ManageEngine
Endpoint Central

An overview of endpoint management challenges and the available solutions

WHITE PAPER

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Abstract

Enterprises that rely on computers for their businesses face numerous challenges in managing their network endpoints. This whitepaper targets the IT Administrators and IT Managers in discussing the importance of endpoint management and how a holistic unified endpoint solution should assist them in efficiently managing their devices. The traditional way the enterprises approach these challenges today and the pros and cons of these approaches have also been dealt with. The options available for enterprises in solving these challenges are also discussed.

Need for Endpoint Management Solution

Today, desktops, laptops, servers, smartphones and tablets have become an integral part of every business, be it manufacturing, retail, BPO, hospital, hotel and so on. This means, the business growth is completely dependent on how well the computers are managed. Unified Endpoint Management essentially involves keeping up-to-date details of the hardware and software assets, standardizing application settings, deploying software applications, patching the devices, troubleshooting, and more. Considering the increase in number of endpoints, their high dependency for the business activities, and the wide range of management activities, an automated endpoint management solution is inevitable, which would otherwise cost high both in terms of money and administrators' time.

What should typical Desktop Management Software do?

A typical desktop management solution should help enterprises with the following:

- **Securing Endpoints**: Protect endpoints from various security threats like vulnerability attacks, data thefts, etc.

- **Standardization**: Having same version of OS and Applications across the network helps administrators to easily maintain and troubleshoot them.

- **Troubleshooting**: Help administrators to troubleshoot day-to-day problems in user computers.

- **Auditing IT Assets**: Effectively manage their software and hardware assets and enable auditing their IT assets.

- **Assistance to Regulatory Compliance**: Assist organizations in meeting regulatory compliance like HIPAA, SOX, etc.

- **Automation**:   Automating regular endpoint management activities like Software Deployment, Disk Defragmentation, cleaning up the temp folder, etc.

Let us look in more details on these requirements

Securing Endpoints

New threats are discovered every day and keeping software up-to-date is one of the easiest ways to protect the endpoints. While most of the external threats can be prevented by installing up-to-date patches of OS and applications, enterprises should also adopt necessary measures to protect sensitive data by enforcing strict security restrictions. Some of the important tasks in protecting the computers include:

- Keep the computers with up-to-date patches installed

- Update the Anti-Virus/Anti-Spyware programs to keep themselves protected from new virus/spyware

- Upgrade operating systems and software applications to the latest service pack

- Apply security restrictions by enforcing appropriate security policies.

- Prevent data theft by disabling USB drives in servers and the likes.

- Monitor and repair automatically when the configurations are altered by the users.

Standardization

Standardization enables administrators easily troubleshoot and maintain desktops in their network. Typically, large organizations achieve standardization by taking a snapshot of the OS and applications and deploy them to all the desktops in the network. Some of the standardization tasks include:

- Imaging operating systems and applications and deploy to new systems

- Standardized configuration of all the windows applications across the network.

- Enforce standardized power schemes and settings to save power consumptions.

- Manage desktop settings and user profiles

Troubleshooting

Today, businesses are spread across the geographies to expand their reach and to increase their competitive advantage. This has resulted in having more mobile workforce and remote offices operating from different locations. Troubleshooting these desktops remotely is time consuming in the absence of a remote connection. Ability to establish a remote connection will help administrators to troubleshoot and fix the problems from a central location.

Auditing IT Assets

Keeping track of assets and licenses is the key in managing desktops and to ensure compliance. Business needs force administrators to provide "admin" privileges to some users. This may bring in lot of unwanted, prohibited software installations in the enterprise network. Organizations should keep a check on all these software to avoid consequences that may arise later. In managing the assets, the administrators should be able to perform the following tasks:

- Keep up-to-date details of software and hardware assets.

- Keep track of the commercial software with their usage statistics that helps organizations ascertain the requirements and decide on license renewals.

- Manage the software licenses to ensure compliance

- Ability to prevent users from installing prohibited software in the network and automatically uninstall if any prohibited software is detected.

- Alert on specific events: when a new software/hardware is detected, under-licensed software is detected, prohibited software found in the network, etc.

- Ability to generate reports on the assets based on specific criteria for auditing.

Assistance to Regulatory Compliance

Most businesses deal with user or client data, which has to be well protected. In view of the public interest, government enforces certain regulations based on the business verticals. Enterprises need to comply with these regulations to achieve data privacy.

Some of the regulations gaining more attention include, Health Insurance Portability And Accountability (HIPPA), Sarbanes-Oxley (SOX), Payment Card Industry Data Security Standard (PCI DSS), and Gramm-Leach-Bliley Act (GLBA).

The Desktop Management solution should assist organizations in complying with these regulatory bodies. It should allow enterprises to secure the data and provide reports on compliance.

Automation

Automating regular desktop activities is the key in increasing administrator productivity. The tool should allow automation at various levels ranging from simple configuration to complex software deployment and also provide execution status reports. Some of the common automation tasks include:

- Automated deployment for patches as and when the patches are made available

- Scheduled imaging of OS and deployment at periodic intervals

- Scheduled deployment for software applications to the users and computers

- Monitor and repair the configuration changes made by users to comply with company policies

- Schedule periodic hard disk maintenance like Disk Defrag, Check Disk, etc.

- Schedule shutdown of computers in an effort to save power consumption.

- Support running user-defined scripts in achieving any specific task.

How Enterprises Solve the Problem Today

Let us see how enterprises meet these challenges currently. The categorization is based on the following:

Small Enterprises – Less than 100 employees

Medium Enterprises – Less than 500 employees

Large Enterprises – Greater than 500 employees

Small Enterprises

Small businesses may only not have a dedicated IT Support staff.   IT support is done on ad hoc basis by general administration staff.   Being generalist, the IT support may be done in non-standard way; will be a quick and dirty fix in most cases. This may not work in the long run and can lead to serious problems.

Advantages

- No need for a dedicated team for desktop management

- No fixed cost for procuring and commissioning a solution

Disadvantages

- Labor-intensive and Error-prone; may not scale when the organizations grow.

- Loss in business productivity in the event of problem

Medium Enterprises

Medium enterprises have a limited dedicated IT staff for handling their IT supports. Most medium businesses have point products or use other free tools in handing the

day-to-day requests. These tools are acquired as and when the need arises and hence they end up using several tools, each for a specific use.

Advantages

- Lower cost involved in procuring point products.

Disadvantages

- No integration between the tools – use different tool for different activity

- Loss in employee productivity

Large Enterprises

Large Enterprises will have a dedicated team handling all the desktop management activities and preferably have a complete desktop management solution from one among the big 4, like Altiris, LANDesk, etc.

Advantages

- A single integrated solution for all their needs.

Disadvantages

- Need a dedicated hardware for commissioning the solution

- Cost of the software and on maintenance is very high.

Solutions Available in the Market

Primarily, there are three alternatives available for enterprises to meet the desktop management challenges:

- Software based solution

- Software as a Service (SaaS)

- Outsourcing to MSPs

Software Based Solution

Businesses can procure and deploy software in their network for managing their desktops.

Best Suited For: Medium & Large Enterprises

Advantages

1. Cost-effective

Disadvantages

1. Initial investment required to procure and commission the software
2. Software Maintenance required like upgrade and backup

Software as a Service (SaaS)

This is an emerging model, where a service provider will host the application and licenses it to customers for using it on demand.

Best Suited For: Small & Medium Enterprises

Advantages

1. No initial investment is required
2. Software maintenance is taken care by the software provider

Disadvantages

1. Need internet connectivity with sufficient bandwidth
2. Recurring cost every year

Outsourcing to MSPs

There is yet another model wherein the businesses can completely outsource the desktop management activities to a Managed Service Provider (MSP).

Best Suited For: Small enterprises

Advantages

1. No dedicated IT Staff is required
2. No initial investment
3. No software maintenance

Disadvantages

1. Need internet connectivity with sufficient bandwidth
2. Recurring cost every year

Conclusion

Desktop Management is important for businesses of all sizes. With the increasing number of desktops it is impossible for companies to manage them manually. In the current economic times, no organization can afford to lose anything, be it data, money, or productivity. And at the same time they cannot also spend too high to manage their desktops. They need to find a mid-way between the two where they can be spending less in meeting their Desktop Management challenges. Companies must analyze the available alternatives and choose the best option that suits them.