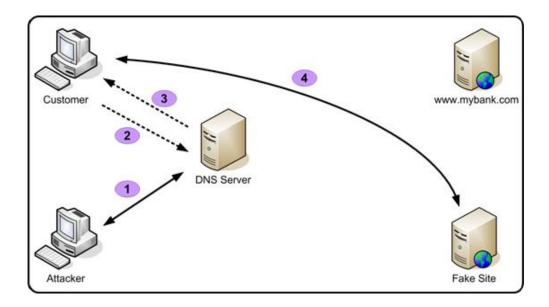
Security



Bowdoin	Sean Barker	1

Pharming



Sean Barker

Phishing

C ▲ Dangerous https://pappal.account.getbill-service.com/signin/		
	and a segment	
	PayPal	
	Email	
	Password	
	Log In	
	Having trouble logging in?	
	Sign Up	
	Contact Us Privacy Legal Worldwide	

Phishing

Please verify a	recent charge attempt	٩.
MISSION Hello, Sean K Barker	Account Ending: 31019	
Fraud Protection		
or your security, we regularly monitor elow are the details of an attempted c	accounts for possible fraudulent activity. harge:	
Attempt Date:	11/06/16	
Merchant:	SHAW S	
Amount:	193.95 USD	
o you recognize this attempt?	Not Approved	
o you recognize this attempt?	No y addressed this concern, please disregard	
Io you recognize this attempt?	No y addressed this concern, please disregard security of your account.	
you or an authorized party has alread is message. hank you for helping us to protect the	No ly addressed this concern, please disregard security of your account. Services	
you or an authorized party has alread is message. hank you for helping us to protect the merican Express Account Protection S Contact Us I Privacy St Our Card Member information is included our Card Member information is included role cemail from American Express. To	No y addressed this concern, please disregard security of your account. Services atement I Add us to your address book above to help you recognize this as a customer learn more about e-mail security or report a maxerense. com/hishing. We known as you not	
to you recognize this attempt?	No Y addressed this concern, please disregard security of your account. Services atement I Add us to your address book above to help you recognize this as a customer learn more about e-mail security or report a amserverses.com/bihling. We kindly ask you not s via customer service.	
to you recognize this attempt?	No Y addressed this concern, please disregard security of your account. Services atement I Add us to your address book above to help you recognize this as a customer learn more about e-mail security or report a amserverses.com/bihling. We kindly ask you not s via customer service.	

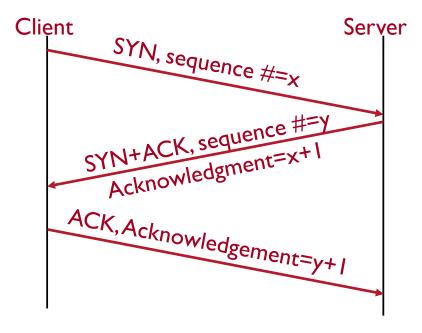
Dear Membership		Account : 37***	
Fraud	Protection		View Now
For your security	, we regularly monitor	accounts for	possible fraudulent activity.
Below are the de	etails of an attempted c	harge:	
Payment Due	Date:	Octobe	r 20, 2018
Merchant info	rmation:	walmar	t.com
Amount:		\$890.00)
Status:		Not Ap	proved
applicable, you s heir new charge your account <u>Vis</u>	hould advise any Addi s may also be declined <u>it Here</u> .	tional Card M	ed above may be declined. if Member(s) on your account that ard your account, please access
applicable, you s heir new charge your account <u>Vis</u> Thank you for yo	hould advise any Addi s may also be declined	tional Card M	Member(s) on your account that
applicable, you s heir new charge your account <u>Vis</u> Thank you for yo	should adviše any Addi s may also be declined <u>it Here</u> . our Card Membership.	tional Card M	Member(s) on your account that
applicable, you s heir new charge your account <u>Vis</u> Thank you for you American Expres	thould advise any Addi is may also be declined it Here. wur Card Membership. ss Customer Care START A NE	tional Card № I. To safegua	Aember(s) on your account that and your account, please access
applicable, you s heir new charge your account <u>Vis</u> Thank you for you American Expres	ihould adviše any Addi s may also be declined <u>it Here</u> . nur Card Membership. ss Customer Care	tional Card M I. To safegua	dember(s) on your account that and your account, please access
applicable, you s heir new charge your account <u>Vis</u> Thank you for you American Expres	thould advise any Addi is may also be declined it Here. wur Card Membership. as Customer Care START A NE DISCUSSION	tional Card M I. To safegua	Aember(s) on your account that and your account, please access University on Facebook Ellow Us on Facebook Fallow Us on Twitter
applicable, you s heir new charge your account <u>Vis</u> Thank you for you American Expres	ihould adviše any Addi is may also be declined it Here. wur Card Membership. as Customer Care START A NE DISCUSSION Join Community @A	W mex	dember(s) on your account that and your account, please access Image: the Us on Facebook Image: the Us on Facebook <t< td=""></t<>

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Phishing

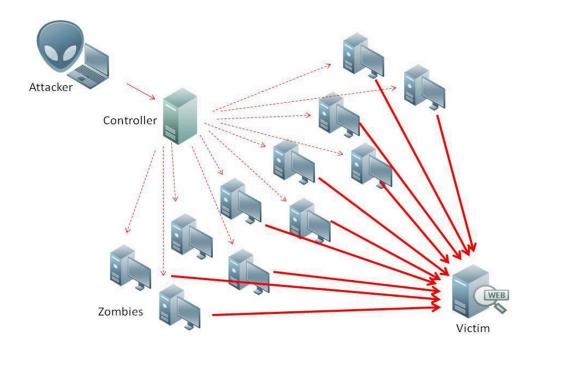
	Verify a recent	charge attempt	
	Dear Membership	Account : 37***	
	A Fraud Protection	View Now	
	For your security, we regularly monitor act	counts for possible fraudulent activity.	
From: American Express Online 10659	Below are the details of an attempted charge:		
Tom. American Express online 10005	Payment Due Date:	October 20, 2018	
	Merchant information:	walmart.com	
	Amount:	\$890.00	
Subject: RE: Fraud Detection: Please view	Status:	Not Approved	
your recent activity and we'll help you take corrective action. ID0225840 Date: October 20, 2018 at 4:50:35 PM EDT	For your security, new charges on the acc applicable, you should advise any Additio their new charges may also be declined. T your account <u>Visit Here</u> . Thank you for your Card Membership.	nal Card Member(s) on your account that	
	American Express Customer Care		
To: undisclosed-recipients:;			
	START A NEW DISCUSSION Join Community @Am		
	Contact Us Privacy Stater	nent Add us to your address book	
	Your Card Member information is included abc service e-mail from American Express. To lear suspicious e-mail, please wisit us at <u>americane</u> to reply to this e-mail but instead contact us via	n more about e-mail security or report a xpress.com/phishing. We kindly ask you not	
	© 2018 American Express. All rights reserved.		
	AGNEUBBK0002003		
Bowdoin Sean Ba	 rker		

TCP Three-Way Handshake



Sean Barker

Distributed Denial of Service (DDoS)



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Bowdoin
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Sean Barker

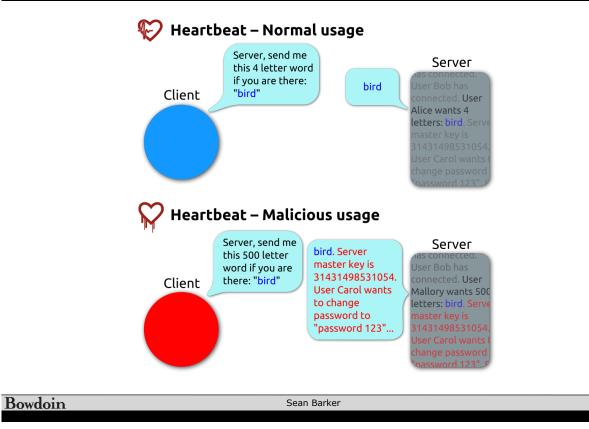
Botnet Resource Consumption

Attack	Resource Threshold	Requests/Bot	Bots needed to exhaust
Static HTTP GET	60,000/sec	93 requests/sec at 250 bytes/request	645
Dynamic HTTP GET	3,000/sec	93 requests/sec at 250 bytes/request	40
SSL Handshake	600/sec	10 requests/sec	60

Sean Barker

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Heartbleed (2014)



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