AUTOMATED PROACTIVE SOLUTION SYSTEM (APSS)
THE NEXT GENERATION OF COMMVAULT SUPPORT

APSS is a state-of-the-art workflow engine module that provides automated, proactive support solutions for Commvault® environments.

Based on a service-oriented architecture, integrated with the CommServe®, APSS proactively detects failure points in Commvault environments and intelligently maps personalized solutions to address those issues.

Unlike typical alerting systems that only inform end-users of issues, APSS alerts end-users to events and actually provides potential solutions that are deployed quickly and easily through a variety of interfaces. The APSS installer and dashboard are accessed from the Maintenance Advantage portal and — more importantly — APSS is available at no additional cost to all Commvault customers with active maintenance agreements. APSS helps to:

• Reduce the number of events that create issues
• Improve service levels and data availability
• Reduce time and effort spent on reporting and resolving problems
• Reduce operating costs and business risk
• Enable greater focus on higher-value, strategic activities

APSS users have realized great value from intelligent event detection and issue resolution as well as dashboards and interactive metrics tools that have increased efficiency with the operation and management of their Commvault environments.

HOW IT WORKS
APSS monitors the health of a CommCell®, and provides rapid notification of any problems that might exist, along with targeted solutions to address them. The APSS is comprised of three components: Collection Modules; Analysis Modules; and Solution Modules. Using these three modules, the APSS detects problems in the CommCell, analyzes the collected data, and automatically suggests appropriate solutions.

Contact Commvault for more information on how to take your data to the next level.
THE HEART OF APSS

At the heart of APSS is the ability to detect issues in a CommCell environment using a workflow engine installed on the CommServe.

The CLU server, similar to the cloud metrics platform, hosts the detection scripts used by APSS. Every hour the collection scripts are downloaded by the CommServe and then executed. Based on the configured detection criteria, data is collected and uploaded to the CLU server. Once the CLU server receives this data, the APSS system will organize it for the purposes of alerting and reporting. Solutions are delivered based on any issues that are detected.

The APSS platform has an intelligent solution mapping system that maps solutions to detected issues. When a job fails in a CommCell, a Job Pending Reason (JPR) is generated, along with a JPR description. This is essentially an Error Code and Error Message that we might see in the Job Controller. The traditional approach would be to take the JPR and search against a database of these codes. This is ineffective because, in many cases, a JPR error code may have multiple generic solutions.

In contrast to this, the APSS database stores event key phrases and log key phrases together with solutions. The event key phrase is a phrase that exists in the JPR description. When the job pending reason description matches an event key phrase, the APSS engine knows which solution to provide. In cases when the event key phrase cannot be mapped to a solution, a log key phrase is used instead. The log key phrase is the failure text that a support engineer would typically see in the job logging. In cases where a log key phrase is needed to select a solution, the logs are uploaded, automatically indexed, and searched using the log key phrase. Regardless of the detection mechanism, the solution link provided to the user will be tailored to the issue at hand.

SOLUTION CATEGORIES

There are many different types of solutions available through the APSS system. The system provides Intelligent Solutions, Automated Solutions, Health Solutions, and Analytic Solutions.

Intelligent Solutions are available in the proactive dashboard in the Maintenance Advantage portal. They make use of an intelligent mapping system, and are article-based. Solutions are tracked to determine whether or not they have been applied.

Automated Solutions take this concept to the next level by using a workflow to take the steps towards an automatic fix. Workflows utilize technologies such as Java, Powershell, Python, SQL, Qcommands, or XML scripts. An automated solution is the replacement for the traditional Knowledge Base (KB) type of solution. The primary benefit to using an automated solution is that it takes the administrator far less time to implement the solution via a workflow. Any workflows in the CommCell are automatically tracked during the APSS collection process.
Next are Health Solutions. Health Solutions are similar to Automated Solutions because they are also workflow-based, but their function is to monitor CommCell health conditions, and are scheduled to run regularly in a CommCell. A Health Solution can either be fully automated or involve user interaction. When a health workflow is automated, APSS uses Commvault best practices to implement a fix. When user interaction is utilized, an email mechanism alerts the end-user of any issues, and provides options for resolution. Based on the user’s response to the email, the workflow engine can be instructed to implement the solution or await further direction from the end-user. Advanced detection, such as log monitoring and custom alerts, can also be used to identify possible solutions.

Analytic Solutions are used for data collection. In some cases, in-depth analysis needs to be done to resolve a support issue. In these cases, workflows are created to help with data gathering. These workflows perform operations such as dumping processes or running a CommServe database query in response to certain conditions in the environment. Analytic solutions will handle requests for detailed troubleshooting information in an automated way.

For more information on Commvault’s APSS, please contact set@commvault.com.