

Client Health Monitoring

GET-EXPERTS

Mikael Nystrom Markus Lassfolk @mikael_nystrom @Lassfolk Markus.Lassfolk@truesec.com Mikael.nystrom@truesec.com MVP - 15 Years **Extreme Geek** Likes Food, mostly Steak

The big Why?

20.000.000 reasons to not have issues...



1000 USERS X 10 MINUTES OF ISSUES EACH DAY = 166 HOURS/DAY



166 HOURS / DAY X 600 SEK = 100.000 SEK



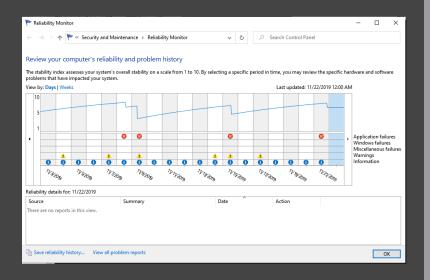
100.000 SEK / DAY X 20 DAY PER MONTH = 2.000.000 SEK PER MONTH



20.000.000 PER YEAR IS LOST...

Reliability Index

Reliability Index





Since Windows 7



Works in client and servers



Measure the stability in the system



0 = bad



10 = great



Is being used internally at Microsoft

DEMO

System Center Operations Manager AEM - Agentless Exception Monitoring

Corporate Error Reporting



Used to be standalone tool



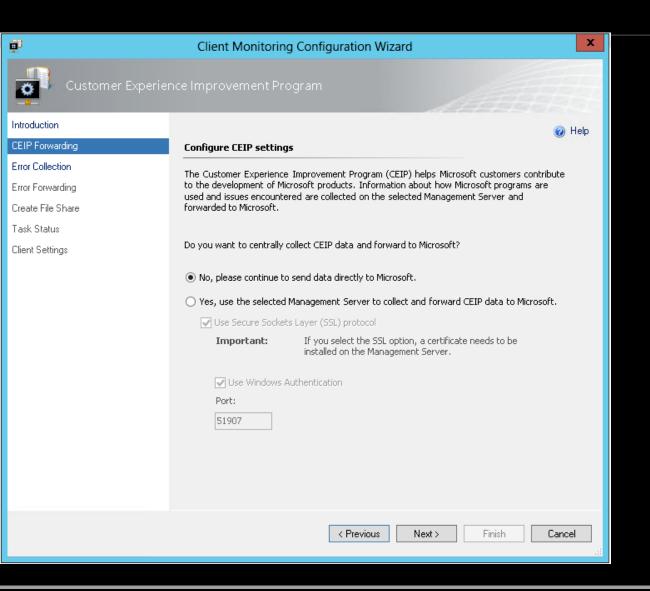
Shifted into "you can buy it"

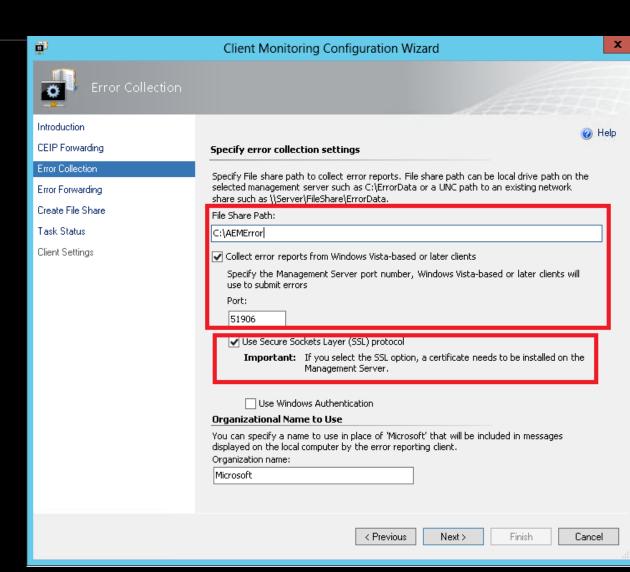


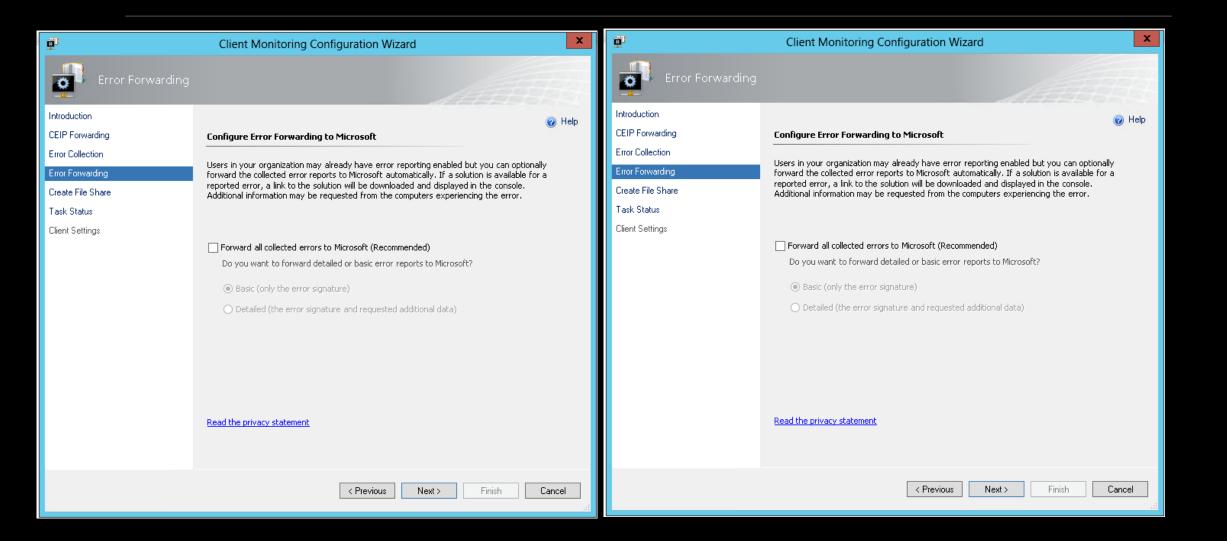
Moved to SCOM

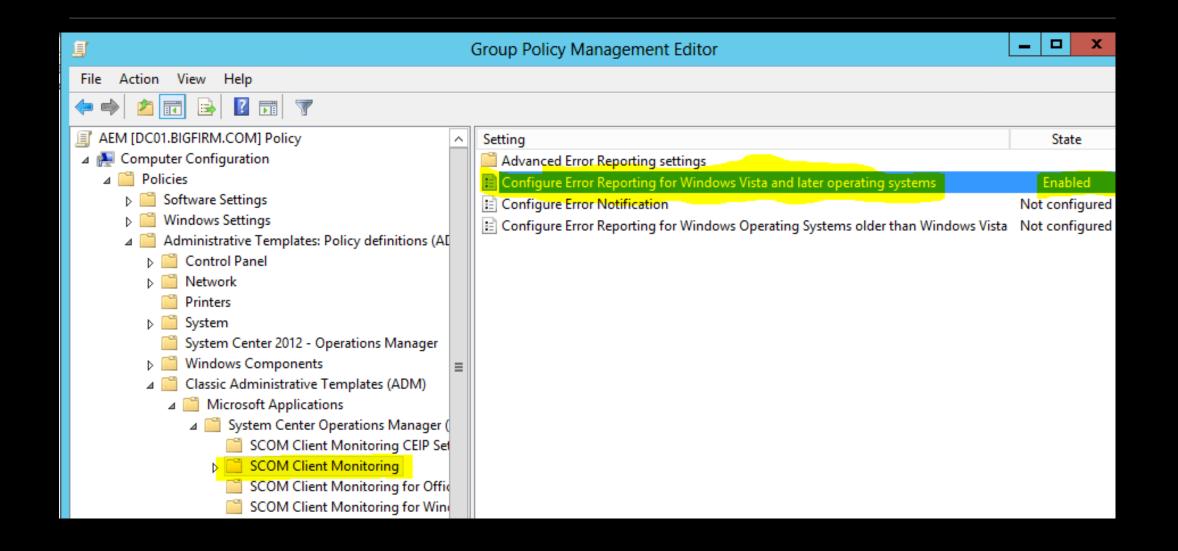


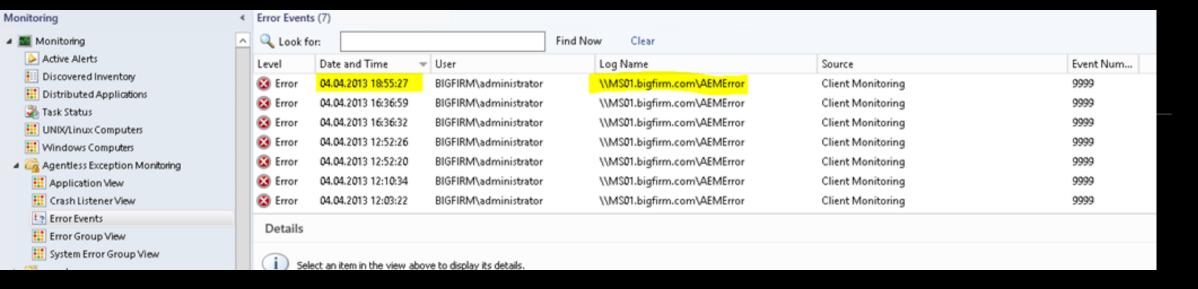
Transferred (parts) to ConfigMgr

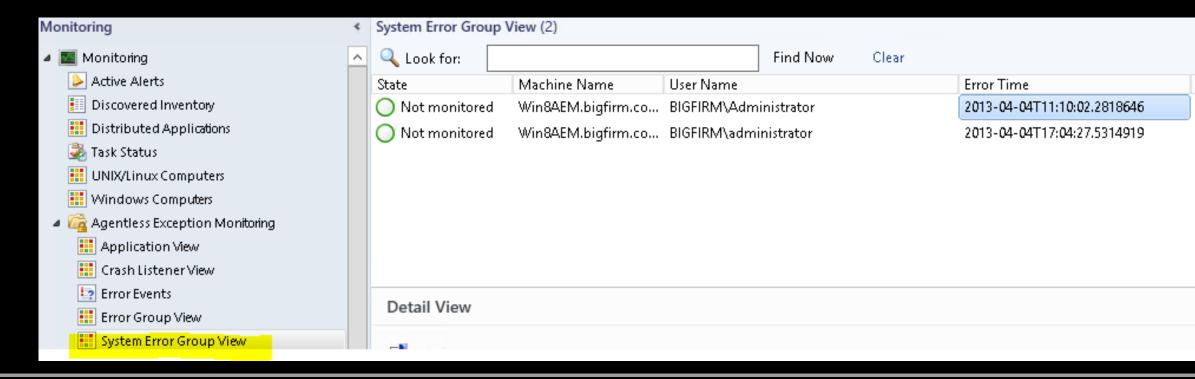


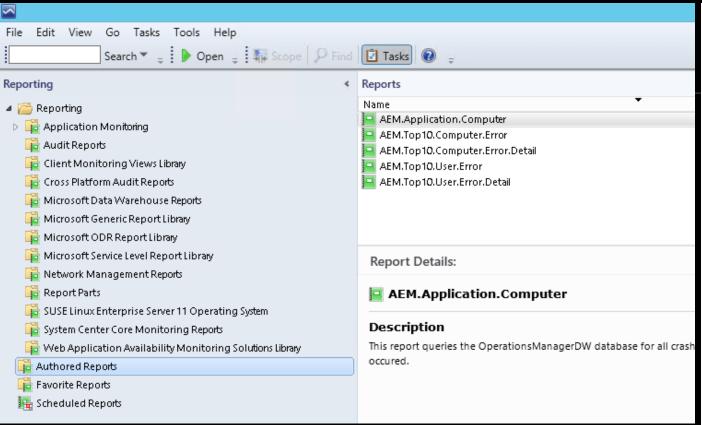












Application Crash Drill Down Report

Report Details

Report Executed: 14.05.2013 22:33:31

Time Range: 14.04.2013 22:33:30 - 14.05.2013 22:33:30

Application Crashes Drill Down

Applications which crashed and grouped by applications name. Click on (+) to get more details. The information is based on RAW data.

Application	Friendly Name	Computer	Crash Time
	Total	38	
☐ AEMTESTAPPLICATION.EXE	⊕ AEMTestApplication.exe		
	Total	27	
☐ APPCRASHVIEW.EXE	□ AppCrashView	Win7.bigfirm.com	04.05.2013 00:01:31
	Total	1	
☐ IEXPLORE.EXE	☐ Internet Explorer	Win7.bigfirm.com	04.05.2013 00:02:24
	Total	1	
☐ MICROSOFT.MOM.SDK.SERVICEHOST		MS01.bigfirm.com	09.05.2013 23:45:28
	osciexe	MS01.bigfirm.com	09.05.2013 23:43:32
		MS01.bigfirm.com	17.04.2013 17:29:34
		MS01.bigfirm.com	17.04.2013 17:25:28
		MS01.bigfirm.com	17.04.2013 17:21:23
		MS01.bigfirm.com	17.04.2013 17:17:17
		MS01.bigfirm.com	17.04.2013 17:12:10
		MS01.bigfirm.com	17.04.2013 17:10:40
	Total	8	
■ MONITORINGHOST.EXE	Total	1	
■ Unknown Application	Total	92	
Total		168	

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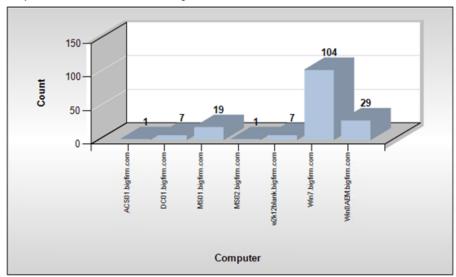
Client Monitoring Top 10 Computer Most Error

Report Details

Report Executed: 14.05.2013 21:38:09

Time Range: 14.04.2013 21:38:08 - 14.05.2013 21:38:08

 ${\color{red} \underline{\textbf{Top 10 Computers}}} \\ {\color{red} \textbf{Computer with most crashes within the time range are based on RAW data.}}$



Computer Detail
Last crash occured within a specified time range. Details can be viewd by clicking on the computer name.

Computer Name	Last Crash Time
ACS01.bigfirm.com	26.04.2013 03:00:51
DC01.bigfirm.com	14.05.2013 03:17:17
MS01.bigfirm.com	30.04.2013 22:26:47
MS02.bigfirm.com	26.04.2013 03:12:59
w2k12blank.bigfirm.com	13.05.2013 03:14:00
Win7.bigfirm.com	26.04.2013 00:31:09
Win8AEM.bigfirm.com	07.05.2013 03:16:53
Total Crashes	168

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Client Monitoring Error Details DC01.bigfirm.com

This report shows all crash and hung data available for a specific computer

Computer Detail															
Computer	Crash Time	Crash Id	PO	P1	P2	Р3	P4	P5	P6	P7	P8	P9	P10	Company	User
DC01.bigfirm.com	14.05.2013 03:17:17	eb038c1b- c2d5-4f24- b1d7- 282e8dec2f 9e	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
DC01.bigfirm.com	13.05.2013 03:06:57	18638f60- b96c-4c10- a2ca- a8a8d57eb6 c6	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
DC01.bigfirm.com	11.05.2013 03:25:24	b6206687- 9631-479f- 8d13- 9ae0e1dcc8 5f	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
DC01.bigfirm.com	10.05.2013 03:17:18	6bf9ee33- 7b51-4e97- be60- c222a8257a a9	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
DC01.bigfirm.com	08.05.2013 03:21:19	0df450c2- 0b98-4454- 8a95- 7da340e052 c9	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
DC01.bigfirm.com	07.05.2013 03:00:07	a1d1fd00- c77d-4230- b490- ff2c62107a0 c	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
DC01.bigfirm.com	26.04.2013 03:05:45	0cb61031- 9a5a-408e- a1e5- 03db5b2aac 6e	AEAPPINVW 8	7	2	6.2.0.0	2055	83						Microsoft Corporation	BIGFIRM \DC01\$
Total Crashes:															7

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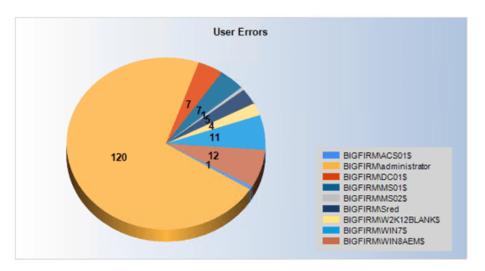
Client Monitoring Top 10 User Most Error

Report Details

Report Executed: 14.05.2013 22:24:52

Time Range: 14.04.2013 22:24:51 - 14.05.2013 22:24:51

 $\underline{\text{Top 10 User}}$ User with most crashes within the time range are based on RAW data.



Last crash occured within a specified time range for the user on the computer the crash occured.

task dash occarda walling specified time range for the aser of the compact the dash occarda.						
User	Last Crash Time On Computer					
BIGFIRM\ACS01\$	26.04.2013 03:00:51 ACS01.bigfirm.com					
BIGFIRM\administrator	11.05.2013 17:37:05 Win8AEM.bigfirm.com					
BIGFIRM\DC01\$	26.04.2013 03:05:45 DC01.bigfirm.com					
BIGFIRM\MS01\$	13.05.2013 03:03:36 MS01.bigfirm.com					
BIGFIRM\MS02\$	26.04.2013 03:12:59 MS02.bigfirm.com					
BIGFIRM\Sred	03.05.2013 23:34:54 Win7.bigfirm.com					
BIGFIRM\W2K12BLANK\$	14.05.2013 03:12:26 w2k12blank.bigfirm.com					
BIGFIRM\WIN7\$	26.04.2013 00:31:09 Win7.bigfirm.com					
BIGFIRM\WIN8AEM\$	07.05.2013 03:16:53 Win8AEM.bigfirm.com					
Total	168					
	·					

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Client Monitoring Error Details BIGFIRM\Sred

This report shows all crash and hung data available for a specific user

User	Crash	Crash Id	PO	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	Company	Computer
	Time													,	
BIGFIRM\Sred	03.05.2013 23:34:54	54e6a14d- bd18-4abc- 9561- 0d70b66b5b 10	CLR20R3	AEMTESTAP PLICATION. EXE		46AF7A5 0	AEMTESTAP PLICATION	6.0.4900.0	46AF7A 50	1	2B	O5B1ZHBFY P3KXKDMI3K GW0D2RE1J IG1D		Microsoft Corporation	Win7.bigfirm .com
BIGFIRM\Sred		94b07e84- 51b6-411c- 9787- 0daee35fd3 1e	CLR20R3	AEMTESTAP PLICATION. EXE		46AF7A5 0	AEMTESTAP PLICATION	6.0.4900.0	46AF7A 50	1	28	O5B1ZHBFY P3KXKDMI3K GW0D2RE1J IG1D		Microsoft Corporation	Win7.bigfirm .com
BIGFIRM\Sred	03.05.2013 15:45:11	cae3e4c0- 90b1-49d9- 8fdf- 6acc3ab1e8 18	CLR20R3	AEMTESTAP PLICATION. EXE		46AF7A5 0	AEMTESTAP PLICATION	6.0.4900.0	46AF7A 50	1	28	OSB1ZHBFY P3KXKDMI3K GW0D2RE1J IG1D		Microsoft Corporation	Win7.bigfirm .com
BIGFIRM\Sred	03.05.2013 15:42:05	82d08044- 8dc0-40f0- ace6- 56e6799fee fa	CLR20R3	AEMTESTAP PLICATION. EXE		46AF7A5 0	AEMTESTAP PLICATION	6.0.4900.0	46AF7A 50	1	2B	O5B1ZHBFY P3KXKDMI3K GW0D2RE1J IG1D		Microsoft Corporation	Win7.bigfirm .com
BIGFIRM\Sred	03.05.2013 15:38:14	e3792992- 3570-4b24- b4d2- 1082d32b53 b8	CLR20R3	AEMTESTAP PLICATION. EXE		46AF7A5 0	AEMTESTAP PLICATION	6.0.4900.0	46AF7A 50	1	2B	O5B1ZHBFY P3KXKDMI3K GW0D2RE1J IG1D		Microsoft Corporation	Win7.bigfirm .com
Total Crashes:															5

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SCOM | AEM + Power Bi



Sunday, February 17, 2019 Earliest AppCrash

Tuesday, March 19, 2019 Latest AppCrash





UserName	App Crashes
MOCR-NT1\regina16509	140223
MOCR-NT1\nageswaran17500	61374
MOCR-NT1\eric17379	36208
MOCR-NT1\isaac18870	3731
11668\underhill	1098
MOCR-NT1\phillip15332	470
MOCR-NT1\robin16609	212
MOCR-NT1\denise17345	96
MOCR-NT1\alpesh17856	84
NT AUTHORITY\LOCAL SERVICE	58
Total	243554

Total	258717
Desktop-JanetF	2054
2C2DPY1.mocr-	1825
12119.mocr-nt1	140662
12097.mocr-nt1	61840
11828.mocr-nt1	3521
11668.mocr-nt1	37627
11358.mocr-nt1	1502
11105.mocr-nt1	3183
10895.mocr-nt1	3860
10799.mocr-nt1	2643
ComputerName	App Crashes

SystemService	App Crashes
MOCR-NT1\11828\$	3500
MOCR-NT1\11105\$	3180
MOCR-NT1\10799\$	2642
MOCR-NT1\DESKTOP-JANETF\$	2046
MOCR-NT1\2C2DPY1\$	1810
MOCR-NT1\11358\$	1499
MOCR-NT1\10062\$	1447
MOCR-NT1\4QNM1Y1\$	1429
MOCR-NT1\11016\$	1345
MOCR-NT1\11681\$	1182
Total	20080

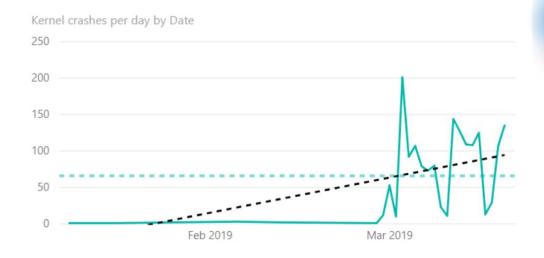


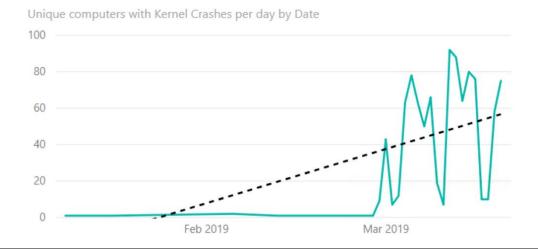
Computer Name	Number of Kernel Crashes	Latest CrashTime
10505.mocr-nt	16	3/14/2019 12:35:42 PM
10633.mocr-nt	40	3/19/2019 4:11:50 PM
10856.mocr-nt	16	3/19/2019 2:35:27 AM
10870.mocr-nt	16	3/19/2019 6:00:13 PM
11012.mocr-nt	23	3/17/2019 8:03:27 PM
20055.mocr-nt	22	3/19/2019 9:06:35 PM
20067.mocr-nt	34	3/18/2019 4:18:07 AM
20184.mocr-nt	22	3/19/2019 12:00:16 PM
20511.mocr-nt	187	3/3/2019 3:35:15 AM
3VGM1Y1.moc	29	3/18/2019 6:55:35 PM
H92DPY1.mocr	25	3/18/2019 6:48:24 PM
Total	430	3/19/2019 9:06:35 PM

593
Unique Clients with Kernel Crashes

1646

Total number of Crashes





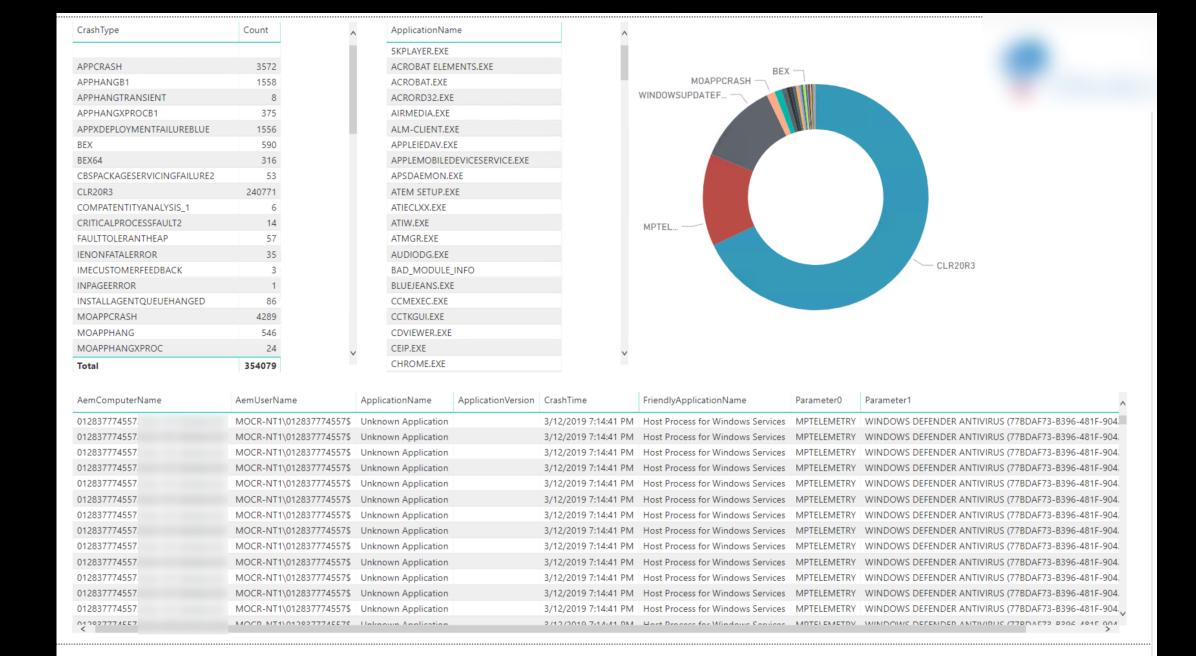
FriendlyApplicationName	Number of Crashes
Zscaler App	240316
Host Process for Windows Services	109760
ZscalerTunnel	583
Internet Explorer	496
DolbyDAX2API	263
Microsoft Outlook	253
Office Telemetry Agent	238
DNS Client	154
Skype for Business	148
Microsoft Excel	123
Sierra Wireless Service	94
IntelAudioService	93
Logitech VC ServiceLayer	93
Host Process for Microsoft Configuration Manager	92
Total	354186

ApplicationName	Unique Computers
5KPLAYER.EXE	1
ACROBAT ELEMENTS.EXE	1
ACROBAT.EXE	19
ACRORD32.EXE	34
AIRMEDIA.EXE	1
ALM-CLIENT.EXE	19
APPLEIEDAV.EXE	4
APPLEMOBILEDEVICESERVICE.EXE	1
APSDAEMON.EXE	2
ATEM SETUP.EXE	1
ATIECLXX.EXE	2
ATIW.EXE	4
ATMGR.EXE	4
AUDIODG.EXE	12
Total	1706

3/19/2019 10:58:14 PM	
3/19/2019 9:37:00 PM	
3/19/2019 9:14:58 PM	
3/19/2019 9:14:58 PM	
3/19/2019 9:14:46 PM	
3/19/2019 9:14:44 PM	
3/19/2019 9:14:23 PM	
3/19/2019 9:14:21 PM	
3/19/2019 9:14:21 PM	
3/19/2019 9:14:17 PM	
3/19/2019 9:14:14 PM	
3/19/2019 9:12:58 PM	
3/19/2019 9:12:50 PM	
3/19/2019 9:12:48 PM	
3/19/2019 10:58:14 PM	`
	3/19/2019 9:14:58 PM 3/19/2019 9:14:58 PM 3/19/2019 9:14:46 PM 3/19/2019 9:14:42 PM 3/19/2019 9:14:21 PM 3/19/2019 9:14:21 PM 3/19/2019 9:14:17 PM 3/19/2019 9:14:14 PM 3/19/2019 9:12:58 PM 3/19/2019 9:12:50 PM 3/19/2019 9:12:50 PM







Application Name	Unique Users	Unique Computers	Total Crashes
Host Process for Windows Services	1354	1383	10097
Internet Explorer	200	202	401
Microsoft Outlook	119	121	168
Microsoft Excel	61	61	103
Skype for Business	61	62	87
Blue Jeans Application	37	37	43
Adobe Acrobat Reader DC	29	29	39
Microsoft PowerPoint	28	28	55
Microsoft Word	28	29	48
HP ALM-Client	16	18	66
Intel(R) Graphics Control Panel	16	16	42
	14	14	37
Total	1390	1420	250498

AemComputerName	AemUserName	Earliest CrashTime	Latest CrashTime
10042.mocr-n	10042\Administrator	3/13/2019 11:21:19 PM	3/13/2019 11:50:18 PM
10046.mocr-n	10046\Administrator	3/6/2019 11:09:55 PM	3/6/2019 11:30:51 PM
10069.mocr-n	10069\Administrator	3/13/2019 4:04:53 PM	3/13/2019 8:36:23 PM
10214.mocr-n	10214\Administrator	3/4/2019 10:16:06 PM	3/9/2019 12:55:27 AM
10240.mocr-n	10240\Administrator	3/6/2019 4:25:43 PM	3/6/2019 4:25:43 PM
10542.mocr-n	10542\Administrator	3/18/2019 8:13:25 PM	3/18/2019 8:41:36 PM
10633.mocr-n	10633\Administrator	3/6/2019 7:29:39 PM	3/6/2019 8:01:34 PM
10633.mocr-n	10633\underhill	3/19/2019 4:24:15 PM	3/19/2019 4:24:16 PM
10874.mocr-n	10874\Administrator	3/15/2019 5:52:06 PM	3/15/2019 6:24:12 PM
10984.mocr-n	10984\Administrator	3/12/2019 3:16:18 PM	3/12/2019 3:50:43 PM
10984.mocr-n	10984\underhill	3/12/2019 8:33:06 PM	3/12/2019 8:33:11 PM
11327.mocr-n	11327\Administrator	3/5/2019 5:57:53 PM	3/5/2019 5:57:54 PM
Total		2/17/2019 6:18:03 PM	3/19/2019 10:58:14 PM

FriendlyApplicationName	CompanyName	ApplicationName	ApplicationVersio
5KPlayer	DearMob	5KPLAYER.EXE	5.6.0.0
Adobe Acrobat DC	Adobe Systems Incorporated	ACROBAT.EXE	15.23.20053.1506.
Adobe Acrobat DC	Adobe Systems Incorporated	ACROBAT.EXE	15.23.20070.1903.
Adobe Acrobat DC	Adobe Systems Incorporated	ACROBAT.EXE	15.6.30306.25331
Adobe Acrobat DC	Adobe Systems Incorporated	ACROBAT.EXE	19.10.20091.5346
Adobe Acrobat DC	Adobe Systems Incorporated	ACROBAT.EXE	19.10.20098,5443
Adobe Acrobat Elements	Adobe Systems Inc.	ACROBAT ELEMENTS.EXE	17.12.20093.4139
Adobe Acrobat Reader DC	Adobe Systems Incorporated	ACRORD32.EXE	15.23.20070.1903
Adobe Acrobat Reader DC	Adobe Systems Incorporated	ACRORD32.EXE	19.10.20098.5443
Adobe Photoshop	Adobe Systems, Incorporated	PHOTOSHOP.EXE	7.0.0.0
Adobe RdrCEF	Adobe Systems Incorporated	RDRCEF.EXE	19.10.20091.5346
AirMedia	Crestron Electronics, Inc.	AIRMEDIA.EXE	3.4.1.52
AMD External Events Client Module	AMD	ATIECLXX.EXE	23.20.768.12
Antimalware Service Executable	Microsoft Corporation	MSMPENG.EXE	4.18.1902.2
Apple Push	Apple Inc.	APSDAEMON.EXE	2.5.12.33

Suffring Users	▼	Total Crashes	
MOCR-NT1\alpesh17856	9	84	
MOCR-NT1\gaurangb	8	27	
MOCR-NT1\jackde	7	17	
MOCR-NT1\lauried	6	43	
MOCR-NT1\joseph19711	5	32	
MOCR-NT1\kate19924	5	20	
MOCR-NT1\ketaki16729	5	18	
MOCR-NT1\shankar13949	5	17	
MOCR-NT1\shuhei15904	5	10	
MOCR-NT1\aarti12429	4	8	
MOCR-NT1\bhumi17037	4	7	
MOCR-NT1\carolec	4	14	
MOCR-NT1\christina13445	4	9	
Total	99	249837	

Reinstall Computer	Unique crashing Apps	Total Crashes	^
	19	185	
	8	44	
	8	58	
	8	105	
	7	33	
	7	132	
	7	30	
	7	93	
	7	76	
	6	166	
	6	57	
	6	1387	~
Total	178	354079	

FriendlyApplicationName	ApplicationName	CompanyName	ApplicationVersion
5KPlayer	5KPLAYER.EXE	DearMob	5.6.0.0
Adobe Acrobat DC	ACROBAT.EXE	Adobe Systems Incorporated	15.23.20053.15062
Adobe Acrobat DC	ACROBAT.EXE	Adobe Systems Incorporated	15.23.20070.19033
Adobe Acrobat DC	ACROBAT.EXE	Adobe Systems Incorporated	15.6.30306.25331
Adobe Acrobat DC	ACROBAT.EXE	Adobe Systems Incorporated	19.10.20091.53467
Adobe Acrobat DC	ACROBAT.EXE	Adobe Systems Incorporated	19.10.20098.54430
Adobe Acrobat Elements	ACROBAT ELEMENTS.EXE	Adobe Systems Inc.	17.12.20093.41392
Adobe Acrobat Reader DC	ACRORD32.EXE	Adobe Systems Incorporated	15.23.20070.19033
Adobe Acrobat Reader DC	ACRORD32.EXE	Adobe Systems Incorporated	19.10.20098.54430
Adobe Photoshop	PHOTOSHOP.EXE	Adobe Systems, Incorporated	7.0.0.0
Adobe RdrCEF	RDRCEF.EXE	Adobe Systems Incorporated	19.10.20091.53467
AirMedia	AIRMEDIA.EXE	Crestron Electronics, Inc.	3.4.1.52
AMD External Events Client Module	ATIECLXX.EXE	AMD	23.20.768.12
Antimalware Service Executable	MSMPENG.EXE	Microsoft Corporation	4.18.1902.2
Apple Push	APSDAEMON.EXE	Apple Inc.	2.5.12.33
Apple Security Manager	SECD.EXE	Apple, Inc.	119.1.0.122
Apple Software Update	SOFTWAREUPDATE.EXE	Apple Inc.	2.2.0.150
Articulate Storyline 360	STORYLINE.EXE	Articulate Global, Inc.	3.24.17733.0
ATEM Setup.exe	ATEM SETUP.EXE		0.0.0.0
bad_module_info	BAD_MODULE_INFO		0.0.0.0
Blue Jeans Application	BLUEJEANS.EXE	Blue Jeans	0.1.0.1
Bluetooth Support Service	SVCHOST.EXE_BTHSERV	Microsoft Corporation	10.0.16299.15
Bluetooth User Support Service	SVCHOST.EXE_BLUETOOTHUSERSERVICE	Microsoft Corporation	10.0.17134.556
CDPUserSvc_698fbf	SVCHOST.EXE_CDPUSERSVC_698FBF	Microsoft Corporation	10.0.14393.0
CDViewer	CDVIEWER.EXE	Citrix Systems, Inc.	14.9.3000.11
ChromaCam	PERSONIFY CHROMACAM.EXE	Personify, Inc.	2.3.0.8
Cisco WebEx Service	ATMGR.EXE	Cisco WebEx LLC	3212.0.1802.2800
Cisco WebEx Service	ATMGR.EXE	Cisco WebEx LLC	3307.0.1810.240
Citrix Connection Manager	WFCRUN32.EXE	Citrix Systems, Inc.	14.12.0.18020
Citrix HDX Engine	WFICA32.EXE	Citrix Systems, Inc.	14.9.3000.11

Project: Xavier!

- •Free! Community Driven
- •Cloud First, On-Premises First! ;)
- One click deploy
- Powershell based
- Super Easy to add extensions
- •Scalable, Secure and Dynamic
- No Dependencies, work with SCCM, Intune, etc etc

- Client Runtime
- oExtension(s)
- OAPI
- Database
- Reporting

Planned Extensions

Windows Reliability Index

Application Diagnostics

Driver Info

Group Policies

Power Diagnostics

Windows Firewall

Windows Update

Local Admin Password Solution (LAPS)

Local Admin Group

Security Baselines

Kernel Diagnostics

Kernel Crashes



Your PC ran into a problem and needs to restart. We're just collecting some error info, and then we'll restart for you

8% Completed



For more information about this issue and possible fixes, visit http://windows.com/stopcode

if you call a support person, give them this info stop_code: KERNEL_MODE_HEAP_CORRUPTION



Your Windows Insider Build ran into a problem and needs to restart.

We're just collecting some error info,

93% complete

For more information about this issue and possible fixes, visit https://w



Your PC ran into a problem and needs to restart. We're just collecting some error info, and then we'll restart for you.

20% complete



For more information about this issue and possible fixes, visit https://www.windows.com/stopco

If you call a support person, give them this in

Debugging

TRUESEC

ABOUT TRUESEC

TrueSec is a highly regarded company that focuses on cybersecurity, IT infrastructure, and secure development. We have made a concerted effort to assemble an exceptional team of the top specialists in each field.

TrueSec was established in early 2005 and quickly took a key position in the Swedish market. Over time, we have created a strong reputation internationally. Today, the TrueSec team has assignments all over the world.

TrueSec is part of Wintel Group AB.

TrueSec's key assets are

- Passion
- Depth
- Breadth
- Pedagogical competence
- Independence

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SOCIAL MEDIA

In our social channels, you can see how we communicate with graphics, texts and how to publish images.

Here are the icons, that we prefer to use:









Google+ https://plus.google.com/+TruesecABStockholm?hl=en