Cloud is a Security Imperative

Roger Halbheer
Chief Security Advisor
Security landscape

- Rising costs
- Increasing complexity
- Evolving threats
- Talent gap
Culture is essential to transformation
The New Imperative

Enable people to use devices and apps that work best for them, from anywhere, while protecting against current threats.

COMMON INITIATIVES
Biometric and Smart Card Authentication
Mobile Application Management
Self Service Password Reset
Conditional Access to Resources
...and more
Designing for Failure – The Mindshift

THEN

Reliability:
Designed not to fail

Prevent:
Every possible attack

NOW

Resilience:
Designed to recover quickly

Assume Compromise:
Protect, detect, and respond along attack phases
The security paradigm needs to change.

Best-of-breed point solutions

Security you can maintain with your current staff and budget
Your enterprise in transformation

Requires a modern identity and access security perimeter

Cloud Technology

Modern Enterprise Perimeter

SaaS adoption

Office 365

Infrastructure as a Service

Platform as a Service

1st class mobile experience

Internet of Things

ENGAGE YOUR CUSTOMERS

EMPOWER YOUR EMPLOYEES

OPTIMIZE YOUR OPERATIONS

TRANSFORM YOUR PRODUCTS
OUR JOURNEY
to the Cloud

Retire Eliminate
30%

Migrate to SaaS
15%

Migrate to Azure PaaS
50%

Optimize & migrate to IaaS

No change. Lift & shift to IaaS

Remain on-premise
5%
Cloud Redefines Security Responsibilities

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Always retained by customer

Varies by Service Type

Transfers to Cloud Provider
Microsoft Intelligent Security Graph
Unique insights, informed by trillions of signals

- **400B** emails analyzed
- **1.2B** devices scanned each month
- **200+** global cloud consumer and commercial services
- **930M** threats detected on devices every month
- **Botnet data from Microsoft Digital Crimes Unit**
- **18B+** Bing web pages scanned
- **750M+** Azure user accounts
- **450B** monthly authentications

Shared threat data from partners, researchers, and law enforcement worldwide

Enterprise security for **90%** of Fortune 500
Machine Learning
Helps overcome human limitations using large datasets

1. Scales out Human Expertise

2. Shines a light in human blind spots
Machine Learning also brings risks
Must manage potential negative consequences

1. Can amplify human bias

2. Can inadvertently reveal private/secret information

3. Can miss critical context and implications
   (e.g. Confuse innocent “John Smith” with another “John Smith” with criminal record and same birthdate)

4. Can be fed false/malicious data

Microsoft Mitigation Approach – https://aka.ms/ProtectingML
Conditional Access

**Conditions**
- Employee & Partner Users and Roles
- Trusted & Compliant Devices
- Physical & Virtual Location
- Client apps & Auth Method

**Controls**
- Session Risk
- Real time Evaluation Engine
- Effective policy
- Allow/block access
- Limited access
- Require MFA
- Force password reset
- Block legacy authentication

**Policies**

**Machine learning**

**Your text here**

**Azure AD**
- ADFS
- MSA
- Google ID

**Microsoft Cloud**

**Cloud SaaS apps**

**On-premises & web apps**

**Your text here**
Our unique approach

Intelligence

Technology

Partners
Cloud is a Security Imperative
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