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MISE: Multi-Server Integrated Schedule Environment

CECOP MISE Presentation

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Agenda

- MISE Overview and Benefits
- Development & Technical Details

MISE Overview and Benefits

THE ISSUE: Program Level Time-Phased Estimates Plagued by Site Plans Out of Alignment

- Differences in schedule development and alignment processes used at design agencies and production agencies create inconsistent schedule plans, thus causing erroneous funding and budget profiles at each site due to resources being inaccurately time-phased.
- Difficulty in understanding cross-site program changes impacts the ability to make critical program decisions.
- Current tools are unable to trace logic between site schedules and require significant manual monthly maintenance to sustain alignment.

THE SOLUTION: A Framework for Integrating Program Plans

- MISE is the result of a joint effort between Kansas City National Security Campus (KCNSC FM&T) and Sandia National Laboratories (SNL). It imports and integrates individual Nuclear Security Enterprise site schedules through a stitching process within the existing Oracle Primavera P6 structure.
- The stitching results in an integrated schedule which is based on logic ties at specific agreed-upon integration points. This increases visibility and transparency into each site's schedule enabling continued alignment throughout the life of a program.
- By driving consistent schedule development and alignment processes, increasing visibility to plans, and allowing for logic to be traced across site schedules, we are able to develop an accurate integrated cost and schedule plan for the program.

Benefits of MISE

Consistent Understanding of Decision Impacts

Tracking the same level of detail enables consistent understanding of decision impacts across sites

Increased Awareness of Impact

Visibility into site schedules increases awareness of downstream program impacts across both sites

Reliable Foundation For Program Management

- An integrated plan supports the effective utilization of program management practices
- Integrated and aligned schedules provide a better basis for analyzing the true impacts from risks and uncertainties facing the program
- Identification of schedule compression opportunities
- An integrated plan allows for better understanding of when and where to allocate management reserve and helps to inform

Improved Cross-Site Communication and Transparency

Enables the ability to track impacts of activities at one site on schedules at other sites, schedulers can communicate more effectively and identify issues to escalate to management

Faster Decision Making Achieved Through Greater Confidence in Reporting

A single source of truth allows program managers and staff the ability to focus on critical decisions rather than spending time reconciling inconsistent data

Development & Technical Details

MISE Development Strategy

Development is organized into two parallel efforts:

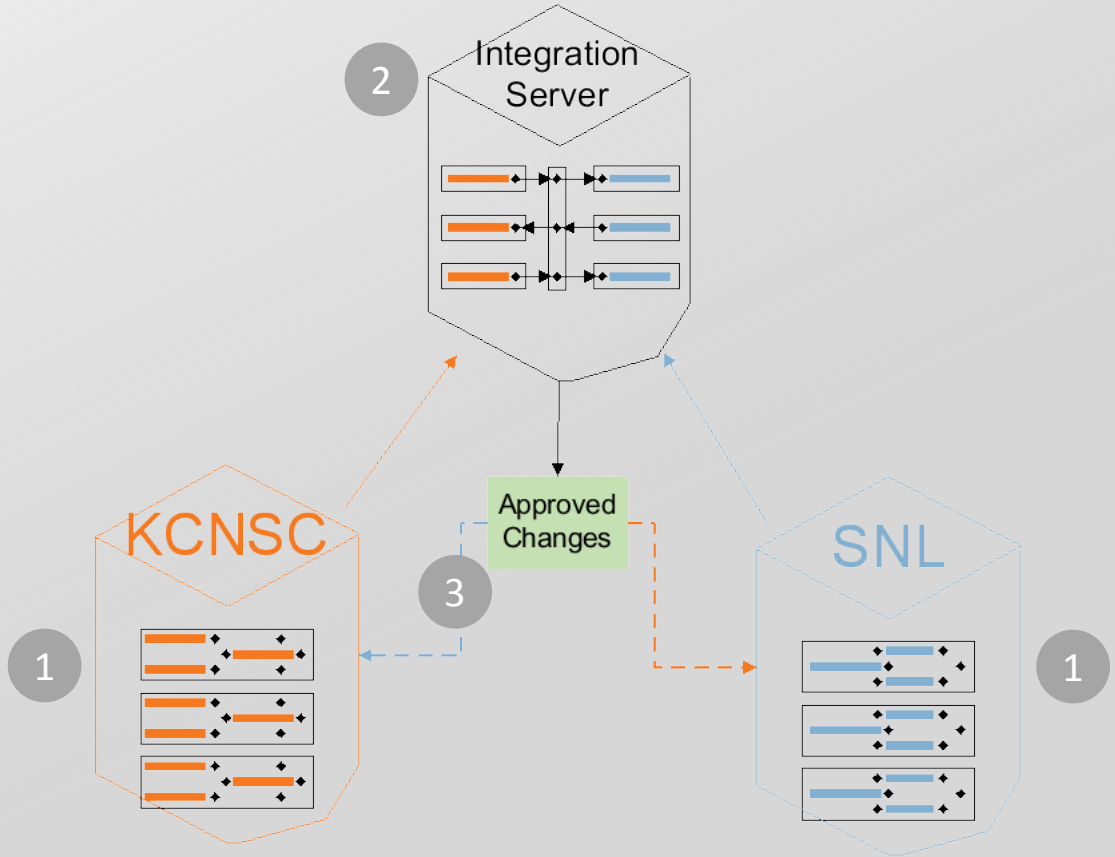
- IT Development
- Business Requirements Definition
  - Standard Operating Rhythm
  - Program Specific Requirements

Sites share responsibilities in MISE:

- Main Architecture
- M&O Support
- Monthly Integration
- End User Architecture
- Schedule Management
- Requirements Definition/Implementation of MISE
- System Governance/Continuous Improvement

MISE Architecture

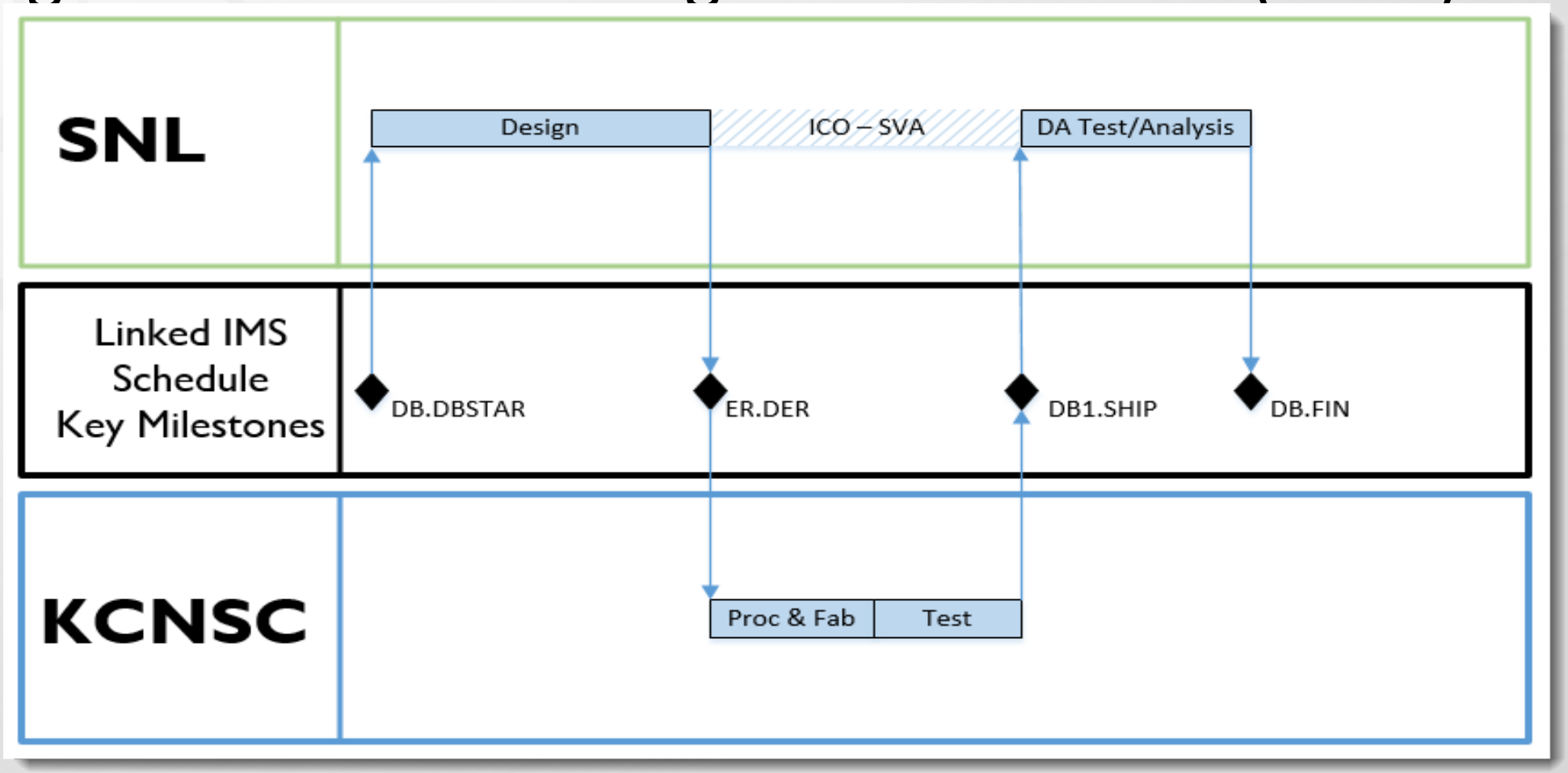
1. Each site operates in their own P6 server
   Scheduling and operational rhythms are unchanged
2. Based on a monthly business rhythm, automated software stitches separate schedules together in one P6 environment
   Direct logic connections are drawn between activities, schedules are now integrated
3. After approval, schedules are updated at each site
   Site schedules reflect impact of integrated analysis



Integration Details

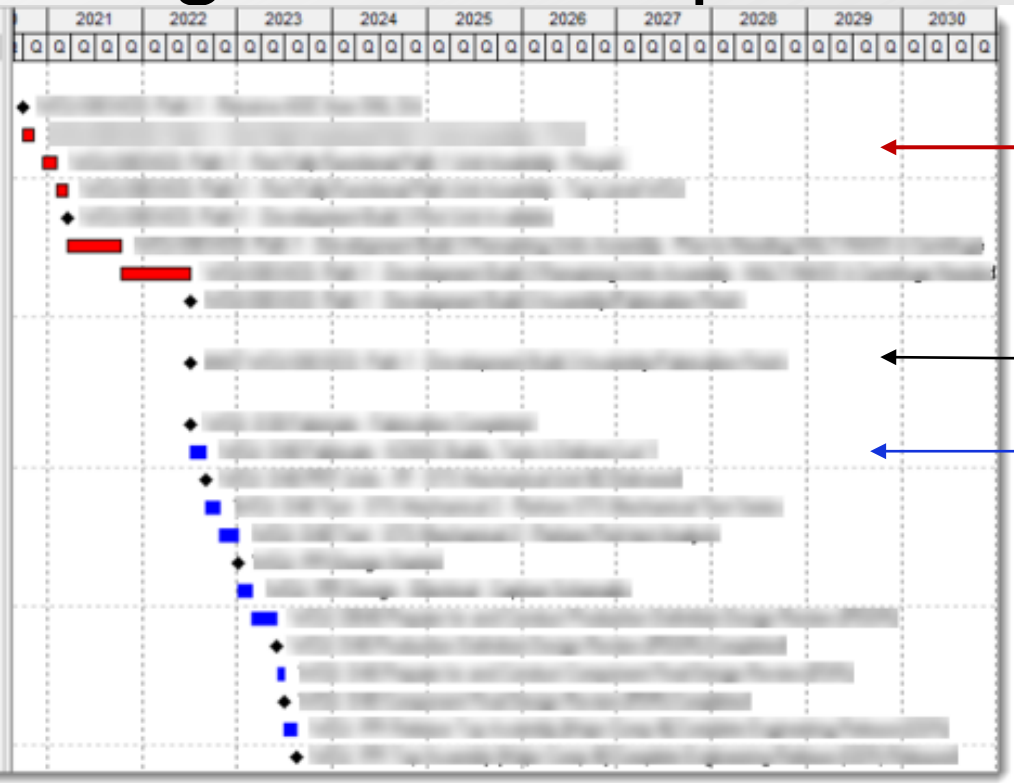
- Level of Integration
  - Schedules integrate at agreed-upon milestones based on activity attributes
  - Sites agree on predefined handoffs and direction of handoffs
  - Integrated schedule hand-offs may include NNSA Integrated Master Schedule (NIMS) and Non-NIMS milestones
  - Sites expect discrete logic to drive milestones
- Use of Milestone Alignment Tool (MAT) for complex-wide alignment remains unchanged
- Capability exists on unclassified and classified integration servers
- Allows for possible submission of a single monthly NIMS contribution file to National Nuclear Security Administration (NNSA)

Integration Milestone Alignment Schedule (iMAS)



MISE Schedule Integration Example

#	Activity ID	Start	Finish
2	1 - Kansas City Schedules		
3	KCWCU146770	25-Sep-20*	
4	KCWCU49090	25-Sep-20	05-Nov-20
5	KCWCU49100	15-Dec-20*	03-Feb-21
6	KCWCU49110	04-Feb-21	17-Mar-21
7	KCWCU17280		17-Mar-21*
8	KCWCU17350	18-Mar-21	13-Oct-21
9	KCWCU147300	14-Oct-21*	06-Jul-22
10	KCWCU17290		06-Jul-22
11	2 - iMAS - Integration Schedules		
12	KCWCU17290-SDWCU930440		06-Jul-22
13	3 - Sandia National Labs Schedules		
14	SDWCU930440		06-Jul-22
15	SDWCU930330	07-Jul-22	31-Aug-22
16	SDWCU101890		31-Aug-22
17	SDWCU105210	01-Sep-22	27-Oct-22
18	SDWCU105220	28-Oct-22	03-Jan-23
19	SDWCU100870	04-Jan-23	
20	SDWCU105410	04-Jan-23	28-Feb-23
21	SDWCU100780	01-Mar-23	02-Jun-23
22	SDWCU100790		02-Jun-23
23	SDWCU100800	05-Jun-23	30-Jun-23
24	SDWCU100820		30-Jun-23
25	SDWCU100840	03-Jul-23	14-Aug-23
26	SDWCU100880		14-Aug-23



KCNSC Schedule

Integration Point of SNL & KCNSC Schedules

SNL Schedule

Handoff milestones have direct logic connections which creates the iMAS

Questions?