WHITE PAPER

Mobile Identity

Catalyzing Digital Transformation, Increasing Productivity

MicroStrategy®
Analytics and Mobility

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Patent Information

This product is patented. One or more of the following patents may apply to the product sold herein: U.S. Patent Nos. 6,154,766, 6,173,310, 6,260,050, 6,263,051, 6,269,393, 6,279,033, 6,567,796, 6,587,547, 6,606,596, 6,658,093, 6,658,432, 6,662,195, 6,671,715, 6,691,100, 6,694,316, 6,697,808, 6,704,723, 6,741,980, 6,765,997, 6,768,788, 6,772,137, 6,788,768, 6,798,867, 6,801,910, 6,820,073, 6,829,334, 6,836,537, 6,850,603, 6,859,798, 6,873,693, 6,885,734, 6,940,953, 6,964,012, 6,977,992, 6,996,568, 6,996,569, 7,003,512, 7,010,518, 7,016,480, 7,020,251, 7,039,165, 7,082,422, 7,113,993, 7,127,403, 7,174,349, 7,181,417, 7,194,457, 7,197,461, 7,228,303, 7,260,577, 7,266,181, 7,272,212, 7,302,639, 7,324,942, 7,330,847, 7,340,040, 7,356,758, 7,356,840, 7,415,438, 7,428,302, 7,430,562, 7,440,898, 7,486,780, 7,509,671, 7,516,181, 7,559,048, 7,574,376, 7,617,201, 7,725,811, 7,801,967, 7,836,178, 7,861,161, 7,861,253, 7,881,443, 7,925,616, 7,945,584, 7,970,782, 8,005,870, 8,051,168, 8,051,369, 8,094,788, 8,130,918, 8,296,287, 8,321,411, 8,452,755, 8,521,733, 8,522,192, 8,577,902, 8,606,813, 8,607,138, 8,645,313, 8,761,659, 8,775,807, 8,782,083, 8,812,490, 8,832,588, 8,943,044, 8,943,187. 8,958,537, 8,966,597, 8,983,440, 8,984,274, 8,984,288, 8,995,628, 9,027,099, 9,027,105, 9,037, 577, 9,038,152, 9,076,006, 9,086,837, 9,116,954, 9,124,630, 9,154,303, 9,154,486, 9,160,727, 9,166,986, 9,171,073, 9,172,699, 9,173,101, 9,183, 317, 9,195,814, 9,208,213, 9,208,444, 9,262,481, 9,264,415, 9,264,480, 9,269,358, 9,275,127, 9,292,571, 9,300,646, 9,311,683 9,313,206, 9,330,174, 9,338,157, 9,361,392, 9,378,386, 9,386,416, 9,391,782, 9,397,838, 9,397,980, 9,405,804, 9,413,710, 9,413,794, 9,430,629, 9,432,808, 9,438,597, 9,444,805, 9,450,942, 9,450,958, 9,454,594, 9,507,755, 9,513,770, 9,516,018, 9,529,850, 9,563,761, 9,565,175, 9,608,970, 9,640,001, 9,646,165, 9,680,908, and 9,697,350. Other patent applications are pending.

Mobile Identity

Catalyzing Digital Transformation, Increasing Productivity

Unified mobile identity is an essential step toward digital transformation, simplifying digital and physical access, streamlining processes, and unlocking the power of analytics.

The digital transformation landscape

Digital tools and technologies continue to profoundly affect the way business is conducted today. The pace of innovation disrupts industries around the world, and organizations that fail to adapt risk being left behind. Forward-thinking companies are pursuing a strategy of digital transformation—organizational change through the use of digital technologies and business models. Its aim is to improve business performance and workplace productivity, and it has the potential to create unprecedented opportunity for innovation. Far beyond a simple trend, digital transformation is a core, transformational strategy that changes an organization's DNA so that it can thrive in the industries and markets of tomorrow.

Digital transformation involves people, processes, strategies, structures, and market dynamics. With the growth of the Internet of Things (IoT), social, mobile, analytics, and cloud, digital transformation can manifest itself in a myriad of ways. These changes can—and should—redefine employee and customer user experiences and ultimately lead to new levels of productivity across an organization. As IT budgets continue to grow (Gartner predicted the greatest spending growth rate since 2007, to nearly $4 trillion), organizations are increasing their investments in digital transformation, with enterprise software spending to experience the highest growth in 2018[1]. This investment will ultimately change how businesses operate—accelerating innovation, stimulating productivity, increasing efficiency, and enhancing customer experiences.

The fast-paced digital landscape comes with higher expectations for all parties involved. A recent report on the Connected Customer found that 76% percent of customers expect companies to understand their needs and expectations, and 57% of them have stopped buying from a company because a competitor provided a better experience[2]. And just as customer expectations are higher than ever, businesses constantly challenge themselves to increase productivity, reduce operational costs, and minimize exposure to security risks. Most modern enterprises have thousands of assets, dozens of networks/systems, and globally dispersed workforces, making this process seem incredibly complicated and challenging.

Traditional practices not keeping pace

Today, most organizations still utilize plastic ID badges to access physical enterprise facilities and passwords or tokens to access digital assets. Typically, physical and logical access control systems are not integrated, so unstructured data is grouped into different pools of information—siloed, fragmented, and unavailable for comprehensive analysis or use. Access cards, passwords, and hardware tokens are cumbersome and expensive to effectively administer—issuing, managing, and revoking access privileges to multiple systems is burdensome. In addition, they present their own security risks, fail to provide valuable insight into enterprise workflow, and ultimately hinder organizational productivity.

The significance of unified mobile identity

We use our identity every day, whether it's greeting someone we know at the office or speaking with people on the phone who recognize our voice. These acts are so seamless and natural that we may not even realize we are using our identity to be recognized by

1 *Gartner. Gartner Says Global IT Spending to Grow 6.2 Percent in 2018, (Apr. 9, 2018)*

2 *Salesforce.com. State of the Connected Customer, (Jun. 5, 2018), https://www.salesforce.com/research/customer-expectations*

others. But we often need to identify ourselves to people who don't know us, in person and over the phone. And we need to identify ourselves on social media and to our banking app. So we have usernames and passwords, and account numbers and secret words to prove to customer service representatives that we're the actual account owner.

Imagine if your identity was loaded onto your smartphone. You now have a new way to identify yourself and interact with the world around you, online, on the phone, and in person.

Using smartphone technology, it is now possible to log into computer systems without the need to remember passwords. It's possible to unlock doors to offices without the need for keycards. We can readily identify ourselves to other people on the phone or in person without the need to show physical forms of identification or remember secret words or complicated passwords.

The element of convenience is only one of many benefits of unified mobile identity. The approach renders previous security vulnerabilities obsolete: there is no risk of losing a key. The likelihood that your password can be hacked is zero. You don't have to remember precise answers to security questions such as where you met your spouse or the name of your first pet.

Going beyond security and access, digital identities can accelerate and assist transactions for a variety of users and stakeholders, such as employees, customers, and partners. Simply put, you must know who you are dealing with to manage a relationship and execute a transaction. For example, a business operates a call center to provide better services to its customers. To protect customer privacy, operators must first verify that the caller is indeed who he/she claims to be—a process that is both inconvenient and inefficient. People may forget the answer to a security question, and the additional time it takes to complete a verification is a drag on business. Shaving seconds off a one-minute identity verification process can result in tremendous cost savings for enterprises with high call volumes.

Another advantage of mobile identity can be viewed through the lens of analytics. Each digital transacation—between people, machines, or systems—is recorded by the organization. It can then aggregate and analyze this data to gain new insights and visibility into how the components of its business effectively interact.

Organizations can draw immense benefits from the telemetry data generated with each action. Insights are gained across the organization, from logistics to fraud detection—all based on mobile identity.

It's clear that the concept of unifying user identity with digital credentials is an essential first step toward successful digital transformation.

Empowering the modern digital enterprise

In addition to enabling digital transformation, digital credentials help enterprises effectively manage risk and increase productivity. Enterprises must transform how they manage access to both physical and logical assets, and a single digital credential can do both. With one credential used for both physical and logical access, previously siloed data is now combined, allowing enterprises to more effectively control access (e.g., restricting access based on location) and highlight potential security risks (e.g., access events occurring outside of standard thresholds). When formulating a strategy, it is important to consider the following criteria, as digital identity credentials should:

- Intuitively provide unified access control across disparate physical facilities and IT systems.
- Integrate with existing physical access and digital identity management systems to avoid vendor lock-in and leverage existing investments.
- Provide instant visibility and communication capability among field and remote employees.
- Provide instant visibility into enterprise assets to optimize utilization.
- Deliver real-time user behavior analytics based on telemetry data.
- Provide actionable business insights and behavior patterns.

The established digital identity solution

The MicroStrategy digital identity solution takes a simplified, user-centric approach to digital credentials. It replaces physical identity badges, passwords, and security tokens with digital badges delivered via smartphones. MicroStrategy digital badges lock down enterprise logical and physical assets, minimizing risks without sacrificing convenience. Utilizing smartphone and Bluetooth

technology, the user experience is extraordinarily convenient. MicroStrategy generates real-time telemetry data about user location, access, etc. Enterprises looking to deploy MicroStrategy digital credentials can choose between a fully dedicated cloud environment and on-premise deployment, depending on unique requirements. The MicroStrategy digital identity offering is a fully integrated part of the MicroStrategy analytics and mobility platform, making analyzing data to increase workplace productivity and managing digital risk straightforward and uncomplicated.

Conclusion

Businesses are at their best when their constituents have access to the right information, at any location, on any device. But navigating the complexities to grant access to multiple systems—both physical and logical—is increasingly difficult as organizations operate multiple platforms. Forward-thinking companies that embrace digital transformation increasingly rely on the concept of mobile identity to solve this challenge. This solution combines a user's digital identity with access privileges to enterprise assets and facilities, thereby providing a seamless and secure experience that is centrally managed. Furthermore, by capturing telemetry data generated with each transaction, organizations can analyze workflow and improve productivity and asset allocation.

Digital transformation and the opportunities it unlocks will be the difference between thriving and failing in tomorrow's business landscape. Organizations should evaluate their existing environment and deploy a digital identity solution to form the foundation for successful transformation.

Digital credentials provide a strong level of security with flexible authentication to enable different levels of access for specific resources or users, or via step-up authentication. The digital credential can be used for both physical and logical access, combining this previously siloed data while capturing valuable identity intelligence generated when humans interact with organizational assets, physical spaces, and other users. This provides a foundation of digital transformation.

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