

# RSA®Conference2016

Abu Dhabi | 15–16 November | Emirates Palace

Session ID: SPO2-T06

## Secure Your Email in the Cloud



Connect **to**  
Protect

**Bruce E. Johnson**

Senior Manager Email and Web  
Security  
Cisco Systems

# Why are Companies Moving to the Cloud?



- Application Flexibility
- Disaster recovery
- Automatic software updates
- Lower capital expenditure
- Work from anywhere
- Shrinking IT staff



# Worries all gone with cloud. Really?



- What about security?
- Mobile users and different devices?
- Vulnerabilities start to multiply
- What about securing your email in the cloud?



**500 Billion** Emails

per Day in 2016  
and Growing – *Talos Group*

Email remains the #1 threat vector



# Security Complicated by Migration to the Cloud



**Moving to Cloud-based email creates new risks**

**Gartner estimates 60% cloud adoption by 2022<sup>1</sup>**

**Access control**



**Data leaks**



**Uptime**



**Visibility**





# Phishing leaves businesses on the line



Phishing



Spoofing



Ransomware



**94%**  
of phish mail has  
malicious  
attachments<sup>1</sup>



**UAE is 8<sup>th</sup> Highest**  
for spear phishing  
attacks\*

**\$500M**



Yearly loss from  
phishing attacks by  
US companies<sup>2</sup>

<sup>1</sup>2016 Cisco Annual Security Report  
<sup>2</sup>2016 Verizon Data Breach Report, Kerbs on Security

Messages contain  
attachments and URL's

Socially engineered  
messages are well  
crafted and specific

Credential "hooks" give  
criminals access to your  
systems

# Spoofing rates are on the rise



Phishing



Spoofing



Ransomware

Dubai Police Force Spoofing



<sup>1</sup>FBI Warns of Dramatic Increase in Business email scams, 2016

Forged addresses  
fool recipients

Threat actors extensively  
research targets

Money and sensitive  
information are targeted

# Ransomware holding companies hostage



Phishing



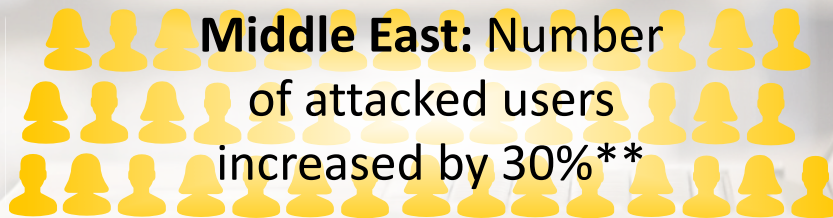
Spoofing



Ransomware



Cyber-attacks in  
Middle East rise  
15% in Q1 2016\*



**Middle East:** Number  
of attacked users  
increased by 30%\*\*

**\$60M**

Cost to consumers  
and companies of  
a single campaign<sup>2</sup>

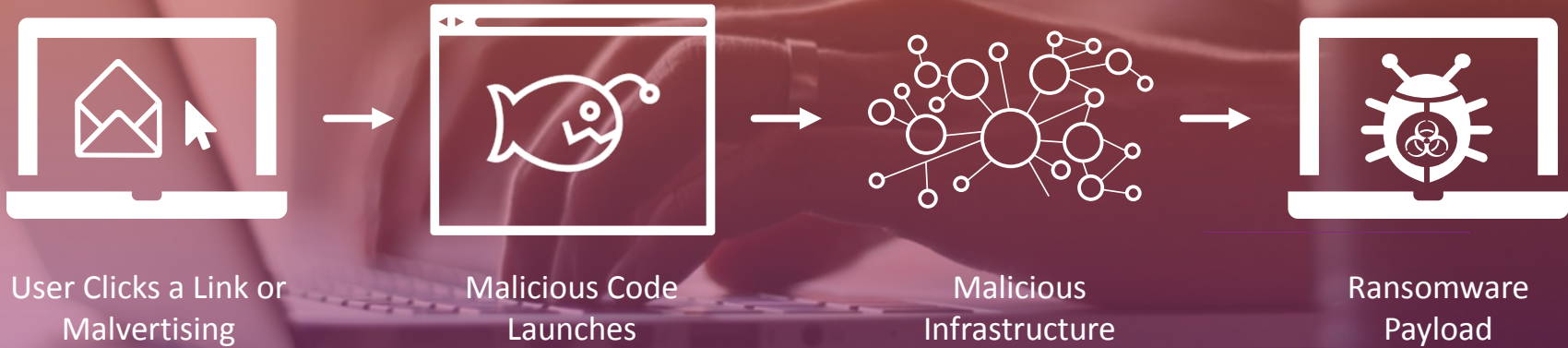
\*2016 Verizon Data Breach Report, Kerbs on Security  
\*\*2016 Cisco Annual Security Report

Malware encrypts  
critical files

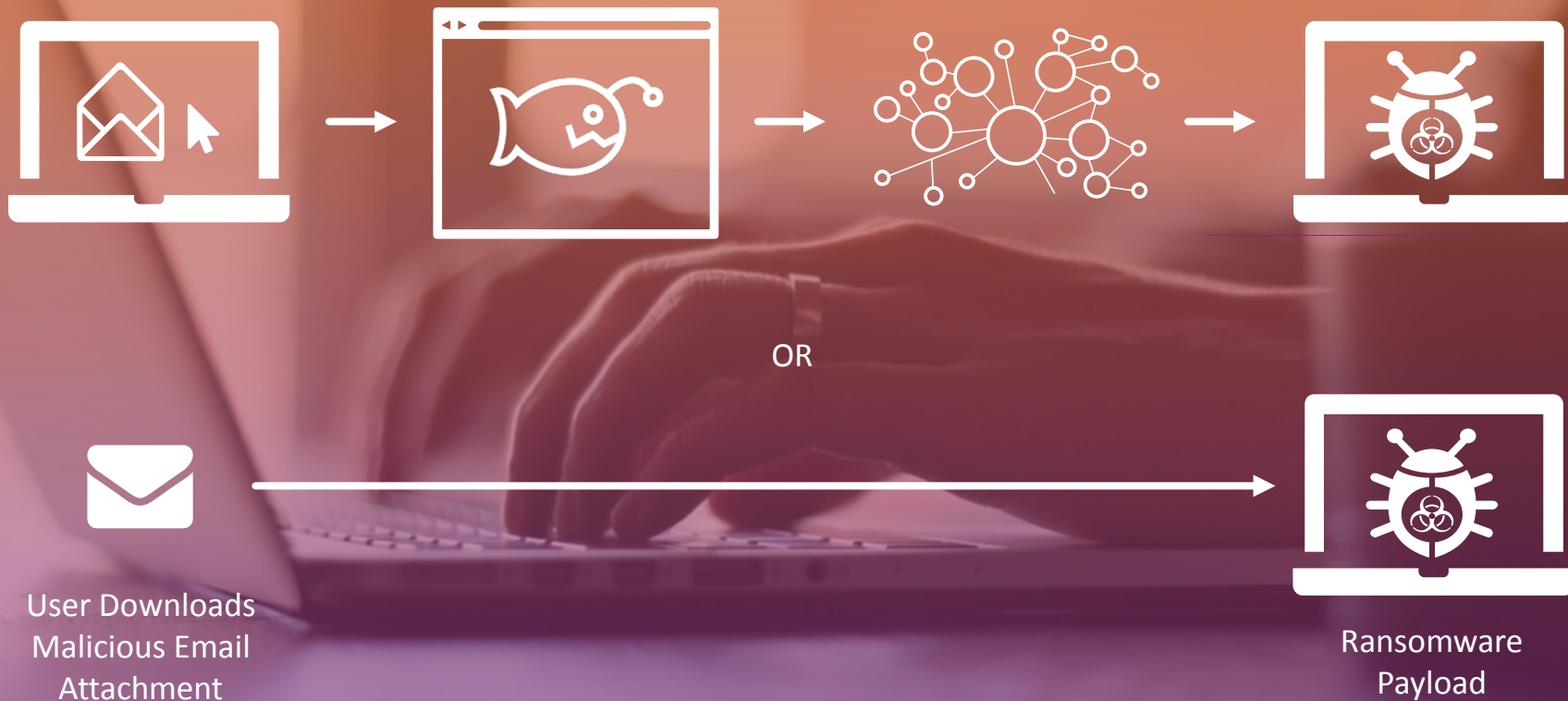
Locking you out of your  
own system

Extortion demands  
are made





## Anatomy of a Ransomware Attack – URL Vector



## Anatomy of a Ransomware Attack – Email Attachment Vector

# YOUR FILES ARE ENCRYPTED!



# Protecting from Ransomware



## File Reputation

Preventative blocking  
of suspicious files



## File Sandboxing and Analysis

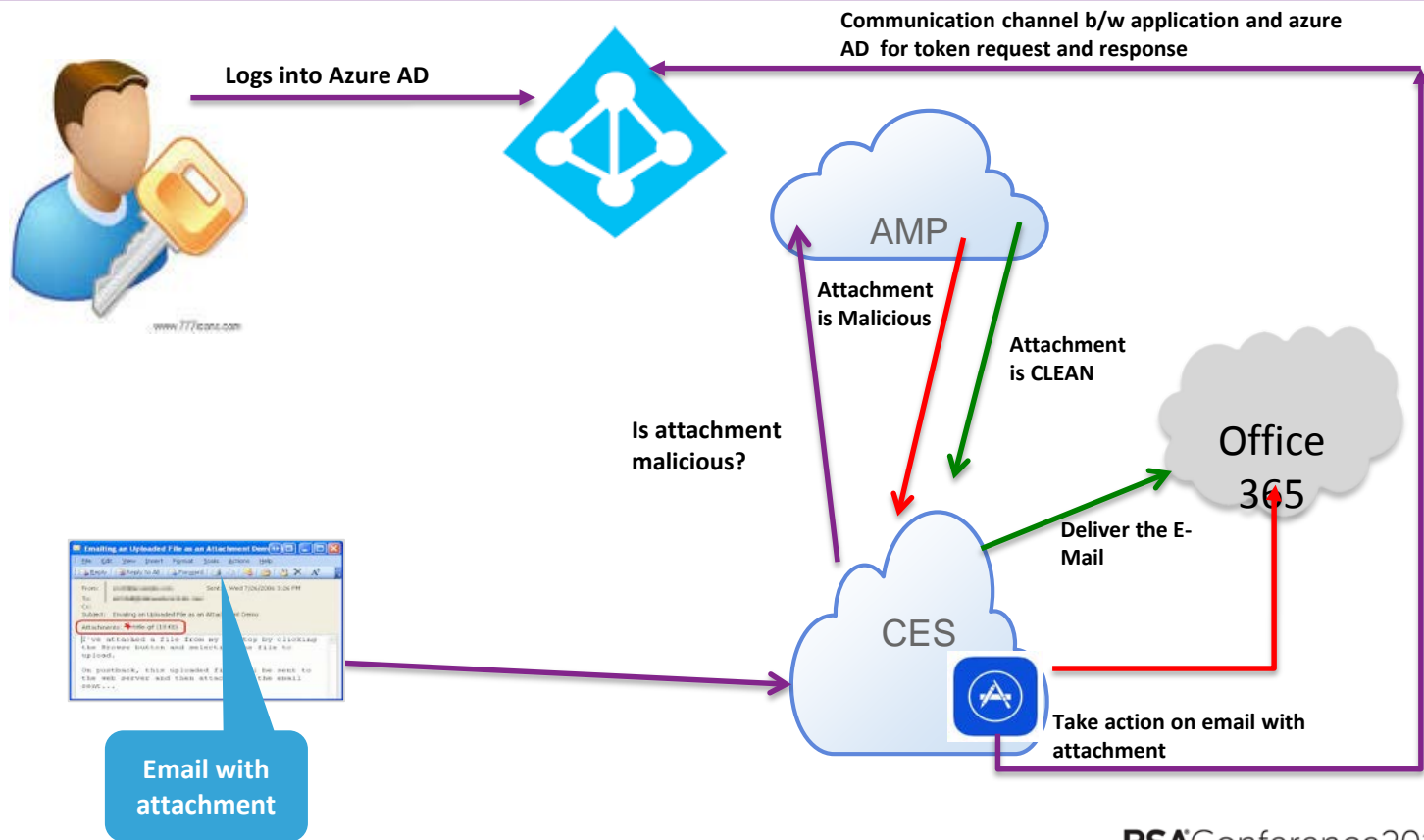
Behavioral analysis  
of unknown files



## File Retrospection

Retrospective alerting  
after an attack

# Automation is Important





# Summary



- Cloud has great benefits and some risks
- Email is a favorite attack vector
  - Phishing attacks
  - Spoofing
  - Ransomware
- Advanced malware protection is the key for protection

# Next Steps...



- Examine your email security strategy
- Evaluate security provided by your cloud provider and determine if additional protection is needed
- Implement advanced malware protection