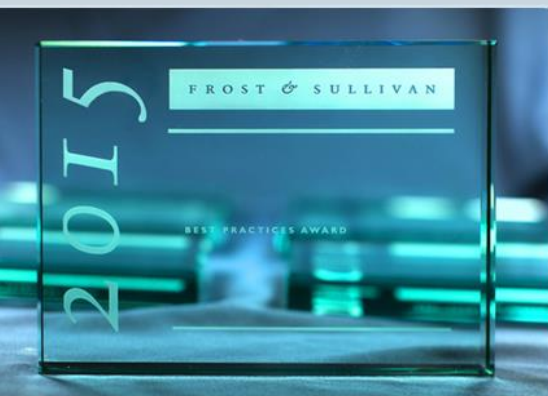




## 2015 North American Fingerprint Biometrics Company of the Year Award



FROST & SULLIVAN



50 Years of Growth, Innovation & Leadership

## Contents

Background and Company Performance .....	2
<i>Industry Challenges</i> .....	3
<i>Visionary Innovation &amp; Performance and Customer Impact</i> .....	3
<i>Conclusion</i> .....	8
Significance of Company of the Year .....	9
Understanding Company of the Year .....	9
<i>Key Benchmarking Criteria</i> .....	10
Best Practice Award Analysis for Morpho .....	10
<i>Decision Support Scorecard</i> .....	10
<i>Visionary Innovation &amp; Performance</i> .....	11
<i>Customer Impact</i> .....	11
<i>Decision Support Matrix</i> .....	12
The Intersection between 360-Degree Research and Best Practices Awards .....	12
<i>Research Methodology</i> .....	13
About Frost & Sullivan .....	15

## Background and Company Performance

### *Industry Challenges*

Fingerprint biometrics are the most established and proven of all the biometric modalities, and have been used extensively over the past two decades in North American businesses. The accuracy and convenience of fingerprint biometrics allow organizations to protect facilities, assets and information, through positive identification of individuals. While other biometric modalities, such as facial recognition and iris scanning, are also being deployed, they typically require more environmental engineering to control lighting and traffic flows. In real world access control applications, it is very important to balance proximity to the access point with contactless processing. Many contactless (at a distance) options on the market also require supervision by security personnel to ensure that only authenticated users pass through the barrier.

MorphoWave™, named 2015 Best New Product by the Security Industry Association (SIA), and featuring FBI-certified Personal Identification Verification (PIV) imaging technology, strikes the perfect balance of proximity assurance with very accurate, high speed contactless operation, to make frictionless access a safe reality.

Frost & Sullivan firmly believes that fingerprint biometrics that deliver accuracy and speed will be adopted as the 'go to' security solution for today's fast-paced world.



*MorphoWave Tower - SIA 2015 Best New Product*

### *Visionary Innovation & Performance and Customer Impact*

#### **Addressing Unmet Needs**

Based in Anaheim, California, MorphoTrak, a U.S subsidiary of Morpho (Safran) has retained a prominent position in the North American Fingerprint Biometrics market for over 40 years, owing to its ability to design technologically superior biometric solutions. Supported by its parent company Morpho, MorphoTrak constantly engineers cutting-edge solutions that effectively address key security and identity-related challenges. Due to its critical contribution in this field, MorphoTrak has become the trusted leader for law enforcement and government entities across North America.

Meeting the increasing demand for frictionless access control at secure and sensitive locations that experience high traffic, MorphoTrak introduced its groundbreaking MorphoWave Tower solution in April 2015. The MorphoWave Tower was designed based on inputs from extensive testing of the core technology in desktop format at a number of high profile government and private sector clients. The MorphoWave Desktop is certified by the FBI for meeting the Personal Identity Verification (PIV) Image Quality Specifications standard. In this way the MorphoWave Tower ensures a fusion of real world practicality and application, with the most cutting edge biometric technology available.



*MorphoWave Desktop*

Recognized as the world's first biometric access solution to capture and match four fingerprints through a single wave of either hand in any direction, MorphoWave not only captures fingerprint data with optimal accuracy, it also guarantees field-proven results by overcoming common challenges such as wet fingers, extremely dry fingers, latent fingerprints, or residue and dirt on the scanner platen. Competing systems have yet to overcome these issues.

MorphoWave has been a major hit among customers in a variety of market verticals. MorphoWave not only scans the fingerprints but also measures the 3D shape of each finger. This information enables MorphoWave to reliably acquire significantly more surface area from each finger compared to traditional contact-based sensors. In fingerprint biometric systems, more surface area captured equals more accuracy and greater convenience for the user.

MorphoWave's imaging technology also ensures maximum interoperability with legacy databases acquired on 2D contact-based systems, which brings great efficiency specifically to large government organizations who wish to leverage existing data. This interoperability also ensures that MorphoWave is able to leverage a variety of Morpho's existing feature extraction and matching algorithms, which are recognized for their market leading performance across several NIST benchmarks.

Access control and Time & Attendance applications in a wide variety of markets—such as transportation, energy, manufacturing, sports arenas, and any large organization requiring better security—are just a few application examples where MorphoWave delivers the ideal solution.

In the last 18 months, Morpho deployed the MorphoWave system at several North American financial institutions, as well as in a number of manufacturing facilities located in China and India, where the employee traffic is very high. The results from these deployments gave concrete evidence of MorphoWave's remarkable market acceptance potential.

### **Visionary Scenarios through the use of Megatrends**

MorphoTrak's technologically advanced biometrics products and solutions are a direct result of its visionary initiatives. Over the last decade, the company achieved true excellence in engineering biometric solutions for payment systems such as BioPay, retail stores, access control, and recreation centers, just to name a few. Decades of experience delivering best-in-class solutions to the U.S. Federal Bureau of Investigation, the U.S. Department of Defense, and nearly 1,000 additional state and local government agencies, commercial enterprises, and partners have enabled MorphoTrak to identify how its solutions could be evolved to address new and unmet needs and fit into larger security megatrends.

Morpho realized that sectors such as finance, stadium/event security, and technology companies would be just a few ideal users of its advanced fingerprint biometrics for both crowd control and security purposes. These kinds of end users prefer fingerprint biometric access control systems because of the convenience and high levels of security offered.

For example, 24 Hour Fitness operates 452 clubs with a total of 4.15 million members. Use of the Morpho cardless biometric check-in system installed in each club is optional. Yet, 97 percent of members, translating into just over 4 million users, have opted in to the biometric check-in. Not only is this a telling sign that consumers prefer fingerprint biometrics to other forms of access control, it demonstrates how quickly the public is adapting to biometric technology.



*Fingerprint-based Access Control*



*MorphoAccess™ VP*

To stay ahead of the curve and meet mounting demand, MorphoTrak is constantly innovating and widening the range of its solution offerings. For instance, another world-first from Morpho is FVP (fingervein + print) technology, which simultaneously scans both the fingerprint and fingervein, two independently unique biometrics. This multi-modal approach was recognized by SIA for its breakthrough in technology and accuracy, when SIA presented the MorphoAccess® VP with the 2012 Best New Product Award.

## Blue Ocean Strategy



*Fingerprinting with MorphoTablet™*

Popularizing the deployment of fingerprint biometrics in the handheld device market is yet another thread in Morpho's blue ocean strategy. Introduced in February 2014, Morpho's proprietary biometric tablets (MorphoTablet™) offer an excellent example of its ability to escape the ongoing trend of allocating limited surface area for fingerprint scanning in smart devices. The company not only focuses on expanding the space but also makes the biometric authentication procedure more secure without restricting the scope for future improvements. This is evident from Morpho's initiative to make their traditional technologies platform independent.

MorphoCheck™, the company's top-selling mobile e-document scanner, has been protecting our ports and airports since 2010. MorphoIDent™, a mobile, real-time handheld fingerprint scanner, has been contributing to public safety since 2011. The continuing success of these products suggests that the company began the process of popularizing the use of biometrics in handheld devices much earlier than several of its competitors in the North American space.



*MorphoCheck and MorphoIDent Fingerprint Scanners*



*Multi-modal MorphoTablet™*

The Android Jelly Bean-based MorphoTablet, apart from featuring facilities such as demand-specific application development and an integrated support package, also contains the Morpho iMobile suite (MiMs) application suite. This suite has made MorphoTablet a comprehensive platform for identification based on fingerprints and facial structure, alongside satisfying data enrollment requirements. In addition, the Morpho MSO 1300 series, an ultra-compact optical OEM fingerprint



module, has been integrated on third-party mobile handheld units, such as Grabba and Pision.

Leveraging its leadership in the biometric identification space, Morpho has been active this year through the introduction of several products and solutions. In addition to the introduction of its contactless *MorphoWave* product, Morpho had three other launches that included solutions for fingerprinting, face recognition, video analytics, and cloud services:

- MorphoAccess® SIGMA Lite and SIGMA Lite+
- Morpho Video Investigator (MVI)
- Morpho Cloud AFIS-as-a-Service

Competitors in this space have been less active with respect to product launches this year.

### **Customer Ownership Experience**

In its bid to offer customers a superior ownership experience, MorphoTrak has made its access control systems easy to use through its MorphoManager software suite, which enables customers to program and set up biometric terminals according to the customers' unique requirements, and provides easy integration into their traditional access control system. This ensures that biometrics can be easily added to existing systems in order to increase the security of those systems and extend the ROI well into the future.

The software suite also functions as a comprehensive platform for group-based settings, centralized control, as well as reporting and management of biometric terminals. The MorphoManager suite also functions as a single solution for enrolling multiple biometric modalities, including contact-based and contactless fingerprints, vein, 2D and 3D face, and managing the associated biometric readers.

In general, all access control devices offered by MorphoTrak can be easily integrated with traditional access control systems, making adoption easier for customers. Biometric access control terminals, including *MorphoWave* and the MorphoAccess SIGMA and SIGMA Lite, also feature a high-resolution touch screen for administration purposes, as well as messaging and branding options, allowing administrators to display corporate logos or videos for example. Moreover, the company has also integrated a built-in IP video phone that can be used to communicate with a user at the MorphoAccess terminals.

## Beyond Fingerprint Biometrics

Morpho, with over four decades of experience in the biometrics industry, is a reputable pioneer in fingerprint solutions. However, driven by a keen acumen for innovation, the company leverages its experience and its R&D capabilities, to offer solutions across other biometric modalities such as facial recognition, iris recognition, and finger vein recognition, among others. Developing innovative products and solutions that offer its customers convenience and address unmet needs has always been the company's core philosophy. For example, MorphoTrak offers products such as Iris at a Distance (IAD), and Morpho Argus, which use iris and facial recognition to balance heightened security with convenience for customers at airports. Achieving excellence in an environment with competitive intensity, customer volatility, and economic uncertainty emphasizes MorphoTrak's commitment to its customers.

## *Conclusion*

In short, while MorphoTrak has 40+ years of experience in offering advanced biometric identification solutions in North America, the latest product launch of MorphoWave further consolidates its position as market leader. The innovative, FBI PIV certified MorphoWave contactless fingerprint scanning technology addresses the growing demand for a solution that enables accurate and speedy frictionless access control. MorphoWave delivers a highly accurate and affordable fingerprint biometric solution that is simple to use and enables large numbers of users to move through access points without bottlenecks or inconvenience. Thanks to its impressive technology and ability to deliver superior products that address key customer pain points, MorphoTrak, LLC is recognized with Frost & Sullivan's 2015 Company of the Year Award.



## Significance of Company of the Year

To win the Company of the Year award (i.e., to be recognized as a leader not only in your industry, but among your non-industry peers as well) requires a company to demonstrate excellence in growth, innovation, and leadership. This kind of excellence typically translates into superior performance in three key areas: demand generation, brand development, and competitive positioning. These areas serve as the foundation of a company's future success and prepare it to deliver on the two criteria that define the Company of the Year Award (Visionary Innovation & Performance and Customer Impact).



## Understanding Company of the Year

As discussed above, driving demand, brand strength, and competitive differentiation all play a critical role in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on visionary innovation to enhance customer value and impact.

## Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated two key factors—Visionary Innovation & Performance and Customer Impact—according to the criteria identified below.

### Visionary Innovation & Performance

- Criterion 1: Addressing Unmet Needs
- Criterion 2: Visionary Scenarios Through Megatrends
- Criterion 3: Implementation Best Practices
- Criterion 4: Blue Ocean Strategy
- Criterion 5: Financial Performance

### Customer Impact

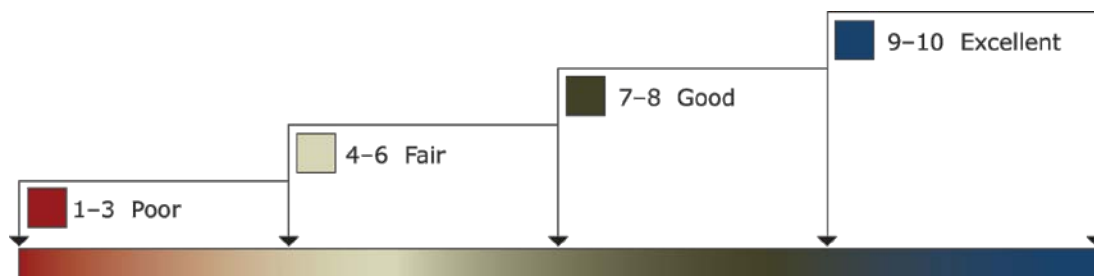
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

## Best Practice Award Analysis for Morpho

### Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are illustrated below.

#### RATINGS GUIDELINES



The Decision Support Scorecard is organized by Visionary Innovation & Performance and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, we have chosen to refer to the other key players as Competitor2 and Competitor3.

<i>Measurement of 1–10 (1 = poor; 10 = excellent)</i>			
<b>Company of the Year</b>	<b>Visionary Innovation &amp; Performance</b>	<b>Customer Impact</b>	<b>Average Rating</b>
<b>Morpho</b>	<b>9.0</b>	<b>9.0</b>	<b>9.0</b>
Competitor2	9.0	8.0	8.5
Competitor3	8.0	8.0	8.0

### *Visionary Innovation & Performance*

**Criterion 1: Addressing Unmet Needs**

Requirement: Implementing a robust process to continuously unearth customers’ unmet or under-served needs, and creating the products or solutions to address them effectively

**Criterion 2: Visionary Scenarios Through Mega Trends**

Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling “first to market” growth opportunities solutions

**Criterion 4: Implementation of Best Practices**

Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

**Criterion 3: Blue Ocean Strategy**

Requirement: Strategic focus in creating a leadership position in a potentially “uncontested” market space, manifested by stiff barriers to entry for competitors

**Criterion 5: Financial Performance**

Requirement: Strong overall business performance in terms of revenues, revenue growth, operating margin and other key financial metrics

### *Customer Impact*

**Criterion 1: Price/Performance Value**

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

**Criterion 2: Customer Purchase Experience**

Requirement: Customers feel like they are buying the most optimal solution that addresses both their unique needs and their unique constraints

**Criterion 3: Customer Ownership Experience**

Requirement: Customers are proud to own the company’s product or service, and have a positive experience throughout the life of the product or service

**Criterion 4: Customer Service Experience**

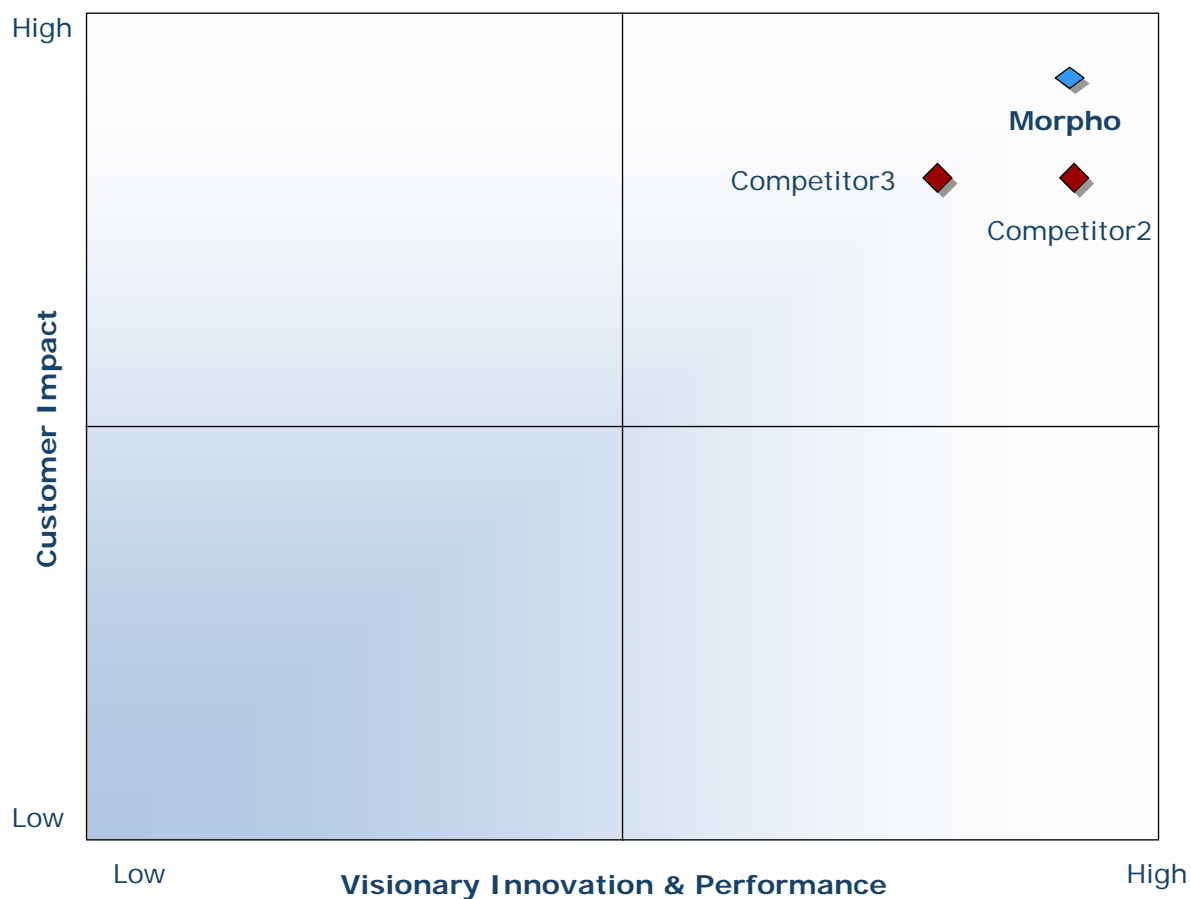
Requirement: Customer service is accessible, fast, stress-free, and of high quality

**Criterion 5: Brand Equity**

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty

*Decision Support Matrix*

Once all companies have been evaluated according to the Decision Support Scorecard, analysts can then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



## The Intersection between 360-Degree Research and Best Practices Awards

### *Research Methodology*

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.

### 360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



## Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 <b>Monitor, target, and screen</b>	Identify award recipient candidates from around the globe	<ul style="list-style-type: none"> <li>• Conduct in-depth industry research</li> <li>• Identify emerging sectors</li> <li>• Scan multiple geographies</li> </ul>	Pipeline of candidates who potentially meet all best-practice criteria
2 <b>Perform 360-degree research</b>	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> <li>• Interview thought leaders and industry practitioners</li> <li>• Assess candidates' fit with best-practice criteria</li> <li>• Rank all candidates</li> </ul>	Matrix positioning all candidates' performance relative to one another
3 <b>Invite thought leadership in best practices</b>	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> <li>• Confirm best-practice criteria</li> <li>• Examine eligibility of all candidates</li> <li>• Identify any information gaps</li> </ul>	Detailed profiles of all ranked candidates
4 <b>Initiate research director review</b>	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> <li>• Brainstorm ranking options</li> <li>• Invite multiple perspectives on candidates' performance</li> <li>• Update candidate profiles</li> </ul>	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 <b>Assemble panel of industry experts</b>	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> <li>• Share findings</li> <li>• Strengthen cases for candidate eligibility</li> <li>• Prioritize candidates</li> </ul>	Refined list of prioritized award candidates
6 <b>Conduct global industry review</b>	Build consensus on award candidates' eligibility	<ul style="list-style-type: none"> <li>• Hold global team meeting to review all candidates</li> <li>• Pressure-test fit with criteria</li> <li>• Confirm inclusion of all eligible candidates</li> </ul>	Final list of eligible award candidates, representing success stories worldwide
7 <b>Perform quality check</b>	Develop official award consideration materials	<ul style="list-style-type: none"> <li>• Perform final performance benchmarking activities</li> <li>• Write nominations</li> <li>• Perform quality review</li> </ul>	High-quality, accurate, and creative presentation of nominees' successes
8 <b>Reconnect with panel of industry experts</b>	Finalize the selection of the best-practice award recipient	<ul style="list-style-type: none"> <li>• Review analysis with panel</li> <li>• Build consensus</li> <li>• Select winner</li> </ul>	Decision on which company performs best against all best-practice criteria
9 <b>Communicate recognition</b>	Inform award recipient of award recognition	<ul style="list-style-type: none"> <li>• Present award to the CEO</li> <li>• Inspire the organization for continued success</li> <li>• Celebrate the recipient's performance</li> </ul>	Announcement of award and plan for how recipient can use the award to enhance the brand
10 <b>Take strategic action</b>	Upon licensing, company may share award news with stakeholders and customers	<ul style="list-style-type: none"> <li>• Coordinate media outreach</li> <li>• Design a marketing plan</li> <li>• Assess award's role in future strategic planning</li> </ul>	Widespread awareness of recipient's award status among investors, media personnel, and employees



## About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best in class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.