Threat Response -Doing the right thing first time



Greg Day Principal security analyst EMEA AVERT Member

July 28, 2009



How many of you are watching this



CM		n/tech	nology					POWERED BY		
HOME A	SIA EUROPE	U.S. WORLD	WORLD BUSINESS	ECHNOLOGY	ENTERTAINMEN	WORLD SPORT	TRAVEL			💻 on TV 🕞 VIDEO 🚦
Hot Topics	» Style and D	esign • <u>Planet In</u>	Peril • Eco Solutions • iP	hone • <u>Digital</u>	Biz • more topics	0				Weather Forecast Edi
										SHARE EMAIL SAVE PRIN
			on dies, al et with him		akes		 Mich AOL' CNN 	's instant messen I reports fivefold ir	ath sees Twitter, TMZ, news sites iger service, Jackson fan sites als icrease in users, traffic rs alongside news of Jackson's d	so hit
		June 26, 2009	Updated 1902 GMT (03	802 HKT)			Next	Article in Technolog]у »	
		READ				INTERACTIVE	TIM	ELINE		
		By Linnie Rawl CNN	nson and Nick Hunt				TE	ENT SIZE 😑 🕀		
			land (CNN) How man if that one is Michael Ja		s it take to break	the Internet? On J	une 25, w	e found out		KONICA MINOLTA
		Ĵ		•	troubled s him, as th death sw "Between p.m. PDT experienc queries n spokesm Google N	est showbiz story of atar take a good sl er ripples caused ept around the glo approximately 2:4 today, some Goog ed difficulty acces elated to Michael J an told CNET, whi ews users compli- cessible for a time	ice of the I by the new be. 0 p.m. PD gle News u sing seard ackson," a ch also re ained that	nternet with /s of his T and 3:15 users ch results for a Google ported that the service	OLED LIGHTING : A LAYER OF LIGHT NEW LIGH NEW LIFE. TOP DESIGNERS IMAGINE F USES FOR OLED LIGHTING CLICK HERE 7	

• When does it become an incident?

By The End of 2008



	1997	End of 2007	End of 2008
Vulnerabilities	440	B 500	34,100
Password Stea (Main variants)			380,000
Potentially Unwanted Prog		24,000	26,000
Malware (famil (DAT related)	17,000	358,000	484,000
Malware (main variants)	18,000 (?)	586,000	2,700,000
Malware Zoo (Collection)	30,000 (?)	5,800,000	16,300,000

We can no longer afford to clean up after the incident...





How many of you were monitoring – Nirbot.worm?

McAfee

Exploits

- Microsoft Windows Server Service Buffer Overflow (MS06-040)
- Symantec Client Security and Symantec Antivirus Elevation of privilege vulnerability (SYM06-010)

Can:

- Gather system information (CPU, RAM, OS Version, IP address, UserName, Uptime)
- Scan network for machines to infect.
- Launch a TFTP, HTTP server and SOCKS4 proxy.
- Download and Execute files.
- Update bot.
- Uninstall bot.

E Eile	⊻iew	Favorites	Tools	Commands	Window	Help		_ 8 ×
<pre><auer1 (5.0="" *="" 192="" 83mb="" <[2k]="" <auer1="" [2k]="" [3="" [ip:="" [up1=""]="" and="" auer="" exp:<="" micn="" pass="" pre="" retn="" xeon=""></auer1></pre>	t> Me wait USA rievi t> Tr s sor rt cf USA frosof 0 bui n(TM) B/255 Syste time: rt cf USA USA USA USA USA USA USA USA USA USA	ting fo P[00]V Ing ##0 Ne bot Ne samp Nanges P[00]Vb Ft Wind Ild 219 O CPU 2 SMB] [C 2.168.1 P[00]Vb Nanges P[00]Vb Nanges P[00]Vb	d in a r the baKfh2 C mode has jo le con topic aKfh2 (ountry .59] [C:\W] 19m] topic baKfh2 ost: topic aKfh2 (ost: topic	oined in.	connect joined . I'm g sinfo' em: [OS e Pack Intel(4hz] [R d State Iminist tem32] tinfo' kicked IP: 800 an.stat istics:	##OC onna : 4 R) AM: s] rator by	▲ @Avert	

How many of you were monitoring Conficker.worm?





Threat Incident response



- When is the right time to engage?
 - On industry/vendor advisory?
 - On business incident?
 - On technology alerts?
 - Real time events
 - Log analytics
- Reactive or proactive
 - On vulnerability?
 - On Exploit?
 - On threat?
 - On data breach?



You receive alerts/advisories like these...



W32/Conficker.worm [MTIS09-003-A (MS08-067) Microsoft Windows Server Service Vulnera W32/Conficker.worm Threat Identifier(s) CVE-2008-4250;MS08-067 Threat Identifier(s) Threat Type Malware Threat Type Vulnerability Risk Assessment Low Risk Assessment Critical Main Threat Vectors LAN; WAN; Web Main Threat Vectors LAN: WAN: Web User Interaction Required No User Interaction Required Yes A vulnerability exists in Mic The W32/Conficker worm exploits the MS08-067 vulnerability, in allows for remote code exe Microsoft Windows Server Service. Machines should be patched handling of specially-crafte and rebooted to protect against this worm's reinfecting the system Description Description successful attack scenario. after cleaning, which may require more that one reboot. Scheduled control of a target system tasks and autorun.inf files have been seen to reactivate the worm. currently being exploited b Low. W32/Conficker.worm exploits the MS08-067 vulnerability. Importance High, Critical, On October 2 Importance the issue. McAfee Product Coverage * McAfee Product Coverage * Coverage was provided in the 5444 DAT files, released The scan engine does not r November 24, 2008. Detection and repair was updated in the DAT files vulnerable component. Cov 5488 DAT files, released January 7. (Users infected by as Spy-Agent.da in the 541 DAT files W32/Conficker.worm should perform an On Demand Scan to remove remnants of the worm in memory using the latest DATs. Generic Buffer Overflow Pro VSE BOP execution exploits. After detection of W32/Conficker!mem and rebooting, the W32/Conficker.worm malware components will be removed.) Buffer overflow protection Host IPS exploits. An updated signal Buffer overflow protection is expected to cover code-execution VSE BOP specifically address the MS exploits. Existing signature '0x4760' Generic Buffer Overflow is expected to cover code-execution can detect some of the knc exploits, "Windows Server Service Buffer Overflow Vulnerability IntruShield 23rd Oct 2008, (0x40709d (Tighter Security)," Signature 3768, can provide partial coverage. Host IPS Remote Code Execution Vu Signature 3961, released October 28, 2008, will block denial-ofpossible future variants of service and code-execution exploits associated with MS08-067. The FSL package of Octobe Foundstone assess if your systems are The sigset release of October 23, 2008, includes the signature IntruShield "NETBIOS-SS: Microsoft Server Service Remote Code Execution The MNAC package of Octo MNAC Vulnerability," which provides coverage. assess if your systems are Foundstone The V-Flash of October 24 Coverage not warranted at this time V-Flash McAfee Threat Center: [MS MNAC Coverage not warranted at this time Additional Information Service Vulnerability [9586 V-Flash Out of scope McAfee VIL: W32/Conficker.worm

Additional Information

McAfee VIL: MS08-067 - Microsoft Windows Server Service

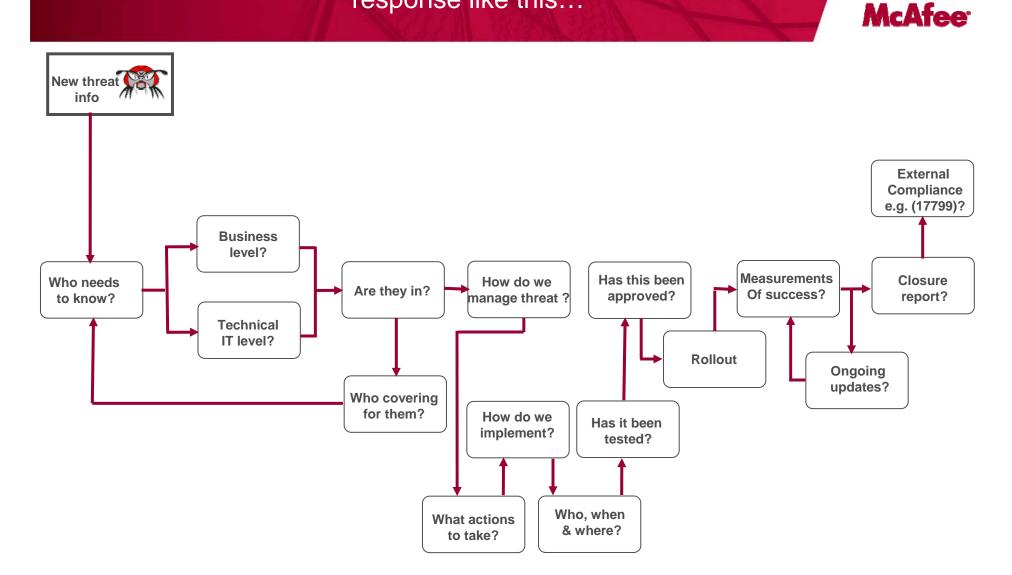
Vulnerability - 958644

Which should lead to questions like these...

McAfee

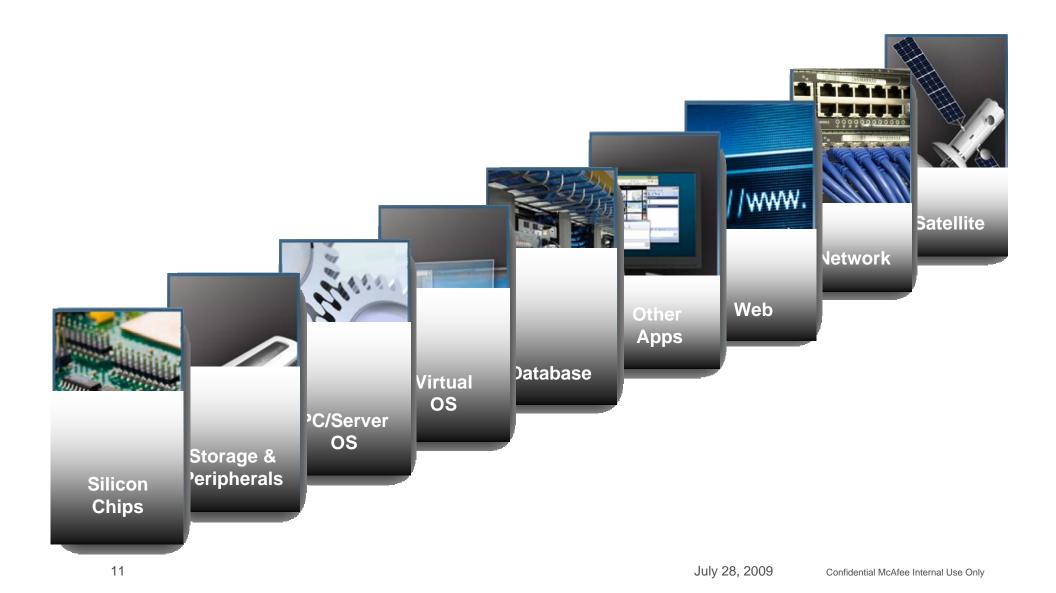
- What is the threat?
- Is it real or theoretical?
- What could the threat do?
- What would it actually do to my business?
- How would that impact my business?
- How likely is it to happen?
- What countermeasures do I have in place?
- Which countermeasures should I enable?
- What order should I enable them in?
- What impact will these have on my business?

Which instigate something level of incident response like this...



To answer we have to correlate Multi-Layered Intelligence:from Silicon to Satellite

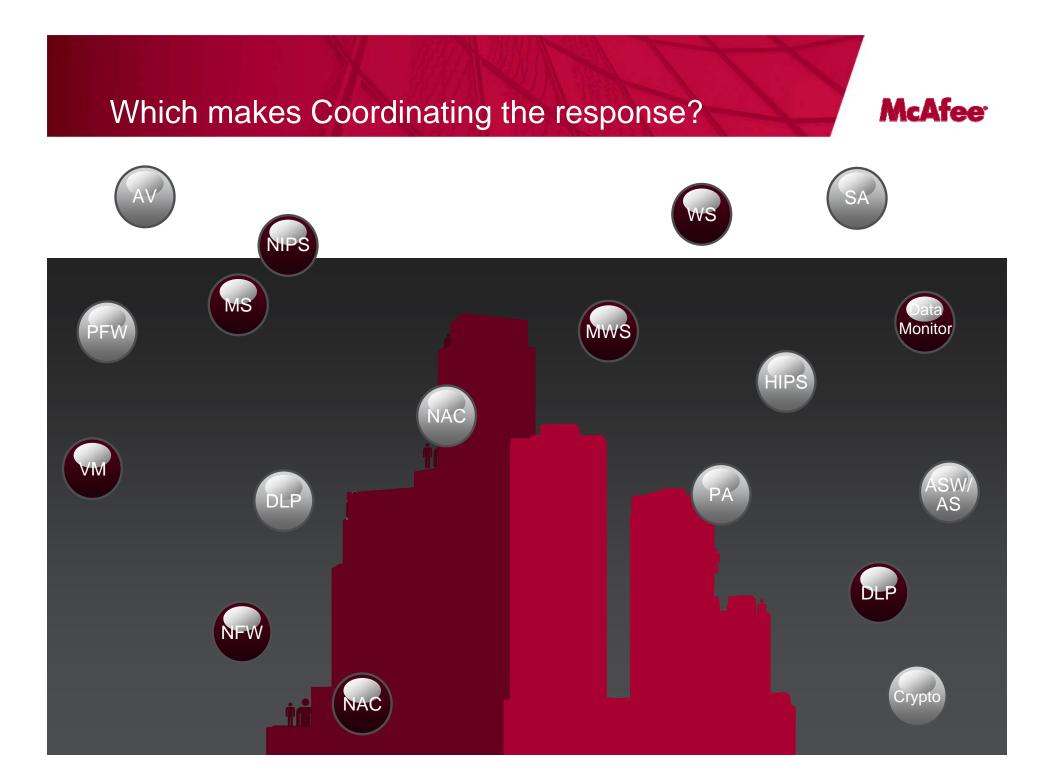
McAfee[•]



Utilising some of these vendors



IF	PS	C	Data	Vuln	erability		Encry	ntion	
McAfee TippingPoint Sourcefire Juniper Cisco IBM Entrasys NitroSecurity DeepNines StillSecure Check Point Stonesoft	Top Layer Radware Snort NA HP McAfee Cisco Juniper Symantec Aruba Sophos Check Point TippingPoint Entrasys StillSecure Nortel	AC McAfee Symanted CodeGreen Credan Luminsion Cisco WebSense InfoExpress Insightx Impulse Point Forescout Bradford Consentry Trustwave	c SoloBreaker Verdasys t Oakley Orchuesria Fidelis	Ma McAfee IBN Microsof nCircle Qualy Nessu	e Lumensi M NetlQ ft Rapid7 e WhiteHa s Acunetix	at G c Forge eeware)	Check Point Sophos Credant PGP uardianEdge (Symantec) Wntrust WinMagic Information ecurity Corp. iAnyWhere Solutions BeCrypt	McAfee SecureWave winMagic SafeNet Wave Systems Mobile Aromr Microsoft IBM TrendMicro	
McAfee Barracuda TrendMicro Symantec Cisco Google SonicWALL WebSense BorderWare Microsoft PrrofPoint	NUBA	pe Network - McAfee Barracuda ContentKeeper CA Webroot Clearswift 8e6 (Marshal)	Cisco Trend ScanSafe Symantec Websense BlueCoat Aladin Finjan Mi5(Symantec) Facetime CP Secure	Firev	HP	McAfee Symantec TrendMicro Sophos Kaspersky Panda Microsoft Eset CA F-secure eEye Digital Prevx Check Point IBM Landesk BigFix	SkyRecon Microsoft G data Trust Port eScan BitDefender Avira Dr Web F-Port BullGuard Arcabit Risisng Softw Clam VBA AVG	McAfee Symantec IBM Microsoft ConfigureSoft BigFix Oracle ThirdBrigade (TrendMicro) vare Policy & Remediatio	'n
12 12						July 28, 2009 End	Point Confide	ntial McAfee Internal Use Only	



To summarise the issues



When does a threat become an incident?

- No single point of threat/risk measurement
- Lack of correlation to the business risk
- Lack of correlation between risk and mitigation tools
 - Have I already solved the problem?

How do I decide when to act?

- Often many if not all security solutions can have some involvement
 - What is the right solution to apply?
- Should I apply the same solution across the business?
- How do I validate the problem is solved?
 - Too many security consoles
- Have I already solved the problem

So what the problem???





We need Smarter Intelligence!

Time to change our approach! Multi-Correlated: Centralized Intelligence

McAfee[•]



How – An "Optimized" Security Architecture?

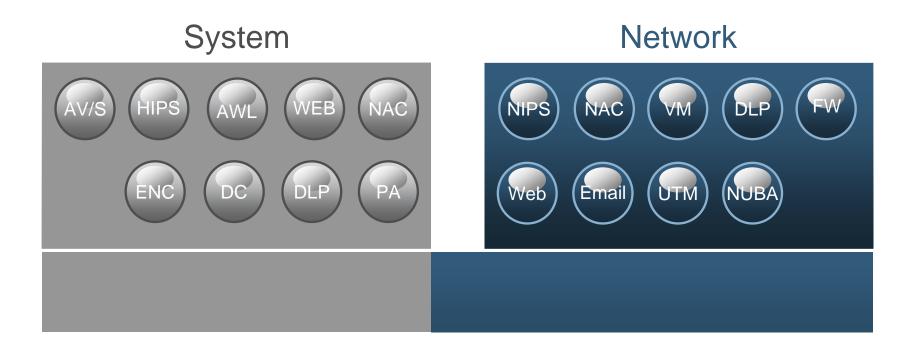


Security Maturity Model

Reactive	Compliant	Proactive	Optimized
 / Event driven / Reactive protection / Basic security 	 Policy development Some standardization External compliance met 	 / Proactive security / Centralized view / Security enables compliance / Audit once, report many / More integration 	 / Multi-layered, Multi-correlated / Global threat intelligence / Automated compliance / Opex efficiencies

Integrate and correlate our Multi-layered Defense

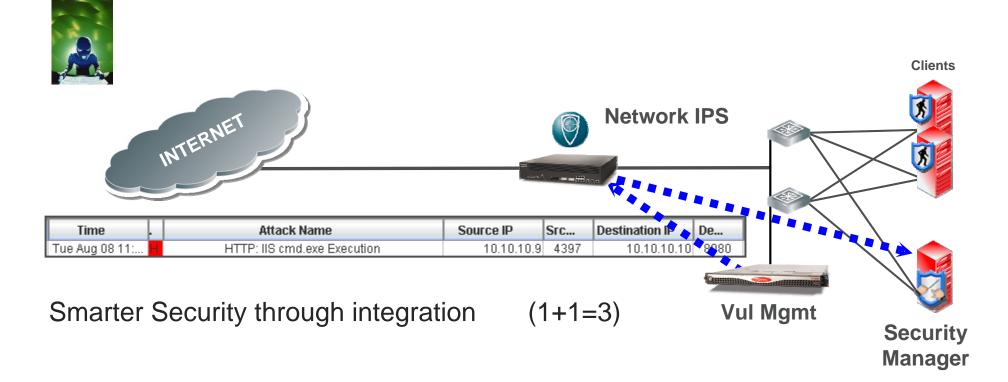




Gathering all the facts

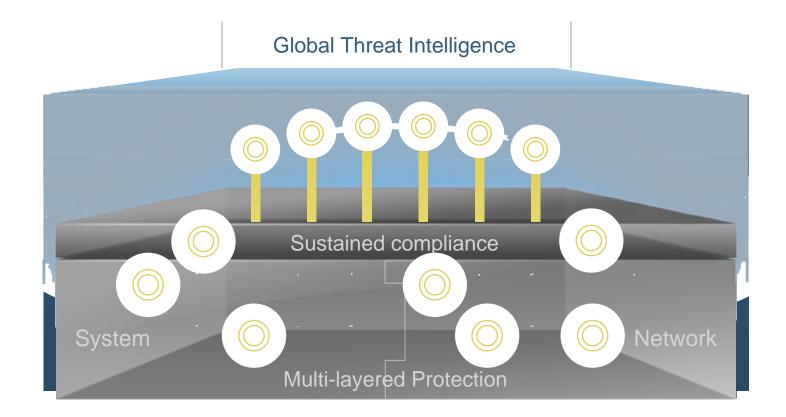


Q: Traffic from the INTERNET going to YOUR WEBSERVER contains a Diffic from X going to Y contains a potential web server threat? RELEVANT Web ATTACK, but the SERVER HAS LOCAL PROTECTION TO STOP IT, I don't need to do anything!



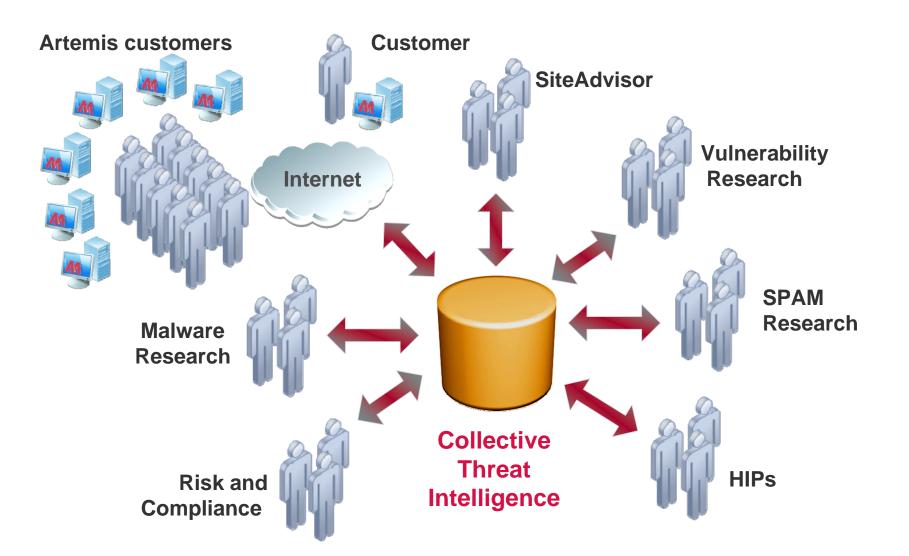
Collaborative Real time intelligence





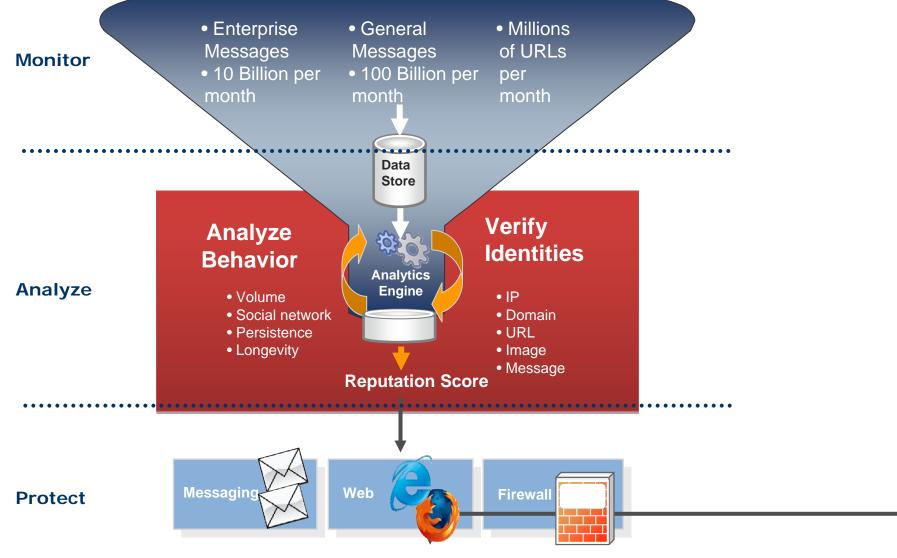
Shared view of the problem – Cloud based intelligence



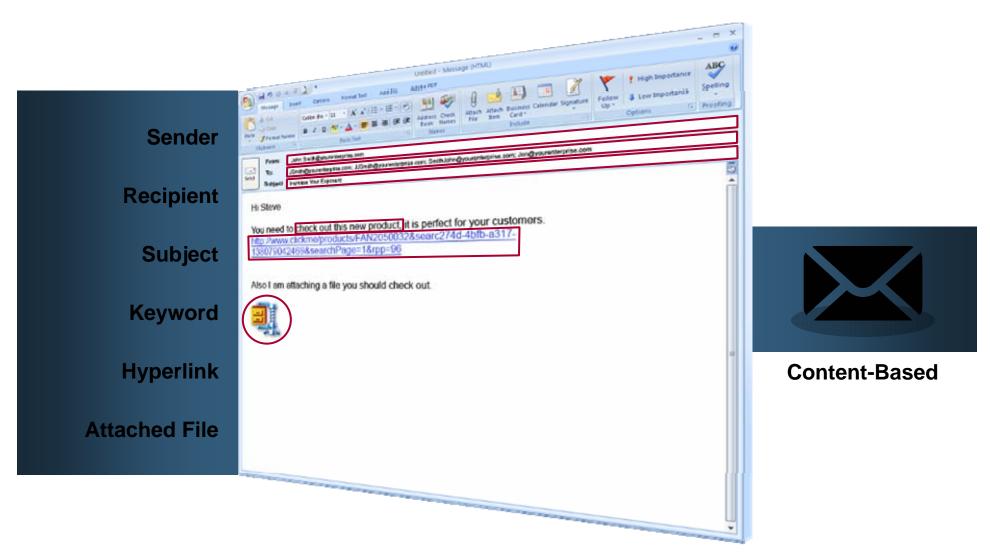


Is it from a Trusted Source?

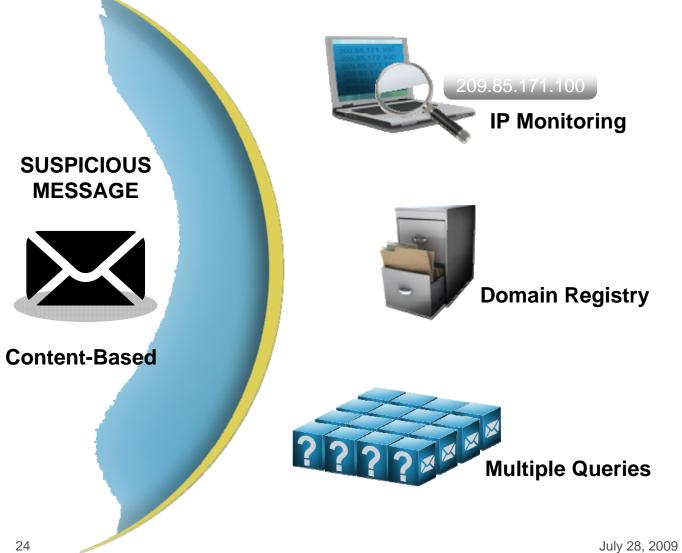
McAfee[•]











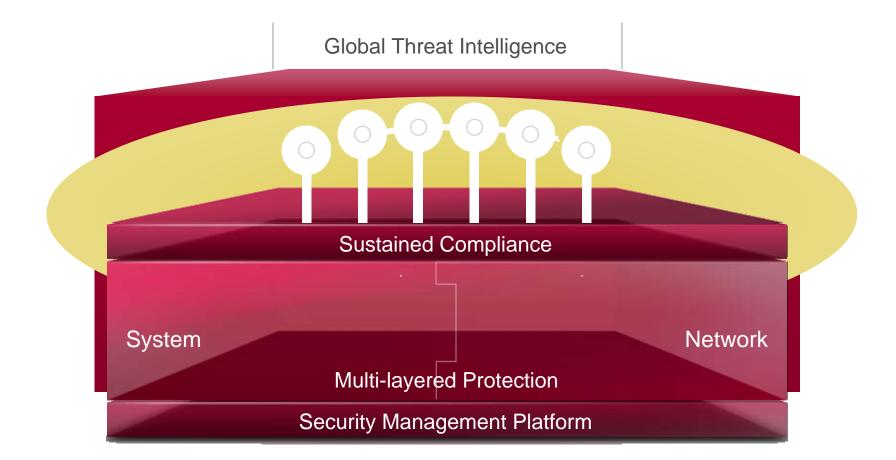
Single point of visibility





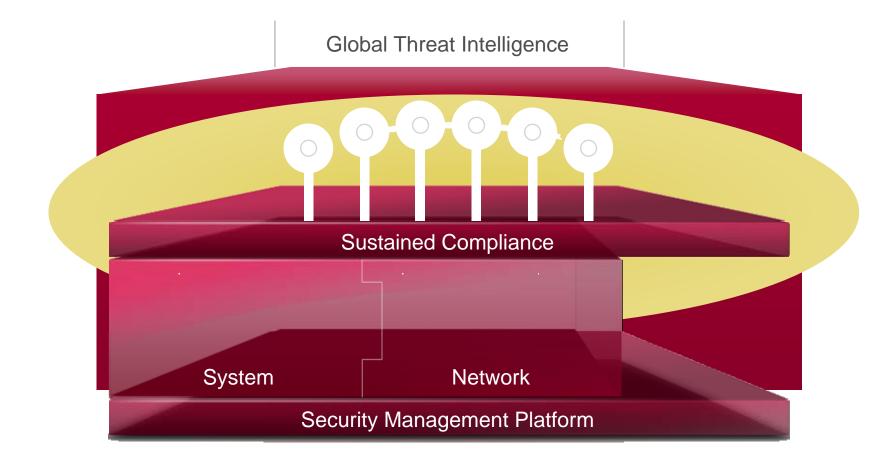
An Optimized Security Architecture





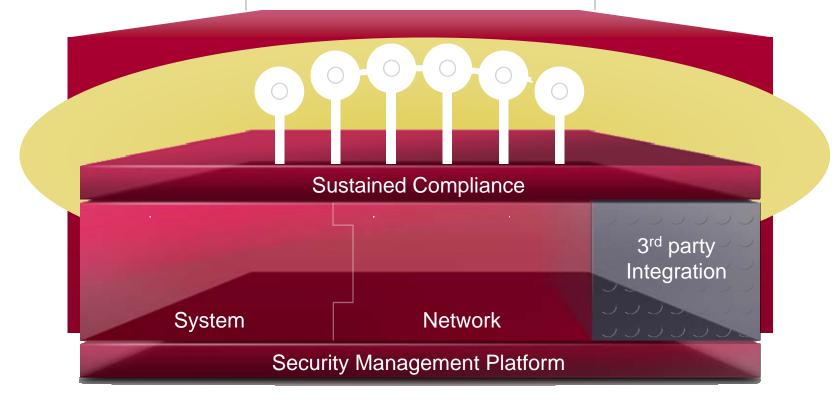
An Optimized Security Architecture – Must scale beyond individual vendors

McAfee



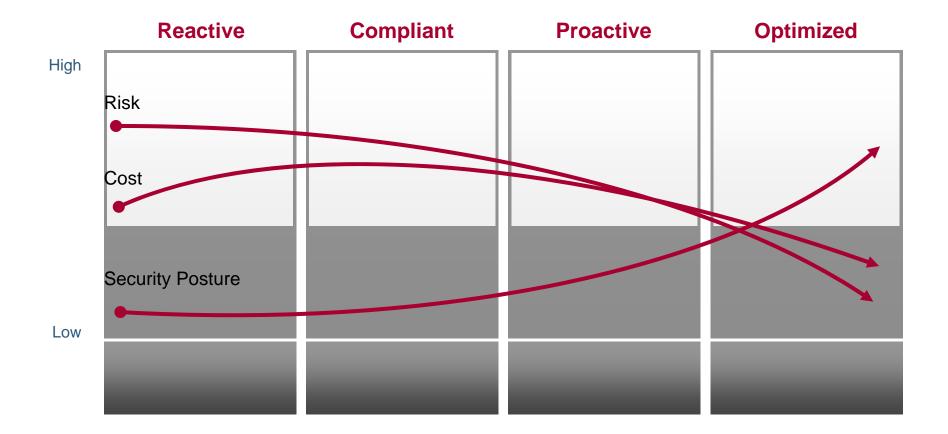


Global Threat Intelligence



Maturity Model of Enterprise Security





The next level: Optimized Security Architecture leads to CARMA

McAfee[•]

McAfee	lvisory	McAfe Orion Platfo	orm	Countermeasure Aware Information		۹.9
rzsos-zas kecutive Summary		and the second s		Awarchinormation		
nce the last McAfee® Avert® L ace:	Labs Security Advisory (October 28), the following noteworthy event has taken	Threat Int	romation			
McAfee product coverag	ge has been updated for a critical Microsoft Windows vulnerability.	Name t		(MS08-001) Microsoft Data Stream Handling Memory Corruption Vulnerability (947864)		
Afee product coverage for this		Description	ni.	A vulnerability is present in Microsoft Internet Explorer that may allow for arbitrary code execution.	Asset Coverage	
	McAfee Product Coverage Updates *	Counterme	easures:	VIL, HIP, VSE		
Arbrisony	Impor- next non Host Intru-					
	tance DAT BOP IPS Shield Poundstone PNAC V-Plasm High N/A Exp Pend Yes Yes Yes Yes	Reported	Jate:	4/8/08 6:03:44 PM		
IS08-067 srv 58644 Current	High N/A Exp Pend Yes Yes Yes Yes High N/A Exp Yes Yes Yes Yes Yes Yes	Attack Ve	ctor:	Website with malicious content		
	dows Service Vulnerability (958644)	Level:				
		Severity:		0		
· · · Institution	and a second second second second					
	CVE-2008-4250;MS08-067	Man day Da	10.000	ACCESSION AND A DESCRIPTION AN		
areat Type	CVE-2008-4250;MS08-067 Vulnerability Critical	Vendor Ra	ting:	Critical	1,139 covered 1	1.460 uncovered
hreat Type isk Assessment	Vulnerability	Vendor Ra Ports:	iting:	Critical	1,139 covered 1	L,460 uncovered
hreat Type isk Assessment lain Threat Vectors	Vulnerability Critical	Ports:				1,460 uncoveres
hreat Type isk Assessment lain Threat Vectors	Veherability Cotical UAR; WAI; Web No A veherability in Microsoft Windows Server Service could allow for					1,460 uncovered
hreat Type isk Assessment iain Threat Vectors ser Interaction Required	Vehenzahlly Catizai Uuky, Wah Bo A vulnarability in Nicrosoft Windows Server Service could allow for nemetic code execution. The file ME is in the proper heading of label ful could or a larger years. This share is a country being	Ports:	ieasures	Answers the question: "Am I a		1,460 uncovered
hreat Type Isk Assessment Jain Threat Vectors ser Interaction Required escription	Nehrenditty Cottad LAR, WAN, Woh Ro An An valenzalizity in Hiczosoft Windows Service Service could allow for encode code execution. The filter lise in the anyorgan handling of cales to be predicted by makeness. This thread is currently being explored by makeness.	Ports: Counterm	ieasures			1,460 uncovered
hreat Type lisk Assessment tain Threat Vectors Iser Interaction Required Description	Vehenzahlly Catizai Uuky, Wah Bo A vulnarability in Nicrosoft Windows Server Service could allow for nemetic code execution. The file ME is in the proper heading of label ful could or a larger years. This share is a country being	Ports: Counterm Product	easures (Vendor: mcafee, Engine Verion: 5.1 (Vendor: mcafee, Product Verion: 7.0		t Risk?"	
hreat Type lisk Assessment lain Troat Vectors Iser Interaction Required Rescription exportance teAfee Product Coverage *	Vehenzahlly Cottoal LAA; Wel: Web Bo A vulnarshallity in Microsoft Windows Server Service could allow for meliciously control BOC: repeated. Exploitation could allow an efficient to sell ful control of a target system. The sheet is currently being exploited by makean. High: On October 22, Microsoft relates a patch that fives the issue.	Ports: Counterm Product VIL HIP	(Vandori mcafee, Engine Vezioni 5.1 (Vandori mcafee, Poduct Vezioni 7.0 Vezioni 425 or higher)	Answers the question: "Am I a , Engine Version: 2:0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 4	t Risk?"	
hreat Type Sik Assessment Lain Threat Vectors Iser Interaction Required escription mportance IcAfee Product Coverage *	Veherability Cotical LAN; Weit; Web LAN; Weit; Web Bo A vulnerability in Microsoft Windows Server Service could allow for immede code executions. The filter less in the reproper heading of deviation of the service service service could allow for immede code executions. The time is in the reproper heading of deviation of the service service service service service service and the service	Ports: Counterm Product VIL HIP VSE	(Vandor: mcafee, Engine Vesion: 5.3. (Vandor: mcafee, Product Vesion: 7.0 Vesion: 422 or higher) (Vandor: mcafee, Product Version: 8.0	Answers the question: "Am I a , Engine Vesion: 2:0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 6 0 or higher, Build: 131 or higher)	t Risk?"	
hreat Type lisk Assessment alian Threat Vectors Iser Interaction Required escription mportance IcAfee Product Coverage * DAT files	Nohemetality: Coltain Coltain Coltain Addi: WMAI, Webl. In additional and the second second second allows for membership or control MV colores Server Servets exords allows for membership or control MV colores (Exploitation could allow an attacker to exploited by membership virtuals). The threat is controlly being method to the second second second second second sequences and the second second second second second method second second second second second second Physics are engined for an engined for an engined for an engined for method second second second second second second second second Physics are engined for an engined for an engined for an engined for method second second second second second second second second Physics are engined for an engined for an engined for an engined for an engined for the second second second second second second second second second whether the second secon	Ports: Counterm Product VIL HIP VSE VSE 8.5	(Vendor: mcafee, Engine Vesion: 5.2 (Vendor: mcafee, Product Version: 7.0 Version: 422 or higher) (Vendor: mcafee, Product Version: 8.0 (Vendor: mcafee, Product Version: 8.5	Answers the question: "Am I a b, Engine Vesion: 2.0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 6 or higher, Build: 131 or higher) 5 or higher, Build: 254 or higher)	t Risk?"	
hreat Type hreat Type lisk Assessment lain Threat Vectors liser Interaction Required hescription mportance teAfere Product Coverage * DAT Hies	Vehenzahlly Cottoal LAN; Welt ; Web Ao, Walt ; Web Ao, Andrecold Parket of the Server Service could allow for analyzed by carlled BPC: repeats E. Splittation could allow an attacket to labe full control of a barge system. This there is a control being exploited by makeura. The scene mayine does not reside between the attack vector and the value and composed and the service of the scene of the service of the scene mayine does not reside between the attack vector and the value and composed of a barber of parket at part of the value and composed of the Server of parkets is provided as Server fuller overlapped and the Server of the scene may be scene of the value and the scene regime. The scene may be scene of the scene generative regimes.	Ports: Counterm Product VIL HIP VSE VSE 8.5	(Vandor: mcafee, Engine Vesion: 5.3. (Vandor: mcafee, Product Vesion: 7.0 Vesion: 422 or higher) (Vandor: mcafee, Product Version: 8.0	Answers the question: "Am I a b, Engine Vesion: 2.0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 6 or higher, Build: 131 or higher) 5 or higher, Build: 254 or higher)	t Risk?"	
hreat Type hreat Type lisk Assessment lain Threat Vectors liser Interaction Required hescription mportance teAfere Product Coverage * DAT Hies	Nohemality Catizat LAR; WAH; Web Ro Ro A valenzalizati y Microsoft Windows Server Service could allow for memode code execution. The filter lise is the suprograph famility of class to the service of the service of the service of the patient for making the service of the service of the service of the set of the service of the service of the service of the service hybrid of the service of the service of the service of the service of the service only the service of the service of the service of the the service only the service of the service of parkeds is sorted and the service only the service of the service of parked service of the disease of the service of the service of parked service of the classics that only the service of the service of parked service of the classics that only the service of the servi	Ports: Counterm Product VIL HIP VSE VSE 8.5	Vendor: mcafee, Engine Vesion: 3.2 (Vendor: mcafee, Product Version: 7.0 Version: 428 or higher) (Vendor: mcafee, Product Version: 8.0 (Vendor: mcafee, Contant Version: 58	Answers the question: "Am I a b, Engine Vesion: 2.0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 6 or higher, Build: 131 or higher) 5 or higher, Build: 254 or higher)	t Risk?"	
hreat Type tick Assessment tick Assessment tick Assessment tick Assessment tick Assessment how the tick assessment tick Assessment tic	Nohemetality: Cotical Date: WHAT Web An extension of the second secon	Ports: Counterm Product VIL HIP VSE VSE 8.5 Foundstone Applicatio	Vendor: mcafee, Engine Vesion: 3.2 (Vendor: mcafee, Product Version: 7.0 Version: 428 or higher) (Vendor: mcafee, Product Version: 8.0 (Vendor: mcafee, Contant Version: 58	Answers the question: "Am I a), Engine Version: 2:0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 6 0 or higher, Build: 131 or higher) 0 or higher, Build: 254 or higher) 107 or higher)	t Risk?"	
hreat Type isk Accessment isk Accessment isk Accessment isk Thrat Vectors ter Interaction Required hescription mportance takles Product Coverage * DAT Res VSE BOP Host IPS Intershield	Neherability Cottoal C	Ports: Counterm Product VIL HIP VSE 8.5 Foundston Applicatio Microsoft W	Vandori mcafee, Engine Vesioni 3.1 (Vandori mcafee, Product Versioni 7.0 Versioni 428 or higher) (Vandori mcafee, Product Versioni 8.0 (Vandori mcafee, Product Versioni 8.5 e (Vandori mcafee, Contant Versioni 58) me	Answers the question: "Am I a , Engine Vesion: 2:0 or higher, Build: 99 or higher, Content Version: 428 or higher, Product Version: 6 or higher, Build: 131 or higher) 5 or higher, Build: 254 or higher) 107 or higher] (plorer 5.01 Sp4 Microsoft Windows 2003 Sp2 - Microso	t Risk?" .0 , Engine Vesion: 3.0 or higher, Build: 131 or f	

- ""3,000 to 30" Countermeasure aware risk management correlates MTIS threat feeds with discovered vulnerabilities, assets, and deployed countermeasures (intrusion protection, anti-virus, buffer overflow)
- Leverages AVERT threat advisory information, delivered by MTIS feed
- <u>Risk = (Threat X Vulnerability X Asset)/Detailed Countermeasure</u>

Introducing - CARMA



- Countermeasure Aware Risk Management Application ("CARMA")
- An architecture for future business analytics
- Example: Helps the customer user during a Microsoft Patch Tuesday event
 - What is MY exposure to a specific threat?
 - Do I need to stop production and patch now?
 - With my deployed security, WHERE am I still at risk?
 - If I am at risk, HOW am I at risk?
- Current methods are manual
 - E.g. get Threat Feed, go query each management console to show compliance with threat, once translated from problem to appropriate solutions

McAfee's Project CARMA First phase



- At the heart is the MTIS Threat Feed
- Feed includes Countermeasures
 - VirusScan
 - Engine Version
 - DAT Version
 - Product Buffer Overflow Protection Version
 - Host Intrusion Prevention
 - Product Version
 - Content Version with High Level Signature (McAfee Default policy)
- Also includes Detectors
 - Foundstone
 - Specific FSL Check ID

Server: epo-mac | Time: 12/10/08 4:30:21 PM PST | User: admin

McAfee ePolicy Orchestrator® 4.0

0

0.

60)

Reporting Software Systems Network Automation Configuration

X

Risk and Compliance Dashboard Foundstone Summary CARMA: Threat Dashboard

Options 🔻

40?

CARNA Mark Reserve Threads	٩	CARMA THE THERE IS NOT THE	0	CARNA THE IS LODING COMPANY		CARMA Ter 10 Local Course 14	- (Desetute)
CARMA: Most Recent Threats	to serve the	CARMA: Top Threats By Vendor	212	CARMA: Top 10 Least Covered Threats (P	1.00	CARMA: Top 10 Least Covered Asset	a second at
	Total	[None]	101	Threat Name	Total	System Name	Total
December 10, 2008	2	Apple	77	(MS07-003) Microsoft Outlook Denial of Servi	ce Vulnæ‡al	FS-TEST	391
Linux Kernel sendmsg() Denial-of-Service	1	Sun	57	(MS07-008) Microsoft HTML Help ActiveX Con	trol VuBHer	EPO-MAC	391
Linux Kernel svc_listen() Denial-of-Servic	1	- Linux	45	(MS07-010) Microsoft Antivirus Engine Vulner	ability \$93:	BTRPM-DC1	391
December 9, 2008	29	Mozilla	44	(MS07-011) Microsoft OLE Dialog Memory Col	rruptio64/u	10.101.101.5	362
(MS08-072) Microsoft Word Memory Corr	2	■ IBM	42	(MS07-014) Microsoft Word Macro Vulnerability	ty (9293484	10.101.101.2	362
(MS08-072) Microsoft Word Memory Corr	1	Cisco	30	(MS07-017) Microsoft Font Rasterizer Vulnera	and a second	10.101.101.1	362
(MS08-072) Microsoft Word RTF Object P	1	HP	25	(MS07-017) Microsoft GDI Invalid Window Siz	and the second second	FS67TEST	362
(MS08-072) Microsoft Word RTF Object P	1	Adobe	16		Section and section of the	MAC002332C963AA	
(MS08-072) Microsoft Word RTF Object P	1			(MS07-017) Microsoft GDI Local Elevation of I			362
(MS08-072) Microsoft Word RTF Object P	1			(MS07-017) Microsoft WMF Denial of Service		IMAC	273
(MS08-072) Microsoft WordRTF Object Pa	1 🔺			(MS07-021) Microsoft CSRSS DoS Vulnerabilit	A CONTRACTOR OF	MCAFEE-16AB991A	273
(MS08-073) Microsoft Internet Explorer H	1 🔻			Total	340	Total	2 5 2 9
CARMA: Product Threat Protection		CARMA: Threats by Application	D	CARMA: Exploit in the Wild (Microsoft)		CARMA: Exploit in the Wild (General)
VSE BOP HIPS VSE DAT	280 244 125	Microsoft Windows 2000 Service Pack 4 Microsoft Windows XP SP3 Microsoft Windows 2003 SP2 Microsoft Windows Vista SP1 Microsoft Office XP SP3	32 31 27 23	189 Microsoft Exploit Not Available Yet	23 Microsoft F	829 Exploit Not Available Yet 41	Evoloit In the Wi
	(22)	Microsoft Windows 2008	22			- Cas Explore from Available for - 41	aspion in the Wi
CARMA: Protected vs Not Protected	0	CARMA: Exploitable Microsoft Threat	s by Week	CARMA: Threats by Vector	0	CARMA: Threat to Vulnerable Asset	Correlation
				Website with malicio Website or e-mail wi Website or e-mail wi Maliciously Crafted F Malicious remote ne Authenticated locally Undetermined Malicious local netwo Local Application E-mail with maliciou Information disclosu	ith malicious of file twork traffic y logged on us ork traffic is content	Vulnerable But	
3,286 Protected 980 Not Protected	cted	1/1/07 7/1/07 1/1/08	7/1/08)4 +		

Log Off

Granular validation of implemented configuration



Threat Information					
Name :	(MS08-067) Microsof	Windows Server Service Vulnerability (958644)		Risk Summary Risk Details	
Description:	A vulnerability exists	in Microsoft Windows Server Service, which may	allow for remote code execution.	Where am I at Risk?	
Overview:	MS08-067 srv 95864	4		Where an 1 at Kisk?	
Observation:	Server Service, which	Service allows for local resource sharing via RPC. may allow for remote code execution. The flaw II ests. In a successful attack scenario, an attacker o rability.	les in the improper handling of specially-	rafted	
Recommendation:	Download and install /MS08-067.mspx	the patch available from Microsoft(958644): http:	ulletin		
Vendor:	Microsoft				
Threat Source:	McAfee				
Threat Source Creation Date:	10/22/08 11:13:07 F	M			
Threat Source Last Modification Date:	11/18/08 11:29:02 #	M			
Creation Date:	12/5/08 3:07:15 PM				
Last Modification Date:	12/10/08 4:16:17 PM				2220
Attack Vector:	Malicious local netwo	rk traffic		📕 4 Not At Risk 📕 30 At	: Risk
Countermeasures:	HIPS, VSE BOP			*as of 12/10/08 4:17:15 PM	
Detectors:	Foundstone		W32/Conficker.worm	[MTIS09-003-A]	
Severity:	8		Threat Identifier(s)	W32/Conficker.worm	
Vendor Rating:	Critical		Threat Type Risk Assessment	Malware Low	
Basic Threat Score:	9.995		Main Threat Vectors User Interaction Required	LAN; WAN; Web Yes	
Ports:			User Interaction Required	The W32/Conficker worm exploits the MS08-067 vulnerability, in Microsoft Windows Server Service. Machines should be patched	
External References			Description	and rebooted to protect against this worm's reinfecting the system after cleaning, which may require more that one reboot. Scheduled	
Name		Value	Importance	tasks and autorun.inf files have been seen to reactivate the worm. Low. W32/Conficker.worm exploits the MS08-067 vulnerability.	URL
			McAfee Product Coverage	Coverage was provided in the 5444 DAT files, released	URL
BID		31874		November 24, 2008. Detection and repair was updated in the 5488 DAT files, released January 7. (Users infected by	
CVE		2008-4250	DAT files	W32/Conficker.worm should perform an On Demand Scan to remove remnants of the worm in memory using the latest DATs. After detection of W32/Conficker/mem and rebooting, the	
MSFTBulletin		MS08-067	VSE BOP	W32/Conficker.worm malware components will be removed.) Buffer overflow protection is expected to cover code-execution	
Sacunia		\$433336		exploits. Generic Buffer Overflow is expected to cover code-execution	Ŭ.s
			Host IPS	exploits, "Windows Server Service Buffer Overflow Vulnerability (Tighter Security)," Signature 3768, can provide partial coverage. Signature 3961, released October 28, 2008, will block denial-of- service and code-execution exploits associated with MS08-067.	L
			IntruShield	The sigset release of October 23, 2008, includes the signature "NETBIOS-SS: Microsoft Server Service Remote Code Execution Vulnerability," which provides coverage.	
			Foundstone	Coverage not warranted at this time Coverage not warranted at this time	
			V-Flash	Coverage not warranted at this time Out of scope	
			Additional Information	McAfee VIL: W32/Conficker.worm McAfee VIL: MS08-067 - Microsoft Windows Server Service Vulnerability - 958644	
					Back (

34

Cross Reference with other organisations



External References

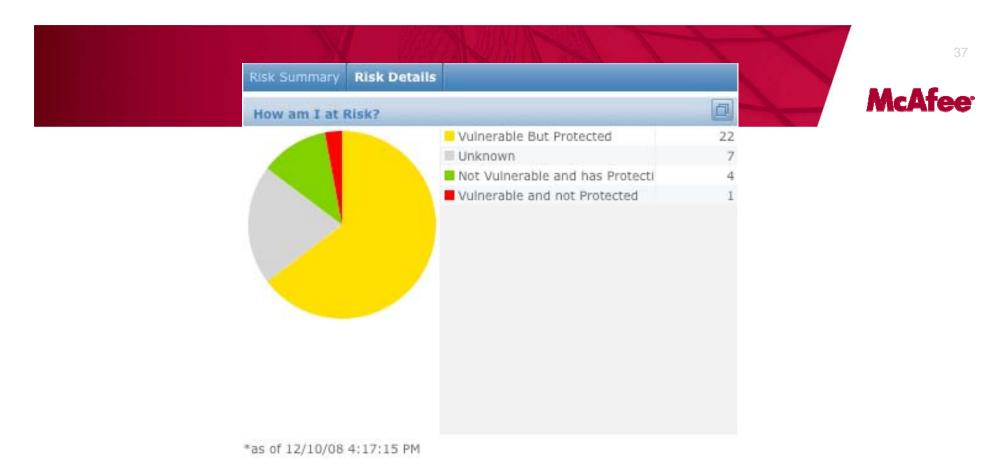
					Description	URL	
3ID		31874		N/A			
CVE		2008-4250		N/A			
MSFTBulletin		M508-067		N/A			
Secunia		SA32326		N/A			
	Name		Confidence		Dependencies		
Microsoft Windows 2000 S	Service Pack 4		10	Microsoft Windows 200	00 Service Pack 4 (10)		
Microsoft Windows 2003 I	tanlum Sp2		10	Microsoft Windows 200	03 Itanium Sp2 (10)		
ficrosoft Windows 2003 S	5p2		10	Microsoft Windows 200	03 Sp2 (10)		
Microsoft Windows 2008			10	Microsoft Windows 200	08 (10)		
Microsoft Windows Vista S	P1		10	Microsoft Windows Vist	ta SP1 (10)		
Microsoft Windows Vista X	(64 SP1		10	Microsoft Windows Vist			
Microsoft Windows XP SP3	3		10	Microsoft Windows XP	SP3 (10)		
Microsoft Windows Xp X64	4 Sp2		10	Microsoft Windows Xp X64 Sp2 (10)			
Microsoft Windows 2003 x	(64 SP2		10	Microsoft Windows 2003 x64 SP2 (10)			
Countermeasures							
Product				Description			
HIPS	(Vendor: McAfee, Produc	ct Version: 6.0 or higher, Build: 3961 or	higher)				
VSE BOP	(Vendor: McAfee, Produc	ct Version: 8.5 or higher)					
VSE BOP	(Vendor: McAfee, Produc	ct Version: 8.0 or higher)					
Detectors							
	Product			Descripti	ion		
Foundstone		(Vendor: McAfee, Signature: 6190))				
Foundstone		(Vendor: McAfee, Signature: 6191	()				
							1
					Actions Taken		
						Back	Clo
//28	/2009					Puer	-

35

Understand where and why I'm at risk

McAfee[•]

Name :	(MS08-067) Microsoft	t Windows Server Service Vulnerability (958644)		Risk Summary Risk Details	
Description:	A vulnerability exists,	in Microsoft Windows Server Service, which may al	llow for remote code execution.	Where am I at Risk?	l.
Overview:	MS08-067 srv 95864				
Observation:	Server Service, which	vulnerability exists, in Microsoft Windows s in the improper handling of specially-crafted uid potentially take full control of a target			
Recommendation:	Download and Install /MS08-067.mspx				
Vendor:	Microsoft				
Threat Source:	McAfee				
Threat Source Creation Date:	10/22/08 11:13:07 P	Μ			
Threat Source Last Modification Date:	11/18/08 11:29:02 A	Μ			
Creation Date:	12/5/08 3:07:15 PM				
Last Modification Date:	12/10/08 4:16:17 PM			· A Mark As Print.	20 At Disk
Attack Vector:	Malicious local netwo	rk traffic	4 Not At Risk 30 At Risk		
Countermeasures:	HIPS, VSE BOP		*as of 12/10/08 4:17:15 PM		
Detectors:	Foundstone				
Severity:	8				
Vendor Rating:	Critical				
Basic Threat Score:	9.995				
Ports:					
External References					
Name		Value		Description	URL
BID		31874	N/A		
CVE		2008-4250	N/A		
MSFTBulletin		MS08-067	N/A		
Sacunia		\$433336	N/A		
				-	
				Actions Taken	



•Red – vulnerable, NO protection!!!

•Yellow - vulnerable BUT they have required countermeasure in place.

•Grey- Unknown – No agent or no assessment

•Green NOT vulnerable YET, but they have a countermeasure in place as well

37 7/28/2009

Surely Vulnerability management does this?

McAfee



However, vulnerability/risk mgmt does show the next step!

Response prioritization

- business impact
- risks associated with remediation
- cost of remediation

Impact to the business is not linear– Risk Analysis gives prioritisation to remediation

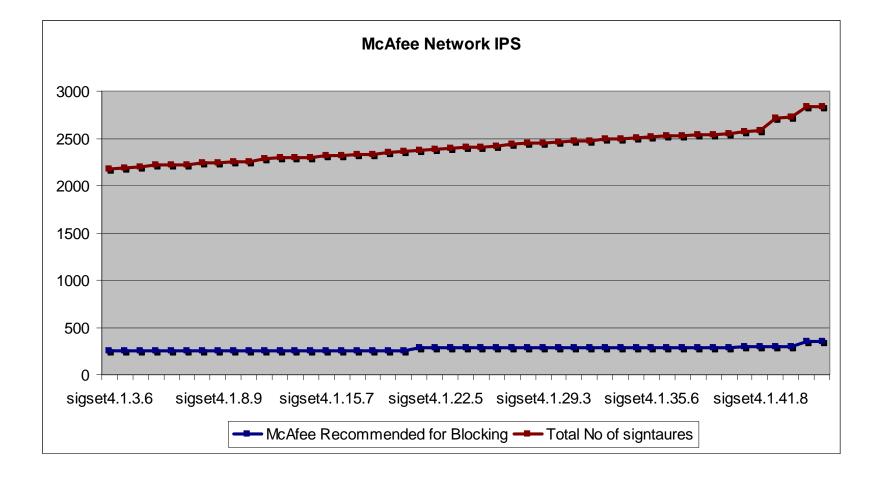
McAfee[•]

- PC down = the loss of productivity and the cost of fixing the asset.
- A revenue-generating web server = higher cost, as the financial impact would be much greater.
 - Example costs for a global enterprise:
 - \$100 per hour, per desktop
 - \$1,000 per hour, per server
 - \$10,000 per hour, per central application
 - \$100,000 per hour per mission-critical application.



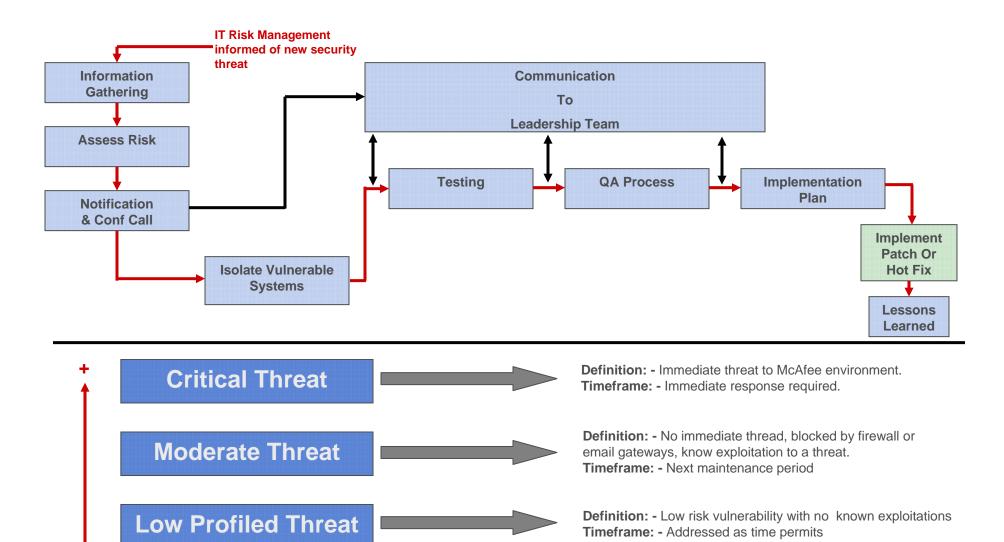
Confidence in the solution



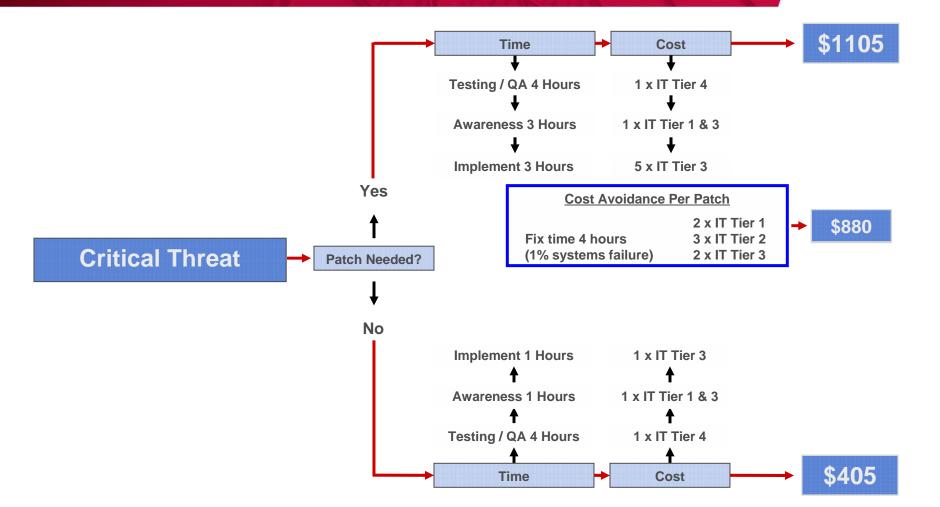


Cost of the solution to the business?

McAfee



Costs – Emergency Patching Versus Not Patching



Cost Saving = Number of patches not required * ((cost avoidance + Cost per patch) - cost of not patching)

McAfee[•]

Summary



- The scope of threat and security solutions is only going to increase in complexity (diversity of use and technology)
- 1. When should I engage?
- 2. Integration is required to get the bigger picture (OSA)
 - Common point of visibility
 - Coordination of threat intelligence
- 3. Optimised Security Architectures (OSA) will provide
 - Framework for
 - improving security posture
 - Reducing costs and risk
- 4. Validation of the Risk to your business (ongoing)
 - Collaborative cloud based intelligence
 - Real risk analysis Mapping countermeasures against threat
- 5. Allows a business risk approach (asset value)
 - Should I respond now or later (risk versus costs)
 - What is the right solution
 - Time to implement
 - Risk factor
- 6. Validation of application of resolution (retesting the risk)

When does this become an incident?





McAfee[®]