



Weatherford®



**Getting the most
out of your polling engine.**

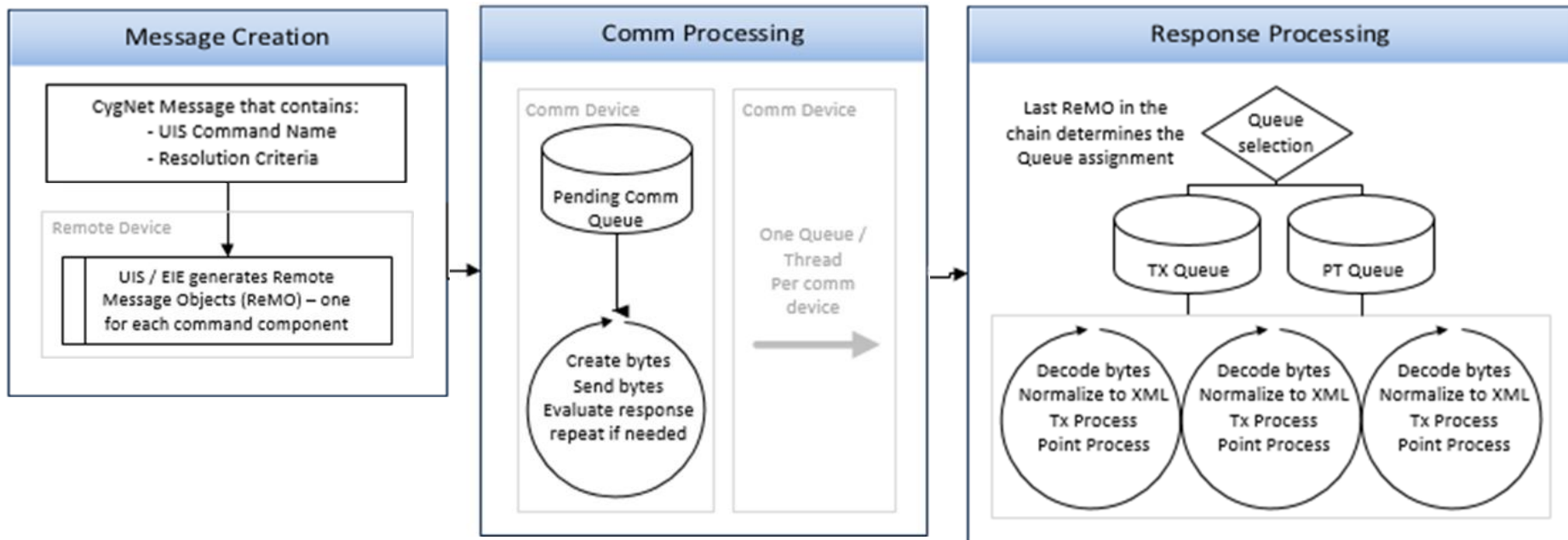
Rob Van, Technical Support Analyst

Optimizing the UIS



- The Journey of a UIS Message
- Hardware Considerations
- Managing Messaging
- Demo
- Monitoring and Diagnosis Tools

The Journey of a UIS Message



Hardware Considerations



CPU



Memory



Storage



Managing Messaging



- MSS Task Management
- DTF Management
- Thread Configuration



MSS Task Management



- Grouping
- Interval
- Prioritization
- Throttling



DTF Management



- Transaction XML
- Message Size



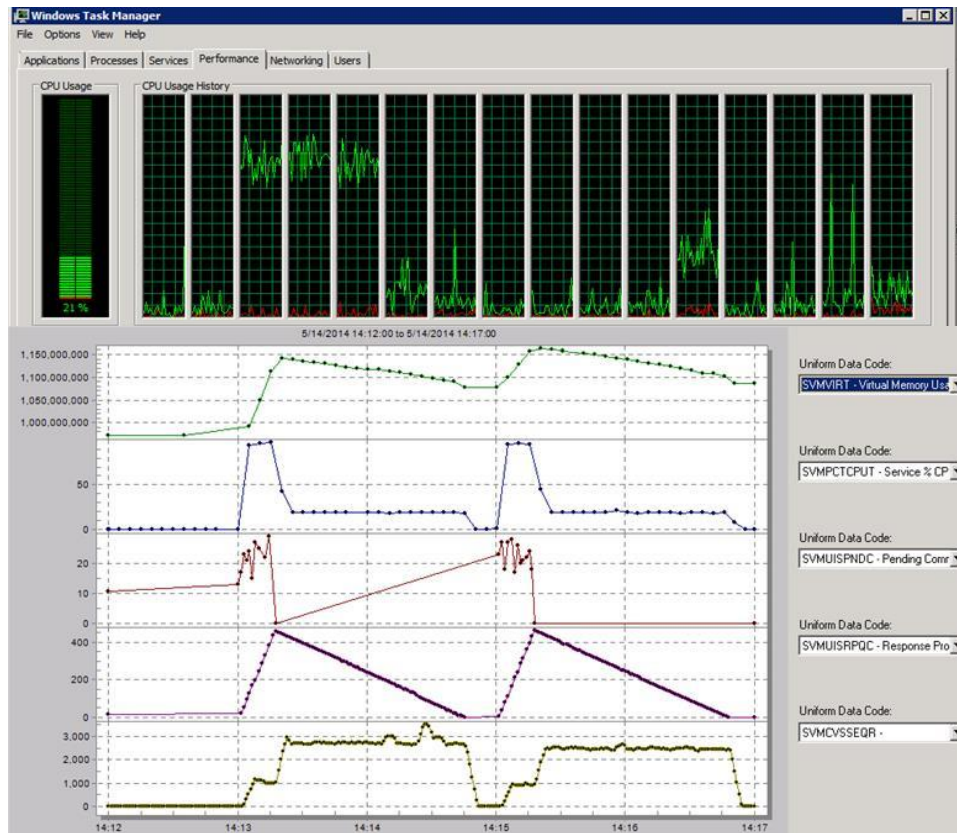
Thread Configurations



3 Threads

Response Processing 1:47

(~2,700/sec)



Thread Configurations

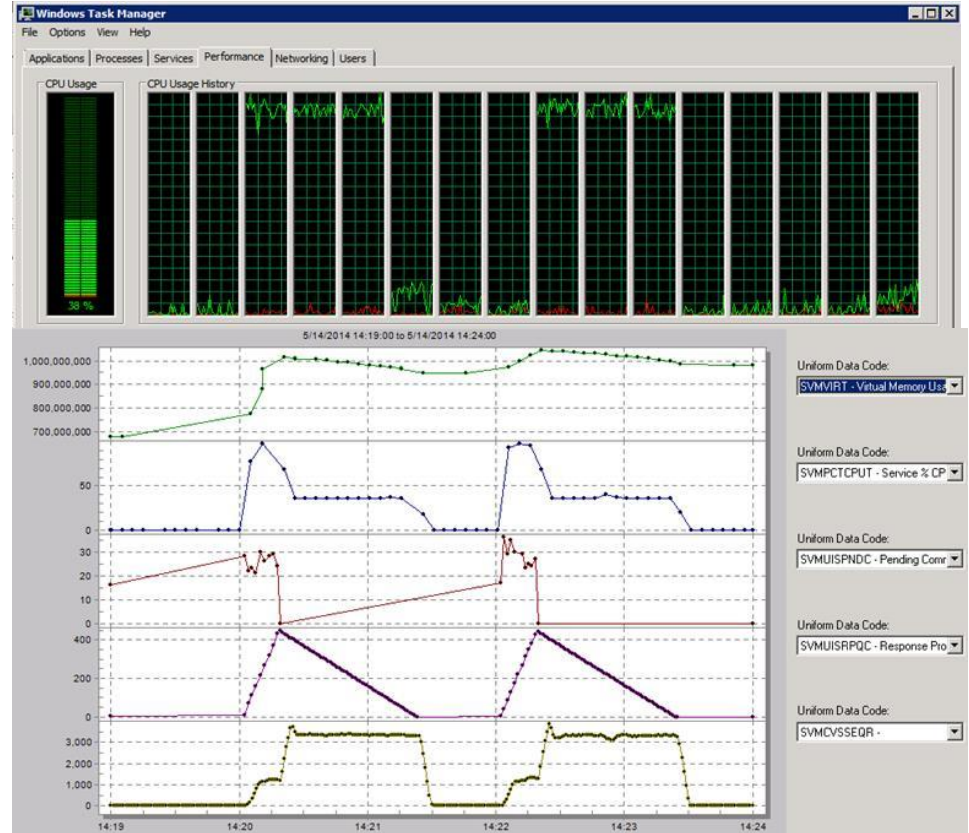


6 Threads

Response Processing 1:22

(~3,300/sec)

22.22% Increase
From Default



Thread Configurations

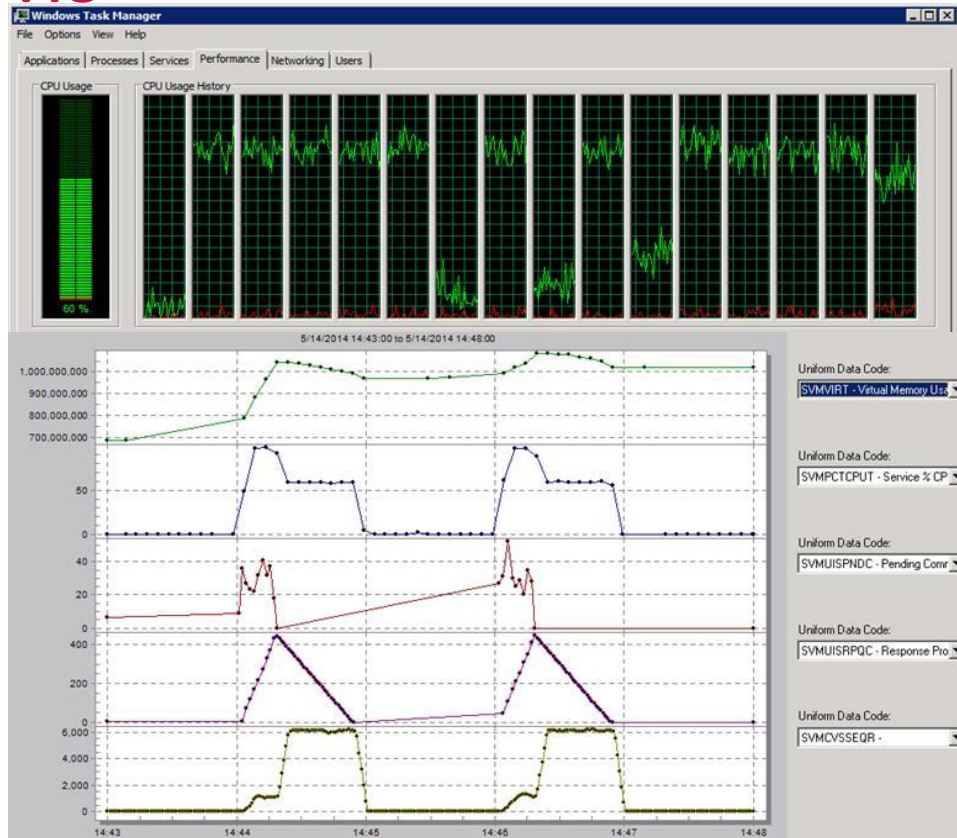


12 Threads

Response Processing 0:54

(~6,100/sec)

125.93% Increase
From Default



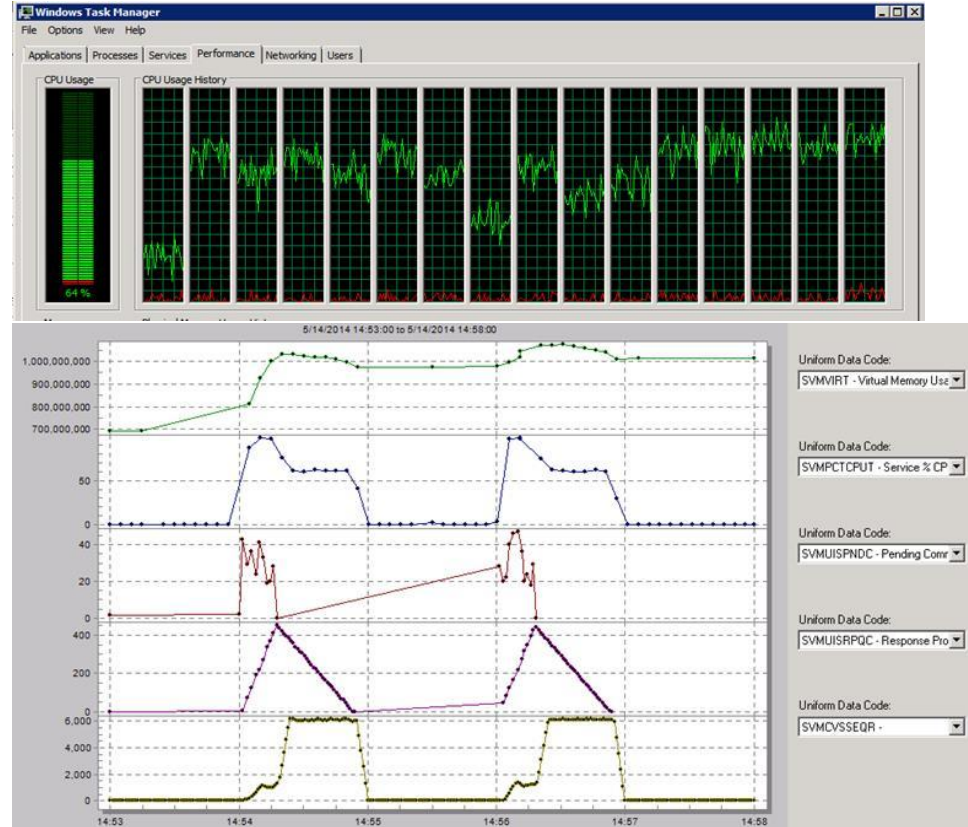
Thread Configurations



16 Threads

Response Processing 54

(~6,100/sec)



Polling Performance



8.2.0



Don't Believe Me?



Monitoring and Diagnosis Tools



■ DDS Viewer

DDS Service: FLO.DDS | Device Category: Remote Devices

Devices (dd:13 ed:0 rd:20 td:11)

Cat	Device Identifier	Devic
RD	REALFLOMB_SP_IP	RealFlo-En
RD	REALFLOMB_SS_4203	RealFlo-En
RD	REALFLOTEST	RealFlo
RD	SCANCOM_BARTON_1140	ScanCom-
RD	TEST_REALFLO	RealFlo-En
RD	TEST_REALFLOO	RealFlo

Data Groups for 'TEST_REALFLOO' (cnt:16)

Type	Ord	Description
AGADData	1	Meter 1 AGA Data
Aga3Cfg	1	Meter 1 AGA-3onfig
ConctrCfg	1	Meter 1 Contract Config
DateTime	1	Get Date Time
DlyHist	1	Meter 1 Daily History
FlowPLCmd	1	Plunger Commands
FlwRunCfg	1	Meter 1 Flow Run Config

Transaction list for 'DateTime:1' (cnt:1)

9/14/2015 13:36:59.196 - G - 3 - C0000001

Transaction Data

```
<dgData xmlns:dt="urn:schemas-microsoft-com:datatypes">
  <Hour dt:dt="ui2">13</Hour>
  <Min dt:dt="ui2">35</Min>
  <Sec dt:dt="ui2">25</Sec>
  <Year dt:dt="ui2">2015</Year>
  <Month dt:dt="ui2">9</Month>
  <Day dt:dt="ui2">14</Day>
  <SysTime dt:dt="r8">42261.567349537</SysTime>
  <DateDiff dt:dt="i4">94</DateDiff>
  <UISCMDPRMS>DGORD=1;DGTYPE=DateTime;</UISCMDPRMS>
  <UISCMDTYPE>DG_F_DEV</UISCMDTYPE>
</dgData>
```

Successfully loaded transaction data.
Type:G, Time:9/14/2015 13:36:59.196, Status:3-Succeeded [Succeeded], Key:0000000030B0000004C0000001, Data size:386 (hdr:248, blobCnt:0), Est CompSize:240, ver:1.1, partial_data:N, idx:, user:\YSI\yobert.van, uistid:0, app:1:0, app2:0, app3:0, app4:0

Options | Close

Monitoring and Diagnosis Tools



■ CommBytes

```
Communications Data Viewer : WF_EPROD_EPIC

Time: 3/31/2016 16:18:59.717 To: WF_EPROD_EPIC #Bytes: 35 Seq Num: 0
Valid: Yes Desc: DynaConfig F
0000: 0C 46 46 45 30 38 30 31 37 30 31 35 30 31 38 30 44 33 30 44
0020: 32 30 44 35 33 32 36 30 31 41 31 36 44 41 0D

Time: 3/31/2016 16:19:01.111 From: WF_EPROD_EPIC #Bytes: 40 Seq Num: 1
Valid: Yes Desc: DynaConfig F
0000: 0A 46 46 45 30 31 30 41 7C 35 30 7C 34 31 7C 39 43 34 30 7C
0020: 30 30 30 35 7C 30 41 7C 33 38 34 30 7C 30 30 32 46 38 42 0D

Time: 3/31/2016 16:19:08.314 To: WF_EPROD_EPIC #Bytes: 17 Seq Num: 2
Valid: Yes Desc: EProdRpc DateTime F
0000: 0C 46 46 45 30 38 30 30 33 30 30 34 33 44 33 30 0D
```

■ Service Details

EIE Type	Name	Version	Timestamp	Object Count
AllenBradley	UsAllenBradleyDeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	3
Amo700	UsAmo700Driver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1
Benchmark	UsBenchmarkDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1
Bsap	UsBsapDeviceDriver.dll	8.1.3.1005	2/24/2016 09:47:37.291	7
EProdRpc	UsEProdRpcDeviceDriver.dll	8.1.3.1002	2/17/2016 09:08:52.383	1
Efm3000	UsEfm3000DeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	2
EmersonRoc	UsEmersonRocDriver.dll	8.1.3.1004	11/11/2015 09:22:49.441	1
EmersonRocPlus	UsEmersonRocPlusDriver.dll	8.1.3.1011	11/11/2015 09:22:57.817	8
GcmCalc	UsGcmCalcDeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1
LufkinMpcRpc	UsLufkinMpcRpcDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1
LufkinSam	UsLufkinSamDeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	2
MicroIc	UsMicroIcDeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1
ModbusEfm	UsModbusEfmDeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1
ScanCom	UsScanComDeviceDriver.dll	8.1.3.1000	2/18/2015 11:00:00.000	1

Msg stats (since start) ==> delta msgs:37,147, elapsed:200,182.91s, rate: 0.19 msgs/sec

Monitoring and Diagnosis Tools



■ ProcDump (SysInternals)

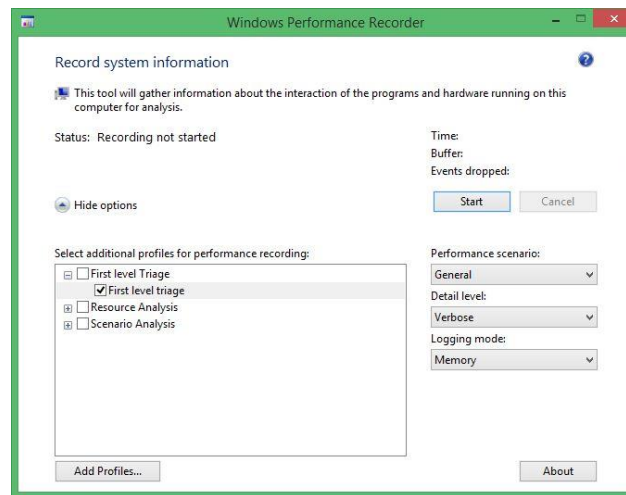
```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.3.9600.1]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Windows\System32>cd ..
C:\Windows>cd ..
C:\>procdump

Procdump v4.0 - Writes process dump files
Copyright (C) 2009-2011 Mark Russinovich
Sysinternals - www.sysinternals.com

Monitors a process and writes a dump file when the process exceeds the
specified CPU usage.
```

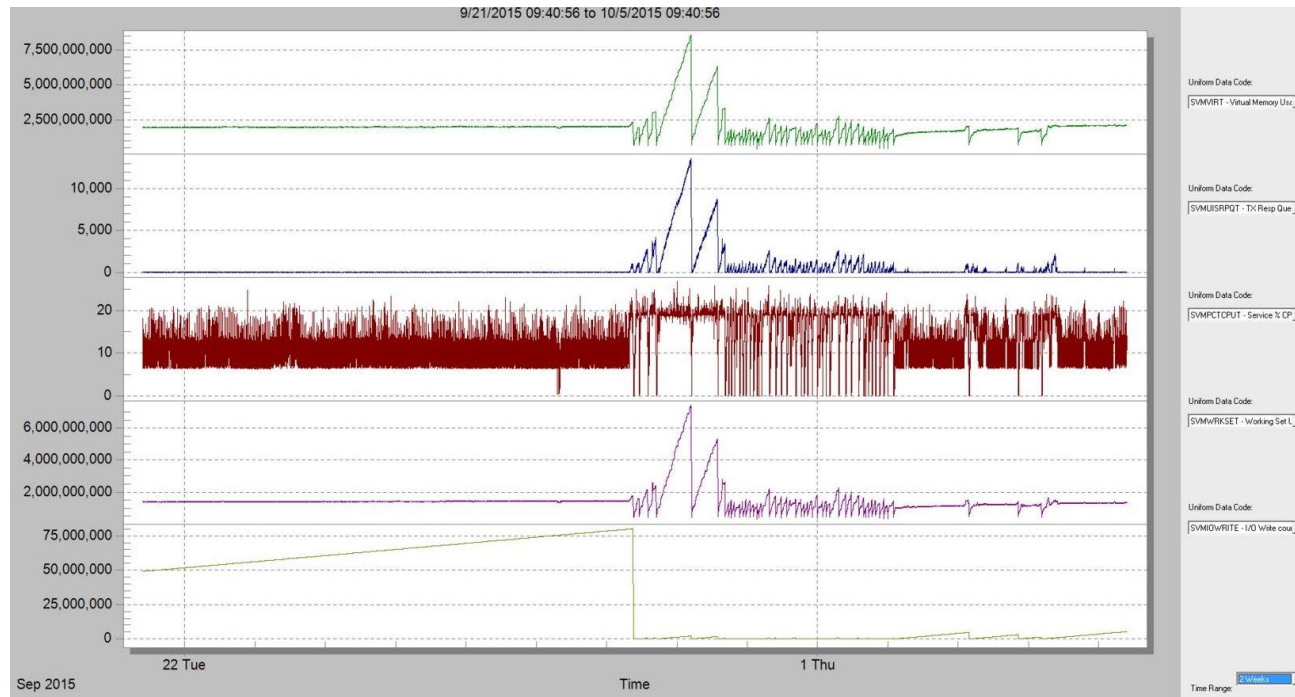
■ Windows Performance Recorder



Monitoring and Diagnosis Tools



■ SVCMON





Questions?
