

# Patient Bed Management

Sun Java™ Composite Application Platform Suite Technology



## Highlights

Sun Java Composite Application Platform Suite helps organizations track and report on critical health care activity, and can provide:

- Real-time bed status display
- Patient flow coordinator for optimal operational performance
- Daily bed rosters and capacity e-mails
- Protocols for high census control

## Technical benefits

- Technology-based communication centralizes bed management
- SOA framework leverages J2EE™ technology
- Real-time messages (HL-7/XML)
- Intranet/WAN-enabled
- Snapshots of relevant information
- Drill down to department view
- Interface to other applications



In a time of shrinking health care budgets and increasing demand for services, inpatient medical facilities need the ability to quickly and accurately monitor patient levels. Often, medical facilities are forced to divert potential patients due to overcrowding, stretched operating room schedules, and insufficient staffing. Health entities seek continued improvements in managing care administration, while searching for cost-conscious IT infrastructures that will ease manual processes associated with patient censuses.

## An adaptive, capable IT solution

For organizations pursuing maximum returns from bed and staff availability, Sun's Patient Bed Management composite application, built on the revolutionary Sun Java™ Composite Application Platform Suite (CAPS), makes it possible to realize dramatic cost savings through an adaptive, capable IT solution. In this way, Java CAPS is a critical enabler of the e-health enterprise.

Health care providers struggling with not enough beds or staff, coupled with the administrative challenge of managing patient turnover, can benefit from Sun's Patient Bed Management solution. It helps ensure that the right patients are in the right beds at the right time. Appropriate admission and accelerated placement in post-acute beds are facilitated, as well as improvement in timely patient discharge. Effective patient stay management allows a facility to admit and care for more patients without increasing staff count, thereby increasing revenue. Further, streamlined patient and staffing levels help make sure that facility expansion efforts are undertaken only when required.

## Current health care challenges

Today, many health care facilities are struggling with manual processes that increase a patient's length of stay and demand higher staffing. Often, multiple inquiries must be made between departments regarding patient placement, and true bed availability may be masked because no department is accountable for reporting patient discharges, resulting in a longer-than-necessary facility management process. These challenges often lead to frustration for patients faced with long wait times, staff unable to attend to mounting admissions and backlogged duties, as well as administrators trying to determine how to do more with less.

## The solution

A solution that offers a simple, flexible way to streamline management procedures can have a significant impact on the total cost of business related to admission, patient bed census, and room turnover. This impact may be even more dramatic when extended across multiple facilities, including acute care health systems, home health and long-term care facilities, and IT operations.

The Sun Patient Bed Management composite application can help eliminate inaccurate and incomplete patient monitoring information. For example, centralizing and consolidating patient rostering provides workflow management for care providers, as well as hospital housekeeping staff and operating room schedulers.

The solution is designed to improve patient services by offering a tactical method to support bed tracking, with patient flow tools, timely administrative communication and protocols for high bed census days, while requiring minimal paper reporting. It utilizes service oriented architecture (SOA) concepts and leverages Java 2 Platform, Enterprise Edition (J2EE™) design patterns. This enables it to deliver enhanced reporting capabilities and a Web services presentation layer. As a prebuilt composite application framework, the Sun Patient Bed Management solution is fully extensible, allowing new services and processes to be added during the initial deployment or over time. The solution is based on Sun's best practices, development standards, and meets performance and scalability demands.

### Business benefits

The solution's high-level overview offers management capabilities that consolidate information across the enterprise, including bed briefing reports, operating room schedules, patient flow coordination, and ward or unit activity reports. This consolidation enables a real-time patient bed management display, including:

- At-a-glance information to support placement decisions
- Ward-by-ward information on staffed bed levels
- Unit-by-unit staffing levels
- Bed availability
- Unit activity and intensity linked to operating rooms, emergency department, and housekeeping tracking systems
- Real-time status on bed need and turnover

### Technical overview

- Form and screen layout functionality
- Web-based bed board may be used as a default screen saver
- Communicates via internal intranet or wide area network (WAN)
- Snapshot of multiple system views and pending activities
- Includes search functionality for drill-down detail
- User interaction may include responsive updates and patient flow management views
- Breaks down surgical and medical admission activities by date

### The Sun Java Composite Application Platform Suite

Rapidly changing business conditions and objectives demand business agility. When a new business demand arrives, IT must invariably respond to health care customers by building new custom applications, licensing and implementing new packaged applications, or extending and repurposing existing applications. To deliver value and business agility to

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health care customers, IT needs a new set of tools and an approach that enables reuse of existing IT assets, while empowering rapid development of new functionality needed by the business.

With this offering, Sun brings to market one of the most comprehensive and productive SOA and integration platform available. Users of the suite can deliver immediate business value through the construction of composite applications that reuse existing IT application assets in combination with newly created functionality.