CA Vantage SRM

Mainframe storage administration for the modern users

Marek Stych
CA Technologies

November 2018
Session DM

Agenda

- CA VANTAGE SRM INTRODUCTION
- ENHANCED SUPPORT FOR IBM SYSTEM STORAGE DS8870, DS8880
- OPEN REST API FOR VANTAGE SRM
- WEB CLIENT ENHANCEMENTS

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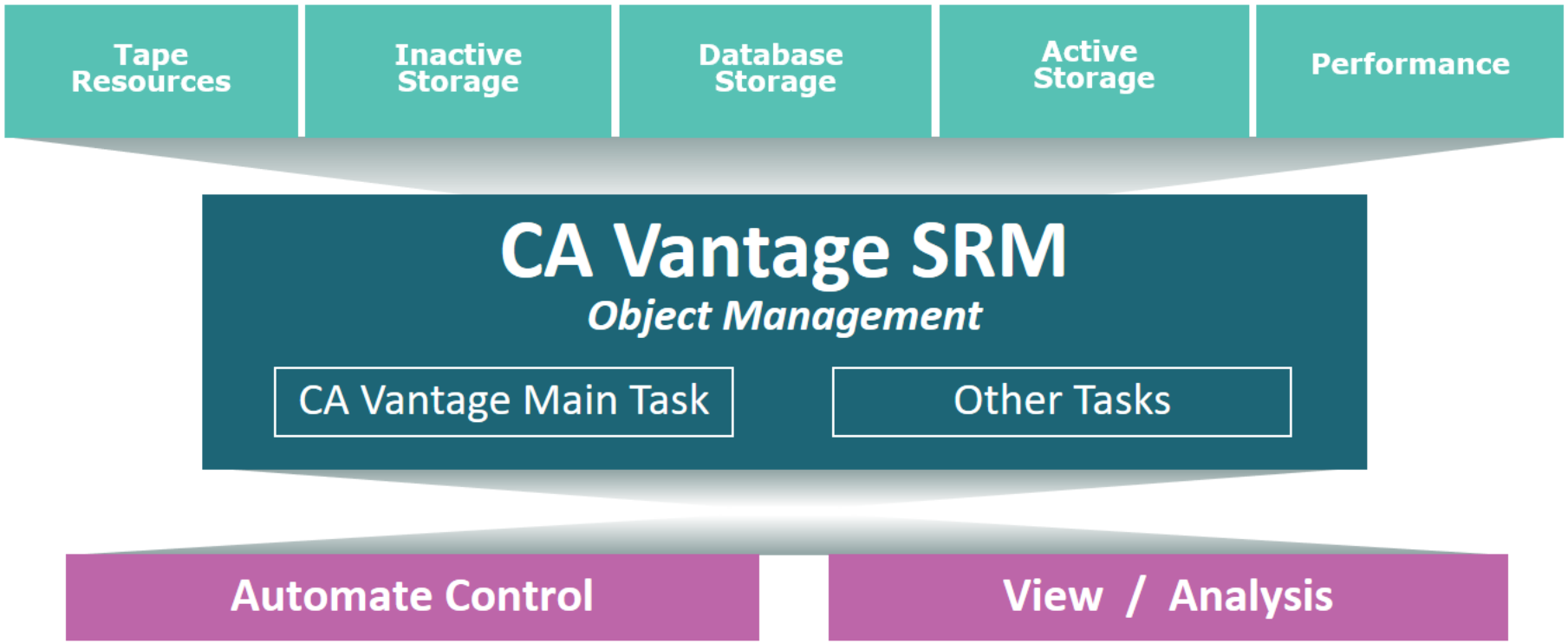
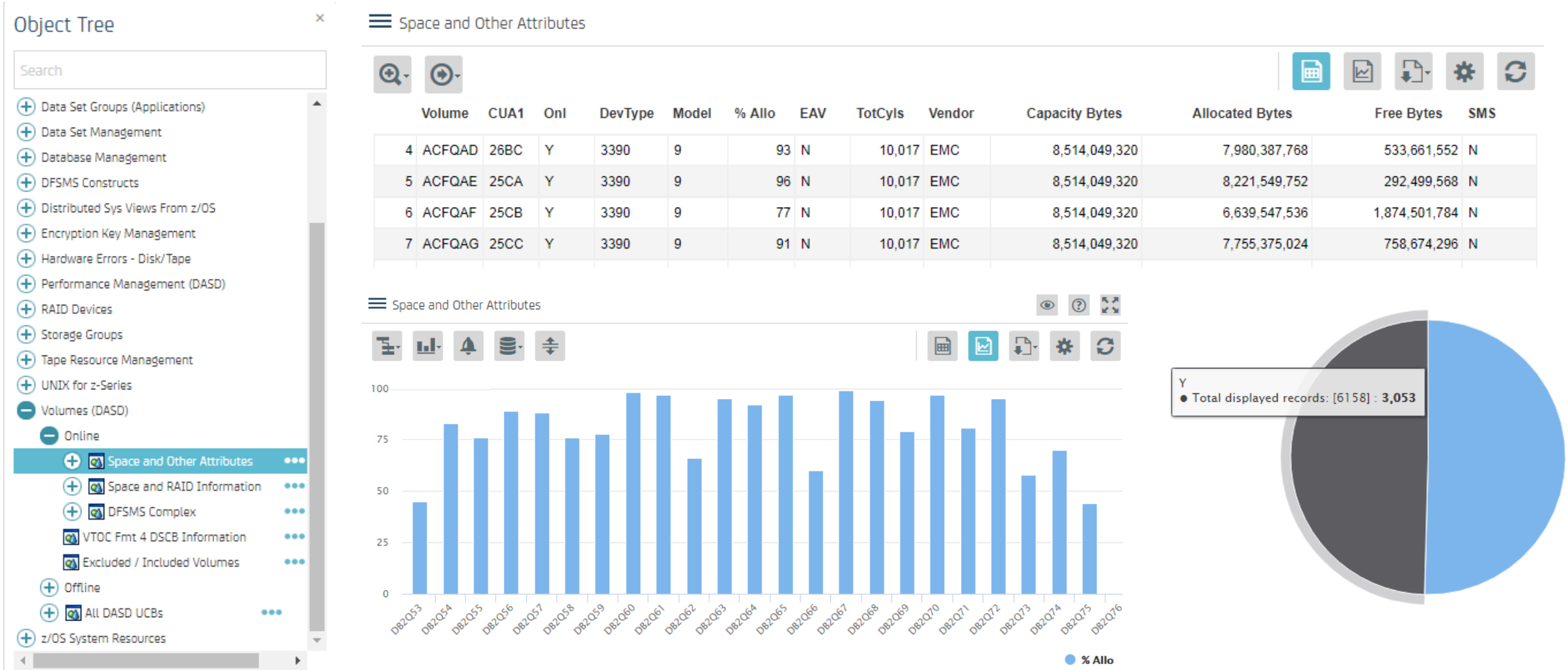
CA Vantage Storage Resource Manager



Object Management



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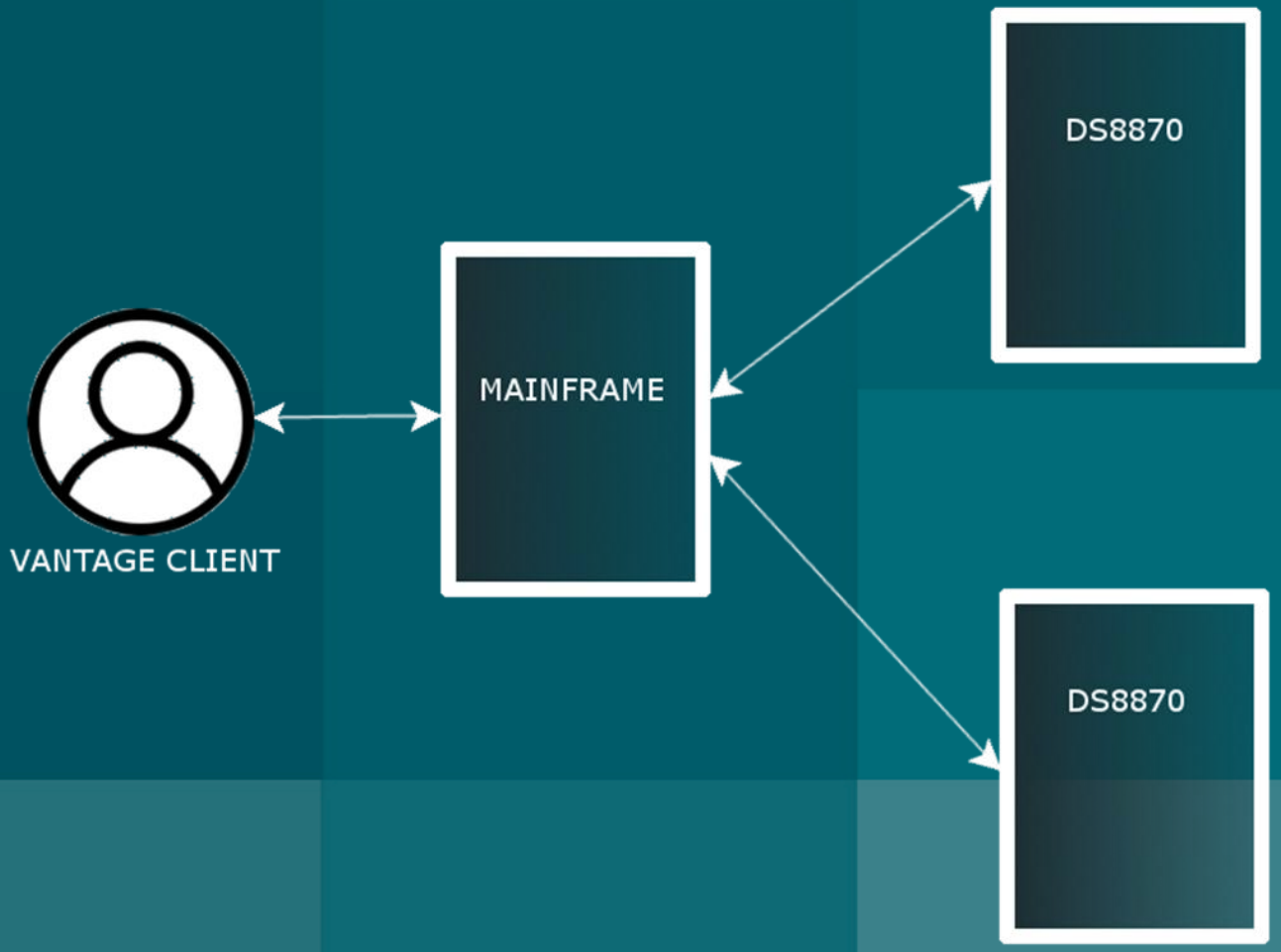
ENHANCED support for IBM System Storage DS8870, DS8880

Motivation:



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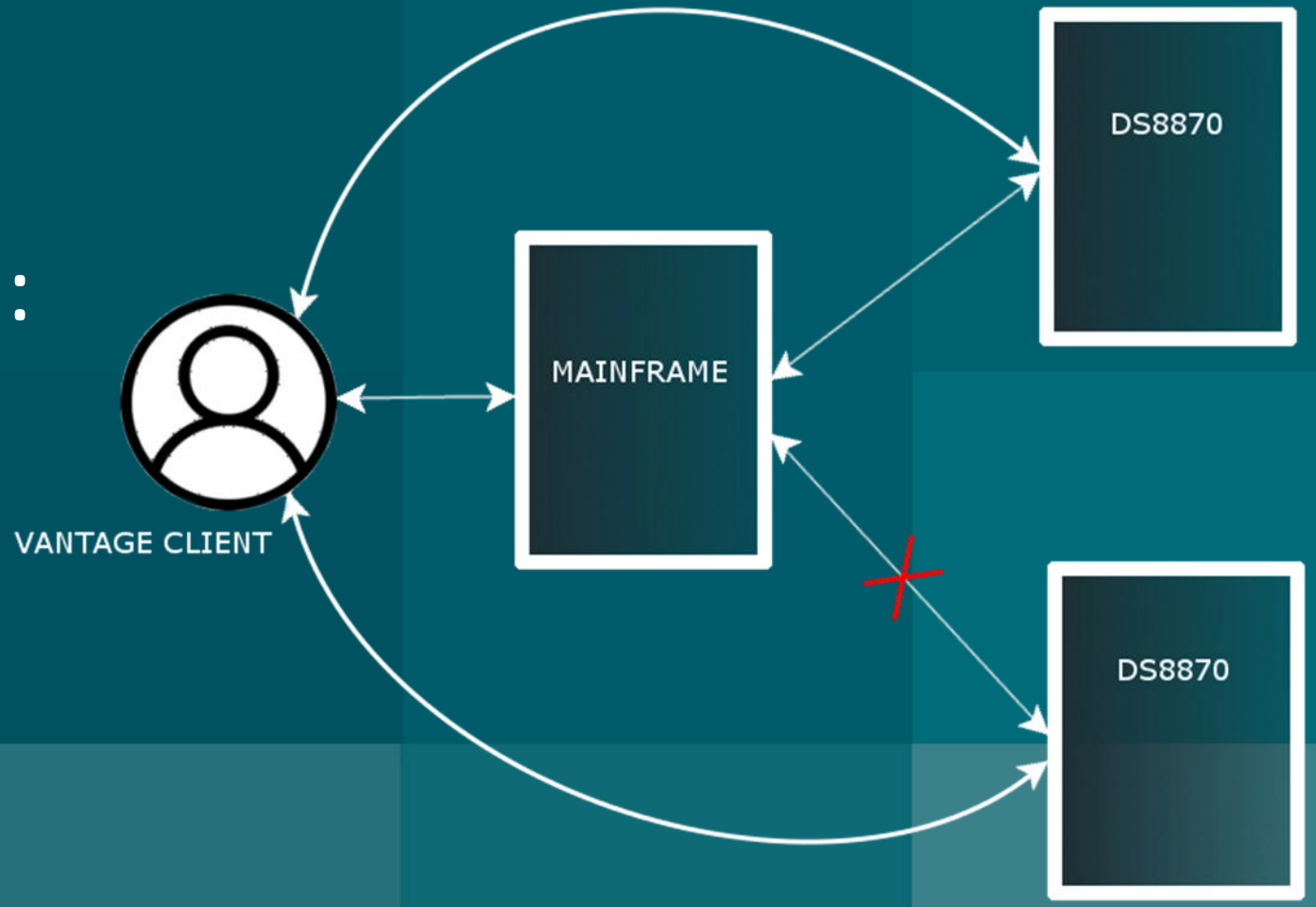

NEW DATA OBJECTS IN VANTAGE

DS88XX Boxes

- Box Serial Number
- Box Model Number
- Microcode Release
- IP Address and Port
- Box Capacity
- Box Allocated Capacity
- Box Free Capacity
- Box Raw Capacity

DS88XX Volumes

- Volume Name
- Channel Unit Address
- Parent Box
- Pool ID
- Capacity [Cylinders]
- Storage Type CKD / FB
- Tier [High Capacity / Nearline / Enterprise]
- Easy Tier Managed [managed / non-managed]
- Thin Provisioning [None, Ese, Tse]

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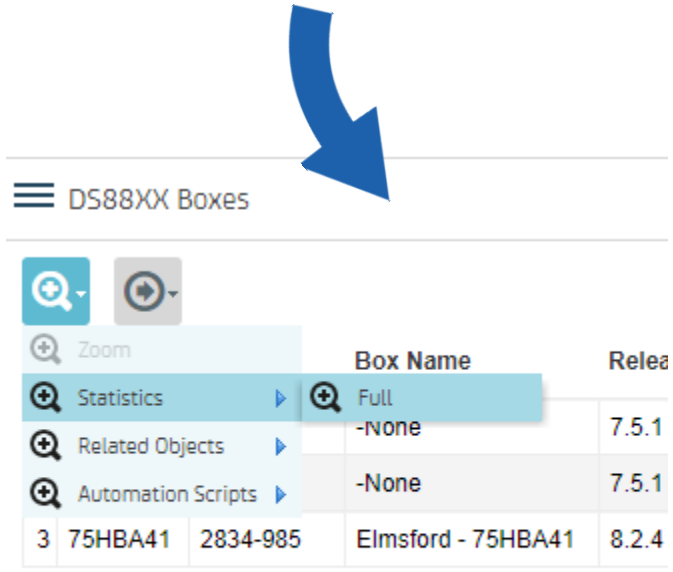
NEW DATA OBJECTS IN VANTAGE

DS88XX Boxes

	Serial	Model	Box Name	Release	State	Capacity	Allocated	Free	Raw	Type	IP	Port
1	75CWC11	2424-961	-None	7.5.1	ON	6,347,773	5,451,903	895,869	9,600,000	DS8	usefst08	8452
2	75CPK61	2424-961	-None	7.5.1	ON	6,347,773	5,469,947	877,826	9,600,000	DS8	usefst09	8452
3	75HBA41	2834-985	Elmsford - 75HBA41	8.2.4	ON	197,327,172	180,774,426	16,470,384	240,000,000	DS8	10.160.101.36	8452



(Statistics) DS88XX Boxes

	Field Header	Total	Average	Minimum	Maximum
1	Box Net Capacity	210,022,718	70,007,572	6,347,773	197,327,172
2	Box Allocated Capacity	191,696,276	63,898,758	5,451,903	180,774,426
3	Box Available capacity	18,244,079	6,081,359	877,826	16,470,384
4	Box Raw Capacity	259,200,000	86,400,000	9,600,000	240,000,000

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NEW DATA OBJECTS IN VANTAGE

DS88XX Pools

- Pool ID
- Pool Name
- Parent Box ID
- Type (CKD / FB)
- Capacity
- Allocated Capacity
- Free Capacity
- Overprovisioning ratio
- Tier type [Enterprise / Nearline / SSD]

DS88XX LSS

- Logical Subsystem ID
- Parent Box ID
- Volume Count
- PPRC Consistency Group
- Type [CKD / FB]

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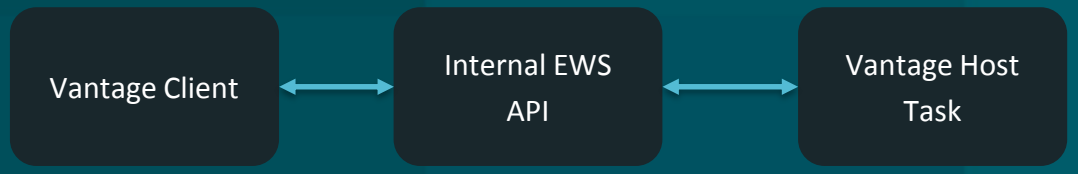
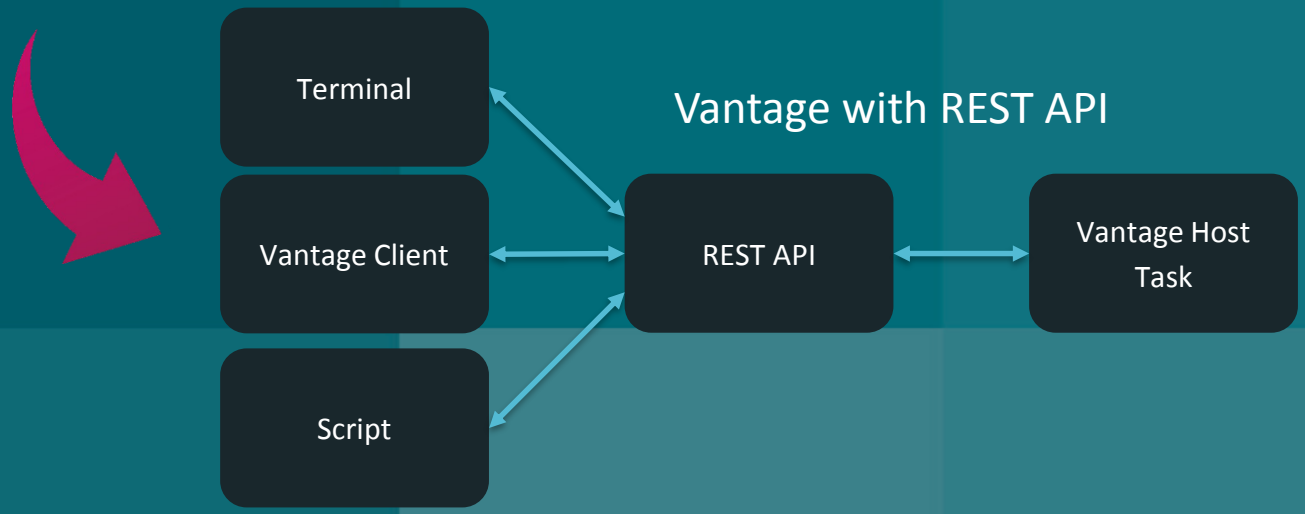
VANTAGE REST API - Introduction

- Modernization
- Faster development of Graphical User Interfaces
- Using Vantage without Graphical User Interface

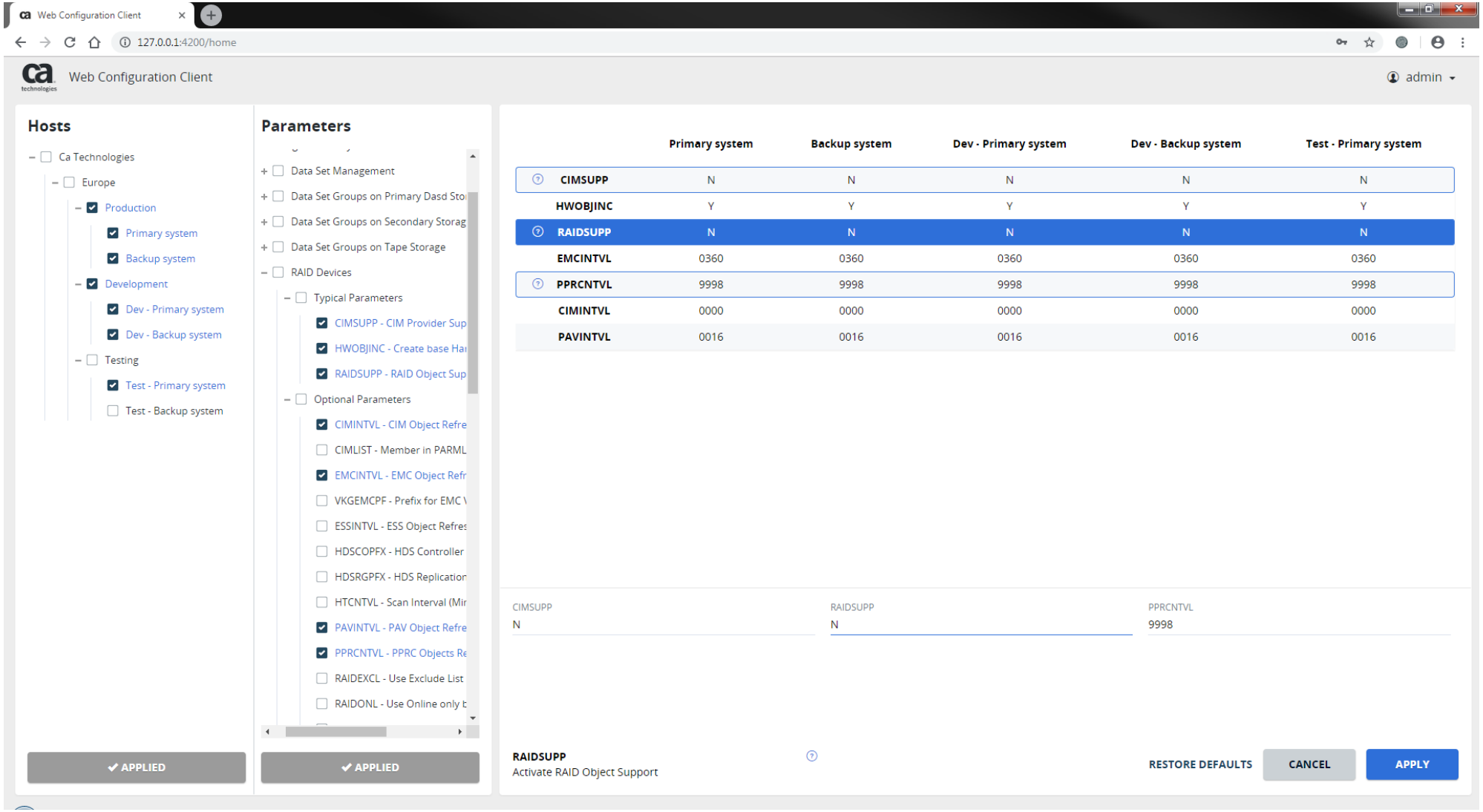


Vantage with Internal API



Vantage with REST API

HOST CONFIGURATION CLIENT APPLICATION



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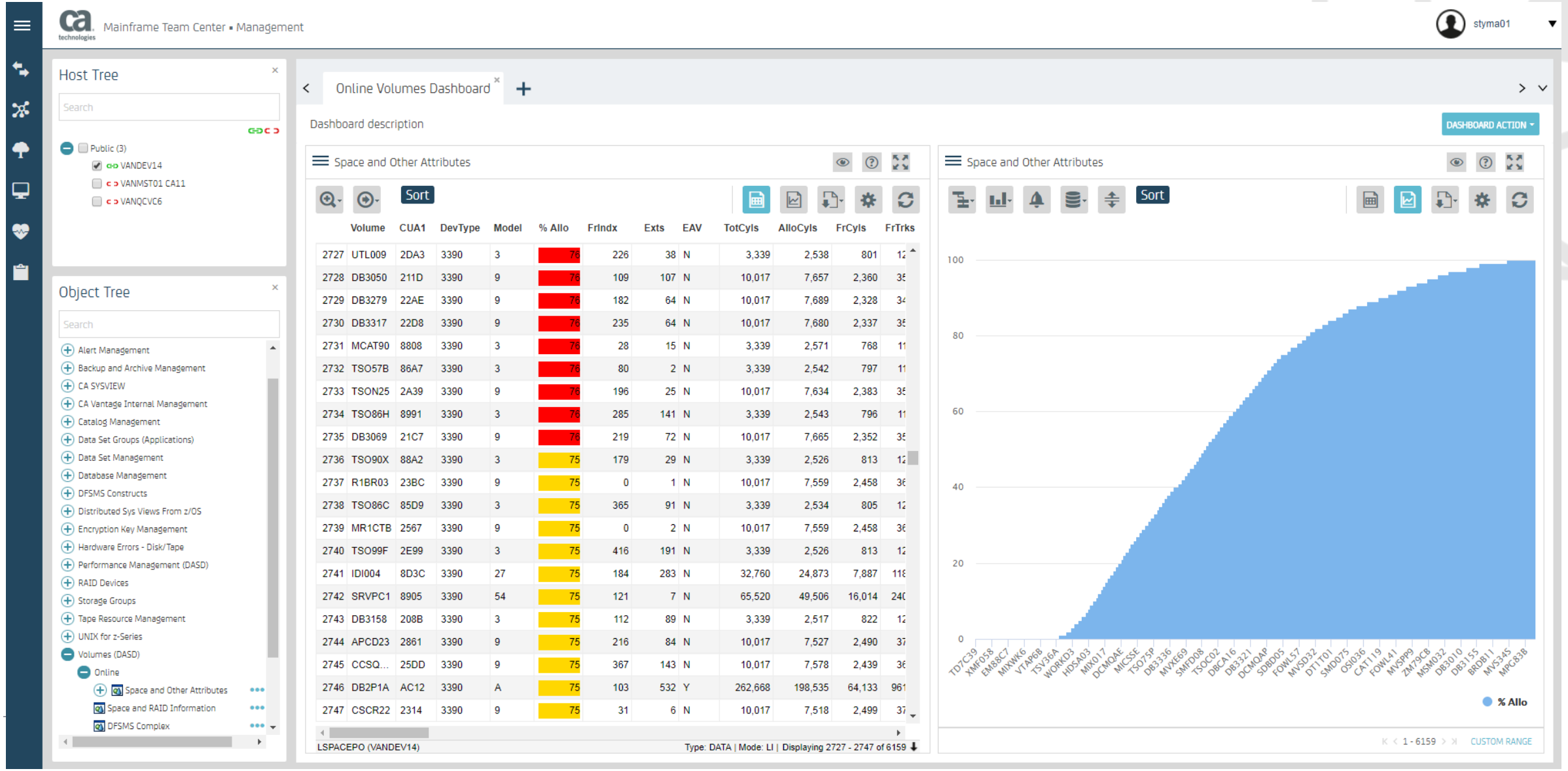
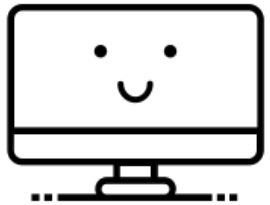
VANTAGE WEB UI INTRODUCTION



VANTAGE WEB UI ENHANCEMNT

EXPERIENCE
IS EVERYTHING



AUTOMATION

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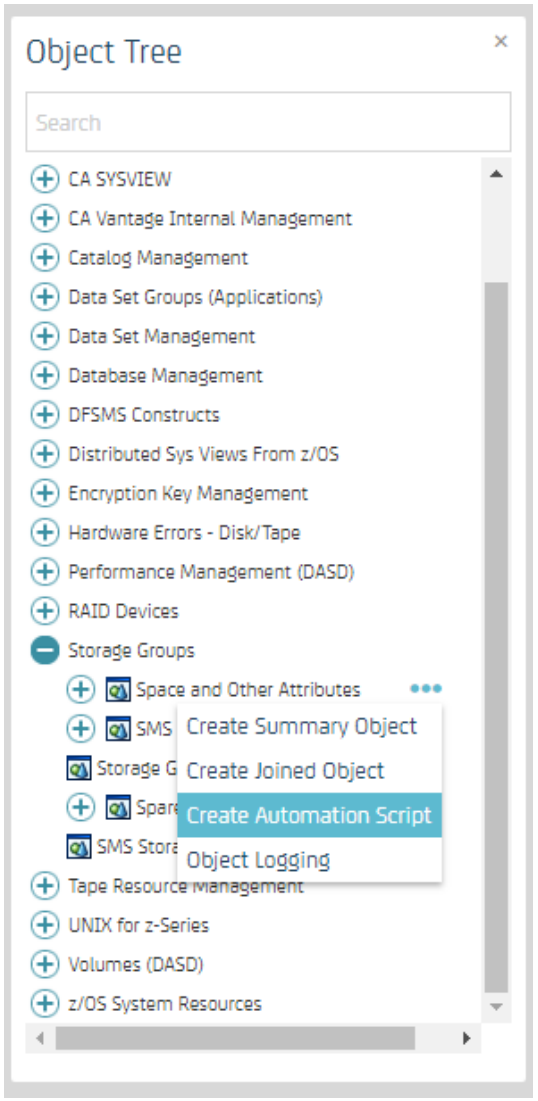
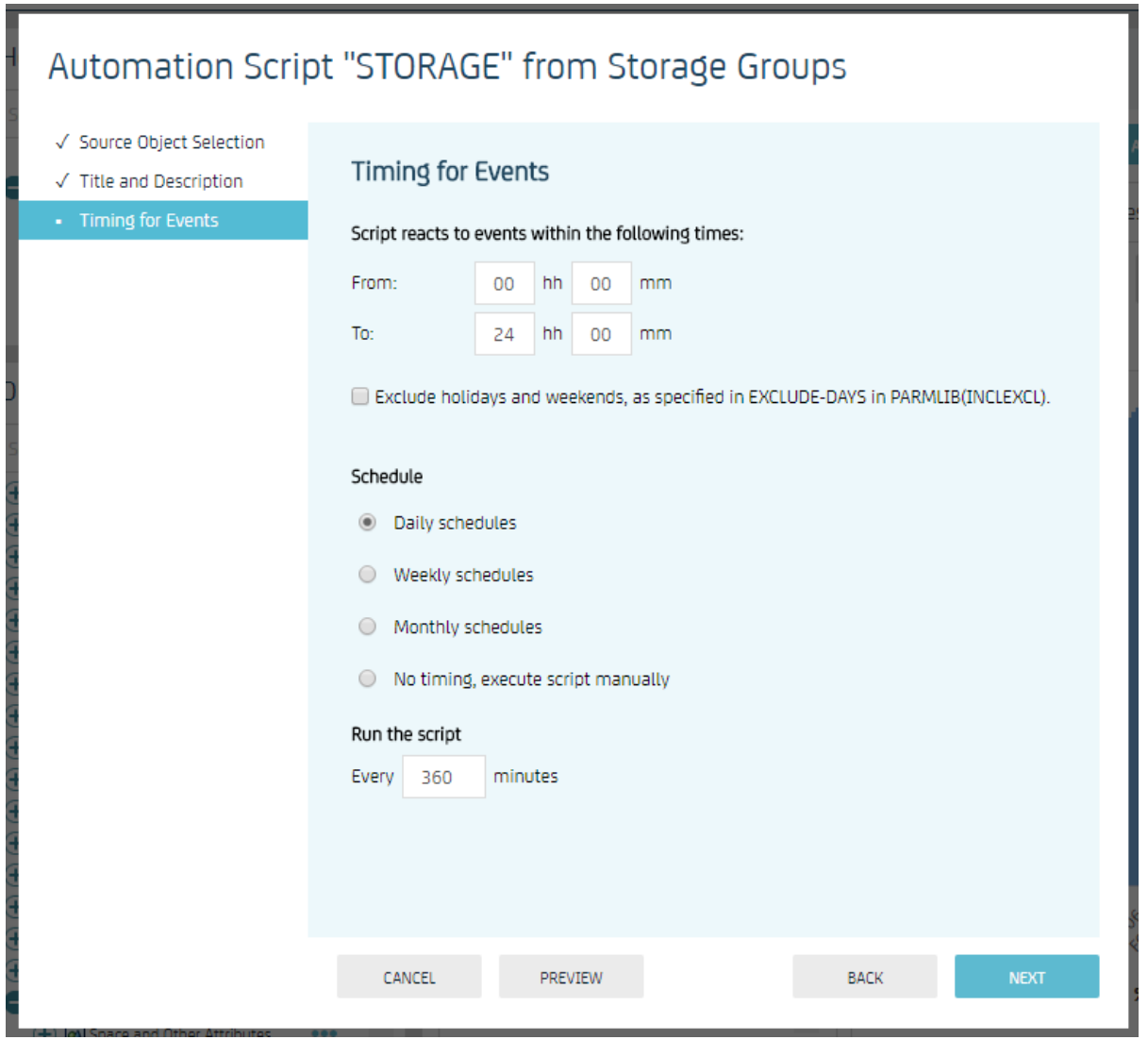
WEB UI AUTOMATION - INTRODUCTION

WEB UI AUTOMATION





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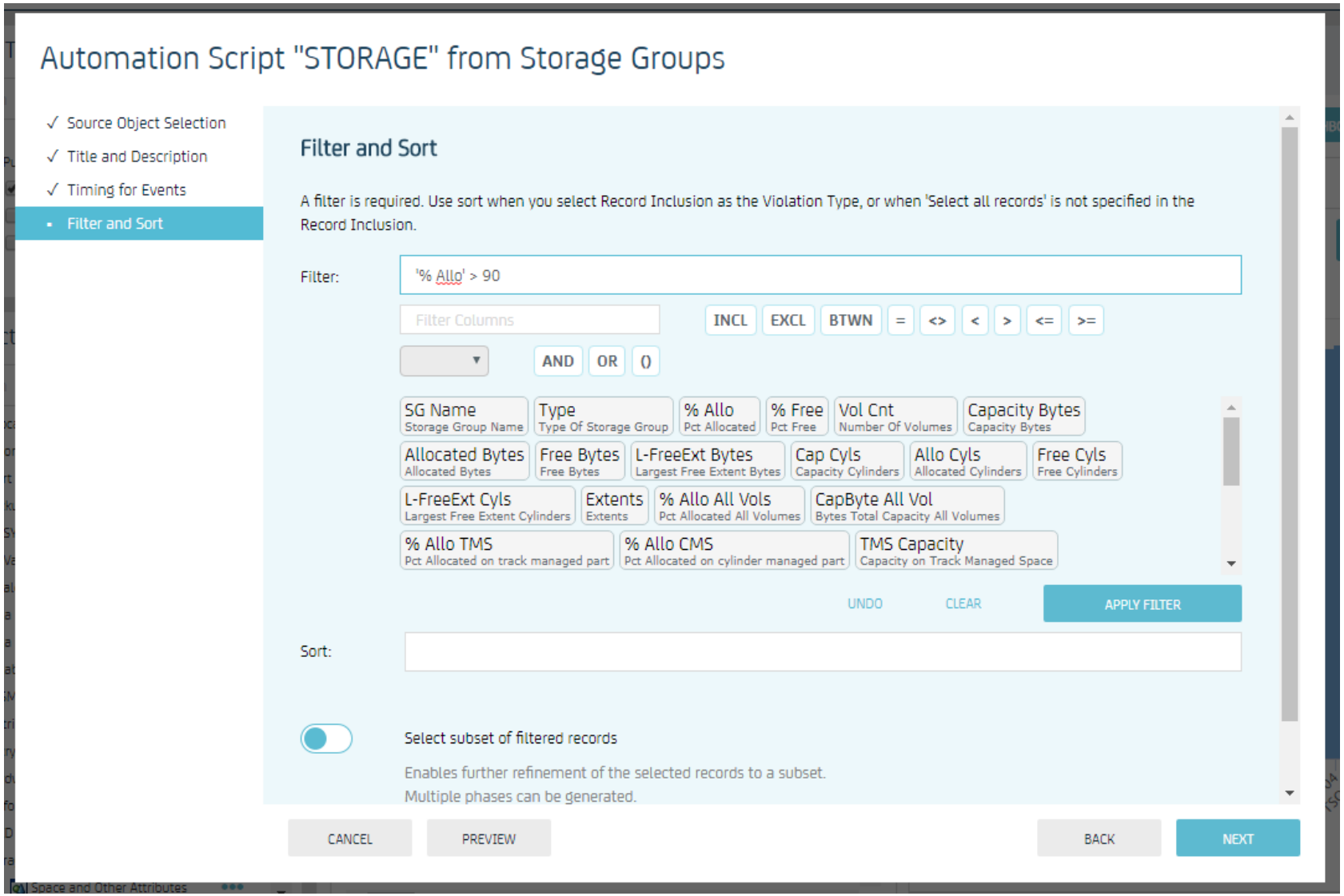

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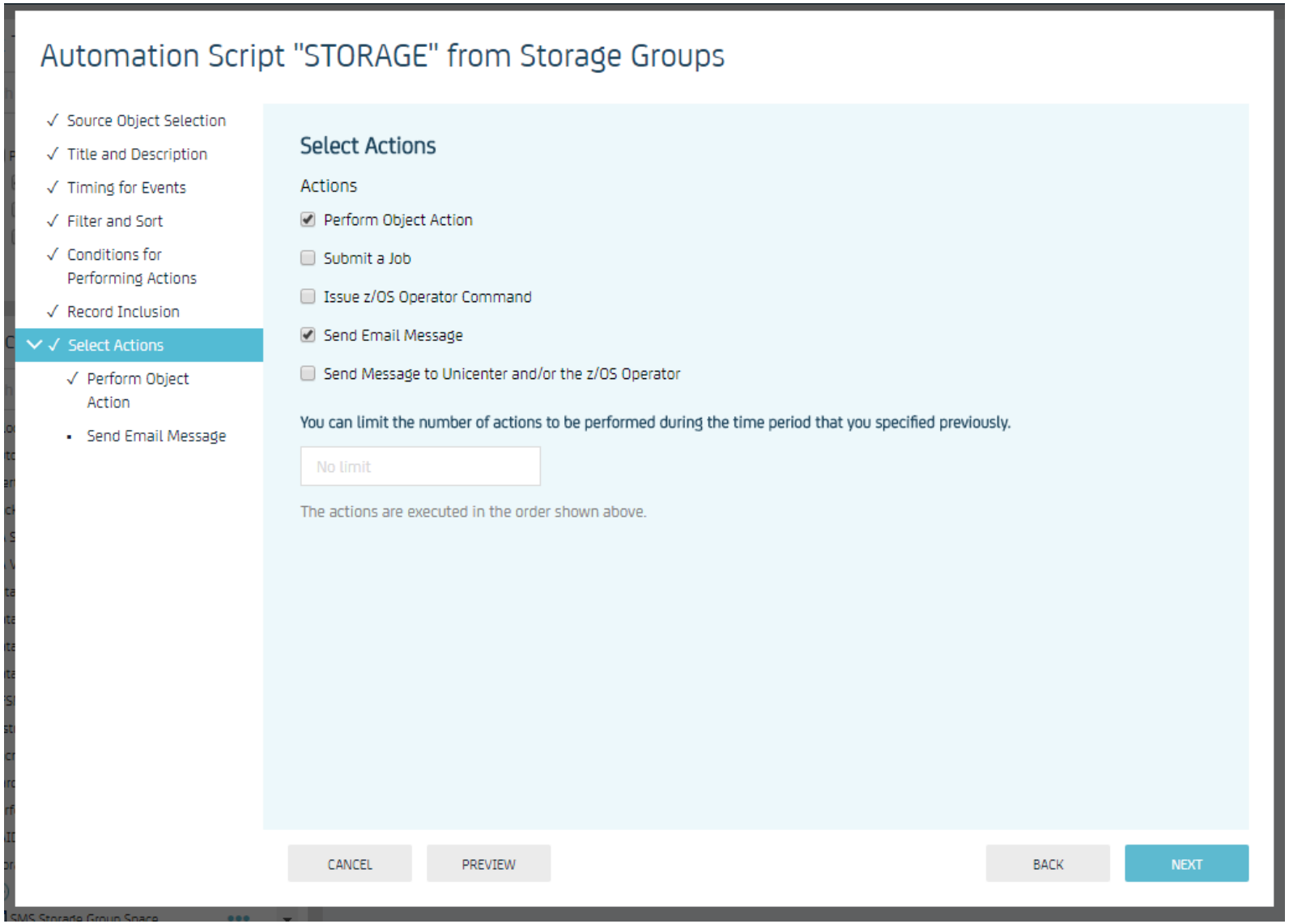

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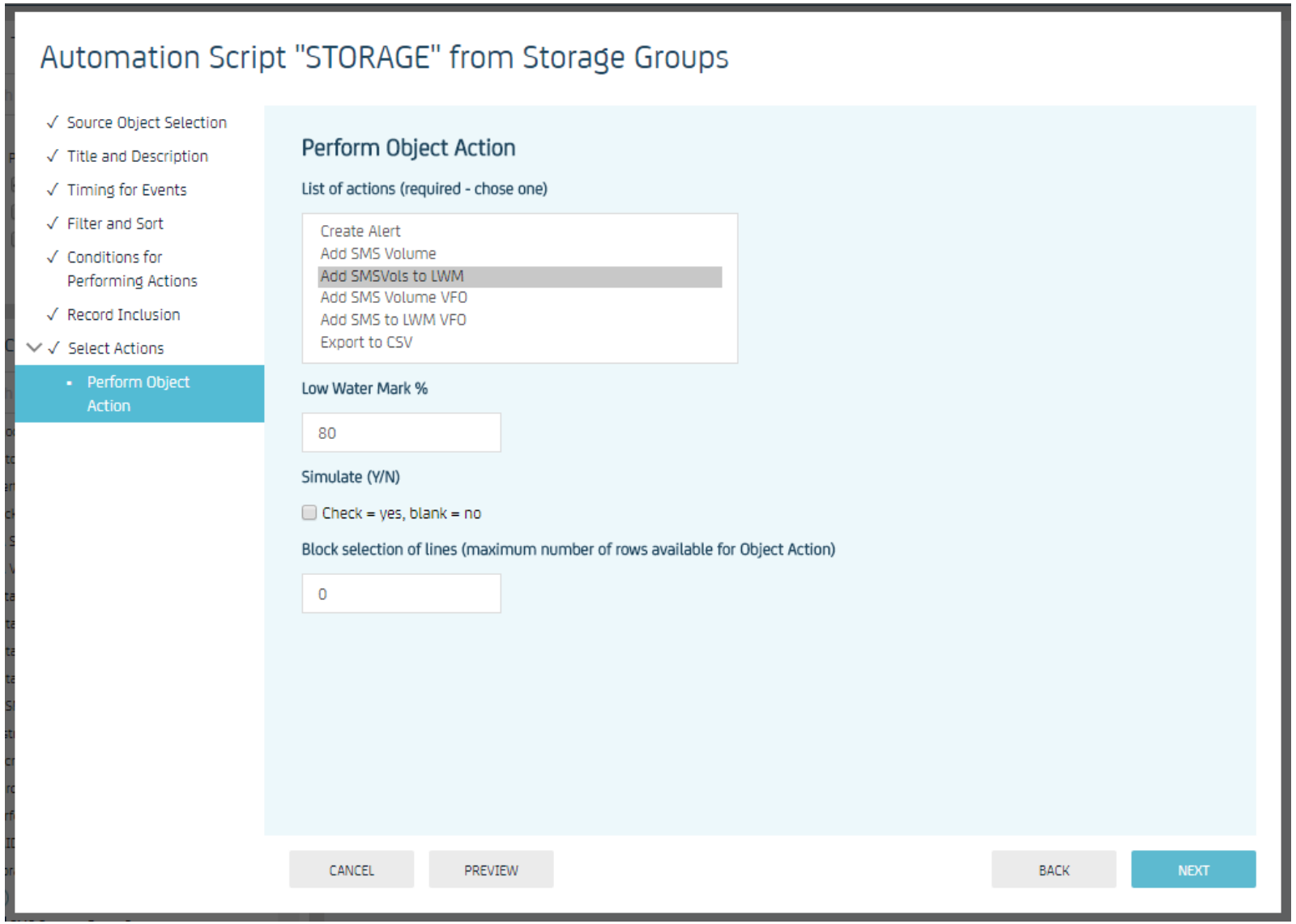

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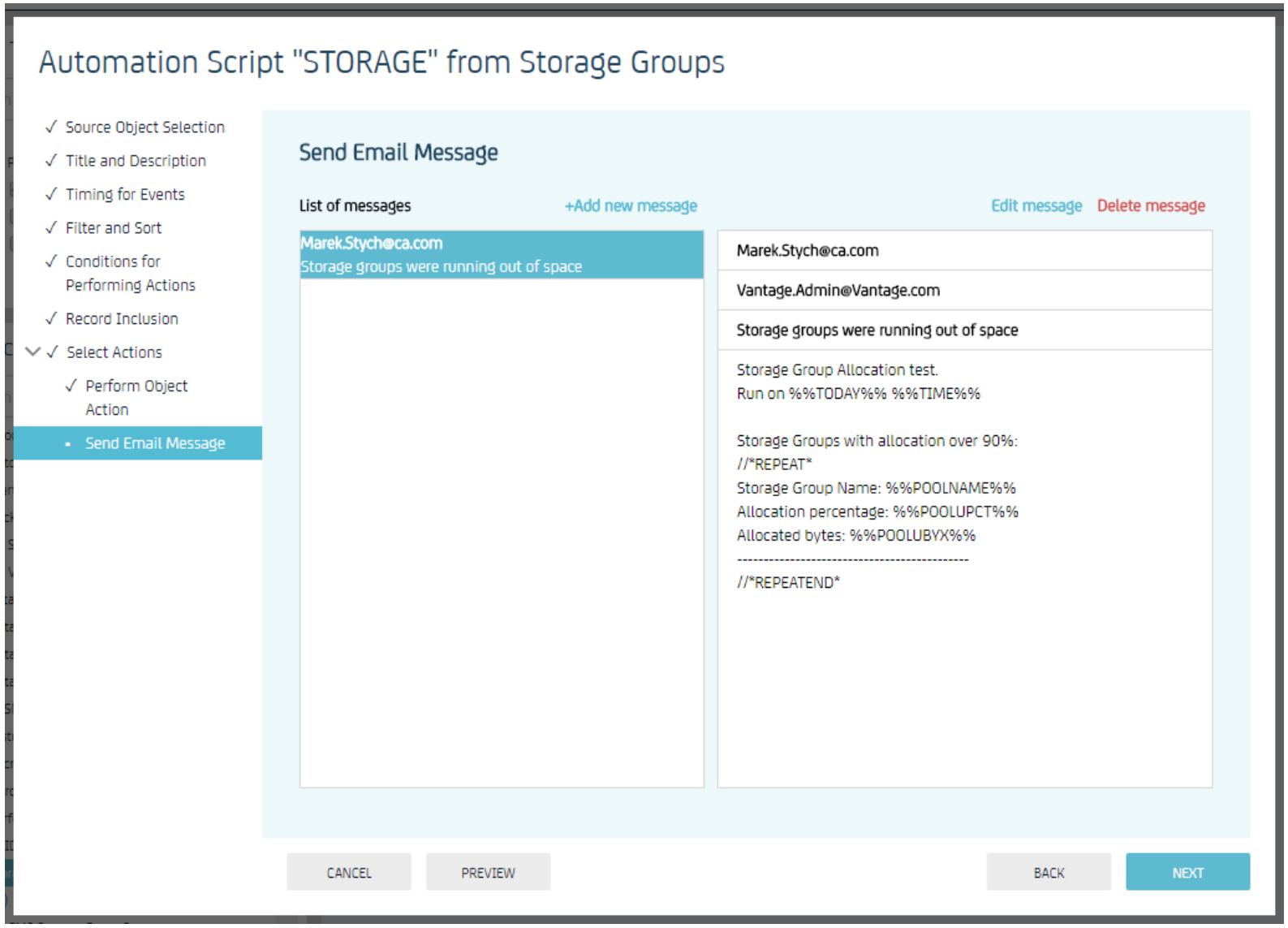

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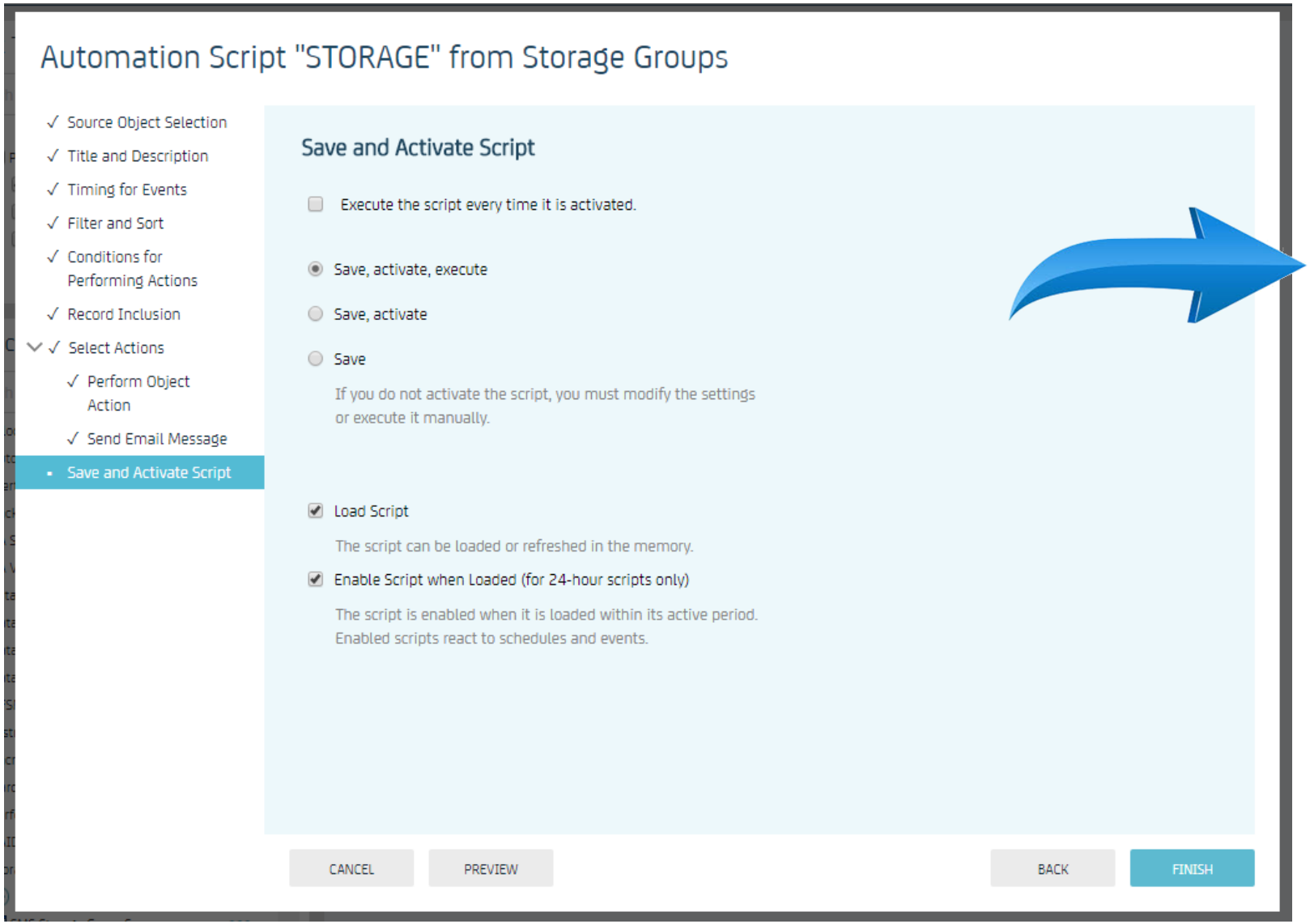

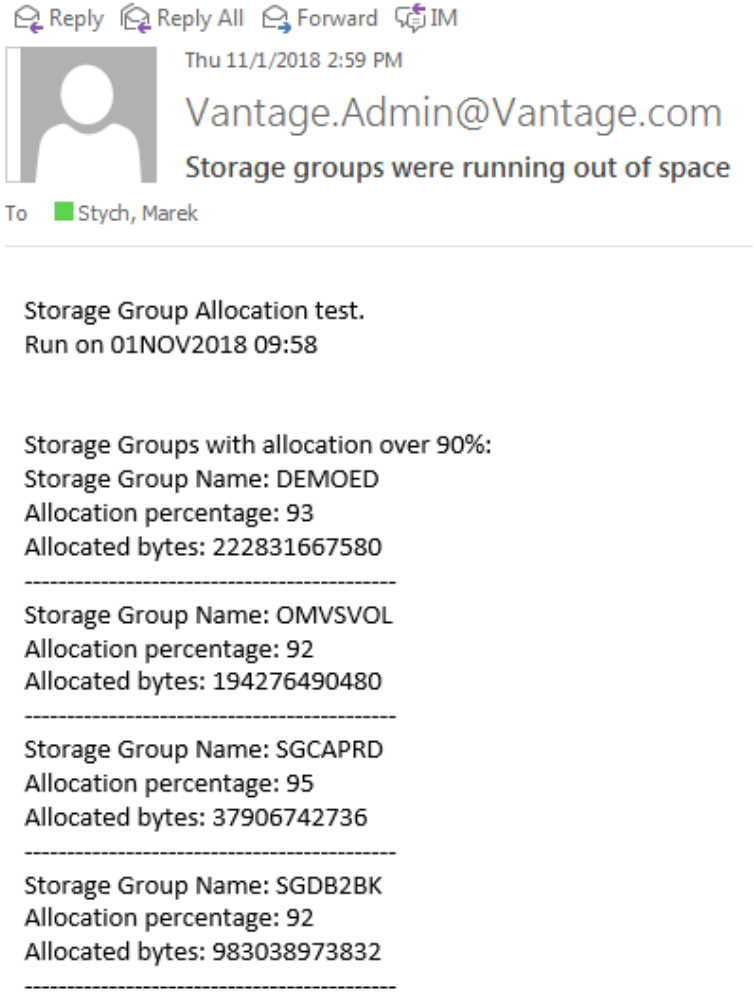

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VANTAGE WEB UI ENHANCEMNT

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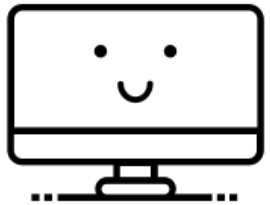

JOINED OBJECTS

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- **Pool ID**
- Pool Name
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- Capacity
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- Free Capacity
- Overprovisioning ratio
- Tier type [Enterprise / Nearline / SSD]

DS88XX Volumes

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JOINED OBJECTS IN VANTAGE

My Volumes & Pools Joined Object

- Volume Name
- Parent Box
- Capacity [Cylinders]
- **Pool ID**
- Capacity
- Allocated Capacity
- Overprovisioning ratio

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VANTAGE WEB UI ENHANCEMNT

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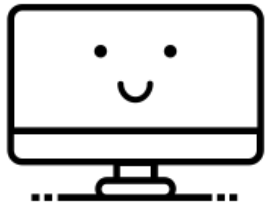

PUBLIC, PRIVATE AND FACTORY DASHBOARDS

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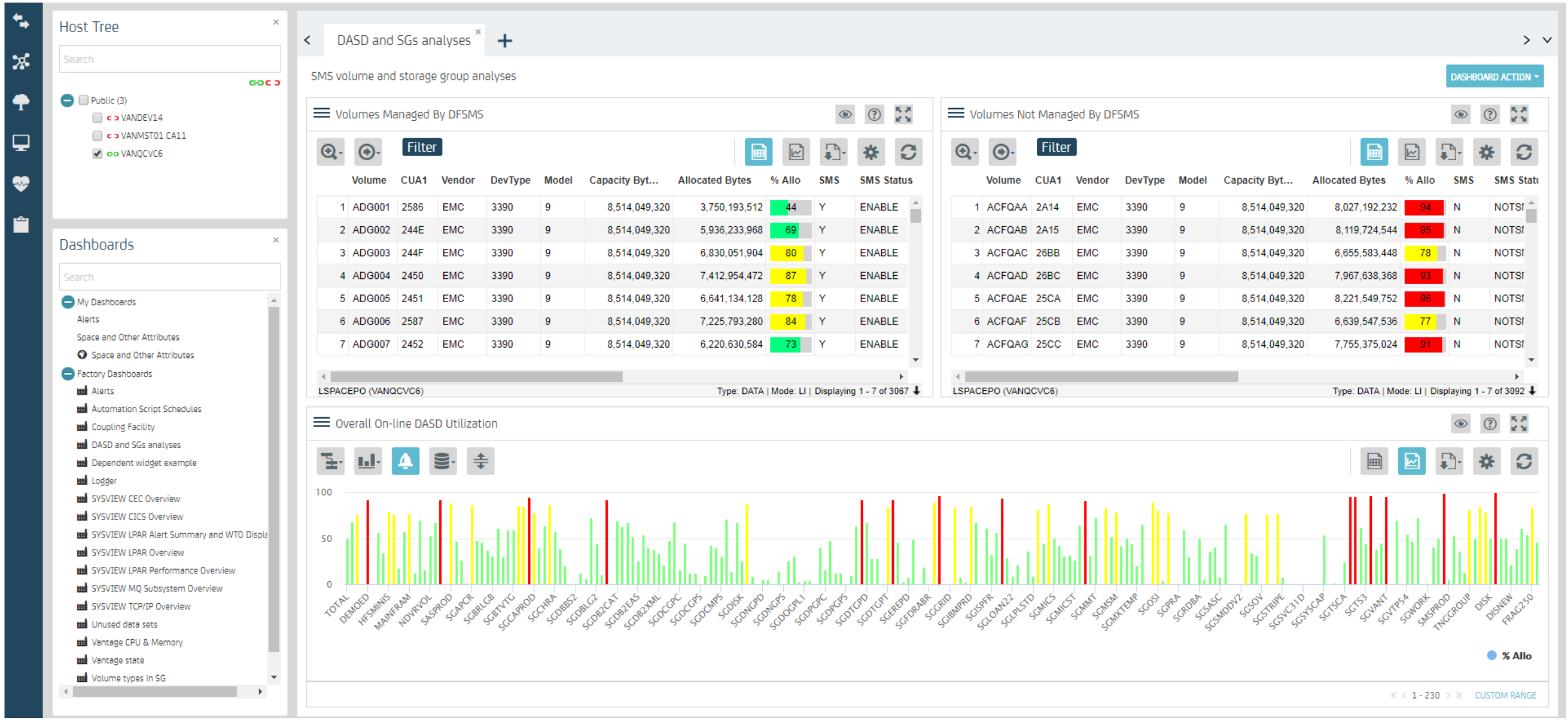
DASHBOARDS IN WEB UI



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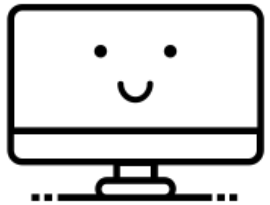
VANTAGE WEB UI ENHANCEMNT

EXPERIENCE IS EVERYTHING



MULTI HOST ENHANCEMENT

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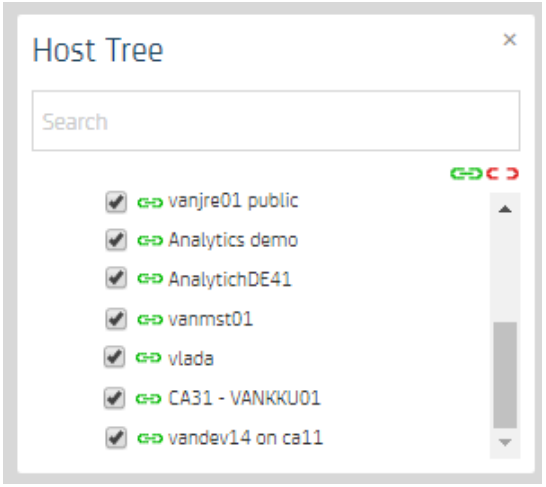
MULTI HOST ENHANCEMENT – LIMIT RECORDS

Data from all connected Hosts



PAIN

- There can be millions of records
- Records are added into object host by host.
- Sort is applied only to the data from each host independently

SOLUTION

- Set Limit Records for object
- Set valid filter and sort
- Data are sorted independently on the host

BENEFITS

- You can work with data from all the LPARs at the same time
- You can very easily identify the information you are interested in
  - All the datasets not used for more the 90 days on all LPARS
  - Storage groups with allocation over 95% on any LPAR
  - There are many more examples

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MULTI HOST SORTING

	SG Name	% Allo	Allocated Bytes (MB)	SubsystemVan
1	SGTSO	94	75,248.93	MSTY
2	SGDISKDB	88	21,545.08	MSTY
3	SMDVOLS	87	575,091.70	MSTY
4	PMADASD	100	2,706.54	VD14
5	SGZOSMF	99	87,775.44	VD14
6	SGFSG	97	7,904.23	VD14
7	SGUTG	97	573,306.68	VD14
8	SGTSO	96	2,394,905.92	VD14
9	SGTSPRD	96	7,861.65	VD14
10	SGVANT	96	614,910.28	VD14
11	SGCAPRD	95	36,150.69	VD14
12	SGLOANT	94	50,015.47	VD14
13	OMVSVOL	92	185,276.50	VD14
14	DEMOED	92	211,785.19	VD14
15	SGDTGPC	92	7,546.01	VD14
16	SGEAV	92	163,628.75	VD14
17	SGDB2BK	92	937,499.02	VD14

	SG Name	% Allo	Allocated Bytes (MB)	SubsystemVan
1	PMADASD	100	2,706.54	VD14
2	SGZOSMF	99	87,775.44	VD14
3	SGFSG	97	7,904.23	VD14
4	SGUTG	97	573,306.68	VD14
5	SGTSO	96	2,394,905.92	VD14
6	SGTSPRD	96	7,861.65	VD14
7	SGVANT	96	614,910.28	VD14
8	SGCAPRD	95	36,150.69	VD14
9	SGTSO	94	75,248.93	MSTY
10	SGLOANT	94	50,015.47	VD14
11	OMVSVOL	92	185,276.50	VD14
12	DEMOED	92	211,785.19	VD14
13	SGDTGPC	92	7,546.01	VD14
14	SGEAV	92	163,628.75	VD14
15	SGDB2BK	92	937,499.02	VD14
16	SGDISKDB	88	21,545.08	MSTY
17	SMDVOLS	87	575,091.70	MSTY

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Summary

SUPPORTING NEW HARDWARE

OPEN VANTAGE REST API

AUTOMATION SUPPORT

MULTI HOST ORIENTED

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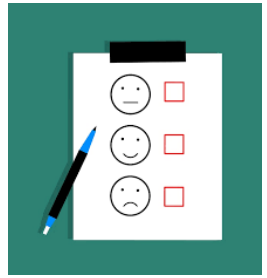
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