

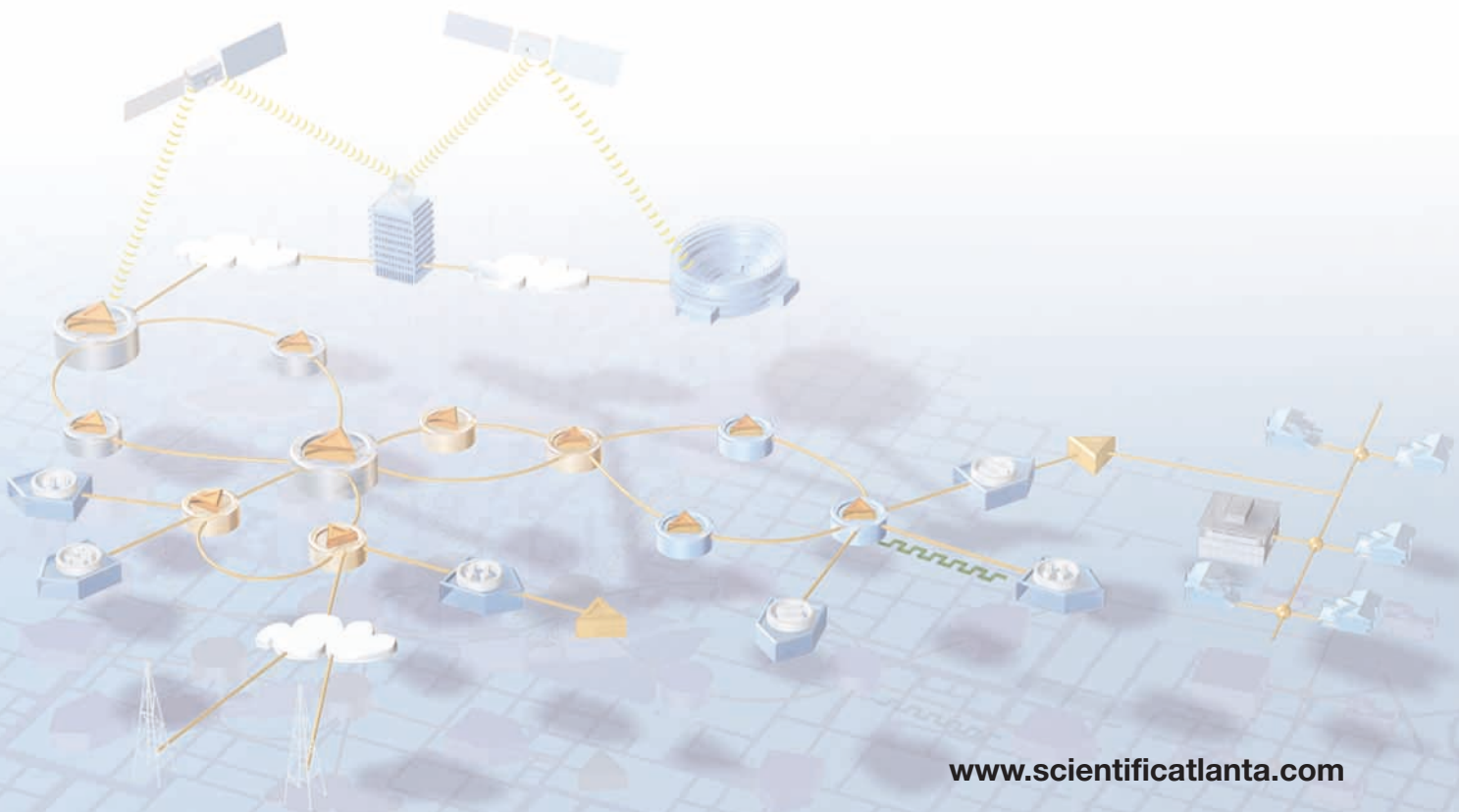


► Service Automation Suite

The Service Automation Suite for Video

Technical Summary Paper

A SciCare Broadband Services Technical Paper
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Introduction

This paper describes the SAS-V solution from a technical perspective. It explains how the solution interfaces to the cable operator's existing Scientific-Atlanta systems and the results of testing conducted to help ensure that overall system performance will not be affected by the addition of the Service Automation Suite for Video.

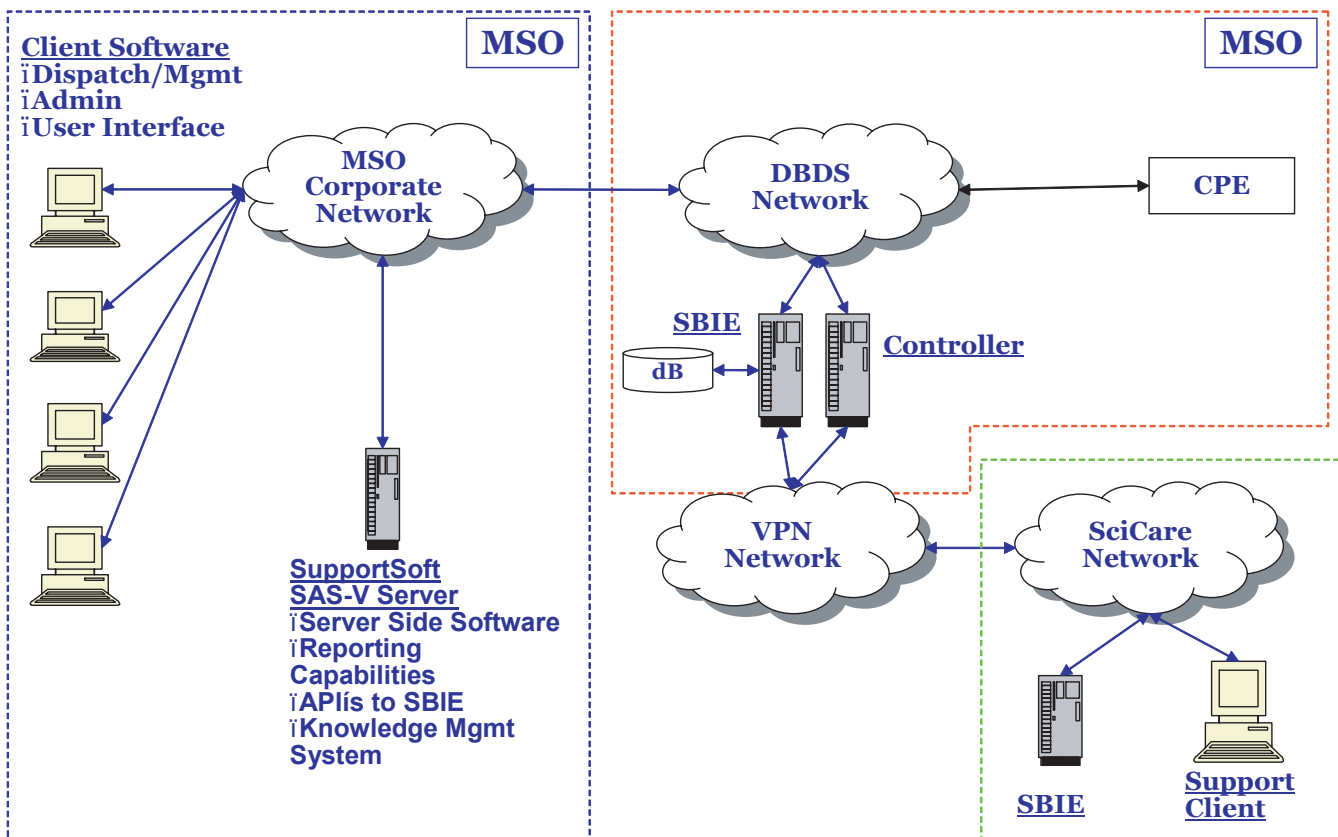
Architecture Overview

SAS-V includes two servers. The SAS-V SBIE server resides in the DBDS data network and ties into the network to communicate with the digital video controller, network elements and settops. A second network connection interfaces the customer's corporate network and the SAS-V SupportSoft server to provide reporting capabilities, initiate API calls to the SBIE and support a knowledge management system.

For ease of use, SAS-V has a Web interface to the desktop, but this is not a Web-based tool. What the user sees is a Web interface wrapped around an application that is

contained within the MSO's current operation. To initiate a SAS-V action from a desktop client:

- The user enters information telling the systems to run a particular test
- That information is communicated to the SupportSoft server in the MSO's corporate network
- The SupportSoft server invokes an API call to the SAS-V server connected to the digital video controller
- The SAS-V SBIE server runs the requested test
- The results are sent back to the user via an API to the SupportSoft server



DBDS Performance Impact Summary

In the course of carrying out its verification functions, SAS-V queries the DNCS in real-time and communicates with the digital set-top in the consumer's home. SciCare and SupportSoft designed the SAS-V system to ensure that this interaction would not adversely impact digital video system performance.

Scientific-Atlanta's System Verification and Testing lab (SVT) conducted extensive testing to ensure that Scientific Atlanta's digital video system was not impacted. The testing consisted of forcing the SAS-V application to initiate one transaction every second, a signifi-

cantly greater number of transactions than would be encountered in an actual operational environment. One transaction hit the digital controller every five seconds, with additional random hits to the controller during the intervening four seconds.

The system was tested for one hour of system at a steady start. The UNIX System Activity Reporter (SAR) collected the test results, which were verified and signed off by SVT (Scientific-Atlanta Verification Testing). The results of the tests were that impact on the DNCS INIT process was less than two percent. End-to-end testing was also conducted to check for functionality and server to server performance with no measurable impact identified.

Summary of Scientific-Atlanta SVT Test Results

The SASV Test Plan version 'Draft 2.1 November 18, 2003' was used during testing of this application.

- All test procedures were executed and tested within the test plan, which included:
 - API Tests
 - DNCS Impact Tests
 - Network Failure Tests
- All SASV areas functioned correctly
- DNCS CPU and memory utilization were measured during the DNCS Impact portion of the test plan. SASV was found to have minimal impact on the DNCS' operation, with only a slight increase in oninit's (the DNCS's database engine) CPU usage.
- Various network failure scenarios were tested.
- The SupportSoft GUI and AT&T License Server were not tested.
- As there is no software for SASV that executed on the DNCS, SASV was not tested during a DNCS upgrade.

References:

SVT Testing Results – Dated 12/04

SciCare Test Plan – Dated 11/04

SupportSoft End to End Test Plan – Dated 11/04