DESKTOP MANAGEMENT

A report and review on the NetSupport DNA 2.5 desktop management solution from NetSupport Ltd

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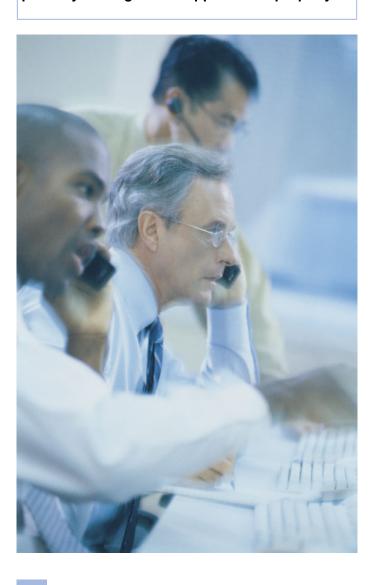
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Introduction

Desktop management is fast becoming a critical function of network administration and at the enterprise level has been a well established practice for a number of years. However, many SMBs (small to medium businesses) are put off by the inherent complexity of some high-end solutions and see it as an expensive luxury rather than a necessity. This shouldn't be the case as at any business level if network administrators don't know how many desktops they have, where they are and what hardware and software is installed on them then it follows that they can't possibly manage and support them properly.



Many understaffed support departments are engaged in little more than a daily firefight as they try to deal with user demands. The biggest impact these scenarios can have is on support costs as they spiral out of control to the point where the initial price of the hardware pales into insignificance. With TCO (total cost of ownership) always high on the agenda it's important that network support is used effectively and proactively. Many companies focus only on the initial purchase costs of hardware and software whereas this could be the least of their concerns as yearly support costs can easily outstrip these

Desktop management software can pay big dividends as it can take over a lot of the more mundane tasks and automate them. Hardware and software inventory are excellent examples as the entire information gathering process can be run regularly from a central location and stored in a single database. Running queries on the inventory allows administrators to get a true picture of the company's IT assets enabling them to easily identify areas of wastage and overspend.

Software inventory and application metering can show clearly what software is installed on each desktop and provide monitoring facilities for active applications as well. These come into their own for license metering as they allow you to control application usage. Companies have a clearly defined legal responsibility to ensure the software they are using is fully licensed so they need to know how many copies of a software package are in use at any given time and whether they have purchased the correct number of licenses.

Software distribution can automatically deploy applications and updates over the network from a central location, freeing up support staff from yet another time consuming task. The more sophisticated desktop management products also provide schedulers allowing these installations to occur unattended outside normal working hours so reducing their impact on daily business operations.

Desktop management can also encompass help desk functions as many products now incorporate tools to allow support staff to remotely troubleshoot user problems from the comfort of their own desk. Systems in the management scheme can be taken over and remotely controlled and these tools can include many other useful features such as text based chat facilities, file transfer and remote diagnostics.

The exponential growth of today's networks is making it difficult, if not impossible, for administrators to stay in control. IT support is a valuable business asset but it needs to be used proactively to get the best of out it and desktop management software has a clear role to play in these environments.

Executive Summary

The differences in operating costs between a managed PC and an unmanaged PC are increasing year on year and businesses must address these discrepancies if they wish to avoid an unacceptably high TCO (total cost of ownership). In today's complex network environments the cost of supporting a diverse range of hardware and software can be prohibitive and companies running unmanaged desktop PCs are making life harder for their support staff, wasting valuable business resources and reducing overall productivity.

By implementing desktop management software many daily tasks can be automated allowing support staff to be freed up to work on improving network services rather than simply maintaining them. The ability to automatically gather information about each user's desktop PC and store it in a central location allows administrators to better manage resources as they will have a much clearer picture of the company's IT assets.

The laws on software licensing abuse couldn't be clearer and businesses that transgress will find themselves in court and facing a hefty fine. Desktop management software can easily keep you on the right side of the law by identifying all programs installed on each desktop PC and monitoring their usage.

In response to these demands, the desktop management software market has grown substantially over the past few years. Previously, the few products available were aimed at the enterprise market, were complex to install and manage, required of lot of hardware resources to run and consequently represented a poor investment that could easily increase TCO rather than reduce it. Many solutions are now being targeted at the cost-conscious small and medium sized business (SMB) and aim to address these shortcomings. Key criteria for this new breed of desktop management product are simplified installation, ease of use, a targeted feature set, minimal system requirements and, above all else, good value.

Best known for its highly respected Manager remote access software, NetSupport Ltd moved into the desktop management market at the end of 2003 with its DNA (Dynamic Network Administration) product. The software has grown in sophistication over the past few years and aims to offer all the features the SMB requires but comes in at a very cost conscious price point. This report will test and review the latest DNA 2.5 software in order to ascertain its suitability as a desktop management solution for SMB network environments.

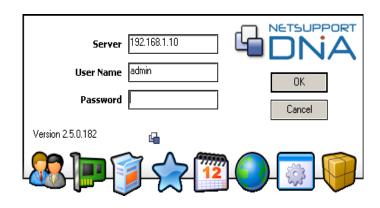
The report will discuss the installation processes, look at deployment and ease of use and see how its feature level compares with competing products. A full test will be conducted using a range of client systems to ascertain both hardware and software inventory accuracy and allow features including metering of applications, software licenses and Internet usage, remote control and reporting to be fully tested and evaluated.



Resources and Installation

One of the biggest drawbacks of enterprise products is their distributed approach to desktop management which can drive a big appetite for resources. Aimed at larger businesses, possibly with multiple offices in diverse geographical locations, these products often use a hierarchy of systems to manage desktops. Microsoft's System Management Server (SMS), for example, groups the network into a hierarchy of different sites. It is initially installed on a central site that acquires data from the entire hierarchy and below this you can have primary sites and secondary sites that gather information about the network they are located on and pass this information on up the chain. Surprisingly, installation for single site networks isn't too complex but note that domain membership is mandatory and SMS has always required a separately purchased copy of SQL Server appropriately licensed for the number of management consoles required. LANDesk Management Suite is also aimed primarily at larger businesses as it too adheres to a domain concept for grouping systems together with each one requiring a core server which should preferably be dedicated. LANDesk does have a number of prerequisites but installation on smaller networks is aided with a checker utility to confirm that all these have been met first. BMC Software's Discovery tool is clearly aimed primarily at the enterprise as it can run asset inventory, capture details on the network topology and even determine the relationship between certain network resources and who is using them. However, to store this information it uses a separate configuration management database (CMDB), such as the BMC's own Atrium CMDB.

Throughout its long history Tally Systems TS.Census has always focused on asset management and concentrated on delivering accurate hardware and software inventory teamed up with extensive reporting tools. However, the company and all of its desktop management products were acquired by Novell in 2005. The NetCensus suite has now been incorporated into Novell's ZENworks suite to become its Asset Management product. Based on experiences of ZENworks we feel it is a poor choice for SMBs due to its heavy resource demands and complex installation and deployment.



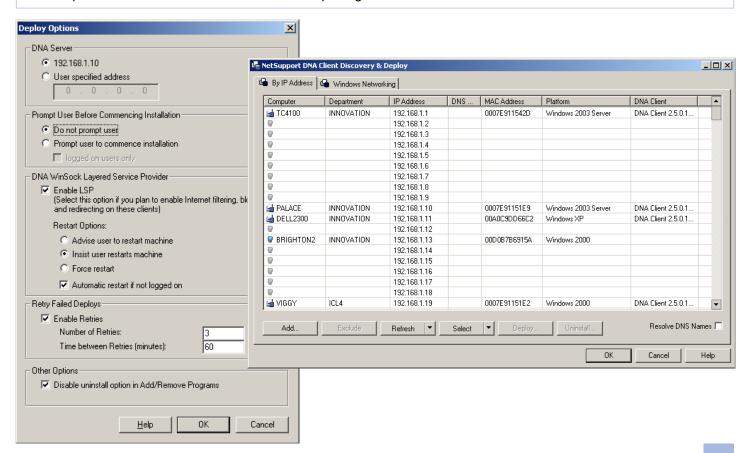
Requirements for the DNA host system are far more modest than many competing products as this can be run on any Windows system including XP. Hardware requirements are also much lower and minimal overheads means the system doesn't need to be dedicated to desktop management duties either. This makes it possible to retain a workstation rather than a server for these duties which brings a saving in operating system and hardware platform costs. We found installation to be extremely fast with the host system loaded in a few minutes. DNA requires a SQL database to store inventory data but if one isn't already available it will offer to load the bundled copy of MSDE2000 instead. The total process is very neatly streamlined and requires virtually no user intervention.

Deployment

For each desktop on the network to be managed it requires a local utility or agent installed to allow it to be accessed and inventoried remotely by the central system. Clearly support staff can't be expected to manually install this on each PC so some form of automated deployment tool is essential if the product is not to fail at the first hurdle. In general, the enterprise level solutions support multiple deployment capabilities with LANDesk and SMS allowing them to be installed manually, forced with a login script or pushed to selected systems. Configuration profiles are used to determine which components are installed and you can decide which ones users can interact with.

DNA may take a simpler approach to deployment and yet the routine impressed our testers with its capabilities. After loading the console a discovery routine can be run on selected IP subnets and all desktops and servers are displayed for selection. Usefully, the routine provides full details on computer names, workgroup or domain membership and the installed operating system. Any system with the client installed will have the version displayed making it easy to see if any need updating. Deployment couldn't be easier as you select the systems to receive the client and deploy it to all of them with a single mouse click. A status display is provided so you can check the progress of the deployment and see if there were any failures.

There are plenty of controls over the client installation process. Prior to deployment you can decide which management server the client is to connect to and whether the installation should be silent or require user intervention. Each system can be automatically rebooted on completion if required and failed install processes can be retried a specific number of times. More importantly, the deployment tool allows you to disable the option to uninstall the client on each desktop. A criticism levelled at some desktop management products is that as they become more sophisticated they also become more unwieldy and difficult to manage. This is certainly not true of DNA as our testers found the console interface to be very well designed and extremely intuitive. The design philosophy is consistent throughout all of NetSupport's product range so using the remote control component from the Manager utility will require minimal training as it retains the same look and feel. There will also be a requirement to provide controlled access for multiple users in environments where support staff have differing responsibilities. This is a feature provided with SMS and more recently with LANDesk with the latter providing role-based administration which requires users to logon using Windows authentication. DNA provides a more simplified but equally powerful solution as extra console operators can be created and given rights to access specific functions within DNA and certain reporting tools.

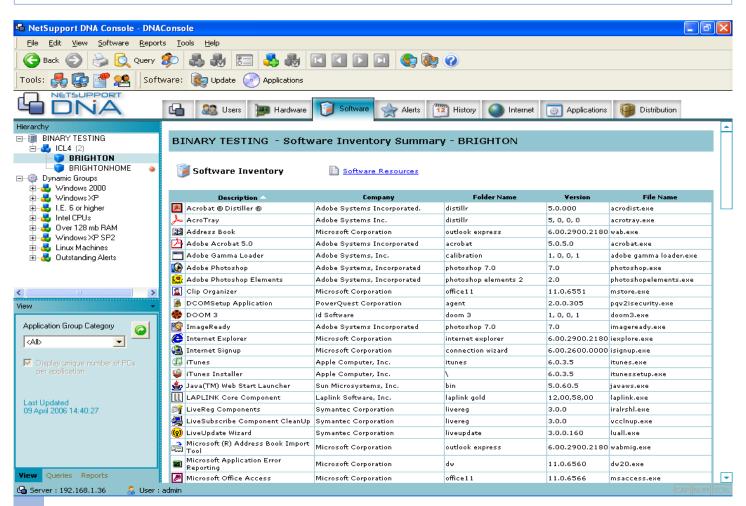


Configuration

As soon as the clients have been loaded they communicate with the DNA console, an inventory is taken and each system is automatically displayed in the left hand pane of the console. At the top level the desktops are placed in groups showing the respective workgroup and domain membership but, along with many enterprise level solutions, DNA also uses dynamic groups as well. These can be based on any criteria in the inventory such as the operating system, hard disk space or installed memory and can be set to automatically update as new clients appear that satisfy these criteria or their configuration changes.

Support for a wide range of client platforms makes a desktop management product more versatile and a new feature in DNA is the inclusion of all the major Linux distributions allowing these systems to be included in the management console and inventory process. Many of the top products don't offer this level of support as standard and include SMS, Altiris' Client Management Suite and Novell ZENworks Suite. LANDesk Management Suite offers some of the best coverage as it supports Windows, Macintosh and Linux clients.

DNA's intuitive console application provides easy access to all functions from a single interface. Along with views of static and dynamic groups to the left it provides customizable graphs and tables to the right that are determined simply by the function selected from the neat row of tabbed folders located above. A key feature of the DNA Console is the slick integration between the various components. Selecting a group from the left pane allows you to view summaries of assets and user activity and you can drill down for more detail on each individual member. The top menu bar changes to reflect the option selected making it extremely easy to access and configure it.

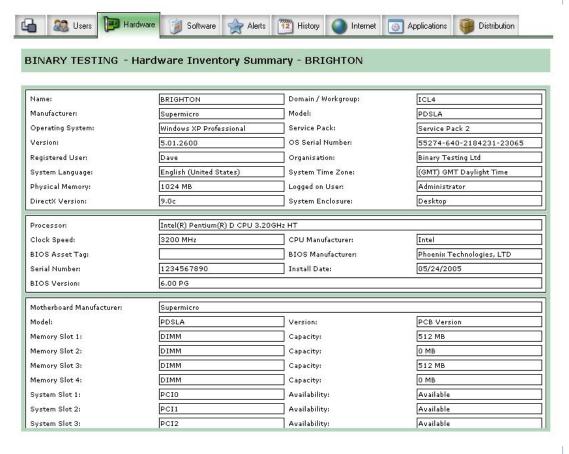


Hardware and Software Inventory

Inventory is fundamental to all desktop management solutions as it provides the basis on which all other operations are carried out. If the inventory database is populated with incorrect or minimal information about each PC and user then the product becomes virtually worthless.

During testing we found the very high levels of information and accuracy presented by DNA puts it on a par with enterprise level solutions. Our test network comprised a wide variety of hardware platforms comprising Xeon, Pentium D, Pentium 4, Pentium III and Pentium M systems and DNA identified the processors, speeds and number along with installed memory.

motherboard manufacturer and BIOS revisions. Much more information was provided with all hard disk makes and model and interfaces correctly identified along with partitions, logical drives and free space. All network interfaces and speeds were correctly identified along with all installed USB devices and models, video adapters and other devices such as CD and DVD drives. DNA's software inventory identified all operating systems correctly and critically showed all versions and service packs making it invaluable for ensuring desktops are patched against the latest threats. Even better is the software inventory for each system which maintains a separate list



of all applied Windows hotfixes, service packs and patches and legends for each one showing whether they installed successfully. General accuracy for software identification was also impressive. Our test clients were installed with multiple applications ranging from wireless networking utilities and all Microsoft Office applications through to graphics design, games and desktop publishing applications and DNA correctly identified them all. Compared with products such as Microsoft's SMS and LANdesk Management Suite our testers concluded that DNA easily delivered the same high levels of accuracy and detail for inventory but actually presented it in a much more user-friendly format. Both hardware and software inventories can be queried and a third pane underneath the group window allows you to swiftly browse details on individual systems or entire groups. For hardware you can select a group and see, for example, the spread of processor types and installed memory on the member desktops - a useful tool for checking quickly which systems will require an upgrade or replacement prior to the next OS upgrade.

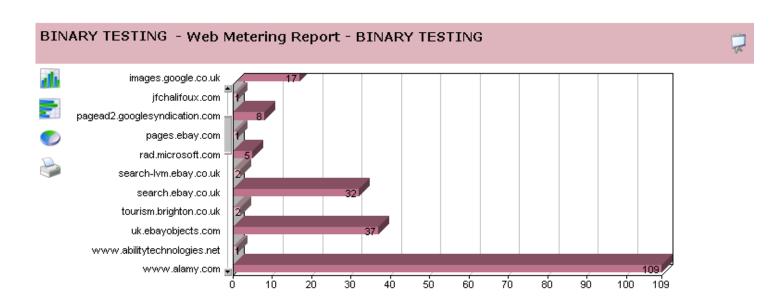
Internet and Applications Metering and Access Control

The Internet metering and access controls make DNA virtually unique in the world of desktop management. This is a feature that has been ported over from NetSupport's School distance learning and classroom teaching and examination product and we found it added considerable value to DNA.

The DNA client agent is capable of monitoring all Internet activity on each desktop in real-time where it passes this information back to the console. At its most basic level you can keep an eye of graphs of the top web sites being visited by group members and this information can be updated as often as every minute. Even more detail is provided for individual users as you can see the top web sites they have been visiting and a complete list below shows all sites, the duration of the last visit and the number of times they have been requested.

Although not as comprehensive (or as costly) as true web content filtering, DNA's metering does allow you to control access to Internet resources. Global settings let you to decide whether to allow unrestricted access, implement approved or restricted URL lists or block access completely. Usefully, different global settings can be applied to each group so you can fine tune Internet access for each one. You can decide to add URLs to a restricted list although for greater control it would be easier to create an approved list of URLs and only allow your users to access those. Either way, they are easy enough to create as you can view a list of all sites visited and move selected entries to either list. If a user attempts to access a blocked site they can be redirected to a URL with an advisory message and DNA's alerting module configured to warn operators of this activity. Time restrictions can also be applied at the group level allowing access policies to be activated during two distinct periods for each day.

Along with software inventory, DNA can monitor active applications on each desktop and provide this information back at the central console so you can see precisely what each user is doing at any given time. As with Internet metering this option presents a graph of the top applications at the group and individual user level and you can see how long they have been using each one for. Access controls come into the equation as well as you can apply a similar level of controls to applications as you can for Internet access. Top-level restrictions can be applied to the total company so games during work can easily become a thing of the past. These restrictions can also be refined further down within each sub-group and you can also apply time periods that determine when the controls are to be active. If a user attempts to run a restricted application they receive a simple message from the console advising them that it has been blocked. As with Internet metering our testers found application metering and access controls very easy to set up, configure and monitor.



Alerting

An essential element of desktop support is change management and the ability to react to problems in a timely manner. DNA's new alerting module puts it up with many enterprise solutions as it provides the tools to automatically issue warnings when changes occur on the network. It provides two types of alerts with System Alerts concentrating on changes that occur in the data stored by DNA such as the software and hardware inventory, a new PC being added to a group and changes to user details. PC Alerts handle changes within the systems being monitored such as hard disk space decreasing, CPU utilization, applications being installed and uninstalled and so on.

In light of the increased awareness of data protection compliancy DNA's ability to monitor USB devices adds considerable value to the alerting module. Removable USB media is the scourge of network administrators as its use in a business environment can be so difficult to control and virtually impossible to monitor. However, DNA can issue a warning when it detects a user inserting or removing a USB storage device. DNA doesn't provide any facilities for blocking the use of these devices but specialist products such as Reflex Magnetics DiskNet Pro, Centennial Software's DeviceWall and SmartLine's DeviceLock will add substantially to costs if you want these capabilities. During testing we found this functioned very effectively with the console providing pop-up warnings within seconds of a USB storage device being inserted or removed from our client systems. LANDesk's change tracking is very similar it you can select any component in the inventory to ask to be notified if it changes although this will require the additional System Manager product installed.

Alerting configuration is simple enough as you provide email addresses the alerts are to be sent to and decide on an escalation process. The latter allows you to set response times for each alert and if they are not signed off in time they will be escalated to the next stage. When they've reached the critical level the DNA administrator will be informed. The status of System and PC alerts are displayed in the main console so it's easy to keep track of outstanding issue. Furthermore, from the Hierarchy pane each system that has an alert against it is marked for attention. DNA also provides a rudimentary problem tracking system as the console user names will be appended to the alert when it is closed and a description of the resolution can also be entered. All alerts are stored in the DNA database which can be queried to track their progress.



Reporting and Help Desk Tools

Reporting

With desktop management tools capable of providing so much information, reporting quality must be a high priority if administrators are to be able to make any sense of it all. With such a well designed console DNA is able to deliver a lot of information about assets and user activity without the need to run database queries. The simple layout allows general hardware and software inventory details to be checked quickly whilst application and Internet usage can be monitored easily and in real time.

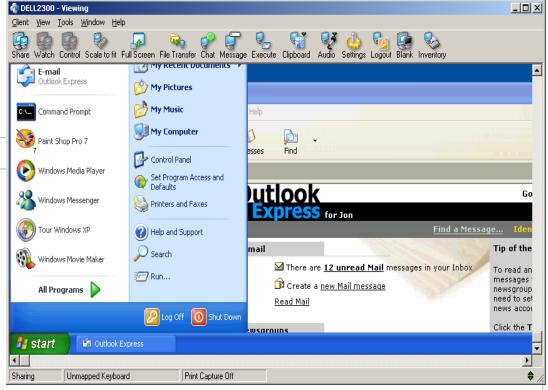
All reporting facilities can be accessed directly from the lower left pane where the View tool provides a range of graphical reports. A smart feature is that it will change according to the option tab selected so for hardware it provides a list of all components that can be selected individually for an overview. Move to the Internet tab and the view pane offers queries based on the current day, the last seven days or a custom time period and can be filtered by the logged on user names.

The Queries option allows you to create your own reports on any of the various components. Any or all data from sources such as PC and user information, software and Internet metering, software distribution and alerting can be included and conditions applied to reduce extraneous information. Query details are displayed in the console window and can be printed out but are comparatively basic. For reports that may be presented to the board, DNA has Crystal Reports integrated. They cannot be customized but NetSupport provides a very extensive range of pre-defined reports

for each category. During testing we were impressed with the fact that once a Crystal powered report has been created you can select different groups from the pane above and the report will change automatically dependent on the members.

Help Desk Tools

Help desk features are another fundamental feature required for desktop management as they allow support staff to remotely diagnose and fix user's problems. NetSupport is certainly no stranger to this as its Manager software is one the best remote control packages on the market and offers an unbeatable range



of features and performance that few other competing products can match let alone beat. Two options are available with the DNA Remote Control offering the ability the watch, share and control other desktops over the network and providing chat and messaging facilities. The full Manager product adds an extra range of features including its own hardware and software inventory, file transfer and recording and replaying actions for use as training aids.

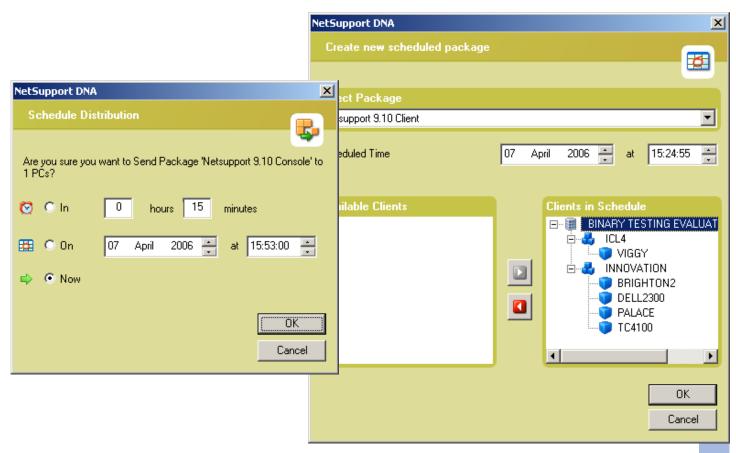
An important consideration is that the remote control features are not separate utilities but are accessed from within the DNA console. You can select a system from the Hierarchy pane and activate remote control, chat and message functions from a drop-down menu.

Software Distribution

The days when support staff had the time to visit each user's PC to install new software are long gone. However, to remain compliant with data security requirements there is a steady stream of updates or patches that must be applied along with new applications, updates and upgrades. Software distribution is a feature common to all enterprise desktop management products which provides the means to deliver these remotely as packages from a central location. We found DNA's distribution tools to be as advanced as the competition and offering a good range of delivery methods that suit a wide variety of network environments.

Once a package has been created by DNA it can be delivered silently to the entire hierarchy, selected groups or individual systems. DNA offers a very similar system to SMS's Collections as custom groups can be created by querying the inventory database thus ensuring that all included systems meet the hardware requirements for the package being distributed. Packages can be delivered on demand and a new feature that brings DNA in line with competing products is a scheduler allowing them to be delivered out of hours to minimize the impact on productivity. The client utility also allows users to query the console to see if packages are available for distribution and the impact on network bandwidth can be reduced by using selected clients as distribution warehouses.

This process works well with 'silent' installations but for more complex processes that require user intervention DNA also offers its separate application packager utility. The majority of desktop management products offer a virtually identical feature where the utility records an installation on a typical PC representative of the target group. The resultant package can then be advertised or distributed silently to selected DNA groups within the organization.



Conclusion

Desktop management is always a hot topic as businesses look for ways to drive down costs for supporting and maintaining their IT infrastructure. There are a number of very well established products on the market but many are overly complex for smaller businesses. Furthermore, products such as SMS suffered from a lack of development in their early days and have taken a remarkably long time to mature.

A critical feature that impressed our testers most was that DNA offers a complete desktop management solution straight from the box. Many competing products have taken a fragmented approach by breaking out key features and functions and offering them as optional extras to the core product. This does allow them to be customized to suit different IT environments and requirements but it could significantly affect support costs when they are procured and installed at a later date.

At the SMB level there has also been an increase in the number of point solutions appearing which focus on one or two areas of desktop management. Software Innovations Systemhound, for example, focuses purely on hardware and software inventory and while it does provide extremely high levels of information does not offer any other desktop management features.

Executive Software's SiteKeeper also focuses on inventory, software deployment and license compliance but has no options for real-time application and Internet metering. These do represent particularly good value but businesses that require extra features will need to purchase other point solutions to avoid duplication. Support demands could also increase as staff tasked with desktop management will have to deal with separate, disparate products, multiple console interfaces and no means of amalgamating data into a single repository.

DNA provides all the key features we expect to see and integrates them neatly together into a single console. The detailed and accurate hardware and software inventory allows administrators to track their IT assets closely and minimize resources wastage whilst application metering provides the controls need for software license compliance.

This component will also prove very useful in tracking down unused applications allowing license purchases to be more closely tailored to actual usage. The Internet metering and access controls also make DNA virtually unique as few, if any, competing desktop management products offer this feature. It adds significant value to DNA as using a point solution for this could be prohibitive in terms of cost and ongoing support

The simple installation procedures and initial configuration for DNA makes it equally suited to the SMB and midsized enterprises deploying to many thousands of desktops. We found it is possible to have DNA installed and taking inventories within minutes of installing the console on the host system.

There are no significant demands for deployment planning making this an excellent desktop management solution for a wide range of businesses as it requires minimal network resources to function and is capable of fitting in with an extensive range of existing network infrastructures.

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