reach via his personal network. The list includes people who have either been VPs of Sales at HP or are VPs of Sales at suppliers to HP. Joe can then decide to send out one or more requests to the people in his personal network to request an introduction to the targeted individual(s). Spoke's data on requests shows that almost half of such requests do result in a handoff or introduction to the targeted individual.



Person Tearsheet
... Peter Blackmore Executive **VP**, Enterprise Systems Group at Hewlett ... and served in a number of senior **sales** and marketing ... 08.13.04, **HP** fires 3 executives after lower ...
www.forbes.com/finance/mktguideapps/personinfo/ FromPersonIdPersonTearsheet.jhtml?passedPersonId=238677 - 82k - Cached - Similar pages

Mirror Image Internet
... President, Operations. Paul **HP** Christen Chief Architect Frank Brilliant Vice President, **Sales**. Jeff Marcus Vice President, Streaming Media. ...
www.mirror-image.com/aboutus2.html - 18k - Cached - Similar pages

HP Hood: About, About Hood
... **HP** Hood LLC Annual **Sales**: Approximately $2.2 billion **HP** Hood LLC Employees: Approximately 5,000 Management: (Alphabetical Order). ...
www.**hp**hood.com/about/ - 17k - Sep 8, 2004 - Cached - Similar pages

Name	Title	Company
Bev Bloodworth	VP, Marketing - HP	BEA Systems, Inc.
Mark Milford	VP of WW Storage Sales for CA & HP	
Sebastiano Tevaroto	VP of Sales, Telecom	HP
Kevin Dunwoody	Area Vice President Sales	Compaq Computer Corporation

Figure 1: Comparing the quality of data available to the sales rep on Google and Spoke. Notice the specificity in Spoke's results.

The above example shows how a salesperson can quickly and easily integrate Spoke into their existing sales cycle. The rest of this paper uses one key task in the sales process – "get a meeting" – to highlight the value that accrues from leveraging the existing social network of a company's employees.

A key differentiator between Spoke and its competition is Spoke's ability to implicitly map and assign connectivity ratings to a large, interconnected, social network that closely mimics the reality of how the people actually interact with their professional associates. Spoke participants do not need to tell

---

[1] Relationship capital, analogous to human or physical capital in an organization, is a measure of the relationships owned by the employees of the organization/corporation.

Spoke how they communicate with the individuals in their network or how they "rate" those individuals as valuable contacts; Spoke infers the information from complex algorithms using such variables as the frequency and speed of response of the email streams. Stated another way -- an individual does not have to join Spoke's network to appear on the Spoke network map. Because email headers are a source for the mapping of contacts, anyone who sends or receives an email to an official Spoke participant automatically appears in the network map.

We emphasize this "implicit mapping process" for two reasons: First, as Granovetter [1968] has shown, information content is widely distributed. By reaching out of one's immediate circle, one has access to more, and potentially better, information. Second, network effects [Barabasi, 2002; Watts, 2003] are a key driver of value for users like Joe – the larger network has more content. By mining email headers of participants and pulling other information on individuals from publicly available information on the web, Spoke is able to build a network three-to-four orders of magnitude larger than any network that can be manually created by individuals.

Due to this "implicit mapping" approach, Spoke's network for business professionals at http://center.spoke.com is very large – much larger than the typical social networking database. We estimate 15% of professionals in the US are known within this network – over 17 million people.

2. Business process and user behavioral changes resulting from the use of Spoke

In this section, we explore some of the behavioral changes empowered by the use of Spoke in the sales process [Zolters *et al*, 2001]. We believe that the key change is in the thinking of both the salesperson and their employer. In a typical sales cycle, the early step of finding an "in" to getting an initial meeting is often a time-consuming bottleneck, with salespeople spending weeks making cold calls in an attempt to open the door[2]. This is why many companies place a high value on an experienced salesperson with a big Rolodex; companies know the difficulty of getting access and therefore believe that much of a salesperson's value and effectiveness comes from their existing network of relationships.

Spoke changes this equation completely by allowing every salesperson in the organization to have access to a wide network of professional contacts. Rather than a scarcity mentality of spending time on any possible contact in the hope of eventually getting some useful information or introduction, the salesperson can follow a more strategic approach of selecting and sorting contacts according to their probable usefulness in different stages of the sales cycle.

Spoke, in summary, has now changed the sales rep's focus and thought from *"who can help me with this deal?"* to *"what do I need to know & do to close this deal?"* Put another way, the core question with Spoke is *"If you could (via Spoke) access every VP of Sales related to HP, how would you close your deal most expediently?"* Spoke user data shows that this change in methodology has started yielding results – prospecting cycles that have taken users weeks and months now close in days. It also shows an increase in the number of deals that sales reps are working because a larger fraction of the rep's day is spent selling the target, rather than prospecting. Finally, anecdotal evidence suggests that sales reps now have the insights to walk from deals they will likely not close. This leaves them time to work the more likely deals harder.

To get his meeting with the target, Joe handles 3 main tasks:

1. Identify which persons can serve as initial information sources and what class of information each person is best able to confirm.
2. Identify specific questions that each of these persons is best positioned to answer.
3. Request "connectors" that will introduce him/Joe to the final targeted individuals(s), in this case, the Sales VP(s)

Questions that Joe might attempt to answer in handling the above tasks include:

- "Whom do *we* (i.e., the organization) [optionally: *best*] *know* at HP?"
- Who *influences* the different Sales VPs at HP? Which individuals would know the answer to this question?
- "Who are [optional: *reliable*] *connectors* to Sales VPs at HP?"
- "Whom does John, one of these connectors, know that *he has told me of*?"
- "Whom do John and I *know in common*?"
- "Who is my *best connector* who can get me to Joe Schmo, one of the Sales VPs at HP?"

---

[2] In general, the more successful sales people spend 15% of their time prospecting and 40% on sales while the average sales person spends 40% prospecting and 20% on sales [MRDT Center for Productivity, 1999].

Spoke enables Joe to use both phone and email to get to the desired goal. The relationship owner's[3] actual contact data is not identified by Spoke for privacy reasons; however, merely using the limited information of name and job title, Joe can choose to guess at relationships and work the phone or cold call to reach the targeted individual. However, Spoke subscribes to and enables the well-known notion that introductions are more likely (2-4x) to lead to preferred outcomes [Zolters *et al*, 2001]. Spoke data says that people like Joe who choose to use Spoke's email-based referral system[4] get reliable responses within a day.

Field sales reps are more often on the road than in their offices. Spoke has a Blackberry interface[5] to enable Joe to use Spoke while he is on the road. Primary uses of Spoke by a salesperson in a mobile setting are to (1) understand who an unexpected participant at the customer meeting is, as knowing who the person is (e.g., a sense of his resume) helps Joe make points with contextual data relevant to the specific person; and (2) to turn names that they pick up during customer meetings into additional meetings while still on site.

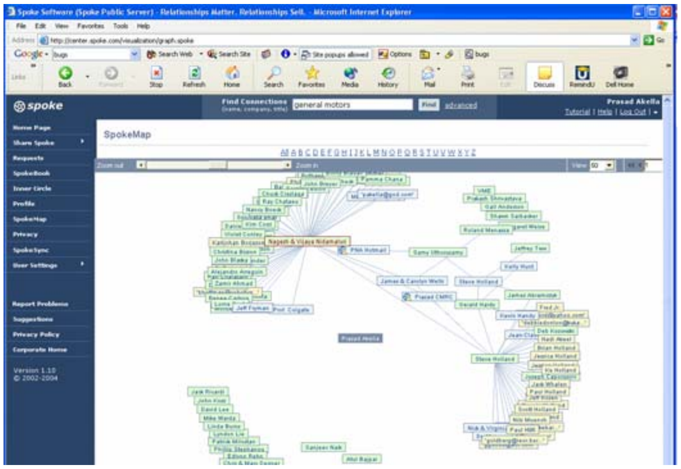

Spoke Software (Spoke Public Server) - Relationships Matter. Relationships Sell. - Microsoft Internet Explorer
File
Edit
View
Favorites
Tools
Help
spoke
Find Connections
general motors
Find
advanced
Prasad Akella
Tutorial
Help
Log Out
Home Page
Share Spoke
Requests
SpokeBook
Inner Circle
Profile
SpokeMap
Privacy
SpokeSync
User Settings
Report Problems
Suggestions
Privacy Policy
SpokeMap
Zoom out
Zoom in

Figure 2: Influence map: SpokeMap screenshot shows clique and social connectivity data that helps visually explore the network

Sales teams engaged in complex sales situations routinely develop "Influence Maps." Developed manually and laboriously, these influence maps show "who knows who" and "who influences who" at the target account. Spoke's SpokeMap, one of the visual interfaces to the relationship network data, is developed on the premise that networks are best visualized – people are able to most effectively assimilate the relatively large and rich volumes of data visually. Built automatically and instantaneously, the influence map shown in Figure 2 shows Joe that he has two connectors at GM – Steve and Nagesh– who connect him to two groups (i.e., "cliques") within GM. Joe's personal, contextual, knowledge tells him that Steve is connected to the R&D organization while Nagesh is connected to the Manufacturing organization. It also tells Joe that Steve and Nagesh know each other -- information that Joe uses in determining how best to get the meeting he desires.

3. Spoke Technology

Spoke uses a variety of technologies to achieve its functionality while adhering to principles of both privacy and ease-of-use. Various end-user functions have already been described, such as the creation of an inferred map via email traffic, SpokeMap, the referral process, and the Blackberry interface.

Beyond the individual end-user, however, there are additional requirements for the creation and support of this type of enterprise large-scale inferred network. For example, Spoke must be able to both support self-contained instances of users (for companies who purchase Spoke for internal use) and also support a public Spoke database that is accessible to anyone who signs up for a free account on the Spoke corporate website. The system architecture must enable the corporate instances to reserve their data only for their end-users, while their end-users have "one-way" visibility into the public Spoke database, thus additionally leveraging the corporate network.

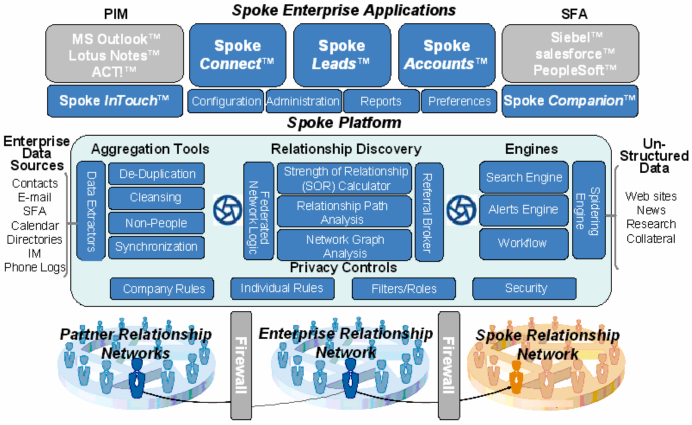

PIM
Spoke Enterprise Applications
SFA
MS Outlook™
Lotus Notes™
ACT!™
Spoke Connect™
Spoke Leads™
Spoke Accounts™
Siebel™
salesforce™
PeopleSoft™
Spoke InTouch™
Configuration
Administration
Reports
Preferences
Spoke Companion™
Spoke Platform
Enterprise Data Sources
Contacts
E-mail
SFA
Calendar
Directories
IM
Phone Logs
Aggregation Tools
Data Extractors
De-Duplication
Cleansing
Non-People
Synchronization
Relationship Discovery
Federated Network Logic
Strength of Relationship (SOR) Calculator
Relationship Path Analysis
Network Graph Analysis
Referral Broker
Engines
Search Engine
Alerts Engine
Workflow
Spidering Engine
Un-Structured Data
Web sites
News
Research
Collateral
Privacy Controls
Company Rules
Individual Rules
Filters/Roles
Security
Partner Relationship Networks
Firewall
Enterprise Relationship Network
Firewall
Spoke Relationship Network

Figure 3: The Spoke server architecture

---

[3] The relationship owner is the user who knows Joe's "target" – the person he is trying to reach and influence.

[4] The email-based referral system involves a chain of users, who know each other in turn, passing on a request to the next person till the designated target is reached.

[5] Send email to search@spoke.com with a subject like "Search VP Sales HP" For help, use subject "Help"

Spoke is written in Java on the server (see Figure 3) with the ability to scale from many instances on a given physical server to a single instance running across multiple machines for scalability and redundancy. The Spoke client runs on Windows and is written in C^{++}. Spoke has a number of engines that enable the end user application functionality:

- **Network creation** – Analyzes input streams and uses sophisticated algorithms which determine relationship characteristics by watching the patterns of interaction in the input streams. This is the engine that creates the network map.
- **Relationship analysis & people aggregation** - Enriches and refines the basic social network by identifying different representations of the same person (i.e., the same person who has different email addresses), identifying cliques of people, and analyzing the behavior of the social network over time. In addition, Spoke uses web crawling to enrich the network by providing information on individuals that is publicly available on the web, thus removing the need for an end-user to do separate queries on a search engine for every targeted individual.
- **Search** – Spoke search is highly personalized: it analyzes search term (such as job titles), identifies people and/or companies that match the search terms, and then finds the most effective routes to those people through the user's social network. Our search engine has undergone significant refinement over the last 6 months based on the increasingly extensive usage data available for analysis.

A core aspect of Spoke is our focus on the privacy of user data. We have found, from several hundred interviews with sales professionals and users, that protecting the privacy of the individual users is critical to the development and use of the network. This protection takes two forms: (1) Protection of user data from other users; and (2) Protection of user data from the corporation that they work for. While this is a general requirement placed by most users[6], it is particularly true of the sales person who views his Rolodex as his intellectual property and as a transferable asset that he takes with him as he moves jobs every 2 years on average. Our platform, therefore, supports a variety of options and controls for users that have been validated by numerous large customer installations. First, the platform almost always applies a privacy filter between the data in the system and that presented to the user. Second, it maintains a moving window of visibility that ensures that only the proximal nodes in the referral path are visible to the user. Third, it enables the removal of an individual from Spoke upon their request; this removal capability applies both to official Spoke end-users and to any individuals captured in their email streams.

The Spoke platform architecture is service-oriented, allowing the application teams to create and extend the core platform capabilities easily. The platform's web services infrastructure supports rapid integration with CRM and ERP technologies, and Spoke is already integrated with one popular CRM solution (Salesforce.com). The goal of integration, as with a CRM / ERP or with mobile technologies such as the Blackberry, is to increase ease-of-use and decrease work time by transparently integrating Spoke's functionality with the tools already in common use by the salespeople.

4. Conclusions / social changes

Spoke has created a platform and a set of applications that enable professionals within a company to manage and extend their social relationship capital. The tools don't require time consuming data entry or "be my friend" emails often referred to as SNAM (social network SPAM). The ability to quickly and easily get access to people speeds up time to the first meeting, which is often the most ad hoc step in the process, and provides deep insight. An open issue that we are still working on is blending the product and its UI to handle the different user expectations of a search engine and an SFA system -- behaviors Spoke displays at times.

Acknowledgements

This overview represents the work of a dedicated team of engineers and product managers. We thank them for the many contributions that made Spoke possible and Mary Walker for helping edit the paper.

References

Akella *et al*, Unpublished US Patent applications in process at the USPTO.

Barabasi, *Linked: The New Science of Networks*, Perseus Publishing, 2002.

Granovetter, The Strength of Weak Ties, *American Journal of Sociology*, 78, pp. 1360—1380, 1973.

MRDT Center for Productivity, *Prospecting Techniques*, Johy Wiley & Sons, 1999.

Watts, *Six Degrees: The Science of the Connected Age,* W. W. Norton & Company, 2003.

Zoltners, Sinha and Zoltners, *The Complete Guide to Accelerating Sales Force Performance*, American Management Association, 2001.

---

[6] Spoke is a member of TrustE and an applicant for Safe Harbor (for assured compliance with European Union privacy regulations).