

*"IT process automation is all about orchestrating the infrastructure to support the needs of the business with the efficiencies gained through automation."*

*David Williams, Gartner, BTQ Magazine Oct 2006*

**REDUCING COSTS IN  
OPERATIONS MANAGEMENT  
WITH ITIL-BASED PROCESS  
AUTOMATION**



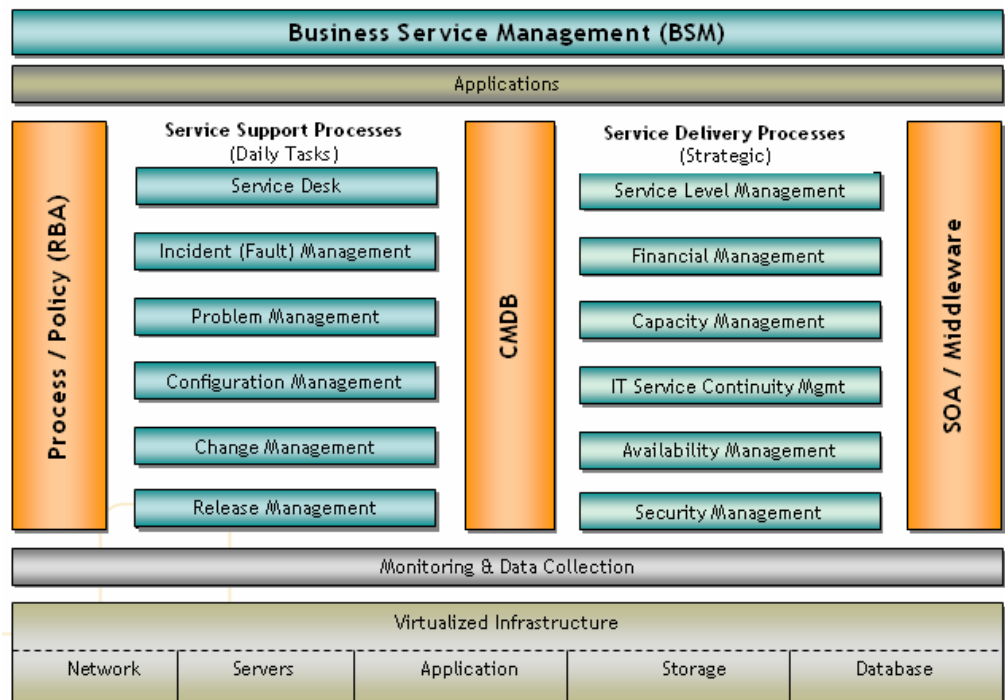
**"IT has done a terrific job of automating processes around developing software, but the opposite is true when it comes down to automation in operations and production environments."**

**Forrester Research**

### IT OPERATIONS PROCESS AUTOMATION

With today's businesses almost entirely dependant on IT services, IT Operations Management is gaining increasing interest from CEO's and IT executives. A driving factor for this is that operational costs are increasing with every technology implementation. The steady growth of business applications has added complexity and management overhead. Unfortunately the management of IT operations has not realized the same growth. High complexity, poor change management, silos of applications and the lack of standards is resulting in poor service quality, slow service delivery and a lack of IT efficiency.

The recent attention on IT operations management has created strong interest in best practice frameworks like ITIL, management technologies such as BSM and technology enablers like SOA and CMDB. However, the goal of lowering costs and improving IT efficiencies must include automated process driven management.



**"IT process automation is all about orchestrating the infrastructure to support the needs of the business with the efficiencies gained through automation."**  
 David Williams, BTQ Magazine October 2006

<b>Goal:</b>	Greater IT Efficiency, Improved Service Delivery, Lower Support Costs
<b>Method:</b>	Automating IT Operational processes.
<b>Solution:</b>	An automation platform that orchestrates applications, integrates systems and automates workflow processes across management disciplines and infrastructure components (hardware/software).



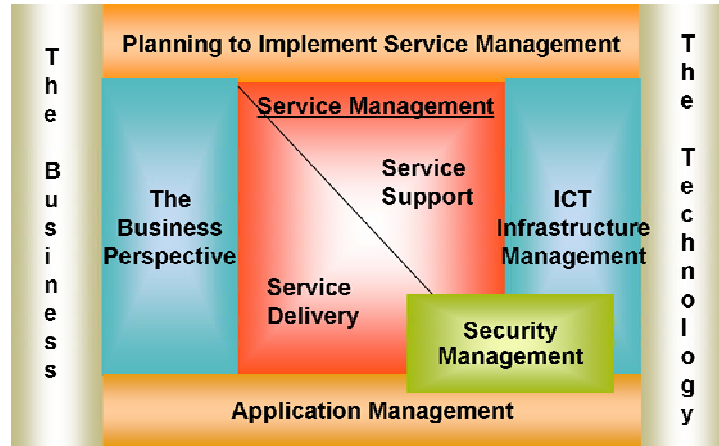
***“ITIL is an enabler for process improvement. A combination of processes/people/tools is required and only tools can provide effective automation. The tool investments will generate ROI, not the ITIL project.”***

**Forrester**

### ITIL AS THE PRACTICAL FRAMEWORK FOR IT OPERATIONS

The Information Technology Infrastructure Library (ITIL) provides a common framework of all IT activities. This framework enables companies to identify, define, communicate and implement best practices throughout their IT organizations.

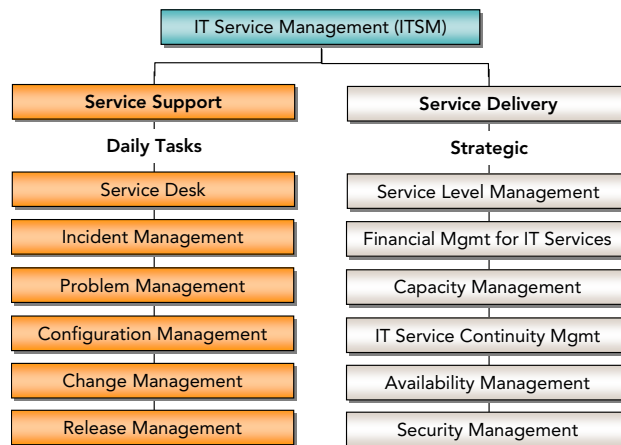
The benefits of using ITIL include reduced IT costs, improved IT customer satisfaction, increased productivity and more effective utilization of IT human resources.



One key area within ITIL which promises to deliver greater alignment between IT and the business is Service Management (ITSM).

### ITSM: SERVICE SUPPORT

Within Service Management, there are two areas, Service Delivery (strategic planning) and Service Support (daily tasks). This paper will focus on the ITSM Service Support area, relating the definition of best practices for managing the daily processes to the effective deployment of Incident, Problem, Configuration, Change and Release management via Opalis software solutions.



**“RBA tools will have a big impact on end-to-end automation and running IT operations as a business and providing consistent, better quality services at optimal cost.”**

**Gartner**

**Incident Management** (fault/problem remediation) is responsible for restoring service quickly, with minimal impact on business operations.

**Problem Management** (root-cause analysis) discovers the underlying causes of incidents and identifies potential issues before they adversely affect users.

**Configuration Management** underlies all processes, its goal is to identify and define Configuration Items (CIs), and ensure the accuracy and completeness of the CMDB.

**Change Management** ensures that changes will have minimal negative impact. Detailed analyses of risk, resource requirements, business continuity and impact are required.

**Release Management** ensures consistency throughout rollout and version control of hardware and software and ensures accuracy of the CMDB.

ITIL provides benefits around standard process language, identifies core activities and highlights the importance of process automation; but it does not cover all processes nor does it specify the technology to implement best practices. As such, IT management have identified a need for applications required to automate IT processes. Leading analysts refer to this class of tools alternatively as Run Book Automation, Data Center Automation or IT Process Automation.

### **RUN BOOK AUTOMATION SOFTWARE**

IT Operations Run Book Automation software (IT Process Automation software) assists companies with automating their ITIL processes. Run Book Automation is defined as:

*“Run Book Automation is the ability to design, build, orchestrate, manage and report on workflows that support IT operations process. A run book process can cross all management disciplines and interact with all types of infrastructure elements (hardware and software).” Gartner, IT Operations Run Book Automation: Automated Operations Revisited, June 2, 2006*

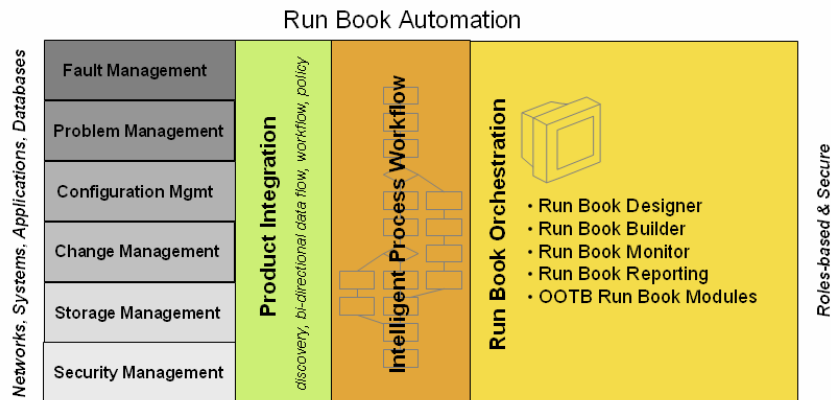
Run Book Automation (RBA) delivers the solution required to make good on the promise of automated IT Operations.

#### **Run Book Automation Benefits**

1. Consistent & repeatable IT activity
2. Bridges data and application silos
3. Aligns activity between departments
4. Enables performance, tracking, reporting

**"Opalis Integration Server provides a very good solution for automating and integrating critical data center processes. The automation capabilities and in many ways complements, rather than competes with traditional job schedulers."**

**Andi Mann,  
EMA**



(Gartner Research - Run Book Automation: IT Operations Process Automation, Oct'06)

### Run Book Automation Elements

1. Orchestration: The visual mechanism to design, build, monitor and report on the process
2. Integration: The ability to read and modify data and control or initiate tasks in all IT management products
3. Process (workflow) Automation: The ability to create rule-based workflows

### WHY TRADITIONAL METHODS WON'T WORK

Traditional automation methods, namely custom coding and scripts, are useful for running simple tasks, however they typically lack best practices, change management, documentation and flexibility required in an operations environment, where business rules and configuration settings change frequently. For truly effective and agile process automation, Run Book Automation software ensures that custom code is not concealed behind the workflow.

***"RBA automation is attracting considerable attention as the need to design, build, orchestrate, administer and report on workflows that support IT operations process has become a critical need that cannot be met by existing IT management approaches, such as traditional job scheduling products and custom scripting." David Williams, Gartner***

Although most operational tools (monitoring, provisioning, virtualization, service desk, etc.) provide deep task automation within their solutions, they do not automate processes between applications, departments or data silos. This creates a substantial load of additional manual work for IT staff.

**"The advantage of the Opalis approach is that customers can quickly implement the system to integrate and automate a few processes at a time, building more elaborate automation environments gradually."**

**Mary Turner,  
Summit Strategies**

## **THE OPALIS SOLUTION**

Opalis Software provides the leading solution for Run Book Automation. This solution enables the orchestration, integration and automation of operational processes across multiple data, departmental, and application silos. This is done through IT-defined workflow that integrates the people, process and technologies involved in operational procedures. Opalis delivers a unique code/script-free approach to process automation, out-of-the-box integration with leading management systems, and template processes for quick and easy deployment.

### **The Opalis Difference**

**Orchestration:** *The visual mechanism to design, build, monitor and report on the process.* Opalis Integration Server provides a graphical workflow environment to orchestrate IT processes. Behind each workflow object is a configuration dialog, not code or scripts which enables all IT skill levels to design automated processes. Opalis also ships real-time logs that show the progress of a process and an extensive reporting engine to track and archive process activity.

**Integration:** *The ability to read and modify data and control or initiate tasks in all IT management products.* Opalis ships with the largest number of integration packs to systems management applications (service desk, event monitors, provisioning, virtualization, security, data protection etc.). Opalis Integration Packs provide out of the box integration, by exposing fields from 3<sup>rd</sup> party products through its object dialogs, users can rapidly create and deploy processes without any additional setup in the management tool.

**Process (workflow) Automation:** *The ability to create rule-based workflows.* Opalis provides intelligent decision making capabilities, with if-then-else logic, so users can create conditional process branches. For example, if change is approved then close the trouble ticket or if change is denied then revert the changes.

#### *Additional Opalis differentiators:*

- Largest install base
- Out-of-the box capabilities (reusable process templates)
- Vendor agnostic (adapters for all major IT components)
- Script/Code free Automation

**"Opalis provides a standard, yet flexible framework for developing our processes. Our developers no longer have to deal with coding these processes from scratch and monitoring them each day to make sure they work correctly."**

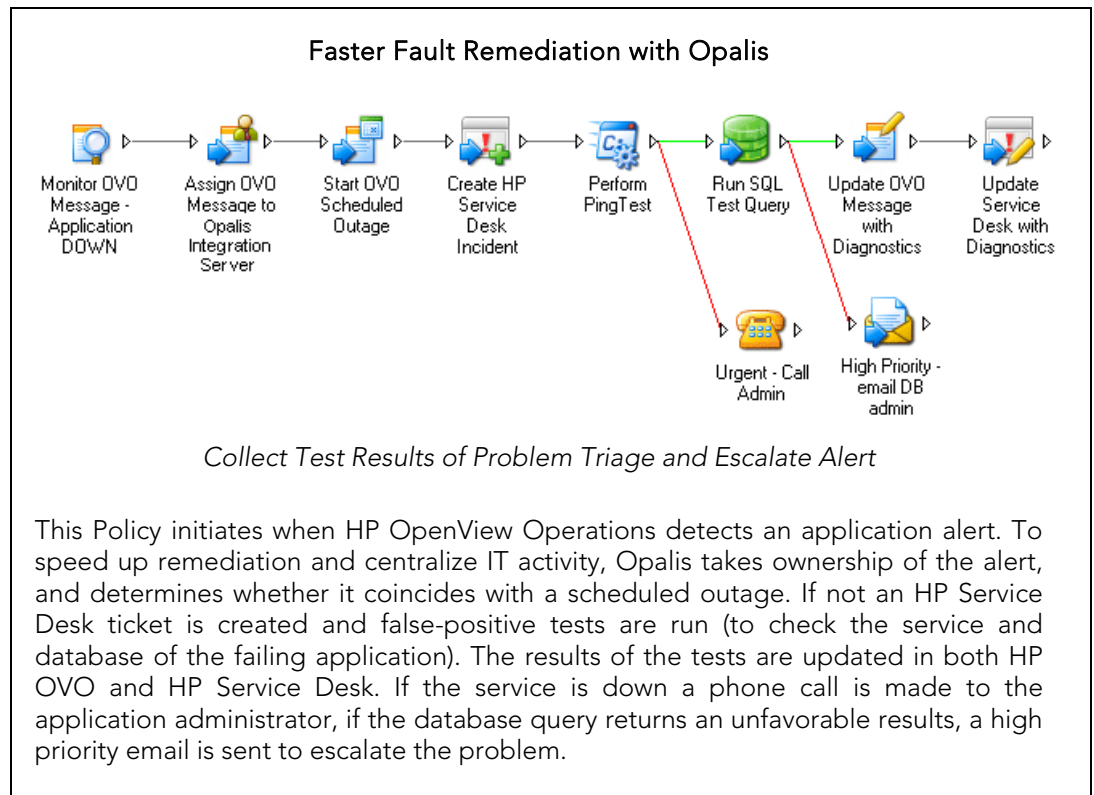
**Southern Company**

## IT OPERATIONS PROCESS AUTOMATION EXAMPLES

### Use Case #1 - Incident and Problem Management

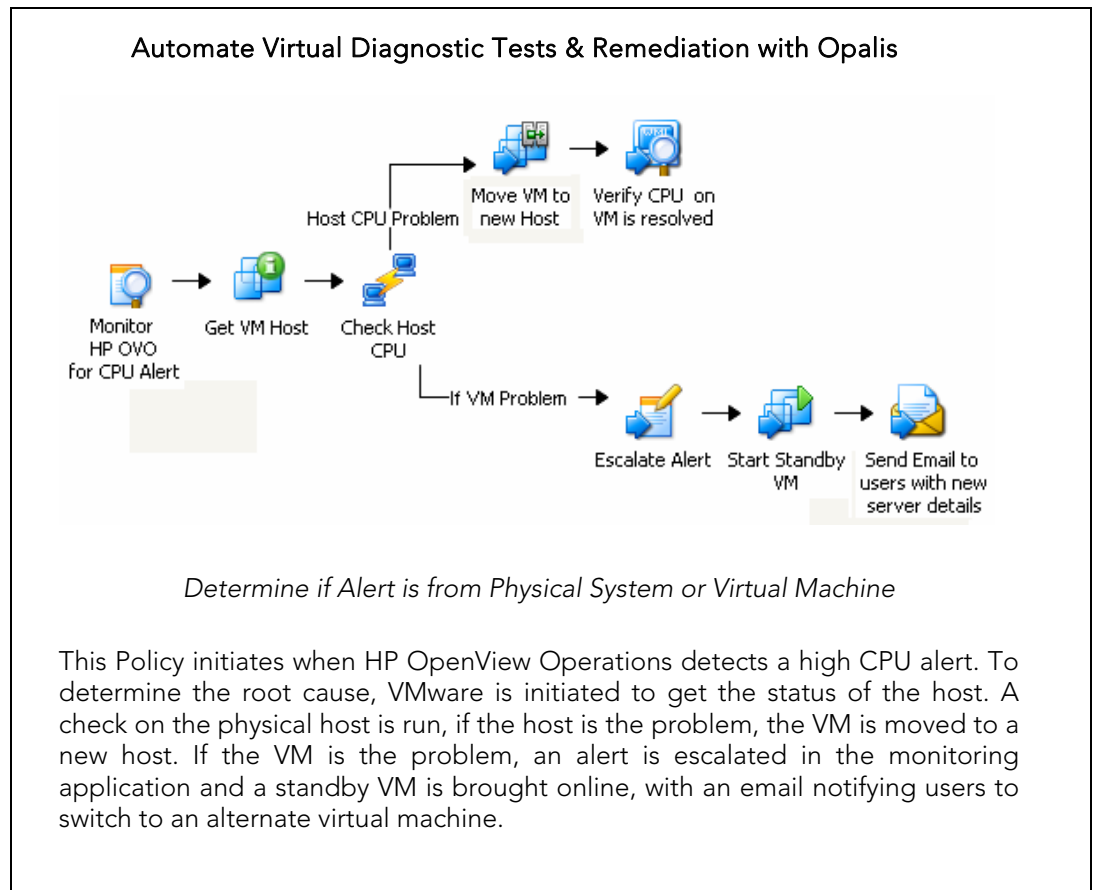
An incident is a service request, or an event which is not part of the standard operation of a service and which can cause an interruption or reduction in the quality of service. Problem Management handles known errors and investigates incident details to identify the underlying cause. Determining root cause often requires standard diagnostic tests and triage routines.

To minimize the impact of incidents on the IT environment and speed up resolution time, Opalis enables IT departments to integrate systems like monitoring tools, service desks applications and CMDB's so incidents and problems are detected and remediation procedures are initiated immediately. This ensures best practices are automated and time to resolution is greatly improved.



"Opalis addresses the challenge of IT management automation from a top-down workflow integration perspective. Opalis' unique value-add is its ability to rapidly integrate and streamline IT operations workflows without the need for programming or scripts."

Mary Turner,  
Summit Strategies



## Use Case #2 - Maintenance Procedures

Good maintenance procedures are a key component in service availability. However, most IT departments perform duties manually which limits the frequency and number of tasks that can be completed within the maintenance window. This introduces the risk of error, inconsistency, and can impact service availability. In most cases schedules and knowledge of system dependencies live inside the minds of a few IT staff, with little to no reporting. Even companies with well documented policies are faced with time constraints which result in corporate policies being bypassed.

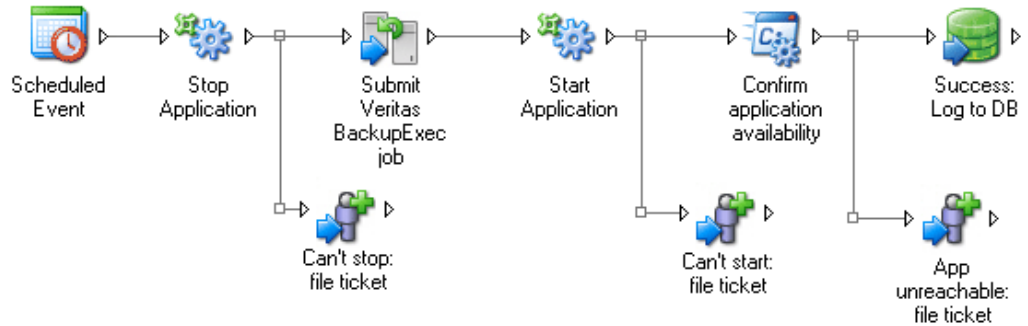
Opalis provides a script-free workflow environment to automate:

- Complex, multi-step backup procedures across multiple departments
- Image archiving, snapshot, backup processes
- Application support routines
- General housekeeping such as file archive and clean up
- Backup restoration processes
- Pause monitoring systems during maintenance hours
- Generate service desk tickets and update status during each step

"IT managers have got to reduce the day-to-day decisions that software could automate into a fluid chain or decision tree that software can follow, and it needs to include human processes, workflow and business priorities mapped into IT components"

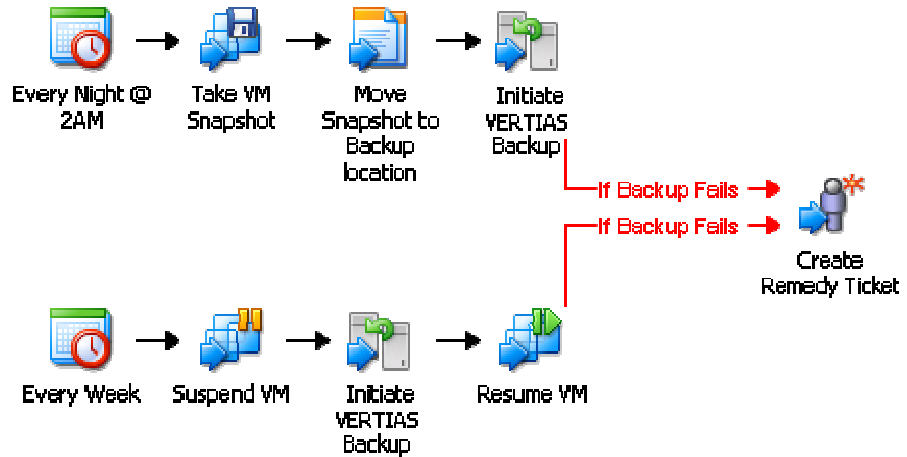
Deb Curtis, Gartner

### Automate Backup Procedures with Opalis



### Automate Multi-Step Machine Backups

This Backup Procedure initiates a routine backup routine by stopping applications, initiating the backup application and returning the application to an online state. If a failure occurs a BMC Remedy case is created, and populated with error data.



### Automate Snapshots and Virtual Machine Backups

This Backup Procedure shows two Opalis Policies, one that runs nightly and one that runs weekly. The nightly backup process (top Policy) initiates a VMware snapshot of the virtual machine, once complete it moves the snapshot to an archive location and initiates VERITAS Backup.

The weekly branch suspends the VMware machine and initiates VERITAS to run a backup on the entire virtual machine. Once complete the VMware machine is returned to an online state. If either Policy fails, a BMC Remedy Case will be created and populated with details of the failure: which step failed, time, error returned, exit codes, etc..

**"Good change management relies on automation, specifically automating the change-management process while following the best practices laid out with ITIL."**

**Denise Dubie,  
NetworkWorld**

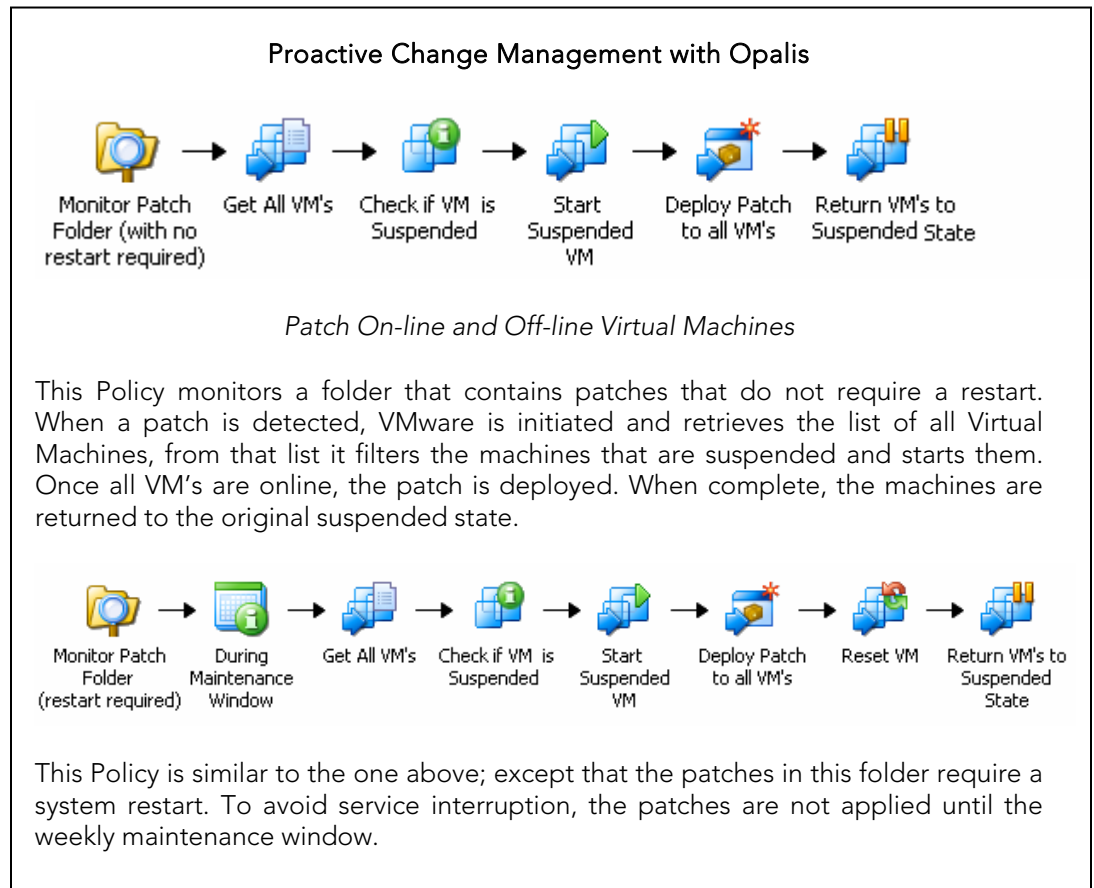
### Use Case #3 - Configuration & Change Management

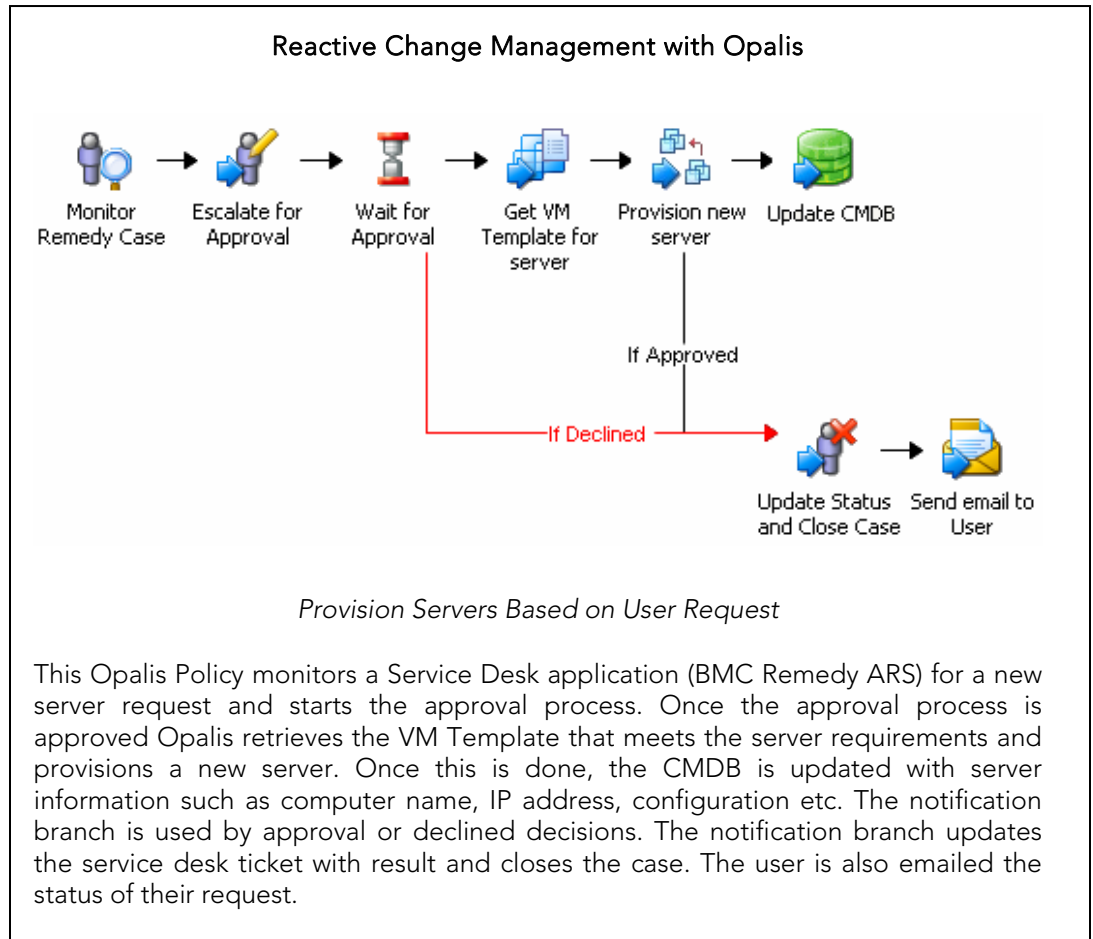
Configuration and Change management is the addition, modification or removal of any component in an IT environment. Change requests can result from users requesting software, modifications to corporate security policies or in response to a problem that requires a change in system configuration such as a patch.

Industry analysts report that up to 80% of IT-related problems are directly attributable to changes made to the environment. The rapid adoption of virtual servers is helping IT departments fulfill change requests faster, by provisioning new virtual machines instead of building physical boxes from scratch. But whether physical or virtual, best practices need to be defined and automated to prevent unanticipated downtime and service delivery delays.

The key to successful change management is strict compliance to processes that are built around best practices. Opalis helps IT organizations coordinate processes that cross application, data and department silos, to ensure there is no impact to service availability.

- Orchestrate approval processes
- Automate service requests
- Apply changes to online and offline machines
- Provision and Decommission Virtual Machines





#### ABOUT OPALIS

Opalis Software, Inc. is the expert provider of enterprise infrastructure software that enables the integration and automation of data center operations. With Opalis, companies can connect disparate environments and automate routine processes in a way that's simple, fast, and effective. Currently, more than 550 global companies, including Toyota, Harley Davidson, State Street, Nokia, Xerox, BlueCross BlueShield, and Woolworths, rely on Opalis server software and integration packs to quickly and easily manage the critical components of their data centers. IT staff can automate processes without scripting or the need of professional services to stay productive and focus on other critical performance management tasks.

Opalis is headquartered in Mississauga, Ontario, Canada, and has strategic industry partnerships with EMC, VMware, HP, CA, IBM, Microsoft, NetIQ, BMC, Symantec, and Cognos.

For more information, please visit [www.opalis.com](http://www.opalis.com).

