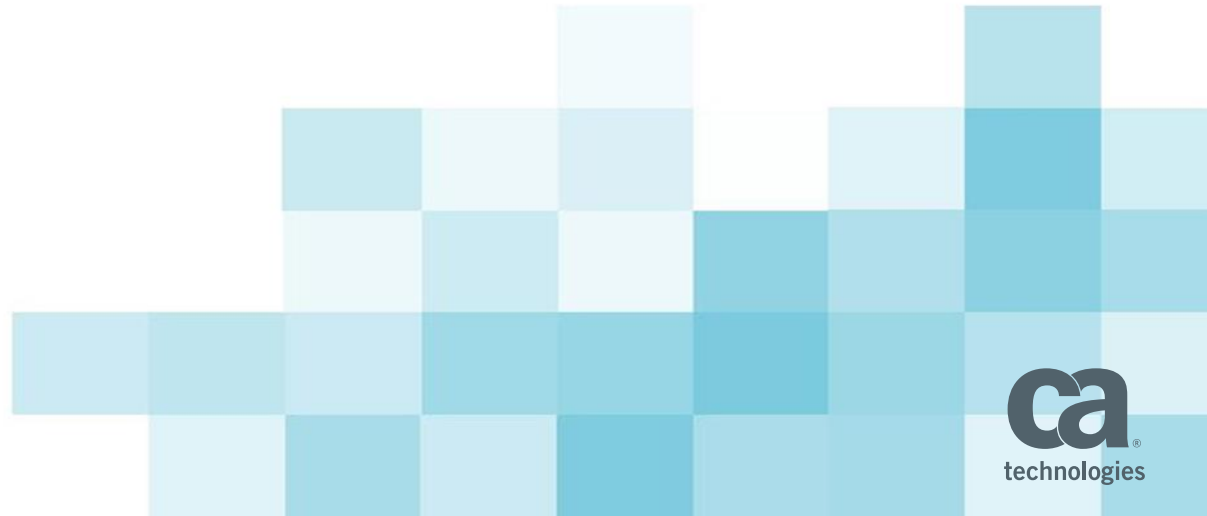


CA Vantage SRM Roadmap

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Agenda

CA VANTAGE OFFICIAL ROADMAP

CA VANTAGE DEMO - RECENT INNOVATIONS

QUESTIONS & ANSWERS

CA Vantage SRM Official Roadmap

IT Operations Portfolio Vision

■ Continuous Operations

Security, Risk Management & Compliance

Next Generation Apps & Workforce

Smarter, Proactive Performance Management

Automate Everything

Data Masking, Audit & Protection

Modernization, APIs

Analytics, Smart Autonomics

Learned Remediation

Address emerging demands on mainframe staff

CA DB2 Tools

CA OPS/MVS

CA SYSVIEW

CA NetMaster

CA Vantage

CA Workload

Continue to strengthen the core

Minimize errors and outage risks with ever changing workloads and system demands

Improve Performance & Conserve CPU Resources

Increase data availability & minimize recovery times

Smart Interoperability

IBM, Modern Apps, Application Development Tools

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Product Overview

■ IT Operations

Business Problems Addressed

- Low productivity
- Business down time
- Skill gaps
- Business agility
- Mainframe economics

Key Capabilities

- Monitor applications
- Track transactions
- Automate resolution to problem
- Leverage zIIPs to offload work

Personas

- IT Operations Staff L1
- IT Operations Staff SMEs
- IT Operations Managers

Technology and Product Architecture Goals

■ IT Operations

Technology Goals

- Day 1 toleration support new releases of z software and hardware
- Evaluate and leverage new technologies
- Leverage UI framework for extensibility, flexibility and common experience
- Use of high level language (Metal/C, Java, etc.)
- Continue to exploit z System hardware (zIIPs, Encryption, Compression)
- Exploit cross VS infrastructure: MFaaS, Machine Learning, OPEN API

Product Architecture Goals

- Automated product provisioning with best practice defaults
- Enable easy access of product data and control via REST APIs
- Adopt microservice-based architecture for scalability, availability, elasticity
- Supportability and quality of solutions meet z Enterprise expectations
- Conform to all architectural building codes

Roadmap: CA Vantage

Timeline as of May 1, 2018

	Delivered	Planned	Under Consideration
Product/ Releases	CA Vantage 14.0 INC04	CA Vantage	CA Vantage
Marquee Features/ Business Value	<p>Understanding Normal through historical data analysis identifying and predicting trends for raising dynamic alerts of storage metric anomalies</p> <p>Increased management visibility into storage with self-service and/or scheduled out of the box and ad-hoc reports and dashboards</p>	<p>Flexible script management through a browser based (MTC-M) storage script management facility</p> <p>Easier management of large, multi-instance implementations through an API enabled single configuration interface</p> <p>Continued flexibility of storage management with extended and updated 3rd party storage interfaces to continue delivering on the vendor agnostic value of CA Vantage</p> <p>Flexible insights into storage environments through ability to gather key metrics via storage object API</p>	<p>Increased awareness into storage with reporting for storage Subject Matter Experts within MTC-M</p> <p>Performance awareness of storage environments monitoring key storage performance metrics</p> <p>Adaptive Control for managing storage objects via API enabled user interfaces</p> <p>Understanding of storage area network health by monitoring storage area network through CA NetMaster integration</p>
	Currently GA		<div>Business Agility</div> <div>Skills Management</div> <div>Mainframe Economics</div> <div>Security & Compliance</div>

Delivered

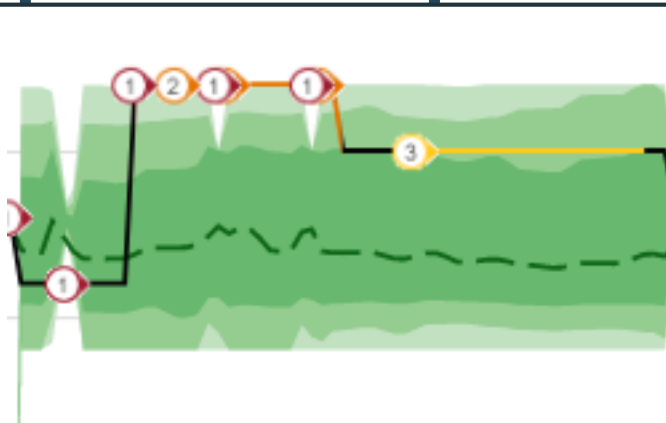
Feature	Description	Benefit
Anomaly Detection	Determine normal metric values through analysis of time series data allowing quicker identification of abnormal values	Provide early warning of potential problems resulting in decreased MTTR or avoiding the outage altogether
Storage Management Reporting	Self-service out of the box and ad-hoc reports and dashboards designed specifically for management, potentially without mainframe access.	Direct reporting capability for managers, consolidated reporting across instances, and freeing storage admins for core duties

Anomaly Detection

Problem avoidance and detection

Significant

[Delivered Feature]



PAIN

- Static thresholds may not alert to problems soon enough
- Static thresholds are hard to maintain and may cause false positives

SOLUTION

- Send storage metrics of most value to analytics repository
- Analysis of time series data to determine “normal” values
- Visual display of current metric value against normal values
- Dynamic alerts based on values deviating from “normal”

BENEFIT

- Reduced need to maintain and rely on static alert thresholds
- Less false positives – alerts raised only when deviates from normal behavior based on day and/or time
- Visual understanding of normal allows entry level team members to become more productive faster
- Collaboration across silos as everyone can see the same data and visualizations

Storage Management Reporting

Problem avoidance and detection

[Delivered Feature]

02 - Distribution of Catalog allocation and free extents



PAIN

- Managers need key information about storage utilization
- Storage administrators spend a lot of time generating reports
- No consolidated reporting on storage resources across the enterprise

SOLUTION

- Provide out of the box and ad-hoc reporting capability for managers
- Allow non-mainframe users access to storage reports and dashboards
- Scheduled delivery or self-service access to reports and dashboards

BENEFIT

- Managers have access to reports whenever they need them
- Metrics from multiple instances can be combined for a “global view”
- Storage administrators are freed to complete core duties

Planned

Feature	Description	Benefit
Script Management Facility	Integrate automation script management into Vantage web UI	Ability to manage Vantage automation in scripts in a modern user experience – no need for installing a windows client
Configuration API/Interface	API enable Vantage PARMs and allow them to be viewed/modified for multiple instances from a single interface	Manage PARMs of multiple instances with out logging into each instance, enforce best practices
3 rd Party Storage Interfaces	Exploit new and update existing 3 rd party storage devices and APIs/software	Enhanced management and exploitation of new devices and device/API features
Storage Object API for metrics	Request storage object metrics via REST API for store or display to meet requirements	Flexible insights into storage environments through ability to gather key metrics via storage object API

Script Management Facility

Integrate automation script management into Vantage web user interface

Planned [Feature]

Automation Script Builder: Data Source and Script

Data Source: nameofdatasource

Object Mode: ☒ Last Interval (LI) ☐ Real Time (RT) ☐ Disk Checkpoint (

In Real Time (RT) mode the data source will be scanned every time it impacts to CPU and memory usage. Before selecting RT, consider execution frequency and other scripts that will execute concurrently.

Choose Script: ☒ Create a new script named:

The name identifies the script in the Script PDS on the Host.

PAIN

- To manage storage automation scripts, a windows client must be installed which is difficult, if not prohibited, in many enterprises
- Vantage automation scripts are very complex and are difficult to write without the aid of script wizards and syntax validation

PLANNED SOLUTION

- Deliver script management facility in the Vantage web user interface, complete with wizard

PLANNED BENEFITS

- Create, deploy, and manage scripts from a modern web interface
- Storage administrators may be able to avoid installing the windows user interface

Configuration API/Interface

View/modify Vantage PARMs for multiple instances



Planned [Feature]

Parameter Name	Host 2 (EMEA -> Production)	Host B (EMEA -> Development)	Host II (USA -> Production)
parameter 2	1000ms	2000ms	3000ms
parameter I	true	false	true
parameter II	/path/a	/path/b	/path/c

PAIN

- Have to log into each instance to view and modify PARMs
- Cannot see multiple host PARMs in a single view
- Not warned of out of tolerance PARMs

PLANNED SOLUTION

- API enable PARMs (view/modify) in the Vantage host
- Deliver interface for viewing/changing PARMS for multiple instances
- Best practices definition and warn of out of tolerance PARMs

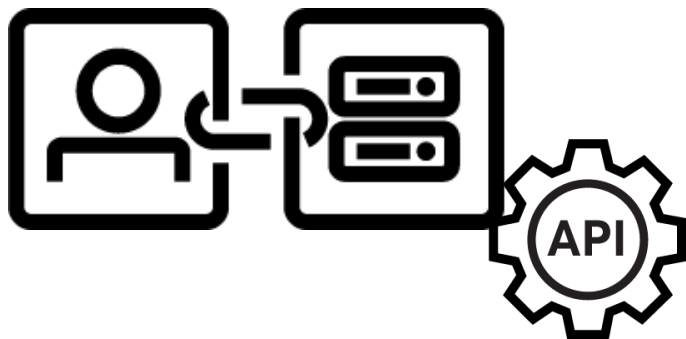
PLANNED BENEFITS

- View/Modify PARMs for multiple instances from a single interface
- Define best practices and warn of out of tolerance warnings
- Reduced time to manage large implementations
- Improved storage performance based on best practices

3rd Party Storage Interfaces

Exploit new and update existing 3rd party storage devices and APIs/software

Planned [Feature]



PAIN

- As new 3rd party hardware and software come to market it is difficult to fully exploit them
- Cannot fully exploit new features of existing 3rd party hardware and software interfaces

PLANNED SOLUTION

- Implement new IBM DS8xxx REST API
- Implement new StorageTek interface

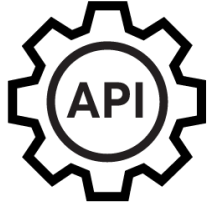
PLANNED BENEFITS

- Exploit new hardware and software as they come to market
- Exploit new features of hardware and software as they are released

Storage Object API for Metrics

Flexible insights through ability to gather key metrics via storage object API

Planned [Feature]



PAIN

- Cannot easily export CA Vantage data to a 3rd party reporting tool or repository for further analysis
- Cannot share limited CA Vantage functionality to non-storage administration staff (without sharing the entire app) or those without mainframe credentials

PLANNED SOLUTION

- Deliver a REST API that can be queried to pull storage object metrics

PLANNED BENEFITS

- Ability to pull and/or store storage object metrics for immediate or later analysis in 3rd party reporting or analytic tools that are the gold standard for specific enterprises
- Ability to create custom HTML based dashboards for team members that don't need full CA Vantage access or don't have mainframe credentials

Continuous Customer Engagement

A photograph of three business professionals in a meeting. A woman with blonde hair and glasses is on the left, looking towards a man in a suit who is in the center. A younger man is on the right, looking towards the man in the suit. They appear to be in a collaborative discussion.

- ✓ User Groups
- ✓ CA Communities
- ✓ Ideations
- ✓ Customer Briefings
- ✓ Product Advisory Council

- ✓ Sprint Reviews
- ✓ Solution Demos
- ✓ Award winning omni-channel support

- ✓ Communities.ca.com
- ✓ Validate.ca.com
- ✓ Support.ca.com
- ✓ DocOps.ca.com
- ✓ Ca.com

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Questions and Answers



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