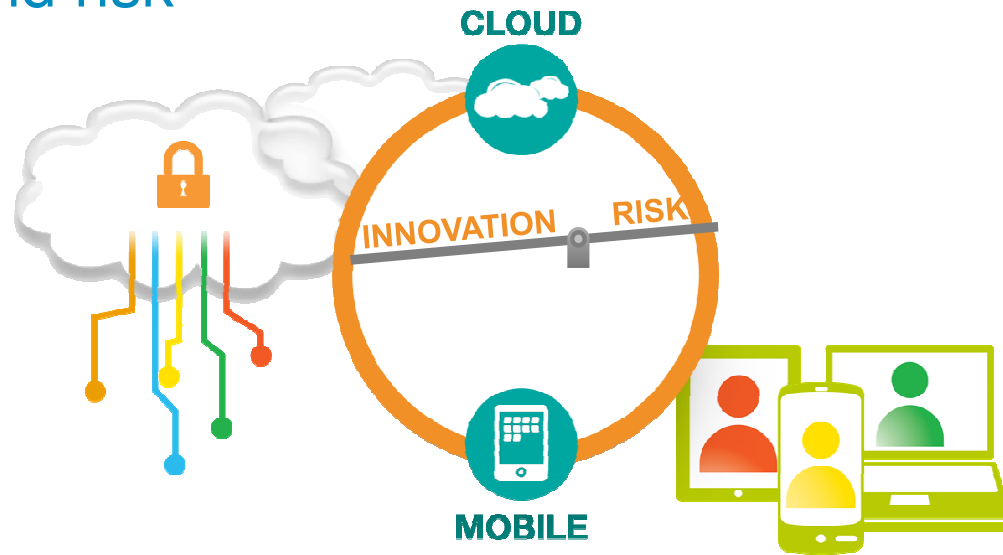


# Secure mobile transactions: weakest link or safest bet?

Avi Dayan  
R&D Engineer  
Security Researcher @ AppScan Lab  
Israel



## Customers are faced with challenge of balancing innovation and risk



- 1 Cloud and mobile create opportunities for enhanced security
- 2 IBM security portfolio enables clients to innovate with confidence
- 3 IBM mobile security portfolio enables clients to manage mobile device, application and transactions

## Agenda

- Mobile Security – Landscape and Strategy
  
- IBM Mobile Security Solutions
  - Protect the
    - Device
    - Application
    - Transaction
  
- Summary



# Mobile Security and Management spans business control spectrum

## Requirements for Mobile Management and Security:



## Solution Approaches:



# Mobile Security and Management spans business control spectrum

## Requirements for Mobile Management and Security:



## Solution Approaches:



## IBM Offerings:



**IBM Security  
Access Manager  
for Mobile**



## Additional Integration Points:

- SDKs can be used in Worklight IDE so all apps can be secured (**IBM Worklight**)
- Security information and events will feed into QRadar for analysis and actions will return to mobile tools (**IBM QRadar**)
- Code scan can be part of process before apps are deployed into app store/catalog (**IBM AppScan**)



# IBM Security capabilities for the mobile enterprise



<i>Protect the Device</i>	<i>Protect the Application</i>	<i>Protect the Transaction</i>
<ul style="list-style-type: none"> <li>• Corporate devices</li> <li>• BYOD</li> </ul>	<ul style="list-style-type: none"> <li>• Developer solutions to secure applications.</li> <li>• Protect enterprise data in both the applications you build and the applications you buy.</li> </ul>	<ul style="list-style-type: none"> <li>• Customers</li> <li>• Business partners</li> <li>• Temporary workers</li> </ul>

**SECURITY INTELLIGENCE**

A unified architecture for integrating mobile security information and event management (SIEM), log management, anomaly detection, and configuration and vulnerability management.





# Addressing Mobile Security challenges with IBM solutions



# Threat-Aware Identity and Access Management

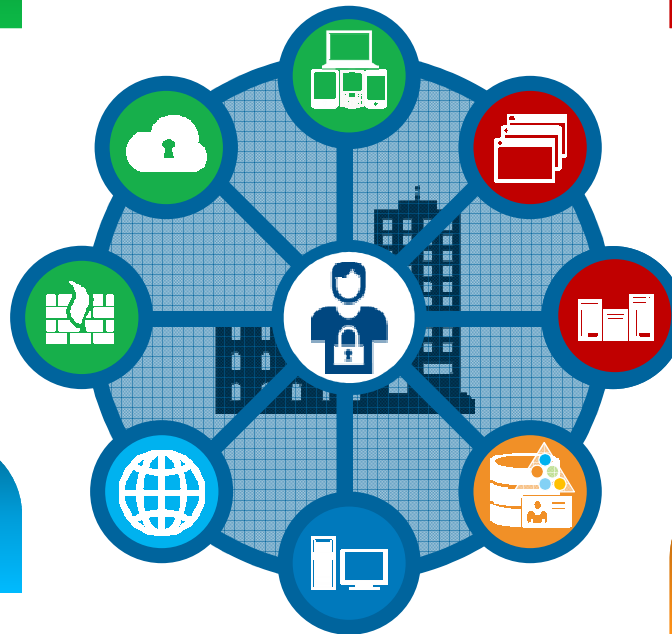
*Capabilities to help organizations secure enterprise identity as a new perimeter*

## Safeguard mobile, cloud and social interactions

- Validate “who is who”
- Enforce proactive access policies

## Deliver intelligent identity and access assurance

- Enable identity management
- Enhance user activity monitoring



## Prevent insider threat and identity fraud

- Manage shared access
- Defend applications and access

## Simplify identity silos and cloud integrations

- Provide visibility
- Unify “Universe of Identities”



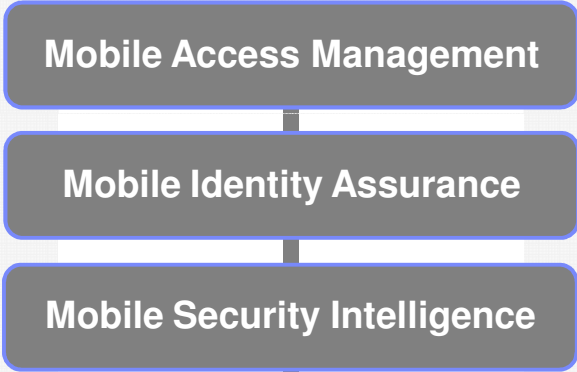


# As part of our Mobile Security strategy, IBM has launched its **NEW** appliance-based solution - **IBM Security Access Manager for Mobile**

Safeguard mobile, cloud and social interactions



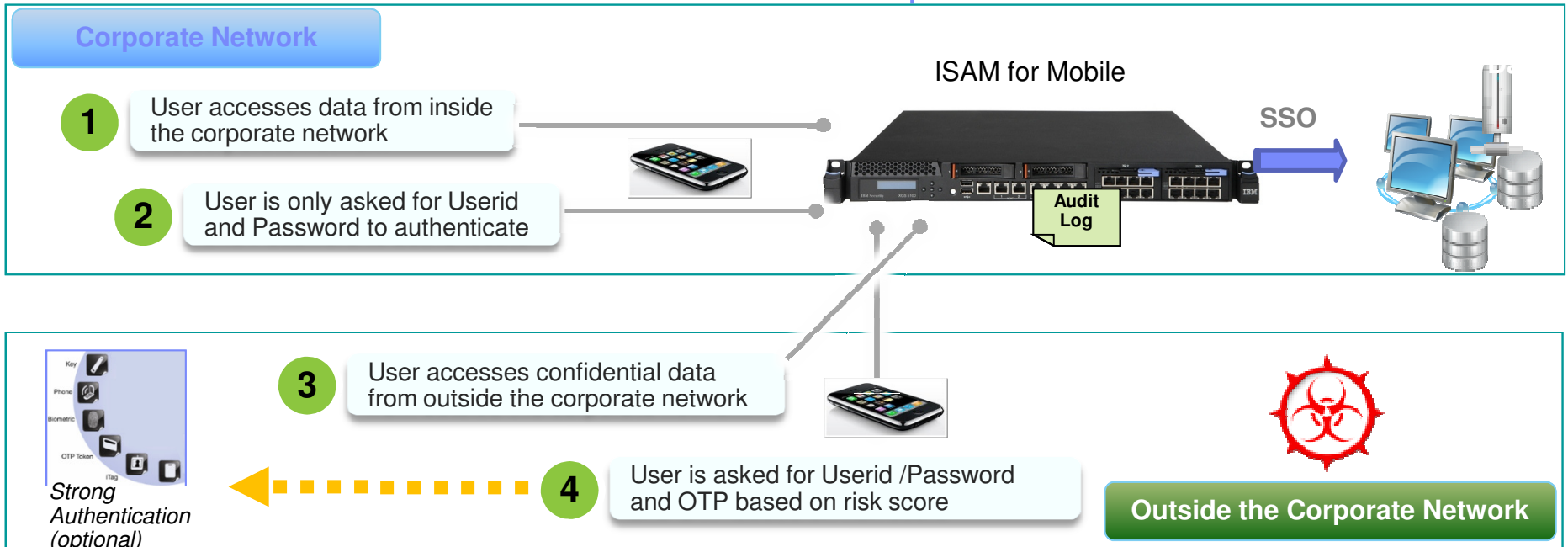
## IBM Security Access Manager for Mobile



- Deliver Mobile SSO and session management
- Enforce context-aware access
- Improve identity assurance
- Help secure mobile app deployment
- Reduce TCO and time to value



## Deliver mobile SSO and session management for employees, partners and consumer interactions across the enterprise



### How IBM SAM for Mobile Can Help

- ✓ Deploy mobile security gateway for user access based on risk-level (e.g. permit, deny, step-up authenticate)
- ✓ Built-in Risk scoring engine real-time context (e.g. location, device)
- ✓ Support mobile authentication with built-in One-Time Password (OTP)
- ✓ Offer Software Development Kit (SDK) to integrate with 3rd party authentication factors

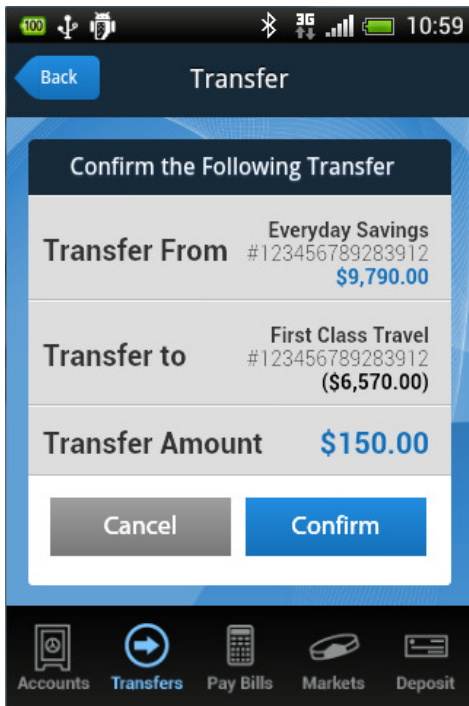


## Enforce risk-based access and strong authentication for transactions

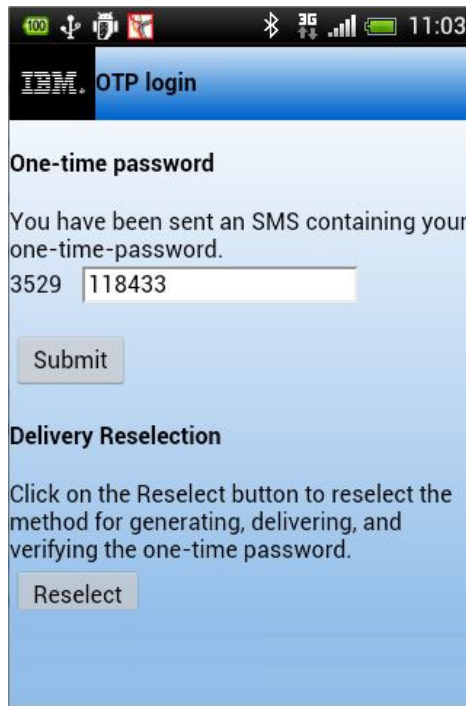
### Reduce risk associated with mobile user and service transactions

- ✓ Example: transactions less than \$100 are allowed with no additional authentication
- ✓ User attempts transfer of amount greater than \$100 – requires an OTP for strong authentication

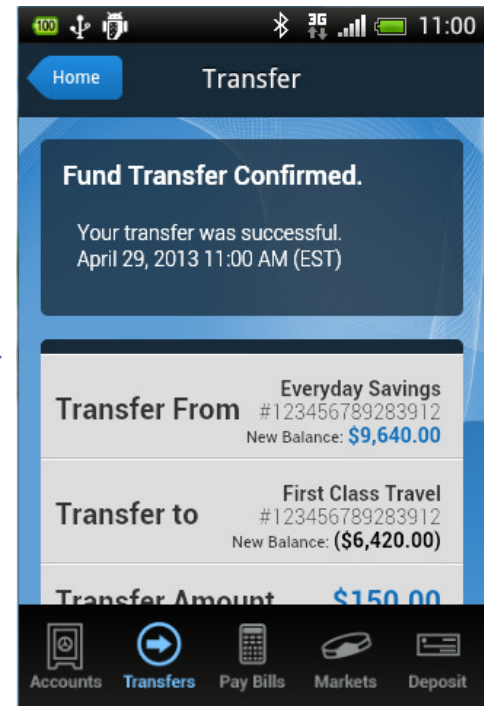
User attempts high-value transaction



Strong authentication challenge



Transaction completes



# Get "Mobile Security Intelligent" with OOTB QRadar integration

Potential Data Loss  
Who? What? Where?

Magnitude	
Description	Potential Data Loss/Theft Detected
Attacker/Src	<u>10.103.14.139</u> (dhcp-workstation-103.14.139.acme.org)
Target(s)/Dest	Local (2) Remote (1)
Network(s)	Multiple (3)
Notes	Data Loss Prevention Use Case. Demonstrates QRadar DL authentication ...

	Event Name	Source IP (Unique Count)	Log Source (Unique Count)	Username (Unique Count)	Category (Unique Count)
	Authentication Failed	10.103.14.139	OracleDbAudit @ 10.101.145.198	Multiple (2)	Misc Login Failed
	Misc Login Succeeded	10.103.14.139	OracleDbAudit @ 10.101.145.198	scott	Misc Login Succeeded
	DELETE failed	10.103.14.139	OracleDbAudit @ 10.101.145.198	scott	System Action Deny
	SELECT succeeded	10.103.14.139	OracleDbAudit @ 10.101.145.198	scott	System Action Allow
	Misc Logout	10.103.14.139	OracleDbAudit @ 10.101.145.198	scott	Misc Logout
	Suspicious Pattern Detec	10.103.14.139	Custom Rule Engine-8 :: qradar-vn	N/A	Suspicious Pattern Detected
	Remote Access Login Fa	10.103.14.139	Custom Rule Engine-8 :: qradar-vn	N/A	Remote Access Login Failed

Who?  
An internal user

What?  
Oracle data

- Navigate
- Information
- Resolver Actions
- TNC Recommendation

- DNS Lookup
- WHOIS Lookup
- Port Scan
- Asset Profile
- Search Events
- Search Flows

**QRadar Has Completed Your Request**

Go to APNIC results

[Querying whois.arin.net]  
[whois.arin.net]

OrgName: Google Inc.  
OrgID: GOGL

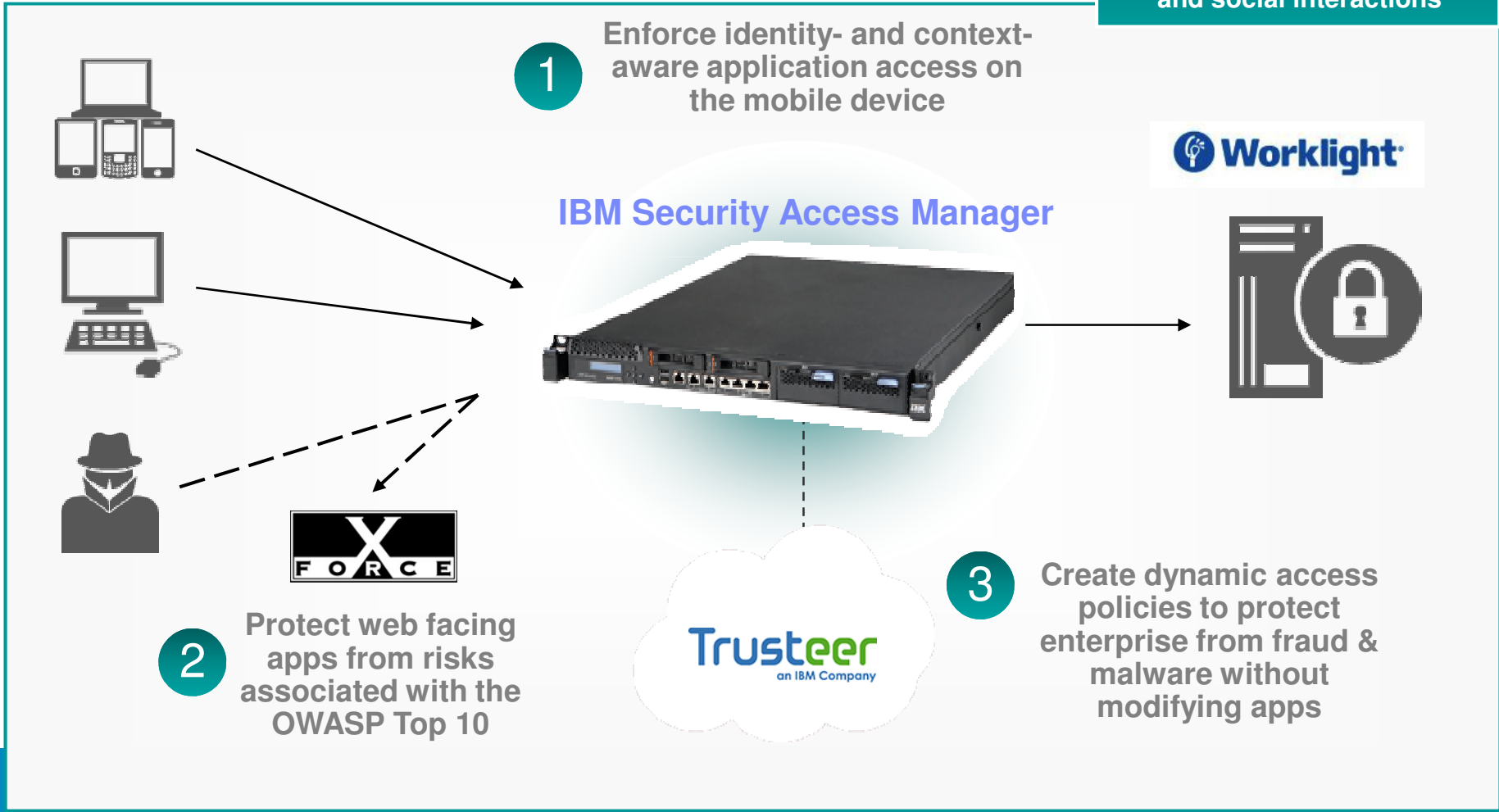
Where?  
Gmail



# Mobile Security: Centralized and Consistent Policy Enforcement for Context-Aware Access, Threat Protection, Fraud & Malware Detection

*Out-of-the-box and seamless integration delivers unmatched end-to-end security*

Safeguard mobile, cloud and social interactions



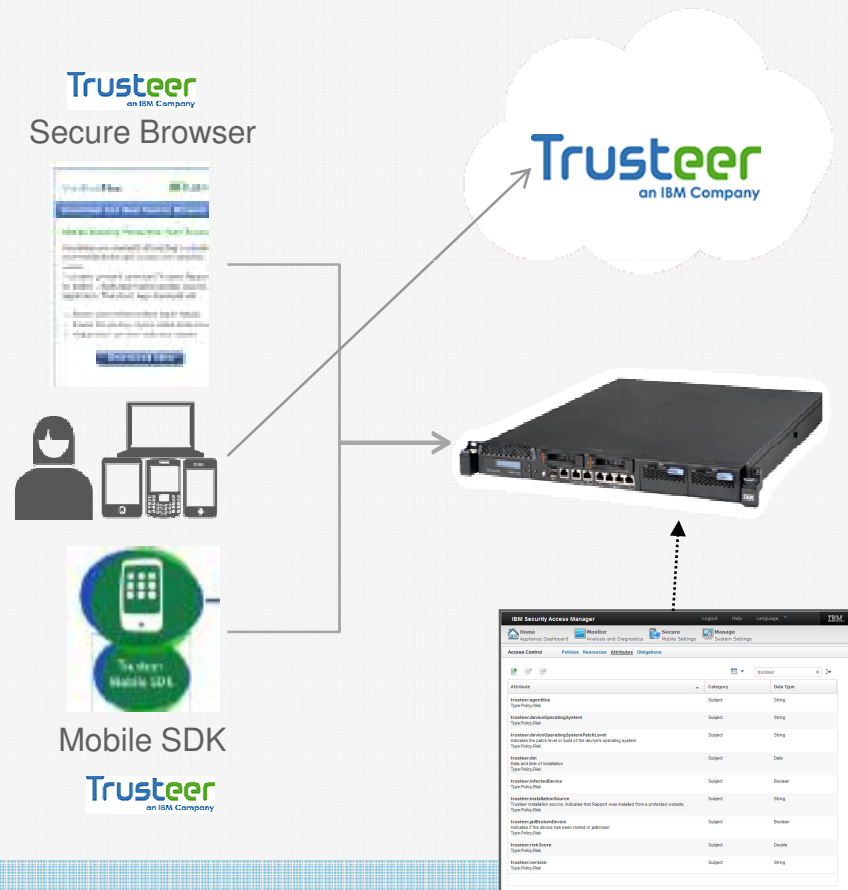
## Easier Fraud & Malware Detection with IBM SAM for Mobile and Trusteer

*Attach Trusteer context-based policy to any app resources with no code updates*

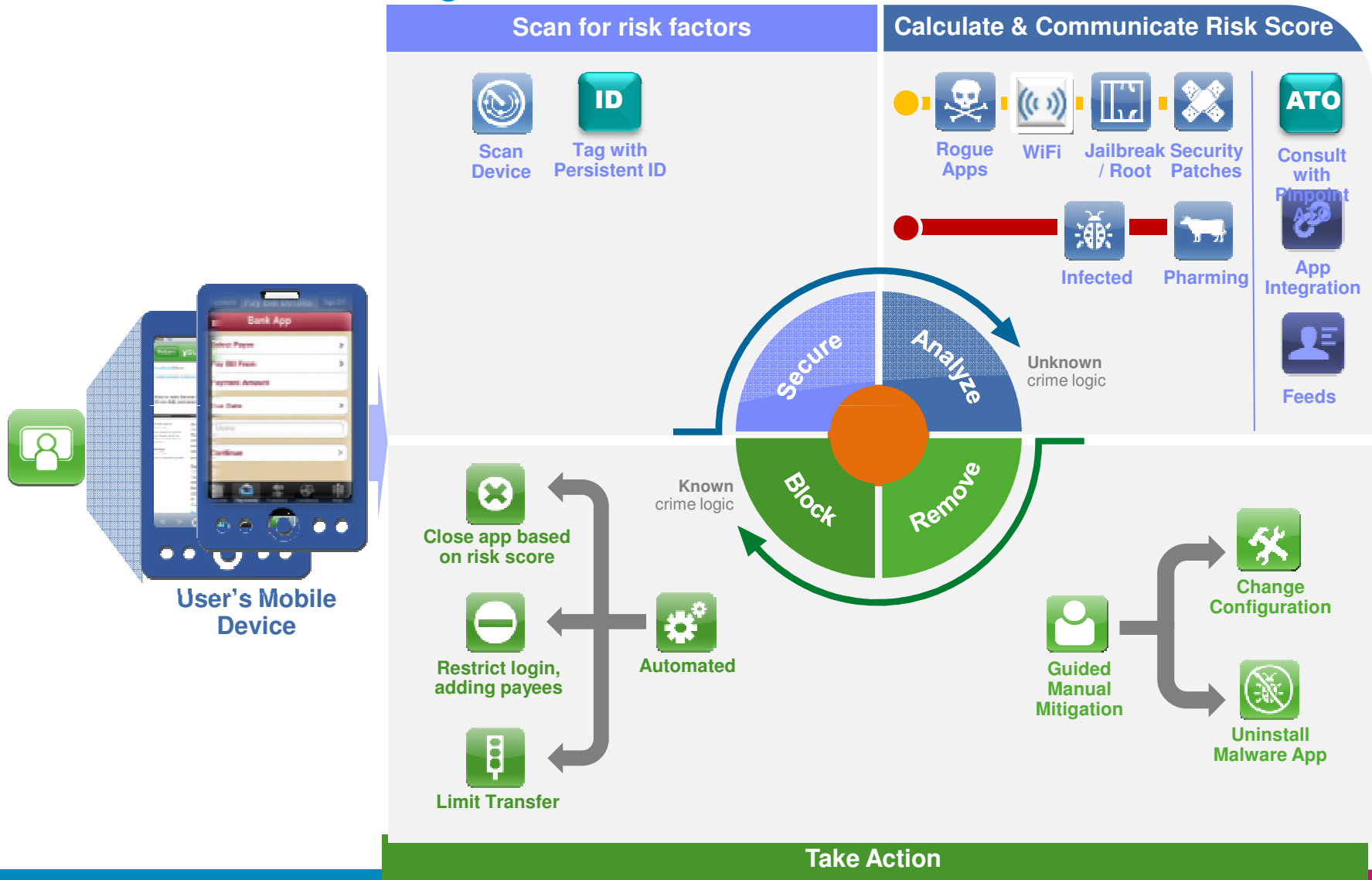
**NEW**

**Safeguard mobile, cloud and social interactions**

- Out-of-the-box recognition of Trusteer-specific attributes being included in request messages from Secure Browser and Mobile SDK
  - Device attributes
  - Malware
  - Jailbroken / rooted
- Author reusable policies that can be attached to multiple applications
- Enforce consistent fraud & malware detection policies without updating the apps



# Fraud Protection using Trusteer Secure Mobile



# MaaS360 Delivers an Integrated Approach



**Comprehensive Mobile Security**

**Complete Mobility Management**

## One Platform for All Your Mobile Assets





# MaaS360: Robust Mobile Security addressing BYOD



# Summary



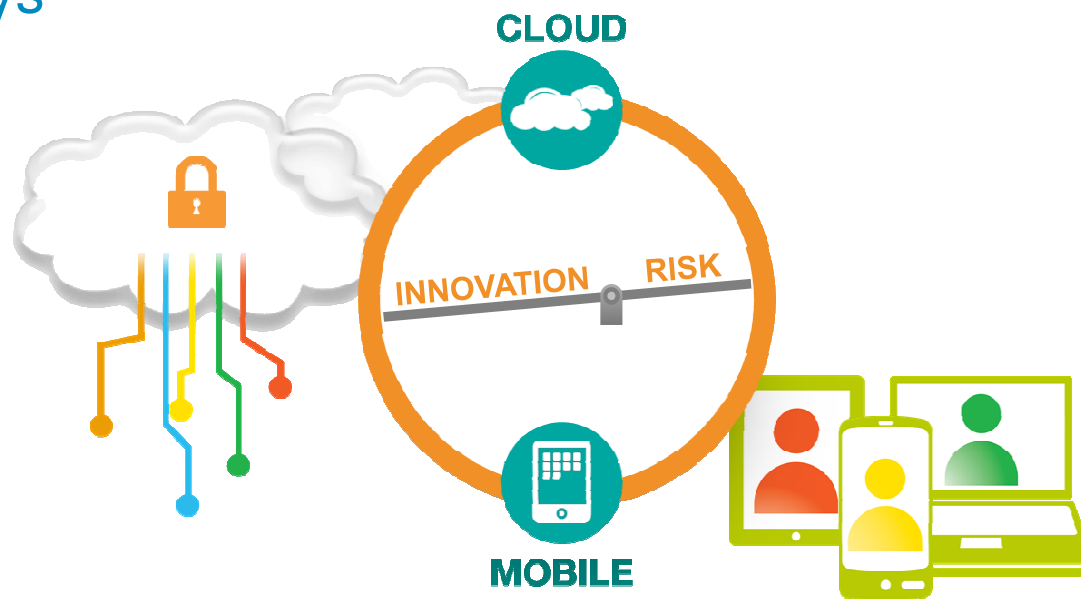
# IBM Security capabilities for the mobile enterprise



<i>Protect the Device &amp; Content</i>	<i>Protect the Application</i>	<i>Protect the Transaction</i>
MaaS360 Secure Mail	IBM Security AppScan	IBM Security Access Manager
MaaS360 Secure Document Sharing	MaaS360 Application Security	IBM Trusteer Mobile SDK
MaaS360 Secure Browser	IBM Security Access Manager	
<i>SECURITY INTELLIGENCE</i>		
IBM Security QRadar		



## Key takeaways



- 1 Cloud and mobile create opportunities for enhanced security
- 2 IBM security portfolio enables clients to innovate with confidence
- 3 IBM mobile security portfolio enables clients to manage mobile device, application and transactions