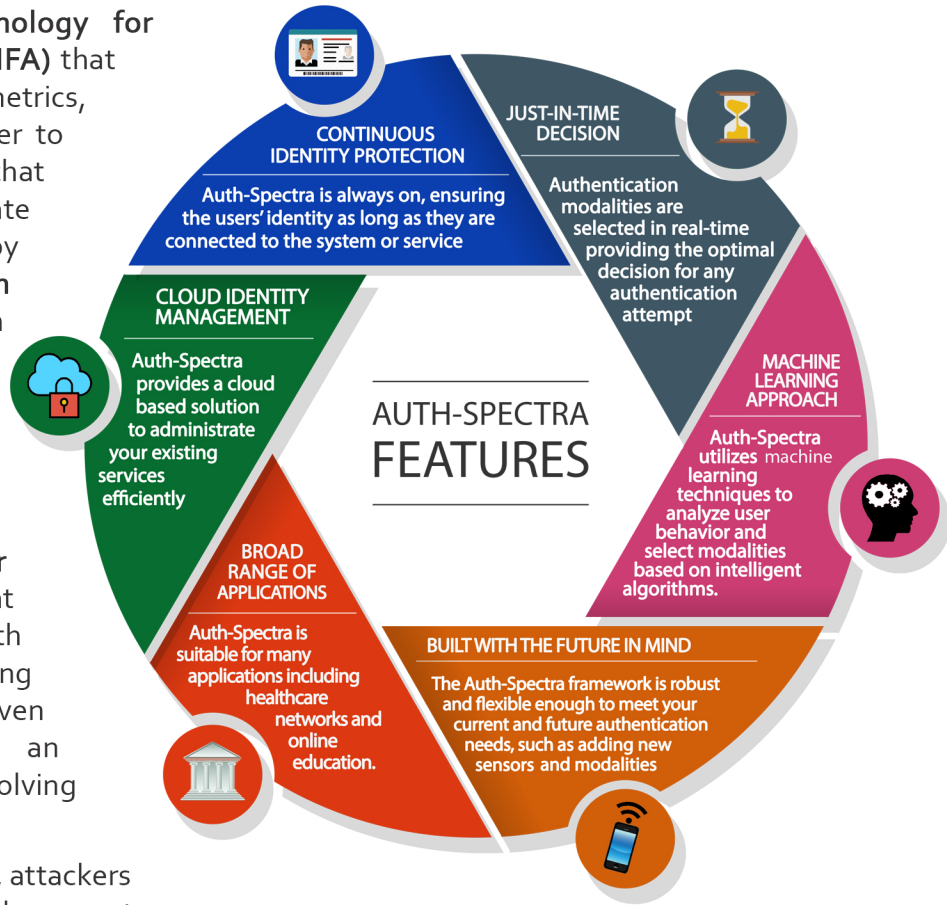# AUTH-SPECTRA

INNOVATIVE MULTI-FACTOR AUTHENTICATION SOLUTIONS

Auth-Spectra is a patent-pending technology for Adaptive Multi-Factor Authentication (A-MFA) that uses a combination of passwords, biometrics, cognitive behavior, and other factors in order to create a trustworthy authentication system that intelligently selects the most appropriate authentication factors. A-MFA does this by **selecting modalities based on the device in use and surrounding conditions**, which provides the perfect balance between powerful security and low-maintenance usability. That creates a secure, highly confident authentication framework that you can trust.

The University of Memphis Center for Information Assurance is a nationally designated Center for Academic Excellence tasked with creating innovative solutions with long-lasting applications. With dedicated, University-Driven academic research we have developed an authentication solution to address the ever-evolving cyber-security landscape.

As devices are becoming more interconnected, attackers are finding increasingly clever ways to breach computer systems, costing time and money. Auth-Spectra provides an efficient technique to combat such threats.
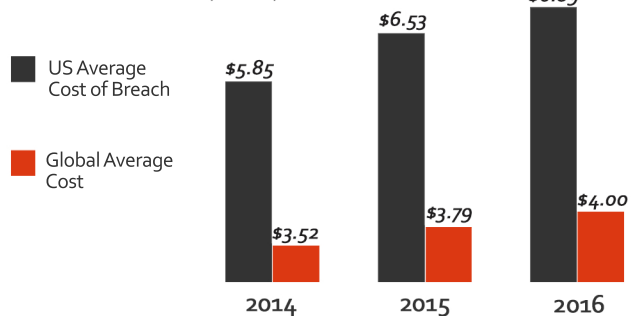
AUTH-SPECTRA FEATURES

CONTINUOUS IDENTITY PROTECTION
Auth-Spectra is always on, ensuring the users' identity as long as they are connected to the system or service

JUST-IN-TIME DECISION
Authentication modalities are selected in real-time providing the optimal decision for any authentication attempt

MACHINE LEARNING APPROACH
Auth-Spectra utilizes machine learning techniques to analyze user behavior and select modalities based on intelligent algorithms.

BUILT WITH THE FUTURE IN MIND
The Auth-Spectra framework is robust and flexible enough to meet your current and future authentication needs, such as adding new sensors and modalities

BROAD RANGE OF APPLICATIONS
Auth-Spectra is suitable for many applications including healthcare networks and online education.

CLOUD IDENTITY MANAGEMENT
Auth-Spectra provides a cloud based solution to administrate your existing services efficiently

TIME-VARYING AUTHENTICATION TRIGGERING EVENTS

User Environment Conditions				
Device/Media Type	Fixed Wireless	Portable Wireless	Portable Wired	Fixed Wired
Selected Authentication Factors				
Time	T₀ Initial Login	T₁ Device Changed	T₂ Media Changed	T₃ Location Changed

AVERAGE COST OF DATA BREACH IN MILLIONS
Source: Business Insider, March, 2016

- US Average Cost of Breach
- Global Average Cost

	2014	2015	2016
US Average Cost of Breach	$5.85	$6.53	$6.89
Global Average Cost	$3.52	$3.79	$4.00

For Details on Auth-Spectra Project, contact:
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