

zEnterprise Automation with IBM System Automation for z/OS V3.5

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IBM

Session 17031



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Agenda

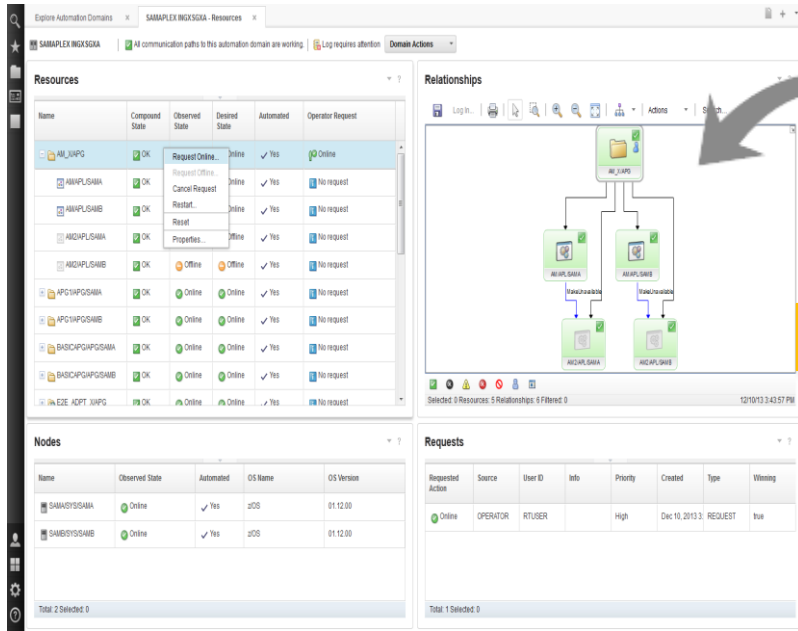
- Overview
- Integration with Omegamon
 - Immediate Message Reporting on TEP
 - Looping Address Space Suppression
- IPL complete notification
- Manage bulk starts / stops using Pacing Gates
- Configuration Assistant
- SAF support
- Extended XCF communication
- Configuration Refresh Indicator

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IBM System Automation family

IBM only vendor to provide end-to-end, cross-platform Automation



System Automation Application Manager V4.1

- Adapter for
- IBM PowerHA
 - VCS
 - MSCS
 - Unclustered nodes

GDPS DCM

GDPS

System Automation for z/OS V3.5

System Automation for Multiplatforms V4.1

GDPS xDR
GDPS Virtual Appliance



Complete your session evaluations online at www.SHARE.org/Seattle-Eval

IBM Service Management Suite for z/OS V1.2

IBM System Automation for z/OS V3.5

IBM OMEGAMON Performance Management Suite for z/OS V5.3 **

IBM NetView for z/OS V6.2.1 *

IBM Asset Discovery for z/OS V8.1

* OTC

trade up considerations for any component products already owned



**

- IBM Tivoli OMEGAMON Dashboard Edition on z/OS V5.3.0 (new)
- IBM Tivoli OMEGAMON XE on z/OS V5.3.0 (new)
- IBM Tivoli OMEGAMON XE for Mainframe Networks V5.1.1
- IBM Tivoli OMEGAMON XE for Storage on z/OS V5.3.0 (new)
- IBM Tivoli OMEGAMON XE for CICS on z/OS V5.3.0 (new)
- IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS V5.2.0
- IBM Tivoli OMEGAMON XE for IMS on z/OS V5.1.0
- IBM Tivoli OMEGAMON XE for Messaging for z/OS V7.3.0
- IBM Tivoli Composite Application Manager for Web Resources V7.1.0

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IBM Service Management Suite for z/OS V1.2



Improving personnel interaction for better synergy and efficiency

Reducing meantime to correction of complex problems

Consolidating views that can allow for quick assessment for the health of your business environment

Providing management capabilities through automation and monitoring integration for business continuity

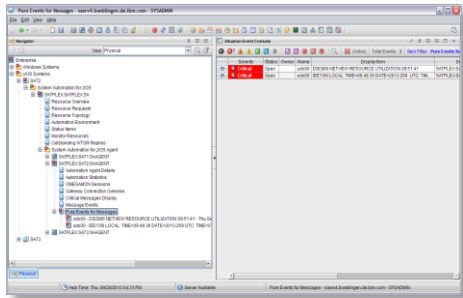
Easily and more intuitively install and customize various components

Customizable Dashboards for SMSz V.Next announced -
Looking for Beta participants [Link](#)

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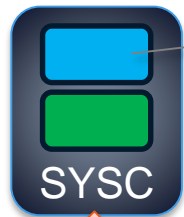
Immediate Message Reporting on TEP



Short-lived incidents may remain undetected by situation sampling routines and hence are invisible to the operations team



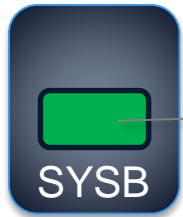
Push in real-time



SA z/OS Monitoring Agent

- SA z/OS exploits ITM pure event situations

Incident



SA z/OS

- In combination with its Monitoring Agent, SA z/OS allows to send selected exceptional messages immediately to TEP by means of **policy**

Immediate Message Reporting on TEP



SETUP

SA 3.4: OA43571

- TEP
- Download new System Automation application support CD ([Link to ITM support](#)) and install on all ITM components
 - Define, deploy and activate situations for the new Message Events attribute group

SA z/OS

- Install or update SA Monitoring Agent (TEMA) according to Planning and Installation manual
- Have the TEMA in the automation policy with CATEGORY=ITM and SUBCATEGORY=KAHAGENT
- Update configuration to use ITM in the Inform List policy of APLs, MTRs, MVC, or XDF

```
Application Information
Entry Type : Application
Entry Name : CANSAH

Category . . . . . ITM
Subcategory . . . . . KAHAGENT

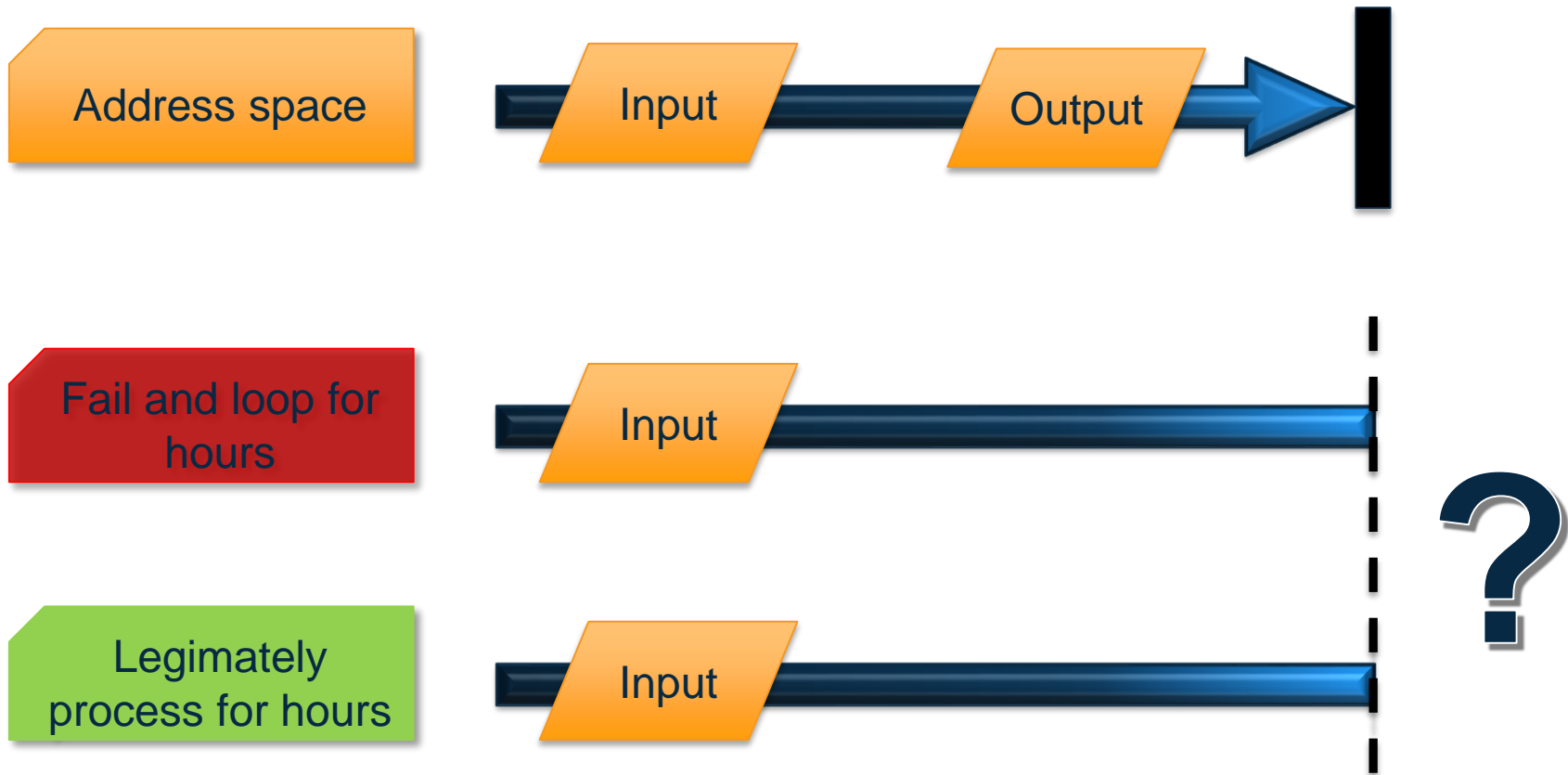
Application Information
Entry Type : Application
Entry Name : LOOPSUPP

Inform List . . . . . SDF ITM
```

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Looping Address Space Suppression

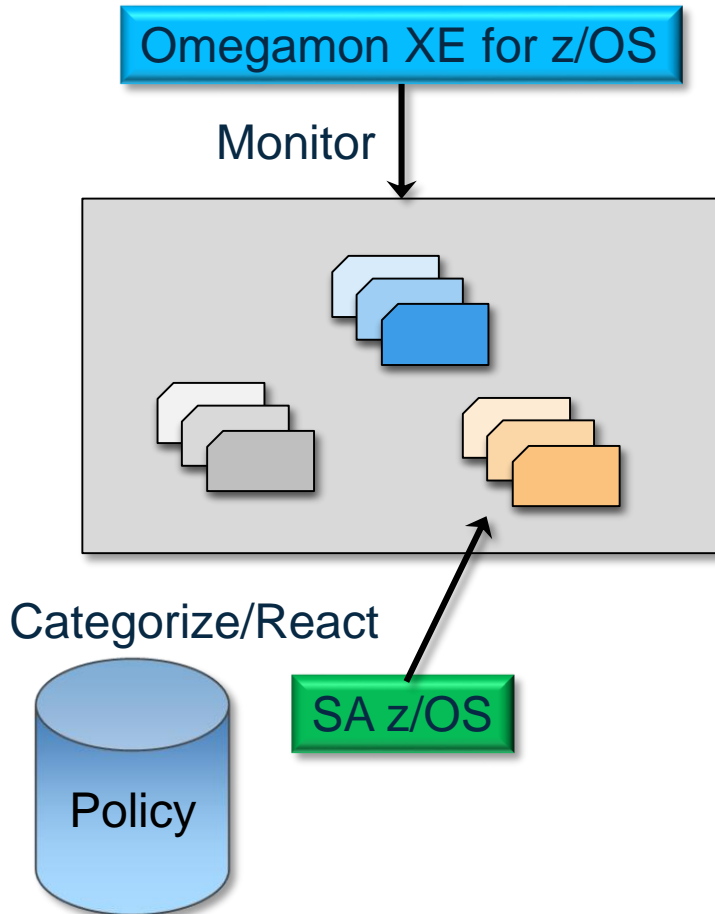


Omegamon cannot distinguish!



Looping Address Space Suppression

Overview



Detect when started tasks / jobs show abnormally high CPU utilization

Prevent that these types of work can dominate the system

SA z/OS can categorize different types of work and allows to define various recovery actions through **policy** – not programming!

Looping Address Space Suppression

Best Practices Policy *ITM

Select Add-on Policy Components

Components of Add-on Policy : *ITM

Has been completely modernized with SA 3.5

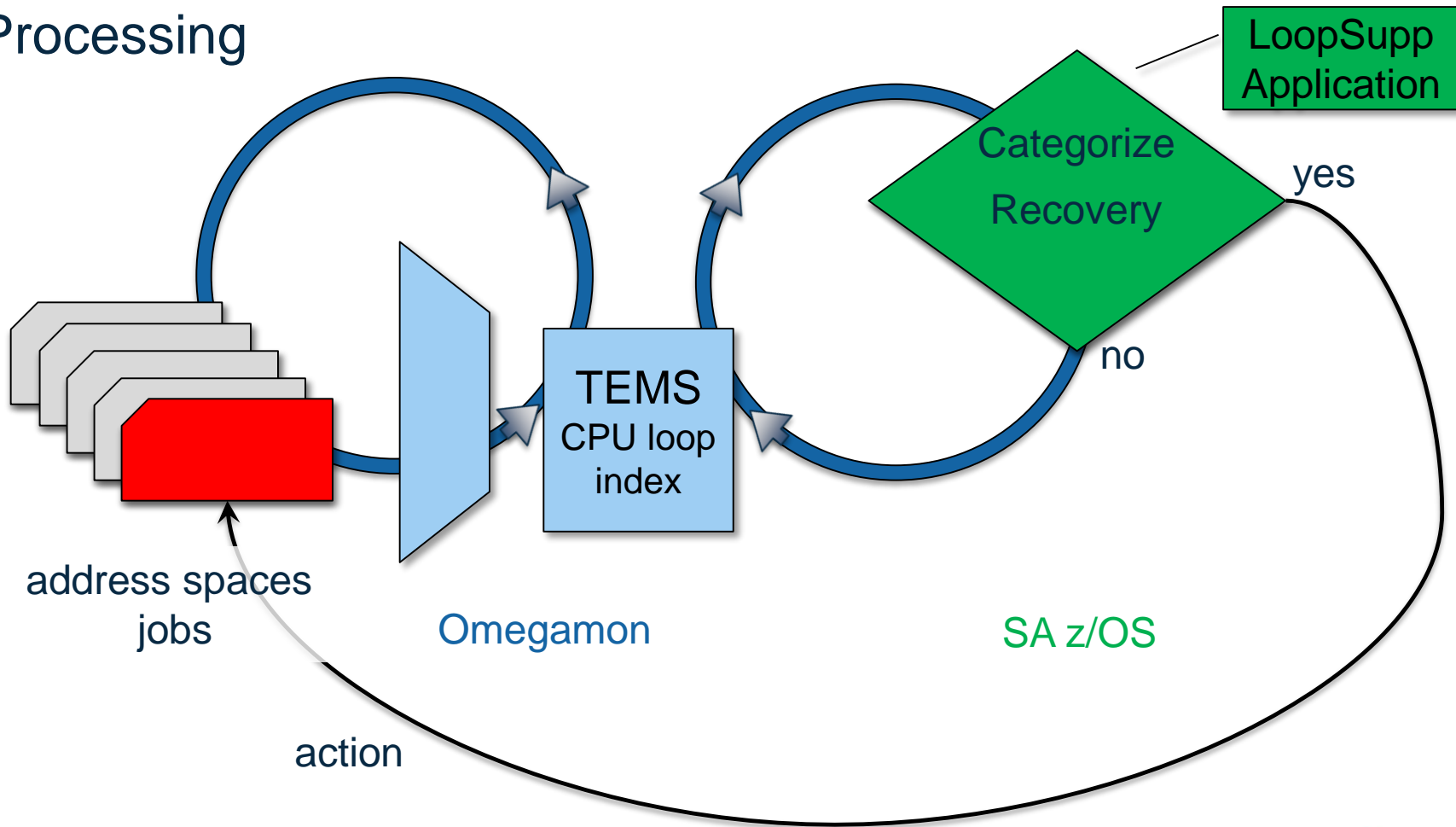
Select one or more components to be added to your Policy Database:

Action Status	Component
<input type="checkbox"/>	Automation Monitoring Agent (TEMA)
<input checked="" type="checkbox"/> SELECTED	Monitoring Analytic

Besides Omegamon

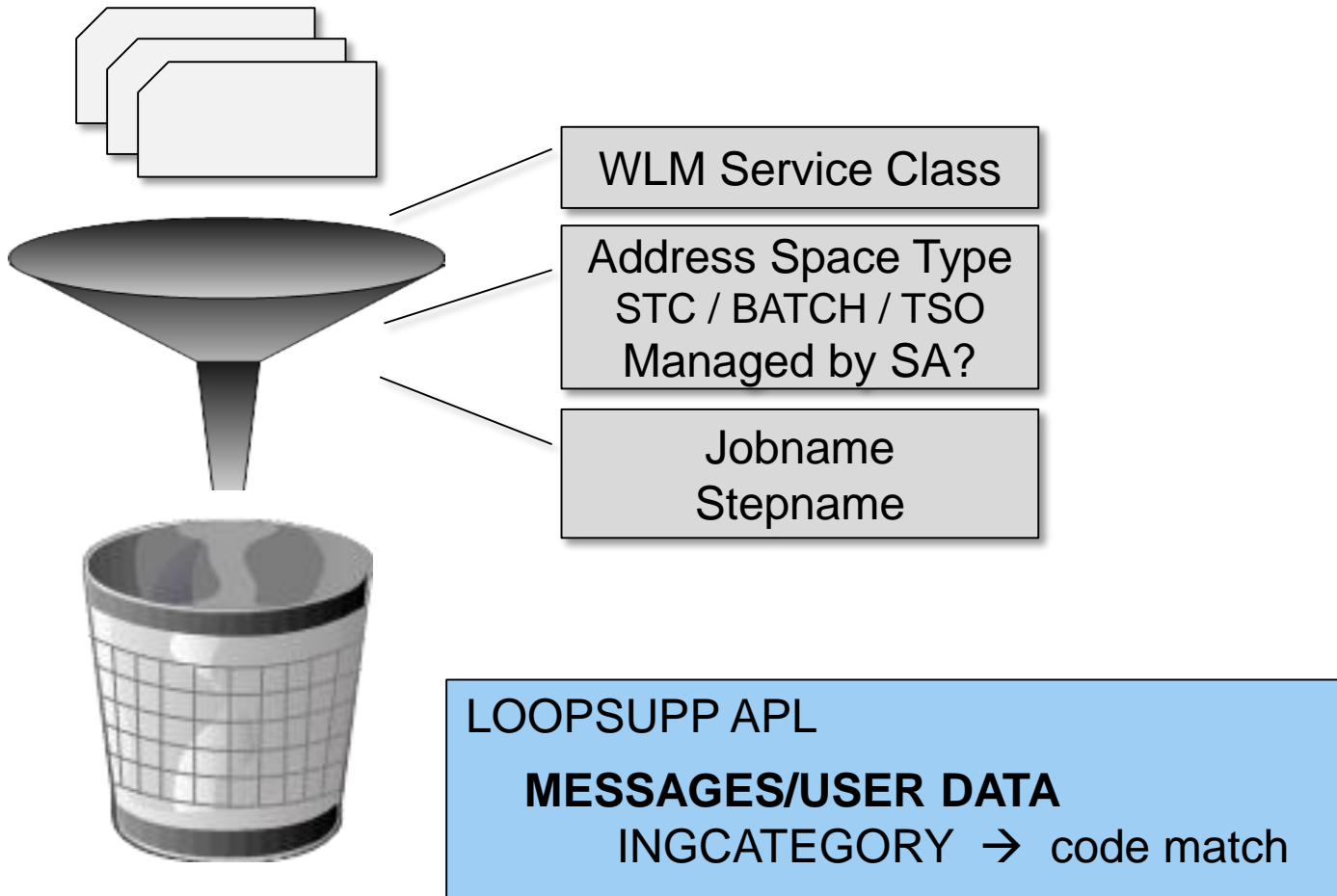
- ING_ANALYTIC APG
- C_LOOPSUPP APL
- LOOPSUPP APL
- SOAP_SERVERS NTW

Looping Address Space Suppression Processing



Looping Address Space Suppression

Categorizing



Looping Address Space Suppression

Recovery action example



1. pass issue warning message
2. pass get diagnostic data
3. pass suspend



1. pass issue warning message
2. pass get diagnostic data and cancel



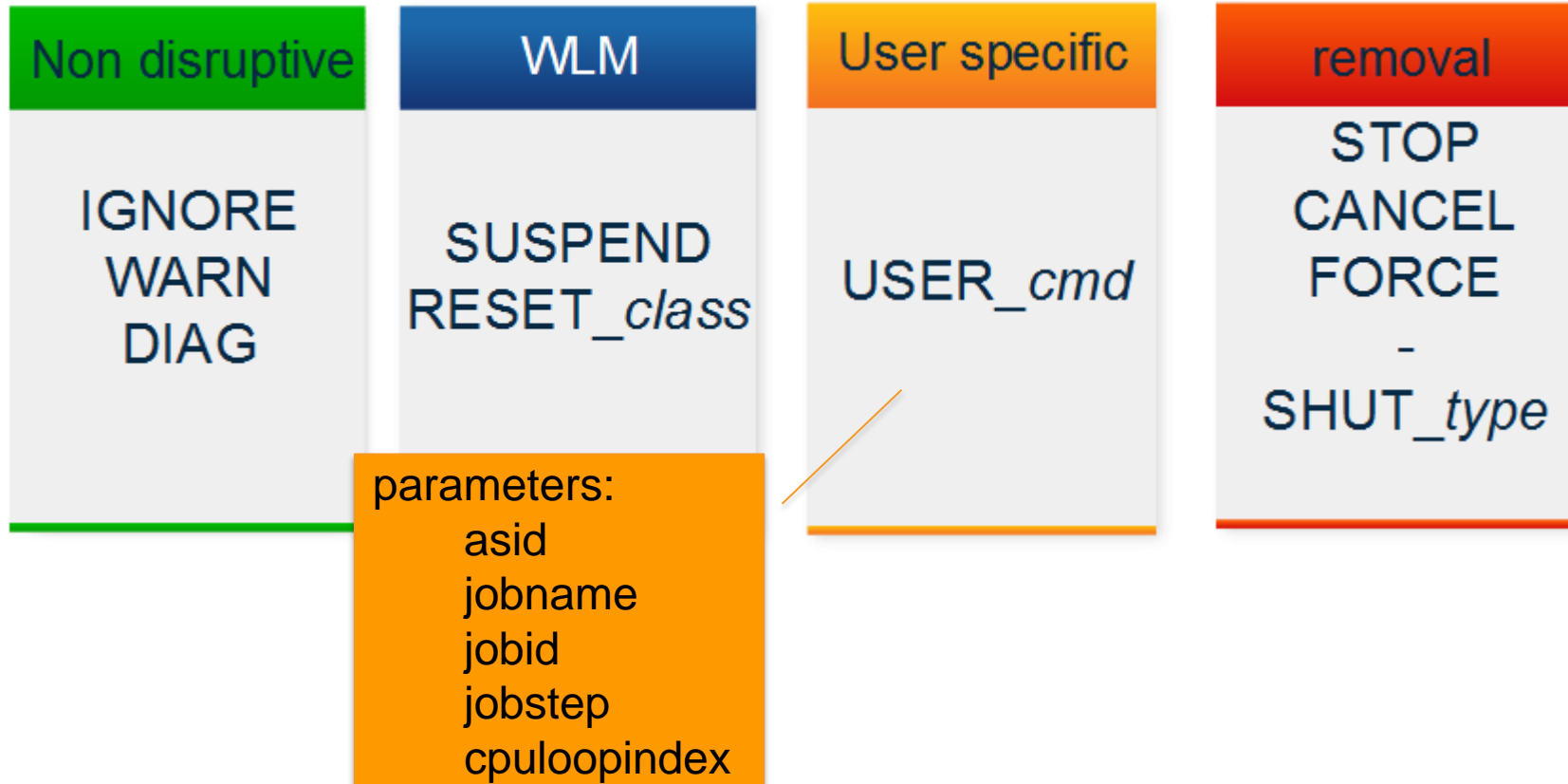
LOOPSUPP APL

MESSAGES/USER DATA

INGRECOVERY → code match

Looping Address Space Suppression

Recovery actions



Looping Address Space Suppression

Example DIAG output

ING602I DIAGNOSTICS FOR BUMUSL (ASID 00D8)

Messages from Inspect tool:

KM3IN008I GRANULARITY SET TO 0X00000B40

Requested 1000 samples at 5us intervals

Took 1000 samples of which 1000 were valid.

Program: EXEC

TCB : @ 008E3390 (100.0 JOB)

LMod : IRXINIT @ 0C467000 (100.0 JOB, 100.0 TCB)

CSECT: *-UNKN-* @ 0C467000 (100.0 JOB, 100.0 TCB, 100.0 LMOD)

Offset	Percentage
+00000B40	73.3
+00009240	6.6
+00000000	5.1
+00009D80	3.4
+00006540	3.1
+000021C0	2.4
+00007080	2.2
+00001680	1.7
+0000A8C0	1.1
+0000B400	0.7
+00007BC0	0.1

Looping Address Space Suppression

Definition of the SOAP Server

SOAP_SERVERS NTW – HUBTEMS

Host name. <u>hubtems.ibm.com</u>	Symbolic host name or IP-address of the SOAP-Server
Port number. <u>1920</u>	Port number of the SOAP-Server (1-65535)
Protocol <u>HTTP</u>	Protocol used for SOAP requests (HTTP or HTTPS)
User ID. _____	User ID to log on to SOAP server
Password _____	Password of the logon user or SAFPW
Absolute path. <u>///cms/soap</u>	Absolute path of the SOAP-Server on that host

SA z/OS 3.5 only; APAR OA46166

SA z/OS 3.4: Need to prime userid and password

NETVASIS INGPW USER SOAP INIT=*userid*
 NETVASIS INGPW *userid* SOAP INIT=*password*

USER is a constant,
userid not

Looping Address Space Suppression

Adjust Monitor to your needs

C_LOOPSUPP APL – **STARTUP** policy

Command Processing : STARTUP

Mixed case . . . NO (YES NO)

Cmd Type	AutoFn/*	Command Text
_____	_____	<u>INGROMLS START &SUBSAPPL HUBTEMS 00:05:00</u>

SOAP Server
Definition of *ITM

Monitor Interval;
defaults to 5 min

CPU_Loop_Index;
defaults to 99.0

Looping Address Space Suppression

Control Monitor execution

C_LOOPSUPP APL – Minor Resources policy

Minor Resource Definitions

```
Entry Type : Application          PolicyDB Name   : SHARE
Entry Name  : C_LOOPSUPP         Enterprise Name : SHARE
```

```
Line Commands: F (Flg), S (Thr), T (Thr), CN (Class Name)
                I, D (insert or delete lines)
```

```

- Automation  Flags -
Cmd Minor Resource Name      Thres  A   I   S   R   T   RS
___ MONITOR                   _____ *

```

Cmd	Flag	Auto
___	Automation (A)	___
___	Initstart (I)	___
___	Start (S)	___
___	Recovery (R)	LOG
___	Terminate (T)	___
___	Restart (RS)	___

Default;
write recovery actions in netlog, but don't execute them except nondisruptive ones
Changeable at runtime via INGAUTO

Looping Address Space Suppression

Sample Monitoring report: **no looping address spaces**

```
ING600I LOOPING ADDRESS SPACE SUPPRESSION REPORT
```

```
Called at 7 Jul 2014 17:27:11
```

```
Commands will be LOGGED;
```

Recovery Flag set to LOG

```
LOOPSUPP.MONITOR RECOVERY flag set to LOG
```

```
Target Network: HUBTEMS
```

```
Monitoring -
```

```
  address: 9.152.87.246
```

```
  port: 1920
```

```
  path: ///cms/soap
```

SOAP Server definition

```
  protocol: HTTP
```

CPU Loop Index set to 30

```
Monitoring threshold: 0300
```

```
Query Successful
```

```
No exceptions found.
```

```
Monitor complete
```

Looping Address Space Suppression

Sample Monitoring report: **looping address space found**

Exceptions found -

ASID: 0079 Type: STC CPU Loop Index: 64.7
Job: YBUMUSL ID: YBUMUSL Step: BUMUSL0
WLM Service Class: STCCMD.1
SA Subsystem: YBUMUSL Type -> **STC_SA**

Started Task which is managed by SA

Policy definition for categorizing

Categorizing

Searching: LOOPSUPP INGCATEGORY

CODE1=**STCCMD** CODE2=**STC SA** CODE3=**YBUMUSL.BUMUSL0**

Flag checking

=> Found category: **BUMUPS**

Checking automation flag: LOOPSUPP.BUMUPS.YBUMUSL RECOVERY

=> Recovery Permitted

Finding recovery actions for pass: 1

Searching LOOPSUPP INGRECOVERY

CODE1=**BUMUPS** CODE2=**1** CODE3=<blank>

=> Found: **WARN SHUT_FORCE**

Cmd: WARN - Message issued

ING601E LOOPING ADDRESS SPACE DETECTED: YBUMUSL BUMUSL0 (ASID 0079)

Cmd: **SHUT_FORCE - INGREQ YBUMUSL/APL/AOC4**
REQ=STOP,TYPE=FORCE,OUTMODE=LINE Issuing

Monitor complete

Performed recovery action

Policy definition for recovery

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IPL complete notification



When is an 'IPL' complete?



Mark all applications which should be up to consider 'IPL' complete

Do we need a time limit?



Specify a time limit in the policy

IPL complete notification

APL – Application Info policy

Application Information

Line 00000001

Entry Type : Application
Entry Name : TCPIP

Also available for Application Groups and Monitors

Category		(IBM-defined, user-defined or blank, see help)
Subcategory	_____	(IBM-defined, user-defined or blank, see help)
Subsystem Name	TCPIP_____	
Job Type	_____	(MVS NONMVS TRANSIENT)
Job Name	TCPIP_____	
Transient Rerun	_____	(YES NO)
Scheduling Subsystem	_____	(MSTR, JES Subsystem)
JCL Procedure Name	_____	
Job Log Monitor Interval	_____	(mm:ss NONE)
Captured Messages Limit	_____	(0 to 999)
Desired Available	_____	(ALWAYS ONDEMAND ASIS)
Restart after IPL	_____	(START NOSTART NONE)
Monitor for IPL complete	YES	(YES NO)

IPL complete notification

SDF – System Defaults

System Automation Options

```

Entry Type : System Defaults          PolicyDB Name   : SHARE
Entry Name : SHARE_EXAMPLE           Enterprise Name : SHARE

Captured Messages Limit. . . . .   _____      (0 to 999)
Exceptional Messages Limit . . . . . _____      (0 to 1020)
Desired Available. . . . .           _____
Prepare Move . . . . .               _____      (YES NO)
Move Mode. . . . .                   _____      (PARALLEL SERIAL)
Inform List. . . . .                 _____
IPL Complete Time Limit. . . . .    _____      (SDF NMC IOM SMF EIF TTT ITM USR)
                                     (00:00:00 to 24:00:00)

```

If field is left blank – no IPL completeness check

IPL complete notification

SDF – System Defaults

System Automation Options

```

Entry Type : System Defaults          PolicyDB Name   : SHARE
Entry Name : SHARE_EXAMPLE           Enterprise Name : SHARE

Captured Messages Limit. . . . .  (0 to 999)
Exceptional Messages Limit . . . .  (0 to 1020)
Desired Available. . . . .          (ALWAYS ONDEMAND ASIS)
Prepare Move . . . . .              (YES NO)
Move Mode. . . . .                  (PARALLEL SERIAL)
Inform List. . . . .                (SDF NMC IOM SMF EIF TTT ITM USR)
IPL Complete Time Limit. . . . .   (00:00:00 to 24:00:00)
IPL Complete Status . . . . .
  
```

Defaults to Available;
 Observed Status: AVAILABLE, STANDBY and SOFTDOWN
 or
 Compound Status: SATISFACTORY

SA 3.5: OA46674

IPL complete notification



ING313I time: IPL completed within expected time period, elapsed time was duration

ING314I time: IPL not completed within limit: limit. Failing resources: resource

ING315I time: IPL completed after expected time period, elapsed time was duration

SA 3.5: OA46426

AOF_AAO_IPL_COMPLETE_MSG=COND | ALWAYS

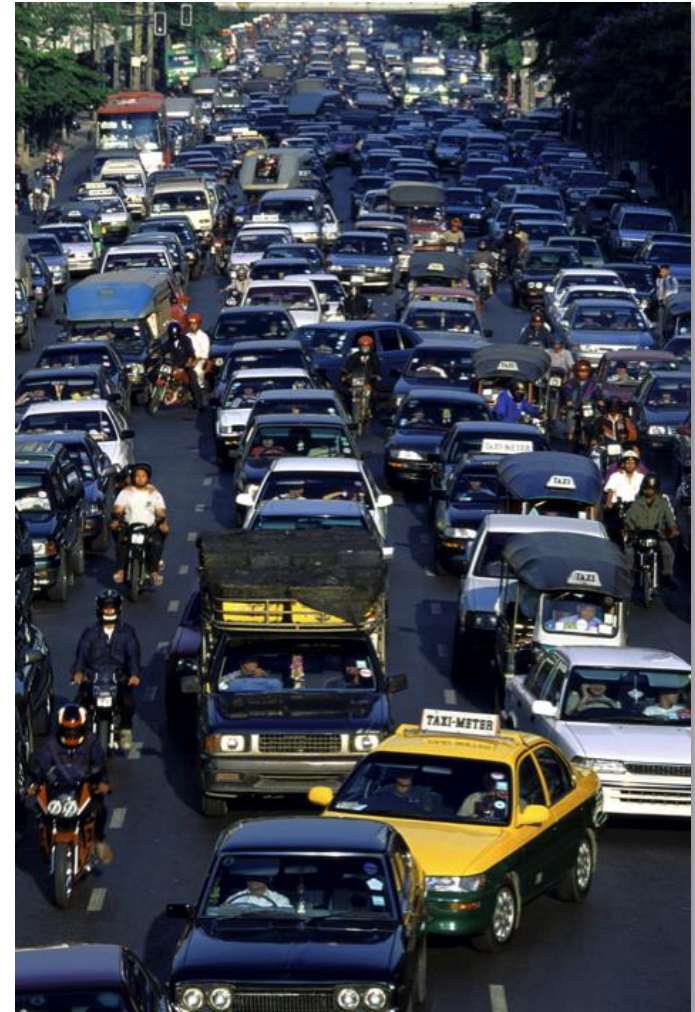
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Application Pacing

Problem:

CPU peaks occur
when starting bulk applications e.g. at IPL



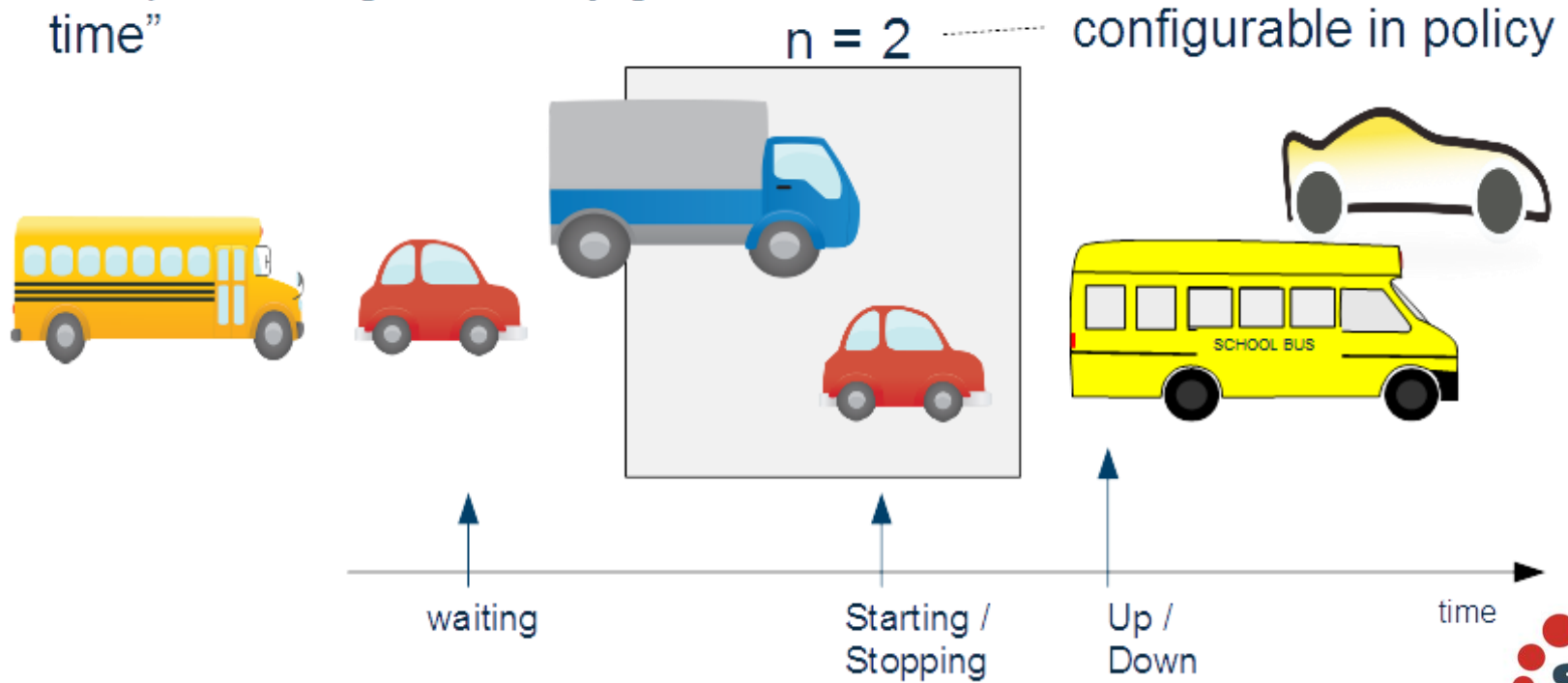
Application Pacing



Application Pacing

Pacing Gate side-view

“Gate mechanism ensures that only up to n automation resources can pass the gate at any given time”



Complete your session evaluations online at www.SHARE.org/Seattle-Eval

Broken

2/27/2015

Application Pacing

New Entry Type PAC

10	PRO	Processors	40	XDF	Sysplex Defaults
11	MTR	Monitor Resources	41	RES	Resident CLISTs
12	ENS	zEnterprise Ensembles	42	SCR	Status Display
13	PAC	Pacing Gates			
20	PRD	Product Automation	99	UET	User E-T Pairs
21	MSG	Messages			

Define New Entry

Define new entry of type Pacing Gate

Entry name WAS_PAC

Start Concurrency Limit . 10 (0-9999 or NOLIMIT)

Stop Concurrency Limit . 5 (0-9999 or NOLIMIT)

Short Description . . . Pacing gate for Websphere Applications

Application Pacing

Linkage

Entry Name Selection

Entry Type : Pacing Gate

PolicyDB Name : SAMPLE_350

Enterprise Name : SA_Z_05_BB_LAB

Action

Entry Name

Short Description

_____ PAC_AOCCLONE

Pacing definition using AOCCLONEs

_____ PAC_20

Pacing definitions of 20

_____ SHARE_PAC

Pacing example for Share

Linked through APLs
and not directly to systems

One Application can only be linked to
one Pacing Gate

Application Pacing

Average time waiting in sec

New Command INGPAC

of applications waiting

of applications waiting or transmitting

```

INGKYPA0          SA z/OS - Command Display          Line 3 of 20
Domain Id   : IPUFJ ----- INGPAC ----- Date   : 01/19/15
Operator Id : BUMU          Sys  Time   : 12:30:21
    
```

CMD: D Details L List Resources

CMD	Pacing Gate	Type	System	Limit	Num Res	Num Wait	Cur Wait
---	PAC_AOCCLONE	Start	A0C4	444	0	0	-
---	PAC_AOCCLONE	Start	A0C5	NOLIMIT	0	0	-
---	PAC_AOCCLONE	Stop	A0C4	555	0	0	-
---	PAC_AOCCLONE	Stop	A0C5	NOLIMIT	0	0	-
---	PAC_20	Start	A0C4	20	0	0	-
---	PAC_20	Start	A0C5	20	0	0	-
---	PAC_20	Stop	A0C4	20	0	0	-
---	PAC_20	Stop	A0C5	20	0	0	-
---	SHARE_PAC	Start	A0C4	2	16	14	10
---	SHARE_PAC	Start	A0C5	2	0	0	-
---	SHARE_PAC	Stop	A0C4	NOLIMIT	0	0	-
---	SHARE_PAC	Stop	A0C5	NOLIMIT	0	0	-

Complete your Further data available either with scrolling  or showing details



Application Pacing

New Command INGPAC - detail

```

INGKYDA1          SA 7/05 Command Dialogs      Line 1      of 16
                   PUF.      Transition time through the gate  INGPAC ----- Date . . . : 01/19/15
                   JMU      Wait time in front of the gate  x = A0C4PLEX Time . . . : 12:31:23

Pacing gate:  SHARE_PAC          Type:  Start          System:  A0C4
Description:  Pacing example for Share          Limit :  2

Wait times (s)      Active times (s)      Number resources
-----
Current:           67      Cur      Inactivate pacing gate      Waiting:           14
Average:          381      Aver
Maximum:          713      Max
CMD:  I Resource Info  R Release

CMD Resource Name      Status      Wait      Active      Total      Req Date
-----
SHARE#1/APL/A0C4      Starting      0          68          68 01/19/15
SHARE#10/APL/A0C4     Starting      0          68          68 01/19/15
SHARE#11/APL/A0C4     Waiting      67          0          67 01/19/15
SHARE#12/APL/A0C4     Waiting      67          0          67 01/19/15
  
```

Wait time in front of the gate

Transition time through the gate

Inactivate pacing gate

Applications currently waiting or passing

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Traditional Product Configuration

Read the Installation manual ...

- ... decide which of the many installation steps apply to your z/OS environment.

Perform those steps by ...

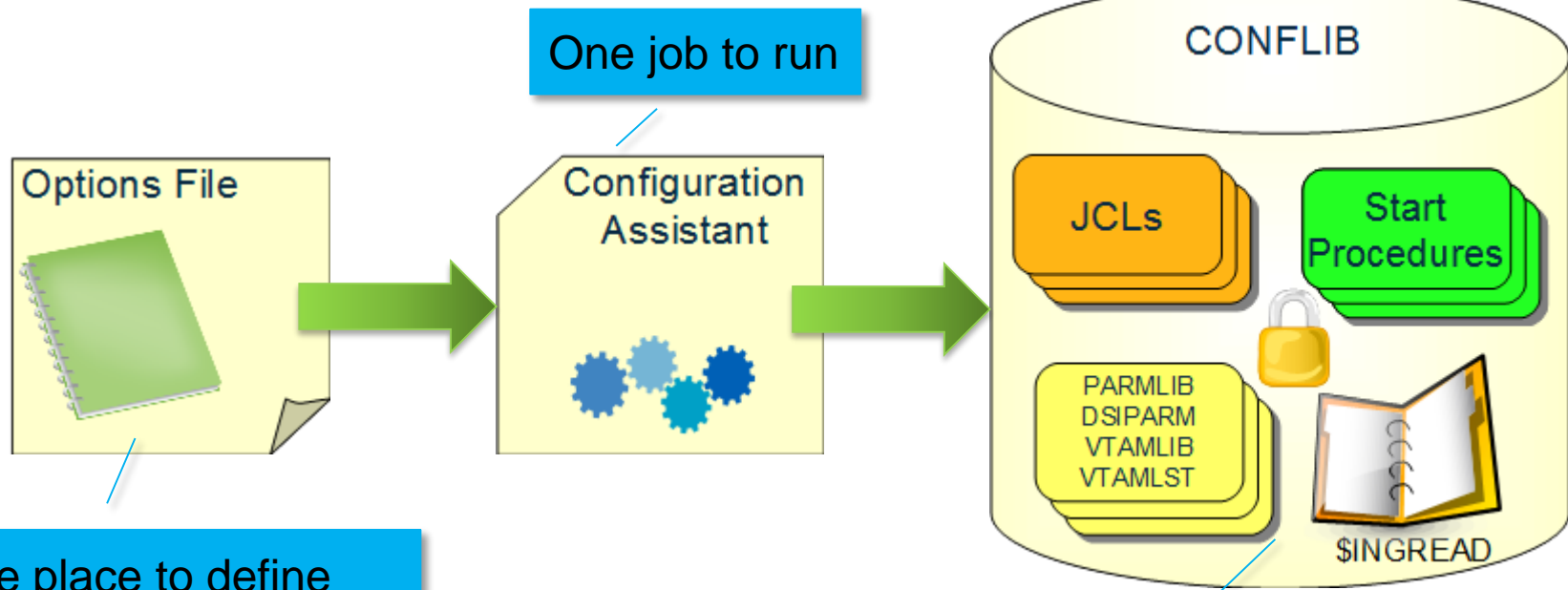
- ... adapting all the identified sample files and ...
- ... filling in your environmental data at multiple places spread across the sample files.

And do all this --- in a consistent way!

Chapter 7. Installing SA z/OS on Host Systems	
Overview of Installation Tasks	51
Step 1: PREP: Installation	52
Step 2: Allocate System Linkage Data Sets	55
Step 2A: Edit Sets for MVS/VS	55
Step 2B: Edit Sets for z/OS Operations	56
Step 2C: Edit Sets for Automation Agents	56
Step 2D: Edit Sets for Automation Manager (Priority Definitions Manager and Exchange)	57
Step 3: Allocate Data Sets for the REXX Editor	58
Step 4: Configure SMI PARM/MS Members	59
Step 4A: Update SMI PARM	59
Step 4B: Update SMI PARM	60
Step 4C: Update SMI PARM	61
Step 4D: Update SMI PARM	61
Step 4E: Update SMI PARM	62
Step 4F: Update SMI PARM	62
Step 4G: Update SMI PARM	63
Step 4H: Update SMI PARM	63
Step 5: Configure SMI PARM/MS Members	65
Step 5A: MVS/VS Member	65
Step 5B: SMI PARM/MS Member	66
Step 5C: SMI PARM/MS Member	66
Step 5D: SMI PARM/MS Member	67
Step 5E: SMI PARM/MS Member	67
Step 5F: SMI PARM/MS Member	68
Step 5G: SMI PARM/MS Member	68
Step 5H: SMI PARM/MS Member	69
Step 5I: SMI PARM/MS Member	69
Step 5J: SMI PARM/MS Member	70
Step 5K: SMI PARM/MS Member	70
Step 5L: SMI PARM/MS Member	71
Step 5M: SMI PARM/MS Member	71
Step 5N: SMI PARM/MS Member	72
Step 5O: SMI PARM/MS Member	72
Step 5P: SMI PARM/MS Member	73
Step 5Q: SMI PARM/MS Member	73
Step 5R: SMI PARM/MS Member	74
Step 5S: SMI PARM/MS Member	74
Step 5T: SMI PARM/MS Member	75
Step 5U: SMI PARM/MS Member	75
Step 5V: SMI PARM/MS Member	76
Step 5W: SMI PARM/MS Member	76
Step 5X: SMI PARM/MS Member	77
Step 5Y: SMI PARM/MS Member	77
Step 5Z: SMI PARM/MS Member	78
Step 6: Configure SMI PARM/MS Members	79
Step 6A: SMI PARM/MS Member	79
Step 6B: SMI PARM/MS Member	80
Step 6C: SMI PARM/MS Member	80
Step 6D: SMI PARM/MS Member	81
Step 6E: SMI PARM/MS Member	81
Step 6F: SMI PARM/MS Member	82
Step 6G: SMI PARM/MS Member	82
Step 6H: SMI PARM/MS Member	83
Step 6I: SMI PARM/MS Member	83
Step 6J: SMI PARM/MS Member	84
Step 6K: SMI PARM/MS Member	84
Step 6L: SMI PARM/MS Member	85
Step 6M: SMI PARM/MS Member	85
Step 6N: SMI PARM/MS Member	86
Step 6O: SMI PARM/MS Member	86
Step 6P: SMI PARM/MS Member	87
Step 6Q: SMI PARM/MS Member	87
Step 6R: SMI PARM/MS Member	88
Step 6S: SMI PARM/MS Member	88
Step 6T: SMI PARM/MS Member	89
Step 6U: SMI PARM/MS Member	89
Step 6V: SMI PARM/MS Member	90
Step 6W: SMI PARM/MS Member	90
Step 6X: SMI PARM/MS Member	91
Step 6Y: SMI PARM/MS Member	91
Step 6Z: SMI PARM/MS Member	92
Step 7: Preparing the Hardware	93
Step 7A: Preparing the Hardware	93
Step 7B: Preparing the Hardware	94
Step 7C: Preparing the Hardware	95
Step 7D: Preparing the Hardware	96
Step 7E: Preparing the Hardware	97
Step 7F: Preparing the Hardware	98
Step 7G: Preparing the Hardware	99
Step 7H: Preparing the Hardware	100
Step 7I: Preparing the Hardware	101
Step 7J: Preparing the Hardware	102
Step 7K: Preparing the Hardware	103
Step 7L: Preparing the Hardware	104
Step 7M: Preparing the Hardware	105
Step 7N: Preparing the Hardware	106
Step 7O: Preparing the Hardware	107
Step 7P: Preparing the Hardware	108
Step 7Q: Preparing the Hardware	109
Step 7R: Preparing the Hardware	110
Step 7S: Preparing the Hardware	111
Step 7T: Preparing the Hardware	112
Step 7U: Preparing the Hardware	113
Step 7V: Preparing the Hardware	114
Step 7W: Preparing the Hardware	115
Step 7X: Preparing the Hardware	116
Step 7Y: Preparing the Hardware	117
Step 7Z: Preparing the Hardware	118
Step 8: Preparing the Software	119
Step 8A: Preparing the Software	119
Step 8B: Preparing the Software	120
Step 8C: Preparing the Software	121
Step 8D: Preparing the Software	122
Step 8E: Preparing the Software	123
Step 8F: Preparing the Software	124
Step 8G: Preparing the Software	125
Step 8H: Preparing the Software	126
Step 8I: Preparing the Software	127
Step 8J: Preparing the Software	128
Step 8K: Preparing the Software	129
Step 8L: Preparing the Software	130
Step 8M: Preparing the Software	131
Step 8N: Preparing the Software	132
Step 8O: Preparing the Software	133
Step 8P: Preparing the Software	134
Step 8Q: Preparing the Software	135
Step 8R: Preparing the Software	136
Step 8S: Preparing the Software	137
Step 8T: Preparing the Software	138
Step 8U: Preparing the Software	139
Step 8V: Preparing the Software	140
Step 8W: Preparing the Software	141
Step 8X: Preparing the Software	142
Step 8Y: Preparing the Software	143
Step 8Z: Preparing the Software	144
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Configuration Assistant

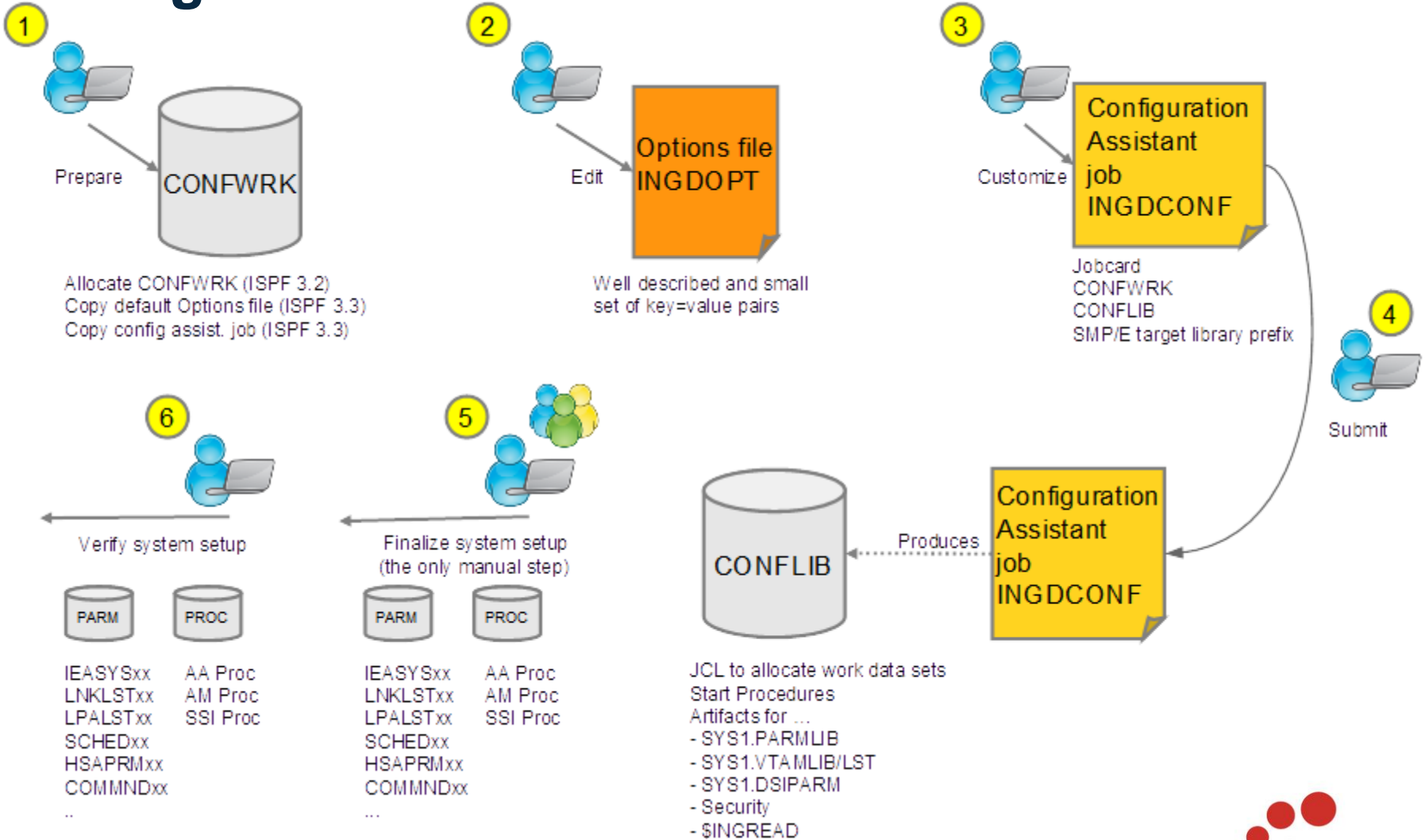


One place to define your configuration data

One PDS to find your configuration files

Generating Configuration Files for multiple systems

Configuration Assistant



Configuration Assistant

```
* ... System Name
*
* Specify the name of the z/OS system where you plan to run
* your automation environment.
* If you plan to configure more than one system and you like to
* use common configuration members you can use system symbols.
* These system symbols must be defined on the systems where
* you plan to configure this product.
*
* Option .....: sys_sysname
* Required ...: Yes
* Default ....: None
* Example.....: SYS1 -or-
* ...: &SYSNAME. -or-
* ...: A&SYMBOL1.B&SYMBOL2.C
*
sys_sysname=&SYSNAME.
```

Equal processing available for
VTAMID and NetView Domain ID

Customer can run the “deploy step” on multiple target systems

- based on the JCL with the system symbols
- generated from [one Options File](#)

Agenda

- Overview
- Integration with Omegamon
 - Immediate Message Reporting on TEP
 - Looping Address Space Suppression
- IPL complete notification
- Manage bulk starts / stops using Pacing Gates
- Configuration Assistant
- **SAF support**
- Extended XCF communication
- Configuration Refresh Indicator

System Authorization Facility (SAF) support

The configuration assistant creates an SAF configuration:

- User roles (=SAF groups)
 - SuperUser
 - AutoOperator
 - Administrator
 - Operator
 - User
- Command profiles
- User role-to-Command profile correlation
- User-to-User role correlation
- Allows you to review and adapt !!!



See also member
INGESAF
in shipped sample library

Agenda

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- **Extended XCF communication**
- Configuration Refresh Indicator

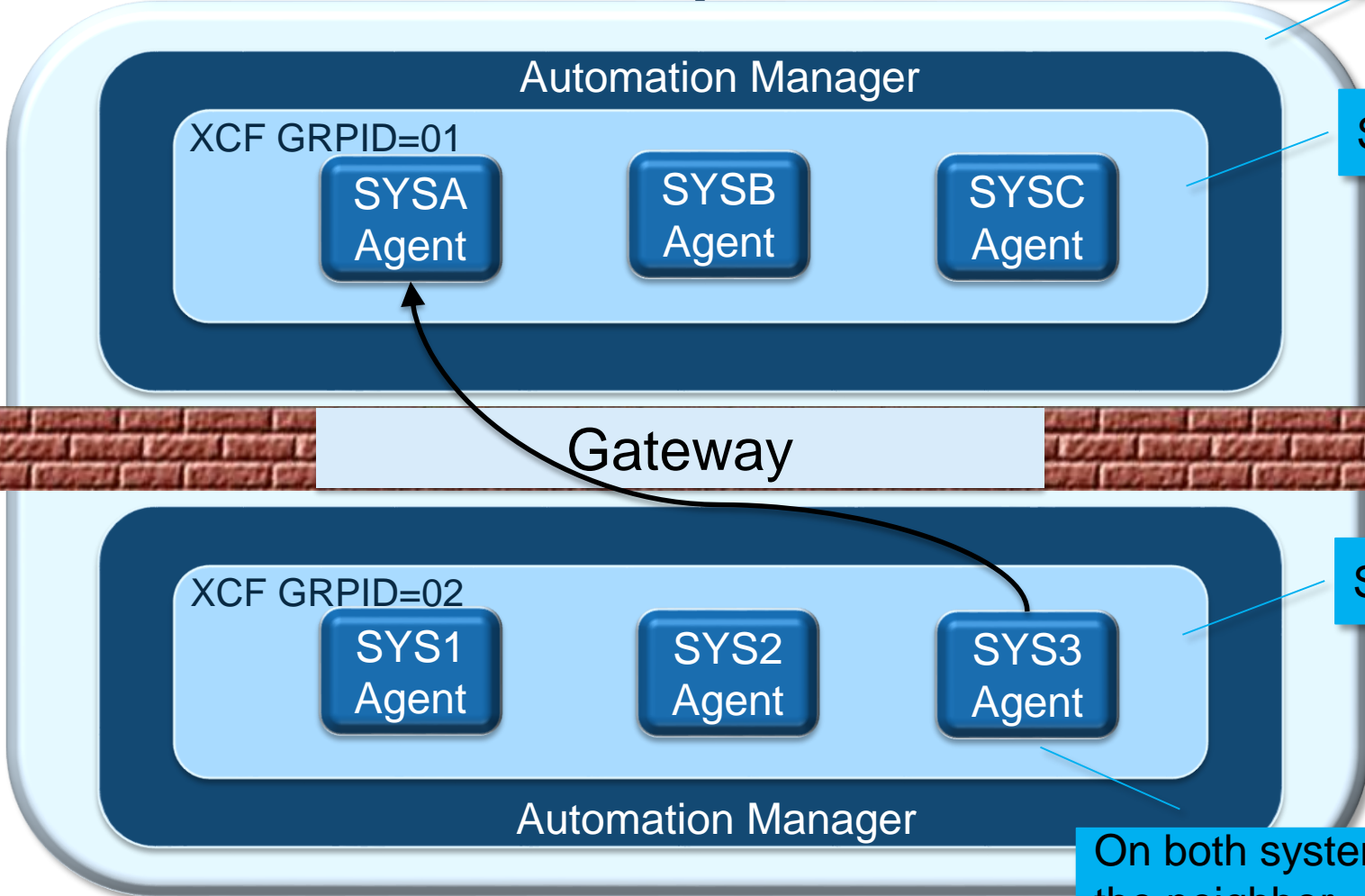
XCF Communication pre SA z/OS 3.5

Physical Sysplex

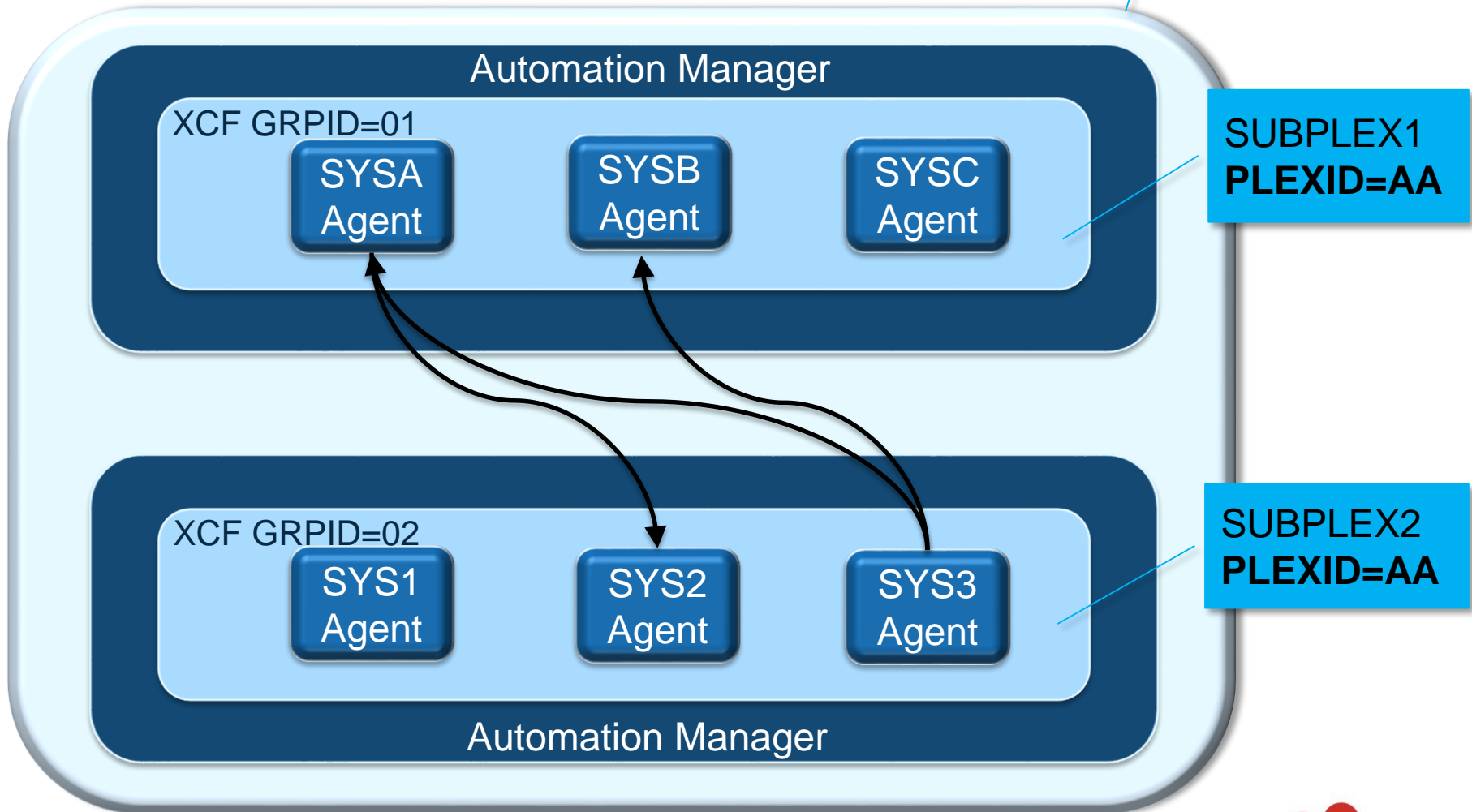
SUBPLEX1

SUBPLEX2

On both systems the neighbor had to be defined



Extended XCF Communication



Extended XCF Communication

INGAMS XSTATUS

Different subplexes
within same
Physical Sysplex



```
INGKYAM0 SA z/OS - Command Dialogs Line 1 of 10
Domain Id . : IPZFL ----- INGAMS ----- Date . . : 05/15/14
Operator Id : BUMU Sysplex = TSA1CTL Time . . : 12:58:48

Cmd: A Manage B Show Details C Refresh Configuration D Diagnostic

CMD System Member Role Status Sysplex XCF Group Release Comm PA
-----
```

CMD	System	Member	Role	Status	Sysplex	XCF Group	Release	Comm	PA
	TSA1	TSA1\$\$\$\$\$2	SAM	READY	TSAPLEX	INGXSGA1	V3R5M0	XCF	
	TSA1	TSA1	AGENT	REFRESH	TSAPLEX	INGXSGA1	V3R5M0	XCF	
	TSA1	TSA1\$\$\$\$\$1	PAM	READY	TSAPLEX	INGXSGA1	V3R5M0	XCF	
	TSA2	TSA2\$\$\$\$\$2	SAM	READY	TSAPLEX	INGXSGA2	V3R5M0	XCF	
	TSA2	TSA2\$\$\$\$\$1	PAM	READY	TSAPLEX	INGXSGA2	V3R5M0	XCF	
	TSA2	TSA2	AGENT	READY	TSAPLEX	INGXSGA2	V3R5M0	XCF	
	TSA3	TSA3\$\$\$\$\$1	PAM	READY	TSAPLEX	INGXSGA0	V3R5M0	XCF	
	TSA3	TSA3	AGENT	READY	TSAPLEX	INGXSGA0	V3R5M0	XCF	
	TSA4	TSA4\$\$\$\$\$1	SAM	READY	TSAPLEX	INGXSGA0	V3R5M0	XCF	
	TSA4	TSA4	AGENT	READY	TSAPLEX	INGXSGA0	V3R5M0	XCF	

Agenda

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Configuration Refresh indication pre SA z/OS 3.5

Problem: How do I know that a configuration is refreshed on every system?

```

INGKYAM0                      SA z/OS - Command Dialogs                      Line 1      of 10
Domain Id . : IPZFL           ----- INGAMS -----                      Date . . . : 05/15/14
Operator Id : BUMU           TSA1CTL                               Time . . . : 12:58:48

Cmd:  A Manage                Refresh Configuration  D Diagnostic

CMD System      Member      Role  Status      Sysplex  XCF Group  Release  Comm PA
---  -
TSA1      TSA1$$$$$2  SAM   READY      TSAPLEX  INGXSGA1  V3R5M0  XCF
TSA1      TSA1        AGENT REFRESH    TSAPLEX  INGXSGA1  V3R5M0  XCF
TSA1      TSA1$$$$$1  PAM   READY      TSAPLEX  INGXSGA1  V3R5M0  XCF
TSA2      TSA2$$$$$2  SAM   READY      TSAPLEX  INGXSGA2  V3R5M0  XCF
TSA2      TSA2$$$$$1  PAM   READY      TSAPLEX  INGXSGA2  V3R5M0  XCF
TSA2      TSA2        AGENT READY      TSAPLEX  INGXSGA2  V3R5M0  XCF
TSA3      TSA3$$$$$1  PAM   READY      TSAPLEX  INGXSGA0  V3R5M0  XCF
TSA3      TSA3        AGENT READY      TSAPLEX  INGXSGA0  V3R5M0  XCF
TSA4      TSA4$$$$$1  SAM   READY      TSAPLEX  INGXSGA0  V3R5M0  XCF
TSA4      TSA4        AGENT READY      TSAPLEX  INGXSGA0  V3R5M0  XCF
  
```

1) Press refresh button repeatedly

- 2) check in every Agent's Netlog for completion message
- 3) check on every agent with command 'ACF status'

Comp

Configuration Refresh Indication

INGPTOP: added status field with new status component INGCFG

SA Z/OS TEST-SYSTEMS

CONFIGURATION >REFRESH STATUS

KEYAPLEX		KEY1PLEX		SATPLEX		TSAPLEX		A0CPLEX	
>KEYA	IPXFG	>KEY1	IPSFM	>SAT1	IPZFA	>TSA1	IPZFL	>A0CA	IPUFA
>KEYB	IPXFH	>KEY2	IPSFN	>SAT2	IPZFB	>TSA2	IPZFM	>A0CB	IPUFB
>KEYC	IPXFI	>KEY3	IPSF0	>SAT3	IPZFC	>TSA3	IPZFN	>A0CC	IPUFC
		>KEY4	IPSFP	>SAT4	IPZFD	>TSA4	IPZF0	>A0CD	IPUFD

STANDALONE SYSTEMS

>A0C1	IPUFG	>A0C4	IPUFJ	>A0C7	IPUFM
>A0C2	IPUFH	>A0C5	IPUFK	>A0C8	IPUF8
>A0C3	IPUFI	>A0C6	IPUFL	>A0C9	IPUF9

HARDWARE

>PROCESSORS >ENSEMBLES

06/20/14 17:04

===>

1=HELP 2=DETAIL 3=RETURN 6=ROLL 8=ZOOM/NEXT 12=SHOW SAM/XDR SYSTEMS

Configuration Refresh Indication

INGPCFG: new SDF panel

```

TSA1 Configuration Refresh 06/20/14 17:05:32 1/4(4)
  Susplex  SAplex      System  |  Susplex  SAplex      System
TSAPLEX   TSA1CTL      TSA1
TSAPLEX   TSA2CTL      TSA2
TSAPLEX   TSA3PR0D     TSA3
TSAPLEX   TSA3PR0D     TSA4

===>
1=Help 2=Detail 3=Return      6=Roll      9=Bottom 10=Previous 11=Next 12=Top
                                           24=INGAMS
  
```

Configuration Refresh Indication

```
4 of 4          ---- Detail Status Display ----          06/20/14 17:06:06

Component . . . : TSA4          System . . . . . :
Color . . . . . : GREEN        Priority . . . . : 650
Date . . . . . : 06/20/14      Time . . . . . : 17:01:47
Reporter . . . . : AUT01       Node . . . . . : IPZF0
Info . . . . . : TSAPLEX TSA3PROD      TSA4
Reference value : TSA3PROD_TSA4

A0F031I Configuration Refresh on 'TSA4' is 'COMPLETE'.

===>
1=Help 3=Return 4=Delete 6=Roll 7=Up 8=Down 11=Bottom 12=Top
```

Configuration Refresh Indication

Configuration Refresh 06/20/14 17:05:32 1/4(4)

Susplex	SAplex	System	Susplex	SAplex	System
TSAPLEX	TSA1CTL	TSA1			
TSAPLEX	TSA2CTL	TSA2			
TSAPLEX	TSA3PR0D	TSA3			
TSAPLEX	TSA3PR0D	TSA4			

Tree structure included in AOFTREE

```

INGTCFG
1 INGCFG
2 &SDFCSaplex.
3 AGENT
1 INGCFG
2 SAplex1
3 AGENT
1 INGCFG
2 SAplex2
3 AGENT ...
  
```

1=help 2=detail 3=Return 6=Roll 9=Bottom 10=... 2=Top 24=INGAMS




```

CNMSTYLE
COMMON.AOF_AAO_SDFCSAPLEX.0=2
COMMON.AOF_AAO_SDFCSAPLEX.1=localSAplex
COMMON.AOF_AAO_SDFCSAPLEX.2=SAplex1 SAplex2 ...
  
```

Thank
You

Complete your session evaluations online at www.SHARE.org/Seattle-Eval

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Product documentation	Service Management Community

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System Automation for z/OS	Wiki SA z/OS	Homepage SA z/OS	Forum SA z/OS on developerWorks
Service Management Suite for z/OS	Wiki SMSz	Announcement SMSz	Forum SMSz on developerWorks

Customization Dialog

- PDB Browse
- PDB completely multi user capable
- Activity log
- Startup Policy
 - Refreshstart
 - Anystart
- Shutdown Pass Interval
- Command fields 227
- Mixed case for cmds in Startup and Shutdown
- AT Definitions for every Begin / End block
- Option to add REVISE('Y' AUTOMATE) generally in MRT
- Option to get informed for not automated WTORs
- Support for export and import of Processor data (PRO)

Sysops

- *SAPSRV policy, new ING_sap.tar
 - SA z/OS 3.5: OA46166
- Support for Chron options NOTIFY and REM in TMR and Settmer
 - SA z/OS 3.5: OA46166
- INGRDS: share name-value pairs between TSO and NetView
 - SA z/OS 3.4: OA45488
 - SA z/OS 3.5: OA45929
- INGRDS: access and replicate tables on remote systems
 - SA z/OS 3.4 and 3.5: OA46166
- Message EVJ120I contains TWS job's stepname
 - SA z/OS 3.4 and 3.5: OA46166

ProcOps

- SNMPv3 support
- zAware support