IBM Security
Investor Briefing
2018

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Forward looking statements and non-GAAP information

Certain comments made in this presentation may be characterized as forward looking under the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on the company’s current assumptions regarding future business and financial performance. Those statements by their nature address matters that are uncertain to different degrees. Those statements involve a number of factors that could cause actual results to differ materially. Additional information concerning these factors is contained in the Company’s filings with the SEC. Copies are available from the SEC, from the IBM web site, or from IBM Investor Relations. Any forward-looking statement made during this presentation speaks only as of the date on which it is made. The company assumes no obligation to update or revise any forward-looking statements. These charts and the associated remarks and comments are integrally related, and are intended to be presented and understood together.

In an effort to provide additional and useful information regarding the company’s financial results and other financial information, as determined by generally accepted accounting principles (GAAP), these materials contain certain non-GAAP financial information. The rationale for management’s use of this non-GAAP information is included on page 49 of the company's Form 10-Q for the three months ended March 31, 2018, filed with the SEC on April 24, 2018. For reconciliation of the growth in Security revenue for 2017 and other related information, please refer to the company's 2017 Annual Report, which is Exhibit 13 to the Form 10-K filed with the SEC on February 27, 2018. For other related information please visit the Company’s website at: www.ibm.com/investor
Security is one of IBM’s market-leading, high-value segments

IBM Integrated Model
Monetized through high value software and services

Cognitive Security Solutions
- Cloud, Mobile and IoT Security
- Threat Intelligence
- Infrastructure Security Mainframe and Endpoint
- Data and App Security
- Identity and Access management
- Advanced Fraud Protection

IBM Cloud, Mainframe Pervasive Encryption

IBM Security Value Drivers
- Industry’s largest integrated product and services business
- Digital immune system for compliance and threat protection
- Industry-leading AI and orchestration for insight and automation
- Lead industry in collaboration with 700+ ecosystem partners

>15,000
Security clients

>8,000
Subject matter experts

~3,700
Patents granted

>20
Strategic acquisitions

#1
Enterprise security vendor

$3B
IBM Security revenue in 2017

54%
Revenue growth in 2017*

~60B
Events monitored per day

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* Revenue Y/Y% @CC
Cybersecurity landscape overview

~$120B
Total addressable market opportunity by 2021

Fragmented
Opportunity for IBM to lead the market

High Growth Security Segments*

- Managed Security: 15%
- Security Consulting: 10%
- Application Security: 13%
- Cloud Security: >20%
- Security Analytics: 11%

*IDC 2018
How we uniquely help customers

Build a security immune system

Deliver meaningful innovations
- Artificial Intelligence
- Cloud Security
- Collaboration
- Response and Orchestration

Global expertise and services
- Transform Security Operations
- Managed Security Services
- Best Practice Guidance
Disconnected security capabilities are failing

- Security analytics
- Privileged user management
- Access management
- User behavior analytics
- Data access control
- Incident response
- Data protection
- Endpoint patching and management
- Fraud protection
- Identity governance and administration
- Network visibility and segmentation
- Network forensics and threat management
- Mainframe security
- Vulnerability management
- Application scanning
- Malware protection
- Threat sharing
- Device management
- IDaaS
- IoCs
- Threat hunting and investigation
- Criminal detection
- Content security
- Endpoint detection and response
- Transaction protection
- Threat and anomaly detection
- Application security management
- Firewalls and intrusion prevention
- Threat hunting and investigation
A security immune system brings everything together

**Security Orchestration & Analytics**
- Data protection
- Data access control
- Security analytics
- Vulnerability management
- Threat and anomaly detection
- Threat hunting and investigation
- User behavior analytics
- Incident response
- Threat sharing
- IoCs

**Apps**
- Application scanning
- Application security management

**Mobile**
- Transaction protection
- Device management
- Content security
- Endpoint detection and response
- Endpoint patching and management
- Malware protection

**Endpoint**
- Endpoint detection and response
- Endpoint patching and management
- Malware protection

**Network**
- Firewalls and intrusion prevention
- Network forensics and threat management
- Network visibility and segmentation

**Identity & Access**
- Privileged user management
- Identity governance and administration
- Access management
- IDaaS
- Mainframe security

**Advanced Fraud**
- Fraud protection
- Criminal detection

**Threat Intel**

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IBM’s software and services security portfolio

**SECURITY ORCHESTRATION & ANALYTICS**
- Guardium
- Multi-cloud Encryption
- Key Manager
- Critical Data Protection Services

**DATA**
- QRadar
- Resilient
- i2

**APPLICATIONS**
- AppScan
- Application Security on Cloud
  - SDLC Consulting
  - X-Force Red

**MOBILE**
- MaaS360
  - Mobile Device Management
- BigFix
  - Managed Detection & Response

**ENDPOINT**
- X-Force Exchange
- X-Force IRIS

**NETWORK**
- QRadar Incident Forensics
- QRadar Network Insights
  - Managed Network Security
  - Secure SD-WAN

**SECURITY ECOSYSTEM**
- App Exchange
  - Hybrid Cloud Security Services
- Identity Governance
- Access Manager
- Cloud Identity
- zSecure
  - Identity Management Services

**ADVANCED FRAUD**
- Trusteer
  - Financial Malware Research

**IDENTITY & ACCESS**
- Identity Governance
- Access Manager
- Cloud Identity
- zSecure
  - Identity Management Services

**ON PREM | CLOUD | HYBRID**
- Products
  - Services
Analysts rank IBM Security as a market leader in key segments

“IBM Security enables us to manage over 2.2 million events daily and still keep our heads above water.”
- Director of Strategic Initiatives, Top University

“The security intelligence from X-Force and the out-of-the-box analytics capabilities made QRadar stand out…”
- CTO, Large IT Consulting Firm in Europe

“IBM Security solutions help us to keep the trust of our patients, which makes our practice grow.”
- IT Director, Healthcare Company with 1.8 million active patients

“IBM provides us with long-term stability because of its well-planned product roadmaps, and scalability as its solutions easily scale as our business grows.”
- Operations Manager, South East Asian Industrial Company

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<th>Security Analytics</th>
<th>LEADER</th>
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<td>Endpoint: Client Management Tools</td>
<td>LEADER</td>
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<td>Access Management</td>
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<tr>
<td>Information Security Consulting Services</td>
<td>LEADER</td>
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</table>
The future of security is **AI and Analytics**

### Results we are seeing

- **24x** Faster investigation times with QRadar Advisor with Watson
- **Hours to Minutes** Time it takes to detect insider threat with machine learning from QRadar User Behavior Analytics
- **98%** Removal of false positives in application scanning with AppScan Intelligent Finding Analytics
- **10B** Structured data elements in Watson corpus of knowledge
Case study: Combatting insiders and attackers with AI

IBM Machine Learning Analytics App

New machine learning analytics app for QRadar UBA
- Predictive modeling enables systems to learn expected behaviors and identify anomalous behavior
- 16,000+ total QRadar UBA downloads

IBM QRadar Advisor with Watson

AI automatically uncovers the full scope of a security incident
- 2.3M+ security documents
- 10B+ security data elements
- 80K+ documents read / day
- 250K+ investigations enhanced
The future of security is **Cloud**

**Security from the Cloud**

- **MaaS360**
  - 2013
- **Trusteer**
  - 2014
- **App Exchange**
  - 2015
- **Application Security on Cloud**
  - 2015
- **X-Force Exchange**
  - 2015
- **QRadar on Cloud**
  - 2016
- **Cloud Identity**
  - 2017
- **Watson for Cybersecurity**
  - 2017
- **Data Security on Cloud**
  - 2018

**IBM Security Platform**

- **Protect Data**
  - IBM Multi-Cloud Data Encryption
- **Manage Access**
  - IBM Cloud Identity Connect
- **Gain Visibility**
  - IBM QRadar Cloud Security Analytics

**Expert Help**

- IBM X-Force Cloud Security Service
The future of security is Collaboration

Customizable security defense

Real-time threat intelligence

IBM Security App Exchange

130K+ Downloads
140+ Applications
65+ Business Partners

IBM X-Force Exchange

900 TB+ Threat Intelligence
65K+ Users
270M Endpoints
The future of security is **Response and Orchestration**

### Technology

**Orchestration and Playbooks**

IBM Resilient Platform

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### Expertise

**Expertise to deal with “Right of Boom”**

IBM X-Force IRIS & IBM Resiliency

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### Practice

**Preparedness and Leadership Skills**

IBM X-Force Command Center

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**40x**

Faster from detection to response with Resilient orchestration of people, process and technology

**$1M+**

Savings when a breach is contained in less than 30 days compared to average*

**1,450+**

Executives trained in security best practices using our immersive state-of-the-art Cyber Range

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*Ponemon Study, 2017
Security Services: The CISO’s trusted advisor

**Transformation**
100+ customer security operation centers (SOCs) built in the last two years
10+ GDPR market offerings

**Managed**
60B+ security events managed daily across 9 global SOCs by IBM Managed Services

**Consulting**
70+ GDPR-ready consulting offerings
150+ security certifications

**Services Portfolio**
- Security Strategy, Risk and Compliance
- Data and Application Security
- Security Intelligence and Operations Consulting
- X-Force RED – Offensive Security
- Infrastructure and Endpoint Security
- X-Force IRIS – Incident Response and Intelligence
- Identity and Access Management
- Security, Regulatory and Risk Management

*Products and Services*
Security is one of IBM’s market-leading, high-value segments

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Encrypting 100% of data for applications, databases, and cloud to:

- Protect sensitive data
- Mitigate insider threats
- Simplify compliance

Integrated data protection focused on eliminating barriers

- No application changes
- No impact to SLAs
### Challenge
Field level encryption may require changes to thousands of apps and drive substantial increase in processor consumption.

### IBM approach
Keep app developers focused on adding business value. Protect data in the infrastructure transparent to applications.

### Outcome
Encrypt business critical data in “bulk” with minimal overhead and no application changes.
Mitigate Insider Threats

Administrators with access to massive amounts of data pose a significant risk. IBM Z pervasive encryption eliminates classes of users from scope and risk.

Simplify Compliance

Bank audit findings due to lack of isolation between prod, dev & test environments. IBM Z pervasive encryption enforces cryptographic isolation between environments.
IBM Cloud: Trusted platform with continuous security

Comprehensive security portfolio

Security on the Cloud
*Bring your own security*

Security in the Cloud
*Integrated security services in IBM Cloud*

Unique cloud security capabilities

- Continuous Security for Apps
- Trusted Cloud Platform
- Hyper Protection for Data
IBM Security

We exist to protect the world, freeing clients to thrive in the face of cyber uncertainty

• Leading the market as a key IBM growth segment with continued investment
• Innovating for a world where AI, cloud, and collaboration are foundational
• Protecting clients across all industries with an integrated approach and expertise

IBM Security Revenue

<table>
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<tr>
<th>Year</th>
<th>Revenue</th>
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<tbody>
<tr>
<td>2015</td>
<td>$1.8B</td>
</tr>
<tr>
<td>2016</td>
<td>$2.0B</td>
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<tr>
<td>2017</td>
<td>$3.2B</td>
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Q&A

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