


Identity and Access Management Delivering Greater Security, Efficiency & Flexibility at Lower Cost



May 2024

www.BIO-key.com



Phone-less. Token-less. Passwordless.
www.BIO-key.com



Safe Harbor Statement

All statements contained in this press release other than statements of historical facts are "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 (the "Act"). The words "estimate," "project," "intends," "expects," "anticipates," "believes" and similar expressions are intended to identify forward-looking statements. Such forward-looking statements are made based on management's beliefs, as well as assumptions made by, and information currently available to, management pursuant to the "safe-harbor" provisions of the Act. These statements are not guarantees of future performance or events and are subject to risks and uncertainties that may cause actual results to differ materially from those included within or implied by such forward-looking statements. These risks and uncertainties include, without limitation, our history of losses and limited revenue; our ability to raise additional capital; our ability to continue as a going concern; our ability to protect our intellectual property; changes in business conditions; changes in our sales strategy and product development plans; changes in the marketplace; continued services of our executive management team; security breaches; competition in the biometric technology industry; market acceptance of biometric products generally and our products under development; our ability to execute and deliver on contracts in Africa; our ability to expand into Asia, Africa and other foreign markets; our ability to integrate the operations and personnel of Swivel Secure into our business; fluctuations in foreign currency exchange rates; delays in the development of products and statements of assumption underlying any of the foregoing as well as other factors set forth under the caption "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022 and other filings with the Securities and Exchange Commission. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date made. Except as required by law, we undertake no obligation to disclose any revision to these forward-looking statements whether as a result of new information, future events, or otherwise.

BKYI at-a-Glance...



NASDAQ	BKYI
Recent Price	\$1.70
52-Week Range	\$1.48 - \$15.30
Shares/Equivalents Out.	1.94m
Market Cap	\$ 3.3m
2023 Revenue	\$ 7.8m
Annual Recurring Revenue (ARR)	\$ 6.0m
Price-to-Sales *	0.4x
Insider Ownership	130k ~6.7%

* Peers OKTA, CYBR & CHKP trade at a 7x to 13x sales.

Investment Considerations

Recurring Revenue Growth & Expanding Footprint

- **Over 35M global users currently authenticate with BIO-key**
- **2023 revenue rose 10.5% to \$7.8M**
- **2023 operating loss trimmed 47% to (\$5.2M) (ex. \$3.6M hardware reserve) vs. (\$9.9M)**
- **ARR grew to \$6M in 2023; up from \$3M in 2020**
- **Blended gross margin over 70%**

Compelling Valuation

- **BKYI trades at 0.4x Price/2023 Revenue vs. median 7x for identity comps (OKTA, CYBR, CHKP)**

Expanding Market Opportunity for MFA/Cybersecurity

- Failure of existing methods – breaches, ransomware, reliance on phones
- Two Information security crises of 2023 involved critical infrastructure providers & gov't agencies (Iran-linked hacks of U.S. Water/wastewater providers; State Dept. emails hacked by China)
- Enterprises pressed from all sides to implement enhanced MFA

Cybersecurity/MFA Market Opportunity

- **Cyber-Insurance mandates**
- **Federal Trade Commission (FTC Section 5 expansion)**
- **Cybersecurity & Infrastructure Security Agency (CISA) Dec 2023 guidance to manufacturers** to eliminate use of default passwords (which are easy to exploit)
- **AWS mandates MFA** for most privileged users by mid 2024
- Dec. 2023 **IT-ISAC** (Info Sharing & Analysis Ctr.) whitepaper called on SaaS and & cloud companies to embrace secure by default Principles (elevate security);
- **SEC cybersecurity disclosure rules effective Dec. 2023.**

Press Release

SEC Adopts Rules on Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure by Public Companies

FOR IMMEDIATE RELEASE
2023-139

Washington D.C., July 26, 2023 — The Securities and Exchange Commission today adopted rules requiring registrants to disclose material cybersecurity incidents they experience and to disclose on an annual basis material information regarding their cybersecurity risk management, strategy, and governance. The Commission also adopted rules requiring foreign private issuers to make comparable disclosures.

The new rules also add Regulation S-K Item 106, which will require registrants to describe their processes, if any, for assessing, identifying, and managing material risks from cybersecurity threats, as well as the material effects or reasonably likely material effects of risks from cybersecurity threats and previous cybersecurity incidents. Item 106 will also require registrants to describe the board of directors' oversight of risks from cybersecurity threats and management's role and expertise in assessing and managing material risks from cybersecurity threats. These disclosures will be required in a registrant's annual report on Form 10-K.

The final rules will become effective 30 days following publication of the adopting release in the Federal Register. The Form 10-K and Form 20-F disclosures will be due beginning with annual reports for fiscal years ending on or after December 15, 2023. The Form 8-K and Form 6-K disclosures will be due beginning the later of 90 days after the date of publication in the Federal Register or December 18, 2023. Smaller reporting companies will have an additional 180 days before they must begin providing the Form 8-K disclosure. With respect to compliance with the

BIO-key Use Cases

Reducing Cyber Risk

Prevent cyberattacks, including ransomware.

300% increase in cybercrimes in the USA since the start of the pandemic.

Improving Usability

Users have too many passwords to remember

IT support flooded with password reset calls.

Each password reset call costs \$70.

Reducing Costs

Enterprises have too many IAM solutions to manage with limited IT resources/cyber-expertise.

Top brands are too expensive for SMEs.

BIO-key streamlines solutions, reducing vendor & IT team costs.

Compliance & Insurance

HIPAA, PCI, NYDFS & other compliance requires added security & privacy controls.

Cyber insurance requires enhanced controls, especially MFA.

BIO-key enables regulatory & cyber insurance compliance.

Kathy Pinto | VP of IT
Orange Bank & Trust

"BIO-key provides both biometric authentication and a proven suite of IAM solutions that provide **greater** security, flexibility, and value over approaches offered by other vendors."



Mainstream MFA Offers Only “Device Assisted Authentication”

Phone Apps

OR

User tokens



Significant Recuring Token Deployment Costs

20K users = \$2.8M every three years

The calculator shows a term of 3 years; recommended for greatest value to the business.

The unit price of a YubiKey has been calculated based on a blended price of our most popular keys in the Advanced Tier with the YubiEnterprise Subscription Plus plan.

Key replacement covers computer upgrades, loss of security keys, and employee turnover.

All calculations include recommended best practice of 2 keys per user: a primary and a backup.

Estimate your potential savings
Opt for greater flexibility with subscription, compared to a one-time perpetual purchase

Number of users: 20000
Percent key replacement / yr: 20% is typical

Calculate savings [How we calculate >](#)

3 yr total savings: \$360,000
32%ⁱ off each key
11%ⁱ savings (3 yrs)
35%ⁱ more keys

Cost user/month:	Perpetual	Subscription	Subscription benefits
\$3.94	52,000 keys \$60 per key \$75,000 services	70,000 keys \$41 per key \$0 services	18,000 extra keys save \$19 per key \$75,000 services credit
	\$3,195,000 <small>(52,000 keys x \$60)</small>	\$2,835,000 <small>(20,000 users x \$3.94/month for 3 years)</small>	\$360,000 saved <small>(3 year subscription)</small>

Subscription
70,000 keys
\$41 per key
\$0 services

\$2,835,000
(20,000 users x \$3.94/month for 3 years)

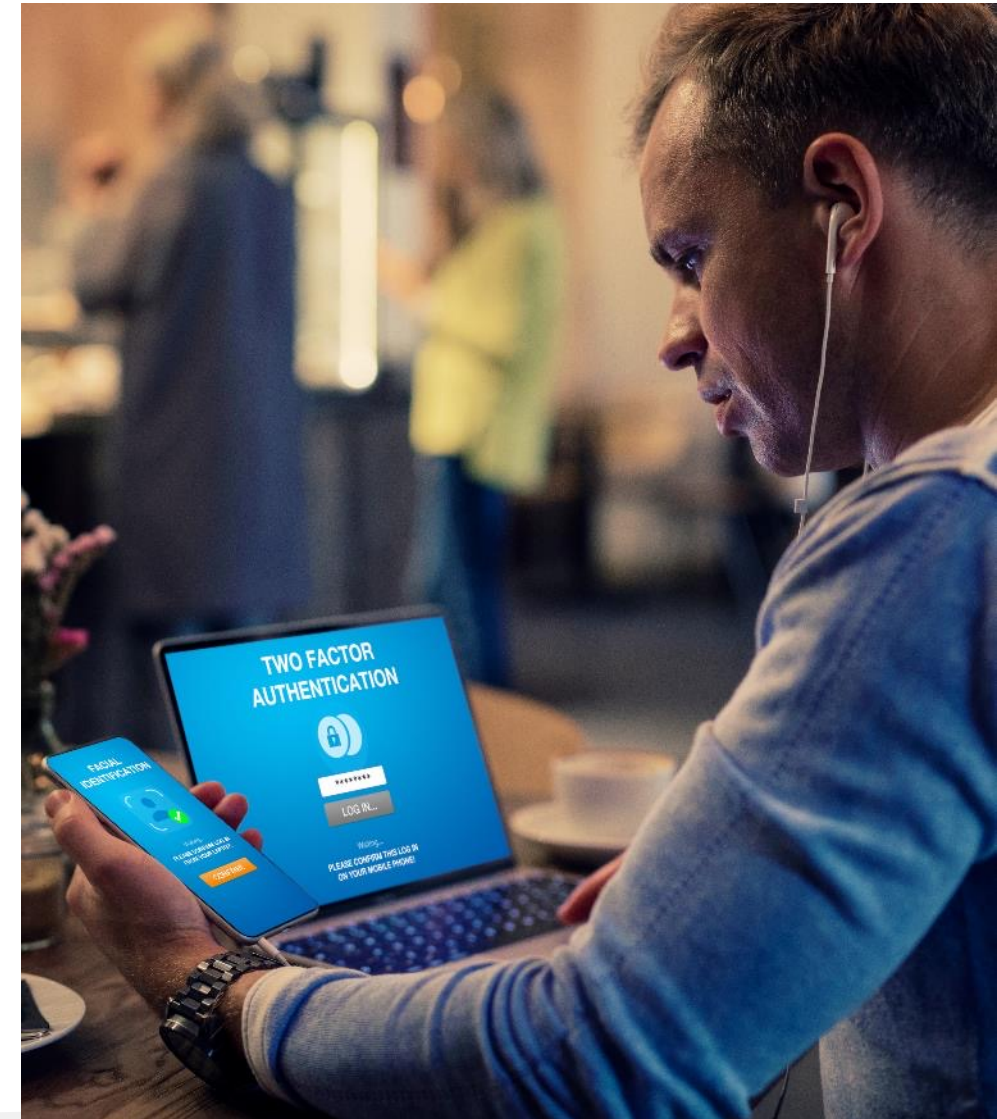
The Future is:



Phone-less. Token-less. Passwordless.

Phone Apps Work for Desk Worker Employees, but...

- Employees often must leave phones in a locker
 - Clean Desktop (Call Center)
 - Data Security/Privacy
 - No Distractions
 - Safety (Manufacturing, Shop Floor, Healthcare)
- Several states & EU require compensation for work-related personal phone use
 - [California Labor Code § 2802\(a\)](#): employer shall indemnify employee for all necessary expenditures/losses incurred in direct consequence of discharge of duties..."
 - Unpaid compensation can lead to **costly class action claims**.



BIO-key's Unique Differentiator: Phoneless and Tokenless Biometric Authentication

Identity Bound Biometrics creates a centrally managed unique biometric identity that can be used to verify users anywhere, based on **who they are**, not what they have to carry or know and could share.

- Centrally secured, privacy law compliant biometrics
- Patented, high security data and integrity protection
- Captured using USB fingerprint scanners or via MobileAuth app.



Cannot be phished, handed over, shared, forgotten, or stolen



Perfect for situations where phones and hardware tokens will not work, are costly, cumbersome, unreliable, or unsafe single points of failure



Enterprise-controlled enrollment



Affordable and easy to implement

Passkey: YOU

Eliminating Phones/Hardware Tokens for Restricted Environments

Huge savings versus per-user tokens

Uses BIO-key Biometric authentication as a drop-in replacement for FIDO2 hardware tokens when signing into shared workstations

- Manufacturing
- Repair Centers
- Call centers
- Retail
- Healthcare
- Sensitive Compartmented Information Facilities (SCIFs)

- Compatible **out of the box** with existing identity infrastructure, e.g. Microsoft Entra, Okta, Ping and others
- FIDO-Certified
- Simplified and more secure account recovery when other authenticators are lost



BIO-key Value Proposition

- Complete MFA offering with **Phoneless & Tokenless** authentication
 - Leveraging patented biometric capabilities **widely deployed/proven** in the highest-security settings in the world.
- Growing Base of Major Enterprise Deployments
 - Global Defense Ministries, Banks, Hospitals/Healthcare, Retail, Call Centers
 - Ideal for manufacturing, construction, healthcare
 - In Proof of Concept with industry leaders in:
 - Residential construction
 - Retail Grocery
 - Call centers
 - Automotive OEM

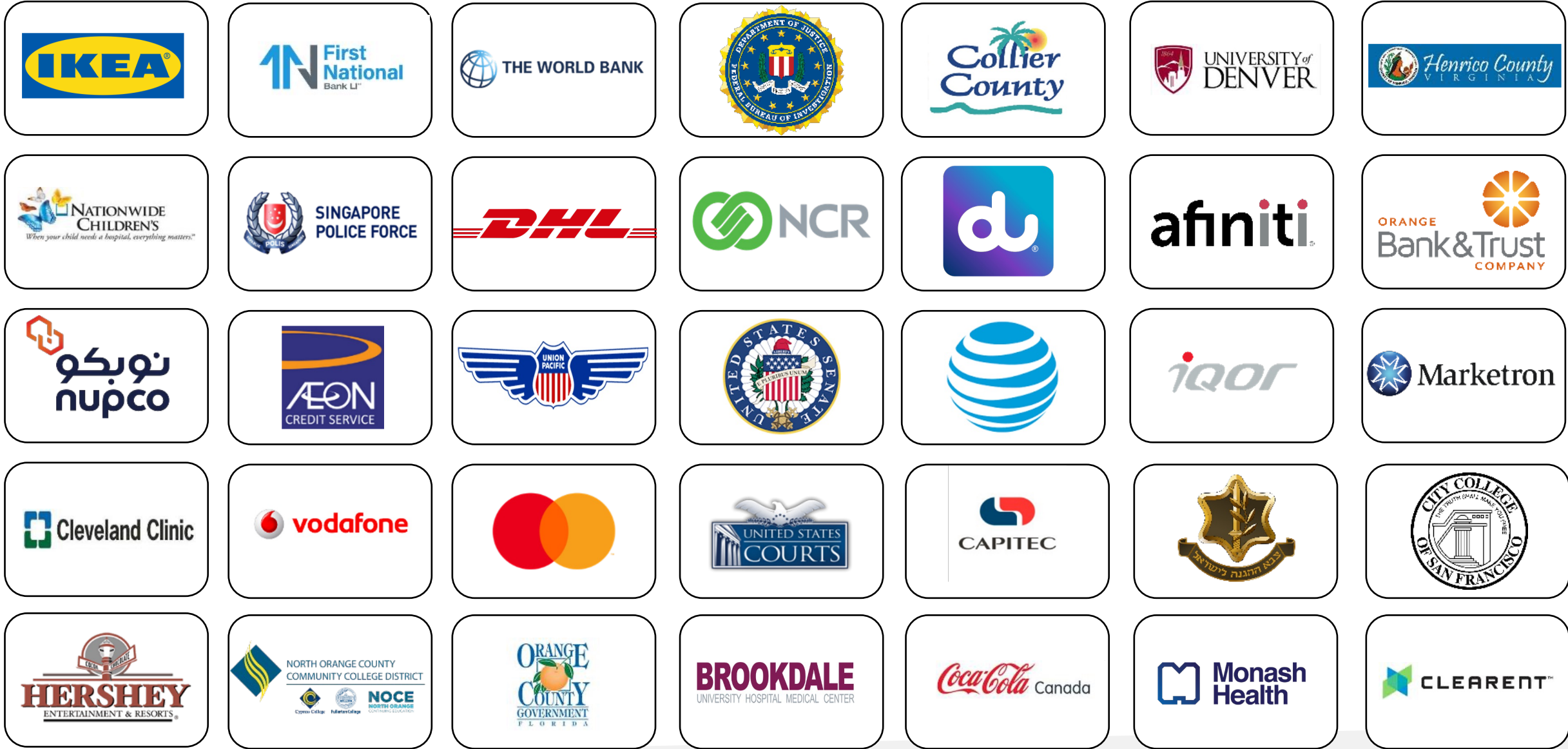
Gartner Underscores Value of BIO-key's Capabilities

- “User authentication is fundamental to identity-first security and an imperative for security and risk management leaders responsible for identity and access management (IAM leaders). “
- “Unlike the two other types of authentication credentials (knowledge and possession), **biometric traits are inherent to a person, thus providing a uniquely human basis** for authentication.”
- “Biometric authentication potentially **frees the person from having to remember a password or carry a token, enhancing user experience (UX)**. Biometric traits also provide a robust basis for binding other authentication credentials to a living person via identity verification (IDV).”
- Already seeing referred leads



Source: [Gartner Innovation Insight for Biometric Authentication](#), 20 December 2023

Customers Relying on BIO-key



BIO-key Go to Market Strategy

Paths to Market

- Expanding Channel Alliance Partner Program with Global Reach
 - Deals from \$25k to \$500k+
- Direct Sales Targeted at Major Customers
 - Deals from \$300k to \$5M+

Use Cases

- Users of **Competing** MFA Solutions:
 - MFA with add-ins such as “FIDO Passkey” to eliminate the need for tokens and phones
 - **Eliminate Costs of** phone use reimbursement & tokens
 - **Extend Security** to heretofore exempted users
- **New Prospects**
 - Value priced MFA solution with addition of phoneless, token-less authentication options
 - **Lower Subscription Cost plus** eliminate phone reimbursement & token costs.

Expanding IP Portfolio

18 U.S. Patents including three recently issued

ENABLING NEXT-GENERATION CONTINUOUS BIOMETRIC USER AUTHENTICATION (Patent 10,984,085)

- *Patent protects method of enabling next-generation continuous and passive biometric user experiences* with its process for enrollment and continuous authentication.
- BIO-key's intelligent data pre-processing and transformation algorithms sort through varying samples of biometric data, making reliable and accurate connections between samples of different sizes, resolution qualities and points of view – supporting continuous authentication of a user's identity during ongoing activity. Methods particularly valuable for mobile devices with in-screen fingerprint sensors, cameras and microphones providing a continuous stream of partial biometric samples over time.

UTILIZATION of BIOMETRIC DATA (Patent 10,002,244)

- *Enables BIO-key to capitalize on the transition of mobile devices to in-screen, “under glass” biometric sensors* – though patent is broad enough to apply to sensors anywhere on a device.
- Patent leverages continuous stream of partial fingerprint, facial or other biometric captures that occur as user interacts with a device. Technique enables a continuous, passive authentication for greater security with little workflow impact.

ADAPTIVE SHORT LISTS & ACCELERATION of BIOMETRIC DATABASE SEARCH (Patent 10,025,831)

- *Indexing method for quickly & iteratively searching a large-scale database of biometric records.*
- Large-scale Automated Fingerprint ID Systems like that used by the FBI were once the exclusive province of big-budget agencies and enterprises. BIO-key's method uses 1 or more scans of a database with varying parameters, narrowing the field of candidates with each pass. Provides unique advantage in delivering cost-effective, 1-to-many ID solutions that avoid costly, resource-intensive brute force scans.

BIO-key is well positioned for inevitable growth in use of Identity Bound Biometrics

Growth Strategies

Launch New Products, Enhance Solutions

- Introduce new biometric modalities
- Add functionality upgrades to WEB-key
- Add Provisioning and Governance modules to PortalGuard platform

Expand Global Reach

- Introduce Integrated Platform to International Partners & End Users
- Targeted Grow in International Partner Base to expand reach in select regions and verticals

Cross-Selling / Up-Selling

- Significant opportunity offer biometric solutions to PortalGuard & Swivel Secure customers
- Deploy PortalGuard IDaaS to legacy BIO-key/Swivel Secure customers



Grow Business Development Effort

- Find technology partners that complement integrated platform and expand opportunity base
- Offer biometric solutions to existing IAM vendors to broaden opportunities and enhance biometric brand
- Partner with other biometric modalities for integrations

Expand Sales and Partner Network

- Grow Channel Alliance Program (CAP) with new IAM partners (Resellers, MSP's, Integrators)
- Expand Master Agent program for SaaS sales
- Invest in Marketing Programs to drive broader awareness of Integrated Platform

BIO-key Leadership

- **Michael W. DePasquale – Chairman & CEO** 25+ years in executive management, sales and marketing.
- **Cecilia Welch – CFO** 20+ years of tech operational and financial management experience.
- **Mark Cochran – President PortalGuard** 20+ years of experience in Security and IAM markets.
- **Jim Sullivan – CLO, SVP Strategy** 25+ years enterprise sales in identity and access management, including with key customers AT&T, Capitec Bank, World Bank, NCR & Omnicell.
- **Alex Rocha – CEO of Swivel Secure Europe** Former sole stockholder of SSE with 20+ years sales & management experience in EMEA mkt.
- **Kelvin Wong – MD HK Subsidiary**, co-founder of World-Wide Touch Technology; 15+ years in manufacturing and marketing management, including biometrics & payments.
- **Akintunde Carlton JeJe – MD Africa** respected, experienced executive with extensive knowledge & relationships in Nigerian & African markets.
- **Mira LaCous – CTO** 30+ years solution development and product management.
- **Galen Rodgers – VP Sales & Channel** 20+ years in channel program development, marketing, value selling, management, cybersecurity, process automation, coaching & team building – most recently with Ping Identity Corporation.

Thank You!

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