



## ***Technology Management Solutions for Electronic Payments***

**Helping large companies like Apple, First Data, and Kaiser, as well as smaller ones like ViVOtech**

Developing new products and services, managing strategic relationships, and managing complex system implementations in these main areas:

- Credit card and alternative payments systems
- Data security (PCI DSS & HIPAA)

### **A history of success in the following areas:**

- *Product Concept Refinement, Requirements Definition, and Development Oversight*
  - Clarifying goals and translating them into requirements to guide development
  - Managing product development life cycle through launch and operations
- *Global Expansion*
  - Identifying local requirements and organizations
  - Creating and capitalizing on strategic relationships
  - Negotiating contracts
- *Programs and Projects*
  - Managing relationships and projects
  - Facilitating understanding between technical and business groups
  - Deploying and maintaining systems and equipment
  - Litigation support
- *Data Security*
  - Leading business and technical efforts to comply with PCI DSS, HIPPA, and more
- *Regulatory Compliance*
  - Interpreting and evaluating requirements
  - Designing compliance programs
  - Negotiating with agency officials
- 12 years in credit card systems and data security (First Data, Apple, Kaiser, ViVOtech)

Technical and business credentials:

- MBA in Technology Management,
- Preparing for Certified Information Systems Security Professional (CISSP)

42TEK uses associates with relevant experience to supplement its capabilities when necessary. Typically, this could include a marketing expert for market research and analysis, experts in various technologies or geographic regions, or assistants for data gathering or number crunching. Upon request, and with clarification of the needed services, 42TEK can describe the team it would assemble for the project.



## **OBSERVATIONS about PAYMENTS and GLOBAL EXPANSION for MERCHANTS**

Different languages, different laws, and different payment processes are important factors. Also important are forming personal and business relationships with local bankers and technology providers to establish the foundation for successful projects. Cross-cultural factors must not be underestimated — something US managers accustomed to the way things are done in the US can easily forget.

Service providers can provide infrastructure connections, but I find someone needs to act as a facilitator and advocate on behalf of the merchant, both with the service provider and with the local banks. Ultimately, it's unlikely a merchant will find an off-the-shelf solution that will integrate perfectly between their processes and the way things work in another country. Sometimes this means asking the service provider to customize their solution. Additionally, I've found it extremely useful to partner with a local attorney who can help with interpreting and navigating local requirements.

My feeling is the merchant needs someone on-staff or a consultant to handle these tasks. Someone who understands the ins and outs of these types of implementations and can help the merchant make the most of what the service providers offer and avoid pitfalls.

*-- David Snyder*

### **APPROACH AND EXAMPLES**

**Helping organizations implement new technology internally or for their customers.** Typically, this means assessing what system and organizational changes are needed, developing relationships with vendors, clients, or other parties, and leading internal technical and business resources to achieve their goals.

***Stated more simply, I help people see what needs to be done and provide leadership to get it done efficiently.***

**One of the most important benefits I bring to organizations is the development and management of relationships with external parties, ranging from vendors or clients to standards organizations, payments networks, and regulators.** Often, a key role is to coordinate customization at the vendor and integration at the client (merchant), which means getting two separate groups of developers working in concert.

What I offer is a **diverse background** in financial systems, software, networks, data security, civil and environmental engineering, and healthcare that enables me to understand and work in many areas. My payments industry experience spans more than 12 years and includes work for merchants, a processor, and a technology vendor.

**Diagrams depicting processes and workflows** are key tools I use to help business people understand technical issues and technical people to understand business issues. Often, this means comparing the existing state of affairs with the desired future state, outlining the criteria for success, and creating the list of requirements that define a solution.



Recent Examples:

**Global Expansion for Apple Inc. Online and Retail Stores**

Between 2005 and 2008, helped Apple expand its direct sales in Europe, Asia, Australia, and Latin America.

<u>Driver:</u>	Corporate plan to expand Apple's direct sales outside the U.S.
<u>Existing State:</u>	Online stores in more than 20 countries and retail stores in UK, Japan and Canada.
<u>Desired Future State:</u>	Add online stores and retail stores in more than a dozen countries.
<u>Accomplishments:</u>	Bank and vendor relationships established for each country. Design, development, testing and deployment guided for several countries between 2006 and 2008.
<u>Results:</u>	Global expansion objectives achieved.
<u>Key Factors:</u>	<ul style="list-style-type: none"> <li>• Created diagrams of global payments processes to explain work flows and roles to management and technical teams</li> <li>• Architected redesign of payment gateway vendor's processes and wrote business requirements to guide needed changes</li> <li>• Bank negotiations onsite in Mexico</li> <li>• Bank negotiations onsite in Brazil</li> <li>• Extensive phone, e-mail, and face-to-face negotiations with banks and vendors in Europe, Asia, Australia, and Latin America</li> </ul>

**PCI DSS Compliance for Apple Inc.**

Between 2005 and 2008, helped Apple achieve compliance with the Payment Card Industry Data Security Standard (PCI DSS).

<u>Driver:</u>	Rapid growth of iTunes, Online Stores, and Retail Stores put Apple over the threshold for Level I compliance with the Payment Card Industry Data Security Standard (PCI DSS). Requirement for annual assessment by Qualified Security Assessor (QSA).
<u>Existing State:</u>	Basic information security practices in place, but variable among business units and not always aligned with PCI DSS requirements.
<u>Desired Future State:</u>	Not only compliance with PCI DSS, but "gold standard" protection for customers' payment card data.
<u>Accomplishments:</u>	Managed Qualified Security Assessor selection process and engagement of QSA. Managed efforts of diverse business units to upgrade systems to meet PCI DSS requirements and prepare for assessment by QSA. Coordinated initial and annual assessments.
<u>Results:</u>	Compliance achieved and processes established to maintain compliance.
<u>Key Factors:</u>	<ul style="list-style-type: none"> <li>• Identified and secured services of independent security professional to advise management and referee discussions regarding standards interpretation and compliance approaches.</li> <li>• Coordinated efforts among fiercely independent departments</li> <li>• Negotiated Compensating Controls for selected requirements</li> <li>• Created Security Awareness Training program.</li> </ul>



## Combination Medical ID Card and Payment Card for Kaiser Permanente

Provided technical direction for creation and deployment of a private label payment card on the same magnetic stripe card used for health plan Member identification.

<u>Driver:</u>	Create convenient tool for Members to pay for health services not covered by insurance, such as designer glasses frames, cosmetic surgery, and high deductibles.
<u>Existing State:</u>	Membership ID card with magnetic stripe and no financial tool for extending credit.
<u>Desired Future State:</u>	New private label credit card built into Membership card to enable Members to pay for health care with a line of credit.
<u>Accomplishments:</u>	Guided creation of pilot project for two of eight Kaiser regions, from Concept through Design, Development, Testing, Deployment, and Troubleshooting.
<u>Results:</u>	Successful pilot demonstrating feasibility of a combined Membership ID card and credit card.
<u>Key Factors:</u>	<ul style="list-style-type: none"> <li>Relationships with GE Capital (private label card issuer) and Global Payments (payments processor)</li> <li>Troubleshooting Point of Sale device telecommunications problems in the field.</li> </ul>

## Electronic Payments Switch Enhancements for Kaiser Permanente

An electronic payments switch consists of centralized servers, software, and network connections to aggregate credit card payments processing from many locations, as an alternative to thousands of individual telephone line connections from each point of sale.

<u>Driver:</u>	Desire for cost savings by adding network connections to American Express.
<u>Existing State:</u>	All credit card processing being done through a single payments processor, with a fee being added for each American Express transaction.
<u>Desired Future State:</u>	Frame relay and VPN connections from merchant data centers to American Express data centers.
<u>Accomplishments:</u>	Interpreted technical issues for business management and explained business drivers to technical team. Reduced information on network connectivity and payments process changes into requirements and project plan. Managed internal and external resources over a six-month project timeline.
<u>Results:</u>	Despite delays by telecommunications carriers, achieved implementation on time and working correctly.
<u>Key Factors:</u>	<ul style="list-style-type: none"> <li>Anticipated most risky tasks and ensured long lead times for these tasks</li> <li>Used diagrams to explain complex connections and work flows to business and technical teams.</li> </ul>