Are You Missing a $1 Billion Market for Independent Telephone Companies?

FailSafe
### Communications   Inc.
"For Your Information.. We've Got Connections!" ™

"FailSafe is an ingenious system to safeguard e-commerce, improve emergency response, and save lives. FailSafe will stop the bleeding for hundreds of Independent Telephone Companies operating in small towns, on reservations, in family businesses, and in community owned cooperatives"

Philip N. Diehl
35th Director of the U.S. Mint and
former Director of Telecom Regulation,
Public Utility Commission of Texas

Foreword
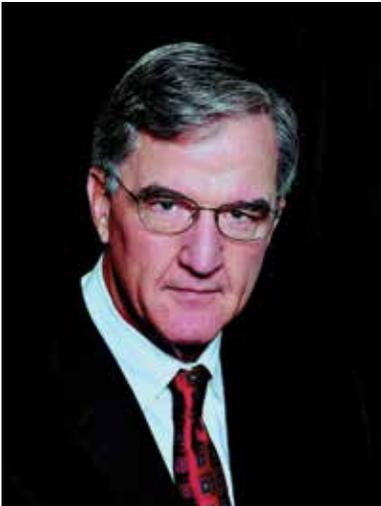
Philip N Diehl, increased annual profits at the United States Mint from $727 million to $2.6 billion, through efficiency improvements and product innovations such as the 50-State Quarters Program.[1] Read what Philip has to say about FailSafe, its impact on Universal Service, and its potential to revolutionize America's independent telephone companies.

1 Source: "CIO" magazine, The New Realm of the Coin; April 20, 1999. Retrieved by Wikipedia January 21, 2012

The future of hundreds of Independent Telephone Companies (ITCs) is in serious jeopardy. Since 1934, Universal Telephone Service has been the bedrock principle driving telecom policy in the United States. In realizing this vision, the Federal Communications Commission (FCC) created various funds and mechanisms to help support ITCs operating in high cost areas that are otherwise be too expensive to serve. Now, after thirty years of deregulation and intensifying competition, these forces are threatening to upend the concept of Universal Service and relegate 80 million Americans to living in technological backwaters. The facts as they stand are sobering.

◆ Between 2009 and 2013, ITCs lost 43 million landlines and VoIP subscriptions. That's 37% of their local business. By the end of 2015, they will lose another 14 million - half of their subscriber-base.

◆ Historically, half of all revenue collected by ITCs has been in the form of charges paid by long distance carriers for access to ITC networks. This revenue has plummeted from 43.5 billion minutes in 2006 to 15 billion minutes projected by the end of 2015 - a loss of two-thirds.

◆ For decades, high-cost ITCs have drawn support from the FCC's Universal Service Fund (USF). The FCC's 2011 decision to scale back USF support will cost ITCs a third of their ICC and USF funding by 2020. This amounts to $1 billion a year and totals more than $5 billion by the end of the decade.

◆ The U.S. Department of Agriculture and many commercial banks have enjoyed a long history of lending to rural ITCs. In light of these revenue losses however, they have sharply reduced investment loan activity over the past five years. This has cutting off access to new capital markets for many ITCs.

So what happens next? One would think that after an 80-year commitment to the principle of Universal Service, the FCC would be unlikely to abandon the policy. But the competitive theories in vogue at the FCC are now driving the nation's telecom policy and the pressure on ITCs will only intensify in the future. ITCs must do something now to put their telecom assets back to work again.

FailSafe Communications provides ITCs with a solution to the business dilemmas they face without the need for additional taxes or subsidies. FailSafe is an ingenious system to safeguard e-commerce, improve emergency response, and save lives. At the same time FailSafe will protect thousands of jobs in rural America and support the continuation of Universal Service nationwide. FailSafe will stop the bleeding for hundreds of ITCs operating in small towns, on reservations, in family businesses, and in community owned cooperatives. This is why I am a proud FailSafe stakeholder, and why every ITC should consider FailSafe, too.

Philip N. Diehl, Advisor to the Board,
FailSafe Communications Inc.

It has been characterized as "The most complicated machine ever constructed by human beings." As such, our telephone system is constantly vulnerable to disruption. For emergency services, loss of communications often means loss of life. For most businesses today, when communications stops, so does the cash register. This is why today's organizations demand a level of sophistication and network resiliency in use only by the military just a generation ago.

Organizations today have made significant investments in Information Technology (IT) and telecommunications (telecom) to increase productivity. Frost and Sullivan characterizes IT and telecom as the two broad segments constituting the disaster recovery market.[2] Telecom is just as important as IT because in today's cloud computing environments, the two are inseparable.

At least 75 percent of medium-size businesses and up to 90 percent of large enterprises have multiple locations. Increasingly, these include work-at-home employees. Today more than ever, businesses need to communicate with partners, customers and suppliers reliably, instantly, and constantly. What will today's end users need? More importantly, how can YOU adapt existing telecom technologies to meet those needs?

The Democratization of Technology: It's Not All Large Corporations Any More. Telecom providers wishing to act as Managed Service Providers, MSPs, have key strategic advantages provided they can adapt existing assets to changing customer requirements. MSPs do not need to serve Fortune 1000 firms to make money because the cloud has changed all that. Today, Small to Medium Businesses (SMBs) are rapidly becoming the new "go-to" group for IT and telecom expenditures. Sixty-nine percent of SMBs already use cloud-based applications. SMBs are expanding their cloud computing investment with services like data backup and voice communications recovery. This is a unique opportunity because the cloud has leveled the playing field between SMBs and large enterprise companies.

The cloud also allows MSPs, including telecom providers, to enter lucrative new markets without a large capital investment. Disaster Recovery as a Service (Draas) is one of those markets.
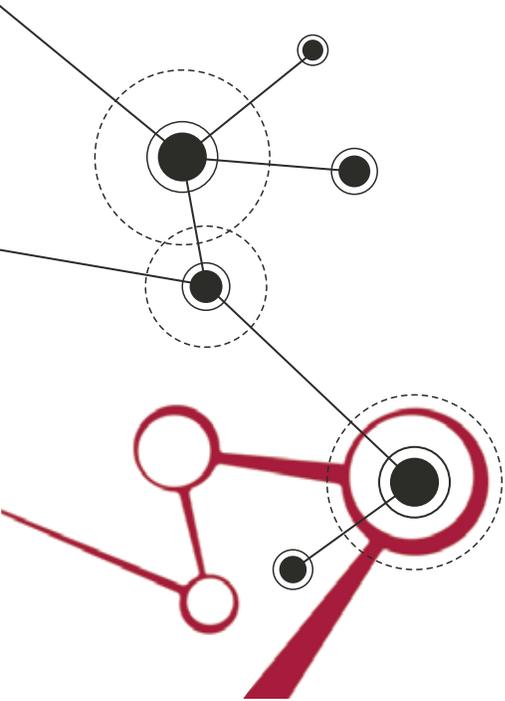
A High Growth Revenue Opportunity. One widely published study forecasts that the global DRaaS market will grow at a Compound Annual Growth Rate (CAGR) of 54.64 percent over the period 2013-2018.[3] Another study pegs DRaaS and cloud-based business continuity services to grow from $640.8 million in 2013 to $5.77 billion by 2018, with a CAGR of 55.2%.[4] The US Federal market alone for IT business continuity and disaster data recovery solutions is forecast to reach $5.1 billion in 2020, growing at a CAGR of around 9%.[5] In short, Disaster Recovery as a Service, DRaaS has been witnessing a rising demand, driven in large part by SMBs implementing cloud-based IT and disaster recovery services.

Leo A Wrobel is a true industry pioneer. He was the first in the US to put a disaster recovery center in a telephone office and the first in Texas to carry telephone traffic over a Cable TV system. He owned the first CLEC that was certified in all 50 states and has written business continuity plans for dozens of top firms.

2 Source: White Paper by Frost & Sullivan entitled "Satellite-Based Business Continuity and Recovery"

3 Source: TechNavio, a leading technology research and advisory company with a global coverage. TechNavio focuses on emerging technology trends that can shape markets, and explains these trends to their customers to help them make better decisions.

4 Source: MarketsandMarkets, a market research and consulting company based in the U.S. that publishes market research reports for Fortune 500 companies worldwide.

5 Source: Market Research Media Ltd, a firm which conducts daily surveys and interviews of major executives in a wide spectrum of industries such as information technology and telecommunications, to establish accurate market assessments, market trends, forecasts and market behavior models.

A $1 Billion New Market for Independent Telephone Companies?

S ome 1500 certified Independent Telephone Companies (ITCs) operate today in the U.S.A. As independently-owned entities, they are not part of the more dominant players like AT&T or Verizon. Unlike AT&T and Verizon, the future of these ITCs is much less certain. Customers are fleeing landlines for cell phones. Carrier access revenues are down because nobody buys long distance anymore. "Triple Plays" combining Phone, Internet, and TV are dominated by larger players. Now through an ingenious repurposing of existing ITC infrastructure, FailSafe helps build desperately needed new revenue for ITCs five different ways:

- ◆ increased land line count and retention,
- ◆ increased federal and state subsidies,
- ◆ new carrier access (CABS) revenue,
- ◆ new long distance revenue and,
- ◆ a new, cloud-based vertical line feature

The FailSafe system is re-branded and sold by ITCs to police, fire, 911, hospitals, call centers, banks, and others, where customer relationships already exist. During telecommunications disruptions and disasters, the patented FailSafe system duplicates the features of a high-end phone system in the cloud, to restore inbound calls and to maintain command and control. It can replicate advanced PBX and call routing features. It can turn wired PBX phones into wireless or satellite phones. It operates without changing inbound telephone numbers. There is no need for the end user to call the Phone Company because they manage the system themselves.

Cloud-based service like FailSafe allow telecom providers to generate new revenue by repurposing their under-utilized assets to an entirely new market in DRaaS.

Interested in buying or selling an Independent Telephone Company? FailSafe may be able to help you. Call (214) 888-1300 for details.

How ITCs Can Enter This Market

A participating ITC simply adds FailSafe as a tariffed disaster recovery service to their customers' phone lines as a new vertical line feature, and charges a monthly fee. The customer does not have to be in the ITC's service area. The service can be mandatory or optional. Once in operation, the ITC bills the service on the customer's phone bill and continues to manage the customer relationship. FailSafe's Disaster Recovery feature is "always on" and ready. This means that every time an ITC end user activates, tests, or overflows to the service, the ITC makes money for delivering the calls to FailSafe. ITC revenue is comprised of the new monthly service fees, long distance, and other lawfully-tariffed charges.

Even relatively small end users can generate significant revenue when disasters or routine network congestion events inevitably occur because even local calls may flow through the cloud. In more widespread disasters,

business interruption insurance or federal disaster assistance may further help customers. The revenue generated to ITCs is therefore not only dependent on disasters, but also on congestion events which happen thousands of times a day. FailSafe provides ITCs new revenue now, combined with a cost effective transition to the cloud. Similar programs exist for CLECs as well.

Consider what the following markets could mean to an ITC, struggling to identify and market a new, high margin service:

DRaaS Market Segments for Independent Telephone Companies

Executives in Charge. In a world of near-instantaneous communications problems go "viral" in minutes via social media. News helicopters arrive on scene before the hapless organization even knows what happened. FailSafe provides executives with a capability to communicate instantly with key first responders, and stay in control of any emergency.

Business and Commerce. Major telecommunications accidents occur 80 times a day in the United States.[6] For businesses including call centers, airlines, banks, and retailers, when the phones stop, so does revenue. FailSafe offers a patented system that assures businesses that inbound callers will get through to them, no matter what happens.

Hospitals and Health Care. Desert Regional Medical Center is one of the first hospitals in California to use satellite service to assure emergency calls get through in a disaster. According to one EMS specialist with Riverside County Public Health, *"We have numerous redundancies in place, but nothing that's going to be as instantaneous as this satellite backup that will automatically take over for our phone system."* Other services have been deployed to such noteworthy organizations as HCC and Cleveland Clinic.

911 Centers and Emergency Responders. 911 outages occur almost daily in the U.S. due to power failures, cable cuts, or antiquated infrastructures. Prior to implementing this system, one Pennsylvania 911 center experienced two major outages. They are not alone: 7,665 other 911 centers share the same risks that cause 911 calls to fail to reach emergency services. The FailSafe solution manages these risks.

6 Source: Common Ground Alliance DIRT Report 2013-2014

Key Take-Aways for Independent Telephone Companies

LESSON

1

A customer does not have to experience an actual disaster for a telecom provider to make money. Today, the most common issue is congestion. A major event generates an intense human need for communication, not only to coordinate a response, but also to convey information about affected groups and individuals. There is also invariably a knee-jerk reaction to crisis as the public demands to know what happened either by phone, or increasingly today, social media.

LESSON

2

Historically, major disasters are the most intense generators of telecom traffic. The resulting surge of demand can easily overwhelm even the most diverse and well-managed networks. September 11, 2001 for example, marked the first major disaster in which cellular telephone networks were brought down by congestion. According to carrier reports to the FCC, a ten-fold increase in call volumes occurred in the hours just after the attacks, leading to a 92 percent block rate on New York City's wireless networks.

LESSON

3

Congestion failures remain a common occurrence because of the diversity of inter-linked causes. Undiscovered bottlenecks exist in the Internet that only become apparent under crisis conditions. In addition, most communications networks are engineered for peak loads at well below the demands placed on them during disasters and congestion events. Indeed, today's networks are increasingly subject to attacks based on *creating* congestion. Such "denial of service" (DOS) attacks, combined with a physical strike are widely hypothesized as a future tactic of terrorist organizations.

LESSON

4

The most important networks during an emergency are public safety systems, such as 911. These provide emergency responders the capacity to gather casualty and damage assessment information and coordinate life-saving and containment activities. Most provide basic voice communications to answer public calls for assistance as well as maintain command and control during disasters. Despite their importance, thousands of "911" centers in the U.S. have only two call paths to connect inbound callers to the help they need. When a large accident occurs on the Interstate and ten people call 911 at once, eight out of ten receive a fast busy signal. No caller to 911 should ever receive a busy signal, considering the latest technology in place and available today.

**These are ALL markets that can be, and should be easily be dominated by telecom providers.**

Thousands Use Our Books!

…"We got over $2 million in business from a major airline for a nickel. In view of that fact, no one has been able to convince Sharon and I that disaster recovery must be a losing proposition."[6]

Understanding Emerging Network Services, Pricing and Regulation
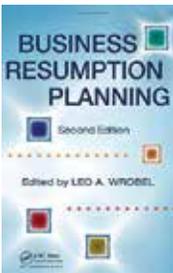
Disaster Recovery Planning for Communications and Critical Infrastructure
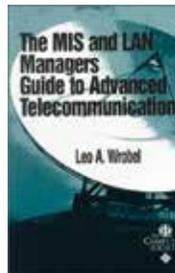
Business Resumption Planning - Second Edition

The MIS and LAN Managers Guide to Advanced Telecom-munications

The Definitive Guide to Business Resumption Planning

"Having been through the DR process before, I knew there were too many details to leave up to my memory. The guide did help immensely in pointing out many of the small details. It also provided me with the written reasoning to provide to the business units in justifying DR and why it is so costly and time consuming. Our DR strategy is well underway. I continue much of my business units cooperation to ideas I was able to convey because of the book." – P M Solutions, Inc.

★ ★ ★ ★ ★ Five Stars on Amazon.com

"…a scholarly examination of how the vulnerabilities in modern-day infrastructure can best be protected from threats such as terrorism and natural disasters."

"…from hospitals to power grids to large business enterprises, 'first alert' procedures, and much more."

"…an absolute must-have for disaster recovery planners and anyone else responsible for planning for worst-case scenarios. Highly recommended."

"Certainly the best overall resource for Business Resumption that I have found to date. This will be my 'go to' manual during this entire planning process."

6 Quote by Leo A. Wrobel, founder and CEO of FailSafe Communications, taken from the book "Disaster Recovery Planning for Communications and Critical Infrastructure" by Leo A. and Sharon M. Wrobel. © Artech House Books.

A Few Highlights from 25 Years of REAL Solutions:

◆ One of our municipal clients faced the unthinkable when their City Hall literally burned to the ground! Even so, municipal and emergency calls were redirected within an hour using a system we designed and installed.

◆ Another client, a major airline, faced a disaster each time an ice storm struck their Texas hub. Using a system we designed, the airline gained the ability to redirect hundreds of inbound local phone lines to unaffected call centers using a single pin code. All from the warmth and comfort of their call center manager's home!

◆ We performed a "keel to crow's nets" Vulnerability analysis for a 76-billion-dollar client 11/2 times the size of the Pentagon. Their CIO's comment about us speaks for itself:

"You have us pegged. Your methodology is perfect, don't change it."

– CEO of 76-Billion-Dollar Services Client

About Leo A. Wrobel
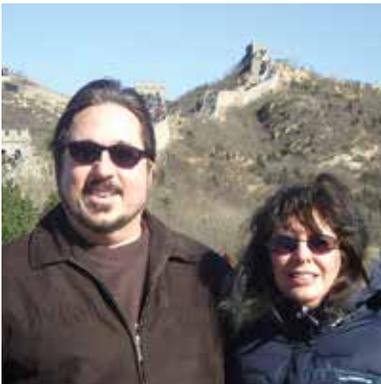
Leo A. Wrobel's talent for exploiting changes in technology, law, risk management and regulation have earned him broad acclaim for over 30 years. In 1986, he built the first computer disaster recovery center inside a telephone office and was the first in Texas to run telephone traffic over a cable TV system.

Leo leveraged a 1995 Texas law on behalf of another of his clients, a $70 billion services company, which became the first end user in the US to receive "unbundled" telecom pricing – the year *before* the Federal Telecom Act of 1996 was passed.

Since 2004 Mr. Wrobel has been CEO of the Leo A. Wrobel Companies, including FailSafe Communications, Inc. His practices include over 60 clients. Leo also provides high end consulting and expert witness support in complex technology lawsuits.

Leo has been a guest speaker for the Chinese Academy of Sciences in Beijing, in most of the 50 states, and in other locales as diverse as Santiago Chile and Tel Aviv Israel. He has appeared on TV news programs. He is the author of 12 books and over 1000 trade articles, including:

◆ Understanding Emerging Network Services, Pricing and Regulation

◆ Disaster Recovery Planning for Communications and Critical Infrastructure

◆ Business Resumption Planning - Second Edition

◆ The MIS and LAN Managers Guide to Advanced Telecommunications

◆ The Definitive Guide to Business Resumption Planning

Education and Other Experience: B.G.S. Business and Public Policy, University of Texas at Dallas. Two A.A. degrees, Telecommunications System Technology and in Electronic Systems Technology, Los Angeles City College. Vietnam Era Veteran (USAF), served three years in Japan. Amateur Extra Class Radio license, KW5P. President of the Network and Systems Professionals Association (NaSPA), a 28 year old non-profit for information technologists. Former City Councilman and Mayor, City of Ovilla Texas.

"Leo Wrobel moved our business ahead four years, in only eleven months."
– Telecom Executive for $14 Billion Manufacturing Client

Philip N. Diehl has held senior positions in business and government, including chief of staff of the U.S. Treasury, staff director of the U.S. Senate Finance Committee, and 35th Director of the United States Mint. He has extensive experience in the telecom industry, serving as vice president of government relations for a long distance carrier and director of telecom regulation for the Texas Public Utility Commission. At the PUC, he spearheaded regulatory reforms in the wake of the 1984 Bell system divestiture and was the PUC's liaison to the Texas Legislature during a major rewrite of the state's telecommunications law. He was instrumental in founding the state's first programs to make telephone service affordable to low-income households and telecom services available to the deaf.

Mr. Diehl served U.S. Senator Lloyd Bentsen as legislative director and rose to become staff director of the Senate Finance Committee. Treasury Secretary Bentsen appointed Mr. Diehl chief of staff of the U.S. Treasury. Later, President Bill Clinton nominated him to be the 35th Director of the U.S. Mint. Mr. Diehl was confirmed by a unanimous vote of the Senate.

Mr. Diehl spearheaded a dramatic turnaround of the Mint. Under his leadership, the Mint increased profits from $726 million to $2.6 billion a year. Those profits are returned to the Mint's owners, the American taxpayer. Among the impressive achievements during Mr. Diehl's tenure, the Mint earned the second-highest customer satisfaction rating on the University of Michigan School of Business American Customer Satisfaction Index, trailing only Mercedes Benz.

Mr. Diehl has been awarded Advertising Age's Top 100 in Marketing, the U.S. Treasury Gold Medal for Outstanding Public Service, the American Society for Public Administration's Executive Leadership Award, and the St. Joseph's Day Award for Values-Based Leadership. His work has been featured in *Fast Company*, the *New York Times*, *The Washington Post*, *The Leadership Challenge* by James M. Kouzes and Barry Z. Posner, *The Art and Science of Leadership* (5th Edition) by Afsaneh Nahavandi, and in the National Press Club luncheon series. He has made numerous appearances on network television and has been published in the *Wall Street Journal* and *The Washington Post*.

Diehl is currently President of United States Money Reserve, a retailer of precious metal products and services on several industry boards. He earned a B.A. degree from Austin College in Sherman, Texas, and an M.A. in Government from the University of Texas at Austin and pursued post-graduate studies at Stanford University.
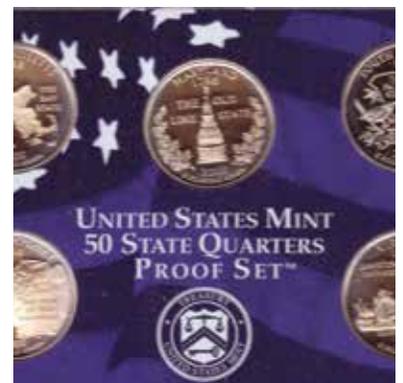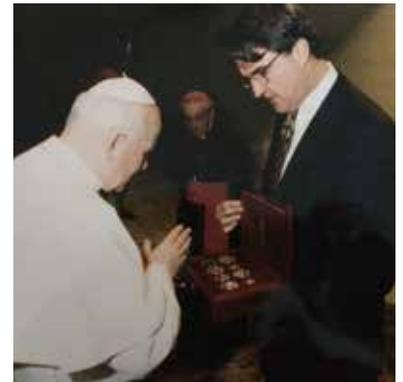
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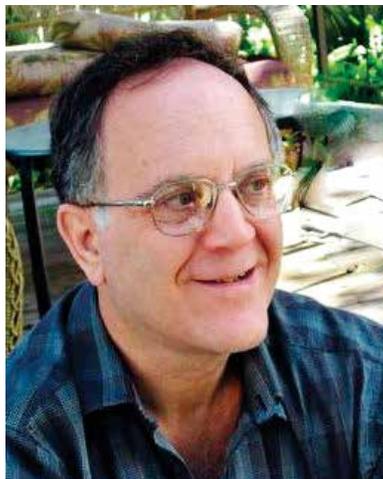
Philip Jan Rothstein, Since 1985, Philip's mission has been management of business risk in the face of unpredictable circumstances. His emphasis is on business continuity, disaster avoidance and recovery, and continuous availability of high technology business environments. He was elected Fellow by The Business Continuity Institute (BCI) in 1994 in recognition of his substantial contributions to the business continuity and disaster recovery industry. His clients include international banks, an explosives manufacturer, a gaming casino, universities, hospitals, pharmaceuticals companies, public utilities, investment fund managers, publishers, distribution companies and insurers. A noted author, Mr. Rothstein is also a frequent speaker on business continuity, disaster avoidance and disaster recovery for top corporate management and at industry conferences.

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