

## Enterprise-Class Run Book Automation

Enigmatec's flagship product, the Execution Management System (EMS), is the leading cross-platform policy-based automation solution. EMS combines powerful IT process automation with strict policy-based control, to allocate resources to the applications and users that need them in real-time, with little or no manual intervention, while continually monitoring service levels to ensure business performance is on target.

EMS is offered as a flexible, extensible automation platform with adapters to major third-party servers, software, and devices. EMS works with what you have today, and can also help you move to a more dynamic, on-demand environment, with support for the industry's leading virtualization and provisioning tools.

## Product Highlights

### Powerful Policy Design Studio

The EMS Studio is a drag-and-drop graphical design tool that integrates Elements (components of the IT infrastructure) and Procedures (workflows that describe how to make changes to Elements) into Policies. Policies are similar to typical IT operational procedures, with an important difference: each Policy also includes a measurable parameter called a Service Level Objective (SLO). By adding SLOs to workflows, administrators are always aware of the business demands, and codify them right into their operations. EMS Studio provides easy-to-use integration features to import existing scripted workflows, and powerful simulation and test facilities. Policies can represent any IT Operations workflow, from disaster recovery to workload management and self-service provisioning.

### Sophisticated Operations Portal

The EMS Operations Portal is an intuitive, graphical, web browser-based monitoring and control interface for administrators and management. The Operations Portal provides a real-time, in-flight view of all your automated workflows. Graphical meters display how each of the systems in your environment are performing relative to the Policies and Service Level Agreements you've defined. Roll-up and drill-down are both supported, allowing each user to tailor the view to his or her level of responsibility.

### Patented Peer-To-Peer Command and Control Platform

The EMS vendor-neutral platform is fully distributed with no central server, which means no single point of failure. EMS self-managing agents can be rapidly deployed throughout the data center and orchestrate the activities required to allocate hardware and software resources to the users and applications that need them, when they need them, automatically, to maintain the highest possible service levels.

### EMS Adapters

#### Virtualization

- VMware
- Solaris Zones
- Xen

#### Provisioning Systems

- Sun N1 Provisioning System
- IBM Tivoli Provisioning Manager

#### Opware

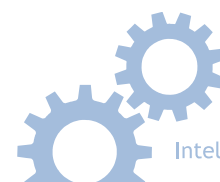
- Databases
- Oracle
- Sybase

#### Application Servers

- BEA WebLogic Server 9.0
- JBOSS
- Apache

### Integration Technologies

- JMX 1.2 and JMX Remote 1.0
- CIMv2
- SNMPv3
- Script/Platform Native
- Web Services
- WMI
- WS-Management
- WSDM



## How EMS Works

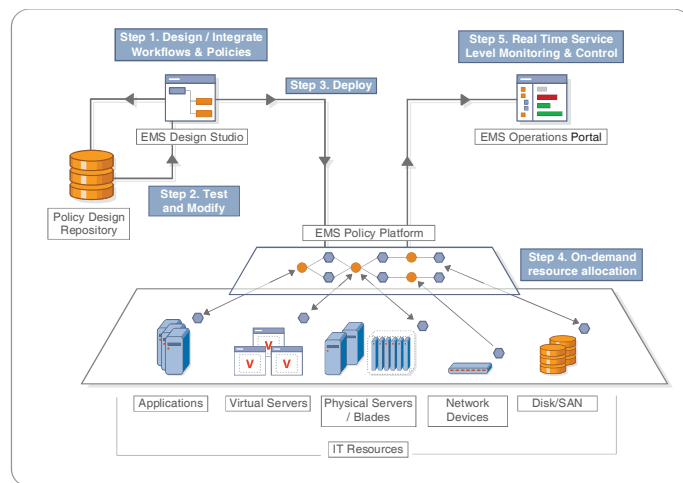
Today's increasingly virtualized and 24x7 applications demand a new approach to IT operations, one that is less reliant on inflexible scripts, printed "run-books", and error-prone manual procedures. EMS provides all the tools you need to define your IT resources, integrate and edit your workflows, and define and manage your resource allocation policies.

### Managed Elements: "What" to Automate

A managed Element is any IT resource that can be managed by a sensor-effector interface. A managed element might be a legacy application, vendor software such as an application server or a database, a provisioning tool, or a physical device such as a server, a network router, or a blade.

### Workflows: "How" to Automate

A Workflow represents a series of tasks, such as those contained in run-books, scripts, and manual procedures. Example Workflows include: "Reprovision a System Board", "Power Down a Blade", "Restart a Database", "Suspend a Virtual Machine." EMS represents "event-condition-action" workflows in an easy-to-read "Project"-style display.



### Policies: "When, Where, and Why"

Enigmatec Policies are easy-to-define responses to system events or user requests and include measurable Service Level Objectives, such as Recovery Time, Response Time, or Transaction Throughput. Example Policies may include: "Database Disaster Failover," "Web-Farm Auto-Scale," "Load-Based Hardware Reprovisioning," "Provision a Virtual Server for Software Testing."

## EMS 3.0 – "Click and Connect" Automation

With the release of EMS 3.0 and our new Design Studio, Enigmatec again leads the industry in ease-of-use, flexibility, and functionality. Automation workflows are easily created with a fully-graphical, drag & drop, and click & connect design environment. Integrations to third-party IT management products, IT elements, and other management applications such as provisioning tools, service desk applications, virtualization platforms, etc. are exposed through our powerful integration APIs. Simple to use, yet comprehensive wizards enable rapid workflow design without expert knowledge of the underlying systems or settings of each application.

### Highlights of the EMS 3.0 Design Studio Include:

#### Simplified Wizard-Driven Workflow Design:

- Out of the Box palette of the most often used IT elements, including servers, devices, applications, and management tools
- No programming experience required to automate IT run book procedures. Context-sensitive wizards make easy work of specifying values and parameters
- On-screen "Drag and Click" rubber-band style definition of error and exception handling

- Dynamic Query wizards (based on system events) for interrogating IT elements • Comprehensive tooltips for workflow steps and workflow links
- Intuitive “spreadsheet-style” wizard formula builder that allows the user to define workflow behavior based on system event values at runtime

## Enhanced Workflow Organization:

- “Service Organizer” provides an easily navigated pictorial view of relationships between IT elements and associated workflows
- Comprehensive drag/drop, cut/copy/paste, selection, and expand/collapse features promote rapid workflow construction and ease of maintenance
- Run-time binding allows workflows to be designed independently of specific IT elements and re-used (for example, a workflow to provision a virtual server can be developed independently and associated later with a specific virtualization technology such as VMware or IBM LPARs)

## Support for Powerful Workflows:

- Graphical representation of even the most complex IT workflows, with support for steps, loops, concurrency, workflow joins and splits and more
- A Workflow “Situation Analyzer” to easily manage multiple-event correlation from different sources
- “Expert Mode” features for experienced Java programmers

## Quick and Easy Integrations:

- Easily integrate existing system scripts (Visual Basic, Java, C-shell, etc.) directly into a workflow without recoding
- Synchronous integration with external IT operations and service desk applications such as Remedy;

### Features at a Glance

#### Powerful Service-Oriented Design

- Structured Approach to Policy Creation
- Policies are Independent of Deployment Details
- Integrated Policy Simulation and Testing



#### No Central Server

- Fully Distributed Policy Execution
- Parallel Policy Execution
- Self Managing Agents



#### Vendor-Neutral Platform

- Library of Pre-Built Adapters
- Powerful API and Script Importing



### Benefits at a Glance

#### Extensibility and Flexibility

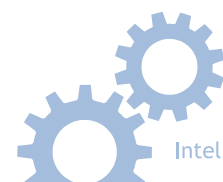
- “Building Block” Policy Design
- Reusable and Flexible Policies
- Higher Quality Workflows and Policies

#### Scalability and Resiliency

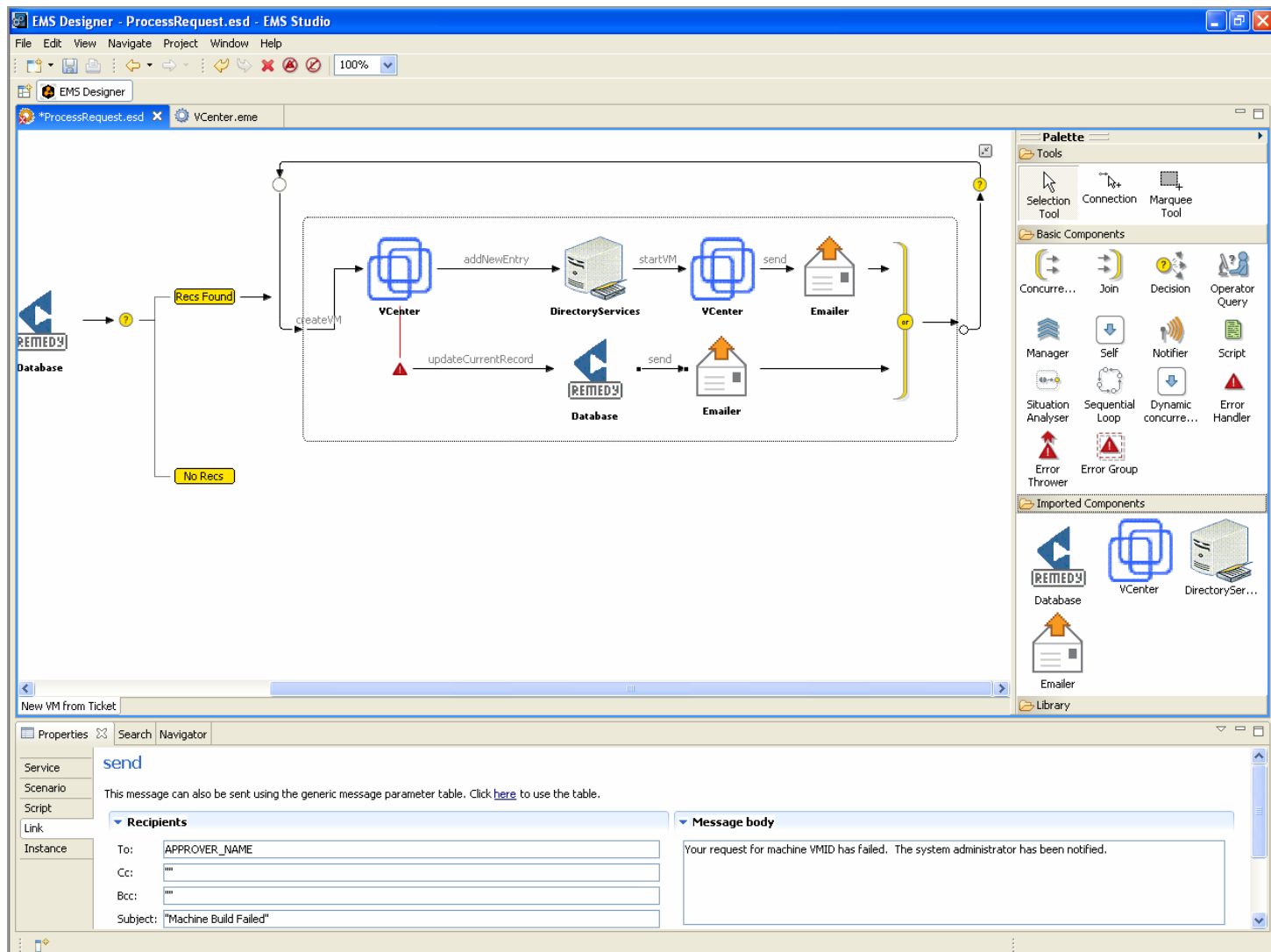
- No Single Point of Failure
- Better Performance
- Improved Response Times
- Rapid Deployment & Low-Touch Maintenance

#### Rapid Deployment

- Works with Existing IT Resources
- Rapid Integration and Migration



## EMS in Action



The EMS 3.0 Design Studio makes IT process workflows easy to create, modify, organize, and deploy. Users simply select from a palette of automation components, drag them onto the workspace, and connect them together using intuitive and context-sensitive wizards and dialog boxes. These user-friendly features lead to lower training costs and enable more members the operations team to participate in workflow development.

Put Enigmatec's Intelligent Automation to the test: contact us or visit our web site for a demo of EMS 3.0 in action!

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