

# Using Windows Event Forwarding with the Windows Unified Connector Steve Maxwell, Solutions Architect

#### **#HPProtect**

#### Agenda

- What is Windows Event Forwarding?
- How does HP ArcSight work with Windows Event Forwarding?
- Benefits
- Tips & tricks

# What is Windows Event Forwarding?



## What is Windows Event Forwarding?

- Centralized Windows event collection
  - Collect events from Windows systems and store them centrally
- Introduced in Windows Server 2008 and Windows Vista
  - Built-in support in Windows Server 2008+ and Windows Vista+
  - Add-on support in Windows Server 2003 and Windows XP
- Uses Windows Remote Management 1.1 or later
  - Microsoft implementation of the WS-Management protocol



## Microsoft terminology

- Event Collector
  - Where events from Sources are centrally forwarded to and stored
- Event Source
  - Where events are generated



## **Platforms – Event Collector**

- Windows Server 2008/2012
  - Microsoft Recommended Platforms
- Windows 7/8
- Windows Vista



#### **Platforms – Event Source**

- Windows Server 2008/2012
- Windows 7/8
- Windows Vista
- Windows Server 2003 SP1+
- Windows XP SP2+

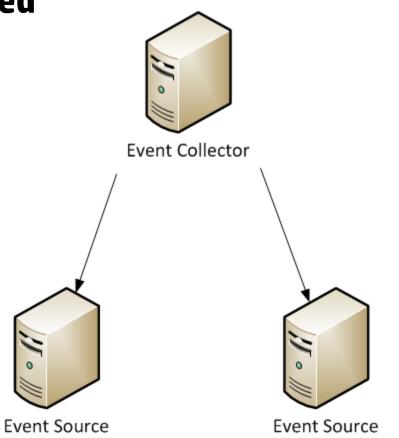


## **Subscription**

- What events do I want to collect?
- What systems do I want to collect from?
- What event log do I want to forward the collected events to?
- Collector or Source initiated?
- Advanced Subscription Settings

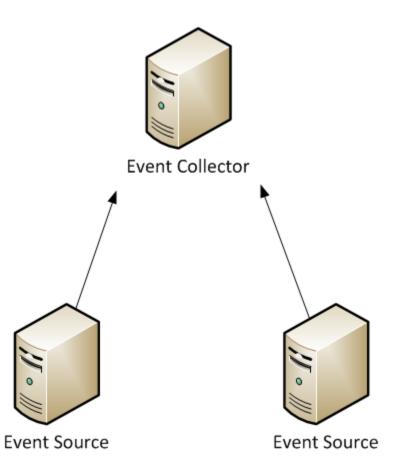


#### **Collector initiated**





#### **Source initiated**





Subscription Properties		X
Subscription <u>n</u> ame:		
Description:		*
		-
Destination log:	Hardware Events	•
Subscription type and so	ource computers	
Ollector initiated		Select Computers
This computer cont	acts the selected source computers	and provides the subscription.
Source computer in	nitiated	Select Computer Groups
	in the selected groups must be conf ntact this computer and receive the	
Events to collect: <f< th=""><td>ilter not configured&gt;</td><td>Selec<u>t</u> Events</td></f<>	ilter not configured>	Selec <u>t</u> Events
User account (the selecte Machine Account	d account must have read access to	the source logs):
Change user account or o	configure advanced settings:	Advanced
		OK Cancel



Query Filter	
Filter XML	
Logged:	Any time 🔹
Event level:	Critical <u>W</u> arning Ver <u>b</u> ose
	Error Information
By Iog	Event logs:
By source	Event sources: Windows Logs
	des Eve <u>n</u> t IDs: Ente a, type a minus sig
	<all event="" ids=""></all>
Task category:	
<u>K</u> eywords:	
<u>U</u> ser:	<all users=""></all>
Com <u>p</u> uter(s):	<all computers<="" th=""></all>
	lle <u>a</u> r
	Cancel



Advanc	ed Subscription Settings		X
	Account: elected account must have re	ead access to the so	urce logs
۲	Machine Account		
0	<u>S</u> pecific User		
			User and Password
Event	Delivery Optimization:		
۲	<u>N</u> ormal		
$\odot$	Minimize <u>B</u> andwidth		
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0	Custom		
Protoc	col: HTTP	▼ P <u>o</u> rt:	5985
			OK Cancel



# How does HP ArcSight work with Windows Event Forwarding?



### Acronyms used in this presentation

- Windows Unified Connector
  - WUC
- Windows Event Forwarding
  - WEF



#### **SmartConnector**

- Support for WEF added to the WUC
  - SmartConnector 6.0.6.6865 released on September 30, 2013
- Microsoft Windows Event Log Unified
  - Forwarded Events Collection
    - Disabled
    - Enabled (use AD for sources)
    - Enabled (do not use AD for sources)
  - Custom Log Names
    - HardwareEvents is Supported
    - ForwardedEvents *is not* Supported (subscription default)



## WEF Log Forwarding – options

- WEF has a lot of granularity on where to forward Source logs to on the Collector
  - For example...
    - Sources/Application Logs  $\rightarrow$  Collector/Application Log
    - Sources/System Logs  $\rightarrow$  Collector/System Log
    - Sources/Application Logs  $\rightarrow$  Collector/System Log
    - Sources/System Logs  $\rightarrow$  Collector/Application Log
    - Sources/Security Logs → Collector/HardwareEvents Log
    - Sources/"Applications and Services Logs" → Collector/System/Application/HardwareEvents Log



## WEF Log Forwarding – best practices

- Security logs
  - Sources/Security Logs → Collector/HardwareEvents Log
    - Source Security logs cannot be forwarded to the Collector Security log
- Application logs
  - Sources/Application Logs  $\rightarrow$  Collector/Application Log
- System logs
  - Sources/System Logs → Collector/System Log

≮ Connector Setup		
Configure	Enter the parameter details	
	Forwarded Events Collection	Disabled 🔹 📥
	Domain Name	Disabled Enabled (use AD for sources)
	Domain User Name	Enabled (do not use AD for sources)
	Domain User Password	
	Active Directory Server	
	Active Directory Base DN	ou= <organizational unit="">,dc=<domai< th=""></domai<></organizational>
	Active Directory Filter	(&(cn=*)(operatingsystem=*)(whencr
10.01	Active Directory User Name	
, i i i i i i i i i i i i i i i i i i i	Active Directory User Password	
	Active Directory Protocol	non_ssl 🔻
	Active Directory Port	389
ArcSight∢	Active Directory Max Page Size	
An HP Company		111 P
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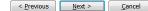
≮ Connector Setup		
Configure	Enter the parameter details	
	Forwarded Events Collection	Enabled (do not use AD for sources) 💌 📥
	Domain Name	example.com
	Domain User Name	arcsight
	Domain User Password	•••••
	Active Directory Server	windows2008.example.com
	Active Directory Base DN	dc=example,dc=com
	Active Directory Filter	(&(cn=*)(operatingsystem=*)(whencr
100,00	Active Directory User Name	arcsight
	Active Directory User Password	
	Active Directory Protocol	non_ssl 🔻
	Active Directory Port	389
ArcSight	Active Directory Max Page Size	300
	•	4
	<	Previous Next > Cancel



≮ Connector Setup										_ 0 ×
Configure	Enter the device details									
oorniguro	Domain Name	Host Name	User Name	Password	Security Logs	System Logs	Application	Custom Log Names	Microsoft OS Version	locale
	overenie	MUNDOW/C2009	presidet	*****	false	false	false	UprduproEvente	Windows Conver 2009 D2	on UC







Security Logs	System Logs	Application	Custom Log Names	Microsoft OS Version	locale
alse	false	false	HardwareEvents	Windows Server 2008 R2	en_US



#### **Windows OS Version**

- WEF events can be from different Windows versions than the WEF Collector
  - For example: Collector is Windows Server 2008; Sources are Windows XP, Windows Server 2003
- SmartConnector needs to know what OS in order to parse the events properly
  - It assumes Windows 2008 R2 by default
- Sources
  - Active Directory
    - Enabled (use AD for sources)
  - sourcehosts.csv
    - Enabled (do not use AD for sources)



## **Benefits**



## **Windows Event Forwarding**

- Integrated and Free
- Secure and Reliable
- Filtering
- Multi-Tier
- Group Policy
- Laptops/Desktops
  - Source Initiated Subscription



#### **SmartConnector**

- Filtering
- Aggregation
- Caching
- Batching
- Bandwidth Throttling
- Time Correction
- Platforms
  - Windows
  - Linux/Unix
  - Connector Appliance/ArcMC



#### Use both!



- The best of both worlds!
- Use both where/when appropriate



## **Tips & tricks**



#### **Tips & tricks**

- Lab Environment
  - Use a single virtual machine or physical server and forward the event logs locally
- Nested Event Logs
  - All logs under "Applications and Services Logs" in the Windows Event Viewer
    - AppLocker, Windows Defender, etc.
  - We cannot collect these logs
    - These **are not** supported by the WUC
  - Use WEF to forward these to the Application, System, or HardwareEvents log
    - These **are** supported by the WUC
- EVENTCREATE
  - EVENTCREATE /T ERROR /ID 1000 /L APPLICATION /D "My custom error event for the application log"
  - EVENTCREATE /T ERROR /ID 1000 /L SYSTEM /D "My custom error event for the system log"



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