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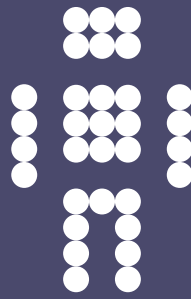
An Introduction to CFEngine 3 Nova for IT Managers

A Business White Paper

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CFEngine 3 Nova is a commercial configuration management suite built upon the powerful and widely adopted open source CFEngine 3 software automation project. It is designed to help organizations overcome their biggest IT challenges by increasing agility and consistency, while reducing costs and system outages.

Table of Contents

Executive Summary

CFEngine 3 Nova automates IT operations and connects the conceptual dots between IT and business with its knowledge-oriented approach. Nova improves overall business performance directly, by:

- Making your IT operations **Dependable & Secure**
- Making your IT operations **Transparent & Compliant**
- Making your IT operations **Agile**

Handle complexity

According to Gartner Group, unplanned downtime is rising for mission-critical applications. The number and complexity of these applications are rising steadily. In large organizations, the average unplanned downtime is almost 15 hours per month, mostly due to unauthorized manual changes to the system. CFEngine 3 Nova's self-repair functionality automatically restores misconfigurations, ensuring that desired end-state is always maintained without intrusive downtime, thereby reducing the likelihood of an IT service outage.

Desired-state through policy

CFEngine 3 Nova provides a policy-*promise* language, which allows IT operators to express their desires and intentions more strategically, delivering predictable expectations about the system. A policy change can be implemented in thousands of servers with zero-touch, making it consistent and rapid. A request to roll out a new application or process can be achieved effectively and securely using CFEngine policies.

Demonstrating control and ensuring effective and successful compliance audits is faster and easier with CFEngine – providing IT audits in hours instead of weeks. For organizations implementing regulations like SOX or IT best practices like ITIL, Cobit, or SAS70, our Web-based Nova 'Mission Portal' dashboard is an ideal way to define, maintain and demonstrate compliance.

Nova's high-level policy language allows you to trace business goals down to technical requirements, bringing improved business-IT-alignment and transparency for all parties.

Reduce costs

Using CFEngine 3 Nova, one can expect direct costs savings related to reduced management time of up to $3,000 per server per year. The number of incidents due to mis-configurations and unauthorized changes will be reduced typically from 70%-90%. Continuous service availability is an added extra, saving you indirect costs related to outages or non-compliant behavior.

Model-based knowledge brings transparency

CFEngine's proven theory-based approach makes automation processes understandable and sharable. Using patterns, even the most granular of definitions can be managed across a large heterogeneous environment.

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CFEngine 3 Nova Highlights

CFEngine 3 is the most advanced open source configuration management platform available, able to precisely manage and automate all facets of large-scale IT infrastructure, including:

- System Scalability & Performance
- Security
- IT Compliance
- Machine Building
- CMDB
- System Event Orchestration
- Application Deployment
- Desktop Management
- Legacy Applications
- Embedded Devices

The recent major update of CFEngine 3 Nova includes these new and enhanced features:

- **The 'Nova Mission Portal' dashboard** is a graphical user interface (GUI) for setting policies and monitoring system health. The Mission Portal can also produce policy reports on the state of any IT service or machine in the enterprise, allowing executives to develop and review custom IT metrics weighted specifically to the organization's business goals.
- **Native Support for Windows** – CFEngine Nova users can employ finegrained management of Microsoft Windows servers and desktops, including native control of the Windows Registry, Windows Services and Windows Access Control Lists (ACLs). A new technical whitepaper on "Windows Management with CFEngine 3 Nova" is available at www.cfengine.com/windows.
- **Ensure Faster IT Compliance** – CFEngine 3 Nova simplifies the implementation and compliance of commercial and government IT regulations, such as PCI-DSS, SOX 404, STIGs, and accepted industry best practices. Nova supports extensive and flexible customization of policies and reports, allowing organizations to complete IT audits in hours instead of weeks.
- **Improved Hypervisor Integration** – enhanced support for creating and managing XEN/KVM virtual machines on the fly, using the industry standard libvirt API library.
- **Support for Mission-Critical High Availability** through a fully redundant, lightweight architecture for system information updating. Users get reliable and predictable insight, with fault recovery times of only a few minutes in case of failure – something that cannot be easily matched by competing software.

About CFEngine

CFEngine software automates large-scale IT computing infrastructure: ensuring the availability, security and compliance of mission-critical applications and services. Based on a popular and flexible open source standard, CFEngine configuration management products are highly

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scalable through decentralized, autonomous agents that can continuously monitor, self-repair, and update a global multi-site enterprise every five minutes – with negligible impact on system resources or performance.

CFEngine solutions are used by global organizations such as Facebook, AT&T, Cisco, eBay, LinkedIn, AMD, the U.S. Navy, and five of the 10 largest banks on Wall Street to manage servers, desktops and other heterogeneous computing devices. Built upon well established theory and high-quality engineering practices, CFEngine enjoys an outstanding security record over its 18-year history.

The privately held company serves its global financial, technology and government customers from international offices in Oslo, Norway and Palo Alto, California.

Learn more?

Go to http://www.CFEngine.com/nova