

**Due to the length of the following article, only the caption of that article appears on this page.**

BMC EXHIBIT 2009  
ServiceNow v. BMC  
IPR2015-01176

## BMC/PATROL

*Reviewed by David Hermanski II, president of Breckenridge Software Inc., Dallas, Texas.*

**MANUFACTURER:** BMC Software Inc.  
2101 CityWest Boulevard  
Houston, TX 77042  
(800) 841-2031, (713) 918-8000 fax  
<http://www.bmc.com>



**PLATFORMS:** The BMC/PATROL event management technology consists of Consoles, Agents and Knowledge Modules (KMs) available across a wide range of industry-leading operating systems, applications and databases. Platforms and operating systems supported include Bull BOS, DG/UX, Digital Alpha OSF/1, Digital Alpha VMS, Digital VAX VMS, HP-UX, IBM RS/6000 AIX, NCR Pyramid, Sequent, SUN Solaris, SCO UNIX, SGI OS/2 and Windows NT. Applications and databases supported by PATROL KMs include CA-OpenIngres, DB2 for AIX and OS/2, Informix, Oracle, Rdb, Sybase, Lotus Notes, Oracle Financials and Tuxedo. PATROL also integrates with Network Management Frameworks.

**BACKGROUND:** Operating from offices in Dallas, Austin and Houston, Breckenridge Software delivers open system software products, consulting and education services primarily with the Oracle7 Server, PowerBuilder, Business Objects and BMC/PATROL.

**PRODUCT FUNCTIONALITY:** PATROL is actually a suite of products that allow an organization to automate the proactive monitoring and management of important systems, applications and databases. In its simplest configuration, a PATROL Console, a PATROL Agent and a series of loadable Knowledge Modules combine to provide open systems administrators with up-to-the-minute information regarding the "health" of their computing environment.

The PATROL Console provides a graphically-rich means of displaying to the user the current state of system and network components in a well defined object hierarchy of computers, application classes, instances of applications and monitored application parameters. Specifically the PATROL Agent, using loadable knowledge, runs autonomously on monitored computers automatically discovering applications; collecting parameter values; communicating with and alerting the PATROL Console; and executing predefined recovery actions when warranted. Many customers use PATROL in this configuration to monitor departmental environments where the critical application is usually a database server such as Oracle or Sybase. In these environments, customers are recognizing

greater system management efficiency through automation of routine tasks, and the leveraging of technical expertise through loadable libraries of product-specific expertise.

In more complex, enterprise system management environments, customers may have already chosen a standard SNMP based system management framework, such as HP OperationsCenter, to perform the central command console role. These customers continue to rely heavily upon the PATROL Agent and KM technology by leveraging the Agent's built-in SNMP support. The Agent continues to run autonomously on all monitored systems and simply communicates via SNMP to the desired console such as HP OperationsCenter or Solstice SunNet Manager.

Enterprise system management customers also take advantage of PATROL's integration with third-party help desk systems such as Remedy's Action Request system (AR). Combining these technologies, customers automatically capture desired PATROL events and convert those directly into AR-trouble tickets, helping to further automate the problem detection/resolution life cycle.

**STRENGTHS:** PATROL processes are all designed to be automatically self-tuning so that monitoring activities themselves never become a burden on system resources, and PATROL's detachable agent architecture provides a fully scalable and open solution combined with built-in SNMP support. Another strength is that users can immediately leverage expert monitoring support for popular applications using "off-the-shelf" KMs from BMC for Oracle, Sybase, Informix, Lotus Notes, etc.

Probably the biggest single advantage of PATROL is its extensibility via an embedded authoring environment based on the Patrol Script Language (PSL). Using PSL, PATROL users can build custom KMs to "instrument" any application that exists in their environment. For instance, Breckenridge has used PSL extensively to automate proactive monitoring of performance metrics associated with custom applications including complex data replication and data archival servers. PSL can also be used to extend PATROL's visual and audible alarm mechanisms to include E-mail and alpha-numeric paging notification schemes.

**WEAKNESSES:** In building custom KMs and application discovery routines, Breckenridge has found cases where additional granularity and additional control over the PATROL object hierarchy were needed. For instance PATROL does not currently support the instantiation of a sub-application within a discovered application class, or full objects-within-objects. Also, Console level PSL and additional parameter display options, such as multi-series graphs, are desirable future features. At the time of this writing, it is understood that BMC plans to address each of these issues in the next significant upgrade of PATROL, due out in the summer of 1996.

*If this review was of value to you, please circle Reader Service*