Dynanet: Continuing its Process Improvement Journey with CMMI for Over a Decade

The Business Need

A small-privately held organization, Dynanet provides IT technology services to federal and state governments. Because these customers value, and often require, independent assessments of capability, Dynanet has a long history of quality, process improvement, and CMMI appraisals and ISO certifications. Dynanet passed its first ISO 9001 audit in 2009 and received a CMMI-DEV V1.2 ML2 rating in 2009, CMMI-DEV V1.3 CL3 rating in 2012 (including process areas: Project Planning, Project Monitoring and Control, Requirements Management, Configuration Management, Process and Product Quality Assurance, and Measurement and Analysis), CMMI-DEV V1.3 ML3 ratings in 2015 and 2018, and most recently a CMMI-DEV V2.0 rating of ML5 in 2019.

According to Director of Process Improvement, Mike McEwen, "Senior management has always seen the value of process improvement as a means to improve performance, keep customers happy, and differentiate Dynanet from its competitors." Consequently, Dynanet makes ongoing, significant investments to support its process infrastructure and quickly embraced the new V2.0 model.

The Business Challenge

In 2017, a Dynanet-led team won a $42-million contract to maintain and enhance one of the four systems that process over a billion insurance claims every year representing 3.5% of the U.S. GDP. That system performs benefit coordination and pre-payment claims validation for insurance Part A (hospital and nursing care) and Part B (doctor visits, lab tests, and medical equipment) to enable standardization of claims processing, which occurs at multiple data centers throughout the United States.

Company Background

Dynanet was established in 1995 to deliver exceptional IT engineering and management services to state and federal governments. At the time, the company's focus was on IT infrastructure. Since then, not only has its workforce increased but the breadth of services has expanded as well. Dynanet delivers system integration services that solve complex business problems in the areas of Agile Application Development, Software Maintenance of Mission-Critical Systems, Robotic Process Automation, System Engineering, Public/Private/Hybrid-Cloud Infrastructure Operations and Management, Program Management, and Blockchain Enablement. Dynanet's industry experts follow tailored approaches to provide advanced solutions that meet the unique needs of its customers in the best way possible.

For more information, go to **dynanetcorp.com**

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Despite a smooth transition onto the new contract, the defect rate of Dynanet software deliverables began rising and the delivery team's accuracy of effort estimates began declining. Dynanet sought to determine the reasons for these performance issues and possible solutions as it planned a High Maturity Appraisal with CMMI Partner Software Quality Center (SQC).

The Solution

Dynanet chose the Development view of the CMMI V2.0 model because their typical deliverables are software, documentation, and services related to software (e.g., requirements analysis and design). The CMMI-DEV view was a smart fit because it had practice areas for almost every aspect of Dynanet's projects included in the scope of CMMI based practices. The capabilities targeted for improvement in this High Maturity Appraisal were:

- Ensuring Quality
- Engineering & Development
- Planning & Managing Work
- Sustaining Habit & Persistence
- Improving Performance

CMMI (especially the CAR and MPM practice areas) gave Dynanet the tools they needed to determine the root causes of their performance issues on the project, implement corrective actions, and statistically prove those actions worked. More importantly, CMMI enabled Dynanet to establish a quantitative framework of performance goals, objectives, and critical indicators with related procedures for data collection, analysis, and presentation.

> **"We have held ISO 9001 certifications and CMMI ratings since 2009. Receiving an ML5 rating is a major milestone on our performance improvement journey that demonstrates our relentless pursuit of quality in the products and services we deliver to our customers."**
>
> **Sean Peay**
> **President and CEO**
> **Dynanet**

This framework feeds data about corporate and project-level performance to senior management in easy-to-understand formats to reveal key insights and support better decision-making. This new capability is a key component of Dynanet's transformation to being a fully data-driven organization. Qualitatively, this helped raise employee morale on the projects, and also provided management more insights and confidence in the ability of projects to be completed as promised.
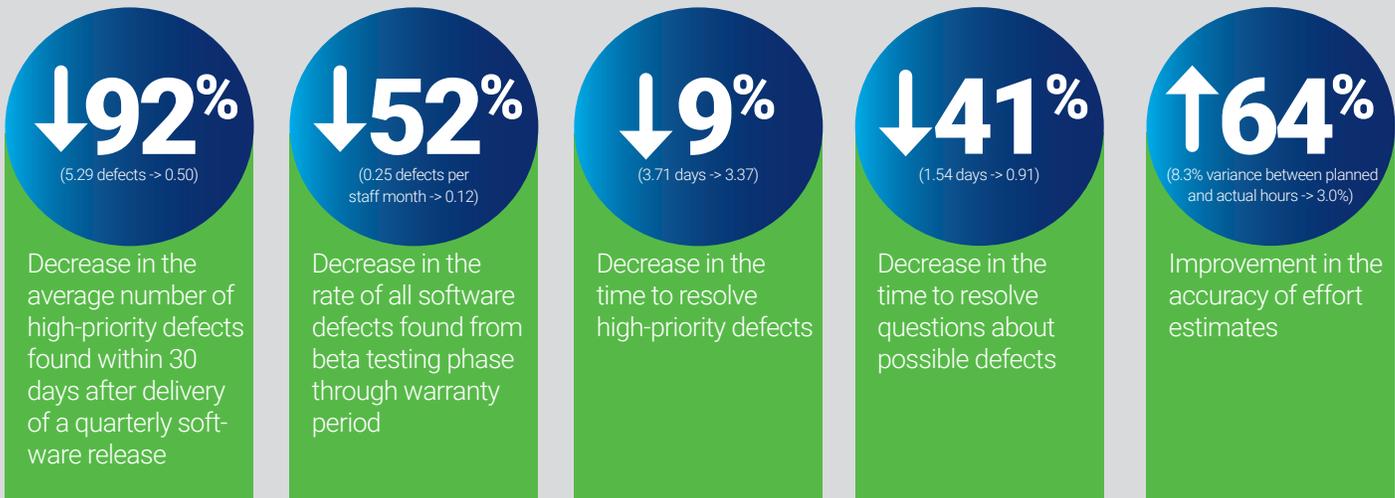
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Key Performance Goals Achieved

Dynanet achieved an ML5 rating using the V2.0 DEV view of the model. This High Maturity Appraisal helped Dynanet achieve measurable and meaningful improvements.

Dynanet Identified and Solved Key Performance Goals

↓92%	↓52%	↓9%	↓41%	↑64%
(5.29 defects -> 0.50)	(0.25 defects per staff month -> 0.12)	(3.71 days -> 3.37)	(1.54 days -> 0.91)	(8.3% variance between planned and actual hours -> 3.0%)
Decrease in the average number of high-priority defects found within 30 days after delivery of a quarterly soft-ware release	Decrease in the rate of all software defects found from beta testing phase through warranty period	Decrease in the time to resolve high-priority defects	Decrease in the time to resolve questions about possible defects	Improvement in the accuracy of effort estimates

Lessons Learned

The quality journey that Dynanet began in 2008 demonstrates how CMMI can be tailored to the size and resources available to a small business. Dynanet cites the following key lessons learned in their process improvement journey.

- Develop a **performance improvement plan** identifying all the tasks needed
- Ensure you have an **experienced CMMI Partner** that is available by phone or email to answer questions within a few days. Have status meetings every 5-6 weeks with the Partner
- Have **your processes and artifacts well organized** to how the work is being performed to help streamline the appraisal
- Ensure those responsible for measurements and analysis have **adequate statistical background** and undergo detailed training
- **Keep senior management apprised** of progress and roadblocks
- **Train appraisal team members** and ensure they pass required certification exams as early as possible

Dynanet's ML5 rating helps to differentiate them from other firms in the crowded government contracting space. Their current customers have recognized this achievement and strengthened their relationships with them, and Dynanet expects this to translate into additional projects.

Adopting a quantitative framework for monitoring performance and selecting corrective actions addressed the immediate issues on the contracts, which enables Dynanet to use it as a past performance reference for future proposals. And finally, establishing this quantitative framework helps ensure superior performance throughout the organization. Dynanet's long-term focus on performance improvement and its partnership with CMMI have been instrumental in its quest to become a fully data-driven organization.

> **"Dynanet has seen tangible, statistically significant improvements with the continued persistence and habit of our processes that meet CMMI best practices. This is a major milestone and assures Dynanet's customers of an ongoing focus on performance excellence using the best of best practices."**
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> **Kris Puthucode**
> **President & CEO**
> **SQC**

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ISACA's CMMI enables organizations to elevate and benchmark performance across a range of critical business capabilities, including product development, service excellence, workforce management, data management, supplier management, and cybersecurity. For more than 25 years, thousands of high-performing organizations have achieved sustainable business success through CMMI adoption and demonstrated their ability as capable business partners and suppliers.