

## Launch Pad

## How to improve the early sales performance of 'discontinuous' innovations—the way Vocera did

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When it comes to “discontinuous” innovation products, the right launch can mean everything. That is why it may be useful for new product developers to take a look at Everett Rogers’<sup>1</sup> list of elements that make innovations more likely to be adopted.

The five elements, shown in the box on this page, are: a perception that the relative advantage is high; strong compatibility with current practices; low complexity; the ability to evaluate before adoption; and observable and immediate results.

#### Discontinuous innovations

Which products are discontinuous innovations? A product characterized as a “game changer” with massive improvements in performance, cost, or features is a discontinuous innovation<sup>2</sup>. Comparing Rogers’ five elements with the features of your own planned launch is a good way to gauge the probable effectiveness of strategic and tactical plans.

What would your new product development team suggest after you identified the following pain point in the process of developing a person-to-person communications device for the health care system, as Vocera Communications was trying to do a few years ago:

*Pain point: Due to inefficient communications, the productivity of in-building mobile workers such as nurses in hospitals or retail employees in stores or a sea-based battle lab is reduced. When less time is required to locate staff members or find resources, more time can be spent with customers.*

Vocera Communications (www.vocera.com), a 50-person start-up, used ideation sessions as part of their Front End Process. Robert Shostak, Vocera’s principal founder and Chief Technology Officer, guided the team. They asked questions such as, “Wouldn’t it be great if we could...” or, “What if the new communications system shared much of the functionality of the 24<sup>th</sup> century communications device used by Captain Picard of the syndicated television series ‘Star Trek: The Next Generation?’”

By the time that Vocera was ready for initial customer research visits, the Vocera team had a plastic mock-up of the communications device and a concept video created by partners at IDEO, a design firm. They began visiting customers to test the concept without a real product. They conducted over 70 customer interviews. Site visits included enterprise, retail,



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so that they could focus on customer inputs and their core competencies. Electromagnetic compliance testing was an important issue because of current and future regulations. That expertise was obtained by outsourcing. Bluetooth technology was abandoned in favor of the more pervasive 802.11B wireless standard. Manufacturing for the badges was outsourced. PR was outsourced.

#### Sales focus

The Vocera team decided that health care and retail would be their first targets, but in 2001 there was no one at the company had health care expertise. They decided to create a vertical organization. Value added resellers (VARs) that had demonstrated knowledge of data and wireless LAN networking were selected to handle sales, deployment, and technical support for customers. Bill McKenna, the Director of Business Development for Datavision (www.datavision.com), is one of the Vocera partners that helped develop the channel strategy. McKenna reports, “We had experience with the health care industry. We put together solutions. We treat these opportunities as projects.”

#### Current system

The new Vocera Communications system, as shown in Exhibit 1 on page 7, enables one user to contact another user or group by name, by function (for example, a nurse can call the pharmacy), or by location (for example, anyone on the third floor). The wireless device worn by the user is small and has one main button used to initiate communication. At the user level, communication is managed by voice commands. The

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IT, government, and health care locations.

The product continued to evolve as customers provided more input. Originally, the communications device was envisioned as a person-to-person device. To provide the one-to-many communications functionality of walkie-talkie systems, a broadcast command was added to the system to enable communication to everyone in the group. This made it more likely that users would only need to carry one device.

#### New features

One new feature, a user authentication or log-in feature, allowed different users to use any available badge. This ensured secure access to individual voice mailboxes. Another new feature suggested by users was a do-not-disturb button on the badge. For emergency communications, authorized staff can override this mode.

During development, the Vocera team enlisted partners

#### What Makes Innovations Likely to be Adopted

- A perception that the relative advantage is high
- Strong compatibility with current practices
- Low complexity
- The ability to evaluate before adoption
- Observable and immediate results

SOURCE: Everett M. Rogers<sup>1</sup>

system requires a central server and an industry standard 802.11B wireless infrastructure, which has become a very common choice for industrial wireless data networks. An administrator configures and maintains the system.

Brent Lang, the Vice President of Marketing at Vocera Communications, is thankful for his immersion in formalized lifecycle management processes at 3Com. He reflects, "If I didn't have the 3Com background, there would have been a temptation to let adrenaline take over at Vocera." At Vocera Communications, the development process is agile.

**Monitoring progress**

Now that the product is launched, the new product development team meets for a weekly cross-functional meeting. Managers use spreadsheets to capture information. Evidence of informal communication is evident when marketing staff and engineers meet for lunch.

How can you maximize early sales for game-changing products? To effectively displace the status quo, strive to comply with Everett Rogers' list. For a Vocera system used by nurses, the five attributes were:

- **Relative Advantage**—The Vocera system works better than competing systems such as overhead paging, beepers, wired telephones, email, and expeditions to locate coworkers. Because a nurse can directly contact the appropriate resource,

less time is required for intermediation and more time can be spent with patients.

- **Compatibility with Current Practices**—The Vocera device is wearable and it allows access to critical information at the bedside. The wireless system enables nurses to be mobile and have two-way, hands-free communication with coworkers. From a technical perspective, the Vocera solution enhances existing wireless LAN system investments.

estimated a time saving of 30-45 minutes per day when using the Vocera system.

These five attributes attract early adopters and increase early sales growth. The attractiveness of the Vocera system grew beyond what would have been achieved by the core team's original vision, as shown in Exhibit 2 on this page. Input from customers and expertise from partner organizations led to more refinements. Knowing the attributes that contributed to attractiveness enabled the core team to make the strategic and tactical decisions necessary to achieve these objectives.

Lang says, "The Vocera system was developed as an application to solve a real world business problem. We focused on the user experience and benefits. We do not

focus on promoting the technical specifications to the customer—it just works." 

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- **Complexity**—The system is so easy to operate that a description of how to use its most common features can reside on a single-page job aid. Training for regular and temporary employees can be done as on-the-job training.
- **Evaluation**—During a presales phase, case studies and videos can effectively communicate the functionality of the system. Pilot projects with 20-50 users can be conducted to validate the system.
- **Results**—Typically, system users realize productivity improvements (such as more time spent with patients and quicker problem resolutions), using it. Some nurses have

**References:**

1. Everett M. Rogers, *Diffusion of Innovations*, Fifth Edition, Free Press, 2003, Chapter 6.
2. Rosanna Garcia and Roger Calantone, "A critical look at technological innovation typology and innovativeness terminology: a literature review," *Journal of Product Innovation Management*, Vol. 19, pp 110-132, 2002.

Exhibit 1: Vocera Communications System

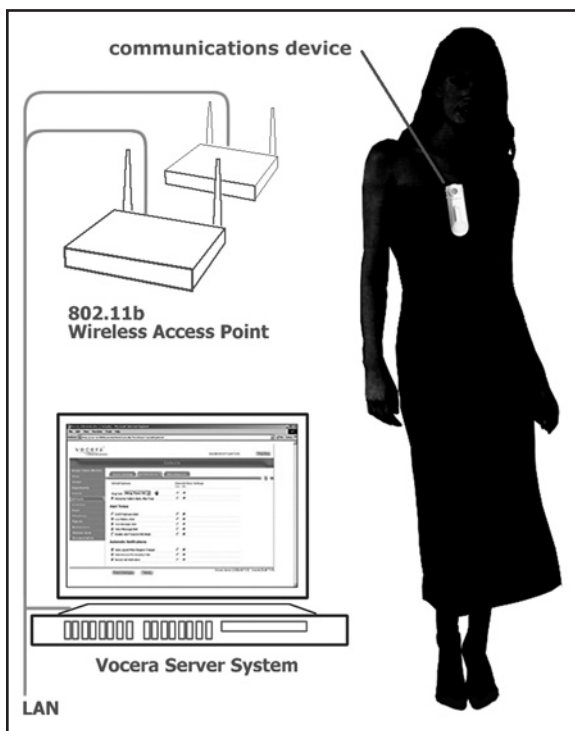
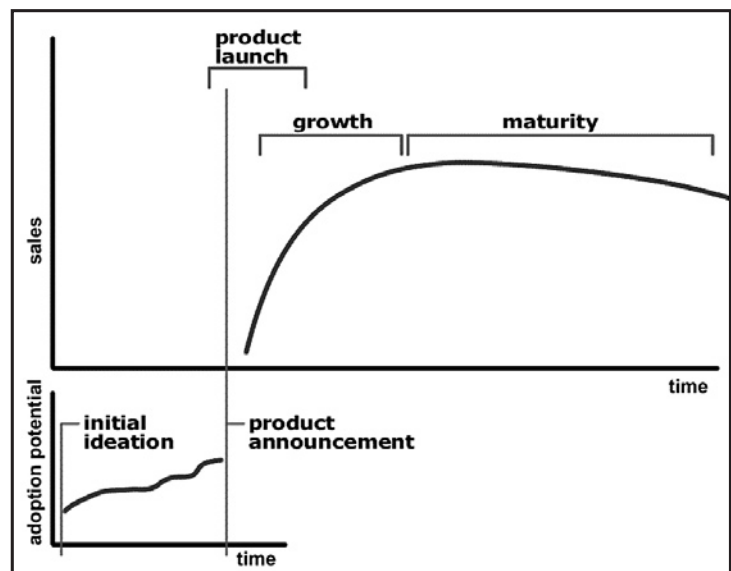


Exhibit 2: Improving Probability



This chart shows how to improve the probability of new product adoption during the development process to maximize early sales