BY ORDER OF THE COMMANDER
480 INTELLIGENCE SURVEILLANCE
AND RECONNAISSANCE WING (ACC)

480 INTELLIGENCE, SURVEILLANCE,
AND RECONNAISSANCE WING
INSTRUCTION 17-101

7 JANUARY 2025

Cyberspace

MISSION SYSTEM DATA CENTER INFRASTRUCTURE MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at **www.e-publishing.af.mil** for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 480 ISRW/A6

Certified by: 480 ISRW/A6C
(Mr. David A. Peay)

Supersedes: 480ISRWI17-101, 1 APRIL 2022

Pages: 17

This publication implements Air Force Policy Directive (AFPD) 17-1, *Information Dominance Governance and Management*. It provides guidance for all data center infrastructure power, space, cooling, local connectivity infrastructure, and cyber security requirements. It applies to all personnel within the 480 Intelligence, Surveillance, and Reconnaissance Wing (ISRW) and to Reserve and Air National Guard units assigned within the AF core Distributed Common Ground System (DCGS). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Instruction (AFI) 33-332, Records Management and Information Governance Program, an disposed of IAW the Air Force Records Disposition Schedule which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this instruction to the Office of Primary Responsibility (OPR) using the DAF Form 847, Recommendation for Change of Publication; route AF Form 847 from the field through the appropriate functional chain of command. This publication may be supplemented at any level, but all Supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Failure to comply with this publication is punishable as a violation of Article 92, of the UCMJ.

SUMMARY OF CHANGES

This document has been revised and needs to be completely reviewed. Changes include data center access and management, clarification of approved data center usage, updated installation checklist, and updated A6 designators from previous SC/SCX.

1. Purpose and Objectives.

1.1. Purpose. The purpose of this instruction is to codify data center operations and maintenance (O&M) standards for those using data centers managed by the 480 ISRW and to provide a means to update and improve those rules over time. The policies and standards prescribed herein serve to meet the design criteria and availability requirements for the data centers. For the purpose of this instruction the term data center extends to all communications rooms that house core building infrastructure including but not limited to routers, switches, and patching equipment.

1.2. Objectives. This instruction documents responsibilities for managing 480 ISRW Mission System Data Centers to reduce mission risk, improve mission system agility and enhance mission assurance for Distributed Common Ground System (DCGS, i.e., "Baseline system") operations. The 480 ISRW Mission System (hereafter interchangeably referred to as the "Mission System" or "System") is composed of the Air Force provisioned portion of the DCGS, as well as the enterprise and site-specific non-baseline ISR systems required to support, enable or automate 480 ISRW operational capabilities. Mission System Operations are the actions taken to manage, configure, operate, maintain, defend, sustain or extend any portion, or support the operation of the Mission System.

2. Responsibilities.

2.1. Enterprise Data Center Operations Manager.

2.1.1. Coordinates with the Local Data Center Managers and oversees data center activities and operations across the enterprise. Enterprise Data Center Operations Manager responsibilities include:

2.1.1.1. Coordinates with the 480 ISRW A6 Data Center Infrastructure Manager (DCIM) Lead to provide guidance and direction to Local Data Center Managers.

2.1.1.2. Oversees data center plans, designs, changes, monitoring, maintenance, incident responses, and data center infrastructure operations.

2.1.1.3. Works with Local Data Center Managers, civil engineering, facilities management, facilities operational management and industrial maintenance engineers to help ensure data center availability.

2.1.1.4. Supervises and performs data center planning and implementation activities.

2.1.1.5. Coordinates enterprise integration, implementation, and project installations to ensure architecture, configuration, and integration conformity.

2.1.1.6. Serves as an advisor at meetings for facility strategy, planning, design, Military Construction (MILCON) programs and minor construction planning.

2.1.1.7. Provides oversight and continual improvement for enterprise data center information work products.

2.1.1.8. Provides data center reporting to meet the requirements described in DCOI, 480 ISRW Data Center Architecture Framework (see paragraph 2.7.), AFIs, AF DCGS Requirements, 480 ISRW reporting requirements and as required by local leadership.

2.2. Enterprise Data Center Application Administrator.

2.2.1. Operates and maintains the Data Center Infrastructure Management Information System (DCIM IS) application.

2.2.1.1. Manages the entry and management of information within the DCIM IS, report generation, dashboard, reports configuration, and IS configuration.

2.2.1.2. Coordinates with Local Data Center Managers to collect and maintain accurate and reliable data center infrastructure configuration information in the DCIM IS.

2.2.1.3. Performs site surveys, as requested, to collect or validate facilities, data center, or mission system infrastructure configuration information.

2.2.1.4. Provides training and mentoring for (Local) Data Center Managers.

2.3. Enterprise Data Center Systems Engineer.

2.3.1. Provides systems engineering for improvements, upgrades, updates and enhancements to DCIM or mission system infrastructure systems.

2.3.2. Provides systems engineering documentation and body of evidence documentation to support Authorization to Operate (ATO) requirements.

2.3.3. Manages DCIM IS.

2.3.4. Maintains compliance with enterprise policy and standards.

2.3.5. Performs regular preventative maintenance actions.

2.3.6. Manages local and remote system access.

2.4. Site Commander.

2.4.1. Site commanders shall assign at least two Local Data Center Managers, utilizing the appointment letter template as established in **Attachment 5**. If a contractor is assigned, the contractor shall be listed as the Primary Data Center Manager (DCM).

2.4.2. Site commanders shall ensure DCMs are assigned appropriately within the organizational structure to ensure their inclusion in all projects that will affect the local data center(s).

2.5. Local Data Center Managers. The Local Data Center Manager provides the lead management role responsible for local mission system data centers with support from the Enterprise Data Center Operations Manager, DCIM IS, system and network engineers, and facilities staff. The Local Data Center Manager oversees local data center operations. Local Data Center Manager responsibilities include:

2.5.1. Maintains configuration and change control of assigned data centers and ensure they meet availability requirements. This includes oversight of data center plans, designs, changes, monitoring, maintenance, incident responses, and data center infrastructure operations.

2.5.2. Collects and maintains accurate and reliable data center infrastructure, as built, and operational baseline configuration information in DCIM IS. Maintenance of this information shall include, at a minimum, yearly audits and updates based on each change.

2.5.3. Works with civil engineering, facilities managers, facilities operational managers and industrial maintenance engineers to ensure data center availability.

2.5.4. Performs walk-throughs of assigned local data centers on all duty days. During the walk-throughs, the (Local) Data Center Manager will check for non-standard conditions or configurations. The walk-through will be documented on the standardized checklist.

2.5.5. Supervises and performs data center planning and implementation activities.

2.5.6. Monitors implementation and project installation and ensures architecture, configuration, and integration conformity.

2.5.7. Serves as an advisor at meetings for facility design, MILCON programs and minor construction planning.

2.5.8. Provides oversight for data center projects milestones from inception to completion.

2.5.9. Determines adequacy and accuracy of project packages and amendments.

2.5.10. Maintains a floor plan reflecting current and planned equipment locations. The (Local) Data Center Manager shall assign space for future expansion and equipment installers shall comply with these assignments. The system of record for these items/updates is DCIM IS.

2.5.11. Maintains data center infrastructure information in the 480 ISRW DCIM IS including: operational asset inventory information, electrical consumption, heat load, cabinet and equipment weight information and rack space used by each device in each cabinet. DCIM IS shall reflect each piece of equipment brought into and out of the data center facility. The (Local) Data Center Manager shall maintain rack elevations (face equipment diagrams) of each cabinet.

2.5.12. Publishes and maintains plans and procedures for prioritizing and implementing the shedding and restoration of electrical load should problems with the air conditioning of electrical services occur.

2.5.13. Ensures each power distribution cabinet and each circuit breaker panel has an accurate panel schedule showing, at a minimum, all cabinets powered by that panel or power distribution unit circuit.

2.5.14. Implements approved shutdown guidance in the event of a loss of power or HVAC to the facility. Equipment shall be shut down IAW locally approved plans when directed and approved by the Local Commander. This data shall be reflected in the load-shed plan, used during emergencies.

2.5.15. Provides data center reporting to meet the requirements described in the Federal Data Center Optimization Initiative (DCOI), and the 480 ISRW Data Center Architecture Framework (see paragraph 5), and as required by Wing and local leadership.

2.5.16. Coordinates closely with system design engineers and installers regarding interface and interoperability of weapon system, non-weapon system, mission system, and related components. This familiarity will inform decisions on installation schedules and requirements.

2.5.17. Coordinates with the data center management support team made up of at least facilities management, network engineers, system engineers, configuration managers, program offices, and other data center stakeholders.

2.5.18. Publishes and maintains an Entry Access List (EAL) for each data center managed at the site in coordination with the local Security Office (SO).

2.5.19. Conducts cleaning procedures in accordance with the 480th ISRW Data Center Cleaning SOP.

3. Infrastructure Impacting Changes.

3.1. Equipment Installation and Storage.

3.1.1. All data center infrastructure impacting changes must adhere to the 480 ISRW Standardized Wing Integration Project Execution (SWIPE) process. Project plans, project support agreements, Network Service Request (NSR) forms, and other required documentation must be submitted for every equipment installation, move or removal. Once all NSR forms are received, a LCAB must be held prior to the installation, move or removal taking place.

3.1.2. If the addition of the new or changed systems results in required facility infrastructure upgrades (electrical and/or HVAC expansions), then the cost to change the infrastructure to support the new system shall be borne by the program, not by the data center or facility.

3.1.3. Equipment cabinets shall conform to the cabinet standards described in the 480 ISRW Data Center Architecture Framework (see paragraph 3.3.). Blanking panels shall be installed in all unused spaces in the cabinet. Cooling cabinet airflow shall flow through the front of the cabinet to maintain positive airflow. Cabinet installations shall include power strips that conform to the 480 ISRW Data Center Architecture Framework (see paragraph 3.3) and are compatible with the data center power management system.

3.1.4. Data Center cabinet modification, removal, and/or installation (temporary or permanent) shall be reviewed and approved only by the data center manager. Prior to the approval of the installation of any cabinet, the requesting installer shall advise the (Local) Data Center Manager (DCM) of the cabinet weight to ensure that recommended floor loading is not exceeded.

3.1.5. Equipment and cabling no longer required for operations shall not be abandoned in place. Obsolete equipment shall be removed in its entirety within one week of its change to a non-operational status. Cables left over from de-commissioned equipment shall be reviewed by the DCM for future usability before removal/disposal. Non-operational equipment shall be decommissioned based on disposition instructions provided by the asset owner. Power cords and cabling no longer operational shall be removed under the supervision of the DCM to avoid damage to other cables or systems.

3.1.6. Changes to the floor plan or floor penetrations require DCM approval and are only considered on a case-by-case basis with sufficient justification.

3.1.7. Installation of all equipment that requires data center power, space, cooling or local connectivity infrastructure shall only be performed after DCM approval and under the supervision of the DCM.

3.1.8. The DCM shall not approve power or network connectivity to new equipment until the equipment has been inspected and meets the standards identified in the Installation Completion Checklist in SWIPE.

3.1.9. All electronic devices in cabinets shall be labeled on the device face. The labels should generally be placed in the upper left corner of the face of the device, but this may be adjusted if the design of the device face does not permit application of the label in that location. Label content and formatting must conform to the standards documented in the 480 ISRW Data Center Architecture Framework.

3.1.10. Hot spares are considered a part of an operational system. Cold spares shall be kept in an approved storage facility or off-site and brought to the data center only when required.

3.1.11. Equipment removed from service shall be removed from the server floor as soon as possible. The server floor shall not be used as storage pending disposition of discontinued Information Technology (IT) assets or as a placeholder for a future installation. Disposition instructions will be provided by the asset owner.

3.1.12. The data center floor is a system operations area and shall be used only to house operational equipment. No personnel shall use the server room as an office space or to store materials, even on a temporary basis.

3.1.13. Cabinets on the server room floor shall not be used for the storage of supplies, maintenance materials, tools, unmounted test equipment, or the like.

3.1.14. Data center cold spare inventory requirements shall be provided to the DCM and documented in a SLA.

3.1.15. Data center spare parts inventory information shall be maintained by the Local DCM.

3.1.16. Data center spare parts (blanking panels, blanking curtains, jumpers, branch receptacle modules, bus tap spares, fiber test equipment and other assets) are intended to be supplemental inventory that can be borrowed by projects with the provision that the project replenishes the inventory within a time frame agreed to by the DCM.

3.2. Facility Cleanliness

3.2.1. No trash shall be permitted and at no time shall cardboard or packaging materials be opened within the data center as particles can clog air filters and put ventilation and cooling at risk. Dirt and trash present safety problems and can cause premature equipment failure. Continued issues with work area cleanliness can result in loss of data center access.

3.2.2. Food and drinks are not permitted within the data center.

3.2.3. The data center is not to be used for storage of equipment, tools, tapes, paper, cardboard or media of any kind, or any other materials. Nothing shall be stored on cabinets or on ladders. Nothing shall be stored at an elevation higher than the cabinets or in such a way as to affect airflow or fire suppression systems. Personnel using the area are responsible for security of their materials. The area shall be cleaned by the using personnel at the end of their duty day.

3.3. Security

3.3.1. Devices emitting radio frequency signals (i.e., laptops, pagers, personal digital assistants (IPADs, PDAs), cell phones, Blackberries, etc.) must be used in accordance with security policies or instructions.

3.3.2. Tapes and system media shall not be stored on the server floor, regardless of the security classification of the server room or the media. All media shall be marked in accordance with current security classification guidance. Exceptions can be requested by the Local Change Advisory Board (**Attachment 4**) and must be approved by the Enterprise Change Advisory Board (**Attachment 3**).

3.3.3. All personnel who require daily, unescorted access to the data center must have data center manager approval, submit a data center access request, and comply with local security guidance.

3.3.4. Personnel requiring periodic access shall submit a visitor access letter (VAL) to the SO, as well as a data center access request specifying the dates requested to the data center manager. Visitors from other installations or organizations shall submit a visitor access request (VAR) no less than 2 duty days before access is necessary to the Local Security Manager through the Joint Personnel Adjudication System (JPAS) with the appropriate Security Management Office (SMO) Code.

3.3.5. Access to the data center facility is based on local security guidance. Any personnel requiring access to the data center not specifically listed in this instruction will be granted access based on approval from the data center manager and local security policy.

3.3.6. The (Local) Data Center Manager will provide access to other areas based upon clearly defined need.

3.3.7. Only approved equipment listed on a locally approved installation or integration request shall be permitted into the data center facility. Coordinate delivery date and times with the data center manager prior to either bringing equipment to the data center, or having equipment delivered to the data center. All equipment brought into data center shall be brought in through an approved loading area, according to local security guidance and checked by the data center manager. Equipment being brought in for emergency restoration after duty hours shall be checked in by data center manager or an alternate point of contact assigned by the data center manager.

3.4. Cable Management & Labeling.

3.4.1. All cables in 480 ISRW data centers shall be labeled IAW 480 ISRW Data Center Architecture Framework. The installing organization is responsible for labeling cables prior to installation completion.

3.4.2. Cables shall never be installed or configure in any way that negatively impacts airflow or access to other current or future systems. All cable configurations shall conform to Building Industry Consulting Standards Institute (BICSI) Registered Communications Distributions Designer (RCDD), ANSI TIA 568 and ANSI TIA 942 and the 480 ISRW Data Center Architecture Framework.

4. Boarding Actions.

4.1. Enterprise Change Advisory Board (ECAB). The ECAB manages the implementation of this instruction and the 480 ISRW Data Center Architecture Framework. The ECAB provides oversight and management of enterprise standards, centralized storage of records coordination of enterprise plans, approvals of waivers, and dissemination of information related to the

management of 480 ISRW data center facilities. The ECAB Charter is established in **Attachment 3**.

4.2. Local Change Advisory Board (LCAB). The LCAB shall direct changes within local data centers. The LCAB is responsible for coordination of local plans, requesting waivers, and dissemination of information related to the management of the local facility. The LCAB shall review and approve/disapprove change requests within 10 days of the request. Technical considerations related to the HVAC and electrical load shall be addressed, and change requests approved/disapproved by the board. The LCAB Charter is established in **Attachment 4**.

5. Data Center Architecture Framework.

5.1. The framework documents 480 ISRW data center standards required to reduce system deployment delays, infrastructure related mission risk and infrastructure costs.

5.2. The 480 ISRW/A6 shall maintain the framework in coordination with the ECAB.

5.3. Approved versions of the framework shall be available to stakeholders and development participants.

5.4. Requests for changes to the framework must be submitted to 480 ISRW/A6 and reviewed by the ECAB.

5.5. Exception Requests: Requests for exceptions to these policies and standards shall be submitted by an O-4 or civilian equivalent grade in writing to the 480 ISRW/A6 through the 480 ISRW/A6 DCIM Lead. The 480 ISRW/A6 will respond within 10 business days with a decision unless a longer time frame is agreed upon. Work shall not start until the exception request has been formally approved. Noncompliant or unapproved systems or components shall be immediately removed.

5.6. Requests for exemption from these data center requirements must have a documented justification and be submitted to 480 ISRW/A6.

5.7. Pending and approved exemption requests shall be documented, maintained and available to stakeholders for review.

5.8. Exemptions shall be reviewed by 480 ISRW/A6 in coordination with the ECAB.

5.9. Approved exemptions must include recommended changes to the process or framework to promote improved future conformance.

PATRICK WOLVERTON, Colonel, USAF
Deputy Commander, 480 ISRW

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

480 ISRWI 17-100, *480 ISRW Mission System Information Technology (IT) Service Management*, 8 June 2017

AFPD 17-1, *Information Dominance Governance and Management*, 12 April 2016

480 ISRW IT Service Management (ITSM) Framework 480 ISRW Data Center Architecture Framework

AFI 32-1062, *Electrical Systems, Power Plants and Generators*, 1 January 2015 AFI 32-1064, *Electrical Safe Practices*, 29 December 2016

AFMAN 91-203, *Air Force Occupational Safety, Fire and Health Standards*, 3 September 2019

AFSSI 7702, *Emission Security Countermeasures Reviews*, 30 January 2010

ASHRAE *Environmental Guidelines for Datacom Equipment*

ASHRAE TC 9.9 2011 *Thermal Guidelines for Data Processing Environments - Expanded Data Center Classes and Usage Guidance*

ASHRAE 90.4-2019 Standard 90.4-2019 - *Energy Standard for Data Centers*

Executive Office of the President, Office of Management and Budget, *Memorandum for Heads of Executive Departments and Agencies, Data Center Optimization Initiative (DCOI)*, 1 August 2016

Mission Critical Facility Engineering Standard (MCFES) 12-01: *Facility Electrical and Mechanical Infrastructure Redundancy Requirements*

T.O. 00-33A-1001, *Methods and Procedures, Activities Management Procedures and Practice Requirements*, 15 April 2021.

T.O. 00-33D-2002, *Methods and Procedures, Cyberspace Engineering Installation Activities Management*, 30 November 2019

T.O. 31-10-2, *Air Force Communications Command (E-I Standard) - Standard Installation Practices, Fanning and Forming Conductors for Ground Comm-Electronic Equipment*, 15 August 1977

T.O. 31-10-10, *Air Force Communications Command (E-I Standard) - Standard Installation Practices, Anchoring Devices for Ground Comm-Electronic Equipment*, 1 March 1973

T.O. 31-10-24, *Air Force Communications Command (E-I Standard) - Standard Installation Practices – Comm Sys Grounding, Bonding, and Shielding*, 15 November 2011

T.O. 31-10-27, *Air Force Communications Command (E-I Standard) - Standard Installation Practices Equipment Designations*, 1 June 1973

T.O. 31-10-29, *Air Force Communications Command (E-I Standard) - Standard Installation Practices Erection and Assembly of CEM Equipment*, 10 May 1968

T.O. 31-10-34, *Air Force Communications Command (E-I Standard) - Standard Installation Practices - Fiber Optic Communications Cables and Connectors*, 1 October 1998

BICSI *Data Center Design and Best Practices, 002-2019*, 8 February 2019

BICSI *Network Design Reference Manual*, 7th Edition

BICSI *Telecommunications Distribution Methods Manual*, 12th Edition

ANSI/TIA/EIA TSB-67, *Transmission Performance Specifications for Field Testing of Twisted Pair Cabling*, October 1995

ANSI/TIA/EIA-526, *Standard Test Procedure for Fiber Optic Fibers, Cables, Transducers, Sensors, Connecting and Terminating Devices, and Other Fiber Optic Components*, September 1992

ANSI/TIA/EIA-568-B, *Commercial Building Telecommunications Cabling Standard*, April 2001

Prescribed Forms

None

Adopted Forms

None

Abbreviations and Acronyms

ACC—Air Combat Command

AFI—Air Force Instruction

ANSI—American National Standards Institute

ATO—Authorization To Operate

BICSI—Building Industry Consulting Standards Institute

DCGS—Distributed Common Ground System

DCIM—Data Center Infrastructure Management

DCM—Data Center Manager

DCOI—Federal Data Center Optimization Initiative

DoD—Department of Defense

ECAB—Enterprise Data Center Change Advisory Board

HVAC—Heating, Ventilation, Air Conditioning

IAW—In Accordance With

ISRW—480th Intelligence, Surveillance, and Reconnaissance Wing

IS—Information System

IT—Information Technology

ITSM—Information Technology Service Management

LCAB—Local Data Center Change Advisory Board

MILCON—Military Construction

MOA—Memorandum of Agreement

MOU—Memorandum of Understanding

NSR—Network Service Request

O&M—Operations and Maintenance

OPR—Office of Primary Responsibility

PMO—Program Management Office

QA—Quality Assurance

RCDD—Registered Communications Distributions Designer

SLA—Service Level Agreement

SWIPE—Standardized Wing Integration Project Execution

TIA/EIA—Telecommunications Industry Association/Electronic Industries

Terms

Baseline System—The Air Force provisioned portion of the Distributed Common Ground System, the AN/GSQ-272 Sentinel System. Although officially designated a "weapon system," it consists of computer hardware and software connected together in a computer network devoted to processing and dissemination of Intelligence, Surveillance, and Reconnaissance (ISR) information. The baseline system meets a portion of 480 ISRW operational requirements for ISR systems. Example Baseline Systems: Geospatial Intelligence (GEOINT) Baseline 4.1, Deployable Ground Intercept Facility (DGIF), Deployable Spheterized Segment-Film (DSS-F), Imagery Exploitation Support System (IESS), Ground Control Processor (GCP), etc.

Data Center—Data Center is defined as a closet, room, floor or building for the storage, management, and dissemination of data and information. For the purposes of this instruction, the term data center extends to the rooms used for storage of critical communications infrastructure equipment.

Mission System—The Mission System is a group of ISR systems that collectively provide the complete set of IT services that support, enable or automate operational 480 ISRW ISR capabilities. The mission system includes the Air Force provisioned portion of the DCGS (the Baseline System) as well as enterprise and site-specific non-baseline ISR systems required to support, enable or automate 480 ISRW operational capabilities. It includes all of the systems that are required to meet operational mission requirements. The mission system must operate effectively as a system of systems to support ISR information processing, exploitation and dissemination mission tasking requirements.

Non—Baseline Systems - The non-baseline systems are systems that were developed to meet operational ISR requirements because the baseline system did not meet all of the 480 ISRW requirements. Example non-baseline ISR systems: Airborne Cueing and Exploitation Hyperspectral (ACES HY), Combined Enterprise Regional Information Exchange System (CENTRIXS), Consolidated Operations and Information Center (COIC), Collaboration

Command and Control of Processing, Exploitation and Dissemination (C3PED), Communications and Maintenance Control Center (CMCC), DCGS Google Earth Telemetry System (DGETS), Unified Collections Operations Reporting Network (UNICORN), United States Battlefield Information Collection and Exploitation System (USBICES), Wolverine, etc.

Site Specific Systems—Site specific non-baseline ISR systems developed to meet local mission requirements because the baseline system did not meet all of the local mission requirements. Example Site Specific ISR Systems: Broad Area Synoptic High-Resolution Network (BASHRNet), European Command Partner Integration Environment (EPIE), Joint Airborne ISR Exploitation Experiment (JAISREE), PASS-K, Project Diamond, PRT, etc.

Special Purpose Processing Node (SPPN)—A fixed data center supporting special purpose functions that cannot (technically or economically) be supported by CDCs or IPNs due to association with infrastructure or equipment (e.g., communication and networking, manufacturing, training, education, meteorology, medical, modeling & simulation, test ranges, etc.). No general-purpose processing or general-purpose storage can be provided by or through a SPPN. SPPNs do not have direct connection to the Global Information Grid (GIG); they must connect through a CDC or IPN. (DoD CIO memorandum, "Department of Defense Joint

Information Environment—Continental United States Core Data Centers and Application and System Migration," 11 July 2013)

System Stakeholders—For the purposes of this document, stakeholders in System operations are HQ ACC, 16 AF, 480 ISRW Commanders, Deputy Commanders, Directors of Operations, the 480 ISRW Technical Director, 480 ISRW/A6, and Group Leadership.

Attachment 2

INSTALLATION COMPLETION CHECKLIST

Table A2.1. Installation Completion Checklist.

1.	Is the configuration of the cabinet and equipment installed in accordance with the NSRs that were submitted to and approved by the data center manager?
2.	Is each electronic device in the cabinet labeled according to the 480 ISRW Data Center Architecture Framework?
3.	If this is a replacement or removal, was all unused cabling removed?
4.	Has all trash been removed from the facility?
5.	Have all packaging material residue been removed from the facility?
6.	Have all tapes and electronic media been removed from the cabinet and surrounding work area?
7.	Does the equipment cabinet conform to the 480 ISRW Data Center Architecture Framework? If not, has a waiver been approved by the ECAB?
8.	If this is a replacement or removal, was all unused cabling removed?
9.	Have rack elevations been updated? (DCIM IS)
10.	Has cabling been installed in accordance with the 480 ISRW Data Center Architecture Framework?

Attachment 3

ENTERPRISE DATA CENTER CHANGE ADVISORY BOARD CHARTER (ECAB)

A3.1. Purpose.

A3.1.1. The Enterprise Data Center Change Advisory Board (ECAB) provides oversight and management of enterprise data center standards, centralized storage of records, coordination of enterprise plans, approvals of waivers, and dissemination of information related to the management of 480 ISRW data center facilities.

A3.2. Background.

A3.2.1. The lack of standardization within the data centers and across the various mission systems hosted within 480 ISRW data centers prevents system agility and creates risk to mission operations.

A3.3. Scope .

A3.3.1. The Board shall oversee implementation of this guidance and direct changes that affect enterprise data center operations. The Board shall review change requests at least quarterly.

A3.4. Team composition. The ECAB is comprised of technical representatives from:

A3.4.1. Voting Members:

A3.4.1.1. 480 ISRW/A6 DCIM Lead [Chair].

A3.4.1.2. 480 ISRW Enterprise Data Center Operations Manager

A3.4.1.3. 480 ISRW/A6C

A3.4.1.4. 480 ISRW/A6O

A3.4.1.5. Local Data Center Managers (when impacted)

A3.5. Membership Roles.

A3.5.1. Voting members shall review requests for changes, justifications, recommend strategies to improve enterprise data center operations, review enterprise plans and standards, evaluate issues brought before the board, provide advice and recommendations and vote on all issues brought before the board by the Chair.

A3.5.2. Representation by the chair and four voting members shall be considered a quorum.

A3.5.3. A simple majority of all voting members shall be used to determine if issues presented to the board are recommended by the advisory board or rejected. In the event of a tie vote, the chair shall determine whether the issue is recommended or tabled for further study.

A3.5.4. After review of the ECABs advice, the Chair shall approve or reject proposals, requests, plans or standards.

A3.5.5. Upon approval of the instruction, this Charter shall be considered approved.

Attachment 4

LOCAL DATA CENTER CHANGE ADVISORY BOARD CHARTER (LCAB)

A4.1. Purpose. The Local Data Center Change Advisory Board (LCAB) provides oversight and management of equipment siting, electrical and HVAC load. The overall purpose of each review is to ensure installed systems and equipment do not exceed facility capacity and conform to standards and plans approved by the ECAB.

A4.2. Background. Demand for space in 480 ISRW data centers exceed available capacity. Previous incidents of excessive load jeopardized the ability of HVAC and generators to carry the load in HAZCON situations. The 480 ISRW/A6 recommended establishing Data Center Change Advisory Boards to support local data center managers.

A4.3. Scope. The LCAB shall direct changes within local data centers. The LCAB is responsible for coordination of local plans and dissemination of information related to the management of the local facility. The LCAB shall review and approve/disapprove change requests at least bimonthly. Technical considerations related to the HVAC and electrical load shall be addressed, and change requests approved/disapproved by the board.

A4.4. Team composition. The Local Data Center Change Advisory Board is comprised of technical representatives from:

A4.4.1. The Local Group Data Center Manager [Chair].

A4.4.2. The Enterprise Data Center Operations Manager.

A4.4.3. Designated site government representative.

A4.4.4. Program or project leads requesting the infrastructure impacting change.

A4.5. Membership Roles.

A4.5.1. Voting members shall review requests for changes, justifications, recommend strategies to improve local data center operations, review local plans, ensure thorough evaluation and consideration for issues brought before the board, provide advice and recommendations and vote on all issues brought before the board by the Chair.

A4.5.2. Representation by the chair and four voting members shall be considered a quorum.

A4.5.3. A simple majority of all voting members shall be used to determine if issues presented to the board are recommended by the advisory board or rejected. In the event of a tie vote, the chair shall determine whether the issue is recommended or tabled for further study.

A4.5.4. After review of the LCABs advice, the Chair shall approve or reject proposals, requests, or plans.

A4.5.5. See Attachment #6 for the workflow process to get to LCAB.

Attachment 5

LOCAL DATA CENTER MANAGER APPOINTMENT LETTER

MEMORANDUM FOR 480 ISRW/A6

FROM: UNIT/CC

SUBJECT: Building ## Data Center Manager (DCM) Appointment Letter

The following personnel will serve as the Local Data Center Managers for Building ## on "Base Name" and will conduct this role in accordance with 480 ISRWI 17-101.

Rank/Name	Position	Unit/Office Symbol	Duty Phone	Email
	Primary DCM			
	Alternate DCM			

Attachment 6

NSR WORKFLOW TO MEET LCAB

Figure A6.1. Overview Process Flow for NSR-01.

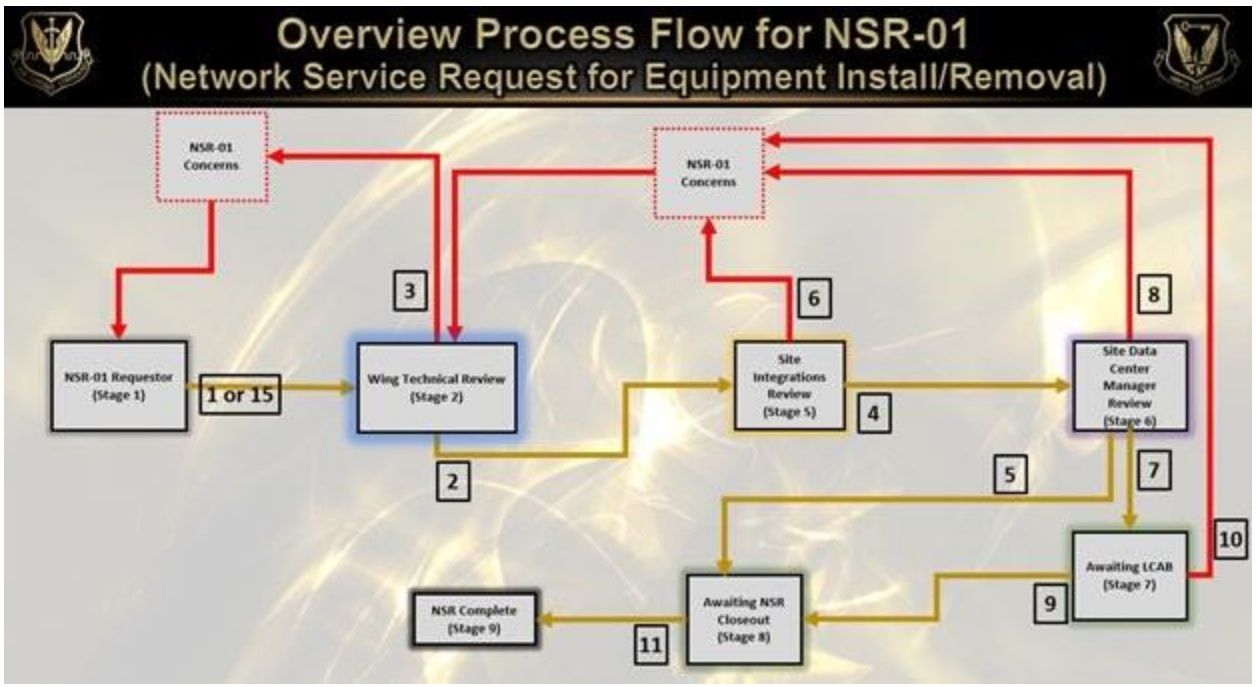

Figure A6.2. Overview Process Flow for NSR-06.