

Case Study: Establishing a Center of Excellence: Laying the Foundation for Intelligent Automation and Data-Driven Decision Making at Cascade



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CATEGORIES

- ◆ Staff efficiencies
- ◆ Cost of care and return on investment (ROI) to providers
- ◆ Cost of care and return on investment (ROI) to consumer

Organization Name:

Cascade

Main Contributor:

Chad Solvie, founder and CEO

Organization Type:

Senior living and care

Organization Description:

Cascade Senior Living Services is a boutique management firm specializing in high-quality, personalized care for senior communities. With decades of experience in senior care operations, compliance, and investment management, Cascade is dedicated to reshaping the industry by offering innovative, cutting-edge services. The company focuses on providing exceptional care in a variety of settings, including home health and memory care, using a higher resident-to-staff ratio for more individualized attention.

Project Description

Cascade, in collaboration with NuAig, embarked on a transformative journey to modernize operations through artificial intelligence (AI) and robotic process automation (RPA). The initial engagement focused on identifying key processes—billing, claims, document management, HR compliance, and appointment scheduling. These workflows were time-consuming and required manual efforts, impacting quick turnarounds and compliance.

NuAig established a **Center of Excellence (COE)** to serve as the strategic hub for process automation and data intelligence. The first phase of this engagement laid the groundwork by:

- Conducting a deep dive into organizational processes to **identify bottlenecks and automation opportunities**.
- Implementing tailored **RPA solutions** to streamline operations and reduce manual effort.
- Establishing **interoperability between existing systems** for seamless data flow and improved efficiencies.
- Introducing **high-level dashboards and analytics** to empower leadership with data-driven decision-making.

Through the COE model, NuAig is not just implementing technology—it is building a scalable framework for continuous innovation. As the project moves forward, this engagement will evolve into a more sophisticated AI-powered ecosystem, delivering even deeper insights and automation capabilities.

With the COE in place, Cascade is now better equipped to focus on what truly matters: **delivering exceptional care to its residents**.

System Components Used

- EMR – PointClickCare (PCC)
- Databases: SQL Server
- Automation tools: Power Automate
- Communication tools: Microsoft Outlook
- Document management: OneDrive
- Software and apps interacted with: PCC, PayNW, Paratransit, Modivcare, Relias, OneHealthPort, AIBuilder, Provider Credential Search, SimpleTexting API.

Describe System Embodiment

Automation: Power Automate orchestrates the automation bots. It streamlines data extraction from PCC, generates reports, and distributes them to relevant stakeholders.

Data security: All development and processing is conducted on the server hosted within Cascade's environment, providing secure, centralized, and controlled access.

Alerts and notifications: Automated alerts and notifications are managed through Microsoft Outlook, ensuring timely and effective communication among team members and stakeholders.

HIPAA compliance: The automated system adheres to HIPAA regulations, ensuring the confidentiality, integrity, and availability of all protected health information (PHI).

Implementation and Outcomes

The implementation commenced with a comprehensive analysis of existing processes at Cascade, with a focus on identifying bottlenecks in task tracking.

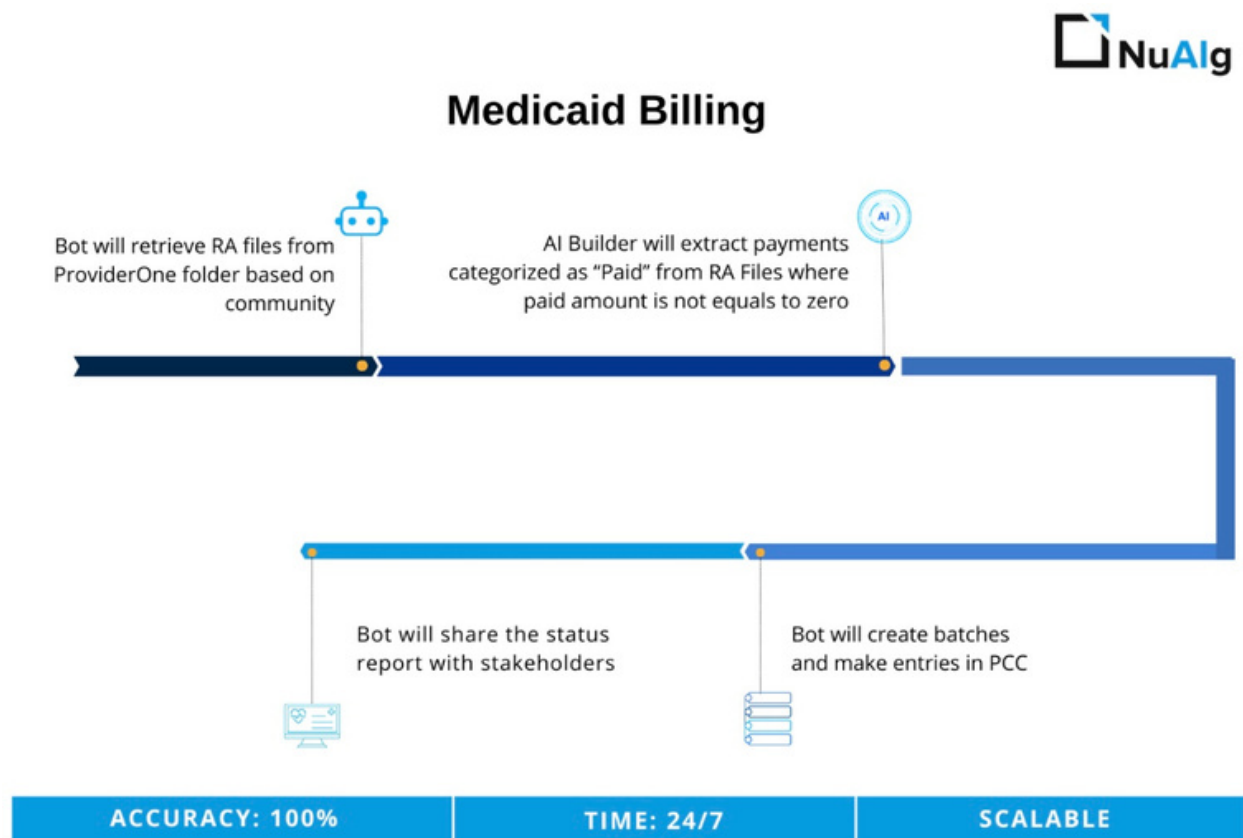
- NuAig collaborated closely with Cascade stakeholders to understand their key pain points, requirements, and the structure of their data sources.
- The company identified critical areas that were particularly labor intensive for Cascade to manage manually: billing, document upload, HR compliance expiry, appointment scheduling.
- Through detailed discovery and stakeholder engagement, NuAig mapped out the necessary data points and developed an automation plan tailored to their requirements. The automation was designed to streamline the tracking and management of these key areas.
- Continuous collaboration with Cascade stakeholders was maintained throughout the implementation to ensure the solutions met their specific needs and regulatory expectations.

Center of Excellence for Intelligent Automation

Project 1: Medicaid Billing

The NuAig team developed a sophisticated solution using Power Automate to access and retrieve remittance advice (RA) files for all four communities from the ProviderOne portal. These files then undergo processing through the AI Builder to extract payments categorized as "paid." Subsequently, the process also creates respective batches under each community in PCC and updates the entries based on the extracted payment data.

This eliminated the need for manually downloading RA files every payment week from OneHealthPort for each community. It also removed the requirement for manual entry of received payments across various payment categories in PCC. By reducing the administrative burden, the solution **enhances operational efficiency**.

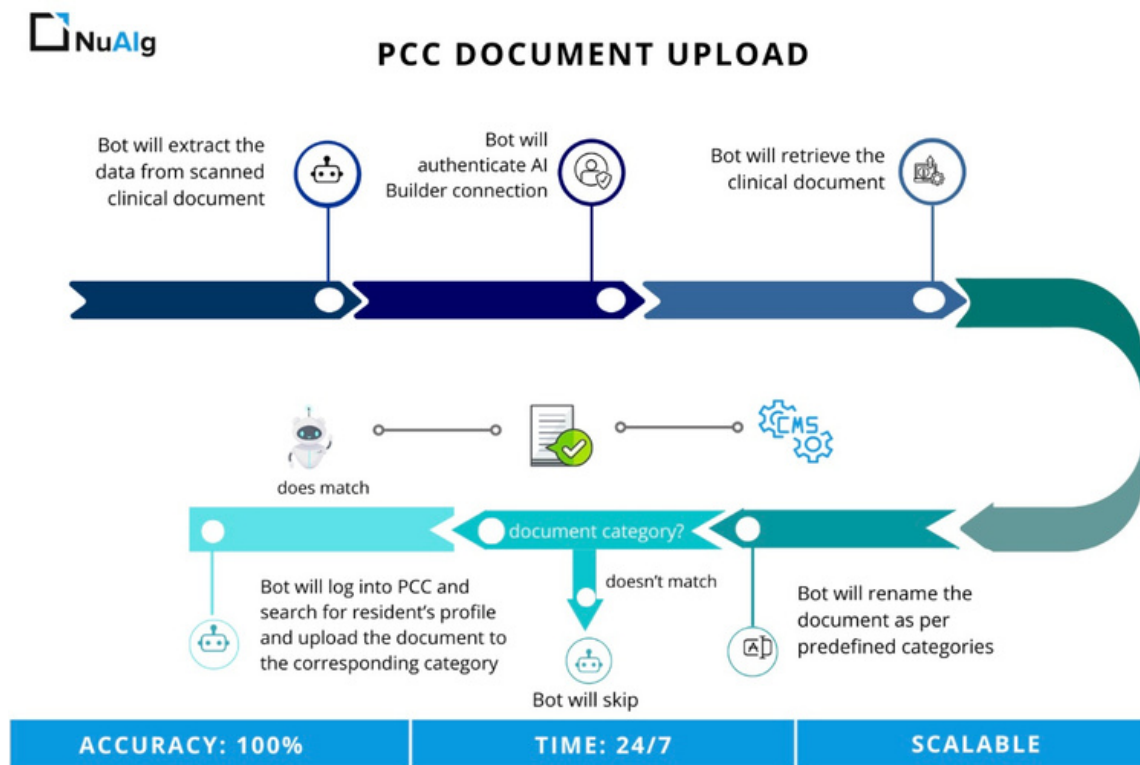


Project 2: PCC Document Upload

Before automation: The team at Cascade was required to scan, rename, and upload numerous documents for residents under each resident profile in PCC. This labor-intensive process was carried out by staff members, per community.

Automation process: NuAIg developed an automated solution that meticulously extracts data from scanned clinical documents for each community. The solution renames these documents based on 10 predefined categories as per the naming convention, “**FirstName LastName_Category.pdf**.” If a document doesn't match any of the predefined categories, the process will skip that document.

For the matched documents, the bot will log in to PCC, search for the resident's profile, and upload the respective clinical document linked to the corresponding category. It will then share the status report with the stakeholders. This process saved the Cascade’s team considerable time and effort, **enhancing overall service delivery**.



Project 3: PayNW Document Upload

Before automation: PayNW is the Human Capital Management platform deployed at Cascade. The document upload process in PayNW involved manually categorizing and renaming documents before assigning them to the appropriate categories under each employee’s profile.

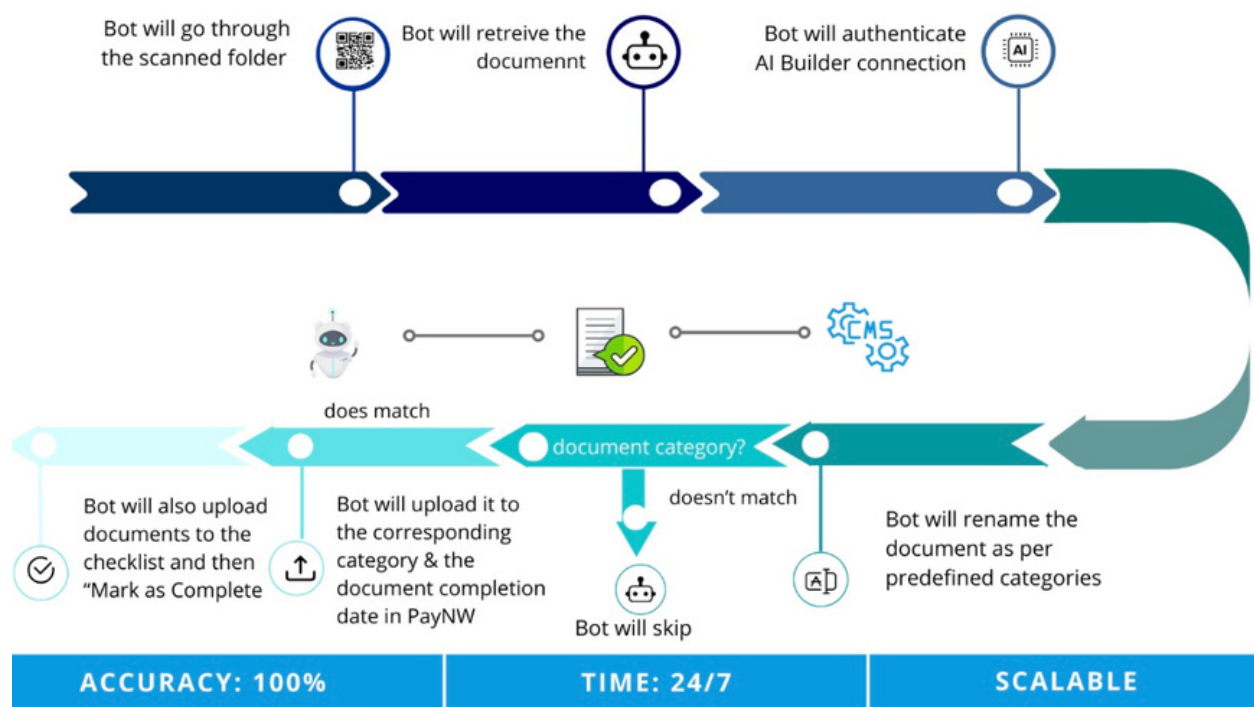
In addition, new hire onboarding required a UI-based workflow, where key documents, such as the offer letter and recruitment authorization form (RAF), had to be uploaded into a designated checklist. Once uploaded, each task must be manually marked as “complete.”

Automation process: NuAIg designed an automated solution that scans a designated folder for available documents. The system automatically renames files based on predefined naming conventions—**FirstName LastName_Category.pdf**.

The automation uses an authenticated API connection to AI Builder, allowing the bot to access the folder contents, extract relevant data, identify the corresponding employee profile, and upload each document to the appropriate category in PayNW. If applicable, the document's expiry date is also added. For onboarding, the solution uploads documents to the checklist and marks the related tasks as "complete" by logging into PayNW.



PAYNW DOCUMENT UPLOAD



Project 4: PayNW HR Compliance Document Expiry

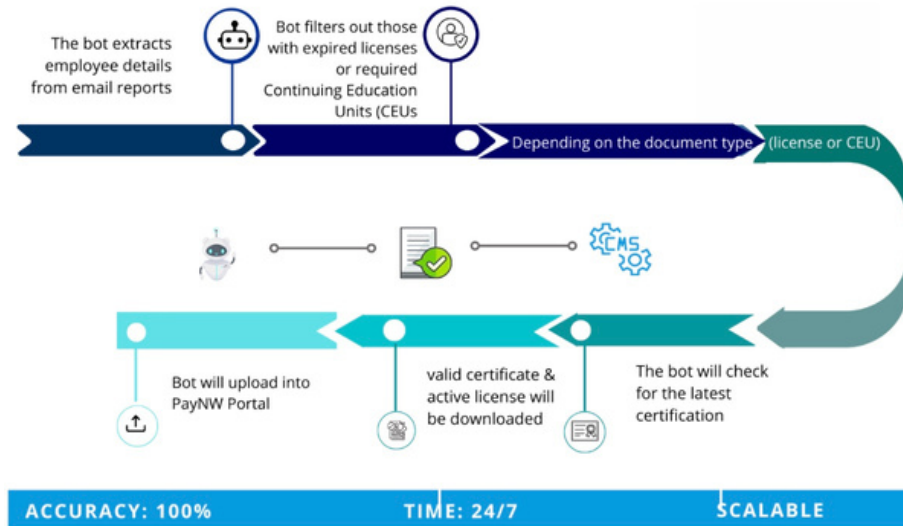
Before automation: The HR team at Cascade was required to verify the expiry and null reports of continuing education units (CEU) and licensing in PayNW. If any documents have expired, the licenses and CEUs must be rechecked on the respective websites, downloaded, and then uploaded to each employee's records.

Automation process: - NuAig developed an automated solution design, where the bot will check the null report for expired credentials from the Relias website for CEU certifications and from the Provider Credential Search for Licensing certifications. Once the certifications are identified, the process will automatically download them and store them in a predefined location.

Following this, the process will upload the certifications to the PayNW platform for processing and record-keeping. Once the upload is successfully completed, the bot will send automated notifications to relevant stakeholders, ensuring timely updates and readiness for any required follow-up actions.



PAYNW HR COMPLIANCE DOCUMENT EXPIRY



Project 5: Appointment Posting in PCC (Paratransit and Modivcare)

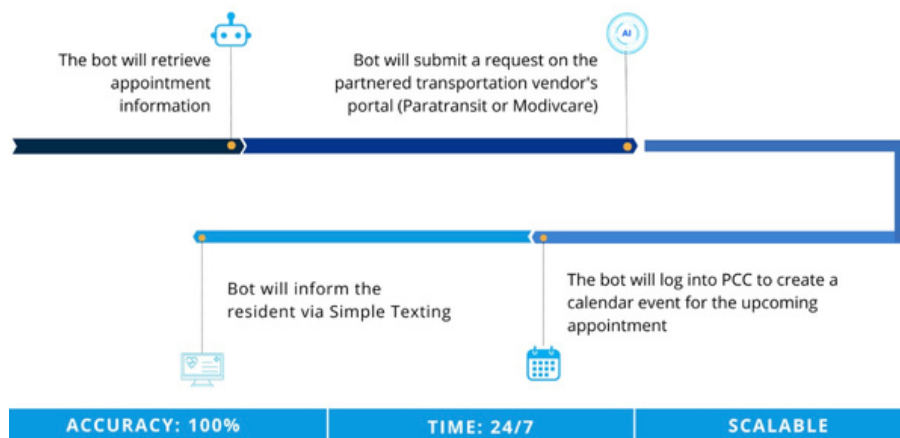
Before automation: The administrative staff manually coordinated transportation services with providers like Paratransit or Modivcare for residents' appointments with external vendors. All appointment and transportation details had to be manually documented in the PCC calendar. In addition, the staff were mandated to inform residents about their upcoming appointments and transportation arrangements, via SMS.

Automation process: NuAIg introduced an appointment scheduler to automate this process. The scheduler completes a SharePoint form with information about the resident and their upcoming appointment. Once submitted, the process retrieves the information and submits a request to the partner vendor's portal.

Following this, the bot logs into PCC to create a calendar event for the upcoming appointment and informs the resident via SimpleTexting API.



Appointment Posting in PCC (Paratransit and Modivcare)

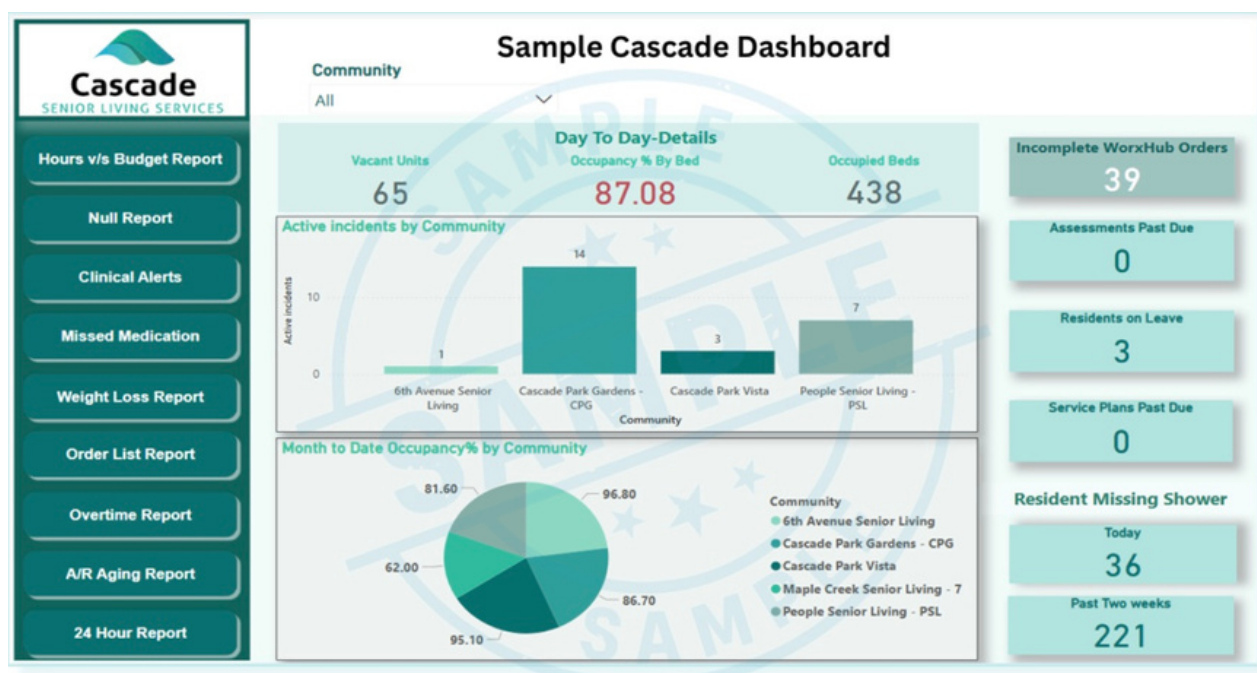


Center of Excellence – Data Analytics

Project 1: Operational and Clinical Real-Time Insight Dashboard

NuAIg developed a dashboard for Cascade that offers real-time updates with the latest available information and retains historical data for up to two weeks. The dashboard collects data from PCC and PayNW and monitors key metrics related to residents and caregivers:

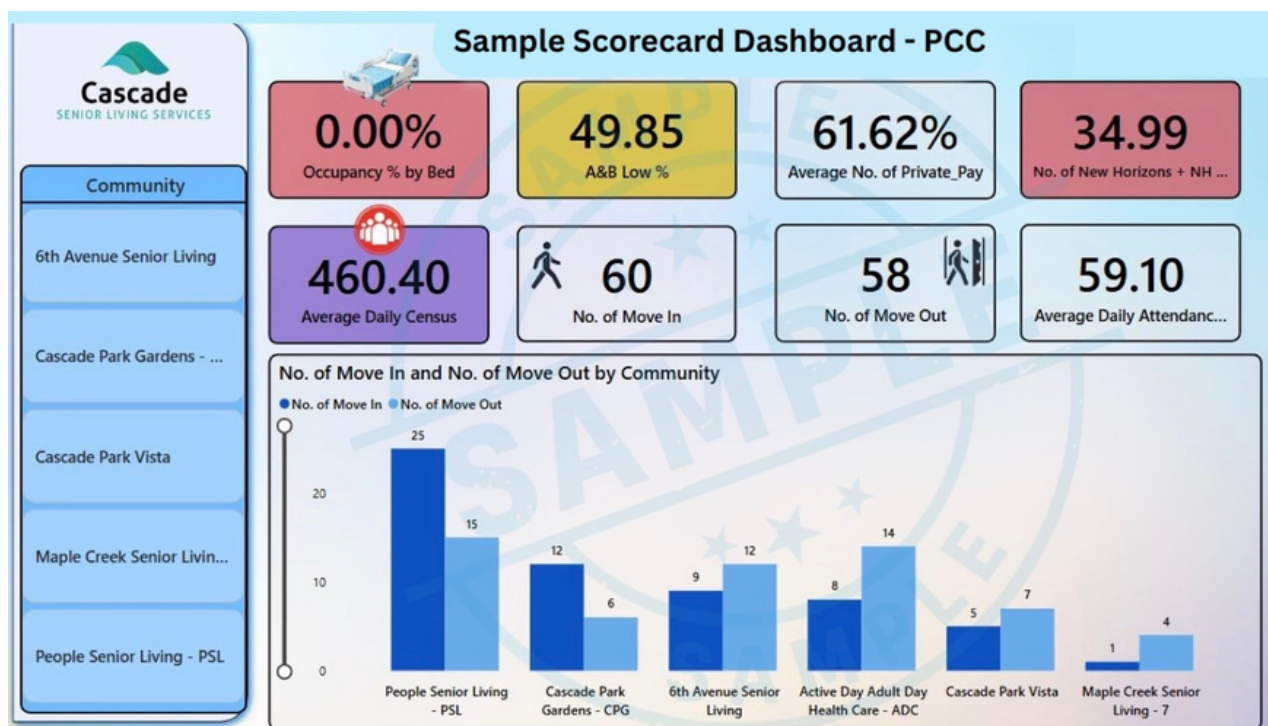
- Vacant units
- Resident missing shower
- 24 hours report
- Missed medication report
- Resident weight loss
- Overtime report, etc.



Project 2: Score Card Dashboard

This dashboard provides real-time updates with the most current data, while retaining data for the past three months. It also collects data from PCC and PayNW and prioritizes data security with customizable row-level security for participant access. The dashboard provides multiple (KPIs) for tracking and monitoring key metrics such as-

- Average daily census
- Occupancy percentage by bed
- Staff retention
- Budget compliance hours report
- Budget compliance quarterly expense report



Implementation and Outcomes

- **Enhanced productivity:** Automating repetitive tasks allows the Cascade team to focus on direct participant care and high-value activities.
- **Improved efficiency:** Automation ensures accurate, timely, and comprehensive tracking, significantly reducing the risk of errors.
- **Enhanced transparency and decision-making:** Automated reporting provides real-time insights into various processes, improving decision-making.
- **Customizable and scalable solutions:** Solutions are easily customizable and scalable, allowing Cascade to adapt to any future needs and challenges.

Cost of Care and Return on investment (ROI) to Providers

- **Daily comprehensive record tracking reports:** Providers receive daily comprehensive record tracking reports, enabling them to start their day focused on highlighted areas requiring immediate attention. This improves care delivery and resource allocation.

Cost of Care and Return on Investment (ROI) to Consumer

- **Fast turnaround and better care coordination:** Residents benefit from a fast turnaround on the resolution of their requests and enhanced care coordination, leading to improved satisfaction and health outcomes.

Advice to Share with Others

- **Commit to ongoing enhancement:** Consistently evaluate and refine systems to adapt to evolving operational requirements and integrate user feedback.
- **Prioritize data security:** Establish robust security protocols to safeguard sensitive information and ensure regulatory compliance.