

RED HAT

1.) INTRODUCTION:-

Red Hat, Inc. is an American multinational software company providing open-source software products to the enterprise community. Founded in 1993, Red Hat has its corporate headquarters in Raleigh, North Carolina , with satellite offices worldwide ..Red Hat has become associated to a large extent with its enterprise operating system Red Hat Enterprise Linux and with the acquisition of open-source enterprise middleware vendor Boss. Red Hat also offers Red Hat Virtualization (RHV), an enterprise virtualization product. Red Hat provides storage, operating system platforms, middleware, applications, management products, and support, training, and consulting services Red Hat creates, maintains, and contributes to many free software projects. It has acquired several proprietary software product codebases through corporate mergers and acquisitions and has released such software under open source licenses. As of March 2016, Red Hat is the second largest corporate contributor to the Linux kernel version 4.5 after Intel.

2.) IDEA:-

In 1993, [Bob Young](#) incorporated the ACC Corporation, a [catalog business](#) that sold Linux and [Unix](#) software accessories. In 1994, [Marc Ewing](#) created his own Linux distribution, which he named [Red Hat Linux](#) (Ewing had worn a red [Cornell University lacrosse](#) hat, given to him by his grandfather, while

attending [Carnegie Mellon University](#)). Ewing released the software in October, and it became known as the Halloween release. Young bought Ewing's business in 1995, and the two merged to become Red Hat Software, with Young serving as [chief executive officer](#)(CEO).

Red Hat [went public](#) on August 11, 1999, achieving the eighth-biggest first-day gain in the history of [Wall Street](#). [Matthew Szulik](#) succeeded [Bob Young](#) as CEO in December of that year. [Bob Young](#) went on to found the online [print on demand](#) and [self-publishing](#) company, [Lulu](#) in 2002.

On November 15, 1999, Red Hat acquired [Cygnus Solutions](#). Cygnus provided commercial support for [free software](#) and housed maintainers of [GNU](#) software products such as the [GNU Debugger](#) and [GNU Binutils](#). One of the founders of Cygnus, Michael Tie mann ,became the chief technical officer of Red Hat and by 2008 the vice president of open source affairs. Later Red Hat acquired Wire Speed, C2Net and Hell's Kitchen Systems.

In February 2000, [InfoWorld](#) awarded Red Hat its fourth consecutive "Operating System Product of the Year" award for Red Hat Linux 6.1. Red Hat acquired Planning Technologies, Inc in 2001 and [AOL's Planet](#) directory and certificate-server software in 2004.

Red Hat moved its headquarters from [Durham](#) to [North Carolina State University's Centennial Campus](#) in [Raleigh, North Carolina](#) in February 2002. In the following month Red Hat introduced Red Hat Linux Advanced Server, later renamed [Red Hat Enterprises](#) is (RHEL). DELL,IBM, HP and announced their support of the platform. In December 2005, *CIO Insight* magazine conducted its annual "Vendor Value Survey", in which Red Hat ranked #1 in value for the second year in

a row. Red Hat stock became part of the [NASDAQ-100](#) on December 19, 2005.

Red Hat acquired open-source middleware provider [J Boss](#) on June 5, 2006, and J Boss became a division of Red Hat. On September 18, 2006, Red Hat released the Red Hat Application Stack, which integrated the J Boss technology and which was certified by other well-known software vendors. On December 12, 2006, Red Hat stock moved from trading on [NASDAQ](#) (RHAT) to the [New York Stock Exchange](#) (RHT). In 2007 Red Hat acquired [Meta Matrix](#) and made an agreement with Exel to distribute its software.

3.)What problem does it

solves:-Institutions in higher education are increasingly turning to the cloud as their primary research computing platform. But the proliferation of different low-cost and out-of-the-box solutions means that individual departments and research institutions can deploy various platforms. This deployment of disjointed technologies can create serious security and governance issues for university IT departments. With Red Hat's open source and easy-to-manage cloud technologies, you can regain control and visibility over their university-wide cloud strategy. And, at the same time, provide individual researchers and institutions the flexibility they require for their specific initiatives and projects. While IT infrastructure consolidation is a major priority for colleges alike, so

is creating scalable and sustainable environments without incurring huge costs. Red Hat's open source solutions provide the ideal platform for large and small-scale consolidation deployments based on common standards . Our enterprise software has been tested to work across multiple environments and departments. And we work with you every step of the way to further build in comprehensive management across your various environments so that you can optimize your IT. Red Hat Academy provides comprehensive education materials, integrated testing, student management tools, certifications, and access to a wide variety of Red Hat communities and employment connections.

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Red Hat Linux is a modular operating system made up of hundreds of individual software components, each of which was individually written and copyrighted. Throughout this document these components are referred to, individually and collectively, as the "Linux Programs." Each Linux Program has its own applicable

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5.)Intent Behind Making at open source:-

Red Hat technologies are developed in close collaboration with customers, partners, and communities. And when Red Hat takes responsibility for open source technology by testing, hardening, securing, and supporting it, every customer shares the same level of assurance. Communities include companies. Most enterprise IT experts are deeply involved in the upstream communities of the technologies they know best. And communities don't just contribute innovation, they grow and develop innovators. Many others are promises we make, to keep the technologies open. And the advancement continuous. It's a virtuous cycle that works. Red Hat believes that software patents impede innovation in software development and discourage open source innovation. Red Hat representatives have addressed these issues before the National Academies of Science, the U.S. Federal Trade Commission, the maintain a portfolio of software patents for defensive purposes.

6.)MONOTIAZATION MODEL:-

Open source software powers the world's technology. In the past decade, there has been an inexorable adoption of open source in most aspects of computing. Without open source, Facebook, Google, Amazon, and nearly every other modern technology company would not exist. Thanks to an amazing community of innovative, top-notch programmers, open source has become the foundation of cloud computing, software-as-a-service, next generation databases, mobile devices, the consumer internet, and even Bitcoin .Yet, with all that momentum, there's a vocal segment of software insiders that preach the looming failure of open source software against competition from proprietary software vendors. The future for open source, **they argue**, is as also-ran software, relegated to niche projects. It's proprietary software vendors that will handle the really critical stuff. So which is it? The success of technology companies using open source, and the apparent failure of open source is a head scratcher. Yet both are true, but not for the reasons some would have you believe. The success or failure of open source is not the software itself – it's definitely up to the tasks required of it – but in the underlying business model. Red Hat, the Linux operating system company, pioneered the original open source business model. Red Hat gives away open source software for free but charges a support fee to those customers who rely on Red Hat for maintenance, support, and installation. As revenue

began to roll into Red Hat, a race began among startups to develop an open source offering for each proprietary software counterpart and then wrap a Red Hat-style service offering around it.

Companies such as MySQL , Xen Red Hat is a fantastic company, and a pioneer in successfully commercializing open source.

However, beyond Red Hat the effort has largely been a failure from a business standpoint. Consider that other public standalone

companies that have been able to offer an alternative to their proprietary counterpart. When you compare the market cap and revenue of Red Hat to Microsoft or Amazon or Oracle, even Red Hat starts to look like a lukewarm success. The overwhelming success of Linux is disproportionate to the performance of Red Hat.

Great for open source, a little disappointing for Red Hat. Source, Sugar CRM, Ubuntu , and Revolution Analytics were born in this rush toward open source. If you extend that platform worldview, Red Hat's support model amounts to selling a slightly better version of the road – in this case, the Linux operating system – which is already good enough for most people. Sure, when you first launch a business built using open source components, it's important to grow the size of the platform and cater to your early adopters to drive initial success. So you might start off looking a little like Red Hat.

But if all goes well, you'll start to more resemble Facebook, GitHub, Amazon or Cumulus Networks as you layer in your own special something on top of the platform and deliver it as a service, or package it as an appliance. Becoming the next Red admirable

goal, but when you look at the trends today, maybe even Red Hat should think about becoming the next Amazon.

7.)Popularity:-Any company can run a free and open source Linux distribution in an enterprise environment, but most have serious restrictions. In particular, the maintenance lifetime of most free distributions is limited. The popular open SUSE distribution, for instance, has an 18-month lifecycle, meaning that a security issue that occurs 24 months after the initial release date will not receive patches. Because it takes about 18 months to get a Linux distribution approved for use in the corporate world, distributions with such a short life cycle aren't even worth considering . Also, avoid distributions with maintenance periods that might change. An enterprise-grade Linux distribution needs to be well organized. If it only relies on an open source project, the project might split up or be acquired by a vendor, eliminating your support lifetime.

Red Hat makes it hard to access its software for free, so it has spawned rip-off distributions like Cent OS and Scientific Linux. Cent OS, which was purchased by Red Hat in 2014, is a free Linux distribution with the quality of RHEL. It targets users who aren't ready for paid enterprise support. Scientific Linux takes the same approach by offering Red Hat for free.

SUSE focuses on specific business verticals and partners with other major industry vendors such as SAP and VMware. VMware customers receive SLES free with VMware ESXi, and SUSE is the preferred platform for SAP -- a partnership that has brought SUSE into different corporate markets. [Microsoft also endorses SLES](#) for its customers that need to use Linux. That interoperability partnership started in 2006 and led to Microsoft introducing SUSE Linux to its customer Wal-Mart Stores Inc.

Ubuntu started as a free distribution. Canonical, the company backing Ubuntu, came along later to offer professional services around the distribution. Companies that want to [run Ubuntu LTS](#) in a supported environment should contract with Canonical, but those that are solely interested in using the software and getting updates for a guaranteed amount of time can download and install Ubuntu for free.

There is no single best Linux distribution for every enterprise's servers. It all depends on what your company needs.

Today, Linux is more than a free OS to mess around with -- it runs core business applications. When comparing the best Linux distros, corporate Linux users care about support throughout the stack, not just an attractive feature set.

Server administrators worry about the maintenance lifetime and support on an OS. Maintenance lifetime is the length of time that the Linux distribution provider patches and updates the product. Support comes in three different forms: support for applications, support for hardware and support for troubleshooting. Linux users in an enterprise data center willingly pay for the best maintenance and support with the best Linux distros.

Free Linux distributions

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the best Linux distros for your organization. All Linux operating systems use more or less the same open source components, especially where it really matters. For example, Docker, which enables you to run containers on top of Linux, is found in all major distributions.

What does make a difference is support for these features. Verify that the main features your enterprise uses are supported by -- not just technically feasible on -- the distribution. For example: Your server infrastructure relies on Linux container virtualization (LXC). [SLES offers LXC](#), which can run many instances of the operating system on the same kernel. LXC isn't supported on RHEL, so even if technically you can run it, Red Hat would not offer support for the containers.

The best Linux distros for the enterprise offer stable software for the version your organization uses. Check the distribution's website to see if the latest version of a software package is included by default. These lists change

frequently so check whenever you are making an OS decision, even if you checked the lists a few months prior.

Support for specific software components may be limited to a specific version, as well. For example, your web developers may need access to the latest version of PHP, but your distribution might only offer support up to a few versions ago. When you request information about the software, the updated packages will be marked as non-supported software. Another option is to work with modules, which were introduced with SUSE's release of SLES 12 and allow distributions to react fast on dynamic software stacks. Modules contain specific sets of software packages that belong together and that have a different support lifecycle than the main distribution.

Enterprise Linux distribution pricing can be confusing: You don't pay for the software, but for the support, which [differs for each distribution](#). Ubuntu offers free patches, whereas other vendors charge for such support. All vendors offer a base support package through full-scale premium support. Oracle and Red Hat support tend to cost the most, but the price you pay in the end depends on many circumstances.

Red Hat Enterprise Linux

Red Hat is the market leader of Linux distributions, with an [estimated market share of 67%](#), according to Gartner. [RHEL](#) entered many data centers via support deals with hardware and software vendors, an approach emulated by other Linux distributions.

The company employs more developers than other supported Linux vendors. Therefore, Red Hat plays an important role in many open source projects. If your company wants to adopt cutting-edge open source platforms, it makes sense to standardize on Red Hat.

Red Hat offers many products that can be used to provide a complete open source infrastructure, notably Red Hat Enterprise Virtualization and Red Hat Cloud. Red Hat also provides [the JBoss middleware platform](#), which corporate IT teams use to develop applications.

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SUSE Linux Enterprise Server

SUSE focuses on specific business verticals and partners with other major industry vendors such as SAP and VMware. VMware customers receive SLES free with VMware ESXi, and SUSE is the preferred platform for SAP -- a partnership that has brought SUSE into different corporate markets. [Microsoft also endorses SLES](#) for its customers that need to use Linux. That interoperability partnership started in 2006 and led to Microsoft introducing SUSE Linux to its customer Wal-Mart Stores Inc. From a technical perspective, SUSE Linux is more accessible than the other supported Linux distributions. SUSE is also the most administrator-friendly. Its integrated YaST platform makes complicated management tasks on Linux easy to perform. SUSE is one of the main developers for Pacemaker High Availability, the standard tool for high-availability clusters in all current Linux distributions. Unlike Red Hat, SUSE doesn't offer its own virtualization platform. It does offer SUSE Cloud, which is based on OpenStack, and SUSE Manager, which helps patch and manage dozens of SUSE and Red Hat deployments from a centralized interface. Ubuntu started as a free distribution. Canonical, the company backing Ubuntu, came along later to offer professional services around the distribution. Companies that want to [run](#)

[Ubuntu LTS](#) in a supported environment should contract with Canonical, but those that are solely interested in using the software and getting updates for a guaranteed amount of time can download and install Ubuntu for free.

When installing Ubuntu as a server platform, use the Long Term Support version. Patches are available for at least five years for LTS, where the availability of patches for regular versions, which come out on a faster update cycle, is much more limited.

Ubuntu's desktop OS is famously easy to use, but that is not so with the server version. Most management tasks are performed the hard way, by modifying configuration files, running commands and starting processes. For some users, this is a real disappointment.

Ubuntu is based on [Debian Linux](#), a distribution popular with developers and in educational environments. Debian doesn't offer enterprise support, but by using Ubuntu LTS, customers can receive it anyway.

Oracle's Unbreakable Enterprise Kernel started by modifying the open source RHEL software to make a platform for Oracle databases.

Apart from companies that are running Oracle databases, Oracle's distribution [hasn't been a huge success](#). It typically comes into the data center if the database administrator decides which Linux OS to use. Even still, many companies already have a Linux policy and a standard distribution that predates Oracle's open source initiative. This means plenty of Oracle databases still run on SUSE and Red Hat distributions, where it is supported

8.)Impact:-Red Hat Impact provides founders, entrepreneurs and business managers with capital, consulting and connections to grow businesses with positive social and environmental impact. Our speciality is ethical trade finance – using an identified opportunity for new customers, more sales, bigger deals to grow your business and amplify the positive impact your business has on the world. If you run a business that is creating a better world, and you need access to capital to pursue new business opportunities, get in touch. Red Hat's open culture – rooted in transparency, collaboration and meritocracy – was highlighted in *The Open Organization*, by Jim Whitehurst, the company's president and CEO. Red Hat created the Open Decision Framework to help sustain and scale its open culture as it grew. As interest in open source – both in technology and as the basis of open management and culture – has taken off, Red Hat has received a number of requests from outside organizations interested in learning how to apply open source principles within their own organizations. By making its Open Decision Framework available, Red Hat hopes to empower business leaders, decision-makers, and project managers to learn from the experiences of Red Hatters and contribute their own findings back to the community.

9.)CONCLUSION:-

THE ABOVE SOFTWARE HAS BEEN WRITTEN SUCCESSFULLY.