Peraton

THE IMPACT OF CUSTOMER AND USER EXPERIENCES ON THE DEFENSE MISSION

DO THE CAN'T BE DONE.

EXECUTIVE SUMMARY

How users perceive and interact with systems has a demonstrable impact on its success. For enterprise IT within the U.S. Department of Defense (DoD), this concept extends worldwide and affects readiness and mission outcomes.

To ensure a sound user experience, the DoD needs solutions that address user behavior. They must have capabilities to monitor, automate actions, remediate problems and measure activity. These features come together as part of a comprehensive digital transformation that serves as a model for operating enterprise IT and supporting the military services that face high demands and continuous threats.

USER EXPERIENCE ORIGINS

When John E. Karlin invented the touchtone keypad in the mid-20th century, he probably did not realize his telephone invention would go on to be used in ATMs, vending machines, and medical equipment. The industrial psychologist at Bell Labs, a Peraton predecessor company, intended to ensure that telephones would be accessible and usable. His research and iterative design led to a user-centric solution that continues to have a positive effect worldwide.

The human-centered design field has grown exponentially since Karlin's discovery and now encompasses sub-fields such as employee experience, brand experience, and product experience. Peraton continues to emphasize human experience as a cornerstone of program development and execution for the U.S. Department of Defense (DoD). In this context, the company brings a holistic, multifaceted understanding of how to improve the human experience within the entire organization because it is central to any successful organizational change and modernization initiative. Peraton refers to this as the Defense User Experience (DUX).

WHAT IS DEFENSE USER EXPERIENCE?

The DoD includes hundreds of thousands military and civilian personnel whose focus is their mission. Users and stakeholders within DoD programs include personnel in secure facilities, remote locations, subcontractor organizations and government offices. Such a diverse workforce creates varying user experiences based on role, location, device access, and many other factors.

How does one solve for problems within defense when the problem is not truly understood? Peraton's defense user experience (DUX) approach seeks to address this starting with this definition:

> **DUX:** the perceptions and behaviors of an individual, within DoD, when engaging with organizational solutions, systems, processes, and technologies.

MEASURING DUX

At Peraton, there is a science to understanding the experiences of users and program-level customers. The company takes an analytical, data-driven approach that develops metrics and benchmarks for program improvement analysis. Deliverables such as personas, journey maps, value stream maps, and prototypes define the many aspects of DUX and identify opportunities for improvements. Solution development aligns to the understanding of current pain points, workflows, employee needs, customer needs, and extensive research on the most advanced technological advances in the market. Peraton shares results with program-level customers to drive the implementation and evolution of the user experience, which enables and enhances their defense mission and outcomes.

DIGITAL TRANSFORMATION APPROACH

The digitalization of everything and shift to 'X as a service' models are at the center of the fourth industrial revolution. To address ever-changing threats, diminishing budgets, and the need for continuous innovation, the DoD is looking to technology to help accelerate how it work. The need for state-of-the-art automation, analytics, and system integration capabilities is at an all-time high. While technology is a critical element of digital transformation, it is the collaborations among technology, people, processes, and data that create lasting change. This is where the focusing on DUX can be applied to drive solution adoption, engagement, retention and satisfaction.

The purpose of Peraton's commercial-to-DoD digital transformation approach is to develop solutions that use technology to improve mission readiness. This starts with the right foundation for digital modernization to solve challenges in security, network, cloud management, and information technology. Then it becomes simpler to manage the delivery of enterprise IT, stay current with technology advancements and maintain positive DUX outcomes. Peraton accomplishes this by building an infrastructure centered around four components: Solution Innovation, Change Management, Program Monitoring, and Proactive Remediation.

The distributed nature of a DoD enterprise system means multiple employees can experience specific systems and processes. Our DUX model builds on this premise and combines technology and advanced analytics to provide organizations with evidence-based recommendations for generating solutions. Operationally, DUX as a managed service also offers ways to reduce IT system costs, wasted resources, and challenges that negatively impact an end user's experience. This strategy reverses the idea of strict adherence to service-level agreements because it addresses complex challenges and requirements while ensuring enterprises and IT services are continuously evaluated and updated.
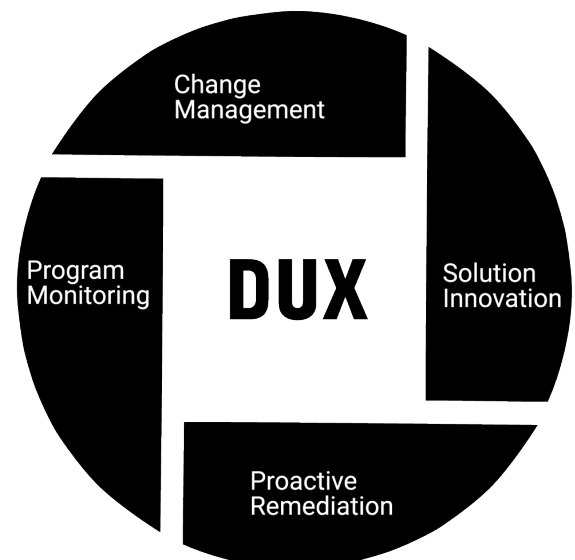
USER-CENTRIC IT CAPABILITIES

From a program management perspective, it often happens that many digital transformation solutions focus on technology. The metrics and business objectives all focus on system behavior like network speed, log in time, download speeds, then automatically correlate those factors with end user experience. So, the solution revolves around monitoring the system. But, Peraton's experience shows this representing a small piece of the story and ignores the other two pillars: people and processes. Instead, Peraton recommends this holistic, user-centric approach:

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01
System
Monitoring

02
User
Monitoring

03
Proactive
Remediation

04
Mission
Readiness
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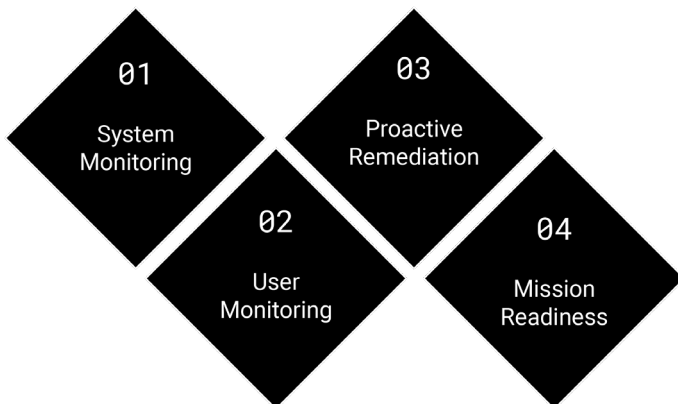
System Monitoring

Under this model, there is emphasis on monitoring hardware and operating systems, holistically tracking the empirical configuration and status information of devices and applications. This allows assessment of whether conditions are, or could be, impacting the user experience. It also analyzes resource utilization on all managed systems such as servers, domain controllers, desktops, and mobile devices, identifying hardware and system dependencies. The platform then records key metrics on application health including usage, protocol traffic, event and fault tracking, and automated backend-service evaluations. Performance on physical and virtual desktop deployments are monitored and optimized based on business needs.

> ## "A SOLUTION IS ONLY USEFUL TO THE CUSTOMER WHEN IT IS USABLE TO THE END USER"
>
> Dr. Diem Mooney, CXO
> Defense Solutions Sector, Peraton

User Monitoring

Essential to the DUX model is collection of insights from multiple sources to gain a well-rounded understanding of user perceptions and behaviors. Surveys offer one tool to assess user satisfaction and can be administered on-demand, on a scheduled time, or triggered based on a pre-determined event.

Also imperative is collection and analysis of behavioral data using metrics such as session duration and page navigation that show the user's journey.
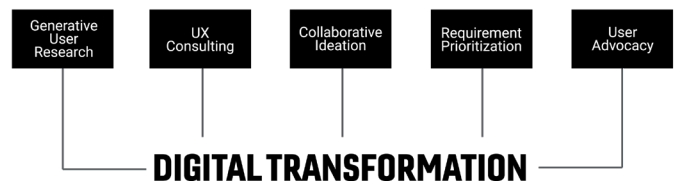
This offers insight into usage patterns and helps to segment users into logical personas based on their needs. Analyzing both quantitative and qualitative user data allows correlation between system behavior and user behavior, ensuring that there is a full picture when it comes to understanding the end user experience. A solution is only useful to the customer when it is useable to the end user.

Proactive Remediation

Monitoring both users and the system provides better understanding of user consumption of IT during the daily completion of mission-related tasks. Armed with this, Peraton can automate and execute processes to address detected issues quickly before they impact user experience. This capability to evaluate risk levels and model environmental conditions allows the platform to predict how changes will impact performance. Further, it identifies where behaviors diverge from determined baselines, detects conditions that exceed established thresholds, intervenes automatically by sending alerts to the user, and performs preset remediation tasks. This capability both reduces the number of service desk calls and assists users who are less prone to content technical support. Continuous monitoring and as-needed intervention generates higher increases user satisfaction and productivity, while simultaneously decreasing costs, time, and risks.

DRIVING LASTING CHANGE

The best digital transformation programs encompass an organizational change initiative that improves experience and meets business needs. Peraton prioritizes both solution innovation and change management to ensure that solutions continue to meet the complex and ever-changing needs of DoD personnel. A steadfast presence of experts throughout program implementation answers the questions 'What is the DUX' and 'How can DUX be improved' to ensure mission readiness.

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Generative     UX           Collaborative   Requirement      User
User           Consulting   Ideation        Prioritization   Advocacy
Research

                    DIGITAL TRANSFORMATION
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