findBIOMETRICS
Global Identity Management

10th Anniversary Year in Review 2012

This is our **10th Anniversary Year in Review** and the response this year was our largest ever with 68 companies/industry experts responding to our questionnaire!

Thanks to all on our expert panel. This is the largest yearly global snapshot of our industry and over the past 10 years we have seen so many changes. The industry is entering into a serious growth phase right now. So many companies are reporting new markets, new verticals, new and innovative product lines, new partnerships and new deployments…several in the hundreds of millions of enrollees. There is a clear indication that GROWTH is where we are heading over the next 5 years. I can't wait to see what the Identity and Biometrics world will look like then.

We received responses from Canada, Spain, Russia, China, Ireland, Brazil, Hong Kong, Sweden, Germany, UK, Israel, France, Korea, The Netherlands, Taiwan, Lithuania, Singapore, Japan, Italy, Malaysia and the USA.

Participants include:

Iris ID Systems Inc., MorphoTrak, Lumidigm, IBIA, 3M Cogent, Cross Match Technologies, MITRE, Aware, Lockheed Martin, SmartMatic, ZKTeco, Northstar Recruiting, San Jose State University, Greenbit, NEC, Suprema, Daon, IEEE, WCC Smart Search and Search, Digital Persona, MorphoTrust, FaceFirst, Avalon Biometrics, AOptix, Natural Security, Agnitio, ekey Biometric Systems, Innometrics, Smart Sensors, Identification Technology Partners, Fingerprint Cards, IriTech, BIO-key, Cognitec, SIC Biometrics, SRI International, Creative Information Technology, Accenture, TBS-Touchless Biometric Systems, Raptor ID, ipsiti, Secunet, FST21, Biocertification, Nuance Communications, Neurotechnology, Precise Biometrics, Acuity, SecurLinx, Imageware, Speech Technology Center, Unisys, Speed Identity, HSB, Authenware, Human Recognition Systems, Koehlke, IdentiMetrics, Fulcrum, SecuGen, Integrated Biometrics, realtime, Voice Security Systems, M2SYS, SOFTPRO, Biometrie-Online.Net, ievo and Fujitsu Frontech North America.

I hope you enjoy reading the 2012 Year in Review!

Peter O'Neill, CEO, findBIOMETRICS

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Global Identity Management

10th Anniversary Year in Review 2012
What have been the three most significant milestones/announcements for the Identification/Biometric Industry this year?
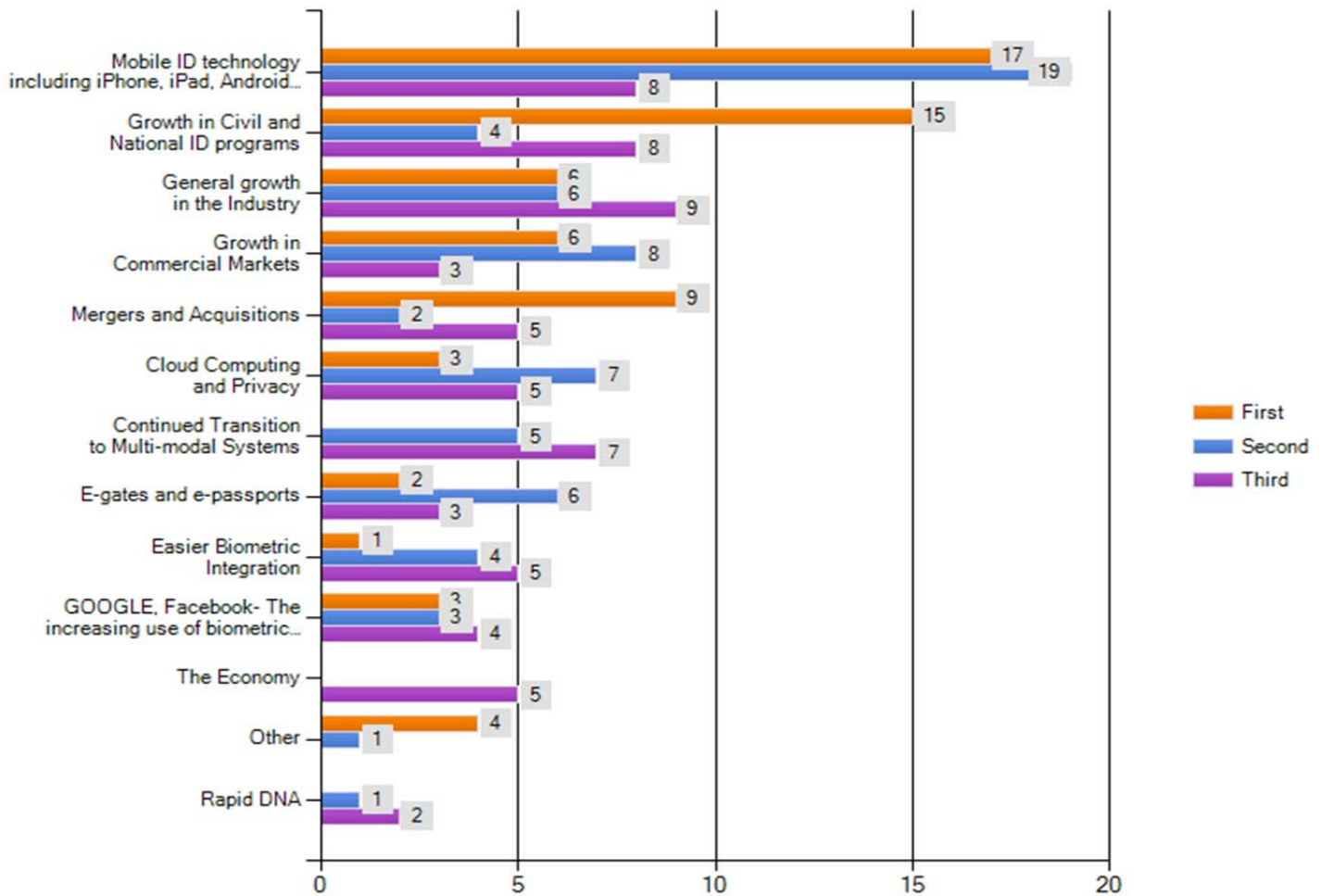
Mobile…Mobile and Growth…that's the story here! Two years ago it was Mergers and Acquisitions and the launch of UIDAI. Last year, our expert panel voted that Growth in Civil and National ID programs was the top story, with Mobile in second place. It is interesting to note here, that Mobile didn't even show up on our list until just 2 years ago. Quite a dramatic rise in a very short period of time…and now it has taken over the top spot! Mobile scored highest in both 1st and 2nd choices.

On the Growth side, here again we see a dramatic shift in thinking. 2 years ago, Growth

was a small mention in our 2010 Year in Review…not near the top 3. Then it all changed last year when Growth secured the top spot.

What I am particularly pleased to see in this graph is the industry confidence that it shows...potential in so many new areas. In fact, both the 2nd 3rd and 4th top areas all go to the overall Growth category. When you combine the 3 of them, Growth moves again into the top spot. Either way you interpret this, **Mobile and Growth for the second year in a row are the 2 top stories for 2012.**

Mergers and Acquisitions continue to play a significant role in our industry and have done so for the past 5 years…Apple-Authentec and Cross Match-Francisco Partners are the latest.

Cloud Computing and Privacy are areas that continue to gain many votes.

GOOGLE, Facebook- The increasing use of biometric technology in social networking. This area first surfaced last year and continues to be receiving quite a few votes this year, especially with Mobile moving so quickly.

The Economy- wow! -has this ever fallen in importance over the past 3 years. At one time it was the top story! This shift ties in with the Growth indicators above…fits nicely.

Multi-modal, easier integration and e-gates round out the top choices for this past year, and Rapid DNA is starting its climb up in the rankings.

Please see the table below of the answers given to this survey:

In your view, what have been the three most significant milestones/announcements for the Identification/Biometric Industry this year? (The top 3 choices were chosen by each respondent - First being the most significant.)				
Answer Options	First	Second	Third	Response Count
Mobile ID technology including iPhone, iPad, Android and other platforms	17	19	8	44
Growth in Civil and National ID programs	15	4	8	27
General growth in the Industry	6	6	9	21
Growth in Commercial Markets	6	8	3	17
Mergers and Acquisitions	9	2	5	16
Cloud Computing and Privacy	3	7	5	15
Continued Transition to Multi-modal Systems	0	5	7	12
E-gates and e-passports	2	6	3	11
GOOGLE, Facebook- The increasing use of biometric technology in social networking.	3	3	4	10
Easier Biometric Integration	1	4	5	10
Other	4	1	0	5
The Economy	0	0	5	5
Rapid DNA	0	1	2	3

Other answers provided by our respondents:

- The movement of US Department of Defense biometrics into the Office of the Provost Marshall General and the announcement of a 2014 pullout of US troops from Afghanistan will make a big difference in our industry that has been fuelled by DoD spending for the last 10 years.
- Privacy
- Increased focus on brokering trust and building reputations as opposed to strictly confirming identity.
- Biometrics Training
- AFIS Efficiency gains allowing agencies to solve more crimes without increasing staff.
- The purchase of Authentec by Apple.
- Second, the application of Biometrics and Suspicious Behavior identification in IP cameras brings out new market opportunity. Enterprises turn to project market because of the saturation in traditional time & attendance and access control markets.
- I assume you are saying this in National ID programs but PIV, CAC and TWIC have all been huge drivers.

What are the most pressing issues facing the Biometric Industry as we move into 2013?
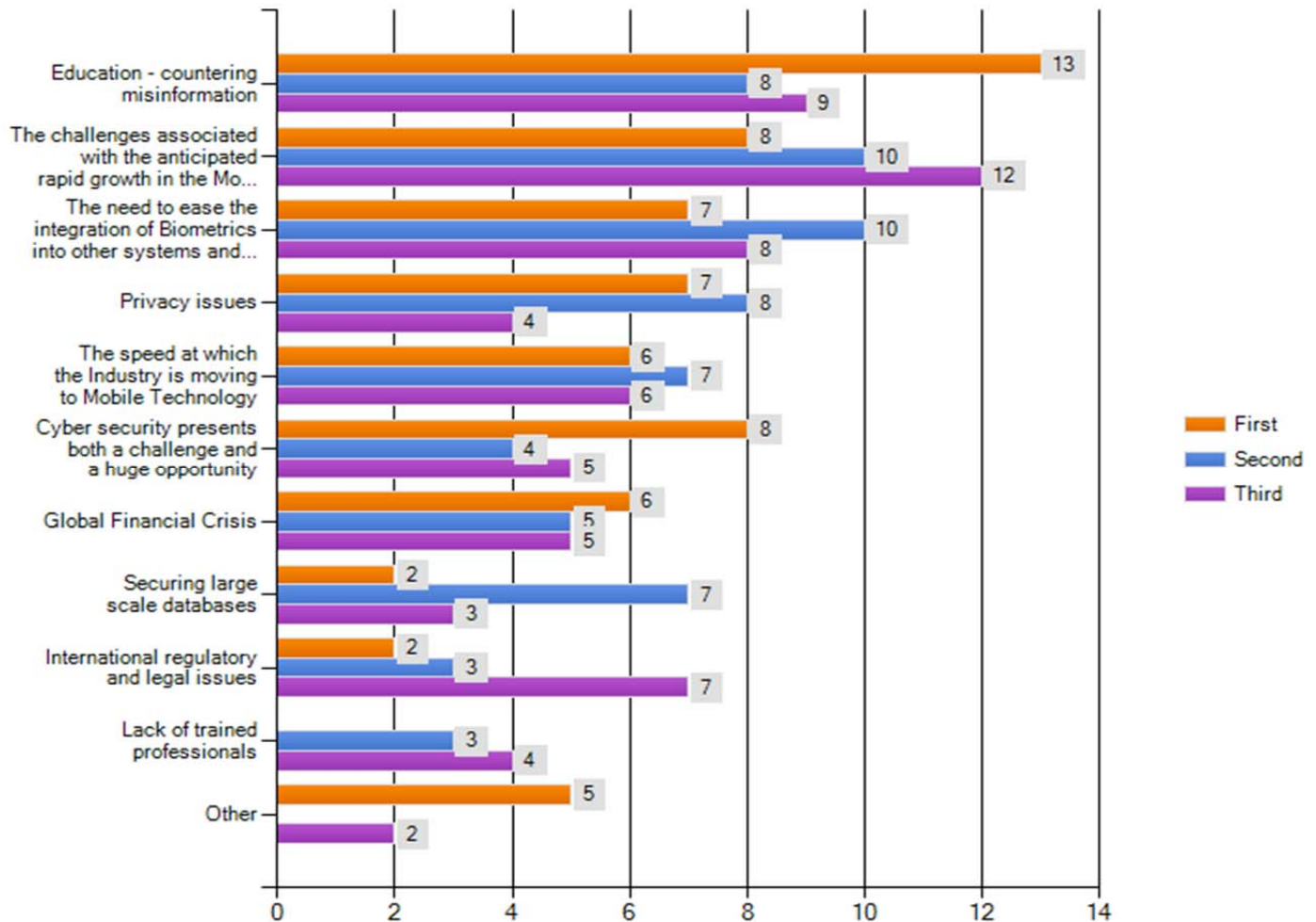
When we first started our Year in Reviews, Interoperability and Standards always took the top spot as the major challenges. That all changed about 5 years ago and for the past 3 years, **EDUCATION has been voted as the top challenge facing the industry**. Education for commercial users, for Governments, to counter misinformation, for employees at deployment sites, for Privacy concerns, for better trained staff and so on.

The **International Biometrics & Identification Association** (IBIA) continues to work on projects to address this important area and individual companies have also taken large strides to ensure that their staff and clients receive accurate and useful information to

make deployments run as smoothly as possible. However much, much more needs to be done especially in dealing with erroneous information from non-experts.

The speed at which the Mobile market is moving and the challenges that growth presents, took the 2nd place spot this year. This is going to be a key driver for our industry for the next several years and it is very healthy to see our experts recognize and start to plan for the expected growth in a thoughtful manner, but be prepared for a wild ride as this area really starts to heat up in the coming 2 years! And don't forget the Financial and Health Care markets. Remember all those past years when everyone was always saying … "this is the year for Biometrics"… well guess what?!!

The need to ease the integration of Biometrics into other systems and applications was voted the 3rd most pressing issue with Privacy not far behind. Privacy and Education go hand in hand…work needed here.

Also moving up the list this year with many votes were Cyber security and Securing Large Databases.
The global financial situation still presents a challenge but has dropped significantly over the past 2 years.
Lack of trained professionals continues to be a challenge and has been for 4 years. The good news here is that there are companies satisfying this area very well right now as you can read in the company section.

Please see the table below of the answers given to this survey:

What are the most pressing issues facing the Biometric Industry as we move into 2013? (The top 3 choices were chosen by each respondent - First being the most pressing.)				
Answer Options	First	Second	Third	Response Count
Education - countering misinformation	13	8	9	30
The challenges associated with the anticipated rapid growth in the Mobile space	8	10	12	30
The need to ease the integration of Biometrics into other systems and applications	7	10	8	25
Privacy issues	7	8	4	19
The speed at which the Industry is moving to Mobile Technology	6	7	6	19
Cyber security presents both a challenge and a huge opportunity	8	4	5	17
Global Financial Crisis	6	5	5	16
Securing large scale databases	2	7	3	12
International regulatory and legal issues	2	3	7	12
Lack of trained professionals	0	3	4	7
Other	5	0	2	7

Other answers provided by our respondents:

- I like the category of "countering misinformation", but most of this misinformation has historically come from the industry itself. How do we educate those involved with biometric system development, sales, and integration?
- Large biometric companies aggressively restricting the supply and in turn starving innovation
- Anti-spoofing and associated acceptance of biometrics for remote authentication
- Biggest challenge will continue to be the cost and support of new infrastructure to fully implement and use biometrics and smart cards.
- The need for Law enforcement agencies to obtain ISO certification for their crime lab operations
- The saturation of the enterprise production capacity and the sluggish growth of traditional market make the technology transfer ever pressing for the manufacturers. The technologic standard of the biometric identification in surveillance industry is of great importance and becomes the core of biometric identification enterprises. But it needs large investment which is very difficult for a small company.
- Commoditization of traditional biometric technologies (e.g. AFIS, fingerprint readers, iris scanners, handheld devices)
- Fragmentation of the industry. There are too many sensor vendors. A consolidation is necessary.

a. Was 2012 a good year for your company/organization/department and what were some of the highlights?

b. What will 2013 hold for your company/organization/department?

Mohammed Murad, Vice President, Iris ID Systems Inc.

a.   There has been much activity in the biometric market. We are seeing great interest from governments in implementing and reviewing the biometric/identity management systems in large scale environments and on the back office functions such as T&A applications. These both are signs that our industry is maturing and there is real business in identity management and governments are starting to get serious in fixing mis-identification problems.   Customers are looking at iris in a very serious way and iris is starting to become a lead biometric for providing speed and accuracy in large identity applications. Most importantly the world's largest biometric database reached the 250 million mark this year. There has not been any more significant news! We are very proud that we have provided iris technology for the UIDAI project and this milestone.

b.   The Iris ID team is very excited about 2013 and we are in an expansion mode with new products, solutions and human resources. We believe that there are many new projects in the pipeline and we will be showing off some of our new technologies in coming months at various conferences and trade events.

Robert Horton, Director of Marketing & Communications, Morpho

a.   Yes, we successfully integrated the products and technology that came to us with the L-1 Identity Solutions acquisition. With the fusion of our biometric technologies, we bring enhanced livescan, face, and iris capture and recognition to industry and government.
Our superior technologies continued to receive third-party awards and recognition in 2012:
- Morpho's fingerprint recognition algorithms were ranked #1 for accuracy in image-only latent searches during the most recent NIST evaluations.
- MorphoAccess VP, our multimodal physical access control reader combining finger vein and fingerprint recognition, won the "Best New Product Award" at the Security Industry Association's 2012 New Product Showcase at ISC-West, as well as being showcased by Security Sales & Integration as a 2012 "Top 30 Technology Innovation".
- MorphoTop compact high speed livescan fingerprint scanner received FBI Appendix F certification for both tenprint rolled and identification flat fingerprint capture.

Our flagship multi-modal Automated Biometric Identification System product, MorphoBIS, continues to be the most popular large-scale law-enforcement AFIS product on the market with deployments to NY DCJS, Florida Dept of Law Enforcement, Tennessee Bureau of Investigation, Massachusetts State Police, Toronto Police Dept, Colorado Bureau of Investigation, New York PD, Vancouver, and many more.

In addition, our MorphoIDent mobile handheld fingerprint capture device has now been integrated with the FBI's RISC (Repository of Individuals of Special Concern) database in many states. With RISC, officers using mobile devices in the field can check a suspect's fingerprints to see if they are wanted for serious crimes in the U.S. or other countries. Our customers with RISC interfaces report that they achieved successful identifications within days of the interface going live.   Being able to search not only the local and/or state database with Mobile ID, but also search the FBI RISC database is solving more crimes and making our communities safer.

In the enterprise, following a successful integration with partner solution Biomanager, MorphoIDent can now serve as a mobile extension to a larger time & attendance and/or access control system.

Finally, our LiveScan offerings continue to evolve with the latest options for iris, face, palm, DNA, and signature capture to meet all requirements for both law-enforcement and applicant use-cases.

b.   Morpho will continue our enhanced R&D and product development efforts to keep our fingerprint, palm, facial, and iris matching technologies at the forefront of the industry. In addition, we have renewed our research relationship with Michigan State University to continue our research on both biometric tattoo recognition technology and altered/mutilated fingerprints.

Our installed base of MorphoBIS, Mobile ID, LiveScan, Facial, and Iris will continue to expand, and we will begin deployment of RapID DNA solutions with pilots in 2013.

We also look forward to ongoing work with BNSF Railway through the recent award to secure access to high-priced tools company-wide as well as our continued support of the Railway's time & attendance system with 8000 employees enrolled on 400 Morpho readers throughout roughly 200 sites.

Phil Scarfo, Sr Vice President, Sales and Mktg, Lumidigm

a.   2012 was an exceptional year for our company as we enjoyed significant growth and adoption of our technology into a number of commercial markets. Our value proposition of "performance matters" has made us the trusted choice in several key applications; primarily financial services and healthcare. We expanded our business greatly in regional markets; Latin America, South Africa as well as North America with a number of major new deployments in biometric ATM's for several of the world's leading banks in these regions and Medical dispensing in the US.

I am also very pleased that we're beginning to see real progress in commercial markets where decision makers are now looking for a compelling ROI and not just shopping for the lowest price. Although there are still residual affects of poor past biometrics performance hurting the industry at large, we've proven that when the technology can be made to work and really solve the problem, the value proposition for actually knowing "who" also really matters.

b.   We look forward to 2013 as another opportunity to expand our footprint in commercial markets. With a number of banks and ATM manufacturers now looking not only for strong biometrics performance but also looking for strong anti-spoofing and data encryption, the outlook for our company is quite bright.
We see great opportunities to leverage our core technology and also to expand our value to customers with our ability to authenticate people, barcodes and credentials on the same sensor.

We are also looking forward to expanding into enterprise markets as biometrics becomes more relevant due to the rapid growth in mobile, cloud, social media and the desire for instant information and real time access to services; some of which will soon require stronger means of authentication.

Lastly, as some major commercial / consumer giants make biometrics more mainstream and acceptable we might finally see a greater willingness and role for biometrics as a means of bringing your own identity (BYOI) to the forefront and increasing demand for our technology.

Robert Harbour, Chairman, International Biometrics and Identification Association-IBIA

a.   In keeping with the needs of our industry, IBIA has transitioned from a biometric technology, government and supplier centric organization to one that now also embraces human identity management, commercial markets, such as healthcare and banking, and end-users around the world.

b.   Increased efforts in the following four IBIA member-company focus areas in order to reduce barriers to more widespread adoption of human identity management solutions to meet pressing needs in both commercial and government markets: (1) addressing privacy issues (2) education and outreach (3) healthcare solutions (4) mobility solutions.

J Hinmon, Marketing, Cross Match Technologies

a.   In 2012 Cross Match Technologies (CMT) launched several new products and solutions developed to directly address the common challenges associated with large scale enrollment processing, the drive to reduce total biometric cost of ownership, and the underlying concerns around data security and privacy. Examples of these are the Company's new Guardian and Guardian IP ten-print offering; the new web-based biometric software platform WEBS; and the latest compact, lighweight two-finger scanner, the EF200.

Also of special note in 2012 was the acquisition of CMT by Francisco Partners (FP), a U.S. based private equity firm with a focus on the technology sector. FP brings the unique capabilities and support to accelerate CMT's growth strategies to better serve our government, security, law enforcment and commercial customers and integrator partners as the industry continues to mature.

b.   In short, expect to see continued innovation around the Company's core product and solution offerings designed to directly address customer requirements. The continued roll out of the WEBS solution modules and new mobile technology joining the SEEK family of multimodal handheld solutions will accompany continued expansion of core service and application offerings in support of our customer and integrator partners.

Dr. Andrew Omidvar, Sr. Principle, MITRE

a.   Yes, due to:
1.   Participation in BCC
2.   Membership in NSTIC
3.   Particpation in NDIA

b.   In 2013 we will make major steps in the role of identity in cyber space.

a.   Was 2012 a good year for your company/organization/department and what were some of the highlights?

b.   What will 2013 hold for your company/organization/department?

David Benini, Sr. Director, Marketing, Aware, Inc.

a.   Yes, 2012 was a very good year for Aware.

Highlights include providing enrollment applications and middleware platform for several large-scale, biometric-enabled visa issuance / border management systems.

We completed development of URC Mobile, our hardware-agnostic software application for ruggedized devices.

We also introduced our new smart phone-based fingerprint solution.

b.   Two large visa/border systems using our software will go live.

The US Navy will deploy our software on ruggedized devices.

Customers will deploy our smart phone-based solution.

We will make several new product announcements.

John Mears, Director of Biometrics and Identity Management, Lockheed Martin Corporation

a.   2012 was a good year for Lockheed Martin in biometrics and identity management.   Significant deliveries of capability were made on the FBI Next Generation Identificaiton (NGI) program, which continues to deliver on contract objectives.   The company successfully completed the base contract for the TSA Transportation Worker Identification Credential (TWIC) program in June, and was awarded a bridge contract to continue to perform while the TSA prepares for other universal enrollment enhancements. Innovative research and development continues at Lockheed Martin, with advances in latent fingerprint imaging and rapid DNA identification leading the way. As featured on the FindBiometrics web site 2012 Biometrics Consortium Conference videos, IntrepID(TM) S2A90 (sample-to-answer in 90 minutes) will be available in early 2013.

b.   Lockheed Martin places great emphasis on delivering reliable and cost-effective solutions to its customers, and this emphasis will continue through our biometrics and identity management work in 2013. We continue to be focused on reliable contractual deliveries of NGI function to the FBI, as well as commercial availability of the IntrepID S2A90 rapid DNA identification product line.

Dimas Ulacio, Product Development Manager - ID Management Solutions Group, Smartmatic

a.   Yes, 2012 was a highly positive year for us. We executed several large projects that strengthened our worldwide position as The Elections Company while consolidating our leadership in the biometrics industry.

In October for instance, we participated in large scale electoral projects in Belgium, Venezuela and Brazil. That month alone, we assisted approximately 170,000,000 registered voters to decide their future representatives.

We also kept innovating. During this year Smartmatic executed in Venezuela the first 100% automated national election in the world. From the biometric authentication of every voter, to the activation of the voting machines, and the publication of results, every step of the election was automated.

Earlier this year we partnered with Green Bit SpA, a leading supplier of FBI certified Livescan systems, to provide a biometric enrollment solution for the Mexican Federal Election Institute (IFE). Teaming up our identity management technology with Green Bit's next generation devices allowed Smartmatic to develop a best-of-

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breed solution that responds to current IFE's requirements, guaranteeing a complete, secure and expedite enrollment project.

During the last quarter of the year we partnered with the Government of Haiti in a Civil Registry and Identity modernization program. This technology and knowledge transfer project includes the deployment of 700 registration units to biometrically capture face photographs and the full 10 fingerprints from Haitian citizens. 600 units will be distributed across the national territory, and the remaining 100 among foreign missions abroad. Additionally, Smartmatic will provide associated services, such as project management, technical support, and training to allow Haitians to run the platform on their own.

In spite of the many challenges we faced, I am proud to say that we managed to reach our global goals. We opened business opportunities which helped us to extend our presence in more than 30 countries in four continents. Simultaneously, we increased our market share and maintained an organic growing path.

b.   For next year the plan is to continue developing solutions that promote social and political inclusion and socio-economic development.

We hope to get involved in more projects like the one we are carrying in Haiti, in which we will have a unique opportunity to contribute setting the basic foundations for the nations' legal and political structure.

This is an expanding industry. Business opportunities are growing exponentially as governments realize the multiple benefits technology is offering. We are determined to take those opportunities and help governments around the world become more efficient and transparent.

Mark Ma, Marketing Manager, ZKTeco Inc.

a.   In 2012, our business kept growing rapidly and we achieved many breakthroughs.

Firstly, the inBIO series access control panels promoted increased sales and boosted the development of patrol systems, visitor management systems, and elevator control systems.

Secondly, we launched an intelligent video surveillance system which has a face identification function and can be integrated with access control. It brings new opportunities to the security market and increases the sales of our IP cameras.

Last but not least, we made great progress in software. This year, we participated in many security projects, like the second generation Chinese Identity Card project, several airport projects, Medical group project, and so on. Through the projects, we are developing faster and faster.

b.   In 2013, we believe that the face identification and motion detective functions of IP cameras will develop rapidly. That is also our direction. Additionally, the projects that are based on the combination of biometric identification and access control systems will be the center of our attention. As for the technology, the industrialization of iris identification and mass production engineering are the core of our development. Moreover, in 2013, we are going to set up R&D centers in India, Madrid, and America, and a new factory in Indonesia. In all, continuous innovation, large-scale industrialization and completing our global service network are the core work of ZKTeco. We plan to establish branch offices in 40 countries within a few years. We are full of confidence for the future.

a. **Was 2012 a good year for your company/organization/department and what were some of the highlights?**

b. **What will 2013 hold for your company/organization/department?**

James L. Wayman, Research administrator, San Jose State University

a. The change in emphasis on biometrics from a "war-fighter" technology back to a law enforcement and civil application technology is good news for our industry. Perceptions and funding of biometric applications were highly distorted by the "war on terror" during the last decade. To the extent that my organization has been able to participate in the restoration of balance, this has been a good year.

b. Forensics and civil applications will be the driver for us.

Christian Rutigliano, International Sales Manager, Green Bit S.p.A.

a. Despite the on-going global economic challenges Green Bit is about to finish yet another very successful year. We were able to win some highly prolific deals like in Mexico where we supplied more than 1600 10-prints for the federal electorate commission (IFE). In India it was our pleasure to supply our 10-print devices for the national ePassport project. Being able to supply our devices to highly sensitive national projects like IFE or ePAss in India is another proof of the high consideration of key decision makers and industry experts regarding the quality and reliability of our products. Besides the aforesaid, we managed to further increase our market reach in key growth markets like Africa, South America and most importantly Asia; throughout 2012 we were able to supply our complete Livescan portfolio for Civil ID and Law Enforcement initiatives to the aforesaid markets further increasing our market share.

From a product point of view with completely new developments like the DactyScan84c or the MC517 (Palm Livescan developed exclusively to respond to Chinese market requirments) we were able to respond to the ever increasing pressure on prices, due to the explosion of the industry in terms of quantities, offering the same outstanding image quality we are known for while being highly competitive at the same time.

b. In 2013 we will put our efforts into a further, aggressive expansion of our market reach in the key growth markets. Especially in China, we expect to heavily expand our already important installations base and we're looking with a high confidence towards several opportunities in Africa and South America, not forgetting Europe which is still one of our most important market spaces.

From a technology point of view Green Bit will introduce a series of new products and product enhancements as to offer even more functionality and performance to our partners. To provide a first glimpse of what will come I can tell that we are in the final stages of developing an innovative and robust anti-spoof system following a multi-modal approach based on different biometric technologies. Further, with the heightened demand for mobile solutions, we are working on full Android OS compliance for our core product line thus enabling our customers and partners to efficiently tackle this promising market segment.

Green Bit is looking forward to 2013 with great excitement, motivation and passion and we're definitely ready to continue our steady growth.

Raffie Beroukhim, VP, Biometrics Solutions Division, NEC Corporation of America

a. 2012 was a very busy year for NEC Corporation of America (NEC). Some of the year's highlights include:

- NEC's facial recognition technology achieved the highest ranking in JPEG Compression, JPEG Compression with Inter-eye Distance Reduction, JPEG 2000 Compression, and JPEG 2000 Compression with Inter-eye Distance Reduction investigations performed by the U.S. National Institute of Standards and Technology (NIST) and released in NIST's Interagency Report, NISTIR 7830: Performance of Face Recognition Algorithms on Compressed Images.
- After months of participation in a rigorous evaluation process and contract negotiations, NEC's Biometrics Solutions Division signed a seven-year contract with the Western Identification Network (WIN). In addition to earning the right to provide continued services to a long term user of NEC's biometric solutions, this award signifies NEC's continued commitment to AFIS and the biometrics market in North America, as well as our willingness and ability to successfully compete and win.
- NEC expanded its Federal business this year by providing clients with fingerprint identification technology and capabilities to assist in the protection of our national interests. NEC's Federal clients include the U.S. Department of Defense.
- NEC has made a contribution to Michigan State University to assist with research in the growing field of biometrics recognition.
- NEC joined the **International Biometrics & Identification Association (IBIA)** as a member. In addition, Raffie Beroukhim, Vice President of the Biometrics Solutions Division, was selected to serve on the Board of Directors for the IBIA. In this capacity, Mr. Beroukhim will collaborate with consumers, providers, associations, and entrepreneurs to help them achieve effective biometric security and business solutions.

b. In the year 2013, NEC will place an emphasis on promoting its biometrics solution as a service. NEC is a leading provider and integrator of advanced IT, communications, managed services, and biometric solutions. We are combining our key strength in cloud and biometrics technologies to offer an alternative solution model to government agencies and the commercial industry.

In addition to traditional law enforcement solutions, the coming year will bring other biometric market verticals into focus. Facial identification solutions in the areas of surveillance, commercial and civil applications (content delivery, customer experience, and field analytics), and border control are planned for development. Our Research and Development teams are increasing their efforts in emerging markets with technologies such as Rapid DNA.

Young S. Moon, Vice President, Suprema Inc.

a. Suprema continued its exceptional strong organic growth in 2012. Thanks to this, we made the first Security Top 50 by A&S magazine and our market capital increased 40% during the year 2012.

In 2012, Suprema successfully launched FaceStation, an innovative face recognition terminal for access control and time attendance. FaceStaion has attracted huge attention throughout its global launching shows.

b. Suprema has been known for good products with trend leading features and specs. In 2013, we plan to build a leadership role in the area of customer support and satisfaction as well. It will be a period to make a stepping stone to change Suprema from a good to a great company.

a. Was 2012 a good year for your company/organization/department and what were some of the highlights?
b. What will 2013 hold for your company/organization/department?

Catherine Tilton, VP, Standards & Technology, Daon

a. Yes, Daon has had another good year! Our traditional solutions business remains strong, our identity services business is expanding, and our newest business in mobile-based authentication has garnered high praise (including Gartners "Cool Vendors in Security") and is being piloted in a number of Fortune-50 organizations.

A few highlights -

- Daon was one of the 5 awardees for the NSTIC pilot grants
- We launched our 'Daon Derived Credential' solution which allows you to use your smartphone based credential in lieu of another primary credential (such as a PIV card)
- We expanded our network of biometric enrollment/background checking services at UPS stores throughout Florida
- Daon launched "MePad" which enables 4-factor authentication by simply "speaking your PIN."
- With Accenture, Daon is part of the team winning TSA's "TTAC Infrastructure Modernization" contract.
- With Fujitsu, Daon has won the Passport issuance contract at Australia's Department of Foreign Affairs and Trade.
- Daon crossed the 200M bar for enrollees de-duplicated within the Indian UID/Aadhaar program.

b. We expect that our IdentityX mobile device based multifactor authentication solution will move from the pilot stage into numerous production deployments and beyond the financial sector into other markets as well. We also expect to see continued growth in our identity solutions and services businesses.

Richard Ringold, IEEE Certified Biometrics Professional® (CBP) Program, IEEE

a. Yes, 2012 was a great year, as we certified more individuals around the globe through the IEEE Certified Biometrics Professional® (CBP) program, and received great feedback on the value of earning the CBP credential. We also recently launched an updated Version 2.0 of the IEEE CBP Learning System, which can be used for CBP exam preparation, training new hires, or for getting up to speed quickly in biometrics. Version 2.0 reflects current best practices, and highlights new biometric methods and applications, the latest biometric standards, and recent developments in system design and implementation. The learning system includes new case studies and examples, and combines print materials and online interactive software with 600 online test questions to help individuals prepare for the IEEE CBP certification exam. For more information about the CBP exam and training course, see www.ieeebiometricscertification.org.

b. With the increasing momentum we've seen recently, and the IEEE CBP certification is now seen as a differentiating factor when bidding on government RFPs, we think 2013 will be the year many biometrics professionals decide to get certified. In 2013, the IEEE CBP exam will be offered during two testing windows. Candidates will be able to schedule an appointment to take the 3-hour, multiple choice CBP exam during the first window of May 18 through June 30, 2013 or the second window of November 16 through December 31, 2013. Many candidates will start the new year by ordering the new Version 2.0 of the IEEE CBP Learning System early in 2013 to begin preparing for their CBP exam.

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Marco van Hurne, Product Marketing Manager, WCC Smart Search & Match

a. Although 2011 was a volatile year for many companies, sales of our ELISE technology continued to grow steadily and the prospects for 2013 are even more promising. One particular highlight of this year is the start of a project for a European police agency, where ELISE is used to search for identities through multiple police systems and combine biographic data and biometric data in a single search operation to disambiguate identity.

b. 2013 will be a very exciting year for us, we are capitalizing on the investments that we have made in our core markets - National ID, Police & Border and Private Staffing and Public Employment Services, which will result in the start of a number of very exciting new projects in the field of Person Centric Identity Search, (Risk) Profiling, and Multi-modal fusion.

Elaine Bliss, Vice President, Product Management & Marketing, DigitalPersona, Inc.

a. Yes, 2012 was a good year for DigitalPersona. We continued to see growing interest in our biometric solutions, especially in the emerging markets. Also, to support HIPAA, PCI and SOX compliance standards, we enhanced the functionality of our DigitalPersona Pro Enterprise multi-factor and access management solution.

b. In 2013, DigitalPersona will strengthen its software, hardware and services capabilities to effectively provide fingerprint-enabled solutions that securely create, manage and authenticate digital identities. We will expand our hardware offerings to include both optical and silicon fingerprint solutions that are FIPS-201 certified. DigitalPersona will enhance its strong authentication platform to address identity management needs in civil ID, banking and healthcare markets. We will also advance our professional service offerings to customize and support these solutions.

Steve Spiewak, Product Marketing Manager, MorphoTrust USA

a. Yes, 2012 was a very good year for MorphoTrust. Some of the highlights include;
  • More demand for Multi-Modal use of Biometrics,
  • Emerging demand for Mobile Biometrics on smartphones & tablets,
  • Adoption of Biometrics in large scale civil identification systems globally.

b. In 2013 we expect:
  • More commercial market demand for Biometrics to improve service,
  • More IT identity projects needing Biometrics support,
  • Countering misinformation about Biometrics through education while also overcoming challenges inherent to cyber security.

a.   Was 2012 a good year for your company/organization/department and what were some of the highlights?

b.   What will 2013 hold for your company/organization/department?

Joe Rosenkrantz, CEO, FaceFirst

a.   Highlights:

1.   2012 has been another excellent year of growth for FaceFirst and increased global recognition with continued adoption of our real-time surveillance product into Retail, Airports, Commercial, and Law Enforcement customers. Adoption by law enforcement agencies of FaceFirst mobile face recognition software in 2012 has been a major milestone for the company. We have had many successful identifications and arrests in 2012 using our technology.

2.   The FaceFirst system has achieved massive scalability this year with success rapidly deploying into a cloud hosted system comprised of massive numbers of locations connected via mobile broadband links.

b.   We continue to invest in R&D to drive the growth of the FaceFirst platform to meet the increasingly complex and expanding needs of our customers. Q1 2013 will mark the next release of the FaceFirst platform, supporting multiple types of biometrics and combining various new sensors and analytics.

Marc Sima, Marketing & Sales Manager, Avalon Biometrics SL

a.   2012 was an excellent year and we signed the contract for a large-scale banking customer and made therefore a transition for moving also in commercial / private markets while manifesting the leading position in the market for automated document verification in the public & private sector.

We won the world's first project for quality assured live enrolment on Android in the Philippines with the world's first Android based Photo QA engine according to ISO & ICAO.

We finalised a large-scale national border control system that represents one of the most advanced border management systems in the world.
We implemented, for a total of 8 countries worldwide, biometric Visa Management Systems

b.   2013 will be a great year and we are looking to expanding further to leverage our solutions and technology and win new markets and customers.

André Delaforge, Marketing Manager, Natural Security

a.   •   Natural Security successfully launched the first world's trial of a new payment method that combines a smart payment card, biometrics and mid-range contactless communication. Two different biometric technologies will be tested during the six-month pilot: digital fingerprints in Angoulême and finger vein patterns in Villeneuve d'Ascq. Customers of partner banks will be invited to visit their bank branch to register their biometric data in their credit card so they can take advantage of the opportunity to pay for purchases using this unique method in participating stores. All transactions are authenticated using biometrics and contactless technology, so customers do not have to present their cards or enter a PIN.
   •   First products, by TazTag, based on our specifications.
   •   Exciting business cases and solutions based on our authentication standard: electronic signature, document signature, cash withdrawal, physical and logical access control based on a unique badge.

b.
- First deployments
- Availability of Privacy Rules : Natural Security is synonymous with convenience, speed and security for service providers while at the same guaranteeing both the protection and privacy of personal data for end users. The Privacy Rules concern the good practices associated with the use of Natural Technology regarding biometrics and express the commitment of the providers to guarantee privacy and security to end-users.
- First international Projects
- Availability of first frameworks by Biometrics Alliance Initiative

Emilio Martinez, CEO, Agnitio

a. Yes it was. We doubled our sales, launched new mobile product, reaffirmed our technology leadership in multiple third party evaluations

b. More growth, strategic partnerships in corporate authentication, new key large customers

Georg Schaffer, Export Director, ekey biometric systems GmbH

a. Despite challenging market conditions, ekey is pleased to report a new record in annual turnover and observes an unwaning interest in its fingerprint access control systems. Yet again, the year 2012 was marked by several highlights such as the launch of the extended stand-alone system ekey multi, the foundation of a subsidiary in Italy, as well as the progress made in the development of a biometric payment system as a technology partner of a large German multinational corporation.

b. A whole range of new fingerprint readers will be launched early 2013, which will strengthen ekey's position in the commercial market (i.e. not government) further. Backed by Apple's takeover of Authentec, ekey would expect fingerprint technology to become even more known and accepted in the consumer market.

John Cassise, CEO, Innometriks Inc

a. 2012 has been a good year for us and growth continues. Our primary success has come from programs based off of PIV, CAC and TWIC to a smaller degree. Some of our highlights are the award of the TSA desktop credential Validation Station. This is something that is going to sit in every TSA TWIC issuing location and allow the user to, by himself in a self server kiosk, validate every aspect of his card. Also the Pentagon project is where we truly integrated Iris and fingerprint together with a CAC, PIV, TWIC card for entry into the Pentagon. The Navy Gates program in where we were able to secure all the Navy sites entry points. Our JGS/Enabler in where our reader can talk directly to a government cloud database in real time for access rights and then also the Army AIE program to name a few.

b. Huge growth in both commercial and the government space as well as large development projects to provide new features to industry that have not been available before.

a. Was 2012 a good year for your company/organization/department and what were some of the highlights?

b. What will 2013 hold for your company/organization/department?

Martin H George, CEO, Smart Sensors Ltd

a. 2012 was a very exciting year for Smart Sensors on the technological front, and a year of good consolidation on the business front. We have been fortunate in building upon trustworthy partnerships, as we directed significant R&D effort towards two major areas of development that are leading to new products for Smart Sensors: firstly in Physical Access Control and secondly in iris biometrics for mobile smartphone devices. The emergence of high quality precision iris cameras at affordable prices has also helped the general market, and with this growing competition I see compelling opportunities for iris recognition in a much broader range of applications.

b. Security in a global "village", and in particular the Identity aspects of security, are the challenging themes emerging for 2013. How you prove who is getting access to what, and who is entitled to do what, will be key themes for biometrics enablers to address. The early part of the year will see our Physical Access Control strategy fully under way. We have a full programme of exhibition and partner events where we will be promoting these new offerings to the market, and instructing partners how to make the most of the new features available, so their end-user customers can benefit from enhanced security and convenience features. Mobile and consumer devices will also be a continuing hot theme. Expect to see further industry consolidation too as larger organisations see the strategic importance of owning and ensuring on-tap access to biometric technology and expertise.

Walter Hamilton, Senior Consultant, Identification Technology Partners

a. 2012 was a growth year for ID Technology Partners. We expanded our existing government client engagements and have seen new commercial client interest for our consulting services.

b. In 2013 we will see continued modest growth. If Congress overcomes its inability to pass a budget, some larger Federal programs will finally proceed.

Thomas Rex, EVP Sales & Marketing, Fingerprint Cards AB

a. Apple buying Authentec showed the world that biometry in mobile products is important (and at the same time removed a main competitor from the market).

Several design-wins for our company in the mobile phone space.

b. Hopefully more design-wins and launches of several mobile phones and tablets using our finger sensors.

Rami Helou, VP of Business Development, IriTech, Inc

a.   • Introduction of the IriShield Family, Secure On-board iris recognition low cost camera
• Introduction of Mobile/Tablet Iris Security Solution

a.   Was 2012 a good year for your company/organization/department and what were some of the highlights?

b.   What will 2013 hold for your company/organization/department?

- Successfully participating in UIDAI the world largest biometric project in India
- US-VISIT pilot program using IriTech's algorithms went live for the first time

b.   • Launch of next generation Iris recognition cameras
- Expand our US and worldwide footprint
- Achieve highest market shares in the verification market of India
- More success in the US-VISIT projects

Scott Mahnken, VP Marketing, BIO-key International Inc

a.   2012 proved to be a good year for BIO-key. The company continued to extend it's footprint supporting blood centers and gained tremendous traction supporting hospital EHR systems - primarily with our partners Allscripts and Epic. BIO-key was a featured during Glen Tullman, CEO, Allscripts keynote speech at the companies annual ACE event. We also acheived global recogniztion from IBM as BIO-key technology was featured exclusively in an IBM Redguide. The Redguide is the go-to source for IBM support techs and resellers. During the second half of the year the company launched a beta program with CA Technologies to provide biometric technology for the justice system in Bristish Columbia a beta program with a national scope.

b.   BIO-key believes the race to secure mobile communication has clearly launched. Apple's acquistion of AuthenTec is a strong indication that fingerprint biometric technology will be introduced to consumers. Consumer adoption helps close the gap of "universal adoption".
BIO-key also intends on pioneering the path for biometric patient ID solutions. Leverging our success enrolling and authenticating donors, the company believes we have the inroads to secure patient ID.
In the IAM space we anticipcate significant growth. The introduction of tablets - smartphones and new technologies creates the need for interoperability. The BYOD trend must be adderessed and the ideal solution is to secure the info using biometrics.   BIO-key software operates on any device any platform and with any reader therefore future proofing the customers environment.

Elke Oberg, Marketing Manager, Cognitec Systems

a.   In 2012, Cognitec Systems celebrated ten years of growth and market success. The company now employs 50 staff members across four continents. An experienced software, algorithm and product development team has enabled Cognitec's business success and leadership position within the face recognition market. Cognitec also introduced the highly advanced version of its video screening and analytics product FaceVACS-VideoScan, which now employs leading-edge anonymous face recognition technology to analyze the count, flow, demographics and behavior of people visible in video streams. We successfully showcased the ground-breaking technology at ASIS International in Philadelphia, the Biometrics Consortium Conference in Tampa, and at Biometrics in London. Cognitec's revenues in 2012 are on a record high.

b.   Along with continued algorithm improvement, Cognitec will continue to enhance the FaceVACS-VideoScan product, especially for anonymous applications in the retail, advertising and transportation sectors. The

company also plans to introduce an access/border control solution with non-intrusive, touch-free face recognition technology for fast verification processes. The algorithm development team is working on faster face recognition speed and improved performance for low-quality images and images with partially hidden faces.

Eric Talbot, CEO, S.I.C. Bioemtrics Inc

a. It was a very good year for the business development and strategic projects. We cover well now the iOS and Android platform with our multi-technologies readers and get a lot of traction for it. The table is set now to make large deployments.

b. A leader position in the biometrics and mutli-technologies mobile market space. There will be a lot of new advanced and efficient solutions released during the year.

Alastair Partington, Border & Identity Management Product Lead, Accenture

a. Strong interest in our Identity products and capabilities from the market, despite current economic challenges;
Update of our Identity product suite leading to the creation of the "Accenture Unique Identity Services Platform";
Creation of topical thought leadership / Points of View (such as those discussing Biometric Fraud Detection, and Biometrics & Privacy).

b. Can't tell you! But rest assured that we will all be working hard to drive continued success in the marketplace...

Philippe Niederhauser, VP Sales & Marketing, Touchless Biometric Systems

a. 2012 was a breakthrough for our 3D touchless products. Our customers appreciate the fantastic identification capacities (20,000 templates in identification mode), no failure to enrol, the extremely rapid identification time and the fact that they do not touch any sensor (very hygienic). For these reasons, we have won some important big scale projects all over the world. Thanks to our WebEdition Software, we have demonstrated a new way of biometric integration for multibranch companies. Our core values of Aesthetics, functionality and hospitality were the driver to win several prestigious prizes (RedDot Design Award, Intersec Award, Ifsec Award).

b. Continued growth!

Darrell Geusz, SVP and CoFounder, ipsiti, Inc.

a. 2012 demonstrated that ipsiti's focus on brokering trust via the multi-stakeholder capable claims-based (attribute-based) ID Trust Network(TM) solves real-world problems affordably and securely. In the real world, the attempt to remove 100% of risk from a transaction by determining identity absolutely is much too expensive

per transaction. Moreover, verifying identity claims is just one facet of a transaction and many other attributes and claim types, including privileges and other prerequisites, must be verified before the transaction can happen in most cases. The key is to establish the appropriate level of trust at an affordable cost for the given transaction.

The patent-pending ID Trust Network has accomplished this by layering the verification results of multiple claims against specific requirements for the transaction (type) and across many authoritative sources with little or no additional cost for infrastructure, including no need for expensive new infrastructures like PKI or hardware devices. 1) Having been successfully deployed in multiple applications, including mobile applications that support legacy phones (SMS/MMS) and smart phones, in Latin America and the United States and 2) ipsiti solution partners gaining investment from high profile global telcoms and security firms, demonstrates the ID Trust Network technology and business model is sound.

It's all about who you can trust (TM).

b.   In 2013 ipsiti and our partners will focus on increasing the enrollment population of existing implementations while also delivering a few more capabilities through upgraded or new applications.

Georg Hasse, Senior Consultant, secunet Security Networks AG

a.   Yes, 2012 has been a good year for *secunet* as we we got involved in a number of challenging projects in Europe. For the Federal Office for Information Security (BSI) in Germany we performed an evaluation of various biometrics vein recognition systems that provided us with some interesting insights. The Border Police in the Czech Republic started an eGate evaluation at Prague airport and we provided the entire eGate solution to our partner Vítkovice IT Solutions.

b.   We are expecting a number of PKI projects in Europe related to the use of 2nd generation eID documents at border crossing points where our eID PKI solution covering the ICAO as well as the EAC side will play an important role. In addition we see a growing demand for automated border control solutions (eGates) around the world.

Daniel Peled, VP Sales and Marketing, FST21 America

a.   It was a very good year, we have gotten market recognition and installations in larger and more known sites.

b.   Much larger market recognition and huge projects

Parm K. Soni, President & Director, Biocertification.com

a.   The main goal in 2012 was to introduce our training services world-wide instead of limiting to only US Govt. agencies and as well as to Federal contractors. We were able to provide our latest Biometrics Vendor Neutral Certification Training programs and as well as specialized short term program for IT Security and Identity

Management professionals world-wide. All our programs were approved for continuation credits (CPEs) by ISC2 and CompTIA.

About Biocertification Certification Training Programs:
Biocertification offers different types of vendor neutral certification programs, CBT, CBSP, CBSE, designed for technology practitioners who are seeking to enhance their technical skills as well as their professional prospects. Each program consists of instructional material prepared by experts and practitioners which is followed by a certification exam. On passing the exam participants will receive the certification. We have the infrastructure to administer the instructional material through virtual live seminars or on-site and customer site instructor led seminars.

The content of the programs is focused on commercially available technologies utilized extensively in industry which ensures that participants acquire skills necessary to be successful. We also integrate hands-on activities based on commercial off-the-shelf (COTS) products so that participants can combine theory and practical experience to strengthen their understanding of biometric technologies.

Earn (ISC)2 and CompTIA CPE's by participating in any of the programs.

b. In 2013, company goal is to offer specialized short term Biometrics related Seminars/Webinars world-wide to reach out dedicated focus markets and domains:
The following 1 day seminars/webinars are intended for technology professionals who want to learn about operational challenges and strategies for successful deployments of biometric technologies.
Biometric solutions for Enterprise Identity Management
Biometric technologies in addressing regulatory compliance
Biometric solutions for financial institutions
Biometric solutions for improving electronic healthcare data
Privacy issues with biometrics
Fingerprint, face and iris recognition – Theory and Applications
Multimodal Biometrics for large scale Identity Management systems
Auditing Biometric Systems
Biometrics & Mobile Devices

Brett Beranek, Solutions Marketing Manager, Nuance, Nuance Communications

a. The year 2012 was a significant one for Nuance as we experienced phenomenal growth in the voice biometrics market. We kicked off the year with 15 million enrolled voiceprints and are now at more than 26 million, allowing us to garner 80 percent of the commercial enterprise voice biometrics market. In this market, we had a number of global voice biometrics deployments across a variety of vertical markets, such as banking and finance with Barclays, telecommunications with T-Mobile in Europe, as well as a host of other organizations. As such, we also announced that our voice biometrics technology would be available through Nina, our new virtual assistant platform for mobile enterprise apps. In addition to making authentication capabilities available

a.   **Was 2012 a good year for your company/organization/department and what were some of the highlights?**
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outside the typical call center environment, we expect that Nina will drive even more consumers to see the value that voice biometrics presents from not only from a security perspective, but a convenience standpoint as well.

While we have gained significant market share with our existing solutions, our vision for voice biometrics extends beyond the traditional call center environment and into other markets such as mobile and healthcare. As a result, this past year, we announced Dragon ID, an embedded voice verification engine running on mobile devices to offer unparalleled security and personalization features. In addition to mobile phones and tablets, we envision Dragon ID being used in cars, televisions and other consumer electronics.

b.   We see 2013 as another year of continued growth for Nuance and our voice biometrics solutions. Call center authentication applications will continue to drive much of the adoption, as will products like Nina with integrated voice biometrics capabilities. Given our diversified portfolio of solutions, we also expect mobile and healthcare, as well as the government vertical to be key segments for our overall voice biometrics business.

Ultimately, this is an exciting time for the voice biometrics industry as an increasing number of consumers and businesses continue to realize the value that this technology brings for their everyday lives. We are excited to be in the driver's seat for much of this adoption.

Meredith Esham, Director of Marketing & Communications, Precise Biometrics

a.   For Precise Biometrics, 2012 was filled with the achievement of significant milestones along the company's ongoing growth trajectory. Chief among these was the global launch of Tactivo™, a smart casing for tablets and smartphones that includes an embedded fingerprint and smart card reader. Together with different types of apps, Tactivo™ enables government agencies and companies to maintain a high level of security when employees use mobile units to access sensitive information, send secure messages, and browse secure websites. After an extremely positive initial response that has dominated the majority of revenue for Precise Biometrics in 2012, the initial launch led to orders from large global automobile manufacturers to several pilot programs across various agencies of the U.S. Government, to numerous partnerships with industry pioneers and leaders resulting in additional integration capabilities and application developments throughout the year. A large driving force for Precise Biometrics' various partnerships and app developments this year centred around the rising Bring-Your-Own-Device (BYOD) trend in both the government and corporate/commercial markets alike as the workforce increasingly migrates to mobile devices and workstations, necessitating solutions for greater mobile security and authentication structures to the standard and capability of desktop devices. Gartner Group has estimated the market for smart devices like mobile phones and tablets to be more than one billion units in 2014, opening significant current and future growth potential for Precise Biometrics. Precise Biometrics' sales footprint continued to expand into the Middle East and Asia regions within the IAM segment. Additionally this year, Precise Biometrics also launched a new, customer-focused website in 2012 and appointed Etienne Veber to its executive team as Chief Commercial Officer to continue to lead the company's growth and expansion success into 2013.

> a.   Was 2012 a good year for your company/organization/department and what were some of the highlights?
>   b.   What will 2013 hold for your company/organization/department?

Specific events and initiatives that took place over 2012 include:

• Launch of idApps.com portal by Precise Biometrics to facilitate secure mobile identity application development - February.

• New Partnership with Inpeco TIH (Traceability In Healthcare) - Precise Biometrics' Match- on- Card™ was chosen to trace patient ID and blood testing transmissions eliminating human 'error' in the process - March.

• Tactivo was approved as a licensee of the prestigious Apple MFi (Made for iPod/iPhone/iPad program - April.

• The official global launch of Tactivo - June.

• Precise Biometrics' new customer-focused website launch - June.

• The first Tactivo order comes in from one of the world's largest auto manufacturers - June.

• New Chief Commercial Officer, Etienne Veber joins the Precise Biometrics team - July.

• The first Tactivo pilot programs kick-off across several agencies of the U.S. government - August.

• Tactivo for iPad is launched - September.

• The launch of Tactivo/PKard bundle is announced, through Precise Biometrics' partnership with Thursby Software, a specialist in Apple enterprise integration, management, and security- September.

• The launch of the new MyID CardChecker App is announced, through Precise Biometrics' partnership with UK-based Intercede, to provide new mobile identity verification solutions to government agencies and corporations - October.

• Partnership with Sogeti, who selected Tactivo to securely access apps with sensitive data, is announced - October.

• Precise Biometrics' partnership with HID Global is announced, bringing Tactivo products to the forefront of the new and growing Bring-Your-Own-Device (BYOD) trend and providing a solution to government customers for securing data on iOS devices - October.

• Precise Biometrics is selected as a Finalist in Government Security News' 2012 Homeland Security Awards program for recent innovation and success of Tactivo product - November.

• Precise Biometrics announces a partnership with Good Technology and the launch of the Good Vault™ App to work with Tactivo to extend strong two-factor authentication and Secure/Multipurpose Internet Mail Extensions (S/MIME) email signing and encryption to Good for Enterprise™ to enhance data protection - December.

b.   Precise Biometrics is poised for success with solutions for mobile authentication for a wide range of applications, industries, and organizations. We expect to see:

• Continued growth/expansion of Tactivo within the government and corporate/commercial markets, particularly in the areas of healthcare, financial services, and retail.

• New partnerships and vertical market penetration initiatives.

• Continued app development/innovation to meet increasing market demands as BYOD trends continue, etc.

Maxine Most, Principal, Acuity Market Intelligence

a.   2012 afforded Acuity the opportunity to work with organizations pushing the boundaries of biometrics both in terms of new and integrated modalities (including DNA), and the evolution of dynamic infrastructures that will form the basis of emerging transaction platforms for mobility and Cloud computing.

b. 2013 will likely be a transitional year for Acuity as the company enters its second decade of commitment to the biometrics marketplace.

Barry Hodge, CEO, SecurLinx

a. Continued growth in the commercial markets is a significant phase of the process of moving biometrics into the mainstream. This transition is being driven by the major investments in technology for national and civil ID management. These projects have done two positive things for the industry. First they have validated the technology in difficult environments and second they have driven the cost of hardware and software down due to the significant purchasing volumes. This allows companies to build commercial solutions with strong ROI propositions.

b. The key to our success in 2013 will be to build sustainable and repeatable revenue growth.

Jim Miller, Chairman and CEO, Imageware Systems, Inc.

a. 2012 was a good year for Imageware. We strengthened our balance sheet and retired all of our debt enabling us to move forward with aggressive product development and market entry.

We released version 2.0 of our flagship product, the patented Biometric Engine(R) ,an evolutionary leap in biometric data management including new features such as a patent pending capability for anonymous biometric identity management.

The Biometric Engine was selected by Fujitsu as the mulit-biometic data management solution for their NuVola Private Cloud platform to be sold worldwide

We introduced IWS CloudID(R), our next generation,cloud-ready suite of identity solutions.

We were selected by Los Angeles World Airports to provide biometric identity management for LAX and Ontario Airports as well as the government of Equador to provide a biometric identity system for all seaports.

We finalized development of our new mobile platform which will bring patented biometric security to the mobile world in tandem with patented wireless push messaging technology.

b. The exciting entry into the mobile market with multiple biometric products designed for retail, financial and healthcare industries.

The emergence of the patented Biometric Engine as the worlds premier biometric database manager.

a.   Was 2012 a good year for your company/organization/department and what were some of the highlights?
b.   What will 2013 hold for your company/organization/department?

Troy Potter, Vice president, identity solutions, Unisys

a.   We've had a good year positioning ourselves for a lot of the opportunities that are coming up in both the federal and commercial space. The past year presented many opportunities for us to develop innovative solutions to support numerous new applications of the biometric technologies for current and existing clients. We're seeing lots of activity around different use cases and applications and positioning ourselves for those opportunities is definitely where we have focused this year.

b.   Next year's outlook is very exciting as we anticipate many new opportunities to continue our proven track record for delivering innovative biometric solutions for both government and commercial clients. We think biometrics will continue moving into the mainstream and becoming a part of people's everyday lives over the next year and in the future. The Unisys Security Index research we do each year has continually shown more public acceptance for the use of biometrics as they see there's benefit to that. And coupled with increased privacy protection that may be in place, we expect to see more acceptance overall.

Amanad North, VP Marketing, AOptix

a.   A very good year. Completed first year of deployment of our InSight Duo iris/face recognition systems at all the border crossings in Qatar; deployed 100 InSight Duo systems at immigration checkpoints in Terminal 3 at Dubai. Continuing our succesful deployment with Gatwick in their common departure lounge. On the cusp of a range of significant iris-based deployments. In addition, we introduced our new platform: Smart Mobile Identity.

b.   Our Smart Mobile Identity platform, based on smartphones and offering multiple biometric modalities, will be going to market individually and in conjunction wtih our InSight Duo systems.

Marcel Boogaard, Director, HSB identification

a.   2012 was an excellent year for our company. We have been part of some very large scale programs in biometric voter registration and civil registration. With our focus on innovations we have extended our proven platform BioRegistrator with multimodal matching including improved accuracy.

b.   HSB identification will be involved in some new biometric programs in healthcare and immigration. We anticipate on the market growth in mobile space by introducing our tablet solutions to enrol and verify people with biometrics.

Mark Clifton, Vice President, Products and Services Division, SRI International Sarnoff

a.   Yes, 2012 was a good year for SRI Sarnoff's biometric business. We introduced several new offerings including a self-enrollment kiosk module and a handheld iris enrollment/recognition system. The IOM RapID-Cam II handheld system was named "Best in Biometrics, Identification and Credentialing" in the Security Industry Association (SIA) New Product Showcase (NPS) at ISC West 2012. SRI Sarnoff has partnered with a significant number of new resellers to expand our reach around the world. Additionally, we have fielded

products in new market applications such as prison identity management, lab data administration, and construction site time and attendance.

b.   SRI Sarnoff is expanding the Iris on the Move® product line to include a drive-up iris recognition system. We will continue to extend ease of use and push the limits of iris identification in unconstrained environments.

Ramki Uppuluri, Vice President, Creative Information Technology Incorporated

a.   It was a great year with us securing four new customers.
* We supported accounts in: A SaaS model for issuing permits,
* A border management project for visitors, migrant workers, and undocumented foreigners
* An eGate project at select airports/terminals
* Enrollment of citizens suspected of being criminals
* Issuance of credentials for a large military establishment.

b.   We look forward to a stronger 2013 and have projects in similar spaces, including national ID and biometric visas - where the identities of subjects are managed through a combination of biographic/biometric information and business rules and workflow.

Felix Racca, CEO, Authenware Corporation

a.   We sell behavioral biometrics based on keystroke dynamics.
We have sold to several large international banks and governments. We have detected an important need for biometrically secured internet transactions, cloud storage, messaging and e-mail. All in all the market is starting to look at biometrics as the reasonable alternative for strong authentication. Users are starting to see that it could be the solution to their dilemma between security and ease of use. Security for humans not in spite of them. Strong authentication made easy.

b.   We will be launching Cool ID. A free biometric login in the cloud that can be used to ensure that anybody logging in or trying to execute a sensitive on-line transaction is who he says he is. We expect exponential growth in the usage of this capability.

Neil Norman, Founder, Human Recognition Systems

a.   2012 delivered solid growth to Human Recognition Systems with the addition of a number of prestigious customers with our most notable delivery being to control and manage the security at the London 2012 Olympics. More-so, whilst the economic backdrop continues to present challenges to many of the traditional industry sectors we supply, including Government, it has provided HRS with an opportunity to bolster its Commercial offerings. In support of our continued growth in the field of biometrics, HRS has invested in the following core areas:

* Addition of 2 new Board Directors, both from FTSE250 experience.

a. **Was 2012 a good year for your company/organization/department and what were some of the highlights?**
b. **What will 2013 hold for your company/organization/department?**

- Launch of our new MTrust platform for pre-biometric Identity assurance
- Opening of our Dubai office servicing the MENA region

b.　Human Recognition Systems enters 2013 with a strengthened Executive team, a Product family re-engineered to support our SaaS strategy and a sales pipe 300% above the same point last year. The financial crisis and the resulting economic uncertainty have served to drive out efficiency in the biometrics market in terms of engineering solutions to hit the right price point and to solve business problems of efficiency and cost-savings. This commercial pressure has driven innovation for HRS and allowed us to focus the business in areas where we best add value such as Airports, Construction, large Corporates and other industries where the cost of failure through weakened identity verification hurts most.

William Wang, Managing Director, Koehlke International Ltd

a.　We are a new-comer in this industy but we have the right device for the market. We are continuing to focus on our unique market and to stay on top of the competition. We believe we will become a strong fingerprint embedded module supplier for the fingerprint industry.

b.　Personal Indentification for mobile devices will become a focus for our group in this fingerprint technology. We are continuing to developing our fingerprint device for personal indentification and to protect privacy. We expect the industry and the market will turn in that direction to grow for this coming year.

Anne Marie Dunphy, CFO, identiMetrics, Inc.

a.　2012 was an excellent year for identiMetrics. In fact, 2012 was our best year since the company was founded in 2002. We continued to penetrate our target market - K-12 education. We also have expanded into other areas within our market. The most important shift that occurred in 2012 is that our customers are now viewing our product - The identimetrics Finger Scanning ID System - as the student ID platform that provides critical accountability throughout the school district as opposed to a simple replacement for cards and PINs.

b.　We expect that 2013 will be a huge growth year for identiMetrics. We plan on releasing a new version of our flagship product designed with administrative features for large school districts. The enormous growth in the charter school movement in the US and their need for accountability tools will continue to be a key growth factor. 2012 was a banner year for identiMetrics. We expect that 2013 will be 2012 x 2!

Ken Nosker, President and CEO, Fulcrum Biometrics, LLC.

a.　2012 was a great year for Fulcrum Biometrics. Not only did we experience substantial growth in revenues, but we also won several innovation awards.

In August, Fulcrum was awarded a Small Business Innovation Research (SBIR) award from the National Institute of Standards and Technology (NIST). The research grant will fund the development of a web-based wireless

communication device that provides fingerprint scanning capability. This device will communicate with a variety of mobile devices.

In September, Fulcrum was also acknowledged by Inc. magazine as one of the 5000 fastest growing privately-owned companies in America. With a growth rate of 112% over the 3-year reporting period and in an industry that is still very much in its infancy, Fulcrum is well-positioned for continued higher levels of growth in the ensuing years.

In November, Fulcrum won an award for having the best biometric identification solution in the Government Security News (GSN) 4th Annual Homeland Security Competition. The product entered in this competition was the FbF mobileOne fingerprint scanner for iPod, iPhone and iPad and Fulcrum's RISCmobile iOS application, which will enable police officers to identify subjects in the field via fingerprint scan. Fingers are scanned an then matched against the FBI Repository for Individuals of Special Concern (RISC) fingerprint database.

b.   2013 will be an important year for Fulcrum's own brand of hardware and software. This hardware and software is part of the Fulcrum Biometric Framework (FbF), which includes:

·   FbF bioServer - multi-biometric matching engine
·   FbF mobileOne – fingerprint scanner for iPod, iPhone and iPad
·   FbF LiveScan for SWFT – tenprint scanning system used by DOD contractors to submit fingerprints electronically through the Secure Web Fingerprint Transmission (SWFT) program for security clearance purposes.
·   FbF Demographica – web-based enrollment and identification solution
·   FbF RISCmobile – mobile ID iOS application for law enforcement field personnel
·   FbF Device Listener – client-side integration software
·   FbF Silverlight Client Library – web application developer tool
·   FbF iOS Library – iOS application developer tool

We will formally launch FbF Live Scan, RISCmobile and FbF Demographica in Q1 of 2013, which we expect will drive significant growth for Fulcrum in 2013.

Jeffrey Brown, VP of Sales & Marketing, SecuGen Corporation

a.   Excellent year. Most importantly we were able to obtain STQC certification for the Indian UID project. Also, we have been able to strengthen our reseller channel in Asia and Africa.

b.   We have some interesting hardware developments going on that will be public in the first half of the year.

Martin Lum, Director of Business Development, realtime North America, Inc.

a.   Acceleration of business in underdeveloped markets such as South Africa.
Development of prototype solutions for iOS devices and self-service kiosks.

b. Full deployment of mobility solutions for SAP incorporating biometric security starting with iOS devices followed by others.
Expansion of kiosk solution to encompass financial ATM solutions for banking.

Sherrie Adcock, CEO, Voice Security Systems Inc.

a. Voice Security Systems Inc. development of Speaker Verification into product for access and control for auto/etc. homes/etc… buildings of all kinds in an embedded space.

b. Voice Security Systems Inc. high growth in the access control market with vehicles and homes and buildings of all kinds using speaker verification.

John Trader, PR and Marketing Manager, M2SYS Technology

a. 2012 continued to be a strategic growth year for M2SYS and the rest of the biometrics industry. We successfully launched our M2SYS Healthcare Solutions suite of products and are gaining sizable market share for these enterprise applications. We have also expanded our global footprint (particularly in the Middle East and Asia) through both direct deployments and strategic partnerships with key international resellers and integrators.

We have been successful in researching and developing biometric modalities for our own portfolio that we plan to release in 2013 which will include a combination of traditional technologies and new applications on the market.

We look back at 2012 as a continued success for M2SYS as thought leaders in the industry through the articles we have written for many different industry publications and speaking appearances throughout the world on different topics. We also continue to lead the industry using social media platforms to help educate and inform our peers and the rest of the world about biometrics and help to spread education about the technology in an accurate and transparent way.

b. We will continue to seek expansion of our global footprint by pursuing international opportunities that help to spread the value and convenience of biometric technology. We look to continue our market share expansion in 2013 for patient identification in healthcare as well as workforce management for employee time and attendance.

2013 will also be an important year for M2SYS as we look to capitalize on the rapid technological advances and wider acceptance of biometrics across the globe. Using human factor engineering techniques, M2SYS will continue to deliver efficient, affordable biometric solutions that help to strengthen security and increase convenience for governments and businesses.

a. Was 2012 a good year for your company/organization/department and what were some of the highlights?

b. What will 2013 hold for your company/organization/department?

Irmantas Naujikas, Director, Business Development, Neurotechnology

a. It was successful year for our company. We continuously worked on improving our technologies and algorithm to make them work faster and more accurately, while making our products easier to use and integrate. As a result, we have released new versions of all our products as well as new products (such as NPointer - gestural computer control and navigation). Worth mentioning new features in our biometric product line are: predefined facial feature points detection, gender classification from face images and voice activity detection. We started the year 2012 with the release of software development kits for Android platforms. Currently we support all major biometric modalities under this platform - fingerprint, face, iris and speaker (voice) recognition. Our efforts working on iris recognition technology was acknowledged by NIST. NIST IREX III evaluation has judged the VeriEye 2.5 algorithm as one of the fastest and most accurate iris recognition algorithms among the participants. The VeriEye placed in the top four for iris recognition accuracy and the top two for speed among algorithms from 11 participating companies and universities.

We have announced several case studies showing our technology usage and ensuring unique id: Mexico Tax Agency uses MegaMatcher Accelerator solution. The Multi-Biometric Enrollment System (MBES) for high-volume iris, face, and fingerprint identification is based on MegaMatcher Accelerator units and MegaMatcher technology. More than 3.5 million taxpayers have been enrolled in the system with a goal of 5 million to be enrolled by 2014.

Indian states criminal AFIS is based on VeriFinger and MegaMatcher technologies. The Criminal AFPIS Enterprise Solution by SecureMantra Technologies has been used by police departments in seven Indian states and the National Institute of Criminology and Forensic Science of India. More than a million criminal records with ten fingerprints are enrolled to the databases.

At the end of the year we have announced launch of SkyBiometry - our spin-off to deliver SaaS biometric identification and feature analysis. SkyBiometry provides a cloud platform for fast, accurate biometric technology, introduces face biometrics service with face detection, feature analysis and identification.

b. We see continued increase of large scale multi-biometric demand around the globe. For these projects fast and accurate matching, and support of multi-biometrics is essential to ensure accurate and fast response, ensuring unique id. Taking into account this demand, we are planning to release a new version of MegaMatcher Accelerator in January. Biometric usage in mobile applications and cloud computing will continue to increase in 2013. However, it should be ensured easy to integrate and use of biometric technologies. In our products we strive to achieve these goals.

Joerg Lenz, Manager PR, SOFTPRO

a. The world's leading analyst firm Gartner named Softpro a "Cool Vendor 2012" for its mobile E-Signing solutions. From a historical point of view this year might be the one tagged as the one when E-Signing truly entered the mobile world. Ten years after the launch of the Microsoft Windows XP Tablet Edition signing documents on tablets entered the mainstream. The "notebook and signature pad" combo is partially replaced

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now with tablets running on iOS, Android or Windows. Major drivers of this development are sales force teams in insurance and telecommunications.

Back in 2008 Trustworthy E-Signing was hitting the POS at High Street with the launch of SignPads. Meanwhile, more than 200,000 SignPads are in production worldwide. In 2012 the fast enterprise adoption of tablets was a strong tail wind for Softpro's business. Apple's iPad was the initial spark of this mega trend.

Back in January 2007 Apple CEO Steve Jobs sought to make the finger on capacitive touch screens the signature digital interface of our era. Despite Jobs' banishment, one of the most popular accessories for iOS devices are styluses. However styluses designed for capacitive displays lack a certain amount when it comes to working precisely on screen.

When looking at handwritten signatures and the way digital ink signatures are created on mobile devices and the iPad it was time for some serious competition to the iPad. Since 2012 the Samsung Galaxy Note 10.1 tablet has emerged as the major iPad competitor among professional users of Android devices. Samsung's JK Shin, Head of Samsung Mobile Communications, announced the pen Samsung calls an S Pen as a "magical weapon" for natural and precise input in their "Unpacked" event in Berlin on August 29, 2012. The magic for signature capturing is based on 133 data signals per second and the ability to distinguish 1,024 levels of pressure. They make it possible to render beautiful signatures.

Capturing of different pressure levels increases the quality of data captured and enables usage of the signatures for biometric signature verification. The more accurate and diverse the signals are that are captured from a device throughout the signing procedure, the more unique the set of signature data becomes for a particular signer. The additional data makes both an automated verification possible, as well as providing more data for handwriting experts for a manual verification. In short, it significantly increases the security and trustworthiness of the signature.

SignDoc Mobile is very popular among professional iPad and Galaxy Note users. The app is available for free in the Apple App Store, Google Play and Samsung Apps.
- Samsung sold 10 Mio. devices of the first generation of its Samsung Galaxy Note 5.3 within ten months. All of these smart phones are potential signature capturing devices - including the ability to capture pressure levels.
- SignDoc Mobile won the Popular Choice Award in a contest held by Samsung for Android tablet apps using S Pen Technology.

At the end of the year Softpro is serving customers in more than 50 countries on five continents. 2012 saw production starts of Softpro technology in Colombia, Ecuador, and Finland as well as first sales to customers in Libya, Nigeria and Paraguay. 12 of the 25 leading banks around the world are now using Softpro Signature Solutions. Beyond banking large-scale enterprises and organizations insurance, telecommunication, the public sector and retail primarily fuel Softpro's growth.

Softpro also expanded it partner base with system integrators as well as hardware providers as almost every country and industry plays according to own rules in the field of E-Signing. In 2012 several complex electronic document workflow solutions came to the market where Softpro Signature solutions play a vital part, for example in Brazil, France and Italy. The partnership profiles on the Softpro page contain details about such integrations.

b.   Many of Softpro's projects started small in late 2011, grew significantly in 2012 and are expected to become really big in 2013. Here's one example: In 2011 AIA was the first insurer globally to introduce a standalone point-of-sales system on iPad in Taiwan. By the end of 2012 iPOS it will be rolled out in Singapore, Malaysia and Indonesia. The target for YE 2013 is to have 50,000 agents in ten countries using the system. It enables comprehensive financial advisory process with secured electronic submission of life insurance policies. One of the most important features of this project is E-Signing with components from Softpro. Obtaining regulatory clearance as E-Signing pioneer in the insurance industry is one of the hurdles for AIA to get across in each country.

The launch of Windows 8 in October 2012 came with a series of new tablets for professional users which are equipped with pen and stylus technology of Softpro partner Wacom based on Electromagnetic Resonance. Similar technology is built-in Wacom-branded tablets and other tablets and smart phones running on Windows or Android. The impact of tablets with big potential among business users like the Microsoft Surface Pro Tablet and the Lenovo ThinkPad Tablet 2 will be seen in 2013.

One of the first milestones in 2013 will be the launch of SignDoc Mobile for Windows 8. Softpro will further enhance its hardware agnostic E-Signing platform with a unique set of building blocks. The aim is to provide the broadest options to implement signature capturing devices whether they run on iOS, Android or Windows. Full featured applications and easy-to-use development tools running on desktop and server. The core competence of Softpro continues to be "everything about signatures". Other biometrics (like finger print, face, voice, etc.) will be integrated in this E-Signing platform on a project basis.

The transfer of know-how to prospects, partners, customers and people in the media will be intensified once more. Softpro is posting almost daily its market reflections in its Social Media Channels and exhibits at major IT-events. The own major event will be the "Partner Academy", held in Prague in April 2013. Last, but not least: Softpro will be celebrating 30 years in business in 2013. Stay tuned.

Tara Burnside, Marketing Manager, ievo Ltd

a.   2012 has been a fantastic year for ievo. The greatest venture has been the integration of our biometric readers into gyms across the UK. Since our install in to the Life Style Fitness chain we have been bombarded with calls to have our readers installed. This is due to the advantage that our biometric system gives, in that the gyms can provide 24hr access to members.

We have also had other exciting business installs including having our readers installed on the island of Hawaii. We have worked closely with Paxton Security to develop a CircleLock system which has proved a major success in high profile offices.

We found that the global recession had little affect on our sales as we experienced significant growth this year. The main area of business affected by this issue was the airport industry, however we do expect this area to grow within the next few years.

b. We expect to see continual growth within the leisure industry as word spreads regarding our products. Unfortunately due to the misinformation the education sector has received regarding biometrics it is taking time to amend this. Currently there is widespread worry about the privacy of children's prints being held. The misunderstandings of biometrics in this situation are being put right and we are seeing a lot of interest in schools from our system. We see this as a key sector for our 2013 growth. We are also looking into donating an ievo system to a local cause to help support the local economy through this tough time.

Bud Yanak, Director Product Management & Partner Development, Fujitsu

a. Yes, Fujitsu Frontech North America continued to make significant inroads ito commerical applications in the educaitonand healthcare markets.

b. We anticipate to continue to improve our market position in a variety of commerical applications.

Alexey Khitrov, SpeechPro President, Speech Technology Center/SpeechPro

a. 2012 was a great year for STC / Speechpro. We managed to increase our revenue by 50% and significantly improved our profitability. We released a number of important new products that will strengthen our position going forward. In 2012 the company finished a few large scale ground breaking projects that further cemented our position as a global leader in the voice biometric market. Few important developments include:

- The first nation-wide bimodal biometric system with voice ID deployed for Ecuadorian law enforcement. The system is based on two biometric technologies – voice identification and facial recognition. As far as we know this is a first deployment of bimodal system with voice at such scale.
- Commercial market advancements: in 2012 we've seen several voice verification projects implemented in financial industry all across the world (Former Soviet Union, Europe, US) . Voice authentication projects in contact centers are rapidly growing in numbers.
- Realise of the new state-of-the-art voice biometric platform : In 2012 the Company released the newest cross-platform voice authentication and management solution based on unique proprietary algorithms. Our approach to the marketplace is to provide customer with unparalleled breadth of capabilities. Among other things we can offer multi channel recording, text-dependent and text independent voice verification, watch-list monitoring, multi-modal biometrics (face + voice), live-ness detection, mobile and cloud deliverables, emotional state detection and other features. As far as we know no other company in the market place can provide such breadth of capabilities.

b. We have big plans for 2013 as the Company is growing fast in the commercial market continuously developing new products and solutions. Having said that we also expect significant growth in law enforcement segments as voice biometrics and multi-modal systems with voice are gaining strong traction in a number of regional markets. One of the focuses will be on cloud-based services and mobile voice-based authentication. We see a lot of potential in combining voice ID with speech analytics and other biometric modalities.

Claes Bohm, Sales & Marketing Director, Speed Identity AB

a. 2012 was a good year. The company has got a lot of new and updated contracts.

Stephen Thies, CEO, Integrated Biometrics, LLC

a. Good Year. We certified 3 new products for mobile markets with the FBI.

b. Adoption of our technology; Good things happening at our company!