



Digital Technology's Five-Year Strategic Plan Overview

Technology Committee of the
Board of Directors

June 25, 2024

Executive Summary

- MISO's long-term Digital Technology strategy will continue to help enable the Reliability Imperative, which focuses on the urgent and coordinated action needed to ensure grid reliability
- The Five-Year Plan is a maturity journey that enables Digital Technology to identify, plan, sequence and deliver key initiatives
- Execution of the critical work to keep MISO safe and secure, reliable and efficient is reliant upon strategic investments in people, processes and technology

MISO's Reliability Imperative guides the transformation needed to maintain reliability for the grid of the future



RELIABILITY IMPERATIVE

Market Redefinition

Develops significant market enhancements and optimizations to ensure continued reliability and value in anticipation of the changing resource mix, more frequent extreme weather events, and increasing electrification

Operations of the Future

Focuses on the skills, processes and technologies needed to ensure MISO can effectively manage the grid of the future under increased complexity

Transmission Evolution

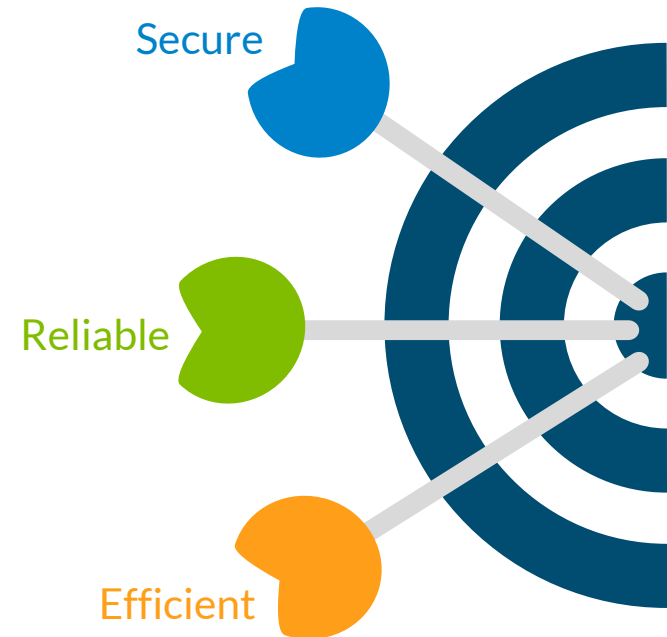
Assesses the region's future transmission needs and associated cost allocation holistically, including transmission to support utility and state plans for existing and future generation resources

System Enhancements

Creates flexible, upgradeable, and secure systems that integrate advanced technologies to process increasingly complex information and evolve with the industry

Recent accomplishments demonstrate how Digital Technology is supporting the Reliability Imperative and strengthening MISO's security posture

- ✓ Upgraded critical systems, including the Energy Management System (EMS), Emergency Communications System and Inter-Control Center Communication Protocol (ICCP)
- ✓ Advanced engagement and collaboration with federal governmental partners and agencies
- ✓ Progressed key deliverables in the Market System Enhancement program, which advances MISO's digital strategy and new system designs
- ✓ Enhanced automation in protective security controls and implemented stronger social engineering protections
- ✓ Implemented a new data and analytics platform, deploying the first machine learning tools into production



As MISO looks toward the next five years, Digital Technology's longer-term efforts will focus on key initiatives that enable the Reliability Imperative



Reliable and Informed Planning and Operations



Safe and Secure Physical and Technology Environment



New Generation of Products

These key initiatives will guide our journey to maturity to execute the critical work identified in the Reliability Imperative



Reliable + Informed Planning and Operations

- Advancing data and analytics, using machine learning and artificial intelligence (AI)
- Enhancing modeling capabilities
- Implementing new predictive and forecasting tools



Safe + Secure Physical and Technology Environment

- Advancing security controls using the NIST* framework
- Fortifying cybersecurity posture
- Modernizing technology and application lifecycles



New Generation of Products

- Delivering new and enhanced market products faster
- Implementing next generation market systems
- Modernizing customer-facing applications
- Maturing hybrid cloud capabilities

ADVANCED TECHNOLOGIES / AI

RELIABILITY IMPERATIVE

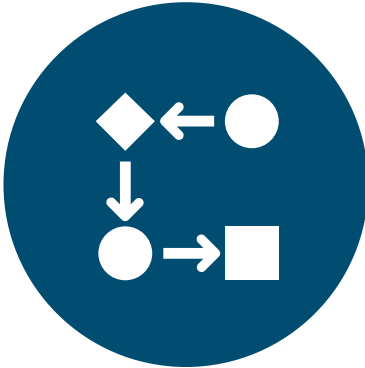
*National Institute of Standards and Technology

To achieve the work ahead, delivery is reliant upon a robust talent strategy and investments to enhance processes and technologies that address technical debt and keep up with the pace of change



PEOPLE

Develop new employees, mature talent strategy and leverage digital partners for additional throughput, talent and skillsets



PROCESS

Refine processes to manage the complexity of the technology paradigms and improve efficiencies through automation



TECHNOLOGY

Invest in technology improvement and data, address technical debt, leverage key external partnerships and manage the pace of change