

Remote Support Solutions

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Executive Overview

This CompareScope™ paper looks at four solutions designed to facilitate remote administration of Microsoft Windows-based client and server computers. These solutions aim to improve IT worker productivity and to reduce end user impact on systems being fixed or maintained.

Solutions in this category vary widely not only in base functionality, but also in the details of their implementation. Fine differences in user interface, workflow, and efficiency can make all the difference for an IT technician or administrator. Deployment details and impact can also differ, which impacts an organization's ability to pilot, deploy, and maintain a solution over time.

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Remote Administration

Solutions in this category are designed to facilitate remote administration of distributed client and server computers, typically in real-time. For many of the tasks enabled by these solutions, the native alternative is either a physical desk visit, or a Remote Desktop connection. Either of those alternatives is interruptive to the user of the affected system, and carries a high price in IT personnel overhead. Additionally, solutions in this category offer at least some capability for batch administration of multiple computers. Batch administration may include pushing out a software application or patch, applying one or more configuration changes, or generating reports based on queried data. Solutions in this category may also offer enhanced remote control features, either by integrating with native Windows features (Remote Desktop, Remote Assistance) or by providing their own remote control protocol.

Solutions in this category may replicate or emulate the native Windows user interface for specific maintenance tasks, such as configuring a firewall or working with device drivers. This approach provides a familiar administrative surface for IT workers, while the actual work is conducted “under the hood” against one or more remote computers.

Solutions in this category do not necessarily maintain a historical configuration database, but instead query information from systems in real-time. This differentiates them from pure configuration management products, which typically aggregate information into a database and maintain some degree of configuration history, but do not provide access to real-time configuration values.

For this paper, we examine several functional areas we deemed key to this category.

Products in this category often provide functionality that seems to point at other categories. For example, by enabling IT personnel to query configuration information from remote computers, one might presume that these solutions also provide a means of managing or enforcing a desired configuration – but that is not a part of this category. Some solutions in this category do provide functionality that extends at least partially into other categories; where appropriate, we note those.

Products Compared

This paper is a product comparison, designed to provide a comparative look at three solutions in this category. This paper is not an exhaustive analysis of the suitability of any particular solution for a given market space.

Products included in this CompareScope™ are:

- Goverlan Remote Admin Suite v7
- Dameware Remote Support v9
- Dell (formerly Quest, formerly ScriptLogic) Desktop Authority Standard 9
- Symantec (formerly Altiris) Client Management Suite 7.5

We note that Desktop Authority provides only partial overlap into the Remote Administration space; much of its functionality revolves around configuration management. Similarly, the Symantec solution provides significant functionality outside the scope of this comparison.

The Goverlan and Dameware solutions adopt a similar approach, and one which is consistent with most solutions in this category. Using Active Directory and network discovery, they identify unmanaged computers on your network and provide the ability to query basic information from them by means of Windows Management Instrumentation (WMI). You also have the ability to push the solution's client agent (small in both of their cases) to unmanaged computers, making them *managed* computers. The client agent gives the solution more coverage and reach into the remote computer, enabling a broader range of management tasks and reporting. Data is queried from systems in real-time, and changes are also applied in real-time, although both solutions allow for scheduled application of batch changes. Manageability is available only when managed systems are turned on and awake, and both solutions support various techniques to control the power state.

The Dell solution is somewhat different. Its ExpertAssist feature provides functionality similar to Goverlan and Dameware, but the product's core functionality is in applying configuration changes when the user's profile is created or refreshed – primarily at logon. It is less targeted toward querying and changing data in real-time. This comparison will focus largely on the ExpertAssist feature.

The Symantec solution is a complex, server-and-agent-based product that compares (from a feature perspective) to Microsoft System Center Configuration Manager. This comparison examines only those aspects of the Symantec product that relate directly to real-time remote client management; the product does include significant additional features that are not considered here.

Architecture

These products all rely primarily upon a locally installed client agent to do their work, although they typically provide some minimal level of client-free functionality, including the ability to deploy said client via push installation. Some care should be taken by customers when selecting a solution, as the nature of the client agent can play a crucial role in security and stability. The size of the client agent, its software dependencies, and so forth should be considered.

The Dell solution has a more divergent architecture given its primary role as a configuration management tool. You construct configuration sets, along with rules that govern which systems should be affected by each set. Managed systems download all configuration sets, and evaluate those rules to determine which ones to apply. Rules are therefore evaluated in real-time at logon, although the configurations themselves are created in advance. We will discuss this contrast further in an upcoming section of this paper.

The Symantec solution is built around one or more central servers, which collect and store client configuration information and which serve as a central point from which configuration changes are pushed. Locally installed agents communicate with the server to fully enable the product's functionality. The real-time configuration component of the Symantec suite, which provides the primary feature set considered in this comparison, connects directly from administrators' workstations to the agent running on server and client computers.

These products typically rely on a combination of Active Directory Domain Services (AD DS) and network discovery (pinging IP ranges) to discover unmanaged systems. Solutions in this category do not necessarily rely on a database. The Dell solution, by contrast, relies on both Active Directory and a back-end database, and from a functional perspective takes the place of a logon script.

Solutions in this category may also offer centralization of certain auditing events for reporting and auditing purposes, such as use of the solution's remote control facilities. Where appropriate, we note the availability of such centralized features, although these were not a major focus for this comparison.

Note that both the Goverlan and Dameware solutions are desktop applications. They do not have a server-based infrastructure and can be deployed for piloting without impacting the production network. The Dell solution has somewhat higher requirements and does entail a formal deployment that may be more suitable for a lab environment during pilot stages. Dell does offer a "virtual test drive" that offers an online trial without the need to deploy the product. The Symantec product requires significant advance planning; deployment is a complex product often conducted in multiple phases within large organizations.

Some centralized management features of the Goverlan solution are provided via a free Goverlan Central Server utility. This component provides a central database and a limited set of features supporting central auditing and configuration enforcement.

User and Desktop Management and Support

While the following table provides an overview comparison of these products, it is important to note that there are significant and often subtle differences between the products. For example, when managing printers, environment variables, and other user-specific settings, the Goverlan solution is multi-user aware. When managing a shared computer, for example, Goverlan can “see” individual user profiles and permit you to modify them individually or all at once. This can be a significant advantage; the Dell solution accomplishes this by modifying the profile when the user logs on, rather than in real-time.

Another example: when searching for objects in AD DS, the Goverlan solution provides a simplified UI that enables an administrator to directly search for attribute names. Typing “department=sales,” for example, retrieves all users in the Sales department. The Dameware solution supports AD DS searching through the standard OS dialog, which provides full functionality but it somewhat more complicated to use.

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
Smartcard login support	Yes	Yes	Yes	Yes
AD DS management: User, group, computer, and OU object management.	Yes	Yes	Domain user password resets	No
Find users and computers in AD DS by using wildcards and attribute names	Yes; streamlined UI	Yes; standard UI	No	No; computers can be targeted with this attributes
Find computers a user has or is logged into	Yes	No	No	No
Exchange Server mailbox management	No	Somewhat*	No	No
Rename computers	Yes	Yes	No	No
Manage computer domain membership	Yes	Yes	No	No
Manage local users and groups	Yes	Yes	Yes	No

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
Intel vPro AMT integration for out-of-band management	No	Yes	Yes	No
Control system power status (lock, logoff, reboot; manage power settings)	Yes	Yes	Yes	Yes
Wake-on-LAN (WOL) support	Yes	Yes	Yes	Yes
Send pop-up messages to logged-on users	Yes	Yes	No	Yes; limited to logon
Live chat with users	Yes	Yes	No	No
Remote command prompt	Yes	Yes	Yes	Yes
Remote Task Manager	Yes	No	Yes	No
Built-in convenience access to Ping, TraceRt, etc.	No; can be added as custom controls	Yes	No	No
Discover systems by IP scan	Yes	No (can use Network Browser)	Yes	No (can use Network Browser)

* The Dameware product appears to have minimal Exchange Server administrative support (mainly mailbox attributes, which come from AD DS), but has a number of restrictive system requirements to use it. The company does not advertise Exchange Server administration as a product feature.

We noted a number of UI discrepancies in the Dameware product. For example, when attempting to enable several AD DS users whose passwords did not meet the domain's requirements for complexity, the product correctly returned an error message, but updated the user object's icon to that of an enabled user anyway.

The Dameware solution also showed the most obvious signs of its long history, with the UI still offering features for "PDC," "BDC," and other Windows NT-era elements. This features may still be of use to an organization still maintaining a Windows NT 3.51 or Windows NT 4.0 domain.

Core System Configuration / Monitoring Capabilities

The following table summarizes the key functional areas for remote administration. These areas can be administered “behind the scenes,” meaning they do not require remote control of the remote computer. Users will not be aware that the following activities are taking place.

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
File system	Yes	Yes	No	Yes
Event Logs	Yes; Supports adding the native Event Viewer as a Custom Control	Yes	Yes	Yes
Local users/groups	Yes	Yes	Yes	Yes
Open files/resources	Yes	Yes	No	Yes
Printers	Yes	Yes	Yes	Yes
Processes	Yes	Yes	Yes	Yes
Basic system information	Yes	Yes	Yes	Yes
RAS Settings	No	Yes	No	No
Registry	Yes	Yes	Yes	Yes
Task Scheduler	Yes	Yes	Yes	Yes
Services	Yes	Yes	Yes	No
File Shares	Yes	Yes	No	No
View installed software	Yes	Yes	Yes	Reports only
Remotely Repair/Install/Uninstall software	Yes	No	Yes	Yes
View installed hotfixes	Yes	Yes	Yes	Reports only
Configure network	Yes	No	Reports only	No
View environment variables	Yes	Yes	Yes	Yes
Change environment variables	Yes	No	No	Yes

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
View performance data	Yes: Built-in	Yes: Launches Performance Monitor	No	Yes: Preconfigured counter sets
Manage devices (Device Manager)	Yes	No	Limited	Drivers only
Manage Windows Update settings	Yes	No	Yes	Yes
Track logged-in users	Yes	No	No	No
Remotely Add/Remove System Components	Yes	No	No	No
Manage Startup items	Yes	No	No	Yes
Manage mapped drives	Yes	No	No	Yes
Manage auto-logon	Yes	No	No	Yes
Force remote GPO update	Yes	No	No	Yes; Also force update of Desktop Authority policy
Transfer files	Yes	Yes	No	Yes
Auto-force specified processes to a specified priority level	No	No	No	Yes
Manage Windows Firewall settings	Yes	No	No	Yes

Because it is designed as a configuration management tool, the Dell solution offers a broader range of built-in configuration tweaks and settings. These are centrally defined, downloaded by their client agent, and applied at logon. These settings include Microsoft Office, Microsoft Outlook, Security Policies, Time Synchronization, Folder Redirection, and more. Most of these settings are in the registry, making them manageable with either the Goverlan or Dameware products as well, although those two products do not pre-define configuration packages for these. Many organizations will already be using, or will prefer to use, the native Group Policy objects (GPO) feature of AD DS to manage these and other registry-based settings. Desktop Authority overlaps in many ways with the GPO feature, although it can provide for more granular targeting and application of settings. The Goverlan product, through its Scope Actions feature, could also provide a similar level of granularity, although it would apply the settings on-demand or on a schedule, rather than at logon as part of a policy.

Batch Administration

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
Create sets of users or computers to target for data queries or actions	Yes: Specify systems using a variety of criteria	Yes: Add systems to batch list from AD DS or by drag and drop	Yes	Yes: Create rules to limit application of policy.
Target actions to AD DS objects in bulk	Yes	Computers only	Yes	Yes
Target actions to users in bulk	Yes	No	Yes	Yes
Target actions to computers in bulk	Yes	Yes	Yes	Yes
Dynamic query-like criteria for targeting	Yes	No	Yes	Yes
GUI builder for action sequences	Yes	No	Yes	Yes
Shareable action sequences	Yes	No	Yes	Yes; centrally configured policies
Re-run batches against failed computers	Yes	No	Yes	Re-applies policy at each logon

The Dameware solution's batch processing capabilities are limited. You can, in a batch, deploy the solution's client agent, install services, deploy registry files, manage power state (restart, shutdown, etc), send pop-up messages, and a handful of other selected tasks.

By contrast, the Goverlan solution has extensive batch processing capabilities. You can define *scopes*, which are groups of computers, users, or AD DS groups. Scopes can consist of static lists, AD DS sites or containers, IP address ranges, and so on. An extensive set of actions, broadly categorized as "reporting," "setting," and "executing" are built-in, and custom actions can be created. Actions can be further scoped by specifying limiting criteria – only machines with a certain amount of RAM, for example. Reporting is available for the entire WMI repository – a wide range of data, much of which is pre-indexed and explained within the solution. Settings can include AD DS properties, local accounts, and a range of WMI objects. Execution can include nearly anything the solution is capable of doing on a per-computer basis, including network settings, printers, processes, software, for a total of several dozen discrete actions.

The Dell solution offers the strongest contrast, as it is not intended for real-time batch deployment. Instead, you create configuration policies and rules, which are deployed to computers at logon. Computers evaluate the rules to decide if a configuration applies to them at that time. Desktop Authority offers separate, specific functionality for deploying its client agent, patches, and software applications. Software, for example, is published GPO-style, picked up by the client agent, and installed on targeted systems.

The Symantec suite excels at batch management, since that is the product's primary focus. Actions can be targeted and executed on-demand, something that distinguishes Symantec's product from Microsoft System Center Configuration Manager (which doesn't do anything "on-demand").

Team Features

Because most IT environments consist of more than one administrator or technician, shared features can become important.

Because it uses a central configuration repository (database), the Dell solution's configuration is automatically shared across all administrators using the product.

We were not able to discover any means of sharing configuration data between users of the Dameware solution.

The Goverlan solution supports sharing computer lists, console layouts, remote control connection sets, software installer packages, batch action sequences, and batch action target lists.

The Symantec solution stores everything in its central database, making all configurations available to all administrators of the system.

Global Reporting and Configuration

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
Query information via WMI	Yes	No	Yes	Yes
Generate custom WMI reporting scripts from a GUI	Yes: produces VB-Script	No	Yes	No
GUI builder for GPO WMI filters	Yes	No	No	No
WMI-based Asset Management Reports	Yes	No	Yes	Yes
WMI-based IT Compliance Reports	Yes	No	Yes	Yes
AD DS reporting	Yes	No	No	No

The Goverlan solution includes WMIX, an integrated utility (also available standalone) that provides a GUI atop the WMI repository. This utility enables administrators to browse WMI (often the only way to discover what the repository contains), and provides custom in-product documentation for core WMI classes and properties. Using the utility's built-in reports, report wizard, or report templates, administrators can generate a wide variety of real-time inventory reports.

The Dameware solution does not offer equivalent functionality.

The Dell solution offers reporting, but does not draw upon real-time data. Instead, it uses a proprietary reporting interface to generate reports based upon information stored in its database. A number of built-in reports are included, and custom reports can be created. A policy using Data Collection must be configured to collect data before reports can be generated from that data.

The Symantec solutions also relies on its central database of information, meaning there is an opportunity for information to be somewhat outdated in between remote agents' inventory delivery to that database.

Remote Control

Remote control is a core functional area for solutions in this category. Solutions typically support the built-in Remote Desktop Protocol (RDP), may support VNC for cross-platform control, and often provide their own proprietary remote control protocols. Proprietary protocols may offer better network utilization or lower CPU utilization, file transfer and chat capabilities, additional user experience or security options, and so on. The feature comparison below was performed using the product's proprietary control solutions, when available.

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
Connect to remote computers via smart-card login	Yes	Yes	No	Yes
Chat with users	Yes	Yes	Yes	Yes
Transfer files	Yes: Definable drag-and-drop hot spots	Yes: File transfer browser	Yes: File transfer browser	Yes: File transfer browser
Proprietary remote control protocol	Yes	Yes	Yes	Yes
VNC support	Yes	Yes	No	No
Remote Desktop Protocol support	Yes	Yes	No	Unknown
Remote Assistance support	Yes	No	No	No
Create dashboards showing multiple remote computers' screens	Yes	No	No	No
Remote shadowing of user sessions	Yes	No	Yes	No
Various end-user approval modes	Yes	Yes	Yes	Yes
Remote control notification and auditing options	Yes	Yes	Yes	Yes
Lock out local user option	Yes	Yes	No	Yes
Blank screen from local user option	Yes	No	No	Yes

	Goverlan Remote Admin Suite v7	Dameware Remote Support v9	Symantec Client Management Suite 7.5	Dell Desktop Authority v9
Capture screen shots	Yes	Yes	No	No
Capture video of remote control session	Yes	No	Yes	No
Central auditing of remote control activity	Yes; free Goverlan Central Server component required.	No	Yes	Yes
Options to reduce network utilization/improve performance	Extensive: Color reduction, numerous visual options	Basic	Yes	Basic
Clipboard integration via remote control	Yes	No	Yes	Yes; two-step process
Clipboard-based file transfer from remote computer	Yes	No	No	No
“Observe only” remote option	Yes	Yes	Yes	Yes
Integrated Task Manager during remote control	Yes	No	No	No
Integrated performance display options along with remote control/monitoring	Yes	No	No	CPU and Memory only
Multiple administrators can enter a shared remote control session	Yes	Yes	No	No

These solutions all offer various end-user approval modes that, depending upon their configuration, can require remote viewers to obtain end-user permission before viewing or controlling the session, or can be set to allow administrators full remote control with no user awareness or acknowledgement. The available modes should suffice for most organizations’ political and privacy needs, but are typically available only in conjunction with the solution’s proprietary remote control protocol. Native features like Remote Assistance or Remote Desktop Protocol may not be as configurable.

As a note, we observed problems for all remote control solutions attempting to use a proprietary protocol to connect to a Windows Server 2012 Server Core computer. Visual remote control of those computers, however, is not an intended use-case.

We should point out that there are technically two distinct approaches to remote control. *In-band control* is what we've reviewed for this paper, and it is provided by all of the products reviewed as noted in the chart above. Another approach, *out-of-band control*, utilizes hardware-based redirection of the keyboard, mouse, and monitor. This requires the computer motherboard to include support for the technology, and the most popular today is Intel vPro-based remote control. The Symantec product provides the richest support for vPro-based out-of-band control (and provides in-band control through its included PCAnywhere component). We did not examine vPro in any depth for this paper, because it has significant requirements. Typically, only high-end computers are equipped with the technology, and it has dependencies on WS-Management, certificate deployment, and other pre-requisites that often make it less practical for many organizations to deploy widely.

Meta-Configuration

This refers to a solution's ability to centrally manage its own settings, which often includes administrative permissions, base configuration settings, audit configuration, and so on.

We were unable to discover any central settings administration in the Dameware product.

The Dell solution uses a central repository and supports central administration of the application's settings, as does the Symantec suite.

The Goverlan solution offers configuration control via Group Policy object (GPO) templates. For more real-time, non-overridable control, the free Goverlan Central Server can be used to enforce settings at the desktop application.

Miscellaneous Observations

The Dameware solution currently uses a 2007-era multiple-document interface (MDI) GUI. The Goverlan solution uses a 2010-era Ribbon-and-pane based GUI.

The Dameware solution for the most part presents dialogs and configuration panes in its own UI style, as does the Dell solution. The Goverlan solution for the most part closely emulates the native OS dialogs and UI. For example, the Goverlan System Properties dialog looks very similar to the native Windows System Properties dialog in Windows Vista and later.

The Dell Desktop Authority Expert Assist feature is delivered in a Web browser by means of a Java application. It offers limited navigation capabilities, and a simplistic GUI. The main Desktop Authority application uses a 2003-era MMC-style user interface with a treeview and results pane.

The Symantec suite is a large, complex product – as already mentioned, its feature set aims to rival Microsoft's System Center Configuration Manager. Setting it up requires significant planning. It is a suite; its many components do not always interleave smoothly with one another, requiring administrators to jump from tool to tool in order to perform specific tasks. For example, the remote control features are provided by PCAnywhere, with the main Symantec console providing a shortcut for launching that tool.

Summary

The Goverlan and Dameware solutions address the same problem space within an organization, although the Goverlan product offers broader functionality and deeper management reach. Its approach to batch administration – action scopes, a GUI-based task sequencer, and so on – offer extended opportunities for use, and take the product almost to the point of being a full-fledged systems management tool. In some organizations, it could likely fill that role, at least in some respects. The addition of the Goverlan Central Server provides additional capabilities for centralization of audit records, amongst other things. These products are licensed per administrator, meaning a single administrator in a small environment need only purchase a single license. That model makes these products more affordable than the Dell or Symantec solutions, particularly for organizations not in need of the configuration management capabilities of the Dell and Symantec offerings.

The Dell solution is somewhat of a hybrid. Its Expert Assist feature definitely enters the category of “remote administration,” but offers far less functionality than either the Goverlan or Dameware solutions. The main Desktop Authority product achieves some of the same end effect as the other two solutions, but does so by means of rule-based policy settings, rather than real-time or batched modifications. Desktop Authority is positioned more as a configuration management solution, with some convenient remote administration features added in. The product is licensed per managed node, which can become expensive.

The Symantec solution is designed for far more than real-time remote client support, and indeed that is not its strongest aspect. It is at heart a centralized, database-driven configuration management suite, with remote control capabilities (and certain remote management capabilities) made available through the inclusion of PCAnywhere. Strong support for out-of-band management (with supported hardware) helps supplement these capabilities. But the product is licensed based on the number of managed nodes, making it an expensive proposition for organizations simply seeking real-time remote control and management.

All four solutions are available for free trial: Dameware offers a 14-day trial, Goverlan a 30-day trial, and Dell an online-only “Virtual Test Drive.” The trial duration of the Symantec suite could not be determined, but a trial is available.

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