

# Remote Support Solutions

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## Executive Overview

This CompareScope™ paper looks at three 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. 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 often 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

We note that Desktop Authority provides only partial overlap into the Remote Administration space; much of its functionality revolves around configuration management.

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.

## 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 native 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 the most 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.

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.

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<br>Remote Admin Suite<br>v7      | Dameware<br>Remote Support v9 | Dell<br>Desktop Authority<br>v9                             |
|---|---|-------------------------------|---|
| Smartcard login support   | Yes                                       | Yes                           | Yes   |
| AD DS management: User, group, computer, and OU object management.        | Yes                                       | Yes                           | No  |
| Find users and computers in AD DS by using wildcards and attribute names  | Yes;<br>streamlined UI                    | Yes;<br>standard UI           | No;<br>computers can be<br>targeted with this<br>attributes |
| Find computers a user has or is logged into                               | Yes                                       | No                            | No  |
| Exchange Server mailbox management  | No  | Somewhat*                     | No  |
| Rename computers  | Yes                                       | Yes                           | No  |
| Manage computer domain membership   | Yes                                       | Yes                           | No  |
| Manage local users and groups   | Yes                                       | Yes                           | No  |
| Intel vPro AMT integration for out-of-band management                     | No  | Yes                           | No  |
| Control system power status (lock, logoff, reboot; manage power settings) | Yes                                       | Yes                           | Yes   |
| Wake-on-LAN (WOL) support   | Yes                                       | Yes                           | Yes   |
| Send pop-up messages to logged-on users                                   | Yes                                       | Yes                           | Yes;<br>limited to logon                                    |
| Live chat with users  | Yes                                       | Yes                           | No  |
| Remote command prompt   | Yes                                       | Yes                           | Yes   |
| Remote Task Manager   | Yes                                       | No                            | No  |
| Built-in convenience access to Ping, TraceRt, etc.                        | No;<br>can be added as<br>custom controls | Yes                           | No  |

|                             | Goverlan<br>Remote Admin Suite<br>v7 | Dameware<br>Remote Support v9      | Dell<br>Desktop Authority<br>v9    |
|-----------------------------|--------------------------------------|------------------------------------|------------------------------------|
| Discover systems by IP scan | Yes                                  | No<br>(can use Network<br>Browser) | No<br>(can use Network<br>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           | Dell Desktop Authority v9          |
|--|---|--------------------------------------|------------------------------------|
| File system                                | Yes   | Yes                                  | Yes                                |
| Event Logs                                 | Yes;<br>Supports adding the native Event Viewer as a Custom Control | Yes                                  | Yes                                |
| Local users/groups                         | Yes   | Yes                                  | Yes                                |
| Open files/resources                       | Yes   | Yes                                  | Yes                                |
| Printers                                   | Yes   | Yes                                  | Yes                                |
| Processes                                  | Yes   | Yes                                  | Yes                                |
| Basic system information                   | Yes   | Yes                                  | Yes                                |
| RAS Settings                               | No  | Yes                                  | No                                 |
| Registry                                   | Yes   | Yes                                  | Yes                                |
| Task Scheduler                             | Yes   | Yes                                  | Yes                                |
| Services                                   | Yes   | Yes                                  | No                                 |
| File Shares                                | Yes   | Yes                                  | No                                 |
| View installed software                    | Yes   | Yes                                  | Reports only                       |
| Remotely Repair/Install/Uninstall software | Yes   | No                                   | Yes                                |
| View installed hotfixes                    | Yes   | Yes                                  | Reports only                       |
| Configure network                          | Yes   | No                                   | No                                 |
| View environment variables                 | Yes   | Yes                                  | Yes                                |
| Change environment variables               | Yes   | No                                   | Yes                                |
| View performance data                      | Yes:<br>Built-in  | Yes:<br>Launches Performance Monitor | Yes:<br>Preconfigured counter sets |
| Manage devices (Device Manager)            | Yes   | No                                   | Drivers only                       |
| Manage Windows Update settings             | Yes   | No                                   | Yes                                |
| Track logged-in users                      | Yes   | No                                   | No                                 |
| Remotely Add/Remove System Components      | Yes   | No                                   | No                                 |
| Manage Startup items                       | Yes   | No                                   | Yes                                |
| Manage mapped drives                       | Yes   | No                                   | Yes                                |
| Manage auto-logon                          | Yes   | No                                   | Yes                                |



|  | Goverlan<br>Remote Admin Suite<br>v7 | Dameware<br>Remote Support v9 | Dell<br>Desktop Authority<br>v9                             |
|--|--------------------------------------|-------------------------------|---|
| Force remote GPO update                                      | Yes                                  | No                            | Yes;<br>Also force update of<br>Desktop Authority<br>policy |
| Transfer files   | Yes                                  | Yes                           | Yes   |
| Auto-force specified processes to a specified priority level | No                                   | No                            | Yes   |
| Manage Windows Firewall settings                             | Yes                                  | 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<br>Remote Admin Suite<br>v7                | Dameware<br>Remote Support v9                                    | Dell<br>Desktop Authority<br>v9                      |
|---|---|--|--|
| Create sets of users or computers to target for data queries or actions | Yes:<br>Specify systems using a variety of criteria | Yes:<br>Add systems to batch list from AD DS or by drag and drop | Yes:<br>Create rules to limit application of policy. |
| Target actions to AD DS objects in bulk                                 | Yes   | Computers only   | Yes  |
| Target actions to users in bulk   | Yes   | No   | Yes  |
| Target actions to computers in bulk                                     | Yes   | Yes  | Yes  |
| Dynamic query-like criteria for targeting                               | Yes   | No   | Yes  |
| GUI builder for action sequences  | Yes   | No   | Yes  |
| Shareable action sequences  | Yes   | No   | Yes;<br>centrally configured policies                |
| Re-run batches against failed computers                                 | Yes   | No   | 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.

## 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.

## Global Reporting and Configuration

|  | Goverlan<br>Remote Admin Suite<br>v7 | Dameware<br>Remote Support v9 | Dell<br>Desktop Authority<br>v9 |
|--|--------------------------------------|-------------------------------|---------------------------------|
| Query information via WMI                        | Yes                                  | No                            | Yes                             |
| Generate custom WMI reporting scripts from a GUI | Yes:<br>produces VBScript            | No                            | No                              |
| GUI builder for GPO WMI filters                  | Yes                                  | No                            | No                              |
| WMI-based Asset Management Reports               | Yes                                  | No                            | Yes                             |
| WMI-based IT Compliance Reports                  | Yes                                  | No                            | Yes                             |
| AD DS reporting                                  | Yes                                  | 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.

## 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    | Dell Desktop Authority v9     |
|--|--|-------------------------------|-------------------------------|
| Connect to remote computers via smart-card login             | Yes  | Yes                           | Yes                           |
| Chat with users  | Yes  | Yes                           | Yes                           |
| Transfer files   | Yes:<br>Definable drag-and-drop hot spots                | Yes:<br>File transfer browser | Yes:<br>File transfer browser |
| Proprietary remote control protocol                          | Yes  | Yes                           | Yes                           |
| VNC support  | Yes  | Yes                           | No                            |
| Remote Desktop Protocol support                              | Yes  | Yes                           | Unknown                       |
| Remote Assistance support                                    | Yes  | No                            | No                            |
| Create dashboards showing multiple remote computers' screens | Yes  | No                            | No                            |
| Remote shadowing of user sessions                            | Yes  | No                            | No                            |
| Various end-user approval modes                              | Yes  | Yes                           | Yes                           |
| Remote control notification and auditing options             | Yes  | Yes                           | Yes                           |
| Lock out local user option                                   | Yes  | Yes                           | Yes                           |
| Blank screen from local user option                          | Yes  | No                            | Yes                           |
| Capture screen shots   | Yes  | Yes                           | No                            |
| Capture video of remote control session                      | Yes  | No                            | No                            |
| Central auditing of remote control activity                  | Yes;<br>free Goverlan Central Server component required. | No                            | Yes                           |
| Options to reduce network utilization/improve performance    | Extensive:<br>Color reduction, numerous visual options   | Basic                         | Basic                         |
| Clipboard integration via remote control                     | Yes  | No                            | Yes;<br>two-step process      |
| Clipboard-based file transfer from remote computer           | Yes  | No                            | No                            |

|   | Goverlan<br>Remote Admin Suite<br>v7 | Dameware<br>Remote Support v9 | Dell<br>Desktop Authority<br>v9 |
|---|--------------------------------------|-------------------------------|---------------------------------|
| “Observe only” remote option  | Yes                                  | Yes                           | Yes                             |
| Integrated Task Manager during remote control                               | Yes                                  | No                            | No                              |
| Integrated performance display options along with remote control/monitoring | Yes                                  | No                            | CPU and Memory only             |
| Multiple administrators can enter a shared remote control session           | Yes                                  | Yes                           | 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.

## 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.

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.



## 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.

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.

All three 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.”

# GOVERLAN®

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PJ Technologies, the creator of Goverlan®, has been providing cost-effective, real-time remote administration software solutions since 1998. PJ Technologies' solutions are entirely implemented and managed from within clients' infrastructures, thereby fostering security, integrity and control. Designed with the high standard requirements of corporate IT, Goverlan is chosen by IT support technicians worldwide for their ease-of-use, global reach, and expandable feature set to get to the root of problems quickly, dynamically and efficiently. Goverlan's initial design began in 1997, geared for a large and fast-paced helpdesk of a Wall Street securities trading firm based in New York City with offices worldwide. To learn more, visit [Goverlan.com](http://Goverlan.com).

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