Case Study: Revolutionizing Military Med/Surg Unit Scheduling with Balance Scheduler™

Efficient scheduling is critical in healthcare units, where patient care and staff well-being depend on a finely tuned schedule. This case study explores the transition from legacy scheduling to the innovative Balance Scheduler™ solution at a 40-person Military Med/Surg unit, highlighting the remarkable transformation in scheduling efficiency and nurse satisfaction.

THE PROBLEM

A small military Med/Surg unit faced significant scheduling challenges:

- The 1Lt nurse scheduler devoted 12-14 hours, often more, crafting a four-week schedule for fewer than 40 nurses.
- Complex scheduling requirements included trained charge nurses for each shift, shift rotation, mandatory training, holidays, PTO, and nurse preferences.
- Over 7,000 variables had to be considered every month, making scheduling an overwhelming and time-consuming task.
- The scheduler's prolonged scheduling shifts affected unit operations and led to schedule dissatisfaction and perceived bias.

OBJECTIVES

The Nurse Manager had a clear set of objectives for implementing Balance Scheduler™:

- Free up the scheduler's time while ensuring staffing requirements and training, PTO, and other requirements were met.
- Enhance nurse satisfaction with the schedule.
- Minimize perceived schedule bias.
- Streamline scheduling to bring the scheduler back to top-of-scope.

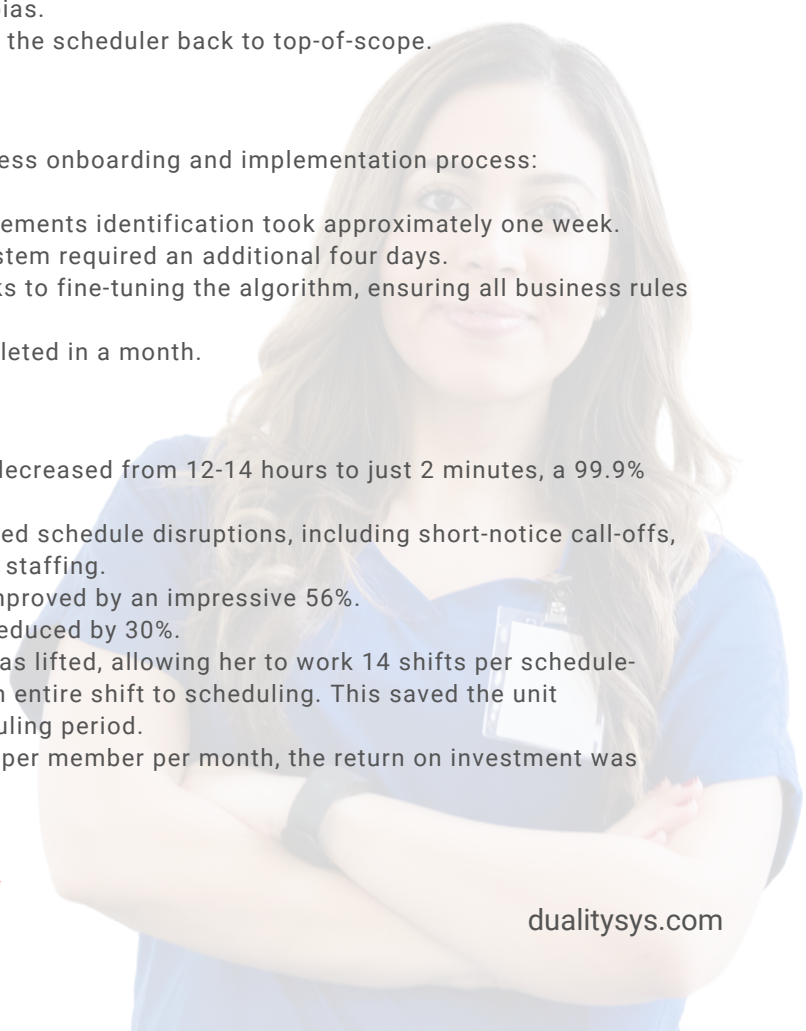
IMPLEMENTATION

Duality Systems provided a seamless onboarding and implementation process:

- Customer discovery and requirements identification took approximately one week.
- Training nurses on the new system required an additional four days.
- Duality dedicated several weeks to fine-tuning the algorithm, ensuring all business rules and requirements were met.
- Full implementation was completed in a month.

RESULTS

- Initial schedule creation time decreased from 12-14 hours to just 2 minutes, a 99.9% improvement.
- The algorithm efficiently handled schedule disruptions, including short-notice call-offs, by recommending next best fit staffing.
- Nurse schedule satisfaction improved by an impressive 56%.
- Perceived schedule bias was reduced by 30%.
- The scheduler's time burden was lifted, allowing her to work 14 shifts per schedule-period instead of dedicating an entire shift to scheduling. This saved the unit approximately $300 per scheduling period.
- With a subscription cost of $6 per member per month, the return on investment was achieved in just one month.



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