



# Desmistificando os Managed Security Services (Security Operations Center Services)

**Fernando Guimarães**

MSS Global Architect

feguima@br.ibm.com



# Agenda

4ª edição  
**IBM Security Forum**



- **SOC** – construir ou contratar? Que **aspectos** considerar ?
- O **Portfólio** de Serviços MSS da IBM
- Visão integrada: Portal **Virtual-SOC**

## SOC - construir ou contratar?

- Preciso **estruturar** um processo formal para gerenciamento e monitoramento de minha infraestrutura de segurança.
- **O que fazer?**
  - Construir a estrutura **internamente** ou;
  - Adquirir o serviço através de **MSSPs** ?



## *Que Aspectos Considerar*

- *build x buy...*
  - Cobertura **24x7**
  - Alocação da **Equipe de Segurança**
  - **Escopo**
  - **Redução de custos** da Infraestrutura tecnológica
  - **Processos Internos** estruturados
  - *Experiência em **Outsourcing***



## **Cobertura 24x7**

- Ao estabelecer o requisito de monitoramento 24x7, pretendo:
    - Contratar,
      - treinar continuamente, manter políticas de retenção, estrutura organizacional própria, 6 analistas por posto
- OU**
- Deixar isso tudo a cargo do MSS Provider



## Alocação da Equipe de Segurança

- **Sua organização:**

- Possui **carência de pessoas** capacitadas em segurança da informação ?
- Deseja que os **recursos existentes mantenham o foco** em atividades **estratégicas** (ex, definição de políticas de segurança, avaliação periódica de risco ou investigação de incidentes internos) ?



### A contratação de um MSSP:

- Irá **retirar a carga operacional** relativa ao gerenciamento e monitoração dos componentes de segurança dos ombros de sua equipe.
- **Reduzirá os custos** relacionados à contratação e treinamento.
- **Liberará a equipe de segurança** para atividades de maior valor agregado.



## Escopo

- Um típico MSSP é capaz de ofertar a gestão dos seguintes processos de segurança:
  - Monitoramento e Gerenciamento **remotos**
  - Recentemente alguns passaram a ofertar guarda de **logs** e **notificação** de eventos de segurança – **sem** gerenciar ou monitorar.
- Um típico MSSP **NÃO** oferta:
  - Implantação das **correções das vulnerabilidades** dos equipamentos **não gerenciados**
  - **Recuperação dos desastres** gerados pelos incidentes.
- Cliente **autoriza mudanças** em configuração dos dispositivos sob gerência



## Redução de custos da Infraestrutura tecnológica

- Sem diferença significativa nos custos relacionados aos **componentes de segurança**.
- A **redução de custo é grande** em ferramentas de back-office:
  - *trouble-tickets*, correlação de eventos, geradores de relatórios, portal-web, storage, backup-offline, etc...
  - O MSSP reduz o custo para o cliente final em função da **escala** e **compartilhamento** no uso destas ferramentas.



## Processos Internos estruturados

- Sua organização tem o processo de **respostas à incidentes estruturado** ?
  - Se sim, será capaz de aproveitar todos os benefícios de um conhecimento mais rápido e profundo de potenciais incidentes de segurança.
  - **Não ter este processo** estruturado internamente **reduz os benefícios à empresa** quanto a contratação de um MSSP.



## Experiência em Outsourcing

- Outsourcing = **abrir mão** de determinados controles em prol da **eficiência/eficácia** e da **expertise** oferecida pelo provedor de serviço.
- O Outsourcing de segurança traz, por vezes, o **sentimento de estar abrindo mão** de controles importantes da organização.
- Você já tem **experiência em outsourcing** de outras tarefas operacionais? ex, gerenciamento de redes, servidores –  
 então sua experiência tornará mais simples a tarefa de gerir um outsourcing da infraestrutura de segurança.



## Outras importantes considerações...

- **Atenção!! Não** existe *SOC in a BOX* (apesar de alguns fornecedores de produtos SIEM tentarem te convencer disso...)
  - SOC é... **Pessoas** capacitadas + **Processos** bem definidos e testados + **Tecnologia**
  - Portanto: Ao comparar custos de MSS versus SOC interno, **pense nisso:**
    - Infra **Tecnológica**: Produto SIEM + HW + Serviços de implantação e customização + infra de DR
    - Definição e implantação de **processos**
    - Custos de **pessoal**: contratação + treinamento constante + retenção



# Os Managed Security Services da IBM



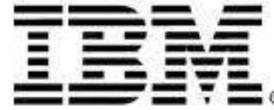
# Infraestrutura Global Integrada



- +3,700 Clientes MSS Worldwide
- +13 Bilhões Eventos/Dia
- X-Force



# Portfólio de Serviços MSS



## CPE Managed Security Services

Managed and Monitored  
Firewall Services

Managed Secure  
Web Gateway

Managed IPS and  
IDS Services

Managed  
UTM Services

Managed Protection  
Services for Networks and  
Servers



## Cloud Security Services

Vulnerability  
Management Services

Security Event  
Management Services

Secure Log Management  
Services

IBM ISS X-Force® Threat  
Analysis Services

Managed E-mail Security  
Managed Web Security



Suporte a distintos vendedores e equipamentos



# “Full-Services”

## CPE Managed Security Services

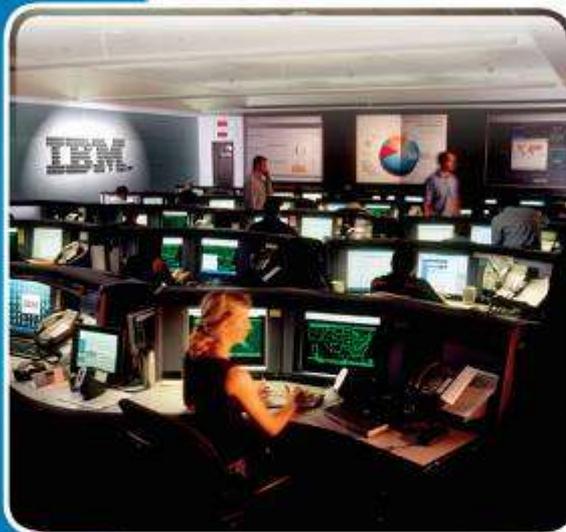
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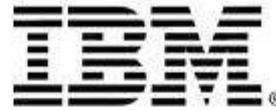


- **Multivendor** (IBM, Cisco, Juniper, Checkpoint, etc..)
- **Monitoração** de Eventos
  - Sistema AI+Analistas qualificados +Processos
  - Notificação de incidentes
  - SLAs
- **Gerência** das Plataformas
  - Updates e Patches
  - Backup Diário
  - Device Health e Disponibilidade
- Arquivamento de Logs por até **07 anos**
- Consultas, relatórios , gráficos, Sistema de TT, informações de segurança no **Portal Virtual-SOC**
- Serviço **24/7/365**



# Cloud Services

- Modelo **IaaS SaaS**
- **Vulnerability Mgmt Service (VMS)**
  - Internal & External Vulnerability Assessments
  - Vulnerability Remediation Workflow
- **Security Event & Log Management (SELM)**
  - Syslog, Universal Logging Agent (ULA)
  - On Site Aggregation, Compressão, Criptografia
  - Alertas Automatizados (SLA Select)
- **Email Security**
  - Anti-Virus, Anti-Spam, Content Protection
  - Sem instalação de HW/SW
- Inclui Serviço de informações de Segurança **XFTAS**



## Cloud Security Services

Vulnerability Management Services

Security Event Management Services

Secure Log Management Services

IBM ISS X-Force® Threat Analysis Services

Managed E-mail Security

Managed Web Security



# Modelos de Parceria Virtual SOC

	Sales	Partner Sales Geo	Standard IBM Portfolio	Custom Portfolio	Co-branded Portal	Helpdesk (First Call)	Tier 1-3 Service Delivery	SOC Mgmt Systems	XPS Systems
Business Partner	Shared	In-Country	IBM	n/a	n/a	IBM	IBM	IBM	IBM Shared
MSS Integrated Alliance Partner	Partner	Global	Partner	Optional	Optional	Partner	IBM	IBM	IBM Shared
MSS Shared Delivery	Partner	Global	Partner	Partner	Partner	Partner	Partner	Partner	IBM Shared
MSS Shared Delivery w/ Dedicated XPS	Partner	Global	Partner	Partner	Partner	Partner	Partner	Partner	IBM Dedicated



# Visão Integrada e Centralizada Portal **Virtual-SOC**



# Portal Virtual SOC

- Visão **Centralizada**
- Visão **Consolidada**
- **100% web-based**: nenhum equipamento no cliente

Virtual Security Operations Center - Virtual Security Operations Center - Microsoft Internet Explorer

Address: https://portal.mss.iss.net/mss/home.mss

Internet Security Systems Managed Security Services

SETTINGS ALERTCON 1 Provided to Metacortex

HOME SERVICES TICKETS LOGS REPORTS SUPPORT ONLINE Search... Go

There are (1) XPS Alerts that require your attention.

### Active Security Incidents (50)

The SOC has analyzed 15,468,841 security events, investigated 4 anomalous event trends, and escalated 2 Security Incidents to your attention over the past 7 days.

Type	Created	Last Updated	Ticket ID	Notify	Status
...	03/20/07	03/28/07 10:47	8489263	...	...
...	03/20/07	03/28/07 10:47	8489264	...	...
...	03/20/07	03/28/07 10:47	8489265	...	...
...	03/20/07	03/28/07 10:47	8489260	...	...
...	03/20/07	03/28/07 10:47	8489261	...	...

### Active Service Requests (93)

Type	Created	Last Updated	Ticket ID	Notify	Status
...	03/19/07	03/28/07 11:04	8557494	...	...
...	03/09/07	03/28/07 10:47	8545103	...	...
...	03/26/07	03/28/07 10:37	8566045	...	...
...	03/23/07	03/28/07 09:01	8561823	...	...
...	03/27/07	03/27/07 22:49	8568909	...	...

### VMS Remediation Tickets (96)

Of your 21 active scan schedules, 0 are currently running.

Created	Ticket ID	Status	# Vulns	# Assets
03/01/07	706073	...	1	1
03/01/07	706070	...	1	1
02/28/07	706031	...	1	1
02/22/07	705956	...	1	1
02/22/07	705955	...	1	1

### Current Internet Security Assessment

Previous assessments have drawn attention to the concerns associated with the security of Bluetooth devices. Bluetooth technology allows for short-range wireless connections between various devices. The following Scientific American article discusses this topic: *Malware Goes Mobile* (PDF). Last October, two security researchers gave a presentation on Bluetooth at the Hack.lu 2006 security conference in Luxembourg. During the presentation, the researchers discussed Bluetooth zero-day issues...

### IDS/IPS Sensors

Most active, high-risk signatures in the last 24 hours.

Event Name	% Total	Count
ipm_blocked_top_connection	52.70%	3,268
nmap_udp_port_sweep_4003:0	12.93%	802
anomaly_sportscan	7.71%	478
ipm_invalid_protocol	3.08%	191
ftp_traversal	2.81%	174
Other	20.77%	1,288
TOTAL		6,201

### Managed Firewalls

Your firewalls have blocked or rejected 1,280,301 potentially malicious events from your network traffic in the past 7 days.

Source IP	Total Sessions
207.231.129.9	862515
12.173.210.9	656096
12.173.210.81	430870
10.0.0.22	348024
209.134.186.19	217398

# Relatórios

- Mais de 20 tipos de **relatórios**
- Podem ser gerados em **HTML, CSV e PDF**

The screenshots display the following reports and dashboards:

- Reports Overview:** Shows a navigation menu with sections like "General Service Related" (Service Level Agreement, Service Overview, Security Manager Overview), "IDS/IPS Sensors" (Global Attack Metrics, Your Attack Metrics, Prevented Attacks, Vulnerability Impact, Event Counts By Source IP), "Firewall" (Firewall Service Overview, Traffic Analysis - Denied, Traffic Analysis - Email, Traffic Analysis - Web Activity by IP, Protocol Usage - Allowed, Protocol Usage - Denied, Connections Summary - Allowed, Connections Summary - Denied, Targeted IP Addresses, Rule Utilization Analysis), and "Visited Web Site Report".
- IDS/IPS Sensor Event Counts by IP Summary:** A table showing event counts for various sensor events.
 

ID	Sensor ID	Sensor Name	Event Name	Priority	# Address	First Occur	Last Occur	# Total	Count	Trend
1	12.173.210.19	Tapsite-Denied	2164.komp.echo.request.inpact	High	10.11.0.11	03/21/07 00:00:07 GMT	03/27/07 23:59:29 GMT	23,896	5,988,000	2,39%
2	12.173.210.45	Proventia - G 3rd floor	www	Low	12.173.210.147	03/21/07 00:00:27 GMT	03/26/07 13:31:46 GMT	16,42%	2,163,251	-40,86%
3	12.173.210.45	Proventia - G 3rd floor	www	Low	12.173.210.9	03/21/07 00:00:02 GMT	03/27/07 23:53:29 GMT	4,58%	850,196	1,91%
4	12.173.210.45	Proventia - G 3rd floor	http_post_scan	Low	10.11.0.11	03/21/07 00:00:12 GMT	03/26/07 18:56:07 GMT	4,36%	804,552	-39,32%
5	207.231.129.9	Proventia - IL	win_util_requested	Low	12.173.210.9	03/21/07 00:00:02 GMT	03/27/07 23:53:29 GMT	4,29%	880,917	1,29%
6	12.173.210.13	Proventia - A	http_server_id	Low	12.173.210.9	03/21/07 00:00:00 GMT	03/27/07 23:59:59 GMT	4,28%	888,771	1,94%
7	12.173.210.45	Proventia - G 3rd floor	http_user_agent	Low	12.173.210.9	03/21/07 00:00:02 GMT	03/27/07 23:53:29 GMT	4,27%	888,845	2,02%
8	12.173.210.45	Proventia - G 3rd floor	http_get	Low	12.173.210.9	03/21/07 00:00:02 GMT	03/27/07 23:53:29 GMT	4,27%	888,765	2,03%
9	12.173.210.45	Proventia - G 3rd floor	http_server_id	Low	12.173.210.9	03/21/07 00:00:02 GMT	03/27/07 23:53:29 GMT	4,27%	886,161	2,05%
10	12.173.210.45	Proventia - G 3rd floor	http_cookie	Low	12.173.210.9	03/21/07 00:00:04 GMT	03/27/07 23:53:29 GMT	4,25%	875,887	2,03%
11	12.173.210.147	Tapsite-Denied	2164.komp.echo.request.inpact	High	12.173.210.147	03/25/07 00:00:27 GMT	03/25/07 23:59:44 GMT	3,51%	888,171	-81,24%
12	12.173.210.19	Tapsite-Denied	0079.komp.echo.request.inpact	High	12.173.210.1	03/21/07 00:00:01 GMT	03/27/07 23:59:43 GMT	2,80%	598,435	28,24%
13	12.173.210.45	Proventia - G 3rd floor	http_cookie	Low	12.173.210.9	03/21/07 00:00:05 GMT	03/27/07 23:53:29 GMT	2,49%	518,882	3,31%
14	12.173.210.19	Tapsite-Denied	2164.komp.echo.request.inpact	High	10.11.0.11	03/21/07 00:00:12 GMT	03/27/07 23:59:59 GMT	2,46%	497,783	-69,35%
15	12.173.210.19	Tapsite-Denied	2164.komp.echo.request.inpact	High	12.173.210.7	03/21/07 00:00:35 GMT	03/27/07 23:59:54 GMT	1,44%	299,493	2,26%
16	12.173.210.13	Proventia - A	ping flood	Low	10.0.0.0.0	03/21/07 00:00:01 GMT	03/27/07 23:59:55 GMT	1,42%	295,472	-0,33%
17	12.173.210.45	Proventia - G 3rd floor	ping flood	Low	10.0.0.0.0	03/21/07 00:00:00 GMT	03/27/07 23:59:53 GMT	1,41%	293,045	-0,49%
18	12.173.210.19	Tapsite-Denied	2164.komp.echo.request.inpact	High	12.173.210.8	03/21/07 00:00:01 GMT	03/27/07 23:59:29 GMT	1,41%	291,812	69,18%
19	12.173.210.237	Subnet-A	ping flood	Low	10.0.0.0.0	03/21/07 00:00:00 GMT	03/26/07 13:35:03 GMT	+1%	193,524	-34,85%
20	12.173.210.19	Tapsite-Denied	2164.komp.echo.request.inpact	High	10.11.0.11	03/27/07 17:24:09 GMT	03/27/07 23:59:59 GMT	+1%	134,357	-99,99%
- Visited Web Site Report:** A table showing top 50 outbound web traffic.
 

ID	URL	Site Name	CC	%	Count	Trend
1	207.231.129.9	www.yahoo.com	US	74,80%	1,192,460	-37,91%
2	86.64.58.173	www.yahoo.com	US	20,34%	271,480	-25,38%
3	205.246.198.70	aka.ms?url=msn.com	US	1%	10,852	42,83%
4	134.09.125.108	msn.com	US	1%	7,885	-24,72%
5	208.284.58.102	www.bing.com	US	1%	4,933	20,71%
6	208.284.186.202	www.bing.com	US	1%	3,696	1,16%
7	12.173.210.9	12.173.210.9	US	1%	3,271	-68,38%
8	208.284.186.202	www.bing.com	US	1%	2,547	-16,39%
9	208.284.58.102	www.bing.com	US	1%	2,522	-18,32%
10	12.173.210.9	12.173.210.9	US	1%	1,240	2,843,38%
11	208.284.186.202	www.bing.com	US	1%	1,150	-19,32%
12	208.284.186.202	www.bing.com	US	1%	1,148	-16,23%
13	107.142.12.142	107.142.12.142	US	1%	600	-41,89%
14	86.25.6.43	www.bing.com	DE	1%	645	10,39%
15	107.142.12.142	107.142.12.142	US	1%	722	-40,33%
16	208.284.186.202	www.bing.com	DE	1%	615	-16,43%
17	12.173.210.9	12.173.210.9	US	1%	401	9,10%
18	208.284.186.202	www.bing.com	FR	1%	377	-31,97%
19	208.284.186.202	www.bing.com	US	1%	371	-30,36%
20	81.196.211.120	81.196.211.120	DE	1%	363	-17,74%
21	208.284.186.202	www.bing.com	US	1%	293	-41,59%
22	208.284.186.202	www.bing.com	US	1%	281	16,62%
23	86.25.262.159	86.25.262.159	DE	1%	281	14,34%
24	81.196.211.120	81.196.211.120	US	1%	260	61,91%
25	86.25.262.159	86.25.262.159	DE	1%	243	-28,59%
Other				1%	6,363	
TOTAL				100,00%	1,224,740	-23,84%
- Top 10 Outbound Web Destinations:** A pie chart showing the distribution of outbound web traffic.
- IDS/IPS Event Trend:** A bar chart showing event counts over time for the current and previous reporting periods.
 

Reporting Period	Total Events	Total Security Incidents
Current Reporting Period (03/27/07 - 03/27/07)	20,752,929	0
Previous Reporting Period (03/26/07 - 03/26/07)	54,852,161	15
Year To Date	193,698,303	19
- Current Reporting Period Top Events:** A table showing the top events for the current period.
 

Event Name	Count
2164.komp.echo.request.inpact	6,290,250
http_post_scan	2,574,521
http_server_id	1,755,058
http_user_agent	1,622,398
ping flood	946,040
http_server_id	862,794
http_cookie	804,849
http_get	802,816
win_util_requested	807,710
http_post_scan	795,968
http_server_id	793,774
http_cookie	699,191
ping flood	501,100
http_cookie	441,708
http_cookie	399,868
http_cookie	371,381
http_cookie	342,282
http_cookie	331,908
http_cookie	298,864
http_cookie	146,028
http_cookie	145,223
- Previous Reporting Period Top Events:** A table showing the top events for the previous period.
 

Event Name	Count
2164.komp.echo.request.inpact	6,090,019
http_post_scan	2,249,814
http_server_id	1,618,347
http_user_agent	968,888
ping flood	802,039
http_server_id	576,951
http_cookie	516,144
win_util_requested	490,493
http_get	392,440
http_post_scan	349,528
http_cookie	347,447
ping flood	301,606
ping flood	295,040
http_cookie	271,309
ping flood	269,364
http_cookie	146,028
http_cookie	145,223



## Benefícios claros!

- *Resultados para o Negócio*

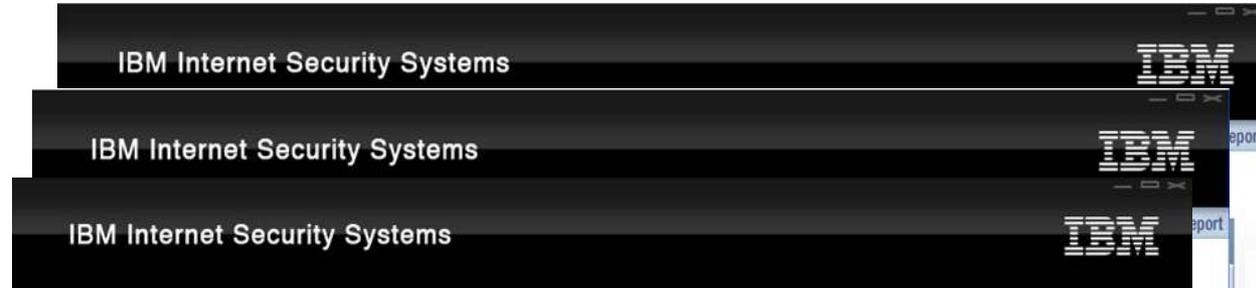
- **Integrando** o ambiente *multi-vendor*
- **Visão centralizada** em tempo-real.
- Mostrando rapidamente o retorno do investimento
  - **baixo custo** de implantação
  - **curtíssimo tempo** de implantação



# Benefícios claros!

## • Redução de Custos

- Evitando **investimento** em recursos e tecnologias adicionais
- Reduzindo os **custos** operacionais
- Reduzindo **perdas** por incidentes de segurança



Executive Report *You will benefit from the following projected yearly cost savings when you outsource to a trusted security provider.* 3/30/2009

	Year 1	Year 2	Year 3	Year 4
In-House Solution	\$ 1,428,812	\$ 706,450	\$ 724,793	\$ 743,869
MSS Solution	\$ 339,796	\$ 342,255	\$ 344,812	\$ 347,472
Savings	\$ 1,089,015	\$ 364,194	\$ 379,980	\$ 396,397
Percentage of Savings	76 %	52 %	52 %	53 %



**Use o IBM TCO Tool!!!!**

The data used in this tool to generate the analysis is based upon IBM experience, available industry data and assumptions provided by the customer. It is intended to illustrate the potential benefits that may be achieved by the customer through the use of managed security services versus an in house security management solution. This does not mean that such benefits will be achieved. IBM provides this report on an AS IS basis. In no event will IBM be liable to the customer or any party for any direct, indirect, special or other consequential damages for any use of this tool or the reports produced by the tool.

# Se não lembrar de mais nada...



# Obrigado!

**Fernando Guimarães**

**feguima@br.ibm.com**

Referências:

<http://www-935.ibm.com/services/us/en/it-services/managed-security-services.html>

<http://www.csoonline.com/article/220328/guidelines-for-choosing-to-outsource-security-management?page=1>

