

Z Automation portfolio overview

Your Domenico D'Alterio

Your IBM

November 2019

Session [OA](#)



Agenda

- Market view and evolution
- Challenges, needs and opportunities
- IBM Z Automation portfolio overview
 - Service management Unite
 - NetView
 - System Automation
 - Workload Scheduler
- Use cases

Market view and evolution

Journey to Cloud and Digital Transformation

Cloud accelerates business transformation

- Innovate with the latest technology from any source
- Access more types of data, analytics & AI, anywhere
- Improve return on existing investments



Yet to date, less than 20% of enterprise workloads have moved. Why?

The market is entering a new chapter in cloud and digital

Chapter 1

Consumer-driven innovation

Digital/AI experimentation

“User applications”

Public cloud

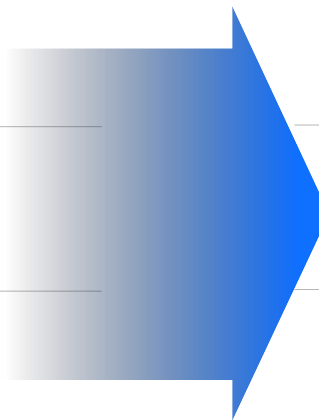
Chapter 2

Enterprise-driven innovation

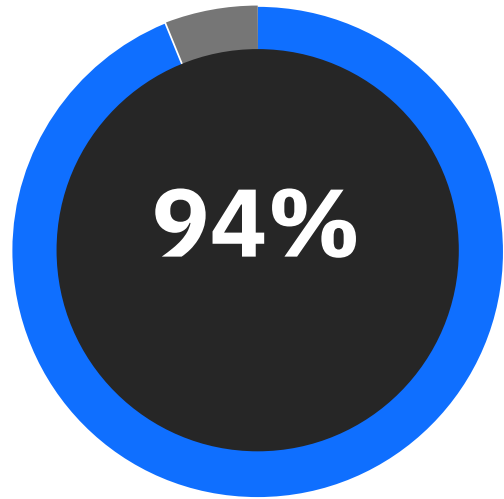
Digital/AI embedded in the business at scale

“Mission critical” workloads

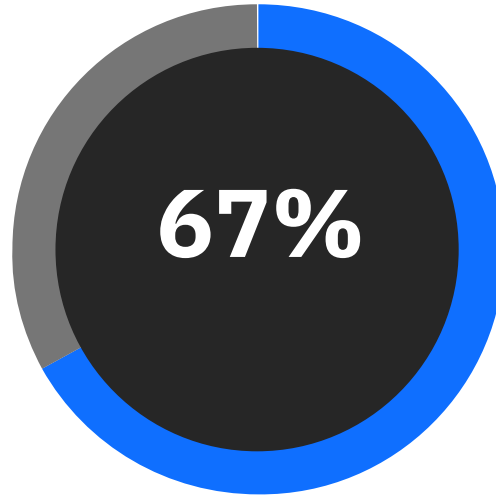
Hybrid cloud



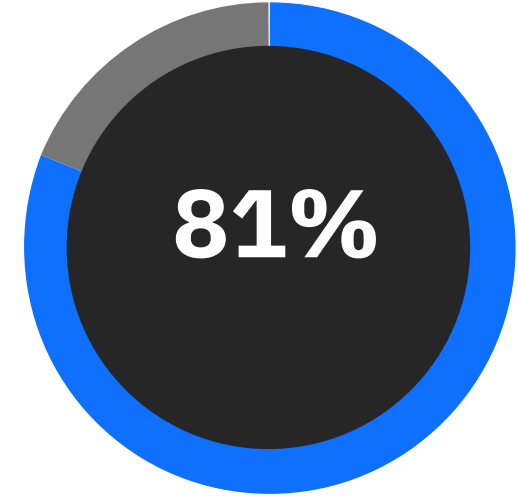
Today we live in a hybrid, multi-cloud reality



Share of enterprise customers using multiple clouds



Share of enterprise customers using more than one public cloud provider

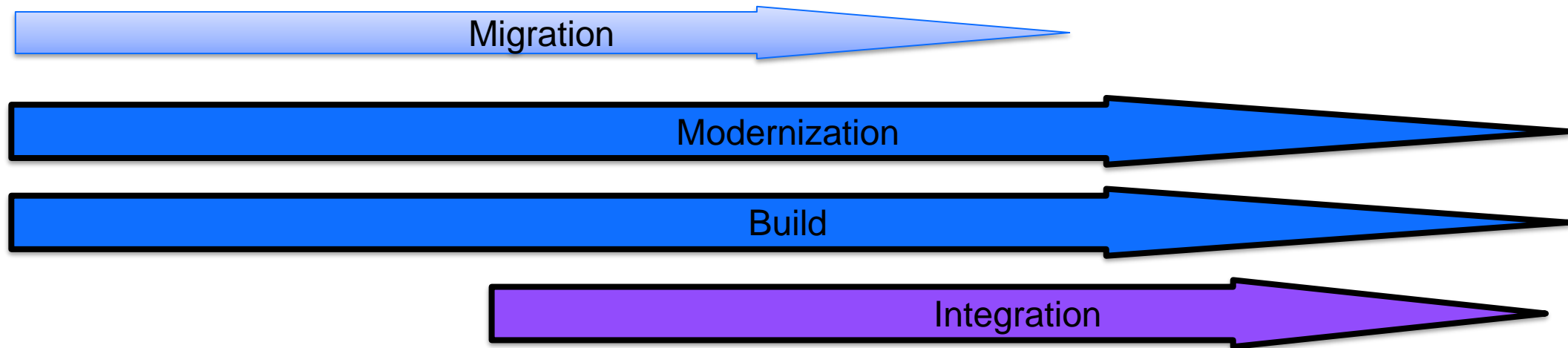


Use a combination of private and public clouds

Changing focus for moving workloads to cloud

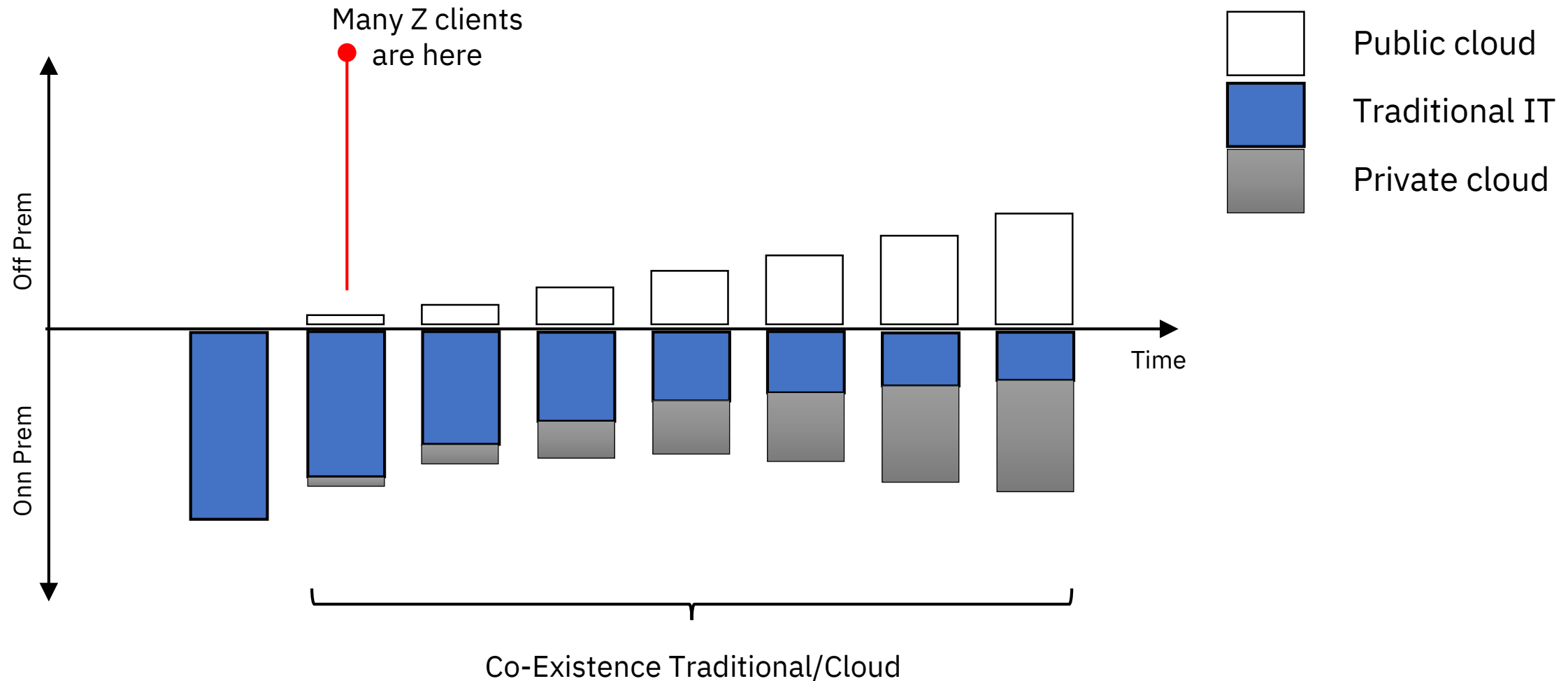
Chapter 1

Chapter 2



Modernize without undermining current functionality.
Build cloud native applications with agility.

The Evolution of Enterprise Workloads



Challenges, needs and opportunities

Driven by the Journey to Cloud and Digital Transformation



Velocity of change is increasing and workloads are increasingly unpredictable

- **Risk of outages** increases as the **rate of change accelerates** and operational complexity increases
- New workload volumes can be **unpredictable**

Challenges

Growth of hybrid cloud applications is increasing complexity

- **Mapping** between business applications and mainframe resources are unclear
- **Silos** inhibit SLA attainment and increase time to problem resolution



IT operation environment is increasingly strained

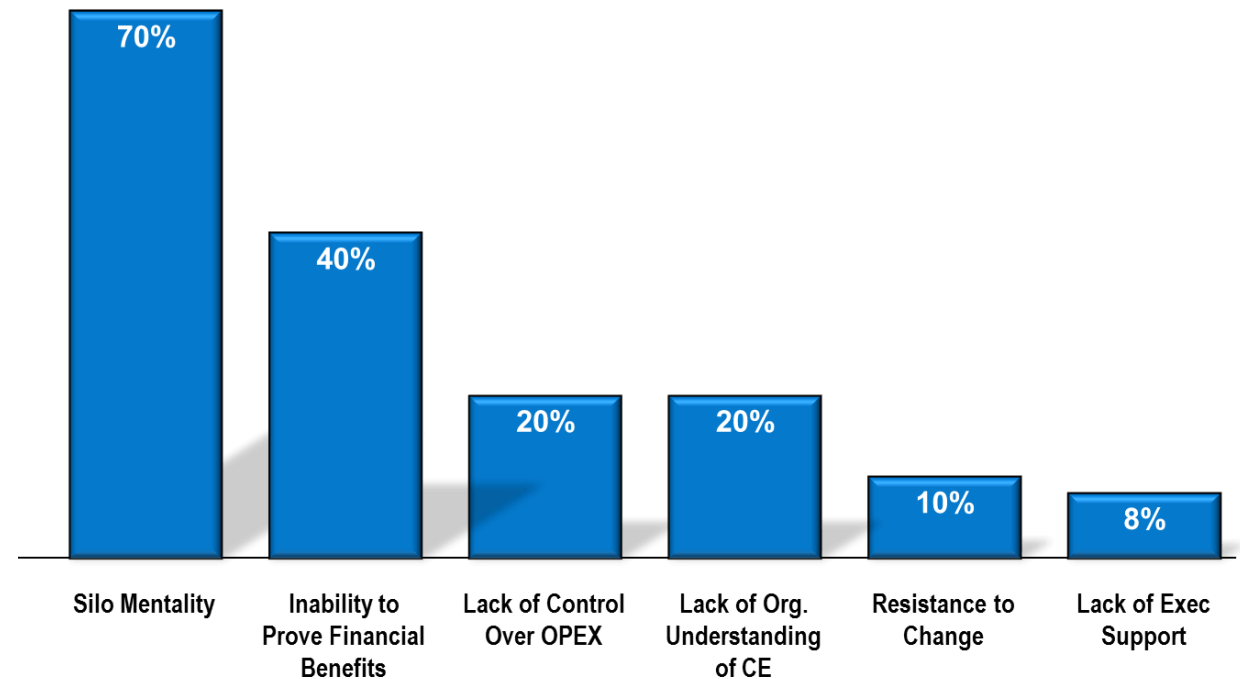
- Organizations face **skills issues** as they go through a generational shift
- **Reduce cost**, maintain operational integrity under increasing transactional volume

Silos inhibit SLA attainment and increase time to problem resolution



Tools to enable collaboration and cross-discipline interaction are needed to avoid silos

What are the biggest organizational hurdles to improving the Customer Experience?



Source: *Beyond Philosophy*: <https://beyondphilosophy.com/how-to-overcome-organizational-silos/>

Generational shift

Skilled people are retiring

'Tribal knowledge' is disappearing



Junior people facing with mainframe ... a real story

“We hired a young guy ... he looked like he was 12 years old ... likely he was 20”



```
Session B - [24 x 80]
File Edit View Communication Actions Window Help
Host: 10.134.49.217 Port: 23 LU Name: Disconnect
----- MODIFYING OPERATIONS IN THE CURRENT PLAN (left p Row 1 to 7 of 13
Command ==> _
Scroll ==> CSR
Enter the GRAPH command above to view list graphically,
enter the HIST command to select operation history list, or
enter any of the following row commands:
J - Edit JCL M - Modify B - Browse details
DEL - Delete Occurrence MH - Man. HOLD MR - Man. RELEASE oper
O - Browse OI NP - NOP oper UN - UN-NOP oper
EX - EXECUTE operation D - Delete Oper RG - Remove from group
L - Browse joblog K - Kill RI - Recovery Info
RC - Restart and CleanUp FJR - Fast path JR LJ - Browse joblog via ITOM
TCJ - Target Critical Job FSR - Fast path SR
BND - Reset bind information FSC - Fast path SC

Row Application id Operat Jobname Input Arrival Dep Cond Dep S W
cmd Application id ws no. Date Time Suc Pre Suc Pre S P
*** B2390505GIAP2REV F004 020 LE239028 19/03/07 22.00 1 1 0 0 W
*** B2390505GIAP2REV F004 025 LE239243 19/03/07 22.00 1 1 0 0 W
*** B2390505GIAP2REV F004 030 LE239244 19/03/07 22.00 1 1 0 0 W
*** B2390505GIAP2REV F004 035 LE239245 19/03/07 22.00 1 1 0 0 W
*** B2390505GIAP2REV F004 040 LE239246 19/03/07 22.00 1 1 0 0 W
*** B2390505GIAP2REV F004 045 LE239247 19/03/07 22.00 1 1 0 0 W
*** B2390505GIAP2REV F004 050 LE239248 19/03/07 22.00 1 1 0 0 W
MA B 02/015
Connected to remote server/host:10.134.49.217 using lu/pool NTCP009 and port 23
```

“He started working on 3270 using the mouse !!!



... and he was very slow ...

Junior people facing with mainframe ... continues

```
----- SELECTING OPERATIONS -----  
Command ==>  
  
Specify selection criteria below and press ENTER to create an operation list.  
  
JOBNAME          ==> LE23*          WORK STATION NAME ==> _____  
APPLICATION ID    ==> _____    OWNER ID           ==> _____  
AUTHORITY GROUP  ==> _____    PRIORITY          ==> _____  
GROUP DEFINITION ==> _____    STATUS            ==> _____  
CLEAN UP TYPE    ==> _____    CLEAN UP RESULT   ==> _____  
OP. EXTENDED NAME ==> _____  
OP. SE NAME      ==> _____    SUBMIT DEST       ==> _____  
Input arrival in format YY/MM/DD HH.MM  
FROM             ==> _____    TO                ==> _____  
FAST PATH        ==> N             Valid only along with jobname  
Set Y, N or leave blank to select all:  
MANUALLY HELD    ==> -             WAITING FOR SE     ==> -             STARTED ON WAIT WS==> -  
CRITICAL PATH    ==> -             COND RECOVERY JOB ==> -             RECOVERED BY COND ==> -  
UNEXPECTED RC    ==> -             UNDEFINED COND    ==> -             SHADOW JOB        ==> -  
STARTED AT STARTUP ==> -  
Set P, M, B, E, or leave blank to select all:  
WAITING PEND. PRED. ==> -
```

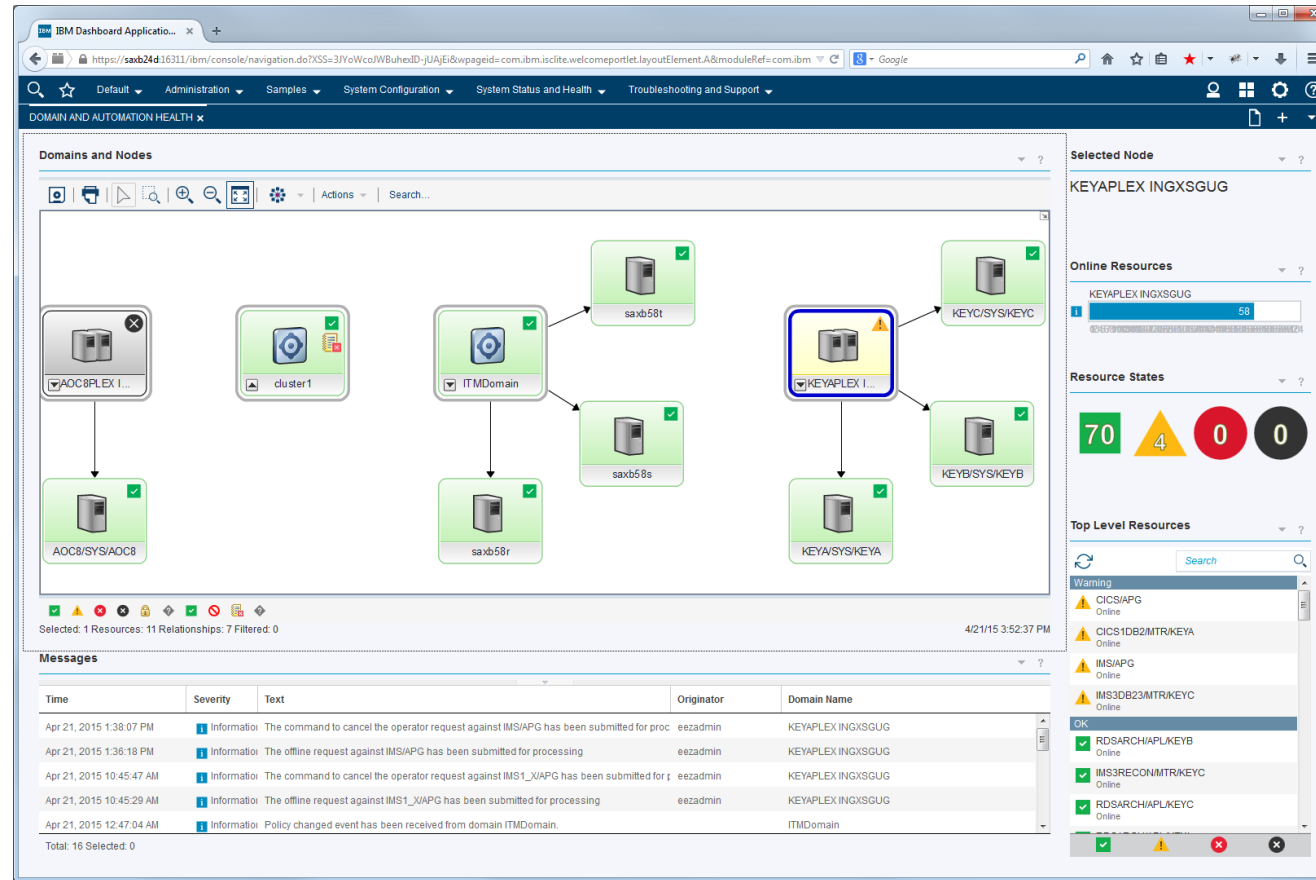
“At a certain point he was puzzled ... why he was not able to type the command he wanted to type...”



“... no way to see the red x at the bottom of the page”

Junior people facing with mainframe ... through a Web User Interface

“Then we adopted a Web UI to manage mainframe ... and ...”



The screenshot displays the IBM Dashboard Application interface. The main area shows a hierarchical tree of domains and nodes, including 'AOC8/SYS/AOC8', 'cluster1', 'ITMDomain', and 'KEYAPLEX I...'. The 'KEYAPLEX I...' node is selected, showing its resources: 'KEYC/SYS/KEYC', 'KEYB/SYS/KEYB', and 'KEYA/SYS/KEYA'. The right sidebar provides details for the selected node, including 'Online Resources' (KEYAPLEX INGXSGUG), 'Resource States' (70 Online, 4 Warning, 0 Error, 0 Critical), and 'Top Level Resources' (CICS/APG, CICS1DB2/MTR/KEYA, IMS/APG, IMS3DB23/MTR/KEYC, RDSARCHI/APL/KEYB, IMS3RECON/MTR/KEYC, RDSARCHI/APL/KEYC). A 'Messages' table at the bottom shows system events.

Time	Severity	Text	Originator	Domain Name
Apr 21, 2015 1:38:07 PM	Informational	The command to cancel the operator request against IMS/APG has been submitted for processing	eezadmin	KEYAPLEX INGXSGUG
Apr 21, 2015 1:36:18 PM	Informational	The offline request against IMS/APG has been submitted for processing	eezadmin	KEYAPLEX INGXSGUG
Apr 21, 2015 10:45:47 AM	Informational	The command to cancel the operator request against IMS1_XAPG has been submitted for processing	eezadmin	KEYAPLEX INGXSGUG
Apr 21, 2015 10:45:29 AM	Informational	The offline request against IMS1_XAPG has been submitted for processing	eezadmin	KEYAPLEX INGXSGUG
Apr 21, 2015 12:47:04 AM	Informational	Policy changed event has been received from domain ITMDomain		ITMDomain



“ ... he was more relaxed, proud of what he was able to achieve and fast ... ”



Industry Example: motivation for using SMU



- Make **Mainframe** platform **more approachable**
- Provide management tools to **more personnel; less experience required**
- 3270 screens can be overwhelming to new users: PF keys, navigation thru panels and memorization required
- **Save training time** with intuitive SMU interface Fewer key strokes, fewer views (less is best) and commands are pre-built and in context
- SMU **modern graphics** has advantages over 3270 (e.g. **topology**)
- Leverage and extend existing z/OS back-end and management tooling. Complements 3270 and TEP – data matches, single collections, fewer clicks, easier access to consolidated information
- Increased visibility to automation states in place for mainframe
- “Many” more folks asking for access to mainframe information after initial deployment of SMU

Needs and opportunities



Need: Ensure **availability** of IT resources supporting business application, enabling **quick and safe changes** to the environment

Opportunity: make System Automation part of devOps journey to react faster to changes

Need: Hybrid/Multi cloud environments requires easy **Integration** of hybrid cloud application with Service Management tools

Opportunity: open **standard access** to mainframe resources and data



Need: **Modernize and improve Usability** of the Service Management tools

Opportunity: Leverage modern an **standard** tool to **reduce TCO** and to enable **faster on-board** of young talent

Legacy Mainframe Management Challenges

- Lack of **integration** with the broader enterprise
- Deep z/OS **skills** required
- Many full time employees (FTE's) needed to resolve issues

```

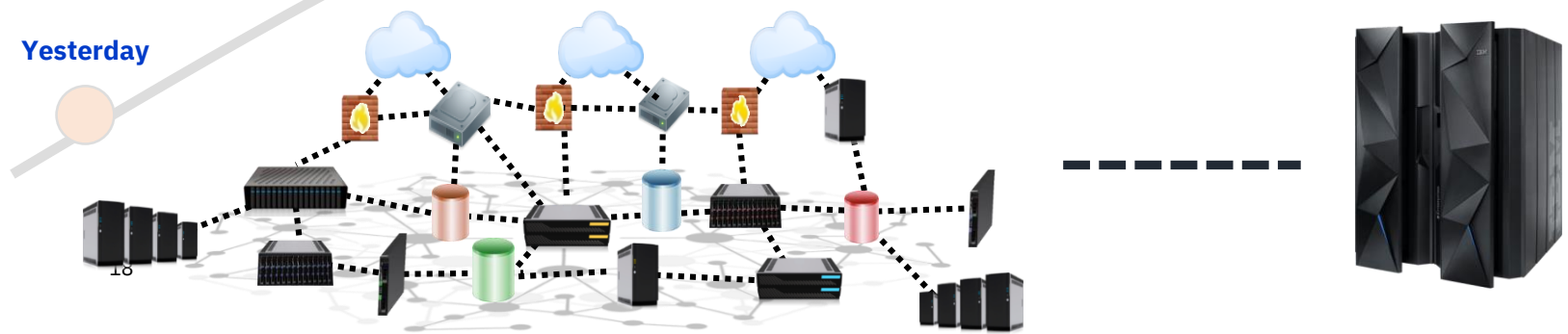
----- ZI PAR1  VTN  OM/DEX  V420 /C NVS3  05/20/11  3.45.53
----- Back PF3  Up F11  Down
-----
LOGICAL PARTITION USE FOR PP/EM PROCESSORS

) To view detailed statistics on NSU consumption and WLM capping place the
) cursor under the "MSUs" literal and press PF12.

LPAR
+ Model = 2097-732  Serial = 09CP45  CEC MSUs capacity = 3200
+ Number of Physical processors = 38  Dispatch interval = DYNAMIC
+ Number of CPUs = 32 Special CPUs = 6  Elapsed interval = 00.00.01.000
+
+ Model Permanent Capacity ID = 2097-732  Rating = 2100 MSUs
+ Model Temporary Capacity ID = 2097-732  Rating = 2100 MSUs
+ QDCOn and/or CPM Adjusted? = No  CBU Adjusted? = No
+
+Name  Number  Stat  Wgt  Molt  Cap  xLP  LCPD%  FCPD%  OVRD%  Dispatch time
+LP1201  *01  A  310  HQ  ND  3.0  60.91  17.12  .17  00.00.05.545
+LP120A  D
+LP120B  D
+LP120C  12  A  120  HQ  ND  4.0  59.99  7.49  .07  00.00.02.426
+LP120D  13  A  010  HQ  ND  2.0  7.14  4.6  .01  00.00.00.353
+LP120E  14  A  015  HQ  ND  2.0  5.69  3.6  .02  00.00.00.319
+LP120F  D
+LP120G  02  A  070  HQ  ND  3.0  29.38  2.75  .04  00.00.00.895
+LP120H  03  A  DED  11.0  .00  .00  .00  00.00.00.000
+LP120I  04  A  060  HQ  ND  2.0  55.27  3.45  .06  00.00.01.125
+LP120J  D
  
```

Operating in Siloed teams

Mainframe is a black box



IBM Z Operations Transformation

Optimization through Integration



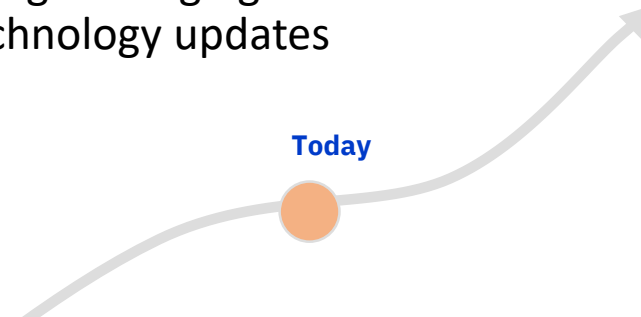
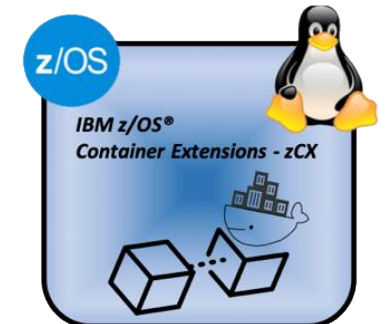
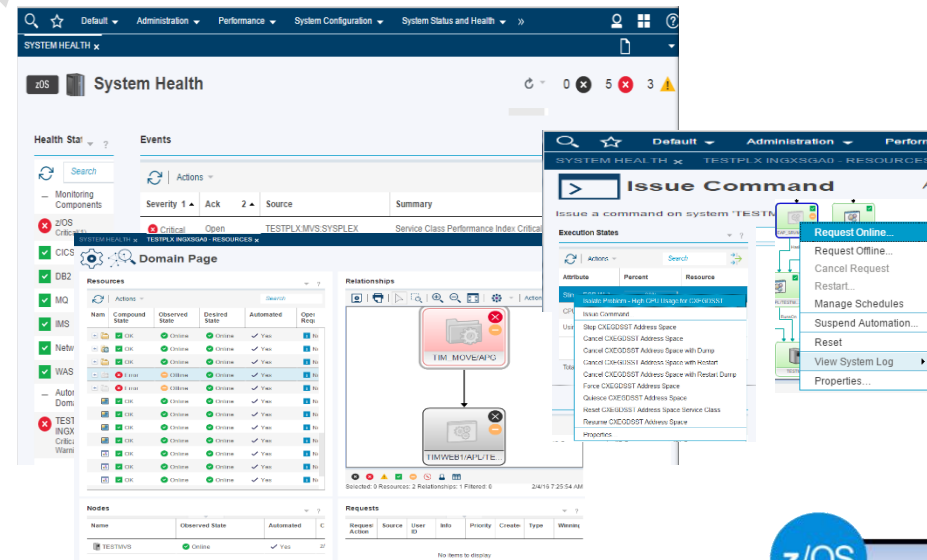
Integration of the mainframe with commonly used enterprise wide tooling leveraging Standard access and latest technology updates



splunk



API



Today

IBM Z Automation portfolio overview

Latest news just announced

Announcement on October 1st



Announcements: [219-394](#) and [219-484](#)

Z Service Management Suite V1.6

Service Management Unite Enterprise Edition v 1.1.7

SMU Performance Management (OM Dashboards)

SMU Automation (SA/NV Dashboards)

SMU Workload Scheduler (ZWS Dashboards)

NetView 6.3

System Automation 4.2

Tivoli Asset Discovery for zSystems

OMEGAMON for CICS

OMEGAMON for IMS

OMEGAMON for Messaging

OMEGAMON for DB2 PE

ITCAM for AD

OMEGAMON on z/OS

OMEGAMON for Networks

OMEGAMON for Storage

OMEGAMON for JVM

OMEGAMON DE

IBM Z NetView for Continuous Availability V6.3

Z Service Automation Suite V1.2

Service Management Unite Enterprise Edition v 1.1.7

SMU Performance Management (OM Dashboards)

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NetView 6.3

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Z System Automation 4.2

SMU for Automation v 1.1.7

SMU Automation (SA/NV Dashboards)

System Automation

Z NetView 6.3

SMU for Automation v 1.1.7

SMU Automation (SA/NV Dashboards)

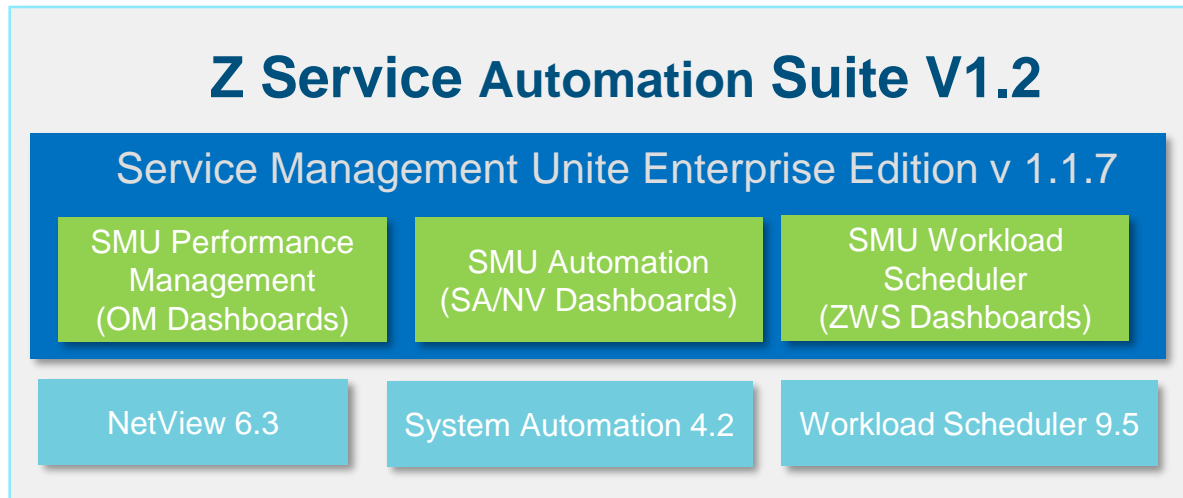
NetView

GA on
December 6th

Suites commonalities and differences

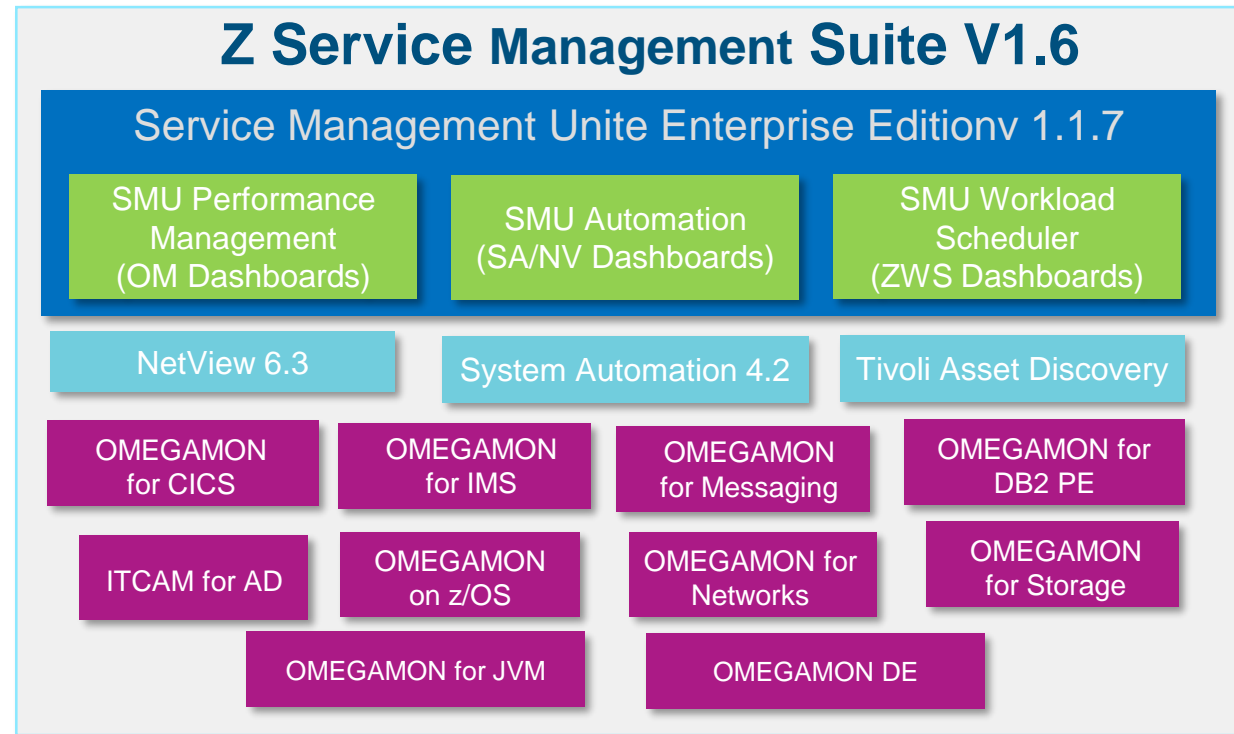
Commonalities: Service Automation Suite and Service Management Suite share

- **Service Management Unite Enterprise Edition** with Automation, Performance Management and Sceduling dashboards
- **System Automation and NetView**



includes **IBM Z Workload Scheduler**

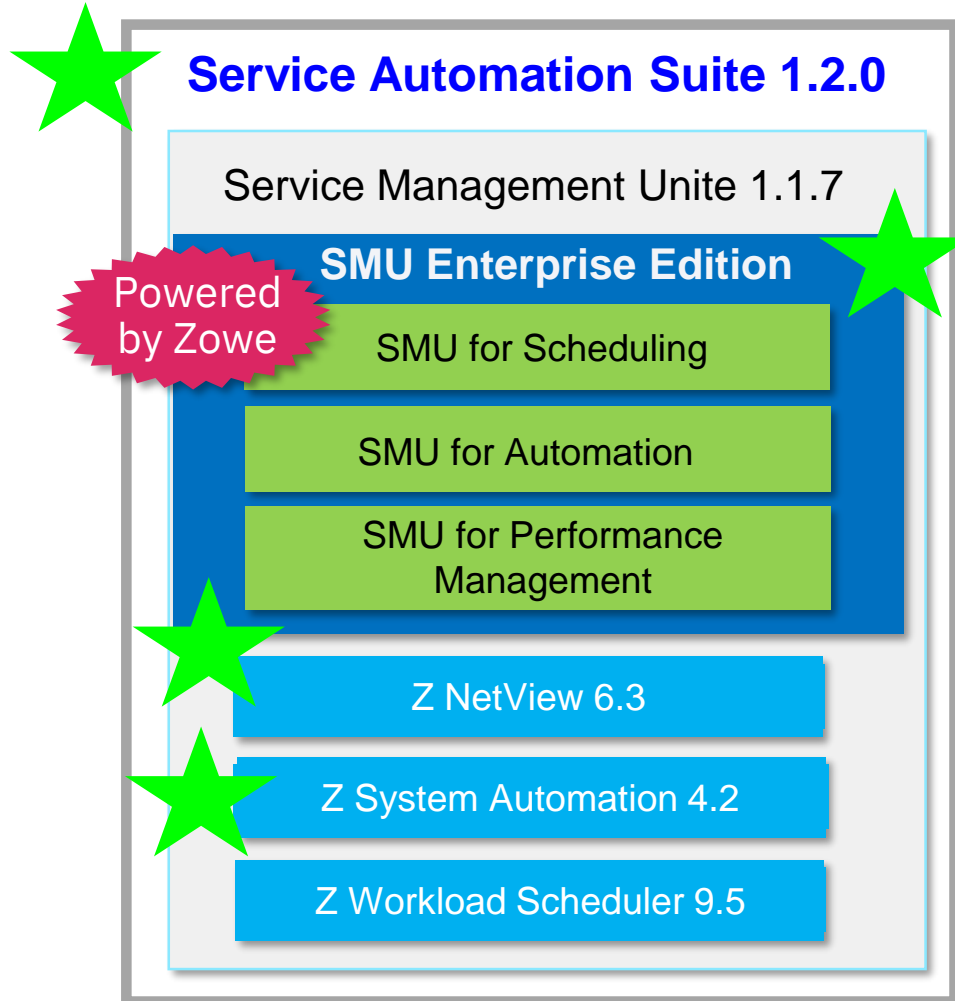
For Clients with a need for a **comprehensive automation solution (System, Applications and Batch)**



includes **Tivoli Asset Discovery** and **Omegamon's**

For Clients with a need for a **comprehensive monitoring solution**

Optimizing enterprise management



Service Automation Suite is a ***new offering*** that provides ***at a glance overview on System Automation. Workload Scheduling and Network Management on Z managed resources.***



Clients have unmatched visibility into their defined systems management environments ***with guided problem identification, isolation, and resolution workflows*** to keep the workload up and running.

"Showing the status of workstations together with the System Automation resources for the Workload Scheduler infrastructure will be very helpful for operators."

IBM Z Service Automation Suite v 1.2.0

Service Automation Suite 1.2.0

Service Management Unite

Z NetView

Z System Automation

Z Workload Scheduler

Dashboard UI for IT operations.
Isolate, analyze and diagnose problems **twice as fast.**

Plan and manage activities **in half the time** and **less error-prone** compared to a conventional 3270-panel

Network & Performance Management to increase efficiency with lower resources / personnel costs.

Self-healing, high-availability solution to **optimize efficiency and availability of critical systems and applications on multiple sysplexes**

Automate, plan and control the processing of **batch workloads on IBM Z systems** as well as distributed, Cloud and Containers

Service management Unite

A modern, intuitive and customizable Web UI

SMU: Key user personas & pain points



Annette

Operations Analyst

Annette and Josh are responsible to keep the systems running with the desired set of applications and features.



Josh

Junior Operations Analyst



Zach

System Programmer



Doug

IT Operations Manager



Marnie

Scheduler Admin



Michael

Automation Administrator
Michael is responsible to keep the systems running with the desired set of applications and features.



Jim

Subject Matter Expert
Jim handles any complex problems that operators cannot directly solve

1

Overwhelming complexity caused by growing amount of data, systems, and applications

2

High amount of **manual work** in order to be compliant with mandatory **change management** processes

3

Growing demand for dynamic application provisioning results in **high administrative and coding effort** to put new automation in production.

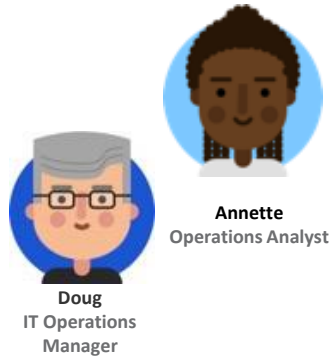
4

Growing risk for service and system outages caused by **increasing skill shortage** in datacenters.

5

Operations inefficiency through lack of standards in Z service management.

Service Management Unite



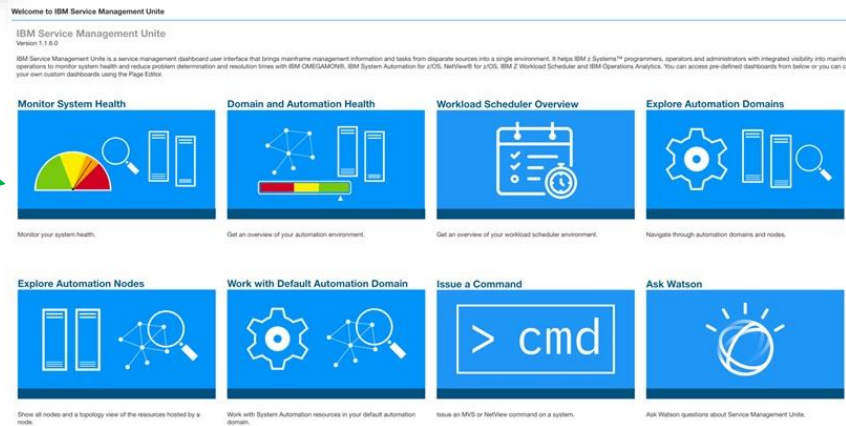
SMU Integrated Dashboards support Mainframe Operations. Customizable dashboards for a cross-domain consolidated view, less data, requires less skill and experience



Analytics (IZOI)



Performance (OMEGAMON)



Automation (System Automation and NetView)



Zowe APIs, Apps

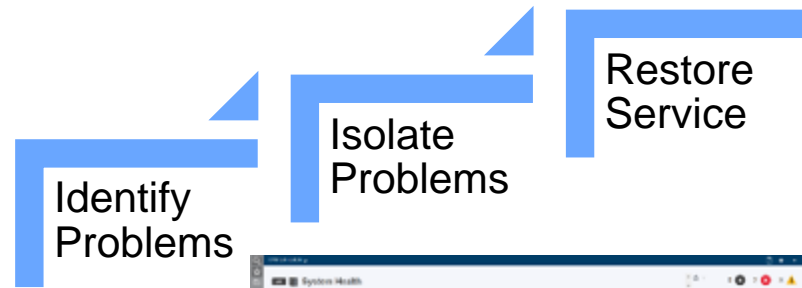


Scheduling (Dynamic Workload Console)

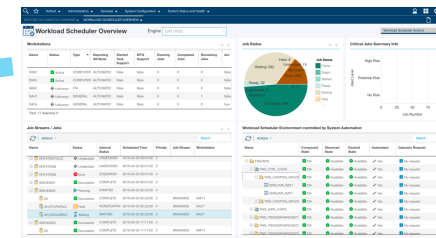
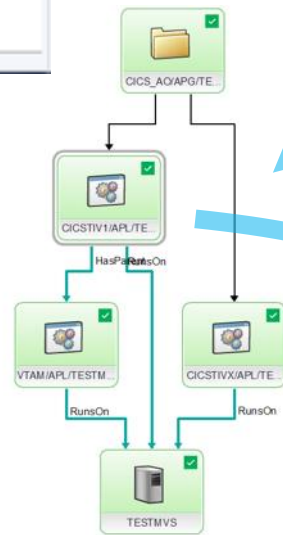
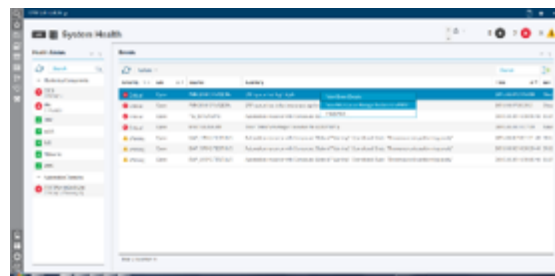
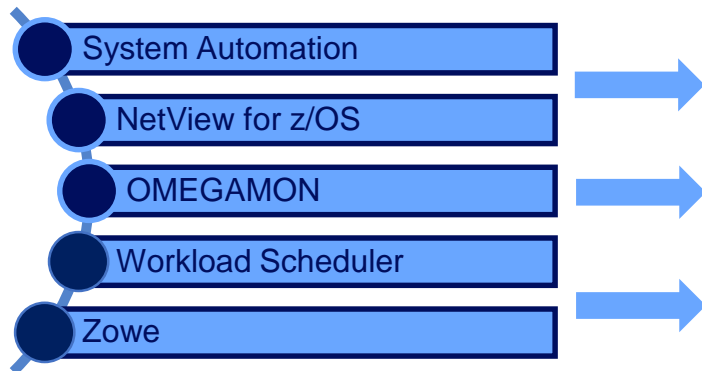


Time saving Integrated Web Dashboards built for mainframe Operations!

Resolve Problems with modern Dashboards



- See at a glance the health state of your environment
- Manage growing workload with the same operations team
- Customize your dashboards to maximize efficiency
- Improve productivity through intuitive systems control
- Enable faster on-boarding of young talent



Relationship between SMU and deep analysis tools

Operators: SMU Primary Users

- Assisted problem identification, isolation and triage
- Use alarms or alerts from monitoring, automation and job scheduling operational tooling
- Work across many domains; limited access
- Streamline their workflows with focused data before handoff to others for deeper analysis. Able to fix simple issues; limited access
- Operate automated applications and ensure scheduled workload runs as defined

Service Management Unite

Doug
IT Operations Manager

Annette
Operations Analyst

Seamless integration: UI, data, APIs, same context

Subject Matter Experts (SMEs): SMU Secondary Users:

- SMEs use SMU as well as deep dive tools
- Use maximum amount of performance data and tooling capabilities for critical, deep-dive
- Create and administer resource automation and scheduler batch workload for large environments
- Increase the degree of automation and administer using automation tasks to avoid manual tasks.
- System Programmers with deep skills and experience in a particular domain; Full access to issue commands
- Application developers familiar with COBOL, Java, C/C++, SQL and uses Eclipse and other IDEs with focused data

SMU Complements Deep Dive Service Management Tools

Marnie
Scheduler Admin

Michael
System Automation Administrator

Jim
Subject Matter Expert

Zach
System Programmer

Future: SME/WebTEP

Modern and intuitive user interface

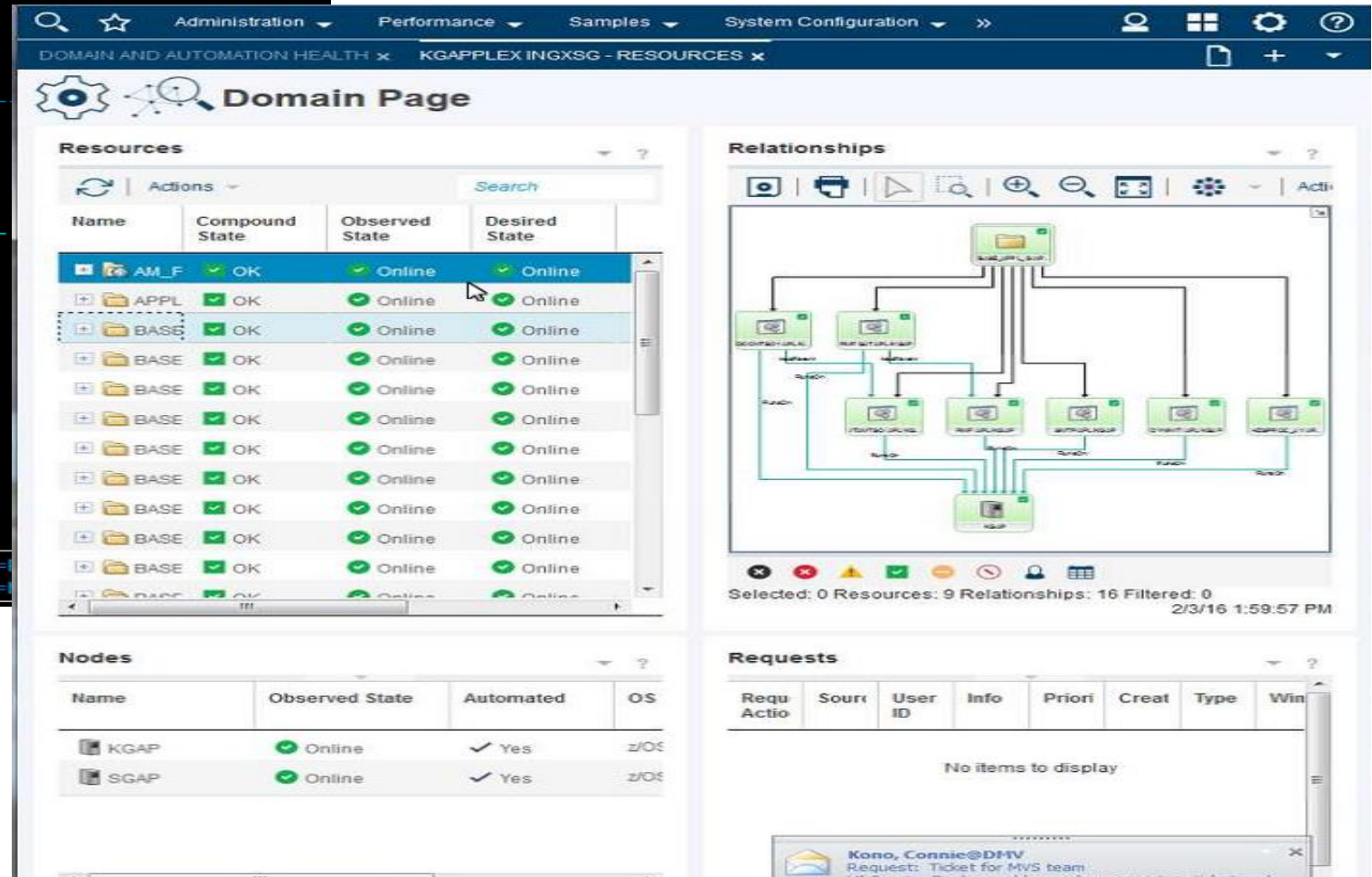
```

SY4
File Edit View Communication Options Transfer Macro Help

SA z/OS - Command Dialogs
Domain Id : AC001          INGLIST
Operator Id : DCGK40      Sysplex = TDCTEST
A Update  B Start    C Stop    D INGRELS  E INGVOTE
H DISPTRG I INGSCHED J INGROUP K INGCICS  L INGIMS
T INGTWS  U User     X INGLKUP / scroll

CMD Name      Type System  Compound  Desired
-----
AM_PLEX       APG          SY9       SATISFACTORY AVAILABLE
AOPSTART      APL          SY9       SATISFACTORY AVAILABLE
AOPSTOP       APL          SY9       SATISFACTORY AVAILABLE
APINPSY9      APL          SY9       SATISFACTORY AVAILABLE
APPC          APL          SY0       SATISFACTORY AVAILABLE
APPC          APL          SY9       SATISFACTORY AVAILABLE
APPL_SY0      APG          SY0       SATISFACTORY AVAILABLE
APPL_SY9      APG          SY9       PROBLEM     AVAILABLE
ASCH          APL          SY0       SATISFACTORY AVAILABLE
ASCH          APL          SY9       SATISFACTORY AVAILABLE
BASE_APPL     APG          SY0       INAUTO     AVAILABLE
BASE_APPL     APG          SY9       SATISFACTORY AVAILABLE

Command ==>
F1=Help      F2=End      F3=Return   F4=DISPSTAT F5=
F8=Forward   F9=Refresh  F10=Previous F11=
  
```



The screenshot displays a web-based monitoring interface for a domain page. The interface is organized into several sections:

- Navigation:** A top navigation bar includes tabs for Administration, Performance, Samples, and System Configuration.
- Domain Page:** The main title of the page.
- Resources:** A table listing various resources with their states.

Name	Compound State	Observed State	Desired State
AM_F	OK	Online	Online
APPL	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
BASE	OK	Online	Online
- Relationships:** A diagram showing the relationships between resources, including nodes like AM_F, APPL, and various BASE instances, connected by lines representing dependencies or flows.
- Nodes:** A table listing nodes and their states.

Name	Observed State	Automated	OS
KGAP	Online	Yes	z/OS
SGAP	Online	Yes	z/OS
- Requests:** A table for tracking requests, currently showing "No items to display".
- Footer:** A notification bar at the bottom right shows a user profile for "Kono, Connie@DMV" and a request for the MVS team.

SMU: Functional overview

SMU Performance Management

Consolidated System Health Dashboard

Problem Identification Dashboards

Overview pages with drill-down to details pages showing key metrics

z/OS	MQ	CICS
Networks	DB2	IMS
WAS	Java VM	Storage

Problem Isolation Dashboards

Guided analysis for key problem areas and suggested actions to restore service.

MQ	
z/OS	Java VM

SMU Workload Scheduler

ZWS Overview Dashboard

- Job Streams
- Workstations
- Job Status
- Related SA resources
- Drill-down to DWC or SA Views

Execute **ZWS operational tasks** (set status, run a job, ...)

SMU Automation

NV Domain Overview

View/Control **NV tasks** and their metrics

View **DVIPA metrics**

Administer **Automation Statements**

View **Canzlog**

Issue **MVS/NV commands**

NetView

Domain and Automation Health Dashboard

Overview of automation domain and system topology showing status summaries and events.

Graphical view of SA relationships

Manage schedules using a calendar widget

Control automated applications

- Start/Stop/Restart
- View/Cancel votes and requests
- Reset
- Suspend/Resume automation

Control appl. groups

- View/Modify group details and automation behavior
- Move to other systems
- Set availability/satisfactory target
- Trigger Rolling Recycle
- Exclude/Avoid systems

Captured messages

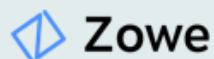
Exceptional messages

WTOs

Problem Isolation

End-to-End Automation (Cross-Sysplex, Cross-Platform)

System Automation



Zowe JES Explorer

Zowe MVS Explorer

New in SMU 1.1.7

Service Management Unite

Welcome to IBM Service Management Unite

IBM Service Management Unite

Version 1.1.6.0

IBM Service Management Unite is a service management dashboard user interface that brings mainframe management information and tasks from disparate sources into a single environment. It helps IBM z Systems™ programmers, operators and administrators with integrated visibility into mainframe operations to monitor system health and reduce problem determination and resolution times with IBM OMEGAMON®, IBM System Automation for z/OS, NetView® for z/OS, IBM Z Workload Scheduler and IBM Operations Analytics. You can access pre-defined dashboards from below or you can create your own custom dashboards using the Page Editor.

Monitor System Health



Monitor your system health.

Domain and Automation Health



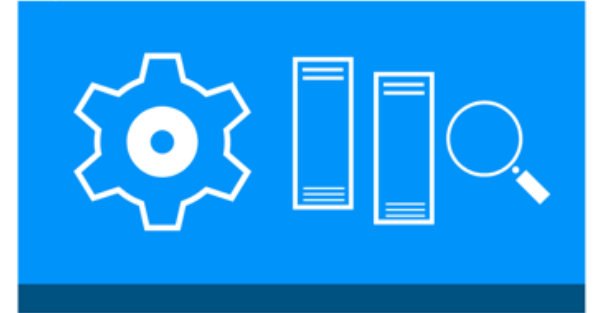
Get an overview of your automation environment.

Workload Scheduler Overview



Get an overview of your workload scheduler environment.

Explore Automation Domains



Navigate through automation domains and nodes.

Explore Automation Nodes



Show all nodes and a topology view of the resources hosted by a node.

Work with Default Automation Domain



Work with System Automation resources in your default automation domain.

Issue a Command



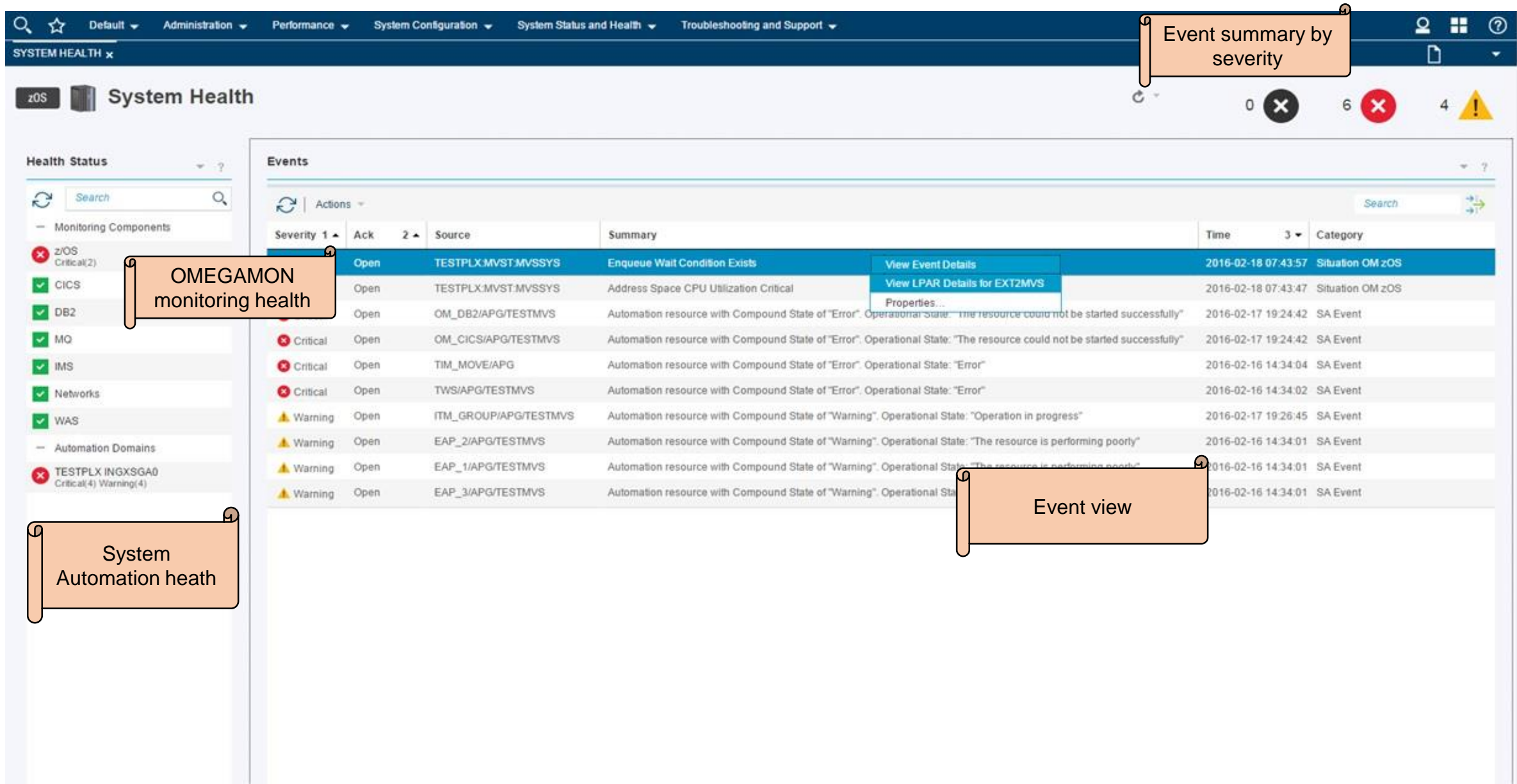
Issue an MVS or NetView command on a system.

Ask Watson



Ask Watson questions about Service Management Unite.

SMU: System Health dashboard



The screenshot shows the SMU System Health dashboard. The top navigation bar includes 'Administration', 'Performance', 'System Configuration', 'System Status and Health', and 'Troubleshooting and Support'. The main header displays 'zOS System Health' and a notification bar with 6 critical and 4 warning events. The left sidebar shows 'Health Status' for various components like z/OS, CICS, DB2, MQ, IMS, Networks, WAS, and TESTPLX INGXSGA0. The main area features an 'Events' table with columns for Severity, Ack, Source, Summary, Time, and Category. Callouts highlight specific features: 'Event summary by severity' points to the top right, 'OMEGAMON monitoring health' points to the z/OS component, 'System Automation health' points to the TESTPLX INGXSGA0 component, and 'Event view' points to the event table.

Event summary by severity

OMEGAMON monitoring health

System Automation health

Event view

Performance Monitoring SMU Dashboards

CICS Region Details

Selected CICS Region: CICSAB51

Top 5 User Tasks - High Elapsed Time (sec)

Top 5 User Tasks - High CPU Time (sec)

Storage Summary

Area	Percent Used
EDSA	25%
Read Only Key EDS	7%
Read Only Key EDS	5%
Read Only Key DSA	4%
CICS Key DSA	3%
User Key DSA	1%
CICS Key EDSA	1%

Bottleneck Summary

Resource Type	Resource Name	Summary Short Term Percentage	Detailed Short Term Percentage	Summary Long Term Percentage	Detailed Long Term Percentage	Short Term Interval	Long Term Interval
ICWANT	TOTAL	11%	11%	11%	11%	10m 0s	30m 0s
ECDGFEMW	ECSUSPHD	11%	11%	11%	11%	10m 0s	30m 0s
FCFCFR	(none)	11%	11%	11%	11%	10m 0s	30m 0s
FCFCFS	(none)	11%	11%	11%	11%	10m 0s	30m 0s
IS_SCHDQ	IS_SCHDQ	11%	11%	11%	11%	10m 0s	30m 0s
USERWAT	COB2TIME	11%	11%	11%	11%	10m 0s	30m 0s

MQ Queue Manager Details

Selected QMgr: WMQT

MQ Health: Warning

Channel: Running

Command: Waiting

Queue Health: Critical

Top 5 Queues with High Depth

Top 5 Queues Not Being Read

Top 5 Queues Oldest Message Age (sec)

Problem Isolation - Queue Has High Depth

Applications with Queue Open

Application Name	Application Type	User Identifier	Open for Input	Open for Output	Open for Browse
EMPT001	SAPIC	WZG001	Yes	Yes	Yes

Recent Pub/Sub Message Rates

JVM Overview

JVM Summary

Evaluated Status	Job Name	Subsystem Type	Application
Healthy	BAQSTRTB	Liberty	z/OS Connect
Healthy	CICSAOR1	CICS	z/OS Connect
Healthy	CTGATE	CTG	null

JVM Details for BAQSTRTB

General CPU %: 0.17

System GC Count: 0

Heap Occupancy Over Time

Garbage Collection Pause Times Over Time

Storage Overview

Storage Analytics

Storage Group Summary

Volume Details for PRI228

Volume Space Trend

Space Allocation

Data Sets on the Volume

Dataset Name	Dataset Type	Number of Extents	Tracks Allocated	Track
TD0MPT.D5830FP	Partitioned	3	3	3
FFAKO.USER.CLUS	PODS Extended	1	15	1
TDZOST.LIN530 SF	Physical Sequential	1	5,205	4,815
CRMBMC1.C2POLU	PODS Extended	1	15	3

Volume Status

System ID	MVS Status	SMS Status
SY90	Online	Enable
SY91	Online	Enable
SP12	Online	Enable
SP13	Online	Enable
SP11	Online	Enable

Integration cross domains

Navigation: Default Administration Performance System Configuration System Status and Health Troubleshooting and Support

LPAR OVERVIEW x Z/OS PROBLEM ISOLATION - BOTTLENECK ANALYSIS x TESTPLX INGXSGA0 - RESOURCES x **LPAR DETAILS x** TESTMVS - SYSTEM LOG x TESTMVS - ISSUE COMMAND x Z/OS PROBLEM ISOLATION - HIGH CPU USAGE x

LPAR LPAR Details for EXT2MVS Sysplex: TESTPLX System ID: MVST

Selected LPAR

- Average CPU Percent: 3%
- CPC Serial Number: 0EA43D
- CSA In Use Percent: 17.6%
- Current Weight: 0
- ECSA In Use Percent: 19.5%
- Goal Importance: Highest
- I/O Rate: 0.2
- LPAR Cluster Name:
- Major Name: n/a
- Max Enqueue Wait Time: 0s
- Page Fault Rate: 0.0/s
- Percent LPAR MSU Capacity: 2.9%
- Performance Index: ✖ 1.75
- Service Class: OPSHI
- Service Class Period: 1
- Storage Events Status: No Active Events
- System Page Rate: 0.2

Top 5 CPU Utilization

5 Minute Intervals 4-Hour MSU Statistics

Time Period	% LPAR Uncapped	% LPAR Capped	Status
12:20-12:25	64%		Unavailat
11:50-11:55	63%	0%	Unavailat
12:05-12:10	68%	0%	Unava

Address Space Bottleneck Analysis Summary

Job Name	ASID	CPU Loop Index	Using CPU	Usi
ST	0x00C1	0%	0%	
	0x00C8	0%	0%	
EAP2CH	0x00C7	0%	0%	
EAPSP2	0x00C6	0%	0%	
EAPM				

Common Storage

Enqueue and Reserve Summary

Major Name	Owning Address Space	ASID	Owning Task Count	Waiting Task Count	Maximum Wait Time	Minor Name	Type	Sw
No items to display								

Search and Isolate problem with OMEGAMON

Launch in context System Automation domain dashboard

Issue Z NetView commands

Automation Dashboards

Overview of connected automation domains

Domains and Nodes

Selected Node: KEYPLEX INGXSUG

Online Resources

Name	Compound State	Observed State	Desired State	Automated	Operator Request
CICS/APG/TESTMVS	OK	Online	Online	Yes	No request
DB2/APG/TESTMVS	OK	Online	Online	Yes	No request
DB2/STC/APG/TESTMVS	OK	Online	Online	Yes	No request
E2E_ADPT_XAPG	OK	Online	Online	Yes	No request
EAP_1/APG/TESTMVS	Warning	Online	Online	Yes	No request
EAP_2/APG/TESTMVS	Warning	Online	Online	Yes	No request
EAP_3/APG/TESTMVS	Warning	Online	Online	Yes	No request
EAP_3/CH/APL/TE	OK	Online	Online	Yes	No request
EAP_3/ERR/APL/...	Fatal Error	Offline	Offline	Yes	No request
EAP_3/PA/APL/TE	OK	Online	Online	Yes	No request

Resource States

70 4 0 0

Top Level Resources

Warning

- CICS/APG Online
- CICS/DB2/MTR/NEVA Online
- IMS/APG Online
- IMS/3DB23/MTR/KEYC Online
- ROS/RCH/APL/KEYB Online
- IMS/3REC/COM/MTR/KEYC Online
- ROS/RCH/APL/KEYC Online

Messages

Time	Severity	Text	Originator	Domain Name
Apr 21, 2015 1:30:07 PM	Information	The command to cancel the operator request against IMS/APG has been submitted for proc	esacadmn	KEYPLEX.INGXSUG
Apr 21, 2015 1:36:16 PM	Information	The offline request against IMS/APG has been submitted for processing	esacadmn	KEYPLEX.INGXSUG
Apr 21, 2015 10:45:47 AM	Information	The command to cancel the operator request against IMS_L_XAPG has been submitted for	esacadmn	KEYPLEX.INGXSUG
Apr 21, 2015 10:45:29 AM	Information	The offline request against IMS_L_XAPG has been submitted for processing	esacadmn	KEYPLEX.INGXSUG
Apr 21, 2015 12:47:04 AM	Information	Policy changed event has been received from domain ITMDomain.	esacadmn	ITMDomain



Domain Page Automation Domain: TESTPLX INGXSUG

Resources

Name	Compound State	Observed State	Desired State	Automated	Operator Request
CICS/APG/TESTMVS	OK	Online	Online	Yes	No request
DB2/APG/TESTMVS	OK	Online	Online	Yes	No request
DB2/STC/APG/TESTMVS	OK	Online	Online	Yes	No request
E2E_ADPT_XAPG	OK	Online	Online	Yes	No request
EAP_1/APG/TESTMVS	Warning	Online	Online	Yes	No request
EAP_2/APG/TESTMVS	Warning	Online	Online	Yes	No request
EAP_3/APG/TESTMVS	Warning	Online	Online	Yes	No request
EAP_3/CH/APL/TE	OK	Online	Online	Yes	No request
EAP_3/ERR/APL/...	Fatal Error	Offline	Offline	Yes	No request
EAP_3/PA/APL/TE	OK	Online	Online	Yes	No request

Relationships

Diagram showing relationships between resources like EAP_3/APG/TESTMVS, EAP_3/CH/APL/TE, EAP_3/ERR/APL/..., EAP_3/PA/APL/TE, and TESTMVS.

Nodes

Name	Observed State	Automated	OS Name
TESTMVS	Online	Yes	z/OS

Requests

Requested Action	Source	User ID	Info	Priority	Created	Type	Winning
Online	GROUP EAP_...		MakeAvailable	Low	Sep 18, 2016 1	VOTE	false

Relationships

Diagram showing relationships between resources like EAP_3/APG/TESTMVS, EAP_3/CH/APL/TE, EAP_3/ERR/APL/..., EAP_3/PA/APL/TE, and TESTMVS.

Requests

Requested Action	Source	User ID	Info	Priority	Created	Type	Winning
Stop	OPERATOR	EEZAGENT		Low	Mar 23, 2019 5:	REQUEST	true
Stop	GROUP EAP_3:		Request Comment: Maintenance		Created: Mar 23, 2019 5:31:42 PM		false



View of actions executed

Request Stop

Request 'EAP_3/PA/APL/TESTMVS' to be unavailable

Comment: Maintenance

Advanced Options:

Priority: Low Shutdown Type: Normal (NORM)

Only selected resource, ignoring dependencies

Ignore automation flags

Ignore trigger settings

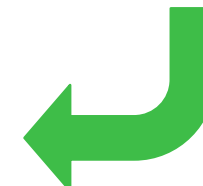
Remove when system is gone

Interrupt existing request

Cancel OK

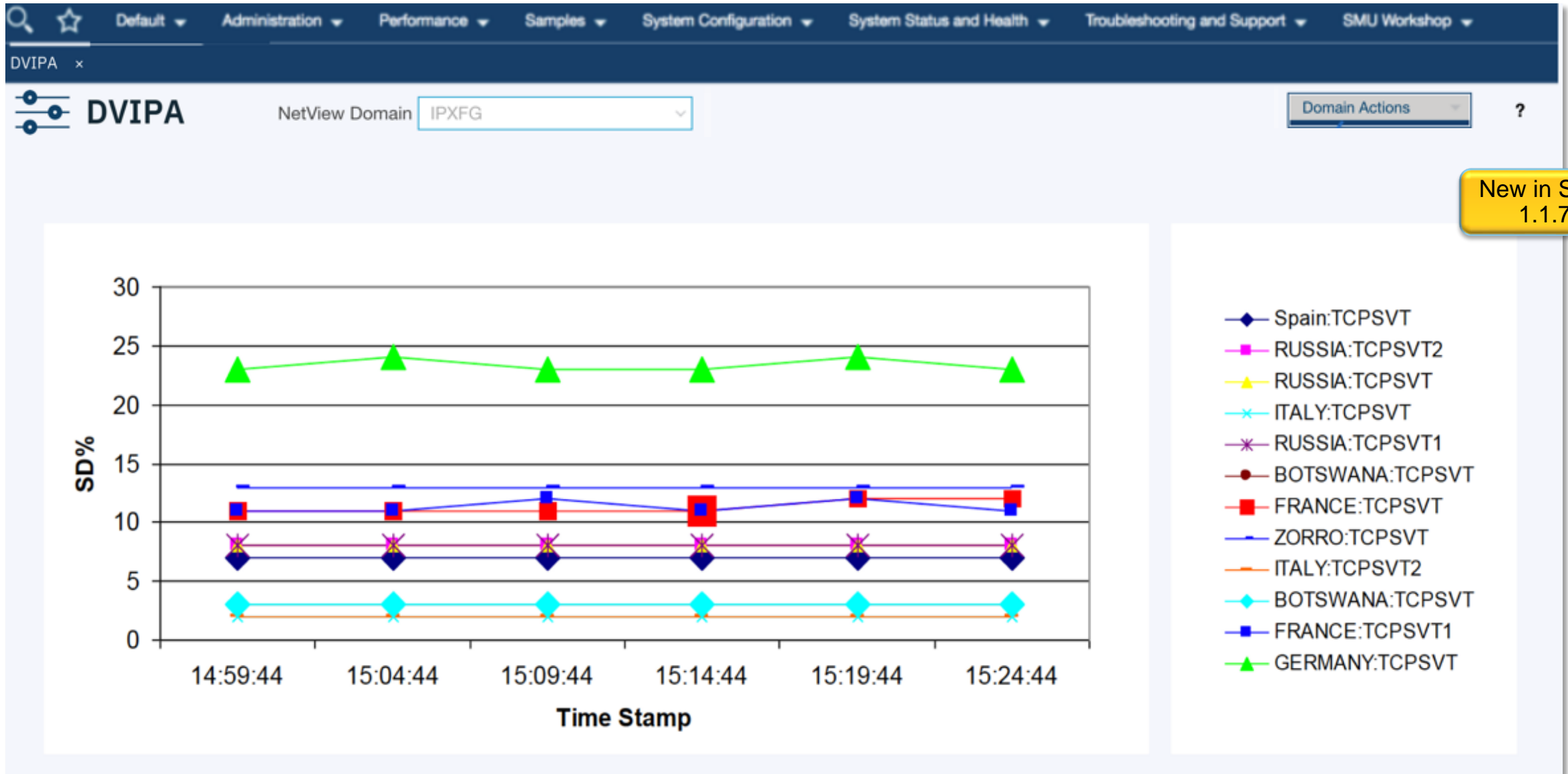
Context menu for EAP_3/PA/APL/TESTMVS:

- Isolate Problem with INGWHY
- Request Start...
- Request Stop...
- Cancel Request
- Restart...
- Manage Schedules
- Suspend Automation...
- Reset
- View in Domain Page
- View System Log
- View Captured Messages
- Issue Command
- Properties...



Take actions on specific resources

Network Details: Distributed DVIPA Statistics



New in SMU 1.1.7

SMU: Overview scheduling dashboard

Default Administration Samples System Configuration System Status and Health

EXPLORE AUTOMATION DOMAINS WORKLOAD SCHEDULER OVERVIEW

Workload Scheduler Overview

Engine: SAT1IWS

Workstations

Name	Status	Type	Reporting Attribute	Started Task Support	WTO Support	Running Jobs	Completed Jobs	Remaining Jobs	Aut
SX02	Active	COMPUTER	AUTOMATIC	false	false	0	0	0	false
SX03	Active	COMPUTER	AUTOMATIC	false	false	0	0	0	false
S66C	Unknown	FTA	AUTOMATIC	false	false	0	0	0	false
SAU1	Unknown	GENERAL	AUTOMATIC	false					false
SAC4	Unknown	GENERAL	AUTOMATIC	false					true

Total: 17 Selected: 0

WS workstation status
Context Menu Actions:

- Set Status of Workstations
- View workstation properties
- Link/Unlink Workstations

Job Status

Job Status Legend:

- Comp...
- Suppr...
- Started
- Ready
- Waiting
- Held

Job Status Statistics

Critical Jobs Summary

Possibility to filter on specific job status

Critical Jobs Summary Info

Alert Level	Count
High Risk	75
Potential Risk	100
No Risk	

Job Streams / Jobs

Name	Status	Internal Status	Scheduled Time	Priority	Job Stream	Workstation
RGT#TWS7IACZ	Undecided	UNDECIDED	2019-03-20 00:01:00	5		
RGT#TWS8	Undecided	UNDECIDED				
RGT#TWS9	Error	ZOSEP				
SMU#A001	Successful	COMPLETE				
SMU#A002	Running	STARTED				
20	Successful	COMPLETE	2019-03-20 02:22:00	5	SMU#A002	DMY1
30 (STOP#RSC)	Held	NOREPORTING	2019-03-20 02:22:00	5	SMU#A002	SAC7
40 (CNCL#RSC)	Waiting	WAITING	2019-03-20 02:22:00	5	SMU#A002	SAC7
SMU#A003	Successful	COMPLETE	2019-03-20 11:11:00	5		
20	Successful	COMPLETE	2019-03-20 11:11:00	5	SMU#A003	DMY1

Job and Job Streams status and hierarchy view
Context Menu Actions:

- Launch In Context of DWC for Drill Down
- Actions on Job (complete, wait)
- Job properties

Workload Scheduler Environment controlled by System Automation

Name	Compound State	Observed State	Desired State	Automated	Operator Request
TWS/APG	OK	Available	Available	Yes	No request
TWS_CTRL_X/APG	OK	Available	Available	Yes	No request
TWS_CONTROL/APG/S	OK	Available	Available	Yes	No request
OPAC/APL/SAT1	OK	Available	Available	Yes	No request
OPAS/APL/SAT1	OK	Available	Available	Yes	No request
TWS_CONTROL/APG/S	OK	Available	Available	Yes	No request
TWS_DATA_X/APG	OK	Available	Available	Yes	No request
TWS_TRACKER/APG/SAT1	OK	Available	Available	Yes	No request
TWS_TRACKER/APG/SAT2	OK	Available	Available	Yes	No request
TWS_TRACKER/APG/SAT3	OK	Available	Available	Yes	No request

WS automated resources overview
Context Menu Actions:

- Drill-down capabilities to SA deep-dive dashboards
- Start/Stop ZWS services through SA

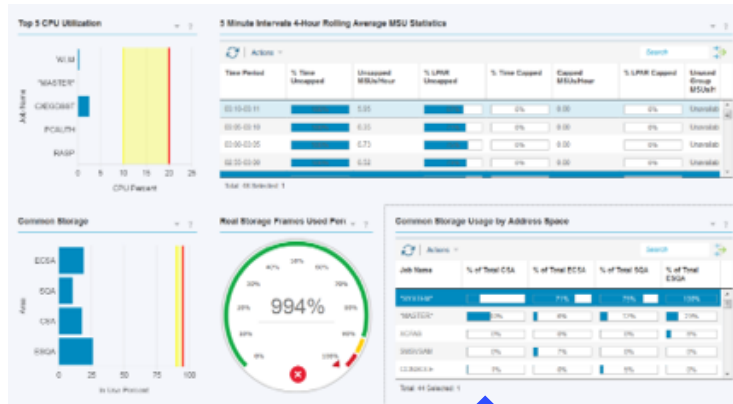
SMU cross domain navigation

Service Management Unite EE

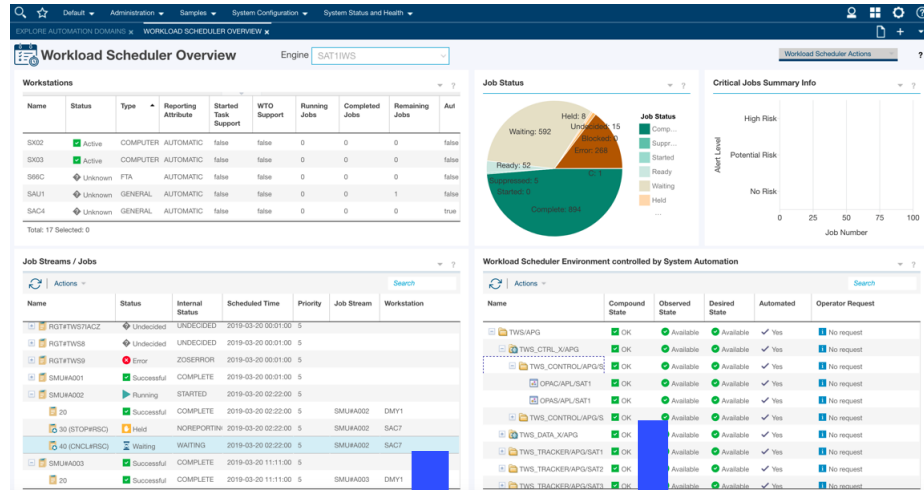
SMU for Scheduling

SMU for Automation

SMU for Performance Management

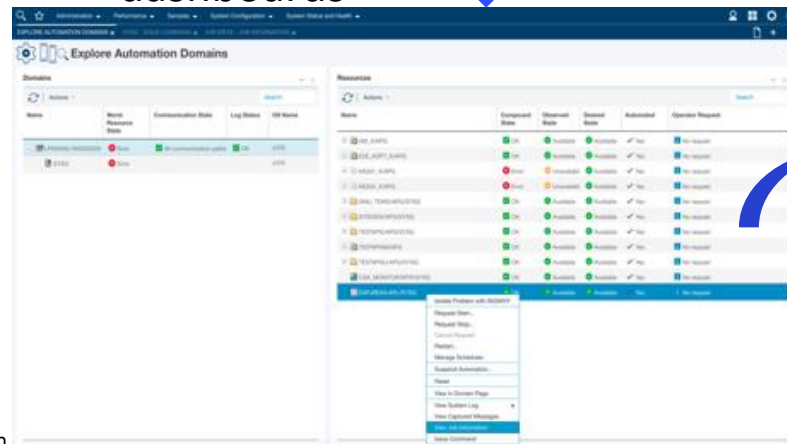


Monitor resource utilization

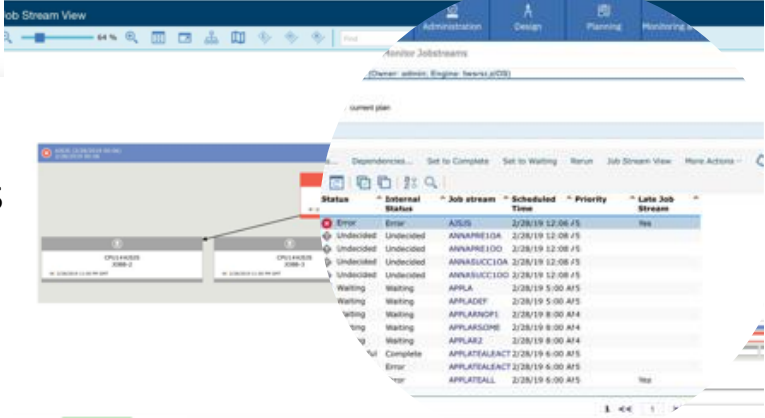


Drill-down capabilities to SA deep-dive dashboards

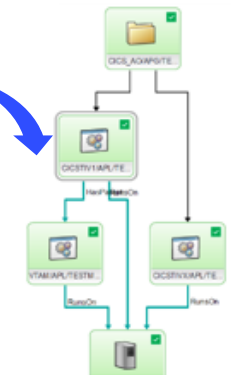
Drill-down capabilities to DWC deep-dive dashboards



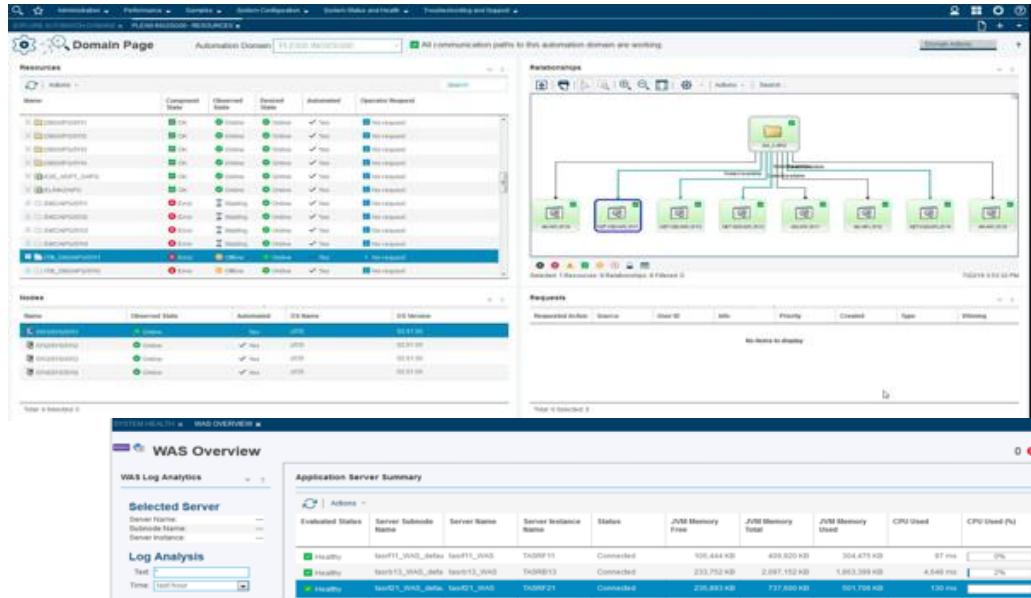
At a glance overview on IZWS resources and their status (Applications, Operations, Workstations) with **seamless navigation in Dynamic Workload Console**



Start/Stop IZWS services through SA from overview dashboard



APIS IT creates integrated monitoring and automation for complex networks using IBM Service Management software



Business Need:

- APIS IT had numerous heterogeneous systems, including mainframe and other types of servers. Plus, like many companies, APIS IT's IT environment was becoming increasingly complex. The company needed to find a comprehensive monitoring solution so it could integrate monitoring data from multiple systems to provide a single view into its IT operations.

Solution:

- APIS IT uses IBM® Service Management Suite for z/OS® software and IBM Service Management Unite software to gain a comprehensive view into its IT operations. The two applications provide a single point of control for systems management, so APIS IT can gather monitoring data from all of its systems, including hardware and software resources.

“We are under current revised service level agreements and we are achieving 99.91% of availability while at the same time system is constantly changing and growing, and new services are coming in.”

Dražen Zadro, Systems Engineer, APIS IT d.o.o.

Client Benefit:

- Using the IBM software, APIS IT has achieved 99.91 percent availability under revised service level agreements (SLAs), even as it continues to change its IT environment and add to it. APIS IT has stated that the solutions ultimately help the government service its citizens better.

Introducing Zowe



is a new **open source software framework** that provides solutions that allow **development** and **operations** teams to **securely, manage, control, script** and **develop** on the **Mainframe** like any other cloud platform.



A framework of software services



A simple, intuitive environment



An open source community



Zowe is the first open source project based on z/OS





Zowe Vision Statement



Attract new people

- ✓ Demystify the Z platform
- ✓ Enhance integration and consumability
- ✓ Promote Open community of practice

Reduce learning curve

- ✓ Improve productivity
- ✓ Modern, platform-neutral interfaces
- ✓ Command Line Interface to enable Cloud-like Access to the Mainframe

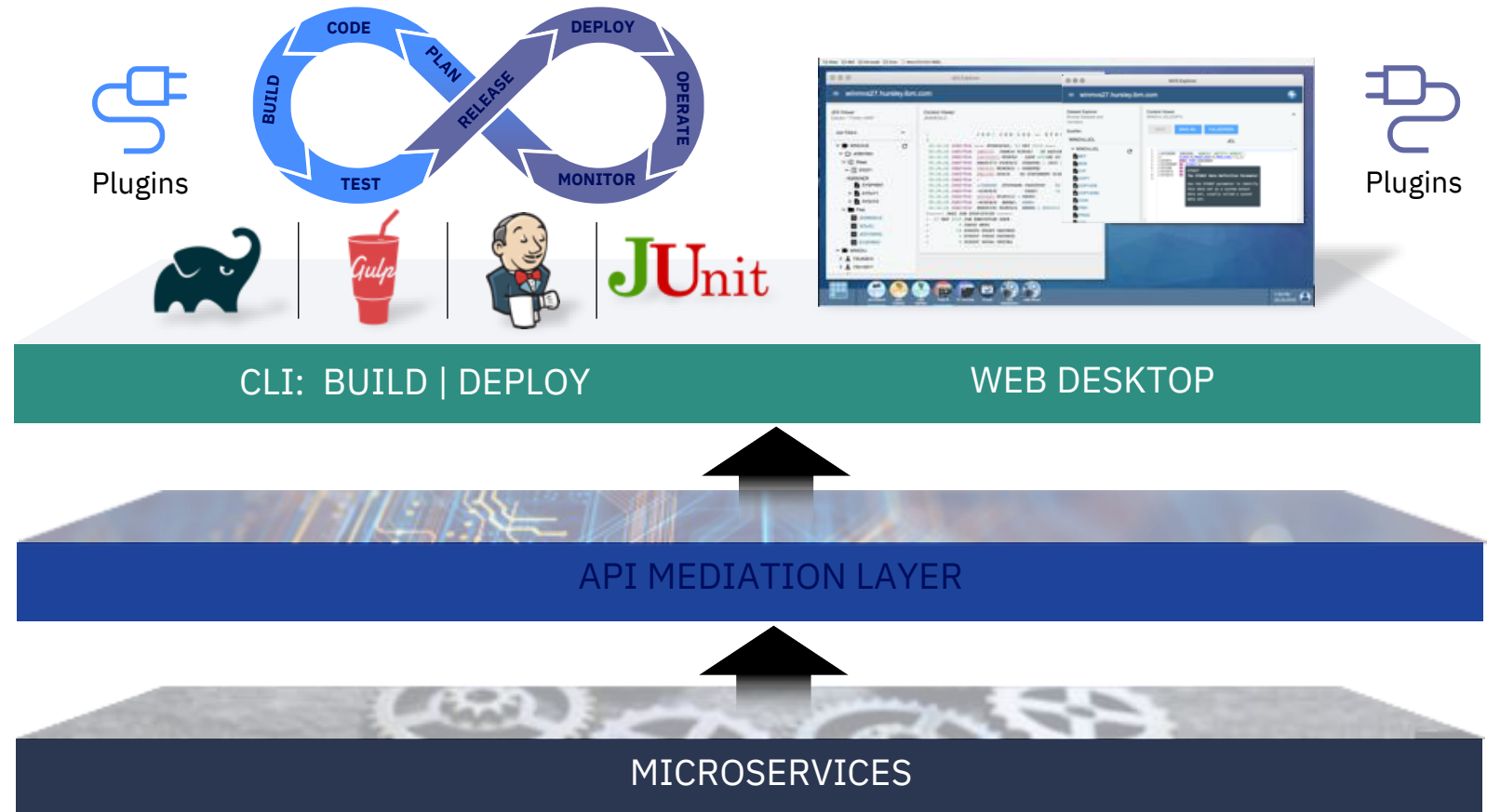
Simplify architecture

- ✓ Reduce operational overhead
- ✓ Improve co-existence
- ✓ Enable rich ecosystem of free and commercial solutions
- ✓ REST APIs

What is Zowe

Core Zowe includes

- ✓ API Mediation Layer
- ✓ Command Line Interface (CLI)
- ✓ Web User Interface



Join the Zowe Community @
<https://zowe.org/home/>

SMU provides a Zowe application plug-in



Service Management Unite is an “app” on Zowe Desktop

Leveraging this as a portal for operations for monitoring and automation

Deeper analysis through new Zowe-based domain specific applications, dashboards and workflows

The screenshot displays the Service Management Unite web interface. At the top, it shows the browser address bar with the URL <https://winmys27.hursley.ibm.com:8544/MVD/plugins/com.rs.mvd/web/index.html>. The main content area is titled "Domain Page" for the automation domain "TESTPLX INGXSGA0".

Resources Table:

Name	Compound State	Observed State	Desired State	Automated	Operator Request
CICSAPGTESTMVS	OK	Online	Online	✓ Yes	No request
DB2APGTESTMVS	OK	Online	Online	✓ Yes	No request
DB2IAPGTESTMVS	OK	Online	Online	✓ Yes	No request
DILSTCAPGTESTM	OK	Online	Online	✓ Yes	No request
EZE_ADPT_XAPG	OK	Online	Online	✓ Yes	No request
EAP_SAPGTESTMVS	Warning	Online	Online	✓ Yes	No request
EAP_SAPGTESTMV	Warning	Online	Online	✓ Yes	No request
EAP_SAPGTESTM	Warning	Online	Online	✓ Yes	No request
EAP_SCHAPLITE	OK	Online	Online	✓ Yes	No request
EAP_SERRAPLITE	Fatal Error	Offline	Offline	✓ Yes	No request
EAP_SPAAPLITE	OK	Online	Online	✓ Yes	No request

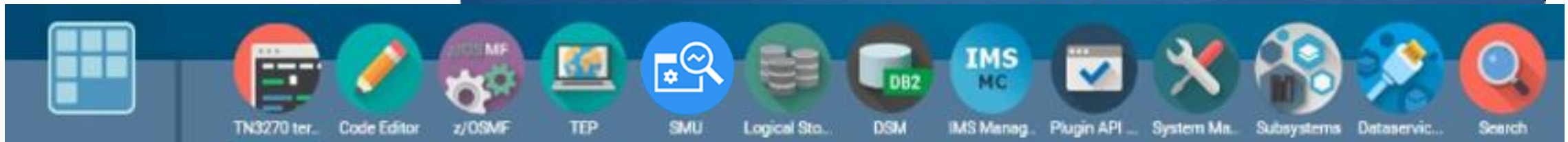
Nodes Table:

Name	Observed State	Automated	OS Name
TESTMVS	Online	✓ Yes	Z/OS

Relationships Diagram: A flowchart showing the relationships between various application components. It includes nodes like EAP_SAPGTEST, EAP_SCHAPLITE, EAP_SERRAPLITE, EAP_SPAAPLITE, and TESTMVS, connected by lines representing dependencies or data flows.

Requests Table:

Requested Action	Source	User ID	Info	Priority	Created	Type	Winning
Online	GROUP EAP_		MakeAvailable	Low	Sep 18, 2016	VOTE	false



SMU integration with Zowe JES Explorer

Enable the mainframe operators to isolate environmental issues by offering **seamless navigation into Zowe's JES Explorer** to view any job content without the need to switch the application or even use another terminal

LPAR Details for SYS9

System: OHC51PM
System: i4vq

Selected LPAR

- Average CPU Percent: 5%
- CPC Serial Number: 03AA
- CSA In Use Percent: 23.6%
- Current Weight: 0
- ECSA In Use Percent: 58.5%
- Goal Importance: High
- I/O Rate: 7.0
- LPAR Cluster Name: SYS9
- Major Name: SYS9
- Max. Enqueue Wait Time: 1055
- Page Fault Rate: 0.0%
- Percent LPAR MSU Capacity: 5.0%
- Performance Index: 1.11
- Service Class: IMSA
- Service Class Period: 1

Top 5 CPU Utilization

Job Name	% LPAR Uncapped	% LPI
ZOW...		
OHP...		
L2S1...		
WLM		
OHP...		

Address Space Bottleneck Analysis Summary

Job Name	ASID	CPU Loop Index
MSGAC4DL	0x0027	
SAKSCNDL	0x0026	0%
KZUYR1		0%
IQUANG1	0x0024	6%

Total: 362 Selected: 0

Explore Automation Domains

Domains

Name	Worst Resource State	Communication State	Log Status	OS Name
LPAR40QJ INDXSQA	Error	All communication paths	OK	z/OS
SY9	Error			z/OS

Resources

Name	Compound State	Observed State	Desired State	Automated	Operator Request
AM_X/APG	OK	Available	Available	Yes	No request
E2E_ADP1_X/APG	OK	Available	Available	Yes	No request
MOQ1_X/APG	Error	Unavailable	Available	Yes	No request
MOQ4_X/APG	Error	Unavailable	Available	Yes	No request
SMU_TEM5/APG/SYG	OK	Available	Available	Yes	No request
SYSVIEW/APG/SYG	OK	Available	Available	Yes	No request
TESTAPG/APG/SYG	OK	Available	Available	Yes	No request
TESTAPGM/APG	OK	Available	Available	Yes	No request
TESTAPGU/APG/SYG	OK	Available	Available	Yes	No request
CSA_MONITOR/MTR/SYG	OK	Available	Available	Yes	No request
EAPREX/APL/SYG	OK	Available	Available	Yes	No request

JES Explorer

Content Viewer

URL: https://wlag.svl.ibm.com:27443/explorer-jes/#/viewer?owner=*JobName=OHPMTOM&jobId=STC22889&fileId=102

OHPMTOM - STC22889 - JESJCL

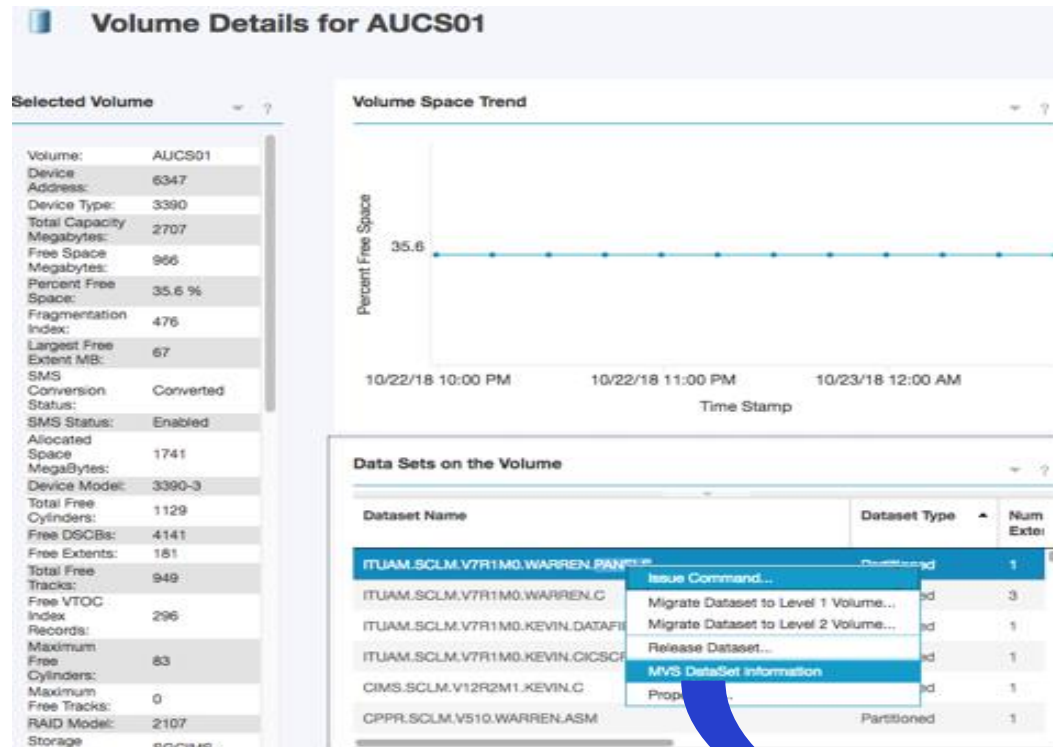
```

1 //OHPMTOM JOB MSGCLASS=X, STC22889
2 //MSGLEVEL=1
3 //STARTING EXEC OHPMTOM
4
5   ** NAME: OHPMTOM TIVOLI OMEGAMON (TOM)
6   **
7   ** PURPOSE: STARTED TASK PROCEDURE TO RUN A TOM
8   ** * THIS PROC IS CONFIGURED TO RUN THE FOLLOWING 3270 OMEGAMON:
9   ** IBM Tivoli OMEGAMON Enhanced 3270 User Interface
10  ** (OMEGAMON enhanced 3270UI)
11  **
12  **=====
13  ** Last SPARSE run refresh: OMEGAMON enhanced 3270UI
14  ** version @ FRID HK0B730
15  **=====
16  **
17  ** PARMGEN Maintenance Level: FRID HKC1310 PTF UAB3283 APAR OA51503
18  ** z/OS/ISPF Environment: z/OS:01.13.00 / ISPF:6.3
19  **
20  ** Member: KC155T1
21  ** Purpose:
22  ** WCONFIG(KC155T1) common PARMGEN accounting imbed is generated
23  ** in all STCs in WKANSAMU
24  ** Work Environment:
25  ** - WCONFIG: TDZOST.OHC51PM.SY9.WCONFIG
26  ** - WKANSAMU: TDZOST.OHC51PM.SY9.WKANSAMU
27  ** - GBL_USER_JCL: TDZOST.OHC51PM.KANPLEX.PARMGEN.JCL
28  ** - GBL_DSN_SYSL_PROCLIB: CAN.USER.PROCLIB
29  **
30  **=====
31  ** USER SECTION: Edit WCONFIG(KC155T1) to customize user
32  ** accounting details accordingly.
33  **=====
34  ** Last updated by:
35  **XMG0V3PB JOB (MG0V,0889), 'MICHAEL GOUVEIA', CLASS=A,
  
```

SMU integration with Zowe MVS Explorer

Seamless navigation from SMU Storage monitoring into Zowe MVS Explorer to

- View/Edit Data Set Member or sequential Data Set content
- View Data Set attributes, like blksize, LRECL and so on.
- Enable/Disable Explorer page according to Data Set type



Volume Details for AUCS01

Selected Volume

Volume:	AUCS01
Device Address:	6347
Device Type:	3390
Total Capacity Megabytes:	2707
Free Space Megabytes:	966
Percent Free Space:	35.6 %
Fragmentation Index:	476
Largest Free Extent MB:	67
SMS Conversion Status:	Converted
SMS Status:	Enabled
Allocated Space Megabytes:	1741
Device Model:	3390-3
Total Free Cylinders:	1129
Free DSCBs:	4141
Free Extents:	181
Total Free Tracks:	949
Free VTOC Index Records:	296
Maximum Free Cylinders:	83
Maximum Free Tracks:	0
RAID Model:	2107
Storage:	SGCMS

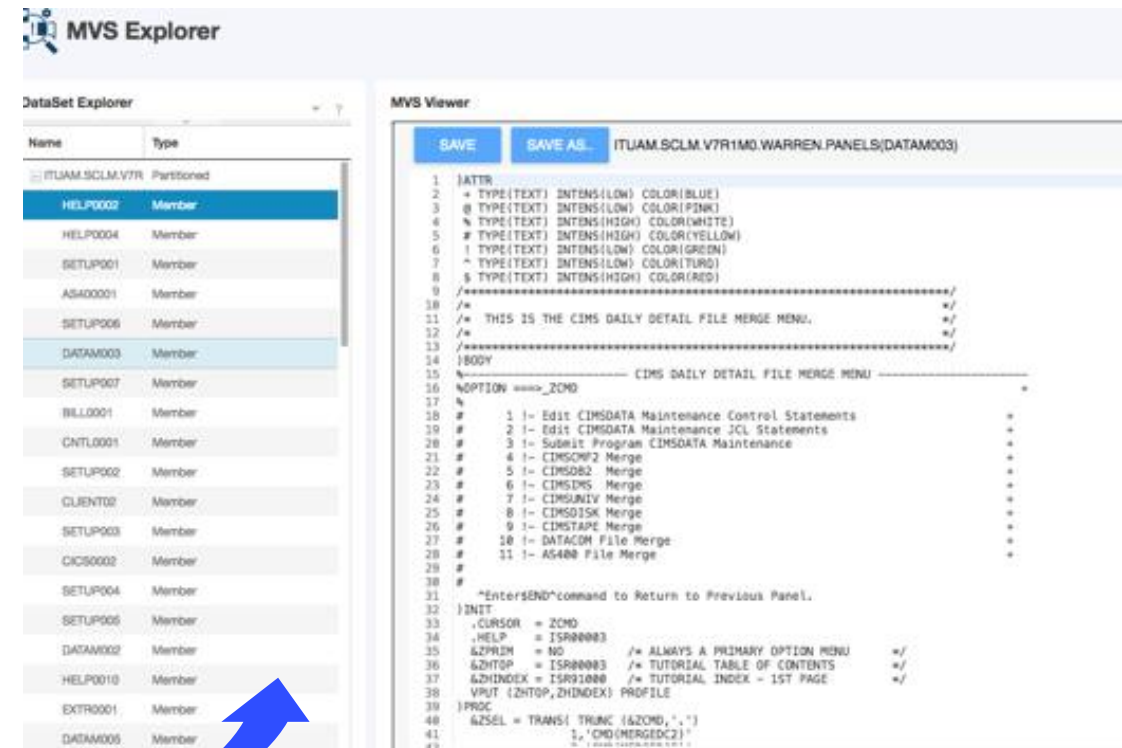
Volume Space Trend

Percent Free Space: 35.6

Time Stamp: 10/22/18 10:00 PM, 10/22/18 11:00 PM, 10/23/18 12:00 AM

Data Sets on the Volume

Dataset Name	Dataset Type	Num Extents
ITUAM.SCLM.V7R1.M0.WARREN.PAN	Partitioned	1
ITUAM.SCLM.V7R1.M0.WARREN.C	Partitioned	3
ITUAM.SCLM.V7R1.M0.KEVIN.DATAP	Partitioned	1
ITUAM.SCLM.V7R1.M0.KEVIN.CICSC	Partitioned	1
CIMS.SCLM.V12R2M1.KEVIN.C	Partitioned	1
CPPR.SCLM.V510.WARREN.ASM	Partitioned	1



MVS Explorer

DataSet Explorer

Name	Type
ITUAM.SCLM.V7R	Partitioned
HELPO002	Member
HELPO004	Member
SETUP001	Member
AS400001	Member
SETUP006	Member
DATAM003	Member
SETUP007	Member
BLL0001	Member
CNTL0001	Member
SETUP002	Member
CUENT02	Member
CICS0002	Member
SETUP004	Member
SETUP005	Member
DATAM002	Member
HELPO010	Member
EXTR0001	Member
DATAM005	Member

MVS Viewer

SAVE SAVE AS ITUAM.SCLM.V7R1.M0.WARREN.PAN.(DATAM003)

```

1 |ATTR
2 | * TYPE(TEXT) INTENS(LOW) COLOR(BLUE)
3 | @ TYPE(TEXT) INTENS(LOW) COLOR(PINK)
4 | % TYPE(TEXT) INTENS(HIGH) COLOR(WHITE)
5 | # TYPE(TEXT) INTENS(HIGH) COLOR(YELLOW)
6 | ! TYPE(TEXT) INTENS(LOW) COLOR(GREEN)
7 | ^ TYPE(TEXT) INTENS(LOW) COLOR(TURD)
8 | $ TYPE(TEXT) INTENS(HIGH) COLOR(RED)
9 | /*****
10 | /
11 | /* THIS IS THE CIMS DAILY DETAIL FILE MERGE MENU.
12 | /
13 | /*****
14 | |BODY
15 | |----- CIMS DAILY DETAIL FILE MERGE MENU -----
16 | %OPTION =====_ZCMD
17 | %
18 | # 1 | Edit CIMSDATA Maintenance Control Statements
19 | # 2 | Edit CIMSDATA Maintenance JCL Statements
20 | # 3 | Submit Program CIMSDATA Maintenance
21 | # 4 | CIMSOP2 Merge
22 | # 5 | CIMSDB2 Merge
23 | # 6 | CIMSDB5 Merge
24 | # 7 | CIMSUNIV Merge
25 | # 8 | CIMS015K Merge
26 | # 9 | CIMS015K Merge
27 | # 10 | DATACON File Merge
28 | # 11 | AS400 File Merge
29 | #
30 | # *EnterEND*command to Return to Previous Panel.
31 | %
32 | |ZINT
33 | ,CURSOR = ZCMD
34 | ,HELP = ISR00003
35 | &ZPRIM = NO /* ALWAYS A PRIMARY OPTION MENU */
36 | &ZHTOP = ISR00003 /* TUTORIAL TABLE OF CONTENTS */
37 | &ZHINDEX = ISR01000 /* TUTORIAL INDEX - 1ST PAGE */
38 | %PUT (ZHTOP,ZHINDEX) PROFILE
39 | %PROC
40 | &ZSEL = TRANS( TRUNC (&ZCMD, ',' )
41 | 1, 'CWD(MERGECD2) )
42 | %

```

Service Management Unite v 1.1.7

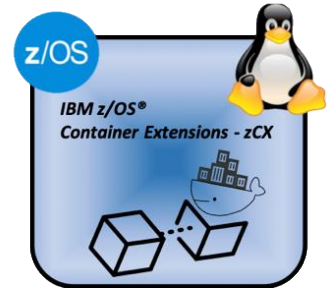
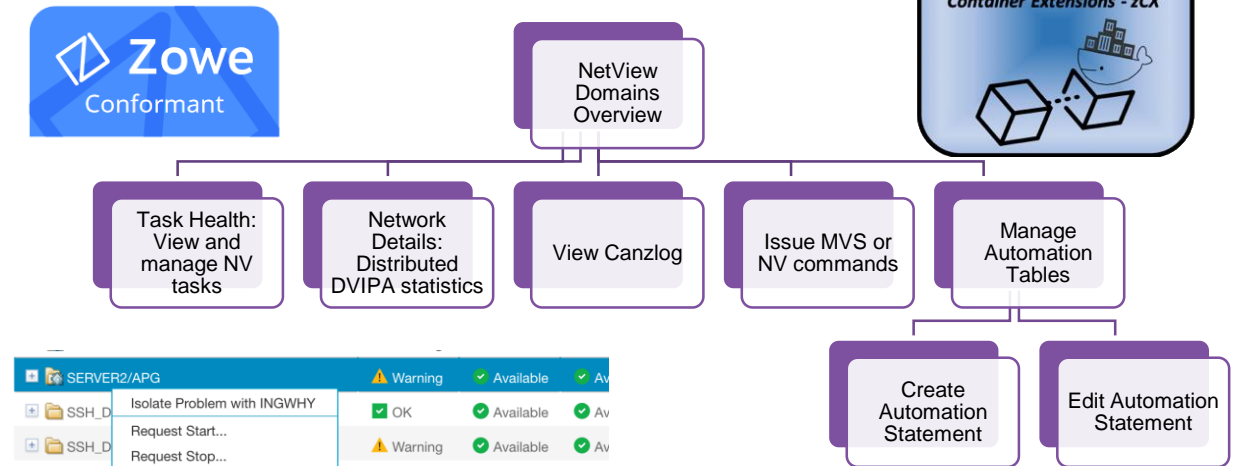
SMU running on native z/OS: SMU Docker image that can be deployed to a **z/OS Container Extension (zCX)** environment in z/OS V2.4

New dashboards and dialogs to view and work with **IBM Z NetView**

New dashboard that enables **operators to view and manage critical messages** and outstanding operator replies (**WTORs**).

Enhanced **System Automation group management** views

Capability to view consolidate event, threshold alarm data **in single Service Management Unite** health view dashboard **from up to six multiple OMEGAMON TEMS/TEPS** Server monitoring environments

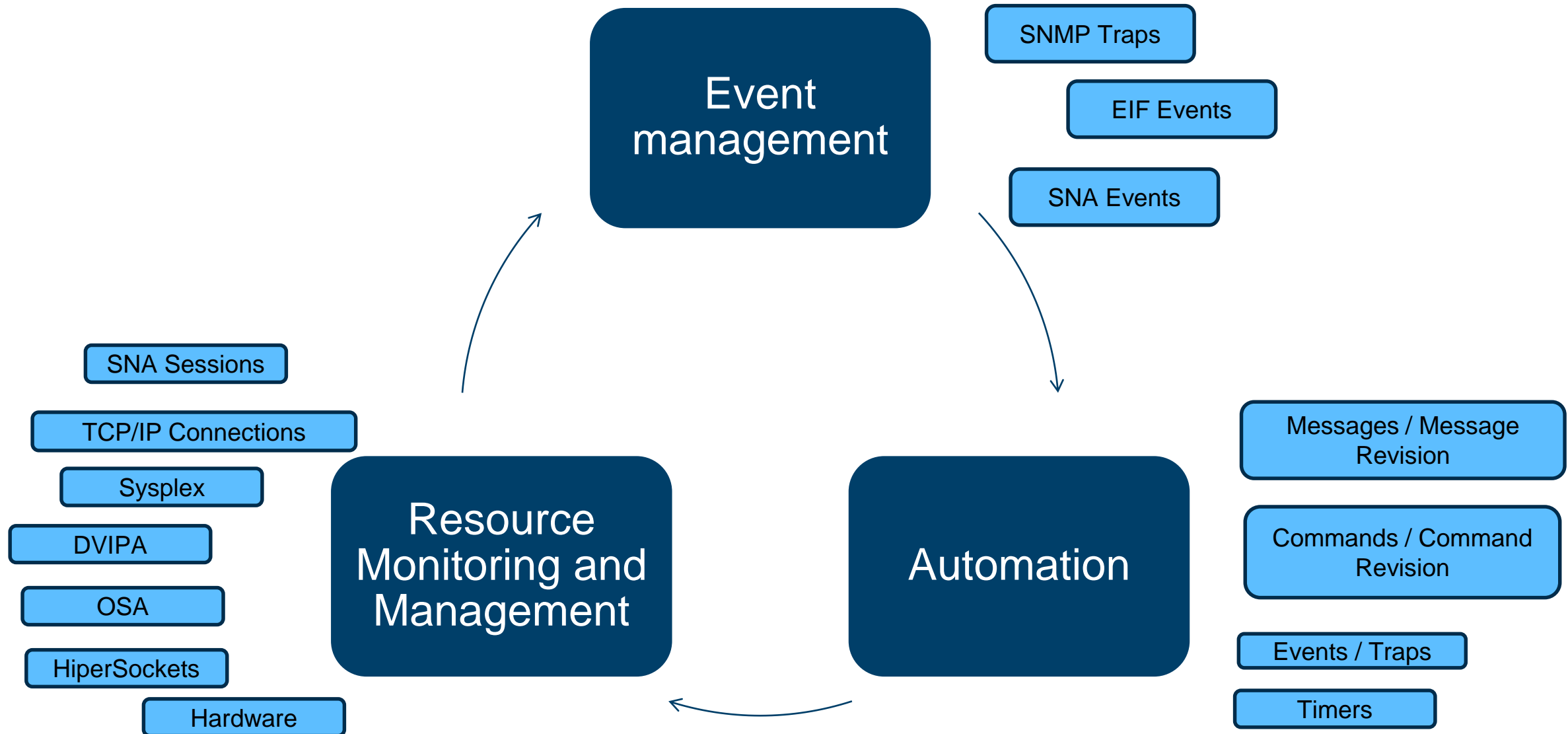


Reply ID	Status	Time	System Name	Job ID	Message ID	Message Text
163	Decision	11:32:20	KEYB		A0F606D	AUTOMATION PAUSED, ENTER OPTIONS OR 'R' (RE-DISPLAY) - DOMAIN IPXFH
159	Action	10:35:27	KEYB		DSI802A	IPXFH REPLY WITH VALID NCCF SYSTEM OPERATOR COMMAND
108	Action	12:41:04	KEYA		DSI802A	IPXFG REPLY WITH VALID NCCF SYSTEM OPERATOR COMMAND
070	Action	12:41:04	KEYC		DSI802A	IPXFI REPLY WITH VALID NCCF SYSTEM OPERATOR COMMAND
069	Information	11:32:40	KEYC	STC06812	DFS996I	'IMS READY' MFC1
060	Information	11:32:30	KEYB	STC06797	DFS996I	'IMS READY' MFB1
055	Information	11:32:35	KEYA	STC06809	DFS996I	'IMS READY' MFA1

NetView

Network Monitoring and Management as well as basis for System Automation

NetView at a glance



Z NetView V6.3

Formerly known as *IBM Tivoli NetView for z/OS*, it is **not only** a name change ...

... it is a **modernization** of IBM Tivoli NetView for z/OS in order to

- Open the product to **hybrid cloud application integration**
- Provide **modern and user-friendly interface** for junior operators and administrators
- **Enable analytics** on NetView data

October
1st



What's new in Z NetView V6.3



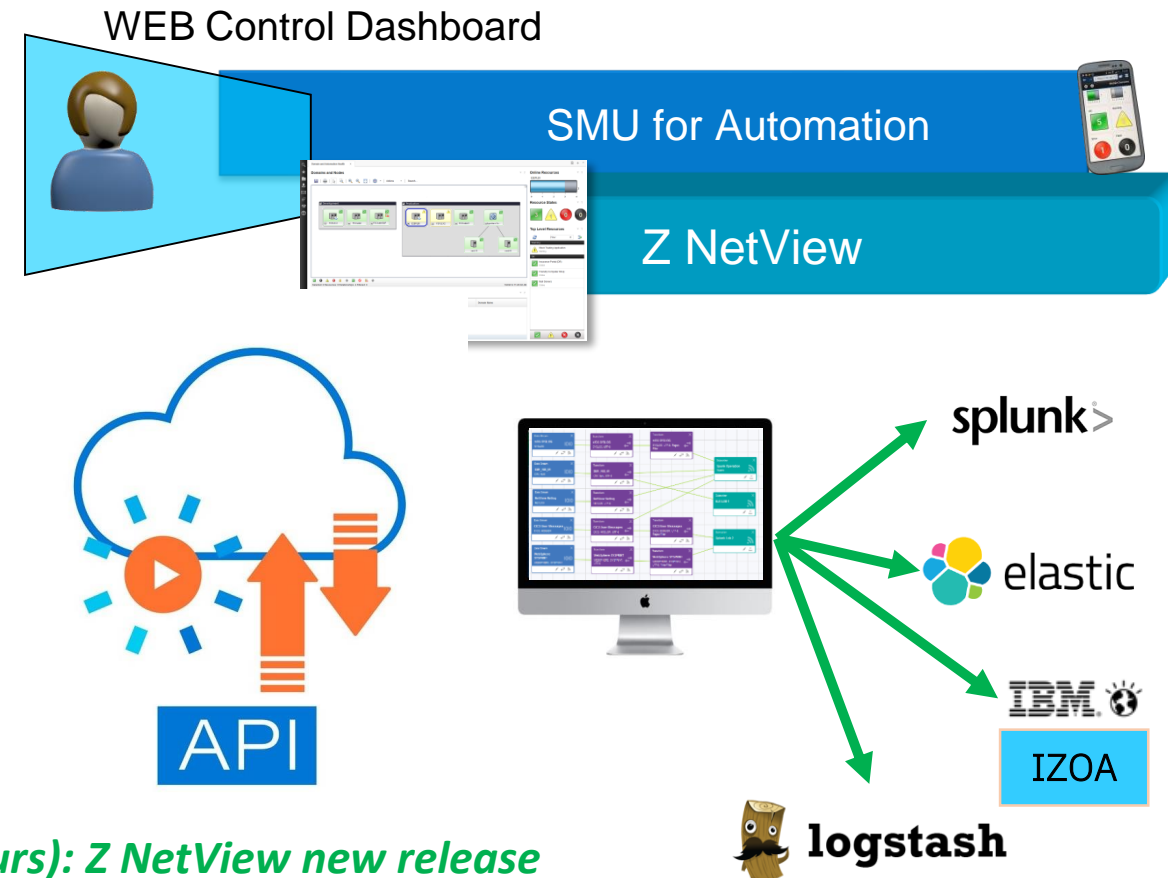
modernization of IBM Tivoli NetView for z/OS through



the exposure of **RESTful API** to interact with the product, gather data as manage Automation Table statements from your hybrid cloud application (with or without **Zowe**)

the extension of **Service Management Unite** for Automation with NetView specific health and detailed dashboards, DDVIPA dashboard and specific dialog for NetView administrator

the integration with **IBM Common Data Provider for z Systems** to enable data streaming to analytics platform



System Automation

Policy based automation for HW and SW

Z System Automation

- Hardware components
- Software products and applications
- Automated processes
- Messages and alerts

Best practices automation are provided out of the box:

- **244 applications and application classes**
- more than **600 additional messages**



MONITOR

- ✓ **Policy-based**
- ✓ **Goal-oriented**
- ✓ **Scalable**



CONTROL

- Take actions to control conditions
- Guarantee continuous availability of IT resources
- React to errors and unscheduled events

Policy-based automation allows to easily incorporate business goals into an automation framework, using simple policy statements, with no program scripting or special education required



Automation

Automate many repetitive and complex tasks

Goal-driven automation greatly simplifies operations



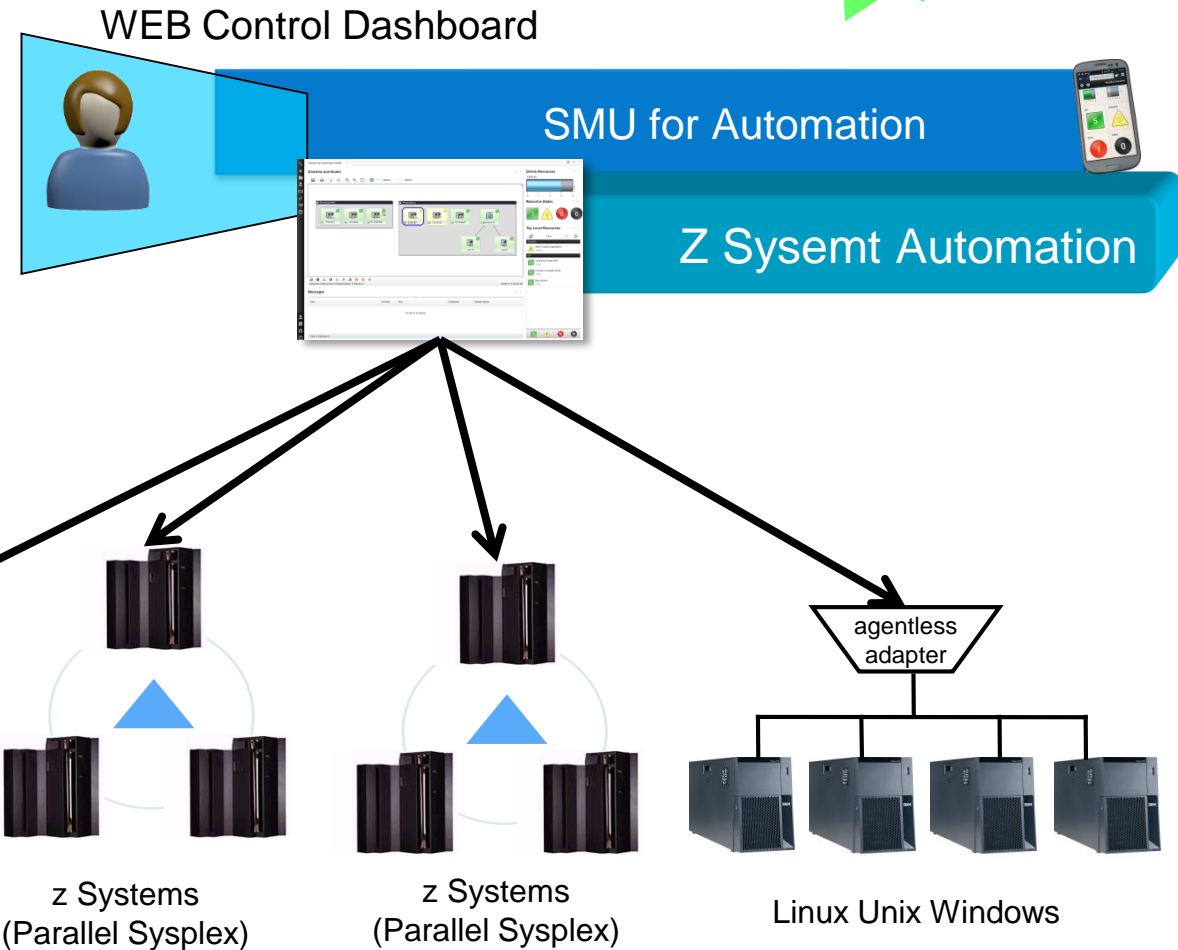
IBM Z System Automation 4.2

Full End-to-End automation to manage and automate **multi-tiered applications** running on **multiple z/OS sysplexes or on Linux, Unix and Windows servers** from **a single console** without having to manage the cross-platform dependencies

Introduction of **Dynamic Resources** concept: it enable a real **devOps** scenario with the possibility to define resources templates, that are instantiated @ runtime with a simple command (*no need to change/build belonging policy*).

IBM z15 exploitation: support for activating a temporary capacity record in support of **System Recovery Boost**

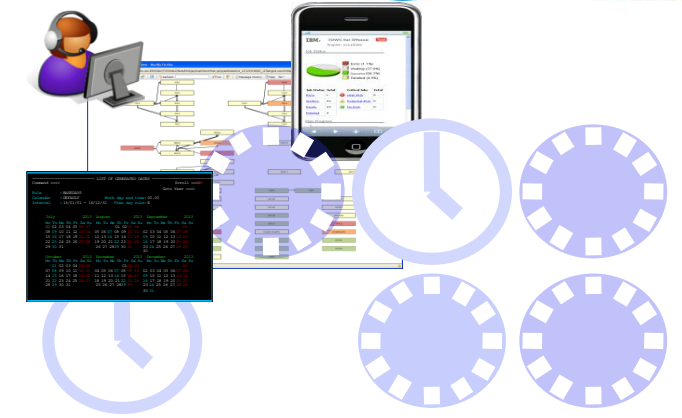
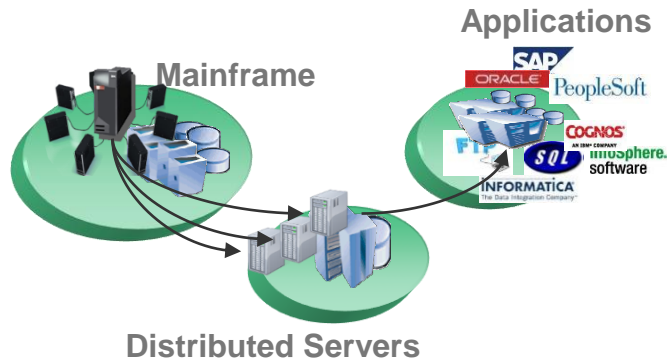
Usability improvements and modernization for **Group and Event management.**



Workload Scheduler

Batch Automation in a multi-cloud environment

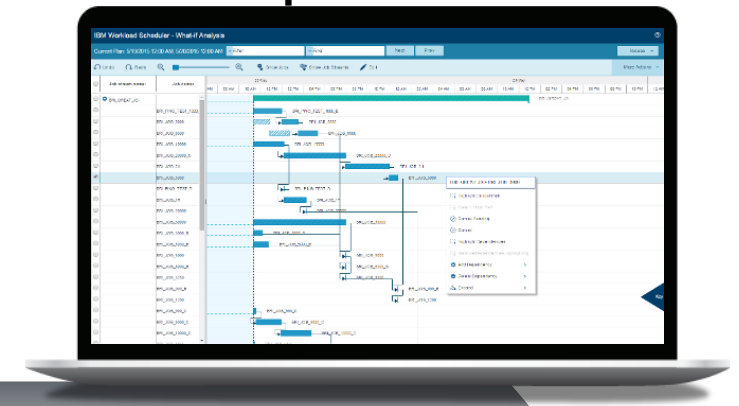
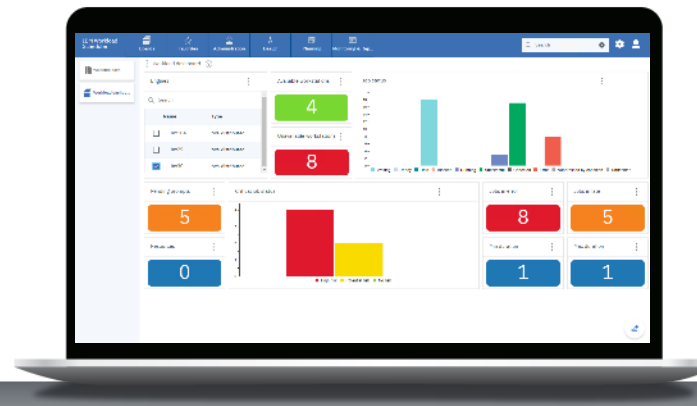
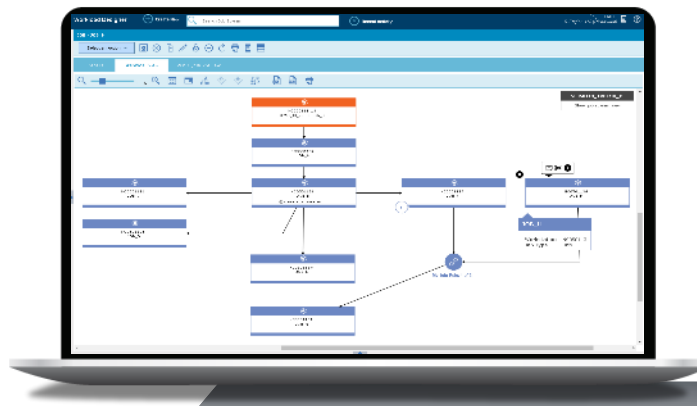
Z workload Scheduler



Connect & De-Risk

Control

Optimize



Connect & de-risk your Business Processes
(Design jobs & dependencies, through Graphical views, Plan execution policies against time & events conditions).

Control workload execution with Live Dashboards and graphical views, query-based monitoring views, and leverage embedded reporting and auditing.

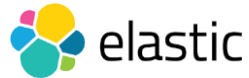
Optimize your workload execution with trends and predictive analysis, and track critical jobs and what-if simulations in intuitive experiences.

Z Workload Scheduler V 9.5

Analytics on Batch log:

Learn and optimize your scheduling with **analytics engines** like **Splunk** and **ElasticSearch**

splunk>



User Experience

improvements: enable business control



Additional time specifications to trigger automatic actions



Workload optimization:

Optimize the submission of jobs that are **urgent** or belong to a **critical path**



Time to Value improvements:

Deployment of Dynamic Workload Console as Docker image



Get the Best out of Containers: Manage workload in containerized applications



kubernetes

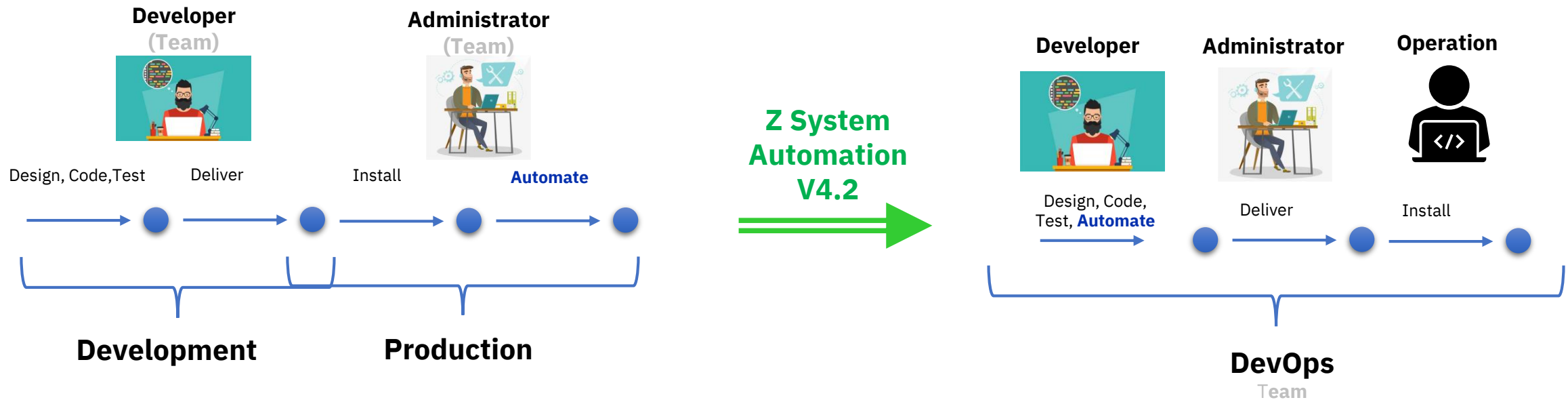
Use cases

Where I can leverage the new features?

Enterprises adopting devOps methodology



What: Introduction of **Dynamic Resources** concept that allows to define resources templates, that are instantiated @ runtime with a simple command
no need to change/build/distribute policy to automate a new resource



Benefit:

- Ability to quickly and safely react to change request
- No longer need to wait for change window to instantiate a new automated resource

Wednesday 13:45 - 14:45 Session OJ (Magny Cours): Z System Automation new release

Enterprises adopting z/OS V2.4 and/or z15

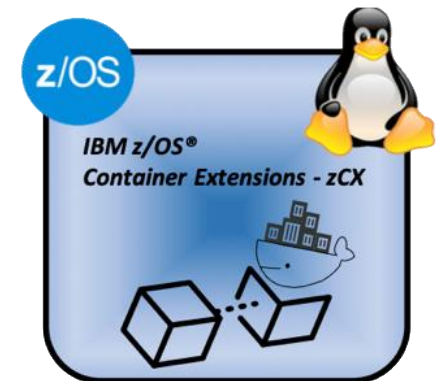


What:

- Day 1 **support** for the **new hardware**
- **SMU running on native z/OS:**
 - SMU Docker image that can be deployed to a **z/OS Container Extension (zCX)** environment in z/OS V2.4
- System Automation **IBM z15 exploitation:**
 - support for *activating a temporary capacity record* in support of **System Recovery Boost**

Benefit:

- Maintain **operational control** in the data center with the **new z15 hardware/software**, leveraging the **latest feature** made available
- **No longer need to provision a Linux Server** to run SMU (up to **months** of saving)
 - SMU managed completely from Z IT team (*Linux skills no longer required*)



Wednesday 11:45 - 12:45 Sessions OH & NH (Catalunya): Service Management Unite

Wednesday 13:45 - 14:45 Session OJ (Magny Cours): Z System Automation new release

Enterprises facing generational shift



*Clients that are concerned about the **cost of running IT Ops on Z** and/or facing with **generational shift***

What:

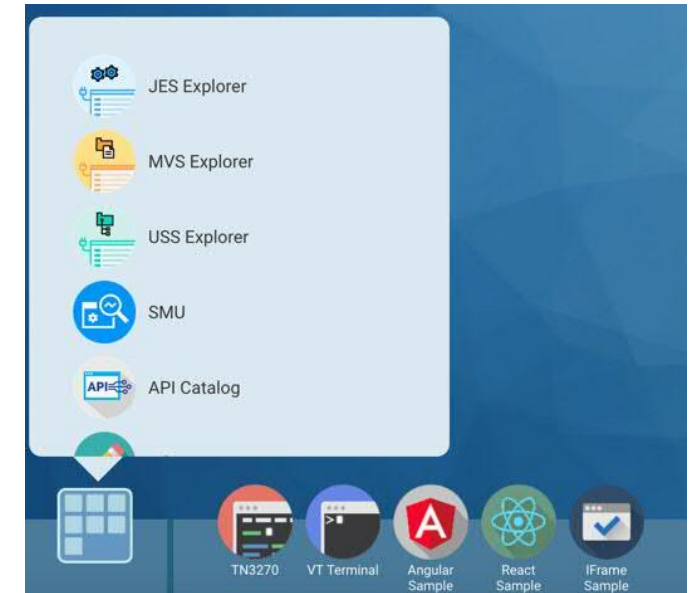
- Provide **modern** and **intuitive** user interface to Service Management tools: **Service Management Unite**
- SMU plugin in **ZOWE** WebDesktop (*Zowe Conformant certified*)
- NetView **RESTful APIs** (*Zowe Conformant certified*)
 - For easy integration in Hybrid cloud applications

Benefit:

- Leveraging **open source components** that are **easier to learn and standardized**
- RESTful APIs to **enable integration** with hybrid cloud applications
- Potential cost saving from **MLC - OTC** conversion for NetView moving to one of the Suites (Service Automation Suite or Service Management Suite)

Wednesday 11:45 - 12:45 Sessions OH & NH (Catalunya): Service Management Unite

Thursday 9:00 - 10:00 Session OM (Magny Cours): Z NetView new release



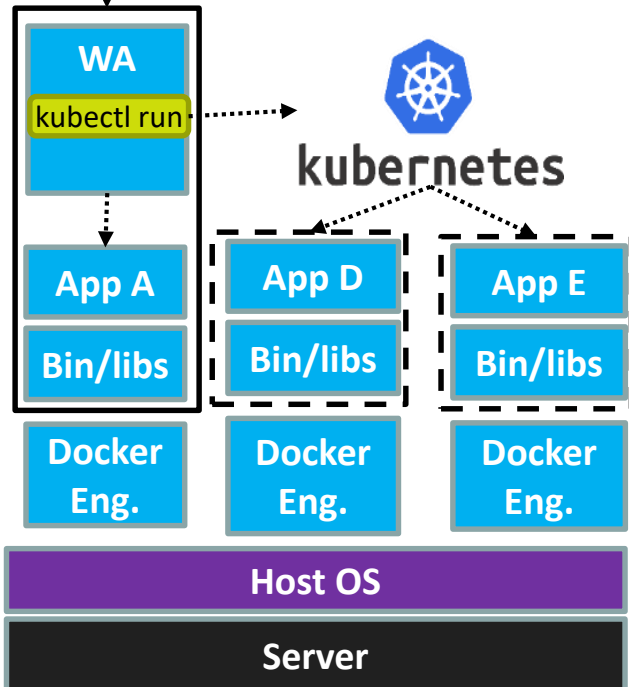
Enterprises looking to homogeneous management of heterogeneous environment

IZWS Controller



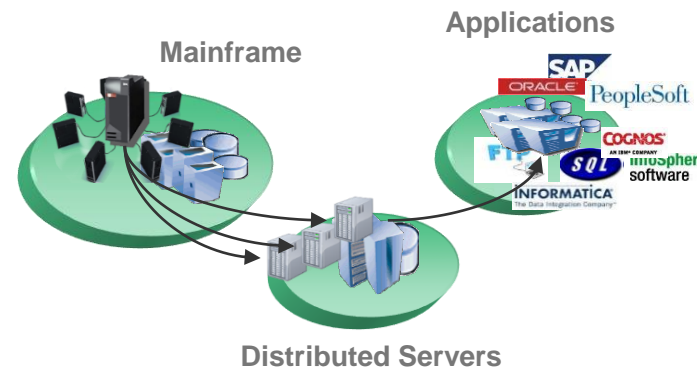
What:

- **Full End-to-End system automation** to manage and automate **multi-tiered applications** running on *multiple z/OS sysplexes or on Linux, Unix and Windows servers* from **a single console (Service Management Unite)**
- **Full End-to-End Batch automation and control** across multi-cloud environment, including **containerized and not-containerized** applications from Z.

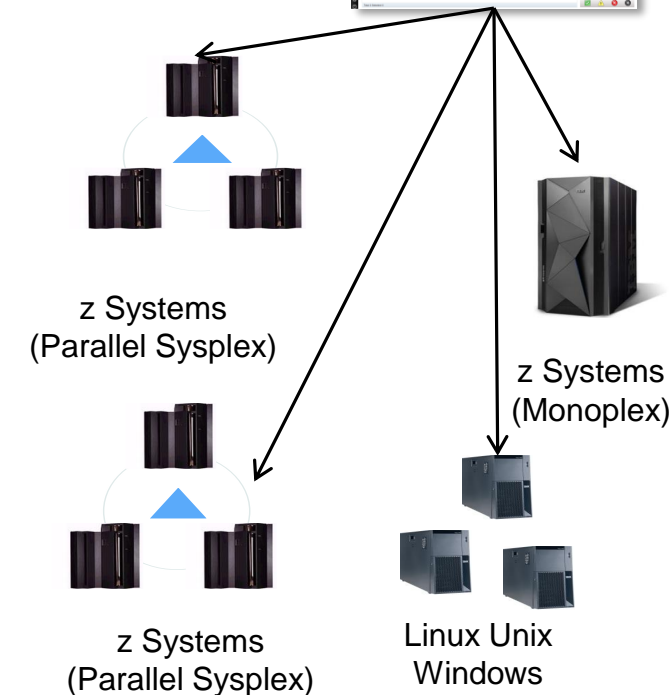
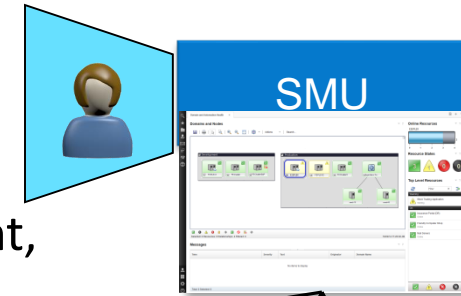


Benefit:

- Ability to manage **multi-cloud and end-to-end environment from a single point of control (SMU)**
- Ability to automate and control **batch execution across multi-cloud environment from Z**



WEB Control Dashboard






Please submit your session feedback!

- Do it online at <http://conferences.gse.org.uk/2019/feedback/oa>
- This session is **OA**



1. What is your conference registration number?


 This is the three digit number on the bottom of your delegate badge

2. Was the length of this presentation correct?

 1 to 4 = "Too Short" 5 = "OK" 6-9 = "Too Long"


1 2 3 4 5 6 7 8 9

3. Did this presentation meet your requirements?

 1 to 4 = "No" 5 = "OK" 6-9 = "Yes"

1 2 3 4 5 6 7 8 9

4. Was the session content what you expected?

 1 to 4 = "No" 5 = "OK" 6-9 = "Yes"

1 2 3 4 5 6 7 8 9

