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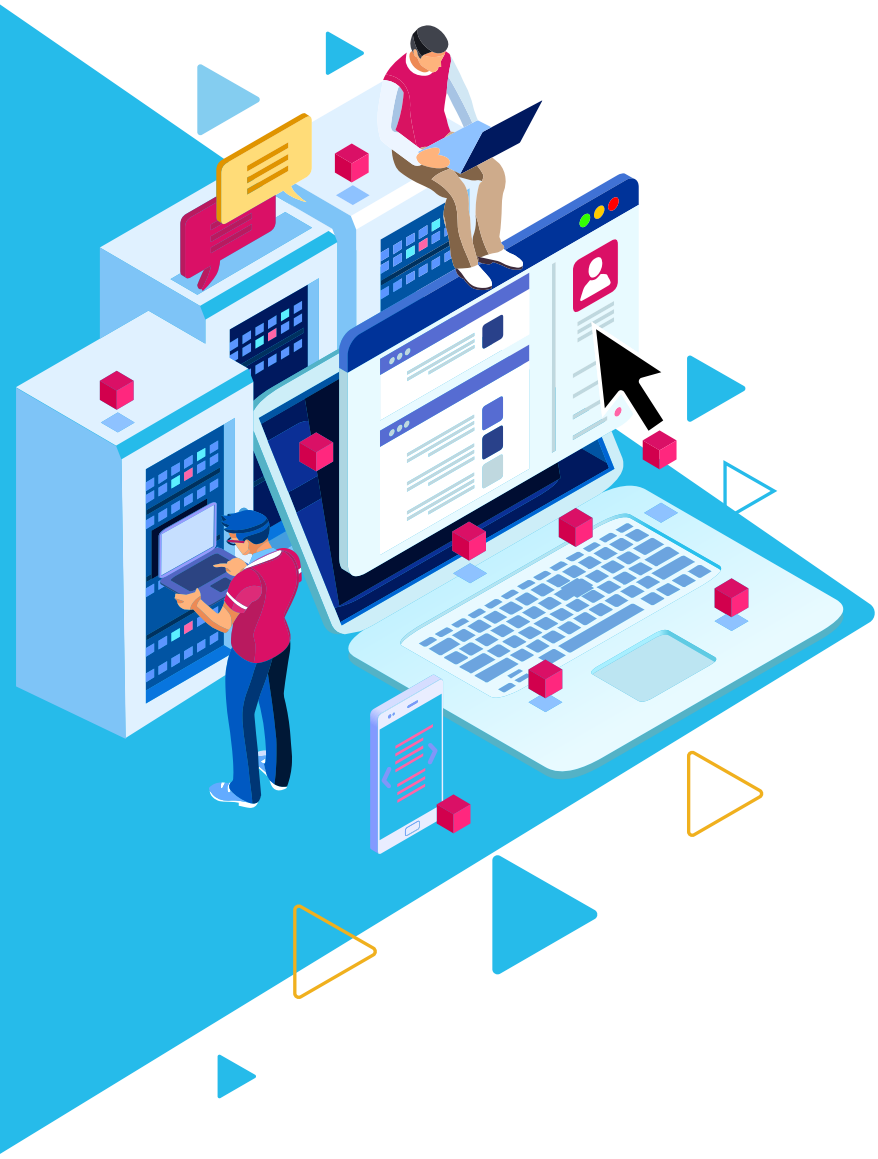

BigFix Lifecycle

Reduce cost, risk and complexity of managing endpoints using a single agent

The convergence of IT functions that has occurred in recent years— operations groups, for example, taking ever-greater responsibility for security—requires a corresponding convergence of management tools. Without unified, simplified and streamlined capabilities, management tasks in the distributed enterprise run the risk of becoming overwhelming in size and complexity.

BigFix® Lifecycle delivers the comprehensive and powerful approach that IT management needs today. Its single intelligent agent technology provides real-time visibility into the state of endpoints and gives administrators advanced functionality for managing those endpoints. Now, administrators have a single tool for discovering and inventorying resources, deploying operating systems (OSs), distributing software, controlling remote devices, and managing patches and other system changes.

BigFix Lifecycle provides an accurate and comprehensive “single source of truth” for managing hundreds to hundreds of thousands of endpoints from a single server. Deployed in as little as a few hours, this industry-leading solution can shorten update cycles, improve the success rates for provisioning, reduce IT and help-desk labor requirements, and boost end-user productivity.

Highlights

- Manage hundreds of thousands of endpoints regardless of location, connection type or status
- Combines device discovery, operating system deployment, software distribution, remote device control, server automation, and patch management
- Fixlet® messages, delivered regularly by the BigFix development team, wrap the update with policy information (such as patch dependencies, applicable systems and severity level) which is read by an intelligent agent so only the relevant updates for that specific endpoint are downloaded and installed
- Reduce management and infrastructure complexity, reduce total costs, boost productivity and deliver a high Return on Investment (ROI)

Consolidating and simplifying management enterprise-wide

In most distributed environments, the number of devices and network complexity are on the rise, while visibility and control of endpoints is poor and service levels are a challenge to maintain. The quantity and variety of management tools steadily increase, while IT budgets and staff levels remain stagnant or are reduced.

BigFix Lifecycle can help organizations meet these challenges by simplifying and consolidating key management services enterprise-wide by:

- Delivering unified real-time visibility into all endpoints, including desktops, laptops, servers, point-of-sale systems, ATMs and self-service kiosks
- Scaling to hundreds of thousands of endpoints from a single management server
- Providing a lightweight, flexible infrastructure that ensures connectivity with endpoints regardless of location, connection type or status
- Reducing complexity by managing heterogeneous platforms, including Microsoft Windows, UNIX, Linux and Mac OS, from a single console
- Speeding bare-metal OS provisioning and migrations
- Giving users control and curbing the volume of help-desk calls through administrator-approved, user self-provisioning capabilities
- Providing remote desktop control of servers and workstations, streamlining help-desk calls and speeding problem resolution
- Ensuring security and compliance of all endpoints, whether on or off the enterprise network.

Delivering functions that address the full systems lifecycle

BigFix Lifecycle includes the following key functions without adding additional infrastructure or implementation costs:

Device discovery

With BigFix Lifecycle, device discovery is no longer a "bean counting" snapshot exercise. The solution creates dynamic situational awareness about changing conditions in the infrastructure. The ability to run distributed scans on the entire network frequently delivers pervasive visibility and control to help ensure that organizations quickly identify all IP-addressable devices—including network devices and peripherals such as printers, scanners, routers and switches in addition to computer endpoints—with minimal network impact.

Device discovery helps maintain visibility into all enterprise endpoints, including laptop and notebook computers that are roaming beyond the enterprise network.

Software distribution

For organizations that face distribution challenges brought on by high-latency and low-bandwidth networks, poor visibility into distributed assets and the need to support roaming endpoints, BigFix Lifecycle provides policy-based installation, closed-loop verification and the ability to manage software distribution across Windows, UNIX, Linux and MacOS platforms from a single, unified point of control. The solution delivers high first-pass success rates with minimal impact on network performance. Existing software repositories are migrated easily through automated content creation capabilities while specialized plug-in tools inspect packages for intelligent targeting and deployment of software. A self-service portal provides administrators the ability to approve applications allowing users to install at their leisure which improves staff productivity and lowers the impact on users

Operating system deployment

Centralized control and automation simplify bare-metal deployment of Windows and Linux images to new workstations, laptops and servers throughout the network, as well as OS migration and refresh for existing endpoints. At the same time, it reduces management costs, minimizes impact on end users, ensures compliance with organizational OS standards and reduces risks associated with noncompliant or insecure configurations.

Hardware-independent imaging in conjunction with advanced driver management capabilities takes the guesswork out of OS deployment by injecting appropriate device drivers as needed. The product ensures no loss of management, as agent history is maintained across OS migrations and specialized registration mechanisms automatically reassign unique identities to duplicate agents resulting from image clones.

After deployment of the new operating system is complete, the solution agent becomes active to install required software, enforce security configuration policies and apply critical patches.

Patch management

Patch management includes comprehensive capabilities for delivering patches for Windows, UNIX, Linux and Mac systems and third-party applications from Adobe, Mozilla, Apple and Oracle to distributed endpoints, regardless of location, connection type or status. A single management server can support up to 250,000 endpoints, shortening patch times with no loss of endpoint functionality, even over low-bandwidth or globally distributed networks. Virtual patch management capabilities include off line patching, making stale virtual machine images a thing of the past. Real-time reporting provides information on which patches were deployed, when they were deployed and who deployed them, as well as automatic confirmation that patches were applied, for a complete closed-loop solution to the patching process.

Remote desktop control

The remote desktop control feature built into BigFix Lifecycle provides support and control for Windows, Linux and Mac OS desktops, laptops and servers from a central location. The desktop control features enable management and troubleshooting of systems that can streamline IT functions and reduce the workload on an organization's help desk, even across Internet-brokered connections. Remote diagnostics capabilities, a chat function and file transfer capability provide powerful tools to administrators and help desk staff resolving server and workstations issues. Native Microsoft remote desktop capabilities are supporting, giving users the ability to choose the right technology for their environment.

Power management

The Power Management capability of BigFix Lifecycle helps organizations achieve cost savings by reducing electricity usage while avoiding disruptions in systems management. The capability enables IT organizations to apply conservation policies infrastructure wide while providing the granularity to apply

power management policies to a single computer or groups of computers. This feature supports organizational green initiatives with a comprehensive yet simplified capability to manage power options with minimal impact on already-stretched budgets and staff.

With real-time tracking, system administrators know exactly how much time an endpoint spends in idle, active, standby and off states, resulting in an accurate view of current power usage and cost. Green impact reports can help promote conservation initiatives, and the graphical reporting data on aggregate power usage. Data can be exported to Microsoft Excel for further analysis.

The ability to wake systems (Wake-On-LAN) is a critical capability provided by Power Management in BigFix Lifecycle. The ability to 'wake' systems up and perform a management action dramatically improves first pass success rate and at the same time reduces user impact since actions can be performed 'off-hours'. Additionally, Wake-On-LAN allows enterprises can fully control when systems are powered on and off, improving security posture since non active machines are no longer vulnerable to hackers.

Server automation

BigFix Lifecycle Server Automation helps manage physical, virtual and remote servers while lowering operational costs with real-time, policy-based management.

Seamless physical and virtual server management from the same, single interface greatly improves visibility and control of all assets. BigFix Lifecycle enables users to easily deploy and manage servers across heterogeneous platforms using either pre-built or custom automation. The automated task sequencing capability offered can be used for critical tasks like server builds (for example, deploying operating systems, configuring settings, deploying software, changing the host name and restarting computer) or it can be used for other common system administrator tasks that need to be carefully sequenced. It also provides advanced automated patching for physical, virtual and clustered servers.

Endpoint inspection

BigFix Query provides a real-time status of all your endpoints, enabling accurate identification and inspection of vulnerable devices through a user-friendly web interface. You can interrogate endpoints and get precise answers back in seconds, telling you which policies are enforced and which applications and services are installed. You can even examine files and system configuration settings to help you identify additional security threats. Authorized users can use a library of pre-defined queries or can quickly and easily create their own custom queries. BigFix Query also verifies the remediation of endpoints, helping to bridge the gap between security and IT operations.

The BigFix family

You can further consolidate tools, reduce the number of end-point agents and lower your management costs by extending your investment in BigFix Lifecycle to include other components in the BigFix family. Because all functions operate from the same console, management server and endpoint agent, adding more services is a simple matter of a license key change. The BigFix family includes:

- **BigFix Compliance**— This easy-to-manage, quick-to-deploy solution provides unified, real-time visibility and enforcement to help organizations both protect endpoint assets and assure regulators that systems are meeting security compliance standards.
- **BigFix Inventory**—This software enables users to discover and analyze applications installed on desktops, laptops and servers. Drill-down information about software publishers, titles and applications—down to the version level—also includes aggregated statistics and usage information.

Built on BigFix technology

The core for all current and future capabilities is the BigFix Platform which distributes decision making to the endpoints. Some of the features include:

- **An intelligent agent**—BigFix utilizes an industry-leading approach that places an intelligent agent on each endpoint. This single agent performs multiple functions including continuous self-assessment and policy enforcement—yet has minimal impact on system performance. In contrast to traditional client-server architectures that wait for instructions from a central control point, this agent initiates actions in an intelligent manner, sending messages upstream to the central management server and pulling patches, configurations or other information to the endpoint when necessary to comply with a relevant policy. As a result of the agent's intelligence and speed, the central management server always knows the compliance and change status of endpoints, enabling rapid and up-to-date compliance reporting.
- **Reporting**—The single, unified console built into BigFix orchestrates a high level of visibility that includes real-time continuous reporting and analysis from the intelligent agents on an organization's endpoints.
- **Relay capabilities**— The scalable and lightweight architecture of the BigFix platform provides the flexibility to designate existing systems as BigFix relays to become the conduit between BigFix agents and the BigFix server. Relays reduce WAN traffic as they are responsible for uploading and downloading any necessary content for the BigFix agents. Additionally, where it is appropriate, BigFix agents can be enabled to operate in PeerNest mode in which one agent is dynamically chosen to download any necessary content and sharing it with peers, reducing WAN traffic and the number of relays in remote locations.
- **Fixlet® messages**—The Fixlet Relevance Language is a published command language that enables customers, business partners and developers to create custom policies and services for endpoints managed by BigFix solutions.

BigFix Platform Requirements
Server
• Windows Server 2008/2008R2, 2012/2012R2, 2016 • Microsoft SQL Server 2008-2017 • RedHat Enterprise Server 6, 7 • DB2 10.x
Console
• Windows 7,8.1,10/Server 2008-2019 • Adobe Flash Player 12+
Agent
• Windows: Vista-10 • Windows: Server 2008-2019 • Windows: 10 IoT • Windows: Embedded 7/2009, POSReady 7/2009 • RHEL: 5, 6, 7 • CentOS: 5.3, 6, 7 • Debian:7, 9, 8 • Oracle Enterprise Linux: 6, 6.7, 7, 7.1, 7.2 • Raspbian 9 • SLES: 10, 11, 12 • Ubuntu: 12.04 LTS - 18.04LTS • Solaris: • Mac: OSX 10.8-macOS 10.14 • AIX 6.1, 7.1, 7.2 • HP-UX 11.11, 11.23, 11.31 • *+ End-of-life platforms managed by previous versions of the BigFix Agent!*
Hypervisor Extenders: • PowerVM • VMWare ESXi 5.5, 6, 6.5
Remote Control Management Server *(Optional)*
• Windows Server 2008/2008R2, 2012/2012R2, 2016 • Microsoft SQL Server 2008-2016 • RedHat Enterprise Server 6, 7 • CentOS 5,6 • SUSE 10,11 • DB2 10.x, 11.x • Oracle 11g, 12c
Remote Control Target
• Windows 7, 8.1, 10 • Windows Server 2008-2016 • RedHat Enterprise Linux 5, 6, 7 • SUSE Linux Enterprise Server/Desktop 10, 11 • CentOS 5, 6 • OSX 10.11, MacOS 10.12, 10.14
OS Deployment PXE Server (only for bare metal)
A self-contained service that can be deployed on the following Windows OS: • Server 2008/R2, 2012/R2, 2016, 2019 ! • Win 7, 8.1, 10! The service will also install SQL Express 2017 if there is no existing DB on the box.
OSD officially supports capturing, imaging, and bare metal OS provisioning of
• Windows Server 2008-2019 ! • Windows Vista, 7, 8, 8.1, 10! • RHEL 6, 7! • SUSE 11, 12! • Ubuntu 16.04, 17.04! • ESXi 5, 6, 7!

Why BigFix?

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- BigFix Compliance— This easy-to-manage, quick-to-deploy solution provides unified, real-time visibility and enforcement to help organizations both protect endpoint assets and assure regulators that systems are meeting security compliance standards.

- BigFix Inventory—This software enables users to discover and analyze applications installed on desktops, laptops and servers. Drill-down information about software publishers, titles and applications—down to the version level—also includes aggregated statistics and usage information.

For more information

To learn more about BigFix, contact your HCL Software representative, HCL Business Partner, or visit: **www.BigFix.com.**

About HCL Software

HCL Software is a division of HCL Technologies that develops and delivers a next-generation portfolio of enterprise-grade software-based offerings with flexible consumption models, spanning traditional on-premises software, Software-as-a-Service (SaaS), and bundled managed services. We bring speed, insights and innovations (big and small) to create value for our customers. HCL Software areas include DevOps, Security, Automation, Application Modernization, Data and Integration Infrastructure, and several Business Applications. HCL embraces the real-world complexity of multi-mode IT that ranges from mainframe to cloud and everything in between while focusing on customer success and building 'Relationships Beyond the Contract.

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