

Ingalls Shipbuilding

Digital Transformation & SSI

Jason Brown, VP & CIO

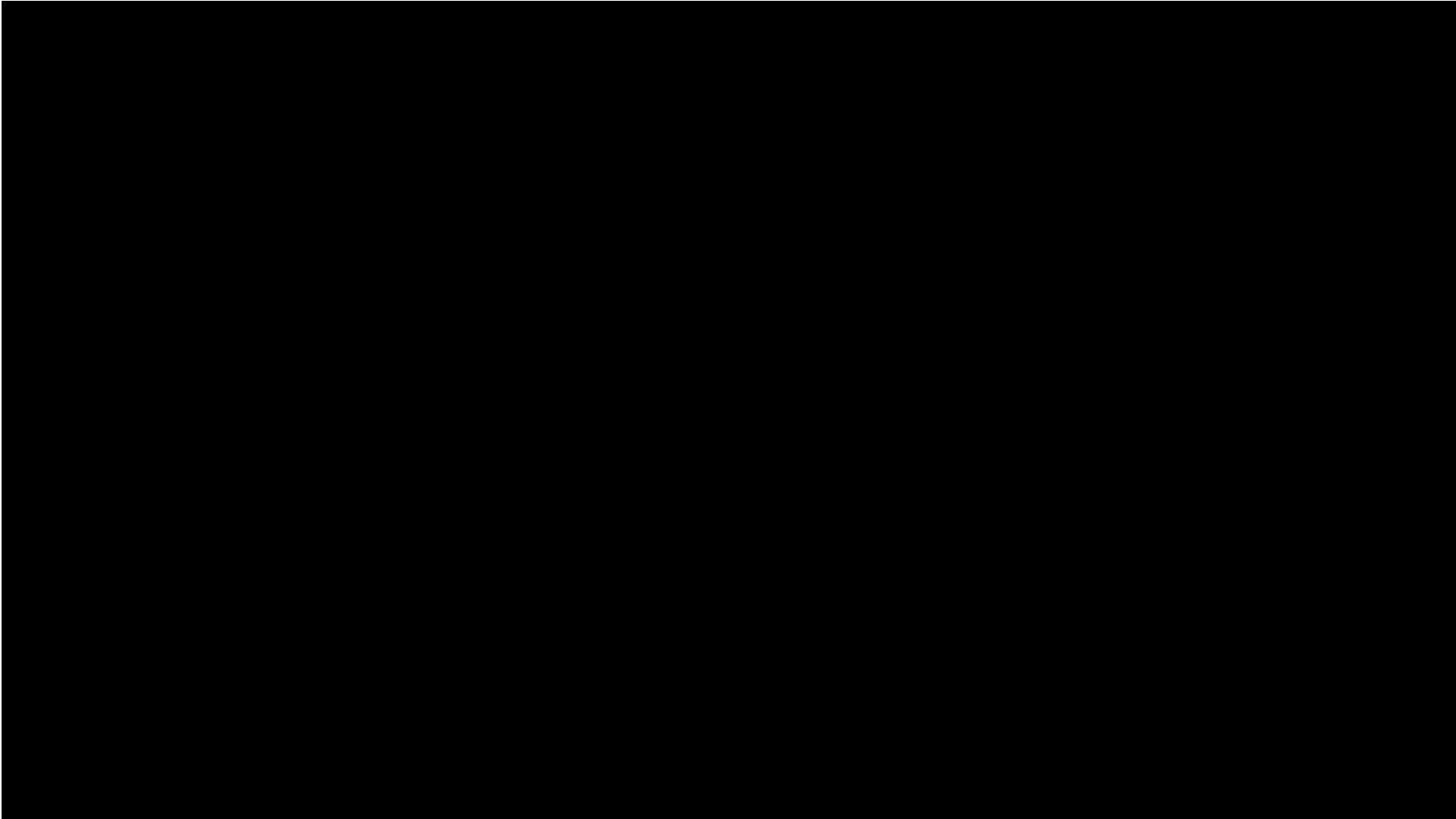
September 25, 2024



HII: Who We Are



HI's Mission



INGALLS SHIPBUILDING

- **Largest manufacturing employer** in Mississippi
- **Major contributor** to the economic growth of Alabama and Mississippi
- **Largest supplier** of U.S. Navy surface combatants
- Only shipyard **simultaneously building 4 classes** of ships
- Only shipyard **completing the conventional prompt strike mod on the Zumwalt-class ships**
- **Comprehensive life-cycle services** for CG 47, LPD 17 and LCS-class ships



America-class
Large Deck Amphibious
Assault Ships



San Antonio-class
Amphibious Transport
Dock Ships



Arleigh Burke-class
Aegis Guided
Missile Destroyers



Legend-class
National Security Cutters



Zumwalt-class
Guided Missile Destroyers

11,000+
shipbuilders

800-acre
shipyard

Over 85
years
of building
world-class ships



The CIO Needs to Position the Company for Innovation

Key Factors Driving Innovation:

Cyber & Data Protection Regulations

Data Analytics, Automation & Artificial Intelligence (AI)

Agile Teaming



Digital Innovation Drivers

Cyber & Data Protection Regulations

Cybersecurity and data protection regulations have grown exponentially.

2002	2003	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
		<ul style="list-style-type: none">(2002-07) Sarbanes-Oxley (SOX) passed into law		<ul style="list-style-type: none">(2017-12) DFAR 7012 - NIST 800-171 Rev 1		<ul style="list-style-type: none">(2020-02) DFAR 7012 - NIST 800-171 Rev 2	<ul style="list-style-type: none">(2021-05) Executive Order on Zero Trust	<ul style="list-style-type: none">(2023-06) Bytedance Clause(2023-10) Executive Order on AI	<ul style="list-style-type: none">(2023-07) SEC Cybersecurity Risk Mgmt			
									<ul style="list-style-type: none">(2024) CMMC 2.0(2024) DFAR 7012 - NIST 800-171 Rev 3<ul style="list-style-type: none">(2024) FAR – Federal Information Systems Clause(2024) FAR – Cyber Threat & Incident Reporting Clause*			
												<ul style="list-style-type: none">(2027) DoD “across-the-board baseline” zero trust

And the regs for AI are just beginning...



Data Analytics & Artificial Intelligence (AI)

“A global technology revolution is now underway. The world’s leading powers are racing to develop and deploy new technologies like artificial intelligence and quantum computing that could shape everything about our lives – from where we get energy, to how we do our jobs, to how wars are fought. We want America to maintain our scientific and technological edge because it’s critical to us thriving in the 21st century economy.”

ANTONY J. BLINKEN
SECRETARY OF STATE

Per World Economic Forum:

- 40% of jobs around the world will be affected by AI
- 60% of jobs in advanced economies will be affected by machine learning

Chinese Military-Funded Researchers Develop AI Warship Electrical Layout in Record Time

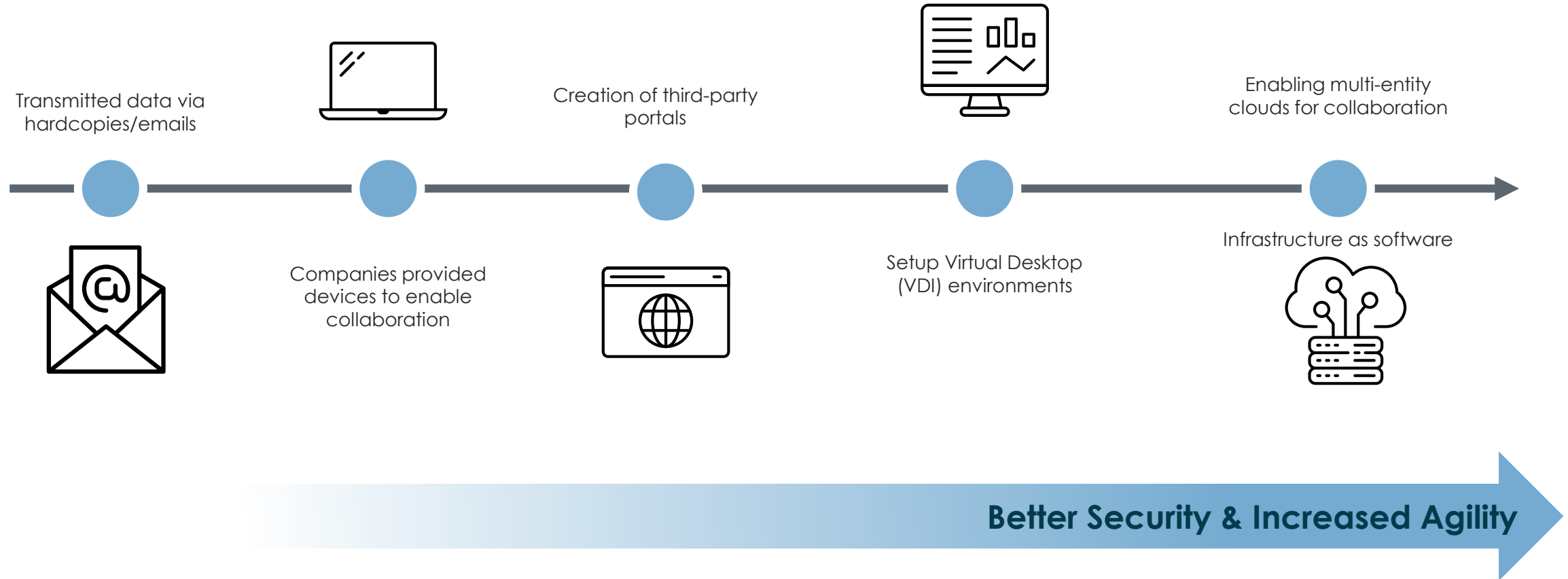
According to the South China Morning Post, the AI designer completed the task in one day when it would have taken humans nearly a year to complete, even with the most advanced computer tools available!

AI is a Game Changer



Digital Innovation Drivers

Agile Teaming



Themes Driving Innovation

Data

- Regulations are evolving from border protection to data protection (Zero Trust)
 - Data tagging
 - Movement restrictions
- Analytics and AI need data, lots of it
 - The data needs to be governed and highly integrated to reduce noise

The best way to get control of your data and increase integration is by consolidating into a singular product platform or provider partner ecosystem

Identity Management

- Regs/Zero trust will move us towards who and where data can be utilized
 - Instead of locking us down to a specific perimeter of where it can be utilized
- Cloud-based identity solutions and other zero trust toolsets allow us to move past the traditional perimeter concept which greatly enables agile teaming
 - The perimeter really becomes more of a data type opposed to a network

Cloud

- Increasingly hard and expensive to keep pace with rate of change (security updates) and sophistication in regs with an on-premise environment
- Data analytics, automation and AI need lots of computing power

Getting to the cloud unlocks supplier provided innovation and toolsets

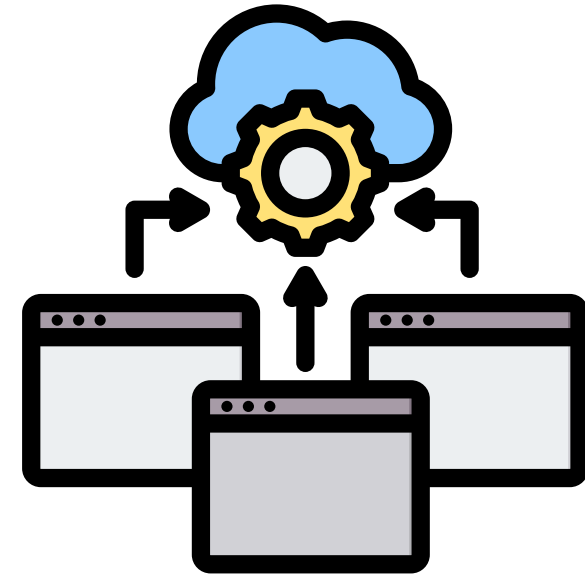
Significant enabler for agile teaming



The Ingalls Journey with SSI

Consolidated Platforms

- Utilizing SSI and their partner network, consolidated multiple solutions into major platforms
 - All design work completed in the SSI platform
 - Consolidated PLM systems into ARAS Innovator
 - Utilized AutoDesk capabilities within the PLM and SSI Solutions (Navisworks for visualization)
 - Standup of IFS for MRP
- Developed automations to feed our robotics in the OTN environment



Integrating Platforms

- Continuing to integrate with the SSI partner network
 - Standup of Cloudis
- Building on the OTN environment with additional automations (Plate Nesting)
- Piloting a multi-company design environment

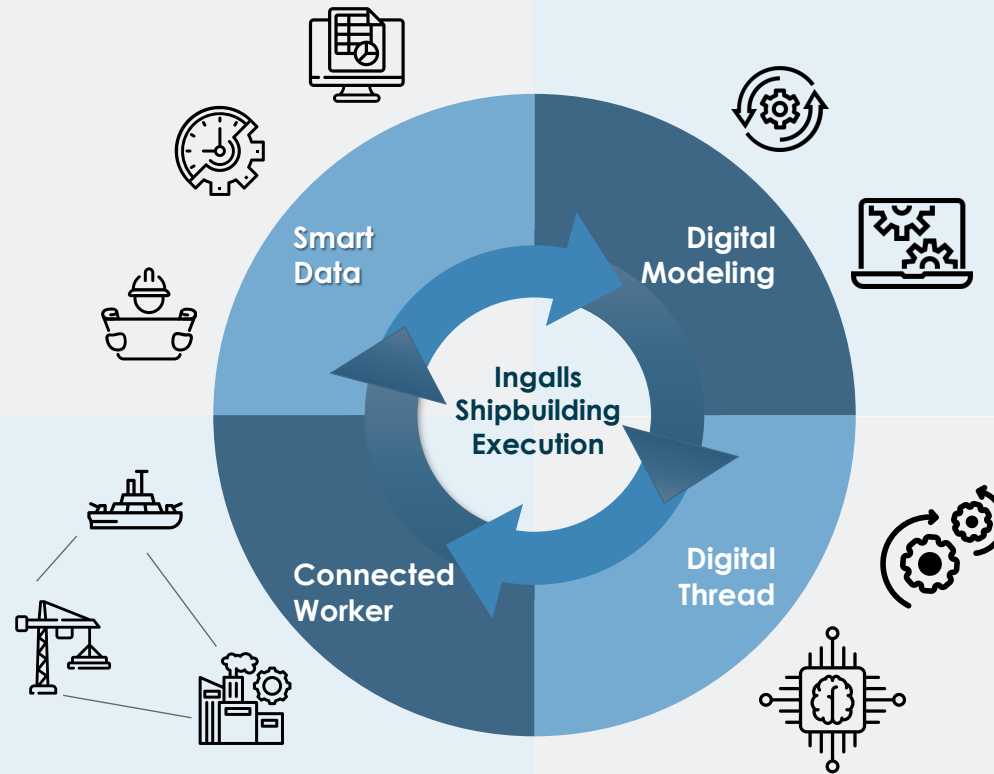
What's on Ingalls' horizon for SSI?

Integrated Planning

ShipbuildingPLM
Model-based System Engineering

Integrated Design & Quality Control

Automated Deckplate Inspection



Integrated Shipbuilding

Migrate to the Cloud
Enable Design Anywhere

Automation & Enable AI

Advanced Analytics for Enhanced Decision Making
AI Enabled Productivity Tools





INGALLS SHIPBUILDING

A Division of HII

