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PATCH MANAGEMENT SIMPLIFIED

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OVERVIEW OF PATCH MANAGEMENT

Before getting into deep on Patch Management, we need to understand the meaning of the patch. In IT a Patch is the portion of the code that updates/optimizes the existing applications or software's in your computer, basically a dressing for computer software. When a bug or loophole detected after the software's RTM (Release to Market), a Patch is created to fix the issue instead of re-releasing the Operating System.

Applying Patches is a must to every device in your IT Infrastructure it can be on Operating system, laptops, desktops, routers, servers, installed software's or more.

In Patch Management, devices or technologies like SCCM, WSUS, Solar winds, LANDesk Shavlik looks for patches and decides whether they're needed or not and makes sure they are installed and implemented efficiently. By the effective installation of required Patches, the chances of system crashes and security breaches can be reduced.
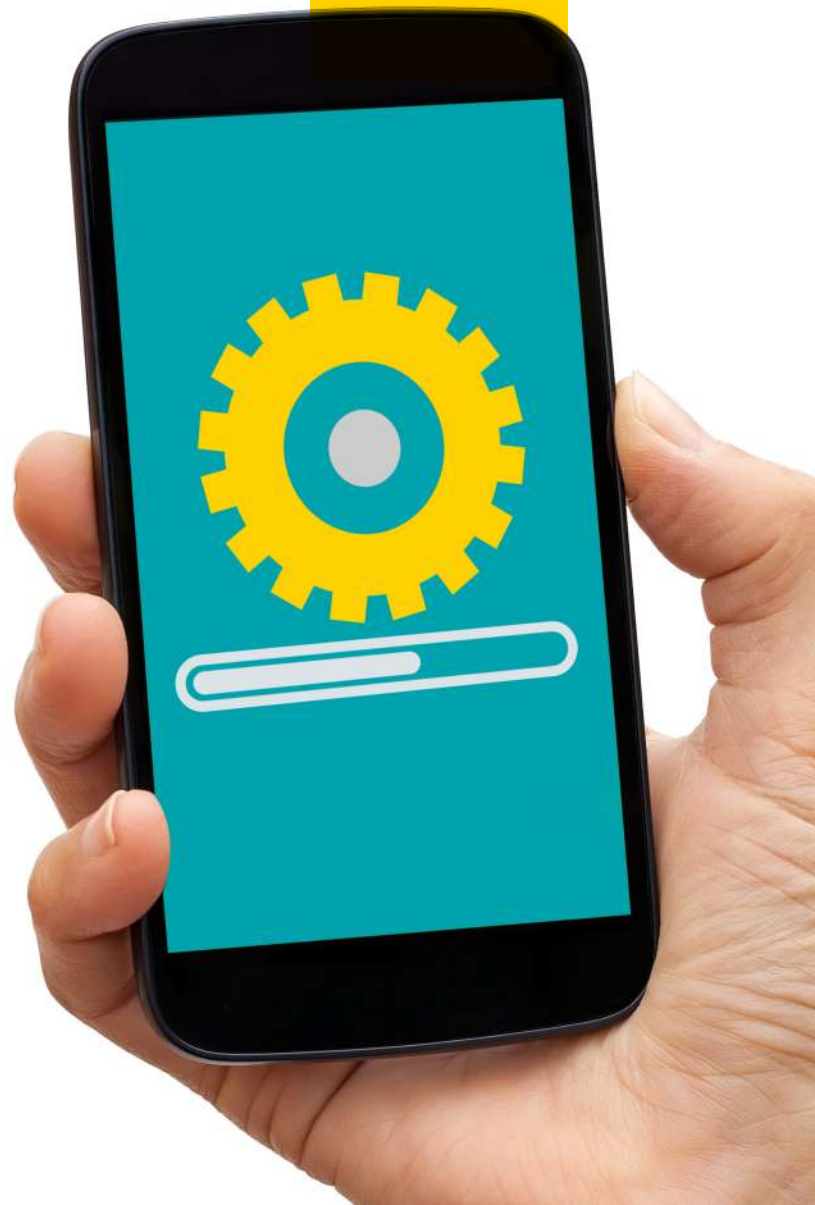
CHALLENGES OF PATCH MANAGEMENT

Now that we know, what is Patch Management, let us discuss some of the challenges that organizations face due to lack of tools and technique.

Security

Security is crucial for an organization. Normally without a strong Patch Management, if any data breach happens, the IT team starts applying patches to protect other accounts data, and this reduces the risk of business being affected.

Organizations can also avoid the data theft, legal issues and reputation damage that often shadows a Security breach.

Productivity

Problem: Due to bugs, computers get crashed, which affects the overall production of the employees.

Solution: A Patch that helps to fix these issues, and a proper Patch Management System can transform the efficiency of the employees that impacts on the overall productivity of an organization.

Compliance

Problem: The exploitation of Data, risk of Data Breach and Data Theft has significantly increased. Most of the companies have created Security Compliance Policies and failing to follow up could result in legal penalties for business against MSA (Master Service Agreement) document.

Solution: Patch Management process and adherence will protect the environment from Malware or Virus attacks like a Ransomware attack, card-skimming malware, Cable haunt, WannaCry, Ebola, Lassa, Influenza and more.

Remote Protection

Problem: Today, most of the Organization looks for Remote support or WFH (Work from Home) when needed, so how do we protect the data stored at their homes and mobiles? Solution: Patch Management programs can be implemented as part of a remote workforce support solution to protect all the devices, no matter where in the world they are located.

Innovation

With a constant change in technology, limiting ourselves to one system and technology would slow down the organizational growth. Hence always updating and adapting to the latest technology and innovation helps in providing a better service.
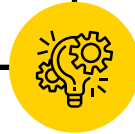
MITIGATING THE CHALLENGES IN PATCH MANAGEMENT WITH SYSTEM CENTER CONFIGURATION MANAGER (SCCM)

Patch Management is a must to keep Infrastructure up-to-date and free from bugs and security risks. It will be a very challenging task to manage manually without the right tools in place.

Similarly, Patch Management software like SCCM, WSUS, Solar winds, LANDesk, Shavlik automatically searches for missing patches and installs in Infrastructure. With a dedicated team, this service is locally installed and runs on a computer network.

Patch Management can be broken down into two components
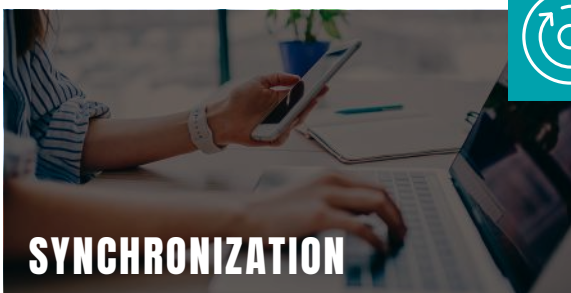
SYNCHRONIZATION

Synchronization of your SCCM server with Microsoft portal is essential, and the recommendation is minimum once in a day so that SCCM servers can be up to date with all the patches, hot-fixes, roll-ups and OOB (Out of Band) released by the vendor.

DEPLOYMENT

There are two ways to deploy patches in SCCM.

Manual
A set of patches will be selected in the console, create a group, distribute to DP and deployed to a target collection

Automatic
ADR (Automatic deployment rule) will be created with prefilled details like evaluation schedule, download location, user experience and Package name etc. The rule will automatically run on the preferred time creates the deployment and target to selected collection.

REPORTING

There are two ways to generate reports.

Manual

SCCM has inbuilt reporting feature with predefined reports, which can be used to measure the deployment status.

Compliance of organization can be measured using the graphical console and using the default reports and make sure we par with the SLA accepted.

Automatic

Using SQL query and SSRS, we can configure automated report generation and can be mailed to intended recipients.

IMPORTANCE OF MICROSOFT SCCM FOR ORGANIZATIONS

Earlier technologies like WSUS was not client-based, one had to approve and deploy the patches manually, it did not have centralized Infrastructure and reporting structure, which made the process difficult for audits and tough for the management to understand the state of compliance.

WSUS can be used only to deploy the patches, whereas modern management expectation was to do more like Application Management, Inventories and more.

WHY WE RECOMMEND SCCM

The Big benefit with System Center 2012 Configuration Manager (SCCM) or current branch is you can centralize your administration.

Client server method, which provides more controlled handshake.

We can deploy Operating System too.

We can group the computers using collections

We can set maintenance window.

Scheduling is possible

End user experience

Desired Configuration Management

BENEFITS OF
PATCH MANAGEMENT
USING SCCM FOR THE ORGANIZATION.

It's well-integrated with WSUS and windows update agent in the endpoint, central console to perform all administrative tasks.

Manual efforts and working hours are reduced as we can automate patch deployment, also easy to exclude mission-critical servers and VIP users.

We can set maintenance windows for server and workstation, which help in patching without affecting the service.

Control on user notification behavior, customized restart behavior, Patch deployment can be done without user interaction.

Faster time to value, SCCM understands very quickly with simple installations, in-place upgrades along with automated workflow.

Efficient operations quickly get the things done with one click feature and a straight-forward console and supports for multiple systems like windows, MAC, Linux, Hyper-V and VMware.

We have cloud integration, which helps visibility and control of data and Apps with Azure security management and integration.

Offers a set of tools and possessions that help manage the compound task of chasing and updating the software of client computers in the enterprise to maintain operational, efficiency, overcome security loops and to maintain the firmness of the infrastructure an effective software update management is essential. However, because of the fluctuating nature of knowledge and the continual arrival of new vulnerabilities, active software update management requires consistent and constant attention.

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CASE STUDY
IMPLEMENTING SCCM PATCH MANAGEMENT

SCENARIO ONE

For an Educational Institution

The educational institutions spend a lot of time and efforts to manually patch machines. Facing audits were very hard, the number of working hours was more and keeping track of travel and leaves was too hard. IT professionals in larger institutions were facing a lot of challenges to maintain compliance.

Past year, we found an excellent result in introducing SCCM in Patch Management which helped in saving working hours. Not only in compliance, but it also helped the organization with other benefits on Licensing, Inventory and more.

SCENARIO TWO

IT Sector Big and small scale

We were aware that big and midscale organizations always worried about Security Compliance due to an increase in the risk of malware attacks and hacks, the number of device procurement is continuing to increase due to expansions. IT professionals will face a challenge: how to deploy and maintain a big team to maintain and avoid compromising the security and data breaches we have introduced SCCM and found excellent results with respect to patching and lot of time and working hours saved. The client was happy and appreciated the project teams for providing the best solution and saving huge time in patching the organization without impacting or disturbing the users.

CONCLUSION

SCCM can be used in many ways not only for Patch Management but also how the organizations can Patch Manage devices using SCCM as discussed above, and users will not get disturbed and thus result in saving time.

IT Team\ Administrator can perform not only SCCM for patch management other features like:

1 New Site server maintenance task

2 Azure Active Directory User Group Discovery

3 Synchronize collection membership results to Azure Active Directory groups

4 Desktop Analytics

5 Distribution point Delivery Optimization

6 SCCM Application Groups

7 WSUS Maintenance Options

without any interaction or disturbance to the user, who is already a member of the deployment collection group.

All the above parameters can help the organizations to minimize the efforts on patch management and vulnerability management using new methods.

ABOUT THE AUTHOR

Shankar has over 15 years of experience in Enterprise IT services Consulting, Infrastructure Design & Architecture and Product Sustenance. He is currently working with the Infrastructure Management and Security Services team at Happiest Minds Technologies Pvt Ltd. He has wide-ranging interests in Automations and making things work automatedly.

About Happiest Minds

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable digital transfor-mation for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as "Born Digital . Born Agile", our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

Headquartered in Bangalore, India; Happiest Minds has operations in the U.S., UK, The Netherlands, Australia and Middle East.

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