

# IDUT Documentation Library Overview

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Date	Version	Change Description	Editor
[01 May 2020]	[1.0]	[Created the initial version of this document.]	[Destini Pettus]

# 1 Introduction

The purpose of this document is to provide an overview of the developing library of resources created by the Bif team in support of the Infectious Disease Unit Type (IDUT) effort. In acknowledgement of the current pandemic, it has become essential to augment the WMSN<sub>i</sub> unit types to support the data needs of the nursing community. The Bif Team is committed to making data meaningful through data collection and tracking, as well as the assessment of key data points to differentiate between infectious disease patients and non-infectious disease patients. For more information on the specific documents created in support of the IDUT effort, see **2.0 Project Documentation Overview** where there are detailed summaries. To read a document in-depth, click the heading of each document. This will take you to the portion of the library overview containing the specific documentation.

## 2 Project Documentation Overview

### 2.1 IDUT Environment Setup Document

The purpose of the IDUT Environment setup document is to function as a guide for the process necessary to view the new IDUT efforts from the cloud setting. The database requirements for the functionality of the development environment, testing environment, and production environment are listed in an efficient checklist, including factors such as platform, environment type, security, routing, and databases, to name a few. To further demonstrate the layout of the environmental architecture and increase visualization of the proposed environment, an architecture diagram is included in the document. There are also step by step instructions, including screenshots as a demonstration, to aid in the creation of the elastic beanstalk environments. The goal of the IDUT Environment Setup Document is to

Contributors: Michael Gotcher, Marco Roman

### 2.2 WMSN<sub>i</sub> IDUT Design Document

The IDUT Design document functions as a written description of the product, which will inform the reader of the overall architecture of the additional components required to successfully integrate the new Infectious Disease Unit Type into the WMSN<sub>i</sub> program. Included in the outline of the architecture are descriptions of the updated Organizational Management and Patient Management Data Models. The current models are depicted using graphics and description, followed by a section presenting the optimized data models, displaying its usages and benefits with updated graphics and description. For example, the optimized data model includes patient data, employee data and schedule data, whilst avoiding the issue of Primary Key collisions and removing certain constraints for a more nimble WMSN<sub>i</sub> Organization Table. Similarly, the Patient Management Data Model represents the information pertaining to the current model, whilst expounding upon the benefits, improvements and issues of the optimized model. The Patient Manager Design focuses on Adding Patient Attributes, outlines development tasks for folding the new IDUT into the existing structure, and lists new patient



attributes for tracking. The final section, Business Intelligence Design, presents an overview of IDUT Tracking Data fields, measures and design, including a *ward view* and a *strategic view*.

Contributors: Lucas Schamberger, Julius Campbell, Roderick Barnes, Linda Fisher PhD, and Mike Smith

## **2.3 WMSNi Business Intelligence OLAP and Reports Module Test Plan**

Presented below is the test plan for the Business Intelligence Module. Readers can expect that each section will clearly explain who should perform the testing, what is being tested, and desired test results. Most testing sections have been constructed so the user can determine if the module is functioning as intended. Some portions of the testing may be required to be performed by an application administrator or by a database administrator; these portions of the test plan if present will be denoted by the Database Administrator or Application Administrator Avatars as they require someone with WMSNi database administrative privileges. Examples are:

- Query Execution - running diagnostic queries,
- Result Assessment - assessing the effect of scripts upon WMSNi schema objects

## **2.4 WMSNi Patient Manager Module Test Plan**

Presented below is the test plan for the Patient Manager Module. Readers can expect that each section will clearly explain who should perform the testing, what is being tested, and desired test results. Most testing sections have been constructed so the user can determine if the module is functioning as intended. Some portions of the testing may be required to be performed by an application administrator or by a database administrator; these portions of the test plan if present will be denoted by the Database Administrator or Application Administrator Avatars as they require someone with WMSNi database administrative privileges. Examples are:

- Query Execution - running diagnostic queries,
- Result Assessment - assessing the effect of scripts upon WMSNi schema objects

## **2.5 WMSNi Test Plan Guidance**

The collection of WMSNi test plan documents cover multiple testing scenarios, and each step of the delivery process warrants a different category of testing. This guidance document specifies recommendations on when to execute each category of testing. The categories are:

- **Functional Testing** - Testing specific functional changes for each release.
- **Regression Testing** - Testing the overall application to verify that software which was previously developed and tested still performs correctly after a release.
- **Critical Path Testing** - Spot-check testing of key components of the application to verify that software which was previously developed and tested still performs correctly after a release.

## **2.6 WMSNi 12c 2.4.7.0R4 Production Critical Path Test Plan**

Presented below is the test plan for the WMSNi Critical Path is presented in the material that follows. The Critical Path Test Plan is a high-level test plan to ensure the functionality of major functions within WMSNi are performing correctly after routine system changes. Readers can expect that each section will clearly explain who should perform the testing, what is being tested, and desired test results. Most testing sections have been constructed so the user can determine if the module is functioning as intended. Some portions of the testing may be required to be performed by an application administrator or by a database administrator; these portions of the test plan, if present, will be denoted by the Database Administrator or Application Administrator Avatars as they require someone with WMSNi database administrative privileges. Examples are:

- Query Execution - running diagnostic queries,
- Result Assessment - assessing the effect of scripts upon WMSNi schema objects

## **2.7 IDUT Release Plan**

Lorem ipsum dolor sit



*...making data meaningful*

## 3 IDUT Environment Setup Document

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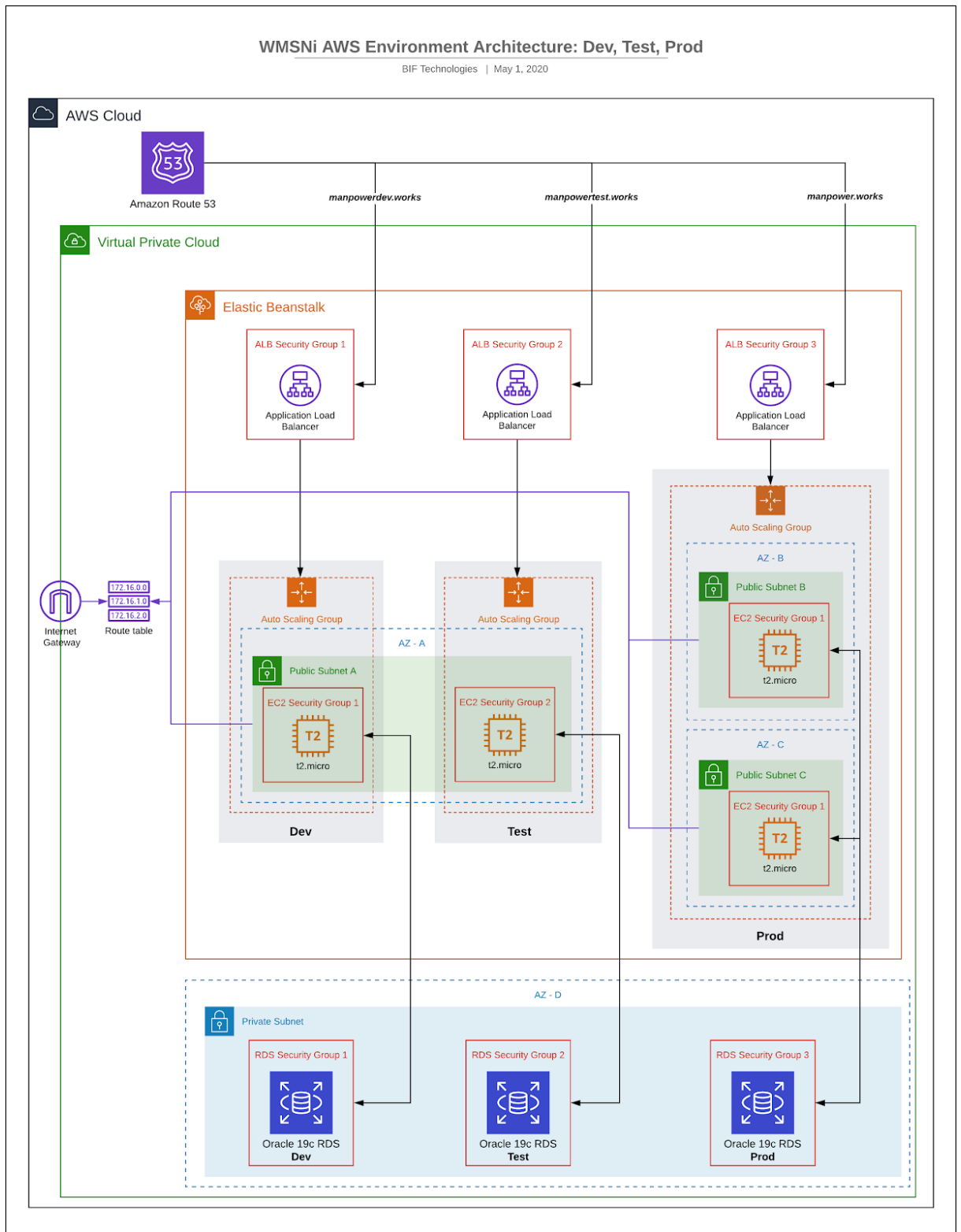
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## Environment Requirements (Dev/Test/Prod)

- Platform: Apache Tomcat **8.5** with Java 8
- EC2 instance type
  - Not under a high load
  - Ask Moises → **t2.micro** should be fine
  - VPC generation
- Environment type (**load balancing**/single instance)
  - Load balancing → routing rules?
    - TCP/HTTP traffic: unspecified
  - High availability
    - Production only
- Routing
  - Route53: yes → new domain name (probably)
    - Production only
    - Domain name → ask Roderick
      - BrainJack Manpower?
- Security
  - Security group rules
    - EC2: allow SSH access on port 22
  - NACL?
    - None
  - EC2 subnet type (public/private)
    - No private subnet required
  - VPC
    - Separate from CIDR range used for BrainJack?
    - Will environments have distinct subnets within VPC?
    - **New VPC**
      - All can be in the same subnet
      - Only production needs 2 AZ (at least)
- Database
  - Oracle 19c RDS
  - Jarvis2 - default-vpc-7330d114
- CAC-Enabled access
  - Application level
- Deployment
  - **Multiple WAR files** per instance
    - wmsni.war
    - liferay.war **deploys as ROOT**
      - Version 6.2(?)
    - mondrian.war (if OLAP cube) → BrainJack can also replace
    - Birt or BrainJack for reporting
  - Liferay “triggers” CAC security
- EC2 instance mods
  - Modify tomcat context.xml
  - server.xml
  - Need SSH access to instances

# Environment Diagram





# 1 Checklist

- ☐ Register a domain name using Amazon Route 53
- ☐

## 2 Step by Step Process

### 2.1 Creating a new hosted zone/domain name

Services → Networking & Content Delivery → Route53 → Registered domains

#### Choose a domain name

.works - \$30.00
 

▼

Check

#### Availability for 'manpowertest.works'

Domain Name		Status	Price /1 Year	Action
manpowertest.works	✓	Available	\$30.00	<button>Add to cart</button>

#### Related domain suggestions

Domain Name		Status	Price /1 Year	Action
globalmanpowertest.com	✓	Available	\$12.00	<button>Add to cart</button>
manpowerdemo.net	✓	Available	\$11.00	<button>Add to cart</button>
manpowerdemo.works	✓	Available	\$30.00	<button>Add to cart</button>
manpowertest.com	✓	Available	\$12.00	<button>Add to cart</button>
manpowertest.info	✓	Available	\$12.00	<button>Add to cart</button>
manpowertest.io	✓	Available	\$39.00	<button>Add to cart</button>
manpowertest.net	✓	Available	\$11.00	<button>Add to cart</button>
manpowertest.org	✓	Available	\$12.00	<button>Add to cart</button>
manpowertest.tv	✓	Available	\$32.00	<button>Add to cart</button>
manpowertesting.com	✓	Available	\$12.00	<button>Add to cart</button>

Add to cart



...making data meaningful

## Contact Details for Your 1 Domain

Enter the details for your Registrant, Administrative and Technical contacts below. All fields are required unless specified otherwise. [Learn more.](#)

My Registrant, Administrative and Technical Contacts are all the same: ☒ Yes ☐ No

### Registrant Contact

**Contact Type** Person

**First Name**

**Last Name**

**Organization** Not applicable

**Email**

**Phone**  +    
Enter country calling code and phone number

**Address 1**   
Street address, P.O. box

**Address 2**   
Apt, suite, unit, building, floor, etc.

**Country**

**State**

**City**

**Postal/Zip Code**

**Privacy Protection** When the contact type is Person:

- ☒ Privacy protection hides some contact

Enter contact details (admin, technical, etc.)

Note that hosted zone is automatically created

### Check your contact details

Confirm that the following contact information is correct. When you complete your purchase, we'll use this information for all of the domains in your shopping cart.

Registrant Contact	Administrative Contact	Technical Contact
<input type="text"/>	<input type="text"/>	<input type="text"/>

### Managing DNS for Your New Domain

To make it easier for you to use Route 53 as the DNS service for your new domain, we'll automatically create a hosted zone. That's where you store information about how to route traffic for your domain, for example, to an Amazon EC2 instance. If you won't use your domain right now, you can delete the hosted zone. If you will use your domain, Route 53 charges for the hosted zone and for the DNS queries that we receive for your domain. For more information, see [Amazon Route 53 Pricing](#).

### Do you want to automatically renew your domain?

When you register a domain name, you own it for a year. If you don't renew your domain name registration, it expires and someone else can register the domain name. To ensure that you can keep your domain name, you can choose to renew it automatically every year. The cost of renewing your domain name is billed to your AWS account. You can enable or disable automatic renewal at any time using the Route 53 console. For more information, see [Renewing Registration for a Domain](#).

☒ Enable ☐ Disable

### Shopping cart

#### One-time fees

manpowerdev.works	
Register for	<span>1</span> year \$30.00
<b>SUBTOTAL</b>	<b>\$30.00</b>

#### Monthly Fees for DNS Management

[View pricing details](#) for Route 53 queries and for the hosted zone that we create for each new domain.

Enable auto renewal

**Order submitted successfully**

Your order is being processed. It might take a little while for your payment to be debited. If any additional payment-related steps are required, your billing contact will receive further instructions in an email.

Please reach out to [AWS Customer Support](#) if you have any questions about this order.

Close

Success box

## Verify domain name registrant (email)

## Create SSL Certificates

### Services → Security, Identity, & Compliance → Certificate Manager → Request a certificate

Certificates ?

AWS Certificate Manager logs domain names from your certificates into public certificate transparency (CT) logs when renewing certificates. You can opt out of CT logging. [Learn more](#)

[Request a certificate](#) [Import a certificate](#) [Actions](#) ↻ ⚙ ?

	Name	Domain name	Additional names	Status	Type	In use?	Renewal eligibility
<input type="checkbox"/>	-	*.brainjack.works	www.brainjack.works, brainjack.works	Issued	Amazon Issued	Yes	Eligible
<input type="checkbox"/>	-	pundit.works	*.pundit.works	Issued	Amazon Issued	Yes	Eligible
<input type="checkbox"/>	-	timecard.works	www.timecard.works, *.timecard.works	Issued	Amazon Issued	Yes	Eligible
<input type="checkbox"/>	-	*.brainjackdev.works	www.brainjackdev.works, brainjackdev.works	Issued	Amazon Issued	Yes	Eligible

« < Viewing certificates 1 to 4 > »

## Select public certificate

### Request a certificate

Choose the type of certificate for ACM to provide.

- ☒ **Request a public certificate** - Request a public certificate from Amazon. By default, public certificates are trusted by browsers and operating systems. [Learn more.](#)
- ☐ **Request a private certificate** - No Private CAs available for issuance. [Learn more.](#)

## Add domain names to the certificate

### Add domain names

Type the fully qualified domain name of the site you want to secure with an SSL/TLS certificate (for example, www.example.com). Use an asterisk (\*) to request a wildcard certificate to protect several sites in the same domain. For example: \*.example.com protects www.example.com, site.example.com and images.example.com.

Domain name*	Remove
www.example.com	<input type="button" value="✕"/>
www.example.com	<input type="button" value="✕"/>
www.example.com	<input type="button" value="✕"/>

[Add another name to this certificate](#)

You can add additional names to this certificate. For example, if you're requesting a certificate for "www.example.com", you might want to add the name "example.com" so that customers can reach your site by either name. [Learn more.](#)

\*At least one domain name is required

[Cancel](#) [Next](#)

## Select DNS validation

### Select validation method

Choose how AWS Certificate Manager (ACM) validates your certificate request. Before we issue your certificate, we need to validate that you own or control the domains for which you are requesting the certificate. ACM can validate ownership by using DNS or by sending email to the contact addresses of the domain owner.

- ☒ **DNS validation**  
Choose this option if you have or can obtain permission to modify the DNS configuration for the domains in your certificate request. [Learn more.](#)
- ☐ **Email validation**  
Choose this option if you do not have permission or cannot obtain permission to modify the DNS configuration for the domains in your certificate request. [Learn more.](#)

[Cancel](#) [Previous](#) [Next](#)

## No tags

### Review → confirm and request

## Review

### Domain name

The names you want to secure with an SSL/TLS certificate.

**Domain name** \*.manpowerdev.works  
**Additional name** www.manpower.works  
**Additional name** manpower.works

### Validation method

The method AWS uses to validate your certificate request.

**Validation method** DNS

## Validate - for each domain name: create Route53 records

### Validation



Create a CNAME record in the DNS configuration for each of the domains listed below. You must complete this step before AWS Certificate Manager (ACM) can issue your certificate, but you can skip this step for now by clicking **Continue**. To return to this step later, open the certificate request in the ACM Console.

Domain

Validation status

▼ \*.manpowerdev.works

Pending validation

Add the following CNAME record to the DNS configuration for your domain. The procedure for adding CNAME records depends on your DNS service Provider. [Learn more](#).

Name	Type	Value
_19e81f2c3e1f876512e90b098adfc5a.manpowerdev.works.	CNAME	_2da826aab7d1e078a8221db39b084322.auiqraehs.acm-validations.aws.

**Note:** Changing the DNS configuration allows ACM to issue certificates for this domain name for as long as the DNS record exists. You can revoke permission at any time by removing the record. [Learn more](#).

Create record in Route 53

Amazon Route 53 DNS Customers ACM can update your DNS configuration for you. [Learn more](#).

▼ manpower.works

Pending validation

Add the following CNAME record to the DNS configuration for your domain. The procedure for adding CNAME records depends on your DNS service Provider. [Learn more](#).

Name	Type	Value
_f440cc73f719f7bb4935da3b9f2dc94f.manpower.works.	CNAME	_a04265d690e6457c4a3909aebfbf9eaf.auiqraehs.acm-validations.aws.

**Note:** Changing the DNS configuration allows ACM to issue certificates for this domain name for as long as the DNS record exists. You can revoke permission at any time by removing the record. [Learn more](#).

Create record in Route 53

Amazon Route 53 DNS Customers ACM can update your DNS configuration for you. [Learn more](#).

▶ www.manpower.works

Pending validation

Wait for DNS validation to complete - will be pending until then

Viewing certificates 1 to 5

Name	Domain name	Additional names	Status	Type	In use?	Renewal eligibility
-	*.manpowerdev.works	manpower.works, www.manpower.works	Pending validation	Amazon Issued	No	Ineligible

**Status**

**Validation not complete**  
The status of this certificate request is "Pending validation". Further action is needed to validate and approve the certificate. [Learn more.](#)

Domain	Validation status
*.manpowerdev.works	Pending validation
manpower.works	Pending validation
www.manpower.works	Pending validation

[Export DNS configuration to a file](#) You can export all of the CNAME records to a file

**Details**

Type	Amazon Issued	Requested at	2020-04-29T20:44:58UTC
In use?	No	Public key info	RSA 2048-bit
Domain name	*.manpowerdev.works	Signature algorithm	SHA256WITHRSA
Number of additional names	2	ARN	arn:aws:acm:us-east-1:512665620159:certificate/9ba6ff7f-4493-41d0-8fcc-ce469a34fa39
Additional names	manpower.works, www.manpower.works	Validation state	Pending
Identifier	9ba6ff7f-4493-41d0-8fcc-ce469a34fa39		
Serial number	N/A		

**Tags**

## DNS validation complete

**Status**

**Status** Issued

**Detailed status** The certificate was issued at 2020-04-29T20:48:13UTC

Domain	Validation status
*.manpowerdev.works	Success
manpower.works	Success
www.manpower.works	Success

[Export DNS configuration to a file](#) You can export all of the CNAME records to a file

**Details**

Type	Amazon Issued	Requested at	2020-04-29T20:44:58UTC
In use?	No	Issued at	2020-04-29T20:48:13UTC
Domain name	*.manpowerdev.works	Not before	2020-04-29T00:00:00UTC
Number of additional names	2	Not after	2021-05-29T12:00:00UTC
Additional names	manpower.works, www.manpower.works	Public key info	RSA 2048-bit
Identifier	9ba6ff7f-4493-41d0-8fcc-ce469a34fa39	Signature algorithm	SHA256WITHRSA
Serial number	06:28:c5:ec:dc:14:d1:24:fd:d9:3b:20:61:65:70:5f	ARN	arn:aws:acm:us-east-1:512665620159:certificate/9ba6ff7f-4493-41d0-8fcc-ce469a34fa39
		Validation state	None

## 2.2 Create VPC

Services → Networking → VPC → create VPC



## Create VPC

A VPC is an isolated portion of the AWS cloud populated by AWS objects, such as Amazon EC2 instances. You must specify an IPv4 CIDR block larger than /16. You can optionally associate an IPv6 CIDR block with the VPC.

**Name tag**

**IPv4 CIDR block\***

**IPv6 CIDR block**

- ☒ No IPv6 CIDR Block
- ☐ Amazon provided IPv6 CIDR block
- ☐ IPv6 CIDR owned by me

**Tenancy**

\* Required

Make sure CIDR block is non-conflicting

### 2.2.1 Create VPC Subnet

#### Create subnet

Specify your subnet's IP address block in CIDR format, for example, 10.0.0.0/24. IPv4 block sizes must be between a /16 netmask and /28 netmask, and can be the same size as your VPC. An IPv6 CIDR block must be a /64 CIDR block.

**Name tag**

**VPC\***

**Availability Zone**

VPC CIDRs	CIDR	Status	Status Reason
	172.31.0.0/16	associated	

**IPv4 CIDR block\***

\* Required

Repeat for other AZs as needed

### 2.2.2 Create Internet gateway

Note: update diagram

#### Create internet gateway

An internet gateway is a virtual router that connects a VPC to the Internet. To create a new internet gateway specify the name for the gateway below.

**Name tag**

\* Required

[Cancel](#) [Create](#)

### Attach IGW to VPC

[Create internet gateway](#) [Actions ^](#)

Filter by tags and attributes

	Name		State	VPC	Owner
<input checked="" type="checkbox"/>	Manpower Internet Gateway	igw-ua1ac800c72...	attached	vpc-07e7b93bcf1...	512665620159
<input type="checkbox"/>	BrainJack Internet Gateway	igw-9666f6f2	attached	vpc-7330d114   V...	512665620159

Actions menu:

- Delete internet gateway
- Attach to VPC
- Detach from VPC
- Add/Edit Tags

## Select WMSNi VPC

### Attach to VPC

Attach an internet gateway to a VPC to enable communication with the internet. Specify the VPC you would like to attach below.

VPC\*  

#### ► AWS Command Line Interface command

\* Required

## Set up route table

### Set up route table

Create route table Actions						
Filter by tags and attributes or search by keyword						
<input type="checkbox"/>	Name	Route Table ID	Explicit subnet association	Edge associations	Main	VPC ID
<input checked="" type="checkbox"/>		rtb-059da218453942548	4 subnets	-	Yes	vpc-07e7b93bcf1ad46ed   VPC WMSNi
<input type="checkbox"/>		rtb-0e071efe0d457acfe	-	-	Yes	vpc-02bf42a553220957e   VPC BrainJack Time Card
<input type="checkbox"/>		rtb-27da4140	subnet-852c78b8	-	Yes	vpc-7330d114   VPC BrainJack

Route Table: rtb-059da218453942548

Summary Routes Subnet Associations Edge Associations Route Propagation Tags

Edit subnet associations

VPC → route tables → **routes** tab → edit routes

Add route for the new internet gateway as follows:

### Edit routes

Destination	Target	Status	Propagated
172.31.0.0/16	local	active	No
0.0.0.0/0	igw-0a1ac800c72aac346		No

Add route

\* Required

Cancel Save routes

Subnet associations tab → edit subnet associations

Associate the new subnets (may need to revisit this step)

## Edit subnet associations

Route table `rtb-059da218453942548` (WMSNI Route Table)

Associated subnets `subnet-01b8f4fc03ae91777` `subnet-07bedc8c4c544609b` `subnet-0379fd9f0078a3f76` `subnet-00486ddfd417eaa8`

1 to 4 of 4

<input type="checkbox"/>	Subnet ID	IPv4 CIDR	IPv6 CIDR	Current Route Table
<input checked="" type="checkbox"/>	subnet-07bedc8c4c544609b   WMSNI Public Subnet C	172.31.2.0/24	-	Main
<input checked="" type="checkbox"/>	subnet-00486ddfd417eaa8   WMSNI Public Subnet A	172.31.0.0/24	-	Main
<input checked="" type="checkbox"/>	subnet-01b8f4fc03ae91777   WMSNI Public Subnet B	172.31.1.0/24	-	Main
<input checked="" type="checkbox"/>	subnet-0379fd9f0078a3f76   WMSNI Public Subnet D	172.31.3.0/24	-	Main

\* Required

Cancel Save

## 2.3 Elastic Beanstalk

Services → Compute → EB → applications → create application

Create new EB application

### Create new application

#### Application information

Application name

Maximum length of 100 characters, not including forward slash (/).

Description

#### Tags

Apply up to 50 tags. You can use tags to group and filter your resources. A tag is a key-value pair. The key must be unique within the resource and is case-sensitive. [Learn more](#)

Key	Value	
<input type="text"/>	<input type="text"/>	Remove tag

Add tag

50 remaining

Cancel Create

Create new EB environment

### Application environments

Create a new environment

Filter results matching the display values

Environment name	Health	Date created	Last modified	URL	Running versions	Platform	Platform state	Tier name
No environments currently exist for this application.								

Create one now

## Select web server environment

### Select environment tier

AWS Elastic Beanstalk has two types of environment tiers to support different types of web applications. Web servers are standard applications that listen for and then process HTTP requests, typically over port 80. Workers are specialized applications that have a background processing task that listens for messages on an Amazon SQS queue. Worker applications post those messages to your application by using HTTP.

☒ Web server environment  
Run a website, web application, or web API that serves HTTP requests.  
[Learn more](#)

☐ Worker environment  
Run a worker application that processes long-running workloads on demand or performs tasks on a schedule.  
[Learn more](#)

Cancel **Select**

## Enter environment information

### Environment information

Choose the name, subdomain, and description for your environment. These cannot be changed later.

Application name  
[Redacted]

Environment name  
[Redacted]

Domain  
[Redacted] .us-east-1.elasticbeanstalk.

☒ [Redacted] is available.

Description  
[Redacted]

## Select platform

### Platform

☒ **Managed platform**  
Platforms published and maintained by AWS Elastic Beanstalk. [Learn more](#)

☐ **Custom platform**  
Platforms created and owned by you.

Platform

Tomcat

Platform branch

Tomcat 8.5 with Java 8 running on 64bit Amazon Linux

Platform version

3.3.4 (Recommended)

## Start with a sample application

### Application code

☒ **Sample application**  
Get started right away with sample code.

☐ **Existing version**  
Application versions that you have uploaded for WMSNi.

-- Choose a version --

☐ **Upload your code**  
Upload a source bundle from your computer or copy one from Amazon S3.

## IMPORTANT: Select **Configure More Options**

Managed updates are now enabled by default for new environments on supporting platforms. ×

Cancel

Configure more options

Create environment

## Environment configurations

### Configure [REDACTED]

**Presets**  
Start from a preset that matches your use case or choose Custom configuration to unset recommended values and use the service's default values.

Configuration presets

☐ Single instance (Free Tier eligible)

☐ Single instance (using Spot Instance)

☐ High availability

☐ High availability (using Spot and On-Demand instances)

☒ Custom configuration

**Platform**

Tomcat 8.5 with Java 8 running on 64bit Amazon Linux/3.3.4

Change platform version

## Modify capacity Auto Scaling Group



## Modify capacity

Configure the compute capacity of your environment and Auto Scaling settings to optimize the number of instances used.

### Auto Scaling Group

Environment type

Load b... ▼

Instances

Min 1

Max 1

Fleet composition

Choose a mix of On-Demand and Spot Instances with multiple instance types. Spot Instances are automatically launched at the lowest available price. [Learn more](#)

☒ On-Demand instances

☐ Combine purchase options and instances

Maximum spot price

The maximum price per instance-hour, in USD, that you're willing to pay for a Spot Instance. Setting a custom price limits your chances to fulfill your target capacity using Spot instances.

☒ Default - the On-Demand price for each instance type (recommended)

☐ Set your maximum price

On-Demand base

The minimum number of On-Demand Instances that your Auto Scaling group provisions before considering Spot Instances as your environment scales out.

0

On-Demand above base

The percentage of On-Demand Instances as part of any additional capacity that your Auto Scaling group provisions beyond the On-Demand base instances.

70 %

### Instance type

Instance type

t2.micro ▼

AMI ID

ami-0caeeb8c95d8a66d0

Availability Zones

Number of Availability Zones (AZs) to use.

Any ▼

Placement

Specify Availability Zones (AZs) to use.

-- Choose Availability Zones (AZs) -- ▼

Note: AZ options will be handled later in **Network** settings

Leave Scaling Triggers alone (for now)

Modify Network

Select the VPC

## Modify network

### Virtual private cloud (VPC)

#### VPC

Launch your environment in a custom VPC instead of the default VPC. You can create a VPC and subnets in the VPC management console. [Learn more](#)

vpc-07e7b93bcf1ad46ed (172.31.0.0/16) | VPC WMSNi



Your account doesn't have a default VPC for this region. [Create default VPC](#)

### Select load balancer subnets

#### Load balancer settings

Assign your load balancer to a subnet in each Availability Zone (AZ) in which your application runs. For a publicly accessible application, set **Visibility** to **Public** and choose public subnets.

#### Visibility

Make your load balancer internal if your application serves requests only from connected VPCs. Public load balancers serve requests from the Internet.

Public

#### Load balancer subnets

	Availability Zone	Subnet	CIDR	Name
<input checked="" type="checkbox"/>	us-east-1a	subnet-00486ddfd417eaa8	172.31.0.0/24	
<input type="checkbox"/>	us-east-1b	subnet-01b8fafc03ae91777	172.31.1.0/24	
<input type="checkbox"/>	us-east-1c	subnet-07bedc8c4c544609b	172.31.2.0/24	
<input checked="" type="checkbox"/>	us-east-1d	subnet-0379fd9f0078a3f76	172.31.3.0/24	

Note: subnet D will be ignored. Only there because ALB requires 2 AZs

Select EC2 instance subnets → **only one selected for Dev and Test**

### Instance settings

Choose a subnet in each AZ for the instances that run your application. To avoid exposing your instances to the Internet, run your instances in private subnets and load balancer in public subnets. To run your load balancer and instances in the same public subnets, assign public IP addresses to the instances.

☒ **Public IP address**  
Assign a public IP address to the Amazon EC2 instances in your environment.

#### Instance subnets

	Availability Zone	Subnet	CIDR	Name
<input checked="" type="checkbox"/>	us-east-1a	subnet-00486ddfd417eaa8	172.31.0.0/24	
<input type="checkbox"/>	us-east-1b	subnet-01b8fadc03ae91777	172.31.1.0/24	
<input type="checkbox"/>	us-east-1c	subnet-07bedc8c4c544609b	172.31.2.0/24	
<input checked="" type="checkbox"/>	us-east-1d	subnet-0379fd9f0078a3f76	172.31.3.0/24	

Enable public IP for instances to allow SSH access later

Modify Load Balancer

Select application load balancer

### Modify load balancer

☒ **Application Load Balancer**  
Application layer load balancer—routing HTTP and HTTPS traffic based on protocol, port, and route to environment processes.

☐ **Classic Load Balancer**  
*Previous generation* — HTTP, HTTPS, and TCP

☐ **Network Load Balancer**  
Ultra-high performance and static IP addresses for your application.

Skip secure port/HTTPS access for now (domain name not registered yet)

All other options can be left as default

Modify instances

Do not need to; Elastic Beanstalk automatically creates new security group for instances

Modify security

## Modify security

**Service role**

Service role

aws-elasticbeanstalk-service-role

↻

**Virtual machine permissions**

EC2 key pair

↻

IAM instance profile

aws-elasticbeanstalk-ec2-role

↻



Should have an EC2 key pair available for this step (needed for SSH access)

Select **create environment**

**WMSNI-Dev**

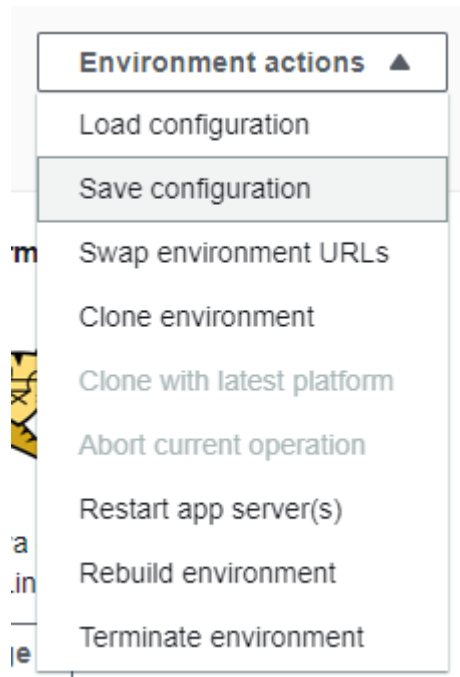
WMSNI-Dev.us-east-1.elasticbeanstalk.com (e-w4cf8xm5pe)
Application name: WMSNI

↻ Refresh
Environment actions

<b>Health</b> <div>  Green <div>Causes</div> </div>	<b>Running version</b> <div> Sample Application <div>Upload and deploy</div> </div>	<b>Platform</b> <div>  Tomcat 8.5 with Java 8 running on 64bit Amazon Linux 3.3.4 <div>Change</div> </div>
--	---	---

Successful EB environment creation

Save the environment configuration (can be done now or after additional configurations are applied)



## Provide configuration name and description

**Save Configuration**

Save this environment's current configuration.

Environment:  
Manpower-Dev

Configuration name:

Description:

Tags

Apply up to 50 tags. You can use tags to group and filter your resources. A tag is a key-value pair. The key must be unique within the resource and is case-sensitive. [Learn more](#)

Key	Value	
<input type="text"/>	<input type="text"/>	<button>Remove tag</button>

Add tag

50 remaining

## Save configuration

## Domain Name routing

Navigate to Services → Networking & Content Delivery → Route53 → Hosted Zones

Select the appropriate hosted zone for the Elastic Beanstalk environment



Search all fields		All Types	
Domain Name	Type	Record Set Count	Comment
<input type="radio"/> brainjack.works.	Public	6	HostedZone created by Route53 Registrar
<input type="radio"/> pundit.works.	Public	4	HostedZone created by Route53 Registrar
<input type="radio"/> brainjackdev.works.	Public	6	HostedZone created by Route53 Registrar
<input type="radio"/> timecard.works.	Public	5	HostedZone created by Route53 Registrar
<input type="radio"/> manpowertest.works.	Public	2	HostedZone created by Route53 Registrar
<input type="radio"/> manpower.works.	Public	4	HostedZone created by Route53 Registrar
<input type="radio"/> manpowerdev.works.	Public	3	HostedZone created by Route53 Registrar

### Select Create Record Set

[Back to Hosted Zones](#)
[Create Record Set](#)
[Import Zone File](#)
[Delete Record Set](#)
[Test Record Set](#)

☐ Aliases Only
 ☐ Weighted Only

<< < Displaying 1 to 3 out of 3 Record Sets > >>

<input type="checkbox"/>	Name	Type	Value	Ev
<input type="checkbox"/>	manpowerdev.works.	NS	ns-856.awsdns-43.net. ns-1089.awsdns-08.org. ns-399.awsdns-49.com. ns-1789.awsdns-31.co.uk.	-
<input type="checkbox"/>	manpowerdev.works.	SOA	ns-856.awsdns-43.net. awsdns-hostmaster.amazon.	-
<input type="checkbox"/>	_19e81f2c3e1f876512e90b098adfdc5a.manpowerdev.works.	CNAME	_2da826aab7d1e078a8221db39b084322.auiqqraeh	-

Enter record set details

Specify that it is an **alias** record

Alias target: the Application Load Balancer for the new Elastic Beanstalk environment

### Create Record Set

**Name:**

**Type:** A – IPv4 address

**Alias:** ☒ Yes ☐ No

**Alias Target:**

**Alias Hosted Zone ID:** Z35SXDOTRQ7X7K

You can also type the domain name for the resource. Examples:

- CloudFront distribution domain name: d111111abcdef8.cloudfront.net
- Elastic Beanstalk environment CNAME: example.elasticbeanstalk.com
- ELB load balancer DNS name: example-1.us-east-2.elb.amazonaws.com
- S3 website endpoint: s3-website.us-east-2.amazonaws.com
- Resource record set in this hosted zone: www.example.com
- VPC endpoint: example.us-east-2.vpce.amazonaws.com
- API Gateway custom regional API: d-abcde12345.execute-api.us-west-2.amazonaws.com
- Global Accelerator DNS name: a012345abc.awsglobalaccelerator.com

[Learn More](#)

**Routing Policy:** Simple

Route 53 responds to queries based only on the values in this record. [Learn More](#)

**Evaluate Target Health:** ☐ Yes ☒ No

To check the DNS name for the ALB

- Services → Compute → EC2 → Load Balancers
- Select the load balancer for the environment
- Take note of the load balancer **name**

Load balancer: **awseb-AWSEB-9CZ4X4GPRVBM**

[Description](#)
[Listeners](#)
[Monitoring](#)
[Integrated services](#)
[Tags](#)

#### Basic Configuration

<b>Name</b>	awseb-AWSEB-9CZ4X4GPRVBM
<b>ARN</b>	arn:aws:elasticloadbalancing:us-east-1:512665620159:loadbalancer/app/awseb-AWSEB-9CZ4X4GPRVBM/70eff91cb3175d7d
<b>DNS name</b>	awseb-AWSEB-9CZ4X4GPRVBM-1151798333.us-east-1.elb.amazonaws.com (A Record)
<b>State</b>	active
<b>Type</b>	application
<b>Scheme</b>	internet-facing
<b>IP address type</b>	ipv4
	<a href="#">Edit IP address type</a>
<b>VPC</b>	vpc-07e7b93bcf1ad46ed

The load balancer can be identified by checking its routing

- **Listeners** tab
- Take note of forwarding **rules**
- Click on the ID in the rule → should be an **target group**

<input type="checkbox"/> Listener ID	Security policy	SSL Certificate	Rules
<input type="checkbox"/> <b>HTTP : 80</b> arn...346355fa0331409e ▾	N/A	N/A	Default: forwarding to <a href="#">awseb-AWSEB-1L6RXMMYFUJ4R</a> <a href="#">View/edit rules</a>

Check the target group **Targets** tab → should see the Elastic Beanstalk instance(s)

Description

Targets

Health checks

Monitoring

Tags

The load balancer starts routing requests to a newly registered target as soon as the registration process completes and the target passes the initial health checks. If demand on your targets increases, you can register additional targets. If demand on your targets decreases, you can deregister targets.

Edit

Registered targets

Instance ID	Name	Port	Availability Zone	Status	Description
i-007b0887d01321c3	Manpower-Dev	80	us-east-1a	healthy	This target is currently passing target group's health checks.

Availability Zones

Availability Zone	Target count	Healthy?
us-east-1a	1	Yes

Create a **CNAME** record

Enter **www** for name

Type: CNAME

Value: load balancer **DNS name** from earlier

**Edit Record Set**

**Name:** www.manpowerdev.works

**Type:** CNAME – Canonical name

**Alias:** ☐ Yes ☒ No

**TTL (Seconds):** 300 1m 5m 1h 1d

**Value:**

awseb-AWSEB-9CZ4X4GPRVBM-1151798333.us-east-1.elb.amazonaws.com

The domain name that you want to resolve to instead of the value in the Name field.

Example: www.example.com

**Routing Policy:** Simple

Route 53 responds to queries based only on the values in this record. [Learn More](#)

Go back to the new Elastic Beanstalk environment (Services → Compute → Elastic Beanstalk → new environment → Configurations → Load Balancer

Modify the load balancer

- Under **Application Load Balancer**, select **Add Listener**
- Port: 443
- Protocol: HTTPS
- SSL Certificate: choose certificate for the domain name used above
  - To check: refer to previous steps

Application Load Balancer listener

Port

443

Protocol

The transport protocol that the load balancer uses for routing incoming traffic from clients.

HTTPS

Security settings

SSL certificate

\*.manpowerdev.works - 9ba6ff7f-4493-41d0-8fc...

SSL policy

The Secure Sockets Layer (SSL) negotiation configuration, known as a security policy, that this load balancer uses to negotiate SSL connections with clients.

ELBSecurityPolicy-2016-08

Cancel

Add

Apply Changes and the environment will start rebuilding.

Once the rebuilding is completed in order to test that it works simply type in the web address that you created and see if it routes you to your application.

## Forcing Secure SSL connections (HTTPS)

(Services → Compute → EC2 → Load Balancers → Select load balancer → **Listeners** tab)

Add listener

Edit

Delete

<input type="checkbox"/>	Listener ID	Security policy	SSL Certificate	Rules
<input checked="" type="checkbox"/>	HTTP : 80 arn...346355fa0331409e	N/A	N/A	Default: forwarding to <a href="#">awseb-AWSEB-1L6RXMMYFUJ4R</a> <a href="#">View/edit rules</a>
<input type="checkbox"/>	HTTPS : 443 arn...a84dfe76edbaa7b4	ELBSecurityPolicy-2016-08	Default: 9ba6ff7f-4493-41d0-8fcc-ce469a34fa39 (ACM) <a href="#">View/edit certificates</a>	Default: forwarding to <a href="#">awseb-AWSEB-1L6RXMMYFUJ4R</a> <a href="#">View/edit rules</a>

## Add action → **redirect**

awseb-AWSEB-9CZ4X4GPRVBM | HTTP : 80

Listeners belonging to Application Load Balancers check for connection requests using the protocol and port you configure. Each listener must include a default action to ensure all requests are routed. Once you have created your listener, you can create and manage additional routing rules as needed. [Learn more](#)

### ARN

arn:aws:elasticloadbalancing:us-east-1:512665620159:listener/app/awseb-AWSEB-9CZ4X4GPRVBM/70eff91cb3175d7d/346355fa0331409e

### Protocol : port

Select the protocol for connections from the client to your load balancer, and enter a port number from which to listen to for traffic.

HTTP : 80

### Default action(s)

Indicate how this listener will route traffic that is not otherwise routed by a another rule.

+ Add action

Forward to...

Redirect to...

Return fixed response...

Note: Additional actions are available for HTTPS listeners.

Specify the following rule

Page 28

## Default action(s)

Indicate how this listener will route traffic that is not otherwise routed by another rule.

1. Redirect to...

HTTPS

443

Original value: #{port}

Original host, path, query

301 - Permanently moved

Switch to full URL

✓

+ Add action

Save

Test the redirection

- Try typing just {domain\_name} as the URL
- Type [http://{domain\\_name}](http://{domain_name})
- Both should redirect to [https://{domain\\_name}](https://{domain_name})

## 2.4 RDS

Restore database from a snapshot: Services → Database → RDS → Snapshots → **System** tab

RDS > Snapshots

### Snapshots

Manual
System
Shared with me
Public
Backup service
Exports in Amazon S3

System snapshots (34)

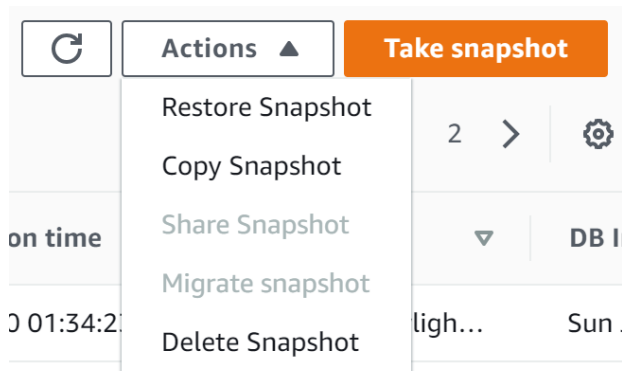
Filter system snapshots

1
2

<input type="checkbox"/>	Snapshot name	DB instance or cluster	Snapshot creation time	DB Inst
<input type="checkbox"/>	<a href="#">rds:bif-interview-2020-04-22-08-34</a>	bif-interview	Wed Apr 22 2020 01:34:23 GMT-0700 (Pacific Dayligh...	Sun Jar
<input type="checkbox"/>	<a href="#">rds:bif-interview-2020-04-23-08-34</a>	bif-interview	Thu Apr 23 2020 01:34:26 GMT-0700 (Pacific Daylight...	Sun Jar
<input type="checkbox"/>	<a href="#">rds:bif-interview-2020-04-24-08-34</a>	bif-interview	Fri Apr 24 2020 01:34:46 GMT-0700 (Pacific Daylight ...	Sun Jar

Select most recent snapshot for **jarvis**

Under Actions, select **Restore Snapshot**



Instance specifications

Standard Edition 2

**License-included** model

**t3.medium** instance class

No multi AZ

## Restore DB Instance

You are creating a new DB Instance from a source DB Instance at a specified time. This new DB Instance will have the default DB Security Group and DB Parameter Groups.

### Instance specifications

#### DB Engine

Name of the Database Engine

Oracle Database Standard Edition Two

#### License Model

License type associated with the database engine

license-included

#### DB Instance Class

Contains the compute and memory capacity of the DB Instance.

db.t3.medium — 2 vCPU, 4 GiB RAM

#### Multi-AZ Deployment

Specifies if the DB Instance should have a standby deployed in another Availability Zone.

☐ Yes

☒ No

#### Storage type [Info](#)

Magnetic

Specify DB instance DB identifier

### Settings

**DB Snapshot ID**

The identifier for the DB Snapshot.

rds:jarvis-2020-04-28-23-10

**DB Instance Identifier** [Info](#)

## Network & security

### Network & Security

**Virtual Private Cloud (VPC)** [Info](#)

VPC defines the virtual networking environment for this DB instance.

↺

Only VPCs with a corresponding DB subnet group are listed.

**Subnet group** [Info](#)

DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

Create new DB Subnet Group ▼

**Public accessibility** [Info](#)

☒ **Yes**

EC2 instances and devices outside of the VPC hosting the DB instance will connect to the DB instances. You must also select one or more VPC security groups that specify which EC2 instances and devices can connect to the DB instance.

☐ **No**

DB instance will not have a public IP address assigned. No EC2 instance or devices outside of the VPC will be able to connect.

**Availability zone** [Info](#)

No preference ▼

**VPC security groups** [Info](#)

Security groups have rules authorizing connections from all the EC2 instances and devices that need to access the DB instance.

☒ **Create new VPC security group**

☐ **Choose existing VPC security groups**

Select WMSNi VPC

New subnet group

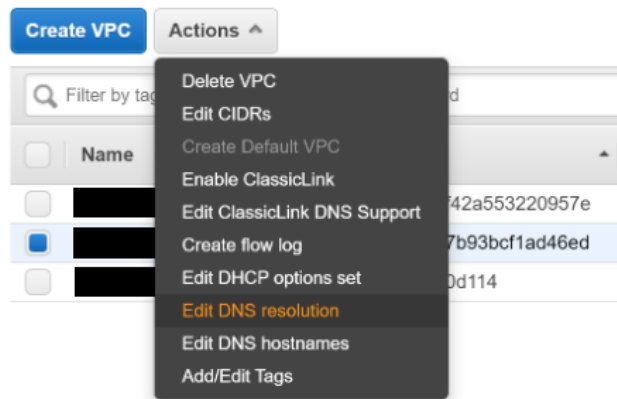
Public accessibility: **yes?**

- **Important** if public, ensure that **DNS resolution** and **DNS hostnames** are both set to **enabled** in the VPC console (Services → Networking & Content Delivery → VPC → Your VPCs)

VPC: vpc-07e7b93bcf1ad46ed

Description	CIDR Blocks	Flow Logs	Tags
<p><b>VPC ID</b> vpc-07e7b93bcf1ad46ed</p> <p><b>State</b> available</p> <p><b>IPv4 CIDR</b> 172.31.0.0/16</p> <p><b>IPv6 CIDR</b> -</p> <p><b>DNS resolution</b> Enabled</p> <p><b>DNS hostnames</b> Enabled</p> <p><b>ClassicLink DNS Support</b> Disabled</p> <p><b>Owner</b> 512665620159</p>			

- If they are not enabled, select Actions → Edit DNS resolution/hostnames



New VPC security group

Note: **this may need to be revisited** (the public accessibility)

Database options

### Database options

Database Name [Info](#)  
Name of a database to create when the DB Instance is created.

Database Port  
Port number on which the database accepts connections.

DB parameter group [Info](#)

Option Group [Info](#)

Defaults are fine

Name: **bifdevdb** (where does this show up?)

Note: **this may need to be revisited** (are the defaults fine)

Logs & Maintenance



## Log exports

Select the log types to publish to Amazon CloudWatch Logs

- ☒ Alert log
- ☐ Audit log
- ☐ Listener log
- ☒ Trace log

### IAM role

The following service-linked role is used for publishing logs to CloudWatch Logs.

RDS Service Linked Role

## Maintenance

### Auto Minor Version Upgrade

Specifies if the DB Instance should receive automatic engine version upgrades when they are available.

- ☒ Yes
- ☐ No

## Restore DB Instance

### Upgrade DB Engine Version: 19c

Select the new database in the RDS console: Services → RDS → Databases

Select **Modify**

Modify
Actions ▼

Summary			
DB identifier [REDACTED]	CPU 1.00%	Info Available	Class db.t3.medium
Role Instance	Current activity 0 Connections	Engine Oracle Standard Edition Two	Region & AZ us-east-1b

Select Oracle 19

## Modify DB Instance: wmsnidevdb

### Instance specifications

#### License model

License type associated with the database engine

license-included ▼

#### DB engine version

Version number of the database engine to be used for this instance.

Oracle 19.0.0.0.ru-2020-01.rur-2020-01.r1 (default) ▼

#### DB instance class

Contains the compute and memory capacity of the DB instance.

db.t3.medium — 2 vCPU, 4 GiB RAM ▼

#### Multi-AZ deployment

Specifies if the DB instance should have a standby deployed in another availability zone.

☐ Yes

☒ No

#### Storage type

Magnetic ▼

#### Allocated storage

110

GiB

This instance supports multiple storage ranges between 110 and 3072 GiB. [See all](#)

Leave all other settings alone

**Worth revisiting** (magnetic vs SSD storage?)

Summary of modifications

Select **apply immediately** for scheduling

### Summary of modifications

You are about to submit the following modifications. Only values that will change are displayed. Carefully verify your changes and click Modify DB Instance.

Attribute	Current value	New value
Deletion protection	Disabled	Enabled
DB engine version	12.1.0.2.v19 (Oracle 12.1.0.2.v19)	19.0.0.0.ru-2020-01.rur-2020-01.r1 (Oracle 19.0.0.0.ru-2020-01.rur-2020-01.r1)

### Scheduling of modifications

When to apply modifications

☐ Apply during the next scheduled maintenance window

Current maintenance window: sat:06:00-sat:09:00

☒ Apply immediately

The modifications in this request and any pending modifications will be asynchronously applied as soon as possible, regardless of the maintenance window setting for this database instance.



#### Potential unexpected downtime

If you choose to apply changes immediately, please note that any changes in the pending modifications queue are also applied. If any of the pending modifications require downtime, choosing this option can cause unexpected downtime.

The DB status will change to **Upgrading** in the RDS console until the upgrade is complete

	Instance	Oracle Standard Edition Two	us-east-1b	db.t3.medium	 Upgrading
---	----------	-----------------------------	------------	--------------	---



*...making data meaningful*

Application deployment

## 4 WMSNi IDUT Design Document

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*...making data meaningful*

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---

# 1 Organization Management Data Model

In response to the COVID-19 pandemic, WMSN<sub>i</sub> requires the addition of Infectious Disease units and an Infectious Disease Unit Type (IDUT). WMSN<sub>i</sub> must be capable of quickly adding and maintaining these units. Currently, WMSN<sub>i</sub> supports only Graphical User Interface (GUI) maintenance of organization data. The addition of an import/export option will enable speedy and less error-prone introduction of units into WMSN<sub>i</sub>. Enabling import/export will require modification of the data model concerning Organizations in WMSN<sub>i</sub>.

The addition of an import/export option to WMSN<sub>i</sub> organizations will require a way to uniquely identify an organization both without and within the context of the WMSN<sub>i</sub> database. Currently, an organization is uniquely identified by an integer which has guaranteed uniqueness only within the context of the WMSN<sub>i</sub> database. A Universally Unique Identifier (UUID) is capable of guaranteeing uniqueness in all contexts. The organization data model must be modified to include a UUID to avoid organization "collisions" when moving them from one context to another.

## 1.1 Current Model

The WMSNi Organization table (`wmsnoltp.organization`) stores organization data for WMSNi. The table serves data for many parts of the application, including patient, employee, and schedule management. The records in the table are uniquely identified by an INTEGER as the Primary Key (`organization id`).

### 1.1.1 Current Model Issues

Each organization is uniquely identified by an integer. An integer can uniquely identify an organization only within the context of the WMSN<sub>i</sub> database. This limitation makes it difficult to define, import and export organizations between multiple contexts.

### 1.1.2 SOL ERD

The SQL Model of `wmsnoltp.organization` and related tables is below:

WMSNOLTP.ORGANIZATION HIST	
P * ORGANIZATION_ID	NUMBER (38)
* BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
F * AUD_BEG_EMP	NUMBER (38)
* AUD_BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
U * ABBR	VARCHAR2 (10 BYTE)
U * NAME	VARCHAR2 (50 BYTE)
* ORG_TYPE	VARCHAR2 (6 BYTE)
* ZONEINFO	VARCHAR2 (50 BYTE)
* CONUS	VARCHAR2 (1 BYTE)
U/P * PARENT_ORGANIZATION_ID	NUMBER
U UIC	VARCHAR2 (6 BYTE)
U DMIS_ID	VARCHAR2 (4 BYTE)
U APC	VARCHAR2 (4 BYTE)
U MEPRS	VARCHAR2 (6 BYTE)
F UNIT_TYPE_ID	NUMBER (38)
SHIFT_TYPE	NUMBER (2)
NUM_BEDS	NUMBER (3)
DAY_START_MINUTES	NUMBER (5)
ENTRY_GRACE_MINUTES	NUMBER (5)
CITY	VARCHAR2 (20 BYTE)
STATE	VARCHAR2 (10 BYTE)
SORT_ORDER	NUMBER (5)
REMARK	VARCHAR2 (1000 BYTE)
POP_CONTROL	VARCHAR2 (1 BYTE)
U CHCS_WARD_NAME	VARCHAR2 (50 BYTE)
U CHCS_MTF_ID	VARCHAR2 (10 BYTE)
* ORGANIZATION_PK (ORGANIZATION_ID) * ORGANIZATION_UK1 (ABBR, PARENT_ORGANIZATION_ID) * ORGANIZATION_UK2 (NAME, PARENT_ORGANIZATION_ID) * ORGANIZATION_UK3 (DMIS_ID, APC) * ORGANIZATION_UK4 (UIC) * ORGANIZATION_UK5 (CHCS_MTF_ID, CHCS_WARD_NAME)	
* ORGANIZATION_FA1 (AUD_BEG_EMP) * ORGANIZATION_FK1 (PARENT_ORGANIZATION_ID) * ORGANIZATION_FK2 (UNIT_TYPE_ID)	
ORGANIZATION_IFK1 (PARENT_ORGANIZATION_ID) ORGANIZATION_IFK2 (UNIT_TYPE_ID) ORGANIZATION_IT1 (BEG_DTM) ORGANIZATION_IK1 (REMARK) ORGANIZATION_IK2 (APC) ORGANIZATION_PK (ORGANIZATION_ID) ORGANIZATION_UK1 (ABBR, PARENT_ORGANIZATION_ID) ORGANIZATION_UK2 (NAME, PARENT_ORGANIZATION_ID) ORGANIZATION_UK3 (DMIS_ID, APC) ORGANIZATION_UK4 (UIC) ORGANIZATION_UK5 (CHCS_MTF_ID, CHCS_WARD_NAME)	
WMSNOLTP.ORGANIZATION HIST	
P * ORGANIZATION_ID	NUMBER (38)
* BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
* END_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
* AUD_BEG_EMP	NUMBER (38)
* AUD_END_EMP	NUMBER (38)
* AUD_BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
* AUD_END_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
U * ABBR	VARCHAR2 (10 BYTE)
U * NAME	VARCHAR2 (50 BYTE)
* ORG_TYPE	VARCHAR2 (6 BYTE)
* ZONEINFO	VARCHAR2 (50 BYTE)
* CONUS	VARCHAR2 (1 BYTE)
U * PARENT_ORGANIZATION_ID	NUMBER (38)
U UIC	VARCHAR2 (6 BYTE)
U DMIS_ID	VARCHAR2 (4 BYTE)
U APC	VARCHAR2 (4 BYTE)
U MEPRS	VARCHAR2 (6 BYTE)
U UNIT_TYPE_ID	NUMBER (38)
SHIFT_TYPE	NUMBER (2)
NUM_BEDS	NUMBER (3)
DAY_START_MINUTES	NUMBER (5)
ENTRY_GRACE_MINUTES	NUMBER (5)
CITY	VARCHAR2 (20 BYTE)
STATE	VARCHAR2 (10 BYTE)
SORT_ORDER	NUMBER (5)
REMARK	VARCHAR2 (1000 BYTE)
LAST_ACTIVE	VARCHAR2 (1 BYTE)
* ORGANIZATION_HIST_PK (ORGANIZATION_ID, BEG_DTM) * ORGANIZATION_HIST_UK1 (ABBR, PARENT_ORGANIZATION_ID, BEG_DTM) * ORGANIZATION_HIST_UK2 (NAME, PARENT_ORGANIZATION_ID, BEG_DTM) * ORGANIZATION_HIST_UK3 (DMIS_ID, APC, BEG_DTM)	
ORGANIZATION_HIST_IFK1 (PARENT_ORGANIZATION_ID, BEG_DTM) ORGANIZATION_HIST_IFK2 (UNIT_TYPE_ID, BEG_DTM) ORGANIZATION_HIST_IT1 (BEG_DTM) ORGANIZATION_HIST_IT2 (END_DTM) ORGANIZATION_HIST_IK1 (REMARK, BEG_DTM) ORGANIZATION_HIST_IK2 (APC, BEG_DTM) ORGANIZATION_HIST_UK1 (ABBR, PARENT_ORGANIZATION_ID, LAST_ACTIVE) ORGANIZATION_HIST_UK2 (NAME, PARENT_ORGANIZATION_ID, LAST_ACTIVE) ORGANIZATION_HIST_UK3 (DMIS_ID, APC, LAST_ACTIVE) ORGANIZATION_HIST_UK4 (UIC, LAST_ACTIVE)	
U ORGANIZATION_HIST_PK (ORGANIZATION_ID, BEG_DTM)	
U ORGANIZATION_HIST_UK1 (ABBR, PARENT_ORGANIZATION_ID, BEG_DTM)	
U ORGANIZATION_HIST_UK2 (NAME, PARENT_ORGANIZATION_ID, BEG_DTM)	
U ORGANIZATION_HIST_UK3 (DMIS_ID, APC, BEG_DTM)	
U ORGANIZATION_HIST_UK4 (UIC, CASE WHEN 'UIC' IS NOT NULL THEN 'BEG_DTM' END)	

## 1.2 Optimized Model

The WMSN<sub>i</sub> Organization table (`wmsnoltp.organization`) must be modified so that organizations can be identified by a UUID. In an optimized model, the integer-based unique identifier (primary key) would be replaced with a UUID in all places where organizations are referenced within the WMSN<sub>i</sub> application.

### 1.2.1 Issues

1. Organizations are referenced via foreign key relationships in nearly every aspect of the WMSN<sub>i</sub> application. Every aspect of the application affected by this modification must be evaluated to assess impact.
2. Some aspects of the application may require modification to accommodate the new data type used to reference organizations.

### 1.2.2 Actions

- Phase 1. Create a UUID data type organization record identifier on the organization table (Candidate Key). Allow the existing integer-based primary key to remain and function as it does currently. This will lessen the impact to the existing application.
- Phase 2. Cascade the data and data type to foreign key references, reports and application code in order to assess and address the impact to the application.
- Phase 3. Remove original Integer Primary Key from organization table.

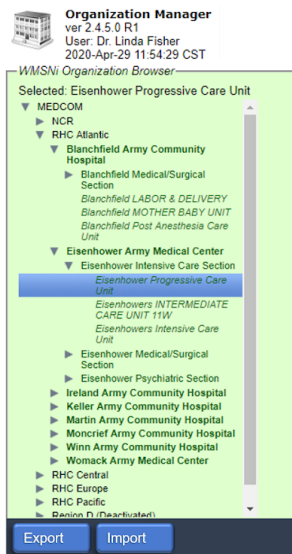
### 1.2.3 Results

WMSNOLTP.ORGANIZATION	
P * ORGANIZATION_ID	NUMBER (38)
* BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
F * AUD_BEG_EMP	NUMBER (38)
* AUD_BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
U * ABBR	VARCHAR2 (10 BYTE)
U * NAME	VARCHAR2 (50 BYTE)
* ORG_TYPE	VARCHAR2 (6 BYTE)
* ZONEINFO	VARCHAR2 (50 BYTE)
* CONUS	VARCHAR2 (1 BYTE)
UF* PARENT_ORGANIZATION_ID	NUMBER
U UIC	VARCHAR2 (6 BYTE)
U DMIS_ID	VARCHAR2 (4 BYTE)
U APC	VARCHAR2 (4 BYTE)
MEPRS	VARCHAR2 (6 BYTE)
F UNIT_TYPE_ID	NUMBER (38)
SHIFT_TYPE	NUMBER (2)
NUM_BEDS	NUMBER (3)
DAY_START_MINUTES	NUMBER (5)
ENTRY_GRACE_MINUTES	NUMBER (5)
CITY	VARCHAR2 (20 BYTE)
STATE	VARCHAR2 (10 BYTE)
SORT_ORDER	NUMBER (5)
REMARK	VARCHAR2 (1000 BYTE)
POP_CONTROL	VARCHAR2 (1 BYTE)
U CHCS_WARD_NAME	VARCHAR2 (50 BYTE)
U CHCS_MTF_ID	VARCHAR2 (10 BYTE)
U ORGANIZATION_IDCK	VARCHAR2 (100 BYTE)
ORGANIZATION_PK (ORGANIZATION_ID) ORGANIZATION_UK1 (ABBR, PARENT_ORGANIZATION_ID) ORGANIZATION_UK2 (NAME, PARENT_ORGANIZATION_ID) ORGANIZATION_UK3 (DMIS_ID, APC) ORGANIZATION_UK4 (UIC) ORGANIZATION_UK5 (CHCS_MTF_ID, CHCS_WARD_NAME) ORGANIZATION_UK6 (ORGANIZATION_IDCK)	
ORGANIZATION_FK1 (AUD_BEG_EMP) ORGANIZATION_FK1 (PARENT_ORGANIZATION_ID) ORGANIZATION_FK2 (UNIT_TYPE_ID)	
ORGANIZATION_IFK1 (PARENT_ORGANIZATION_ID) ORGANIZATION_IFK2 (UNIT_TYPE_ID) ORGANIZATION_IT1 (BEG_DTM) ORGANIZATION_IX1 (REMARK) ORGANIZATION_IX2 (APC)	
U ORGANIZATION_PK (ORGANIZATION_ID) U ORGANIZATION_UK1 (ABBR, PARENT_ORGANIZATION_ID) U ORGANIZATION_UK2 (NAME, PARENT_ORGANIZATION_ID) U ORGANIZATION_UK3 (DMIS_ID, APC) U ORGANIZATION_UK4 (UIC) U ORGANIZATION_UK5 (CHCS_MTF_ID, CHCS_WARD_NAME) U ORGANIZATION_UK6 (ORGANIZATION_IDCK)	

WMSNOLTP.ORGANIZATION_HIST	
P * ORGANIZATION_ID	NUMBER (38)
* BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
* END_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
* AUD_BEG_EMP	NUMBER (38)
* AUD_END_EMP	NUMBER (38)
* AUD_BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
* AUD_END_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
U * ABBR	VARCHAR2 (10 BYTE)
U * NAME	VARCHAR2 (50 BYTE)
* ORG_TYPE	VARCHAR2 (6 BYTE)
* ZONEINFO	VARCHAR2 (50 BYTE)
* CONUS	VARCHAR2 (1 BYTE)
U * PARENT_ORGANIZATION_ID	NUMBER (38)
U UIC	VARCHAR2 (6 BYTE)
U DMIS_ID	VARCHAR2 (4 BYTE)
U APC	VARCHAR2 (4 BYTE)
MEPRS	VARCHAR2 (6 BYTE)
UNIT_TYPE_ID	NUMBER (38)
SHIFT_TYPE	NUMBER (2)
NUM_BEDS	NUMBER (3)
DAY_START_MINUTES	NUMBER (5)
ENTRY_GRACE_MINUTES	NUMBER (5)
CITY	VARCHAR2 (20 BYTE)
STATE	VARCHAR2 (10 BYTE)
SORT_ORDER	NUMBER (5)
REMARK	VARCHAR2 (1000 BYTE)
LAST_ACTIVE	VARCHAR2 (1 BYTE)
ORGANIZATION_IDCK	VARCHAR2 (100 BYTE)
ORGANIZATION_HIST_PK (ORGANIZATION_ID, BEG_DTM) ORGANIZATION_HIST_UK1 (ABBR, PARENT_ORGANIZATION_ID, BEG_DTM) ORGANIZATION_HIST_UK2 (NAME, PARENT_ORGANIZATION_ID, BEG_DTM) ORGANIZATION_HIST_UK3 (DMIS_ID, APC, BEG_DTM)	
ORGANIZATION_HIST_IFK1 (PARENT_ORGANIZATION_ID, BEG_DTM) ORGANIZATION_HIST_IFK2 (UNIT_TYPE_ID, BEG_DTM) ORGANIZATION_HIST_IT1 (BEG_DTM) ORGANIZATION_HIST_IT2 (END_DTM) ORGANIZATION_HIST_IX1 (REMARK, BEG_DTM) ORGANIZATION_HIST_IX2 (APC, BEG_DTM) ORGANIZATION_HIST_LUK1 (ABBR, PARENT_ORGANIZATION_ID, LAST_ACTIVE) ORGANIZATION_HIST_LUK2 (NAME, PARENT_ORGANIZATION_ID, LAST_ACTIVE) ORGANIZATION_HIST_LUK3 (DMIS_ID, APC, LAST_ACTIVE) ORGANIZATION_HIST_LUK4 (UIC, LAST_ACTIVE)	
U ORGANIZATION_HIST_PK (ORGANIZATION_ID, BEG_DTM) U ORGANIZATION_HIST_UK1 (ABBR, PARENT_ORGANIZATION_ID, BEG_DTM) U ORGANIZATION_HIST_UK2 (NAME, PARENT_ORGANIZATION_ID, BEG_DTM) U ORGANIZATION_HIST_UK3 (DMIS_ID, APC, BEG_DTM) U ORGANIZATION_HIST_UK4 (UIC, CASE WHEN "UIC" IS NOT NULL THEN "BEG_DTM" END)	

## 2 Organization Manager Design



### Import / Export Buttons

The availability of these buttons in the user interface is determined by WMSNi's role-based security. Users that do not have the requisite permissions will not see them.

Permission is granted by adding records to the table WMSNOLTPROLE. The records would have a CATEGORY value of USER\_INTERFACE\_ELEMENT. One role would have the name OrganizationManager.Import and the code value UIORGIMP. The other would have the name OrganizationManager.Export and the code value UIORGEXP.

These buttons will likely be available to just the support team.

### Organization Editor Specifications

An editor for WMSNi organizations is valid if it fulfills the following requirements.

1. The editor must provide a way to create a new organization and subunits.
2. It must support hierarchical editing of infrastructure.
3. The editor must limit the types of the organization to RMC, WARD, MTF, BRANCH, MACOM, and SECT.
4. The editor must support the generation of a GUID for the organization identifier.
5. The editor must support editing the abbreviation, name, organization type, DMIS ID, MEPRS, APC, and unit type.
6. The unit types that can be assigned to an organization unit are limited to Labor and Delivery (LDP), Intensive Care (ICU), Medical/Surgical (M/S), Neonatal Intensive Care (NIC), Labor and Delivery (LAD), Medical/Surgical for Infectious Disease (MSI), and Intensive Care Unit for Infectious Disease (ICI).

### Organization Import Business rules

Organizations cannot be removed under certain conditions:

- i) The new model removes an organization (e.g., a sub organization) that has personnel associated with it.
- ii) The new model would remove an organization unit for which there are patient location records.

Additionally an organization (e.g., a Med/Surg IDUT) that has been authored or edited in Organization Editor can only be imported per the compatibility matrix rules shown below.

	Agency / Branch	Major Command	Region	MTF	Section
Major Command	✓				
Region		✓			
MTF			✓		
Section				✓	
Ward					✓

An MTF can be added to a Region but not to a Major Command. A ward can be added to a section or directly to the an MTF.

## 3 Patient Management Data Model

### 3.1 Description

WMSNi requires the ability to identify patients who require treatment specific to infectious disease. To meet this requirement, we are (1) adding Infectious Disease Service Types to the Patient Service Type field, and (2) adding an Infectious Disease Status field.

Infectious Disease Service type:

- a. Infectious Disease-ICU
- b. Infectious Disease-M/S

Infectious Disease Status:

- a. Quarantined - Due to Contact
- b. Isolation - With Symptoms
- c. Tested Positive - Quarantined
- d. Tested Positive - Discharged
- e. Recovered - Hospitalized
- f. Recovered - Discharged
- g. Death - During Hospitalization

The above will be added to the List of Values table (`wmsnoltp.lov`) using an INSERT statement based on the following table to populate the drop-down list.

LOV_ID	List	Value	Name	Description	Sort Order
#	Infectious Disease	COV1	Quarantined - Due to Contact	Quarantined - Due to Contact: patient had contact with known transmittable infectious disease	10



#	Infectious Disease	COV2	Isolation - With Symptoms	Isolation - With Symptoms: patient displaying symptoms of infectious disease	20
#	Infectious Disease	COV3	Tested Positive - Quarantined	Tested Positive - Quarantined: Patient quarantined based on positive test for infectious disease	30
#	Infectious Disease	COV4	Tested Positive - Discharged	Tested Positive - Discharged: patient discharged with positive test and self isolation instructions	40
#	Infectious Disease	COV5	Recovered - Hospitalized	Recovered - Hospitalized: patient recovered from known infectious disease as evidenced by negative test protocol while hospitalized	50
#	Infectious Disease	COV6	Recovered - Discharged	Recovered - Discharged: Infectious Disease patient recovered and discharged	60
#	Infectious Disease	COV7	Death - During Hospitalization	Death - During Hospitalization: patient with Infectious disease diagnosis died while hospitalized due to disease complications	70

New Unit Types need to be inserted into the Unit Type table ([wmsnoltp.unit\\_type](#)).  
There will be one Infectious Disease Unit Type using the Intensive Care Unit (ICU) staffing model and one using the Medical Surgical (M/S) staffing model.

Name	Code	Category	Indirect Care Multiplier	Patient Baseline Points	Default Points	Workload type	Description	Sort Order
Infectious Disease-ICU	IDC	GENERAL	1.694	0	22	ASSESSED	Infectious Disease Unit Type using Intensive Care Unit staffing model	100
Infectious Disease-M/S	IDM	GENERAL	1.658	0	22	ASSESSED	Infectious Disease Unit Type using Medical Surgical staffing model	101

### 3.1.1 Issues

WHSNOLTPPATIENT	
P	PATIENT_ID NUMBER (30)
P	BEG_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	AUD_BEG_DTM NUMBER (30)
P	AUD_END_DTM NUMBER (30)
U	REGISTRAR_NUMBER VARCHAR2 (40 BYTE)
U	MTF_ORGANIZATION_ID NUMBER (30)
P	UNIT_TYP_ID NUMBER (30)
P	ADMISSION_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	PATIENT_NAME VARCHAR2 (50 BYTE)
P	PATIENT_SEX VARCHAR2 (1 BYTE)
P	DISCHARGE_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	PPF_STATUS VARCHAR2 (3 BYTE)
P	PAY_GRADE VARCHAR2 (4 BYTE)
P	PATIENT_AGE VARCHAR2 (4 BYTE)
P	PATIENT_DOCTOR VARCHAR2 (6 BYTE)
P	ADMISSION_COMMENTS VARCHAR2 (66 BYTE)
P	CASUALTY_STATUS VARCHAR2 (3 BYTE)
P	COMMAND_INTEREST VARCHAR2 (4 BYTE)
P	ADMIT_DIAGNOSIS_TEXT VARCHAR2 (50 BYTE)
P	SOURCE_OF_ADMISSION VARCHAR2 (3 BYTE)
P	ABSENT_STATUS VARCHAR2 (2 BYTE)
P	REMARK VARCHAR2 (4000 BYTE)
P	POP_CONTROL VARCHAR2 (1 BYTE)
P	PATIENT_DATE_OF_BIRTH DATE
PATIENT_PK (PATIENT_ID)	
PATIENT_UK1 (REGISTRAR_NUMBER, MTF_ORGANIZATION_ID)	
PATIENT_PK1 (AUD_BEG_DTM)	
PATIENT_PK2 (UNIT_TYP_ID)	
PATIENT_PK3 (MTF_ORGANIZATION_ID)	
PATIENT_UK2 (UNIT_TYP_ID)	
PATIENT_UK3 (MTF_ORGANIZATION_ID)	
PATIENT_UK4 (PATIENT_ID)	
PATIENT_UK5 (PATIENT_ID)	
PATIENT_UK6 (PATIENT_ID)	
PATIENT_UK7 (PATIENT_ID)	
PATIENT_UK8 (PATIENT_ID)	
PATIENT_UK9 (PATIENT_ID)	
PATIENT_UK10 (PATIENT_ID)	
PATIENT_UK11 (PATIENT_ID)	
PATIENT_UK12 (PATIENT_ID)	
PATIENT_UK13 (PATIENT_ID)	
PATIENT_UK14 (PATIENT_ID)	
PATIENT_UK15 (PATIENT_ID)	
PATIENT_UK16 (PATIENT_ID)	
PATIENT_UK17 (PATIENT_ID)	
PATIENT_UK18 (PATIENT_ID)	
PATIENT_UK19 (PATIENT_ID)	
PATIENT_UK20 (PATIENT_ID)	
PATIENT_UK21 (PATIENT_ID)	
PATIENT_UK22 (PATIENT_ID)	
PATIENT_UK23 (PATIENT_ID)	
PATIENT_UK24 (PATIENT_ID)	
PATIENT_UK25 (PATIENT_ID)	
PATIENT_UK26 (PATIENT_ID)	
PATIENT_UK27 (PATIENT_ID)	
PATIENT_UK28 (PATIENT_ID)	
PATIENT_UK29 (PATIENT_ID)	
PATIENT_UK30 (PATIENT_ID)	
PATIENT_UK31 (PATIENT_ID)	
PATIENT_UK32 (PATIENT_ID)	
PATIENT_UK33 (PATIENT_ID)	
PATIENT_UK34 (PATIENT_ID)	
PATIENT_UK35 (PATIENT_ID)	
PATIENT_UK36 (PATIENT_ID)	
PATIENT_UK37 (PATIENT_ID)	
PATIENT_UK38 (PATIENT_ID)	
PATIENT_UK39 (PATIENT_ID)	
PATIENT_UK40 (PATIENT_ID)	
PATIENT_UK41 (PATIENT_ID)	
PATIENT_UK42 (PATIENT_ID)	
PATIENT_UK43 (PATIENT_ID)	
PATIENT_UK44 (PATIENT_ID)	
PATIENT_UK45 (PATIENT_ID)	
PATIENT_UK46 (PATIENT_ID)	
PATIENT_UK47 (PATIENT_ID)	
PATIENT_UK48 (PATIENT_ID)	
PATIENT_UK49 (PATIENT_ID)	
PATIENT_UK50 (PATIENT_ID)	
PATIENT_UK51 (PATIENT_ID)	
PATIENT_UK52 (PATIENT_ID)	
PATIENT_UK53 (PATIENT_ID)	
PATIENT_UK54 (PATIENT_ID)	
PATIENT_UK55 (PATIENT_ID)	
PATIENT_UK56 (PATIENT_ID)	
PATIENT_UK57 (PATIENT_ID)	
PATIENT_UK58 (PATIENT_ID)	
PATIENT_UK59 (PATIENT_ID)	
PATIENT_UK60 (PATIENT_ID)	
PATIENT_UK61 (PATIENT_ID)	
PATIENT_UK62 (PATIENT_ID)	
PATIENT_UK63 (PATIENT_ID)	
PATIENT_UK64 (PATIENT_ID)	
PATIENT_UK65 (PATIENT_ID)	
PATIENT_UK66 (PATIENT_ID)	
PATIENT_UK67 (PATIENT_ID)	
PATIENT_UK68 (PATIENT_ID)	
PATIENT_UK69 (PATIENT_ID)	
PATIENT_UK70 (PATIENT_ID)	
PATIENT_UK71 (PATIENT_ID)	
PATIENT_UK72 (PATIENT_ID)	
PATIENT_UK73 (PATIENT_ID)	
PATIENT_UK74 (PATIENT_ID)	
PATIENT_UK75 (PATIENT_ID)	
PATIENT_UK76 (PATIENT_ID)	
PATIENT_UK77 (PATIENT_ID)	
PATIENT_UK78 (PATIENT_ID)	
PATIENT_UK79 (PATIENT_ID)	
PATIENT_UK80 (PATIENT_ID)	
PATIENT_UK81 (PATIENT_ID)	
PATIENT_UK82 (PATIENT_ID)	
PATIENT_UK83 (PATIENT_ID)	
PATIENT_UK84 (PATIENT_ID)	
PATIENT_UK85 (PATIENT_ID)	
PATIENT_UK86 (PATIENT_ID)	
PATIENT_UK87 (PATIENT_ID)	
PATIENT_UK88 (PATIENT_ID)	
PATIENT_UK89 (PATIENT_ID)	
PATIENT_UK90 (PATIENT_ID)	
PATIENT_UK91 (PATIENT_ID)	
PATIENT_UK92 (PATIENT_ID)	
PATIENT_UK93 (PATIENT_ID)	
PATIENT_UK94 (PATIENT_ID)	
PATIENT_UK95 (PATIENT_ID)	
PATIENT_UK96 (PATIENT_ID)	
PATIENT_UK97 (PATIENT_ID)	
PATIENT_UK98 (PATIENT_ID)	
PATIENT_UK99 (PATIENT_ID)	
PATIENT_UK100 (PATIENT_ID)	

WHSNOLTPPATIENT_ALL	
PATIENT_ID	NUMBER (30)
REGISTRAR_NUMBER	VARCHAR2 (40 BYTE)
MTF_ORGANIZATION_ID	NUMBER (30)
UNIT_TYP_ID	NUMBER (30)
ADMISSION_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
PATIENT_NAME	VARCHAR2 (50 BYTE)
PATIENT_SEX	VARCHAR2 (1 BYTE)
DISCHARGE_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
PPF_STATUS	VARCHAR2 (3 BYTE)
PAY_GRADE	VARCHAR2 (4 BYTE)
PATIENT_AGE	VARCHAR2 (4 BYTE)
PATIENT_DOCTOR	VARCHAR2 (6 BYTE)
ADMISSION_COMMENTS	VARCHAR2 (66 BYTE)
CASUALTY_STATUS	VARCHAR2 (3 BYTE)
COMMAND_INTEREST	VARCHAR2 (4 BYTE)
ADMIT_DIAGNOSIS_TEXT	VARCHAR2 (50 BYTE)
SOURCE_OF_ADMISSION	VARCHAR2 (3 BYTE)
ABSENT_STATUS	VARCHAR2 (2 BYTE)
REMARK	VARCHAR2 (4000 BYTE)
PATIENT_DATE_OF_BIRTH	DATE
BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
LAST_ACTIVE	VARCHAR2 (1 BYTE)
END_DTM	TIMESTAMP WITH TIME ZONE
WHSNOLTPPATIENT_HIST	
WHSNOLTPPATIENT_HIST	

WHSNOLTPPATIENT_HIST	
P	PATIENT_ID NUMBER (30)
P	BEG_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	END_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	AUD_BEG_DTM NUMBER (30)
P	AUD_END_DTM NUMBER (30)
P	AUD_BEG_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	AUD_END_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
U	REGISTRAR_NUMBER VARCHAR2 (40 BYTE)
U	MTF_ORGANIZATION_ID NUMBER (30)
U	UNIT_TYP_ID NUMBER (30)
P	ADMISSION_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	PATIENT_NAME VARCHAR2 (50 BYTE)
P	PATIENT_SEX VARCHAR2 (1 BYTE)
P	DISCHARGE_DTM TIMESTAMP (9) WITH LOCAL TIME ZONE
P	PPF_STATUS VARCHAR2 (3 BYTE)
P	PAY_GRADE VARCHAR2 (4 BYTE)
P	PATIENT_AGE VARCHAR2 (4 BYTE)
P	PATIENT_DOCTOR VARCHAR2 (6 BYTE)
P	ADMISSION_COMMENTS VARCHAR2 (66 BYTE)
P	CASUALTY_STATUS VARCHAR2 (3 BYTE)
P	COMMAND_INTEREST VARCHAR2 (4 BYTE)
P	ADMIT_DIAGNOSIS_TEXT VARCHAR2 (50 BYTE)
P	SOURCE_OF_ADMISSION VARCHAR2 (3 BYTE)
P	ABSENT_STATUS VARCHAR2 (2 BYTE)
P	REMARK VARCHAR2 (4000 BYTE)
P	LAST_ACTIVE VARCHAR2 (1 BYTE)
P	PATIENT_DATE_OF_BIRTH DATE
PATIENT_HIST_PK (PATIENT_ID, BEG_DTM)	
PATIENT_HIST_UK1 (REGISTRAR_NUMBER, MTF_ORGANIZATION_ID, BEG_DTM)	
PATIENT_HIST_UK2 (UNIT_TYP_ID, BEG_DTM)	
PATIENT_HIST_UK3 (BEG_DTM)	
PATIENT_HIST_UK4 (END_DTM)	
PATIENT_HIST_UK5 (PATIENT_NAME, MTF_ORGANIZATION_ID, BEG_DTM)	
PATIENT_HIST_UK6 (MTF_ORGANIZATION_ID, ADMISSION_DTM, BEG_DTM)	
PATIENT_HIST_UK7 (REGISTRAR_NUMBER, MTF_ORGANIZATION_ID, LAST_ACTIVE)	
PATIENT_HIST_UK8 (PATIENT_ID)	
PATIENT_HIST_UK9 (PATIENT_ID)	
PATIENT_HIST_UK10 (REGISTRAR_NUMBER, MTF_ORGANIZATION_ID, BEG_DTM)	

WHSNOLTPPATIENTS_ALL_HIST_VIEW	
PATIENT_ID	NUMBER (30)
REGISTRAR_NUMBER	VARCHAR2 (40 BYTE)
MTF_ORGANIZATION_ID	NUMBER (30)
UNIT_TYP_ID	NUMBER (30)
ADMISSION_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
PATIENT_NAME	VARCHAR2 (50 BYTE)
PATIENT_SEX	VARCHAR2 (1 BYTE)
DISCHARGE_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
PPF_STATUS	VARCHAR2 (3 BYTE)
PAY_GRADE	VARCHAR2 (4 BYTE)
PATIENT_AGE	VARCHAR2 (4 BYTE)
PATIENT_DATE_OF_BIRTH	DATE
PATIENT_DOCTOR	VARCHAR2 (6 BYTE)
ADMISSION_COMMENTS	VARCHAR2 (66 BYTE)
CASUALTY_STATUS	VARCHAR2 (3 BYTE)
COMMAND_INTEREST	VARCHAR2 (4 BYTE)
ADMIT_DIAGNOSIS_TEXT	VARCHAR2 (50 BYTE)
SOURCE_OF_ADMISSION	VARCHAR2 (3 BYTE)
ABSENT_STATUS	VARCHAR2 (2 BYTE)
REMARK	VARCHAR2 (4000 BYTE)
BEG_DTM	TIMESTAMP (9) WITH LOCAL TIME ZONE
LAST_ACTIVE	VARCHAR2 (1 BYTE)
END_DTM	TIMESTAMP (9) WITH TIME ZONE
UMARKER	NUMBER
RID	ROWID
PATIENT_ALL_HV_UK1 (UNIT_TYP_ID)	
PATIENT_ALL_HV_UK2 (MTF_ORGANIZATION_ID)	
PATIENT_ALL_HV_UK3 (BEG_DTM)	
PATIENT_ALL_HV_UK4 (PATIENT_NAME, MTF_ORGANIZATION_ID)	
PATIENT_ALL_HV_UK5 (MTF_ORGANIZATION_ID, ADMISSION_DTM)	
PATIENT_ALL_HV_UK6 (PATIENT_ID)	
PATIENT_ALL_HV_UK7 (REGISTRAR_NUMBER, MTF_ORGANIZATION_ID)	

### 3.1.2 Results

```

-- PATIENT_ID
-- BQO_DTH
-- AUD_BRO_EMP
-- AUD_BRO_DTH
-- REGISTRATION_NUMBER
-- MTT_ORGANIZATION_ID
-- UMTF_TYPR_ID
-- DISCHARGE_DTH
-- PATIENT_NAME
-- PATIENT_SEX
-- DISCHARGE_DTH
-- TRF_STATUS
-- HAI_RACE
-- PATIENT_AGE
-- PATIENT_DOCTOR
-- ADMISSION_COMMENTS
-- CASUALTY_STATUS
-- COMMAND_INTEREST
-- COHORT_DIAGNOSIS_TEXT
-- SOURCE_OF_ADMISSION
-- ADMISSION_STATUS
-- RENAME
-- POP_CONTROL
-- PATIENT_DATE_OF_BIRTH
-- INFECTION_DISEASE_STATUS
-- NUMBER(10)
-- TIMESTAMP (9) WITH LOCAL TIME ZONE
-- NUMBER(10)
-- TIMESTAMP (9) WITH LOCAL TIME ZONE
-- VARCHAR2 (40 BYTES)
-- NUMBER
-- NUMBER(10)
-- TIMESTAMP (9) WITH LOCAL TIME ZONE
-- VARCHAR2 (30 BYTES)
-- VARCHAR2 (1 BYTES)
-- TIMESTAMP (9) WITH LOCAL TIME ZONE
-- VARCHAR2 (3 BYTES)
-- VARCHAR2 (4 BYTES)
-- VARCHAR2 (8 BYTES)
-- VARCHAR2 (30 BYTES)
-- VARCHAR2 (3 BYTES)
-- VARCHAR2 (3 BYTES)
-- VARCHAR2 (4 BYTES)
-- VARCHAR2 (25 BYTES)
-- VARCHAR2 (30 BYTES)
-- VARCHAR2 (2 BYTES)
-- VARCHAR2 (6000 BYTES)
-- VARCHAR2 (3 BYTES)
-- DATE
-- VARCHAR2 (3 BYTES)
-- PATIENT_PK (PATIENT_ID)
-- PATIENT_UK1 (REGISTRATION_NUMBER, MTT_ORGANIZATION_ID)
-- PATIENT_FK1 (AUD_BRO_EMP)
-- PATIENT_FK3 (UMTF_TYPR_ID)
-- PATIENT_FK2 (UMTF_ORGANIZATION_ID)
-- PATIENT_UK3 (UMTF_TYPR_ID)
-- PATIENT_UK2 (UMTF_ORGANIZATION_ID)
-- PATIENT_FK1 (PATIENT_NAME, MTT_ORGANIZATION_ID)
-- PATIENT_UK1 (UMTF_ORGANIZATION_ID, ADMISSION_DTH)
-- PATIENT_FK2 (PATIENT_ID)
-- PATIENT_UK1 (REGISTRATION_NUMBER, MTT_ORGANIZATION_ID)

```

```

WHS000PATIENT_HIST
+-----+-----+
| PATIENT_ID | NUMBER (10) |
| BKG_DTM | TIME_STAMP (1) WITH LOCAL TIME ZONE |
| END_DTM | TIME_STAMP (1) WITH LOCAL TIME ZONE |
| AUD_BEG_DTM | NUMBER (35) |
| AUD_END_DTM | NUMBER (35) |
| AUD_BEG_DTH | TIME_STAMP (1) WITH LOCAL TIME ZONE |
| AUD_END_DTH | TIME_STAMP (1) WITH LOCAL TIME ZONE |
| NESTING_NUM | VARCHAR2 (50 BYTE) |
| MTF_ORG_ORGZATION_ID | NUMBER (35) |
| LAST_TYPE_ID | NUMBER (35) |
| ADDRESS_ORG_ID | TIME_STAMP (1) WITH LOCAL TIME ZONE |
| PATIENT_NAME | VARCHAR2 (50 BYTE) |
| PATIENT_SEX | VARCHAR2 (1 BYTE) |
| DISCHARGE_DTH | TIME_STAMP (1) WITH LOCAL TIME ZONE |
| PMP_STATUS | VARCHAR2 (3 BYTE) |
| PAY_GRADE | VARCHAR2 (18 BYTE) |
| PATIENT_AGE | VARCHAR2 (18 BYTE) |
| PATIENT_DOCTOR | VARCHAR2 (16 BYTE) |
| ADDRESS_ORG_COMMENTS | VARCHAR2 (66 BYTE) |
| CASUALTY_STATUS | VARCHAR2 (3 BYTE) |
| COMMAND_INTEREST | VARCHAR2 (18 BYTE) |
| ADMIT_DIAGNOSIS_TEXT | VARCHAR2 (50 BYTE) |
| SOURCE_OF_ADMISSION | VARCHAR2 (35 BYTE) |
| ADOPT_STATUS | VARCHAR2 (2 BYTE) |
| REMARK | VARCHAR2 (HUGE BLOB) |
| LAST_ACTIVE | VARCHAR2 (1 BYTE) |
| PATIENT_DATE_OF_BIRTH | DATE |
| INFECTIOUS_DISEASE_STATUS | VARCHAR2 (5) |
+-----+-----+
PATIENT_HIST_PK PATIENT_ID, BKG_DTM
PATIENT_HIST_LK1 INFECTIOUS_NUMBER, MTF_ORG_ORGZATION_ID, BKG_DTH
PATIENT_HIST_PK2 PATIENT_ID, BKG_DTM
PATIENT_HIST_LK2 PATIENT_NAME, MTF_ORG_ORGZATION_ID, BKG_DTH
PATIENT_HIST_LK3 MTF_ORG_ORGZATION_ID, ADDRESS_ORG_ID, BKG_DTH
PATIENT_HIST_LK4 PATIENT_NAME, MTF_ORG_ORGZATION_ID, LAST_ACTIVE
PATIENT_HIST_PK3 PATIENT_ID, BKG_DTH
PATIENT_HIST_LK3 INFECTIOUS_NUMBER, MTF_ORG_ORGZATION_ID, BKG_DTH

```

```

--MIMIC3 CPT PATIENT ALL
patient_id
refseq_number
ref_seq_colon_id
unit_type_id
admission_time
patient_name
pasture_id
discharge_time
ring_status
ring_grade
patient_age
patient_doctor
admission_comments
causality_status
cleveland_interest
admit_diagnosis_text
date_of_admission
admit_status
remark
pasture_date_of_birth
leg_id
infectious_disease_status

MIMIC3 CPT PATIENT
MIMIC3 CPT PATIENT_HIST

```

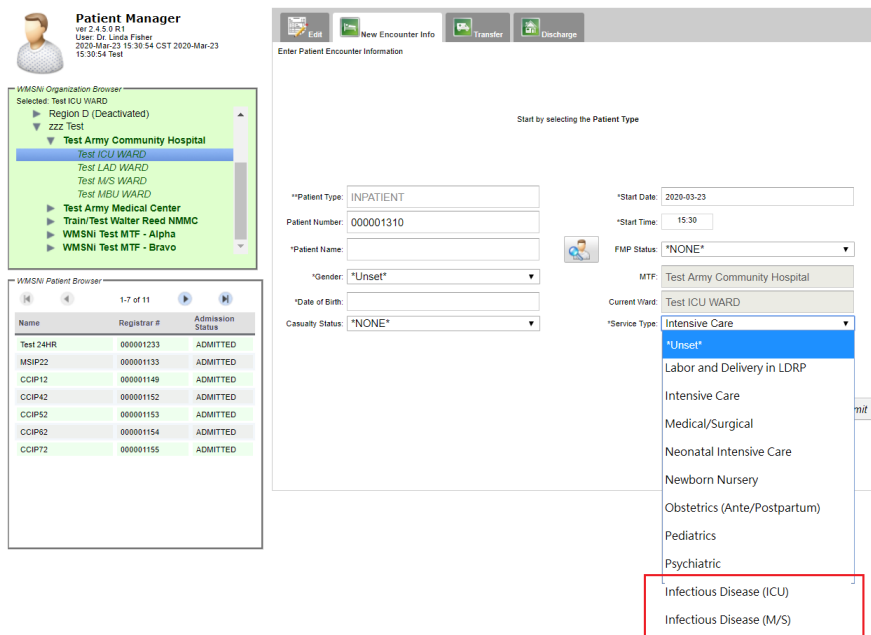
UPPERMULTIPATIENT_ALL_MAT_VIEW	
PATIENT_ID	NUMBER (30)
REGISTRATION_NUMBER	VARCHAR2 (40 BYTES)
MTF_ORGANIZATION_ID	NUMBER (30)
UNIT_TYPE_ID	NUMBER (30)
ADMISSION_DTTH	TIMESTAMP (3) WITH LOCAL TIME ZONE
PATIENT_NAME	VARCHAR2 (50 BYTES)
PATIENT_SEX	VARCHAR2 (1 BYTE)
DISCHARGE_DTTH	TIMESTAMP (3) WITH LOCAL TIME ZONE
POP_STATUS	VARCHAR2 (8 BYTES)
POP_REASON	VARCHAR2 (8 BYTES)
PATIENT_AGE	VARCHAR2 (4 BYTES)
PATIENT_DATE_OF_BIRTH	DATE
PATIENT_DOCTOR	VARCHAR2 (6 BYTES)
ADMISSION_COMMENTS	VARCHAR2 (64 BYTES)
CURRENT_STATUS	VARCHAR2 (8 BYTES)
CARDIAC_INTEREST	VARCHAR2 (4 BYTES)
ADMIT_DISCHARGE_DTTH	VARCHAR2 (50 BYTES)
SOURCE_OF_ADMISSION	VARCHAR2 (3 BYTES)
ABSENT_STATUS	VARCHAR2 (2 BYTES)
INFECTIONS_DISEASE_STATUS	VARCHAR2 (2 BYTES)
REMARK	VARCHAR2 (400 BYTES)
REG_DTTH	TIMESTAMP (3) WITH LOCAL TIME ZONE
LAST_ACTIVE	VARCHAR2 (1 BYTES)
END_DTTH	TIMESTAMP (3) WITH TIME ZONE
UNMARKER	NUMBER
RID	ROWID
PATIENT_ALL_MV_PK1 (UNIT_TYPE_ID)	
PATIENT_ALL_MV_PK2 (MTF_ORGANIZATION_ID)	
PATIENT_ALL_MV_PK3 (REG_DTTH)	
PATIENT_ALL_MV_PK4 (PATIENT_NAME, MTF_ORGANIZATION_ID)	
PATIENT_ALL_MV_PK5 (MTF_ORGANIZATION_ID, ADMISSION_DTTH)	
PATIENT_ALL_MV_PK6 (PATIENT_ID)	
PATIENT_ALL_MV_UK1 (REGISTRATION_NUMBER, MTF_ORGANIZATION_ID)	

## 4 Patient Manager Design

## 4.1 Adding Infectious Disease Service Type

A Service Type is an attribute of a patient to identify the type of care the patient receives. Within the WMSNi data model, a service type is equivalent to a unit type applied to a patient record. The new unit types for organizations will be able to be applied to patients so that they can be identified as “Infectious Disease” patients even if they are transferred outside an Infectious Disease unit.

When a patient is admitted, the Service Type: Infectious Disease (ICU) or Infectious Disease (Med/Surg) must be selected from the drop down and this patient will be tracked as an Infectious Disease patient. The new Service Types are based on a pre-existing Staff mix for Med/Surg and ICU. This assignment requires no new functionality and is folded into the current Patient Manager interface elements, seen below.



**Patient Manager**  
ver 2.4.5.0 R1  
User: Dr. Linda Fisher  
2020-Mar-23 15:30:54 CST 2020-Mar-23 15:30:54 Test

WMSNi Organization Browser  
Selected: Test ICU WARD  
Region D (Deactivated)  
zzz Test  
Test Army Community Hospital  
Test ICU WARD  
Test LAD WARD  
Test M/S WARD  
Test MBU WARD  
Test Army Medical Center  
Train/Test Walter Reed NMMC  
WMSNi Test MTF - Alpha  
WMSNi Test MTF - Bravo

WMSNi Patient Browser  
1-7 of 11

Name	Registrar #	Admission Status
Test 24HR	000001233	ADMITTED
MSIP22	000001133	ADMITTED
CCIP12	000001149	ADMITTED
CCIP42	000001152	ADMITTED
CCIP52	000001153	ADMITTED
CCIP82	000001154	ADMITTED
CCIP72	000001155	ADMITTED

Enter Patient Encounter Information

Start by selecting the Patient Type

\*\*Patient Type: INPATIENT

\*Start Date: 2020-03-23

\*Start Time: 15:30

\*Patient Number: 000001310

\*Patient Name:

\*Gender: "Unset"

\*Date of Birth:

Casualty Status: "NONE"

FMP Status: "NONE"

MTF: Test Army Community Hospital

Current Ward: Test ICU WARD

\*Service Type: Intensive Care

Unset  
Labor and Delivery in LDRP  
Intensive Care  
Medical/Surgical  
Neonatal Intensive Care  
Newborn Nursery  
Obstetrics (Ante/Postpartum)  
Pediatrics  
Psychiatric  
Infectious Disease (ICU)  
Infectious Disease (M/S)

#### 4.1.1 Development Tasks

The development effort follows the existing Unit Type model to create new Infectious Disease Unit Types and to fold them into the existing structure. Specifically records will be added to the Unit Type table. Both the ward types and service types (See Appendix for a list of unit types/service types) are based on that data and will be updated immediately. The staffing model of the new Unit Type will be based on a previously established skill mix. A current skill mix will be utilized in order to shorten time to delivery of the new types. The screenshot above shows a mockup of how the new Service Types could appear in Patient Manager.

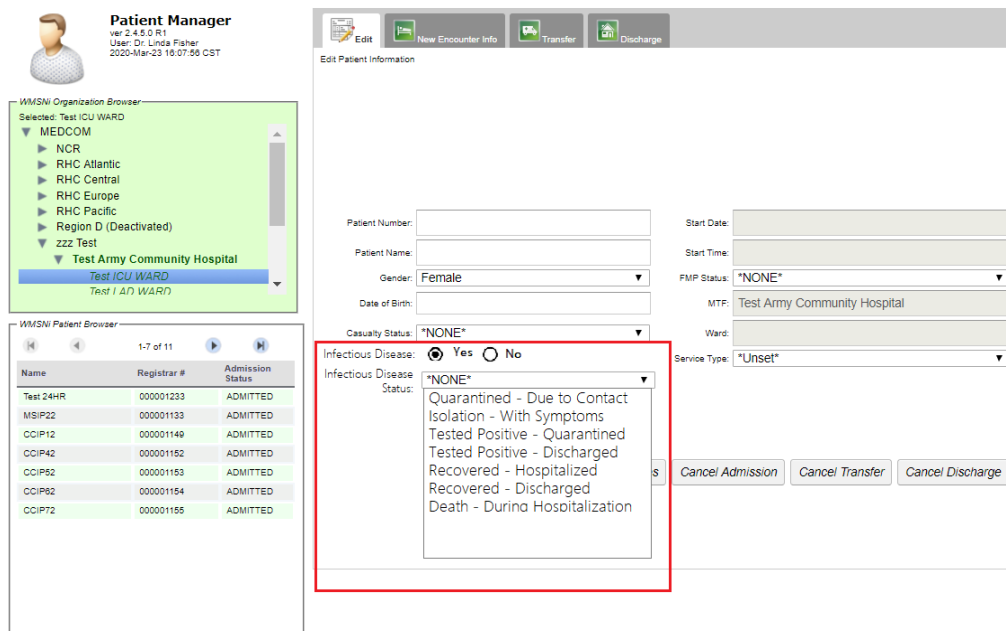
### 4.2 Adding Infectious Disease Status Patient Attribute for Tracking

WMSNi requires the ability to not only identify patients with Infectious Disease Service Types but also to track their Infectious Disease Status. To satisfy this requirement, a new patient attribute to track Infectious Disease Status is also being developed. This attribute requires a new data field on the patient record, seen in the previous data models. The Patient Manager user interface will require a new drop-down list for this attribute.

#### 4.2.1 Development Tasks

The purpose of this attribute is to track Infectious Disease case progression and outcomes. The proposed statuses can be modified to meet customer requirements. The current statuses are:

1. Quarantined - Due to Contact
2. Isolation - With Symptoms
3. Tested Positive - Quarantined
4. Tested Positive - Discharged
5. Recovered - Hospitalized
6. Recovered - Discharged
7. Death - During Hospitalization



**Patient Manager**  
ver 2.4.5.0 R1  
User: Dr. Linda Fisher  
2020-Mar-23 16:07:58 CST

WMSNi Organization Browser  
Selected: Test ICU WARD  
MEDCOM  
NCR  
RHC Atlantic  
RHC Central  
RHC Europe  
RHC Pacific  
Region D (Deactivated)  
ZZZ Test  
Test Army Community Hospital  
Test ICU WARD  
Test IAD WARD

WMSNi Patient Browser  
1-7 of 11

Name	Registrar #	Admission Status
Test 24HR	000001233	ADMITTED
MSIP22	000001133	ADMITTED
CCIP12	000001149	ADMITTED
CCIP42	000001152	ADMITTED
CCIP52	000001153	ADMITTED
CCIP62	000001154	ADMITTED
CCIP72	000001155	ADMITTED

Edit Patient Information

Patient Number:  Start Date:

Patient Name:  Start Time:

Gender: Female  FMP Status: \*NONE\*

Date of Birth:  MTF: Test Army Community Hospital

Casualty Status: \*NONE\*  Ward:

Infectious Disease: ☒ Yes ☐ No  Service Type: \*Unset\*

Infectious Disease Status:

Quarantined - Due to Contact Isolation - With Symptoms  
Tested Positive - Quarantined  
Tested Positive - Discharged  
Recovered - Hospitalized  
Recovered - Discharged  
Death - During Hospitalization

Cancel Admission Cancel Transfer Cancel Discharge

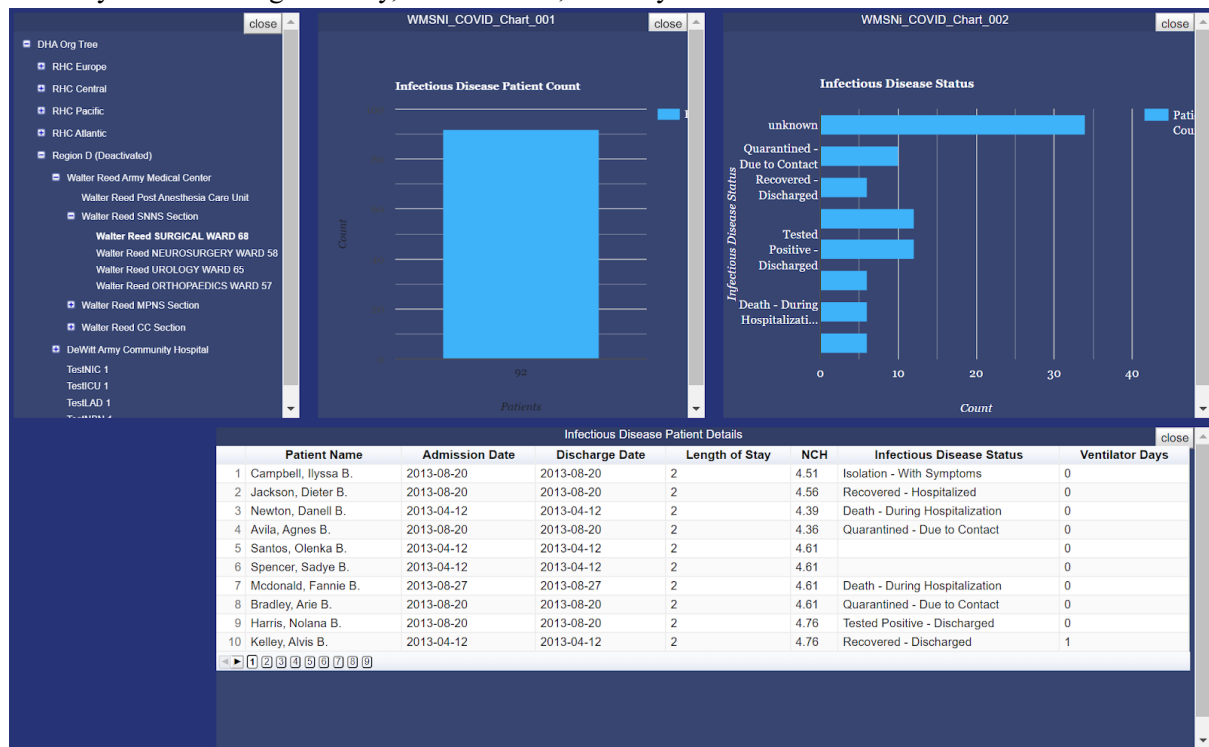
## 5 Business Intelligence Design

### 5.1 Description

In addition to all of the typical WMSNi measures, i.e. NCH Required, NCH Available, Length of Stay and Acuity we have created new IDUT data fields to track infectious disease patients and workload. The fields laid out above will identify patients as well as wards that are relevant to infectious disease. We will provide a unit (ward) view of patients that is tactical in nature, giving a current count and the breakout of statuses and details. For a more strategic view at any organizational level (ward, section, MTF, Region, MEDCOM) we want to provide tracking over time, with several strategic values to understand the demands and progress over time of the infectious disease patients.

## 5.1.1 Ward View

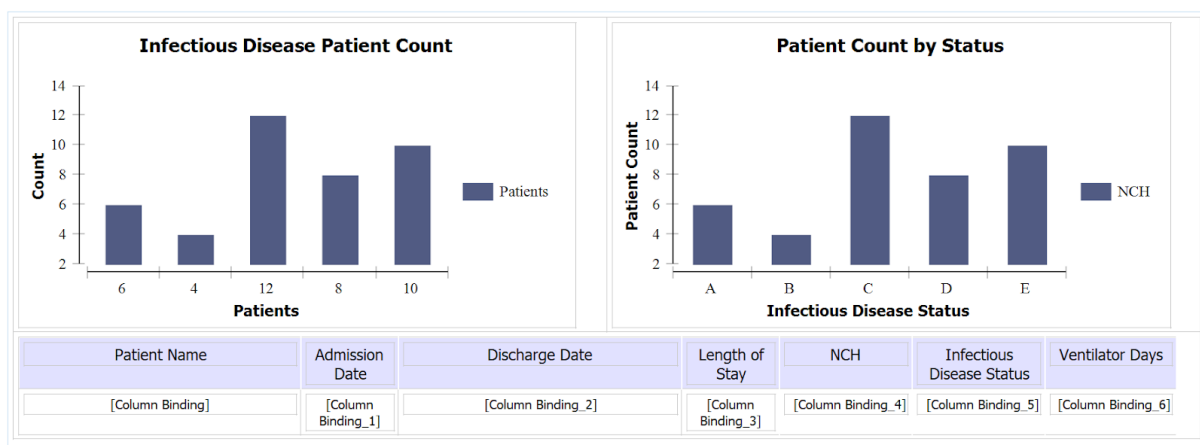
The Ward View of infectious disease patients (Infectious Disease Unit Status Report) is to give the User a tactical view of the current situation on a ward. This includes total count of infectious disease patients, a breakdown of the status of those patients and patient details. The detail table currently includes Length of stay, current NCH, and Days of Ventilation.



Prototype - subject to change when deployed

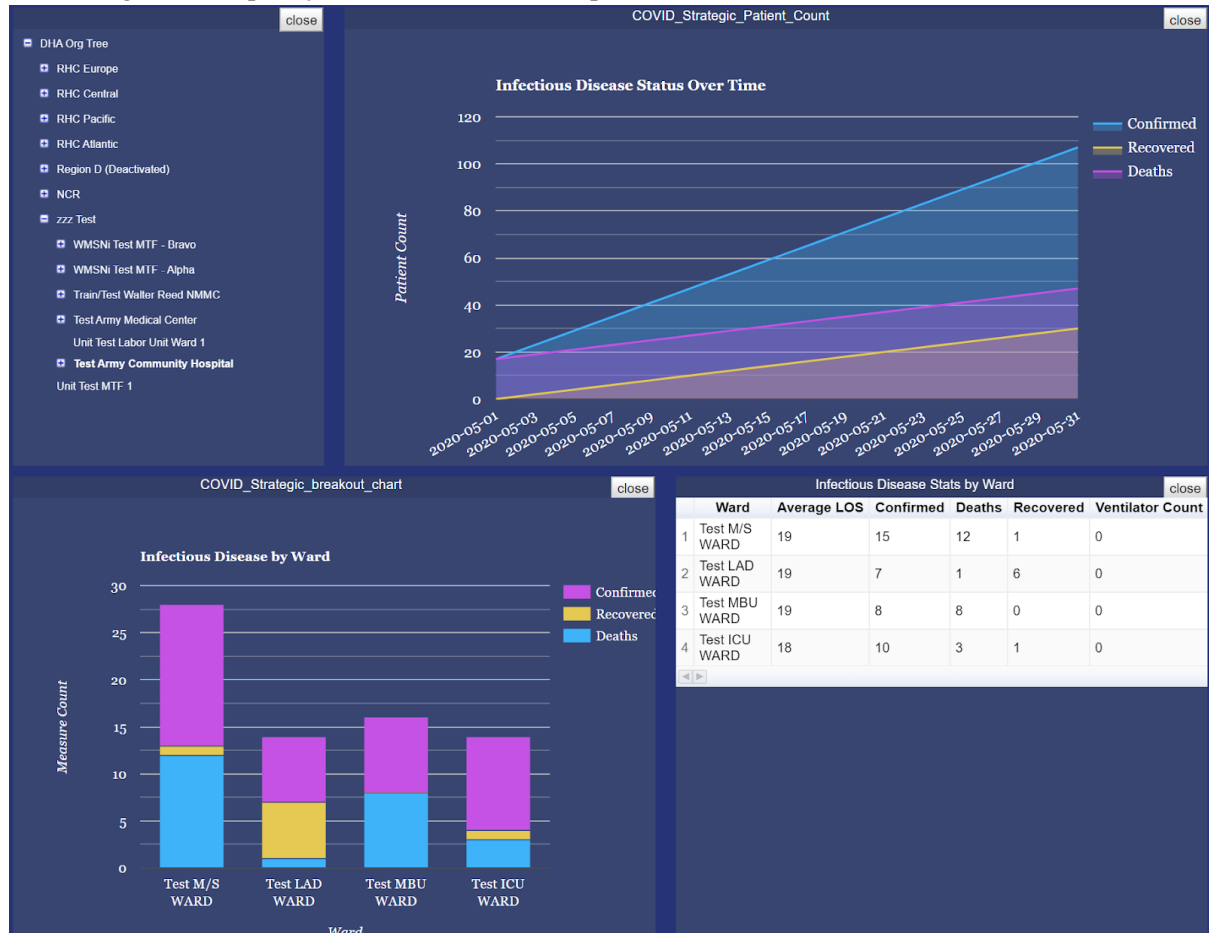
View in BrainJack:

<https://brainjack.works/BIFDashboardDesigner.html?dashboardID=6CD22490-FC3E-4986-8AB5-CA2675AD420E>



## 5.1.2 Strategic View

The strategic view of the Infectious Disease Patients (Infectious Disease Strategic Tracker) will include data from all child wards with Infectious Disease Unit Type of a selected organization. The report will include tracking of patient status over time (admitted, tested positive, recovered, deaths), avg length of stay, and number of ventilated days. If there are other strategic values needed for nursing leadership they can be added to this report.



View in BrainJack:

<https://brainjack.works/BIFDashboardDesigner.html?dashboardID=49000E5A-74E6-41D9-9922-CA736BFD3732>

Components are:

1. Patient Count Over Time. (SUM of all child wards of selected organization)
2. Current status by Ward Chart and Table

## 5 WMSN Business Intelligence OLAP and Reports Module Test Plan

### History of Changes

Date	Version	Change Description	Editor
19 October 2016	0.1	Created the initial version of this document.	Linda W. Fisher
	1.0	Final revisions	
6 May 2020	2.0	Update to include Infectious Disease Reporting	Linda W. Fisher



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## 1 Introduction

The test plan for the Business Intelligence Module is presented in the material that follows. Readers can expect that each section will clearly explain who should perform the testing, what is being tested, and desired test results. Most testing sections have been constructed so the user can determine if the module is functioning as intended. Some portions of the testing may be required to be performed by an application administrator or by a database administrator; these portions of the test plan if present will be denoted by the Database Administrator or Application Administrator Avatars as they require someone with WMSN<sub>i</sub> database administrative privileges. Examples are:

- Query Execution - running diagnostic queries,
- Result Assessment - assessing the effect of scripts upon WMSN<sub>i</sub> schema objects<sup>1</sup>

In the table that follows the required testing roles are presented and explained.

Role Name	Description	Avatar
Database Administrator	Understands the RDBMS technologies used to provide persistent storage for WMSN <sub>i</sub> . This person must be capable of running SQL scripts and evaluating results.	
Tester:	Name: _____ Date: _____	
Application Administrator	Capable in the operation of WMSN <sub>i</sub> modules and conversant in the details of WMSN <sub>i</sub> business intelligence. This person should be able to manage roles, manage patients, manage schedules, run reports, and ensure that the functions of the system are in agreement with information presented by business intelligence components (charts, traditional reports, and OLAP cubes).	
Tester:	Name: _____ Date: _____	

Test results must be reviewed by technical personnel and a customer capable of interpreting results. The vendor will be presented test results in an electronic format and given one business day to (1) explain problems encountered by the testers and (2) formulate a plan for the rapid remediation of problems. Neither the technical nor the business testers can make the final judgment on whether or not

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<sup>1</sup> Database administrators will know to look for objects that may be adversely affected by the installation or update of a PL/SQL object. E.g., the update of a package can cause triggers, other packages, and standalone procedures to become invalid.



...making data meaningful

to go forward with the system; the decision must be joint. The test plan and results will be delivered to DHA leadership.

## 2 Business Intelligence Module



### 2.1 Delivery Test Plan

#### 2.1.1 Prerequisites

Ensure that any prerequisites are listed: \_\_\_\_\_.

Delivery Assessment:

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#### 2.1.2 Installation Instructions

The vendor shall provide instructions for using installation scripts and executables for upgrading WMSNi to \_\_\_\_\_. Among the things that must be present in the installation instructions are the following

- ☐ An explanation of each solution included in the delivery.
- ☐ An enumeration of the files contained in the upgrade.
- ☐ Steps that when taken will apply install the solution.

Delivery Assessment:

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## 2.2 Business Intelligence Module Test Plan (Analytic Reports)



The Business Intelligence Module provides the user with the ability to retrieve information in the WMSN<sub>i</sub> System within minutes of being input. This section tests the system's ability to allow the user to build custom reports in three areas; Capacity Cube, Critical Indicator Cube, and the Patient Count Cube. Note\*\*\*Please save a screen shot of any errors received during report testing. Place in the document following the appropriate section.

### Functional Testing



Step	Description: BI (Analytic Reports) ***Run the same test for each of the three cubes.	
1	The user must login to the WMSN <sub>i</sub> user system using their CAC card.	
2	Once logged into the WMSN <sub>i</sub> system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>Analytical Reports</b> .	
3	Select one of the three cubes from the list: <b>Capacity Cube</b> , <b>Critical Indicator Cube</b> , or <b>Patient Count Cube</b> .	
4	Click on the Open OLAP Navigator Icon in the toolbar.	
5	Decide where, when, and what. (Select an organization(s), a time period, and a list of measures).	
6	Click on Organization.	
7	Unselect All Organizations and click on the small red + sign. Select desired organization(s).	
8	Click OK, it will appear nothing has changed. Click OK again and the table will reflect you choice.	
9	Click on the Open OLAP Navigator Icon in the toolbar.	
10	Select Time from the Data Element window. Click OK again and the table will reflect you choice.	
11	Move unwanted items to the Filters list and select the items to be displayed in the table. Ensure that Measures is located in the Columns or Rows to allow the selected items to show in the table. (Check to see if you can move items from columns to rows and to the filter category).	
12	Select the desired items from the Measures list. Click OK again and the table will reflect you choice.	
13	Export the Table to Excel.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended: <input type="checkbox"/> Capacity Cube <input type="checkbox"/> Critical Indicator Cube <input type="checkbox"/> Patient Count Cube	Select a series of data for each cube. The modules can be further tested by entering data, tracking the data, and comparing to the data in the cubes.

Delivery Assessment:

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## 2.3 Business Intelligence Module Test Plan (Strategic Reports)



This section tests the system's ability to allow the user to retrieve strategic reports.

### Functional Testing



Step	Description: BI (Strategic Reports) ***WMSN Section Monthly Report WMSN Summary Report by Facility Manpower Staffing Dashboard Inpatient Nursing Summary Report DCN Dashboard Export Report PBAM Report	
1	The user must login to the WMSN user system using their CAC card.	
2	Once logged into the WMSN system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>Strategic Reports</b> .	
3	Select desired report from the Strategic Reports list.	
4	When each Report opens select the MTF, Section, and/or Unit desired and select a date <u>if required</u> . Reports will open in a preselected format. If a date is not required the report will return the current day or most recent month(s) of data.	
5	Check each report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> WMSN Section Monthly Report (Date Required) <input type="checkbox"/> WMSN Summary Report by Facility (Date Required) <input type="checkbox"/> Manpower Staffing Dashboard <input type="checkbox"/> Inpatient Nursing Summary Report (Date Required) <input type="checkbox"/> DCN Dashboard Export Report <input type="checkbox"/> PBAM Report (Date Required) <input type="checkbox"/> Infectious Disease Strategic Tracker

Delivery Assessment:

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## 2.4 Business Intelligence Module Test Plan (Tactical Reports)



This section tests the system's ability to allow the user to retrieve tactical reports.

### Functional Testing



Step	Description: BI (Tactical Reports) *** Workload Dashboard 24 Hour Report Patient Acuity File Listing Ward Activity Report Casualty Status Report Unassessed Patient Report	
1	The user must login to the WMSNi user system using their CAC card.	
2	Once logged into the WMSNi system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>Tactical Reports</b> .	
3	Select desired report from the Tactical Reports list.	
4	When each Report opens select the MTF, Section, and/or Unit desired and select a date <u>if required</u> . Reports will open in a preselected format. If a date is not required the report will return the current day or most recent month(s) of data.	
5	Check each report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> Workload Dashboard <input type="checkbox"/> 24 Hour Report (Date Required) <input type="checkbox"/> Patient Acuity File Listing <input type="checkbox"/> Ward Activity Report <input type="checkbox"/> Casualty Status Report <input type="checkbox"/> Unassessed Patient Report <input type="checkbox"/> Infectious Disease Unit Status Report

Delivery Assessment:

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## 2.5 Business Intelligence Module Test Plan (IRR Reports)



This section tests the system's ability to allow the user to retrieve Inter-Rater Reliability (IRR) report



## Functional Testing

Step	Description: BI (IRR Reports) *** IRR Test Results Inter-Rater Reliability Dashboard IRR Command Status Report	
1	The user must login to the WMSNi user system using their CAC card.	
2	Once logged into the WMSNi system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>IRR Reports</b> .	
3	Select desired report from the IRR Reports list.	
4	When each Report opens select the MTF, Section, and/or Unit desired and select a date <u>if required</u> . Reports will open in a preselected format. If a date is not required the report will return the current day or most recent month(s) of data.	
5	Check each report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> IRR Test Results <input type="checkbox"/> Inter-Rater Reliability Dashboard <input type="checkbox"/> IRR Command Status Report

Delivery Assessment:

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## 2.6 Business Intelligence Module Test Plan (Classification Reports)



This section tests the system's ability to allow the user to retrieve classification reports.



## Functional Testing

Step	Description: BI (Classification Reports) *** Individual Patient Acuity Classification LAD Inpatient Classification Report	
1	The user must login to the WMSNi user system using their CAC card.	
2	Once logged into the WMSNi system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>Classification Reports</b> .	
3	Select desired report from the Classification Reports list.	
4	When each Report opens select the MTF, Section, and/or Unit and patient desired and select a date <u>if required</u> . Reports will open in a preselected format. If a date is not required the report will return the current day or most recent month(s) of data.	
5	Check each report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments

<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> Individual Patient Acuity Classification <input type="checkbox"/> LAD Inpatient Classification Report
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Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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## 2.7 Business Intelligence Module Test Plan (Schedule Reports)



This section tests the system's ability to allow the user to retrieve schedule reports.

### Functional Testing



Step	Description: BI (Schedule Reports) *** Single Day Schedule	
1	The user must login to the WMSN user system using their CAC card.	
2	Once logged into the WMSN system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>Schedule Reports</b> .	
3	Select Single Day Schedule report from the Schedule Reports list.	
4	When the Report opens select the MTF, Section, Unit desired and select a Date. Reports will open in a preselected format. Selecting a different date will provide staff for the newly entered date.	
5	Check the report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> Single Day Schedule (Date Required)

Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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## 2.8 Business Intelligence Module Test Plan (PAC Reports)



This section tests the system's ability to allow the user to retrieve Post-Anesthesia Care (PAC) reports.

### Functional Testing



Step	Description: BI (PAC Reports) *** PACS Daily Report
------	---



1	The user must login to the WMSN <sub>i</sub> user system using their CAC card.	
2	Once logged into the WMSN <sub>i</sub> system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>PAC Reports</b> .	
3	Select PACS Daily Report from the PAC Reports list.	
4	When the Report opens select the MTF, Section, Unit desired and select a Date. Reports will open in a preselected format. Selecting a different date will provide data for the newly entered date.	
5	Check the report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> PACS Daily Report (Date Required)

Delivery Assessment:

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## 2.9 Business Intelligence Module Test Plan (Other Reports)



This section tests the system's ability to allow the user to retrieve reports not contained in the other sections. Those reports are the Scheduling Time Exceptions and the Classification Export Tool.

### Functional Testing



Step	Description: BI (Other Reports) *** Scheduling Time Exceptions Classification Export Tool	
1	The user must login to the WMSN <sub>i</sub> user system using their CAC card.	
2	Once logged into the WMSN <sub>i</sub> system the user must navigate to the <b>Reports Tab</b> , submenu titled <b>Other Reports</b> .	
3	Select desired report from the Other Reports list.	
4	The Scheduling Time Exceptions report requires no additional information, it is the same each time. The Classification Export Tool requires selections from the following elements: Opening and Closing Dates, Employee, MEPRS Code, Patient, Patient Type, and Status. The report will return the data based on selected elements for the requested time period.	
5	Check each report to ensure that it provides the intended data and that the exportable functions are working.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	<input type="checkbox"/> Scheduling Time Exceptions <input type="checkbox"/> Classification Export Tool (Date Required)

Delivery Assessment:

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## 6 WMSNi Patient Manager Module

### History of Changes

Date	Version	Change Description	Editor
14 October 2016	0.1	Created the initial version of this document.	Linda W. Fisher
19 October 2016	2.0	Added LADS to document to Ensure Testing.	Linda W. Fisher
	3.0	Final revisions	
6 May 2020	4.0	Update to include Infectious Disease Unit Type	Linda W. Fisher

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## 1 Introduction

The test plan for the Patient Manager Module is presented in the material that follows. Readers can expect that each section will clearly explain who should perform the testing, what is being tested, and desired test results. Most testing sections have been constructed so the user can determine if the module is functioning as intended. Some portions of the testing may be required to be performed by an application administrator or by a database administrator; these portions of the test plan if present will be denoted by the Database Administrator or Application Administrator Avatars as they require someone with WMSN database administrative privileges. Examples are:

- Query Execution - running diagnostic queries,
- Result Assessment - assessing the effect of scripts upon WMSN schema objects<sup>2</sup>

In the table that follows the required testing roles are presented and explained.

Role Name	Description	Avatar
Database Administrator or	Understands the RDBMS technologies used to provide persistent storage for WMSN. This person must be capable of running SQL scripts and evaluating results.	
Tester:	Name: _____ Date: _____	
Application Administrator	Capable in the operation of WMSN modules and conversant in the details of WMSN business intelligence. This person should be able to manage roles, manage patients, manage schedules, run reports, and ensure that the functions of the system are in agreement with information presented by business intelligence components (charts, traditional reports, and OLAP cubes).	
Tester:	Name: _____ Date: _____	

Test results must be reviewed by technical personnel and a customer capable of interpreting results. The vendor will be presented test results in an electronic format and given one business day to

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<sup>2</sup> Database administrators will know to look for objects that may be adversely affected by the installation or update of a PL/SQL object. E.g., the update of a package can cause triggers, other packages, and standalone procedures to become invalid.

(1) explain problems encountered by the testers and (2) formulate a plan for the rapid remediation of problems. Neither the technical nor the business testers can make the final judgment on whether or not to go forward with the system; the decision must be joint. The test plan and results will be delivered to DHA leadership.

## 2 Patient Manager Module



### 2.1 Delivery Test Plan

#### 2.1.1 Prerequisites

Ensure that any prerequisites are listed: \_\_\_\_\_.

Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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#### 2.1.2 Installation Instructions

The vendor shall provide instructions for using installation scripts and executables for upgrading WMSNi to \_\_\_\_\_. Among the things that must be present in the installation instructions are the following

- ☐ An explanation of each solution included in the delivery.
- ☐ An enumeration of the files contained in the upgrade.
- ☐ Steps that when taken will apply install the solution.

Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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## 2.2 Patient Manager (Admit Outpatient) Module Test Plan

The Patient Manager Module provides the user with the ability to enter patients that are not entered automatically via the CHCS HL7 feed. This module must function as expected to allow the entry of patients when needed to ensure the patients are present for classification. This section tests the system's ability to allow the entry of an outpatient by a user via the Patient Manager.



### Functional Testing

Step	Description (Patient Manager Admit Outpatient) *** Include at least one Labor & Delivery Patient to check the LADS function.	
1	The user must login to the WMSN user system using their CAC card.	
2	Once logged into the WMSN system the user must navigate to the <b>Patient Services</b> submenu titled <b>Patient Manager</b> .	
3	Select Unit from the WMSN 2.0 Organization Browse window.	
4	Select New Encounter Info Tab	
5	Click in the "Patient Type" box.	
6	Select Outpatient from the pop-up window.	
7	Enter the MEPRS code for the clinic where the outpatient originated or type in the clinic name.	
8	Select OK to accept or cancel to exit.	
9	Enter patient name (Last, First) in patient name box.	
10	Select the correct gender.	
11	Enter Birthdate in "Date-of-Birth" box.	
12	Use the calendar to select a date.	
13	Select the correct casualty status.	
14	Start Date will automatically be filled.	
15	Start Time will automatically be filled.	
16	Time selection pop-up.	
17	Select correct FMP status.	
18	Select the correct Service Type if different from the pre-filled service.	
19	If the user has incorrectly entered information the "Clear Form" button may be used. (If clear is used reenter information and admit)	
20	Admit the outpatient.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	Check the WMSN Patient Browser window to ensure Patient is admitted.

Delivery  
Assessment:

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## 2.3 Patient Manager (Admit Inpatient) Module Test Plan



This section tests the system's ability to allow the entry of an inpatient by a user via the Patient Manager.



### Functional Testing

Step	Description (Patient Manager Admit Inpatient) *** Include at least one Labor & Delivery Patient to check the LADS function.
1	The user must login to the WMSN user system using their CAC card.
2	Once logged into the WMSN system the user must navigate to the <b>Patient Services</b> submenu titled <b>Patient Manager</b> .
3	Select Unit from the WMSN 2.0 Organization Browse window.
4	Select New Encounter Info Tab
5	Click in the "Patient Type" box.
6	Select Inpatient & OK from the pop-up window.
7	Enter the correct Register Number for the Inpatient.
8	Enter patient name (Last, First) in patient name box.
9	Select the correct gender.
10	Enter Birthdate in "Date-of-Birth" box.
11	Use the calendar to select a date.
12	Select the correct casualty status.
13	Start Date will automatically be filled. Check date.
14	Start Time will automatically be filled. Check time.
15	Time selection pop-up.
16	Select correct FMP status.
17	Select the correct Service Type if different from the pre-filled service.



18 If the user has incorrectly entered information the “Clear Form” button may be used.

19	Admit the Inpatient.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	Check the WMSN Patient Browser window to ensure Patient is admitted.

<b>Delivery Assessment:</b>	<hr/> <hr/> <hr/> <hr/>
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## 2.4 Patient Manager (Admit Infectious Disease Inpatient) Module Test Plan



This section tests the system’s ability to allow the entry of an inpatient by a user via the Patient Manager.



### Functional Testing

Step	Description (Patient Manager Admit Infectious Disease Inpatient)
1	The user must login to the WMSN user system using their CAC card.
2	Once logged into the WMSN system the user must navigate to the <b>Patient Services</b> submenu titled <b>Patient Manager</b> .
3	Select Unit from the WMSN 2.0 Organization Browse window.
4	Select New Encounter Info Tab
5	Click in the “Patient Type” box.
6	Select Inpatient & OK from the pop-up window.
7	Enter the correct Register Number for the Inpatient.
8	Enter patient name (Last, First) in patient name box.
9	Select the correct gender.
10	Enter Birthdate in “Date-of-Birth” box.
11	Use the calendar to select a date.
12	Select the correct casualty status.
13	Start Date will automatically be filled. Check date.

14	Start Time will automatically be filled. Check time.	
15	Time selection pop-up.	
16	Select correct FMP status.	
17	Select the Infectious Disease Service Type if different from the pre-filled service.	
18	Select the Radio Button for Infectious Disease.	
19	From the Dropdown select the correct Status of the Infectious Disease patient.	
20	If the user has incorrectly entered information the “Clear Form” button may be used.	
21	Admit the Inpatient.	
P ass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	Check the WMSN Patient Browser window to ensure Patient is admitted.

Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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## 2.5 Patient Manager (Transfer) Module Test Plan



This section tests the system’s ability to allow a user to use the Patient Manager to transfer a patient from one ward to another.

### Functional Testing



Step	Description (Patient Manager Transfer) *** Include at least one Labor & Delivery Patient to check the LADS function.
1	The user must login to the WMSN user system using their CAC card.
2	Once logged into the WMSN system the user must navigate to the <b>Patient Services</b> submenu titled <b>Patient Manager</b> .
3	Select Unit from the WMSN 2.0 Organization Browse window.
4	Select Transfer Tab.
5	Select Patient.
6	Check to ensure the correct patient has been selected.
7	Start Date will automatically be filled. Check date.
8	Start Time will automatically be filled. Check time.

9	Click “Transfer to Ward” box. Select ward from the dropdown menu. Click OK.	
10	Verify that “Service Type” box is correct. If not select correct service type from the dropdown menu.	
11	Click Transfer Patient button.	
Pass	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	Check the WMSN <sub>i</sub> Patient Browser window for the ward the patient was transferred to and ensure Patient was correctly transferred.

Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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## 2.6 Patient Manager (Discharge) Module Test Plan



This section tests the system’s ability to allow the user to discharge a patient using the Patient Manager.

### Functional Testing



Step	Description (Patient Manager Discharge) *** Include at least one Labor & Delivery Patient to check the LADS function.	
1	The user must login to the WMSN <sub>i</sub> user system using their CAC card.	
2	Once logged into the WMSN <sub>i</sub> system the user must navigate to the <b>Patient Services</b> submenu titled <b>Patient Manager</b> .	
3	Select Unit from the WMSN <sub>i</sub> 2.0 Organization Browse window.	
4	Select Discharge Tab.	
5	Select Patient.	
6	Check to ensure the correct patient has been selected.	
7	Start Date will automatically be filled. Check date.	
8	Start Time will automatically be filled. Check time.	
9	Click “Discharge Patient” button.	
Pass	Passing Criteria	Comments

<input type="checkbox"/>	All areas function as intended	Check the WMSN Patient Browser window to ensure Patient discharged.
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Delivery Assessment:	<hr/> <hr/> <hr/> <hr/>
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## 2.7 Patient Manager (Edit) Module Test Plan



This section tests the system's ability to allow a user to edit a patient record using the Patient Manager. Note\*\* Patient Register numbers cannot be edited.

### Functional Testing



Step	Description (Patient Manager Edit) *** Include at least one Labor & Delivery patient to check the LADS function.	
1	The user must login to the WMSN user system using their CAC card.	
2	Once logged into the WMSN system the user must navigate to the <b>Patient Services</b> submenu titled <b>Patient Manager</b> .	
3	Select Unit from the WMSN 2.0 Organization Browse window.	
4	Select Edit Tab.	
5	Select Patient.	
6	Check to ensure the correct patient has been selected.	
7	To edit gender, select the "Gender" dropdown menu and make the correction.	
8	To edit date of birth, click in the "Date of Birth" box and make the correction or use the calendar pop-up to make the correction.	
9	To edit casualty status, select the "Casualty Status" dropdown menu and make the correction.	
10	To edit FMP status, select the "FMP Status" dropdown menu and make the correction.	
11	To edit service type, select the "Service Type" dropdown menu and make the correction.	
12	The operations for Cancel Admission, Cancel Transfer & Cancel Discharge can only be tested on patients admitted or transferred without a classification or a patient that has been discharged within 24 hours.	
13	Click "Save Changes" button.	
Pas s	Passing Criteria	Comments
<input type="checkbox"/>	All areas function as intended	Check patient manager to ensure changes were made.

Delivery  
Assessment:

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## 7 WMSNi Test Plan Guidance

### History of Changes

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Date	Version	Change Description	Editor
22 May 2017	0.1	Created the initial version of this template.	Robert L. Hollis
16 July 2019	0.1	Verification of this document as current.	Linda W. Fisher
5 May 2020	0.2	Updated to add Infectious Disease Update	Linda W. Fisher



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## 2 Introduction

The collection of WMSN<sub>i</sub> test plan documents cover multiple testing scenarios, and each step of the delivery process warrants a different category of testing. This guidance document specifies recommendations on when to execute each category of testing. The categories are:

- **Functional Testing** - Testing specific functional changes for each release.
- **Regression Testing** - Testing the overall application to verify that software which was previously developed and tested still performs correctly after a release.
- **Critical Path Testing** - Spot-check testing of key components of the application to verify that software which was previously developed and tested still performs correctly after a release.

## 3 WMSN<sub>i</sub> Environments

In the next several sections, execution guidance is provided relative to personnel and environments. Personnel are described as follows:

- **Developers** - Developers represent the group of team members who produced the fix or upgrade.
- **Users** - Users represent a CADRE of Subject Matter Experts (SMEs) who understand the application through daily, operational usage.

The environments are broken out as illustrated in Figure 1. The arrows depict the flow from one environment to the next.

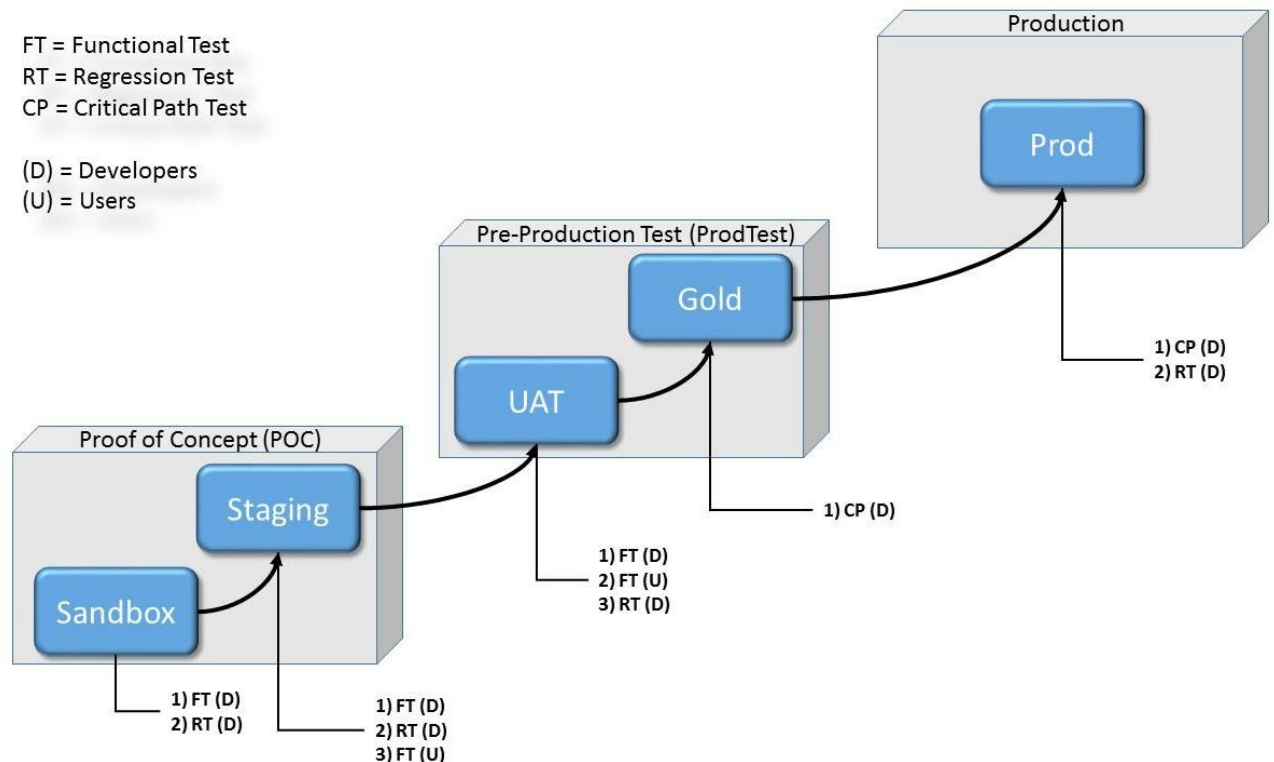


Figure 1: WMSN<sub>i</sub> Environment Flow Diagram



## WMSN<sub>i</sub> Environments:

- Proof of Concept (POC)
  - **Sandbox:** Environment for development, tweaking, and establishment of installation procedures.
  - **Staging:** User Acceptance Test Environment: Initial installation test bed, also used to present initial release functionality to the Users.
- Pre-Production Test (ProdTest)
  - **UAT:** This is the final pre-production installation environment, used to ensure that issues that could surface during the transition to the Live Production environment are minimized or eliminated.
  - **Gold:** Intended to be a near-clone of the Production system allowing Users to test how changes will perform when they are installed in the Live Production environment.
- Production (Prod)
  - **Live:** Software in this environment is available to all WMSN<sub>i</sub> users.

## 4 Functional Test Plan

### 3.1 Why Execute

Each WMSN<sub>i</sub> release includes a number of updates to the application. In many cases, application functionality was altered to either fix a condition or improve a process. When functionality changes for either of these reasons, the release includes a Functional Test Plan document, covering the test steps for each functional change. These test steps reflect a set of requirements, and provide steps to verify those requirements are met.

### 3.2 When to Execute

Execute the Functional Test Plan steps as follows:

Environment	Situation	by Whom
Sandbox	Before installation to Staging to test the update and verify test steps.	Developers
Staging	Before installation to UAT.	Developers
UAT	Before installation to Gold.	Users
Gold	Functional Testing prior to Production Live Release.	Users
Production Live	After transition to Live, re-verify new functionality.	Developers and Users

## 4 Regression Test Plan

### 4.1 Why Execute

Each WMSN release includes a number of updates to the application. Any update has the potential to affect functionality beyond the expected. Therefore, the regression test plan was drafted to provide guidance on how to ensure functionality which was previously developed and tested still performs correctly.

### 4.2 When to Execute

Execute the Regression Test Plan steps as follows:

Environment	Situation	by Whom
POC Sandbox	Before installation to POC UAT to verify legacy functionality.	Developers
POC UAT	Before User testing in POC UAT to verify legacy functionality.	Developers
ProdTest UAT	Before final transition to ProdTest Staging.	Developers
Production Live	After Critical Path Testing to verify legacy functionality.	Developers & Users

## 5 Critical Path Test Plan

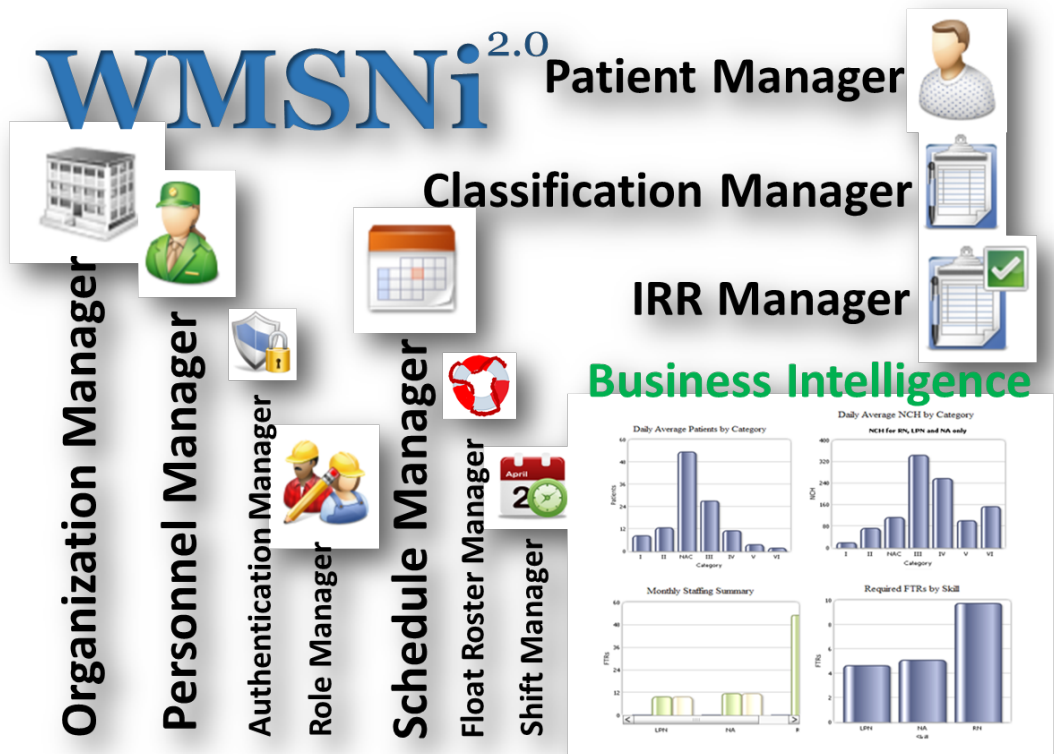
### 5.1 Why Execute

Critical path testing is performed to ensure that major functionality remains operable after system changes. This difference from regression testing in that it's more of a high-level test. Critical Path testing ensures that key modules remain functional, but does not dive deep into verifying accuracy of calculations.

### 5.2 When to Execute

Execute the Regression Test Plan steps as follows:

Environment	Situation	by Whom
UAT	Before final transition to Gold to verify operability.	Developers/ User
Gold	Before final transition to Production Live to verify operability.	Developers/ User
Production Live	Immediately after transition to Live to verify legacy operability.	Developers/ User



# WMSN i-12c 2.4.7.0 R4 Production Critical Path Test Plan



*...making data meaningful*

May 2020

## 8 WMSNi- 12c 2.4.7.0 R4 Production Critical Path Test Plan

### History of Changes

Date	Version	Change Description	Editor
2 November 2016	0.1	Created the initial version of this document.	Linda W. Fisher
23 April 2019	0.2	Updated for Use for SE Linux Test	Linda W. Fisher
30 April 2019	0.3	Updated to include WIT	Linda W. Fisher
17 July 2019	0.4	Updated to include missing reports	Linda W. Fisher
5 April 2020	0.5	Update to include 2.4.7.0 R4/12c Oracle DB	Linda W. Fisher
5 May 2020	0.6	Update to include Infectious Disease Unit Type	Linda W. Fisher

### READ PRIOR TO TESTING

The tester shall replace all results screens with results from the current test site. The expected screen view shall not be replaced but remains as a visual example for evaluators. The tester shall follow the instructions provided in the test plan. Note\* Entered “Names” of test patients and “test wards” for use in follow-on test items.

Dates shall reflect the dates of testing.

All Pass boxes, Comments, & Delivery Assessments shall be updated.

Update Table of Contents when document is complete.

## Table of Contents

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<i>2.3 Reports Critical Paths Test Plan</i>	<i>24</i>
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# 1 Introduction

The test plan for the WMSN<sub>i</sub> Critical Path is presented in the material that follows. The Critical Path Test Plan is a high-level test plan to ensure the functionality of major functions within WMSN<sub>i</sub> are performing correctly after routine system changes. Readers can expect that each section will clearly explain who should perform the testing, what is being tested, and desired test results. Most testing sections have been constructed so the user can determine if the module is functioning as intended. Some portions of the testing may be required to be performed by an application administrator or by a database administrator; these portions of the test plan, if present, will be denoted by the Database Administrator or Application Administrator Avatars as they require someone with WMSN<sub>i</sub> database administrative privileges. Examples are:

- Query Execution - running diagnostic queries,
- Result Assessment - assessing the effect of scripts upon WMSN<sub>i</sub> schema objects<sup>3</sup>

In the table that follows the required testing roles are presented and explained.

Role Name	Description	Avatar
Database Administrator or	Understands the RDBMS technologies used to provide persistent storage for WMSN <sub>i</sub> . This person must be capable of running SQL scripts and evaluating results.	
Tester:	Name: _____ Date: _____	
Application Administrator	Capable in the operation of WMSN <sub>i</sub> modules and conversant in the details of WMSN <sub>i</sub> business intelligence. This person should be able to manage roles, manage patients, manage schedules, run reports, and ensure that the functions of the system are in agreement with information presented by business intelligence components (charts, traditional reports, and OLAP cubes).	
Tester:	Name: _____ Date: _____	

<sup>3</sup> Database administrators will know to look for objects that may be adversely affected by the installation or update of a PL/SQL object. E.g., the update of a package can cause triggers, other packages, and standalone procedures to become invalid.

Test results must be reviewed by technical personnel and a customer capable of interpreting results. The vendor will be presented test results in an electronic format and given one business day to (1) explain problems encountered by the testers and (2) formulate a plan for the rapid remediation of problems. Neither the technical nor the business testers can make the final judgment on whether or not to go forward with the system; the decision must be joint. The test plan and results will be delivered to DHA leadership.

## 2 Critical Path Test Plan



### 2.1 Delivery Test Plan

#### 2.1.1 Prerequisites

Ensure that any prerequisites are listed: \_SE Linux is turned on in the operating system where the application resides\_\_\_\_\_.

Delivery Assessment:	_____
	_____
	_____
	_____
	_____

#### 2.1.2 Installation Instructions

The vendor shall provide instructions for using installation scripts and executables for upgrading WMSNi Certificate. Among the things that must be present in the installation instructions are the following

- ☒ Explanation of each solution included in the delivery.
- ☒ Enumeration of the files contained in the upgrade.
- ☒ Steps that when taken will apply install the solution.

Delivery Assessment:	_Version 2.4.7.0 R4/12c_____
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## 2.2 Patient Services Critical Path Test Plan

The Patient Services Modules are where all data are entered into WMSNi. These modules must function as expected for the purpose of data integrity and reliability. The following Test are meant to test operability for high level quick functions testing. These tests do not test data accuracy. More detailed testing is required to test the data input and output validation.

The test steps will return a WMSNi screen for each test. Screenshots of correctly working modules are provided for comparison. Please note any portions of the screens that do not populate or any unexpected returned errors or other malfunctions. Additional screenshots are added to support the changes in 2.4.7.0 R4 1) Print/View Schedule restoration, 2) Hospital Roster restoration, 3) Prevention of same employee schedule time overlap, 4) Shift Manager - Start of Day - Removal of ability to change by users, & 5) Personnel Manager – Edit employee Information – email input box – Changed the email to commit the email address of the user to all lowercase.

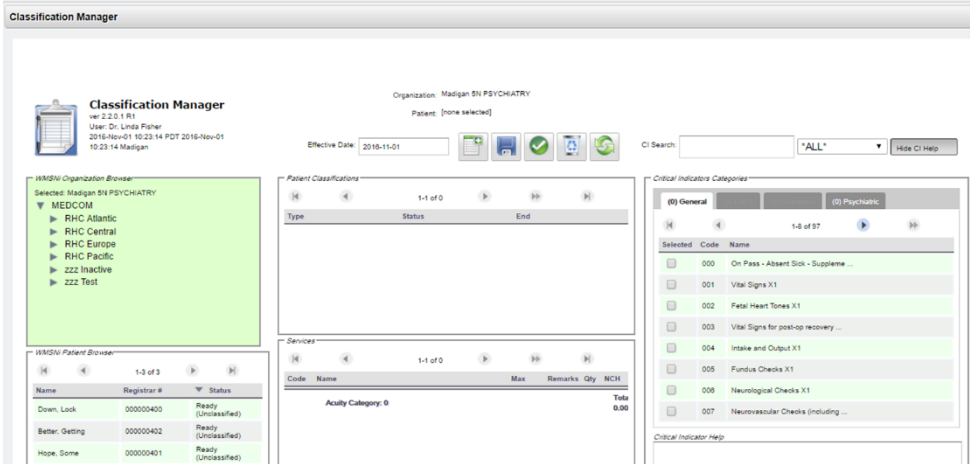


### Functional Testing

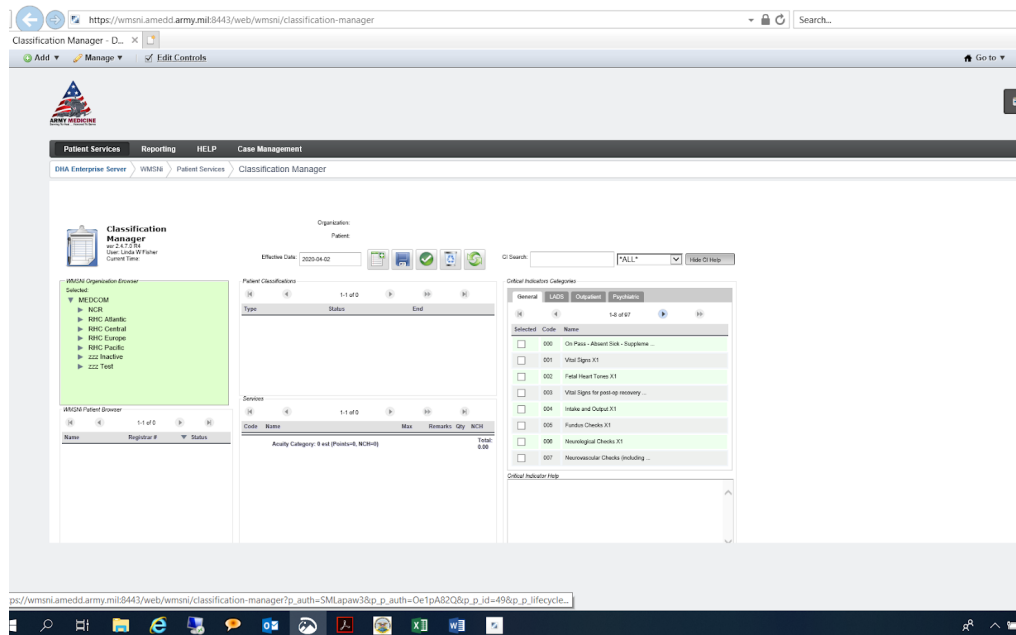
Step	Description: Patient Services Critical Paths Test Plan
1	<p>The user must login to the WMSNi user system using their CAC card.</p> <p>a) Startup authorized government PC/laptop/etc.... and Insert CAC for authorization</p> <p>b) Startup Internet Explorer</p> <p>c) Select WMSNi URL <a href="https://wmsni.amedd.army.mil:8443">https://wmsni.amedd.army.mil:8443</a></p> <p>d) The User should see the WMSNi Welcome Page.</p> <p>e) The User is required to read and accept the terms of usage for the system by clicking on <a href="#">Click here to agree to all of the above and login with CAC</a> at the bottom left of the page.</p> <p>f) The User should now be on the Menu Page for WMSNi.</p>
2	Once logged into the WMSNi system the user must navigate to the Patient Services Tab.
3	From the submenu select the Classification Manager.

The following is the expected screen view:

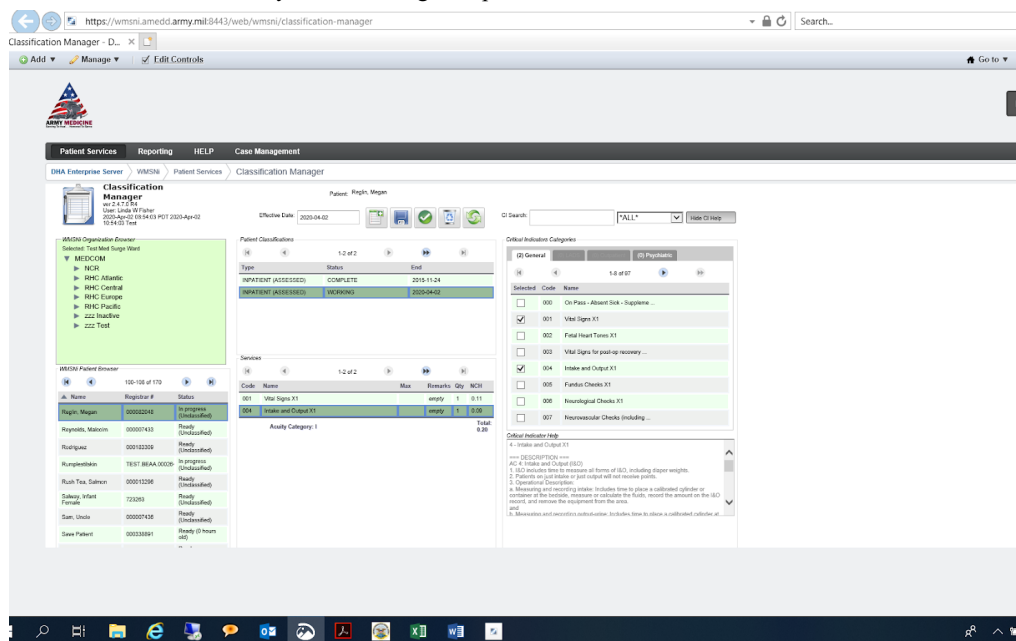
4



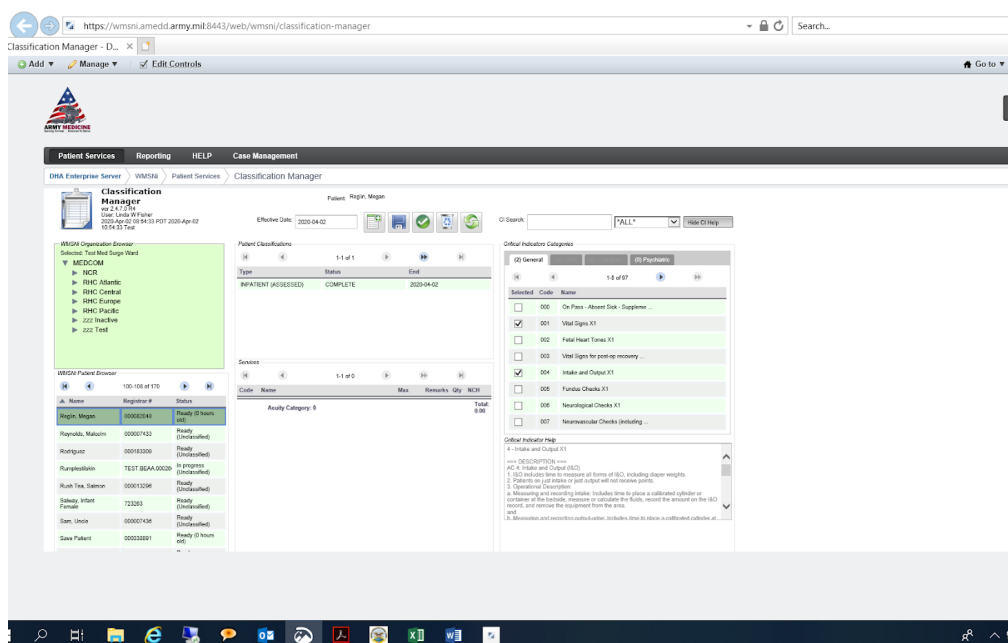
Insert a screenshot of your results here:



Classify any 3 patients. Use CIs 001 & 004. Check for anomalies.  
Window closes automatically after selecting Complete.



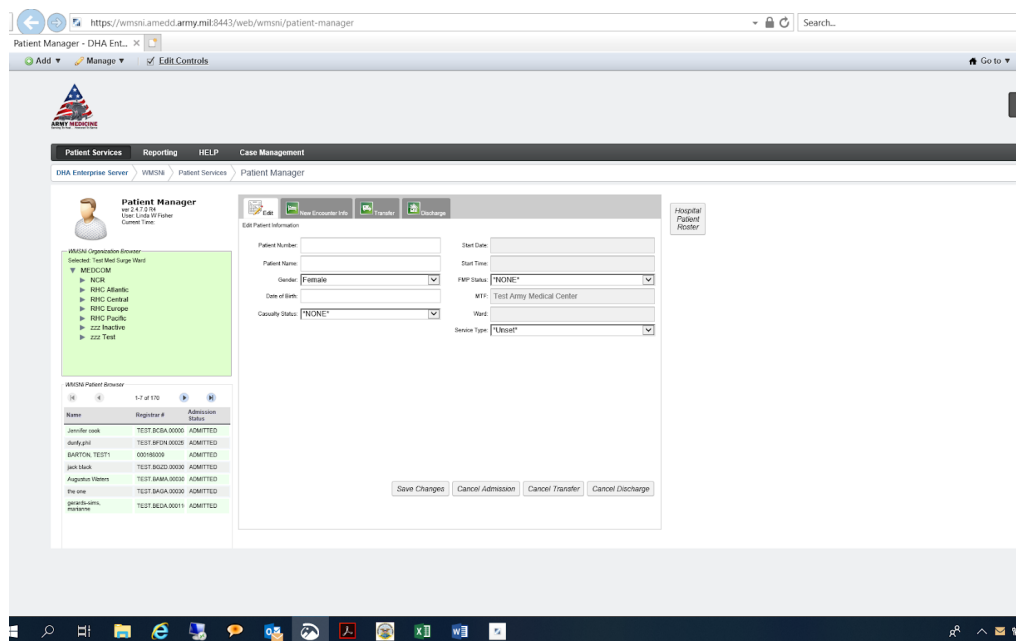
Patient Status correctly reflects: Ready (0 hours old). Screen Shot should show 1 minute or same time as Previous screen. This proves that the Patient completed in the last screen has an updated Status immediately.



Pass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened and the issue with delayed Status update is corrected.
5	The user must login to the WMSNI user system using their CAC card.	
6	Once logged into the WMSNI system the user must navigate to the Patient Services Tab.	
7	From the submenu select the Patient Manager.	

The following is the expected screen view:

Insert a screenshot of your results here:



Insert a screenshot of Hospital Roster screen results here:

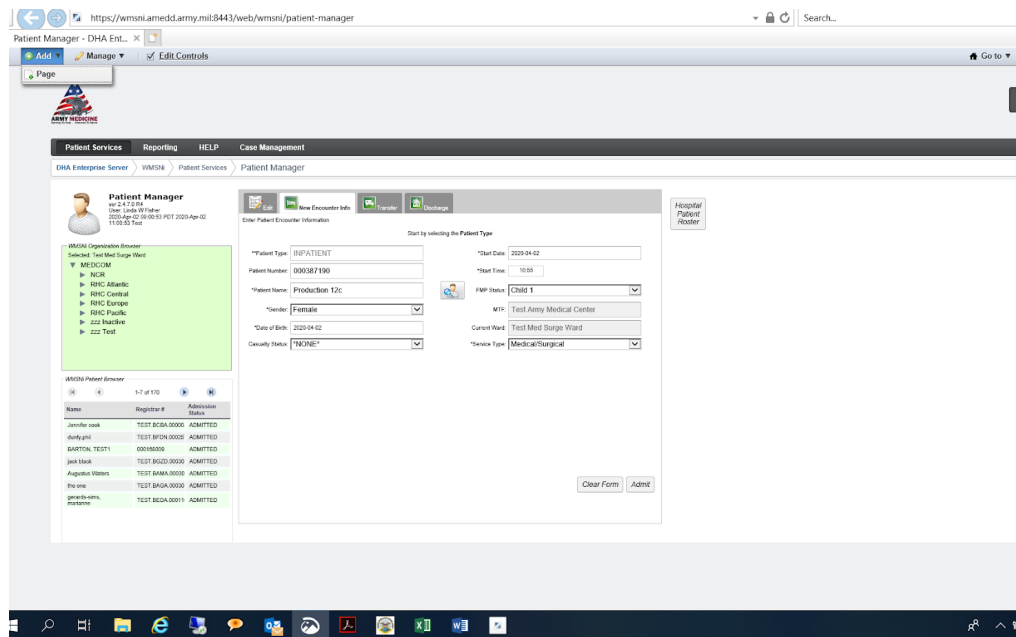
The Hospital Roster is located at the Upper Right of the Patient Manager screen:

Hospital Patient Roster reports all patients for target MTF as intended.



Registrar Number	Patient Name	Ward Name
00000000	Belo, Christian A.	Test Labor and Delivery Ward
00000004	I am Ready	Test Labor and Delivery Ward
00000005	TEST1, DIF	Test Med Surge Ward
00000046	TEST2, DIF	Test Med Surge Ward
00000358	LaBella, Lydia	Test Psychiatric Ward
00000410	CARLE, ROSE	Test Psychiatric Ward
00000494	William Chappell	Test Med Surge Ward
00000495	Smith, Emma	Test Med Surge Ward
00000496	Ben White	Test Psychiatric Ward
00000497	Who, Doctor	Test Labor and Delivery Ward
00000502	monks, Janna	Test Labor and Delivery Ward
00000679	Smith, John	Test Med Surge Ward
00000680	Gray, Aaron	Test Med Surge Ward
00000681	Nicholas Beets	Test Psychiatric Ward
00000682	Smart, Smart	Test Med Surge Ward
00000691	Caranot, Camd	Test Med Surge Ward
00000698	Ganey, Suzanne	Test Med Surge Ward
00000699	Sam, Trade	Test Psychiatric Ward
00000670	Smith, John	Test Med Surge Ward
00000671	Kitty, Kate	Test Med Surge Ward
00000706	Dick, Howard The	Test Psychiatric Ward
00000720	WHEGA, D.O	Test Med Surge Ward
00000720	JE Collins	Test Psychiatric Ward
00000722	Liv Zella	Test Psychiatric Ward
00000724	atmad, atmad	Test Med Surge Ward
00000727	Jamie Jackson	Test Med Surge Ward
00000743	Reynolds, Malia-Jane	Test Med Surge Ward
00000744	Rodgers, Aaron	Test Labor and Delivery Ward
00000746	Sam, Trade	Test Med Surge Ward
00000748	Test, LAZO	Test Med Surge Ward
00000875	Smith, John	Test Psychiatric Ward
00000874	Blatt, Victor	Test Med Surge Ward
00000882	Winkia, Willy	Test Med Surge Ward
00000882	Chaz, A	Test Med Surge Ward
00000885	Jennifer Cook	Test Psychiatric Ward
00000887	Anthony Jacobs	Test Psychiatric Ward
00000888	Smith, John	Test Med Surge Ward
00000889	Smith, Paul	Test Med Anesthesia Care Unit-Test Change
00000880	Nightly Mouse	Test Med Surge Ward
00000821	Pu, Rio	Test Med Surge Ward

DOB offset Test: Admit new patient with DOB today & FMP Status of Child 1. Get screenshot.



Patient Manager - DHA Ent... x

Search...

Page

Patient Services Reporting HELP Case Management

DHA Enterprise Server VM028 Patient Services Patient Manager

**Patient Manager**  
 000387190  
 2020-04-02 11:05:53 EDT 2020-Apr-02 11:05:53 EDT

Selected Test Med Surge Ward  
 MEDCOM  
 NCR  
 RHIC Atlantic  
 RHIC Central  
 RHIC Europe  
 RHIC Pacific  
 ZZZ Inactive  
 ZZZ Test

AMCDB Patient Encounter  
 1-7 of 170

Name	Encounter #	Admission Status
Jessica Cook	TEST BCSA 0000	ADMITTED
duffy.phd	TEST BCON 0002	ADMITTED
BARTON, TEST1	00010000	ADMITTED
Jack Black	TEST BQDZ 0000	ADMITTED
Angela Hester	TEST BAMA 0000	ADMITTED
Pia one	TEST BAGA 0000	ADMITTED
garrett-sims, petersen	TEST BQDA 0001	ADMITTED

Start by selecting the Patient Type

\*\*Patient Type: INPATIENT

Start Date: 2020-04-02

Start Time: 10:55

Patient Number: 000387190

Patient Name: Production 12c

FMP Status: Child 1

Gender: Female

WFO: Test Army Medical Center

Date of Birth: 2020-04-02

Current Ward: Test Med Surge Ward

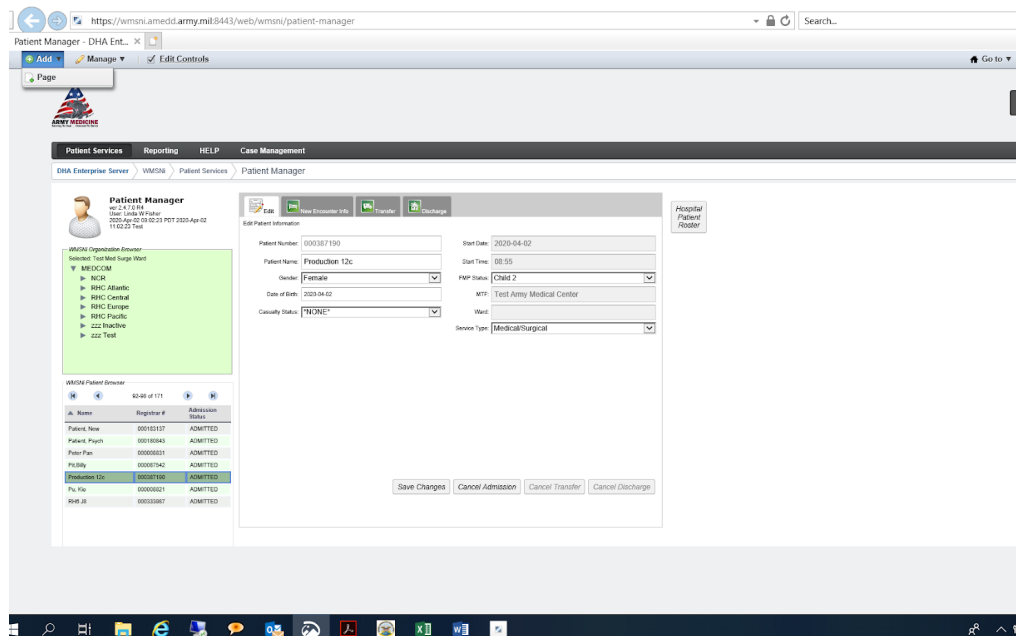
Casualty Status: NONE\*

Service Type: Medical/Surgical

Clear Form Admin

Hospital Patient Roster

Edit FMP Status Child 1 change to Child 2, DOB should remain the same. Get Screenshot



Patient Manager - DHA Ent... x

Search...

Page

Patient Services Reporting HELP Case Management

DHA Enterprise Server VM028 Patient Services Patient Manager

**Patient Manager**  
 000387190  
 2020-04-02 11:05:53 EDT 2020-Apr-02 11:05:53 EDT

Selected Test Med Surge Ward  
 MEDCOM  
 NCR  
 RHIC Atlantic  
 RHIC Central  
 RHIC Europe  
 RHIC Pacific  
 ZZZ Inactive  
 ZZZ Test

AMCDB Patient Encounter  
 62-461 of 171

A. Name	Encounter #	Admission Status
Patient, New	000101017	ADMITTED
Patient, Psych	000101043	ADMITTED
Patient, Pys	000000051	ADMITTED
Pia Stry	000007042	ADMITTED
Production 12c	000007106	ADMITTED
Pia, Pia	000000021	ADMITTED
RHB JR	000000067	ADMITTED

Start by selecting the Patient Type

Patient Number: 000387190

Start Date: 2020-04-02

Start Time: 08:55

Patient Name: Production 12c

FMP Status: Child 2

Gender: Female

WFO: Test Army Medical Center

Date of Birth: 2020-04-02

Current Ward: Test Med Surge Ward

Casualty Status: NONE\*

Service Type: Medical/Surgical

Save Changes Cancel Admission Cancel Transfer Cancel Discharge

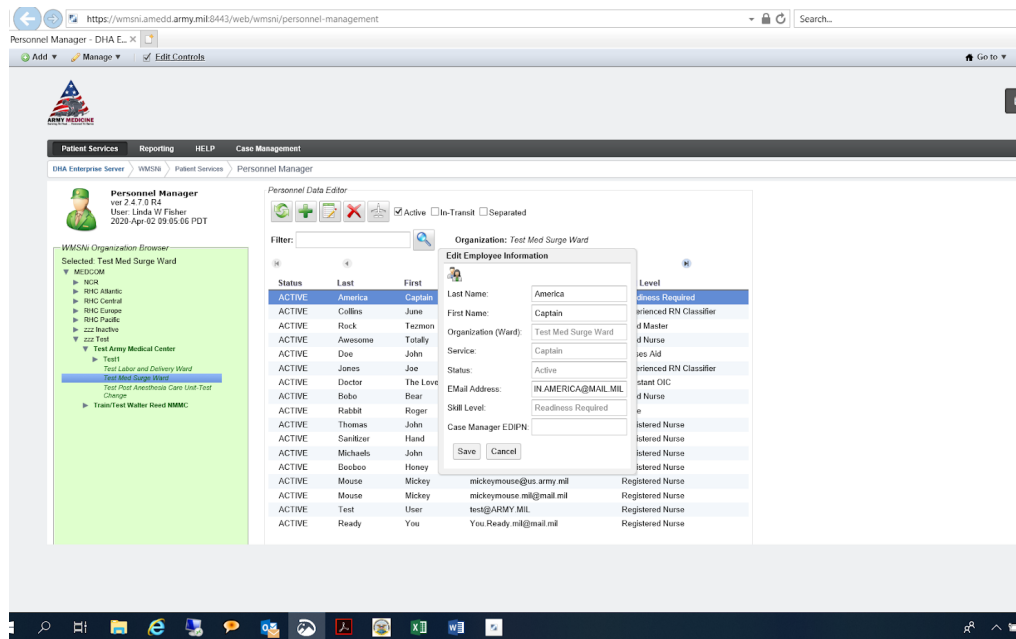
Hospital Patient Roster

Test that Infectious Disease Unit Type is available and that Dropdown Infections Disease Stati are visible when Infectious Disease Radio Button is selected.

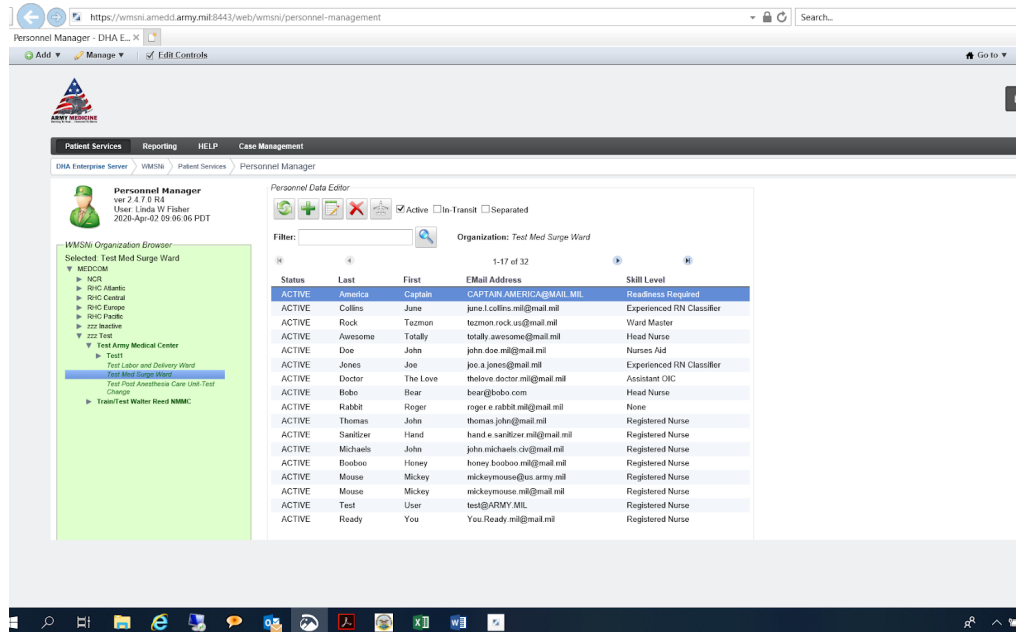
Pass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened. Hospital Roster functions as expected. DOB does not change with patient updates.
9	The user must login to the WMSNi user system using their CAC card.	
10	Once logged into the WMSNi system the user must navigate to the Patient Services Tab.	
11	From the submenu select the Personnel Manager.	

The following is the expected screen view:

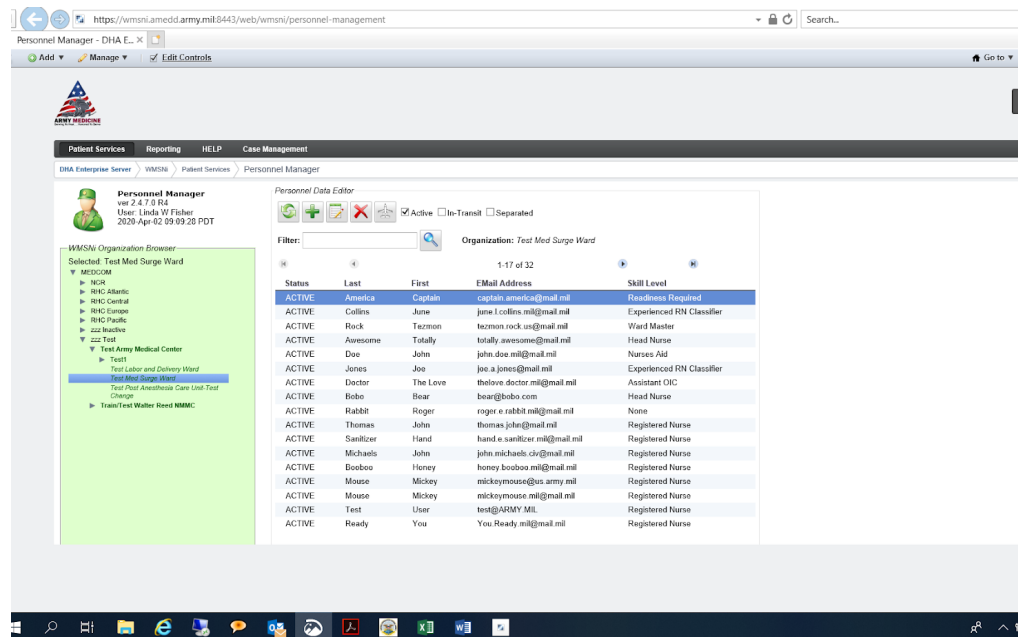
Insert a screenshot of your results here:



Select an Employee. Select Edit Icon. Attempt to edit an employee email using all Uppercase letters. The application should automatically force a lowercase email address.

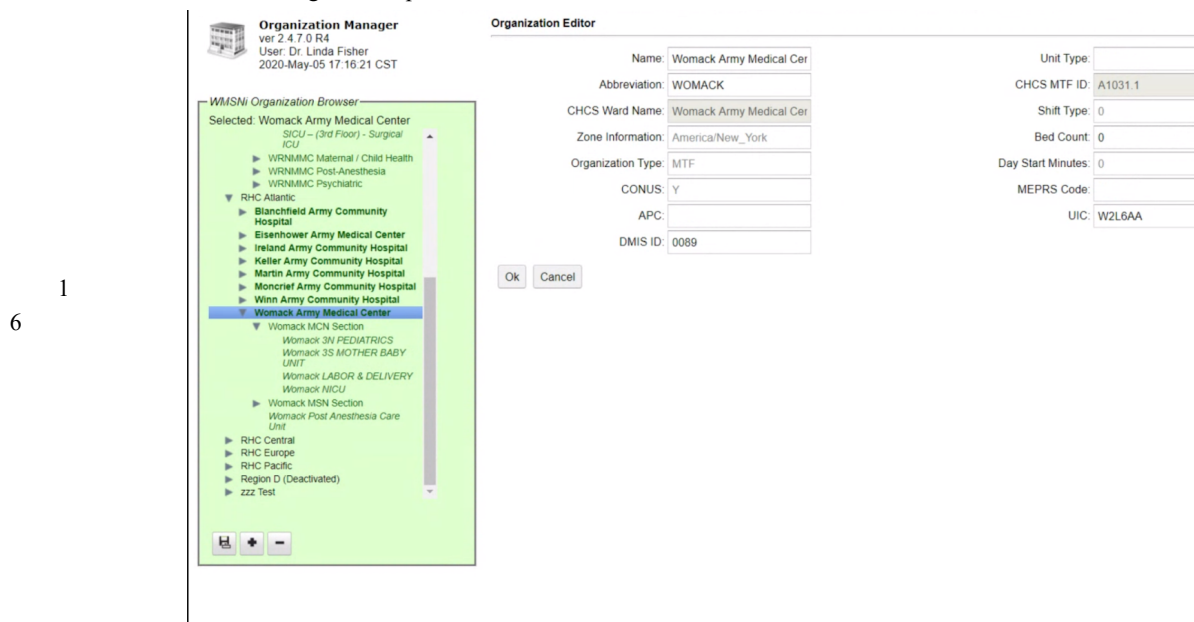


Leave Personnel Manager and reenter to see that the email is forced to lowercase.



Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened. Personnel Manager functions as expected. The addition of Forcing the email to be lowercase reverted after leaving and coming back to the Personnel Manager.
1 3	The user must login to the WMSN user system using their CAC card.	
1 4	Once logged into the WMSN system the user must navigate to the Patient Services Tab.	
1 5	From the submenu select the Organization Manager.	

The following is the expected screen view:

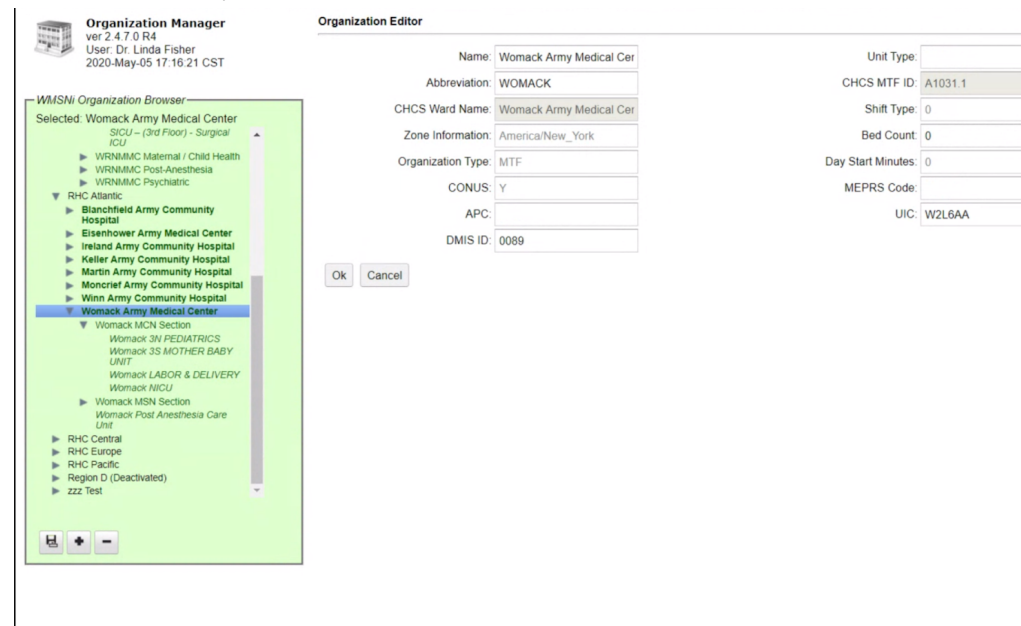




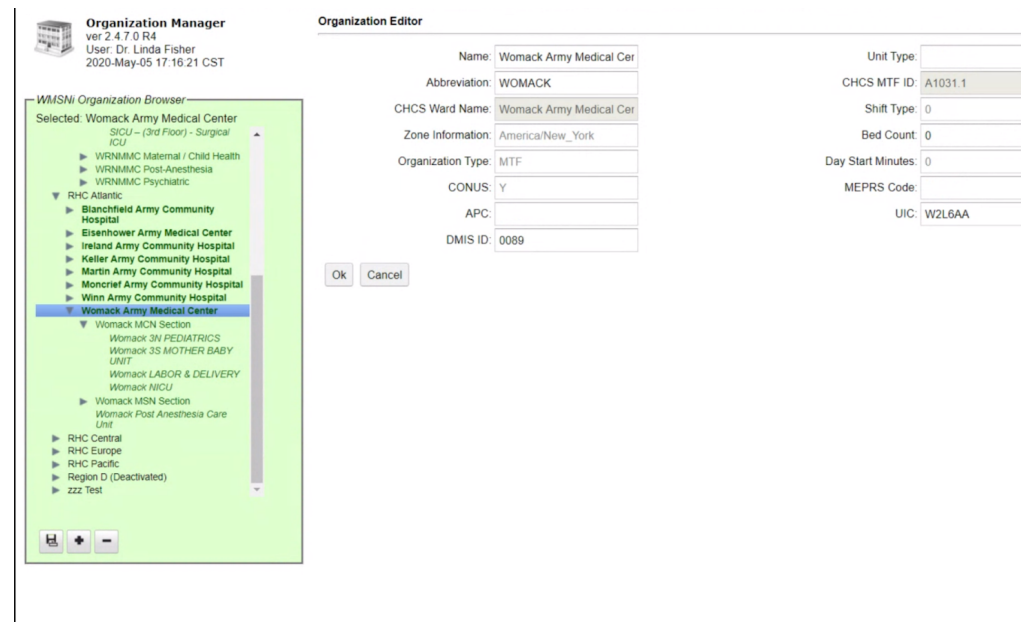
Insert a screenshot of your results here:

Must select Region for Sections to appear. Add a new unit using the (+) button and filling in the fields.

Record a screenshot of the newly added unit.



Use the (-) button to remove the newly added button and record a screenshot.



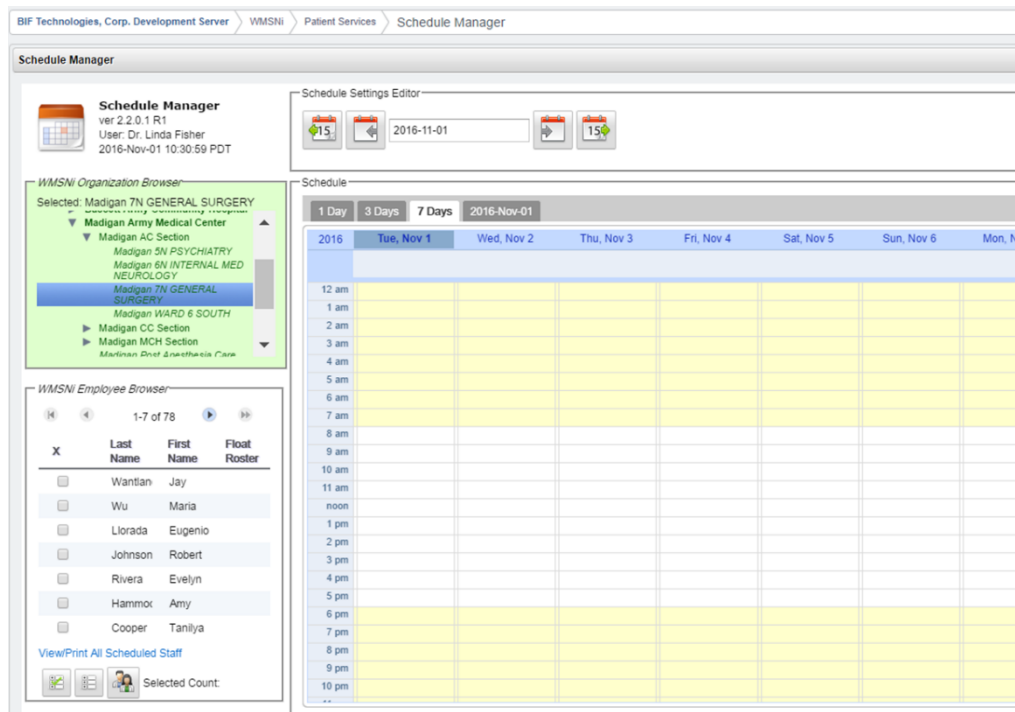
P	Passing Criteria	Comments
ass		
7	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
1	The user must login to the WMSNi user system using their CAC card.	

1  
8 Once logged into the WMSNi system the user must navigate to the Patient Services Tab.

1  
9

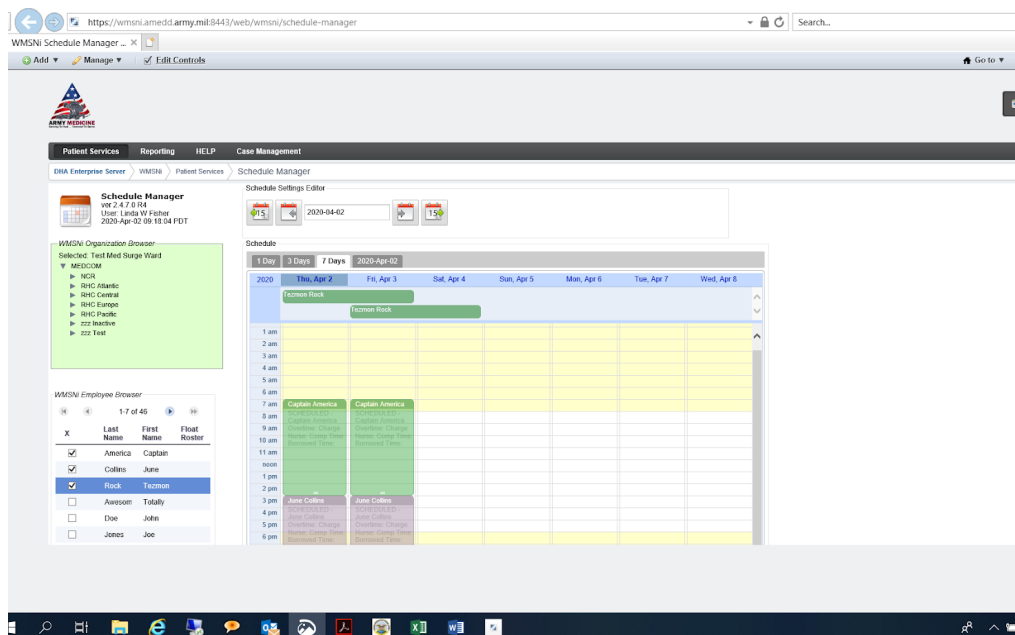
From the submenu select the Schedule Manager.

The following is the expected screen view:



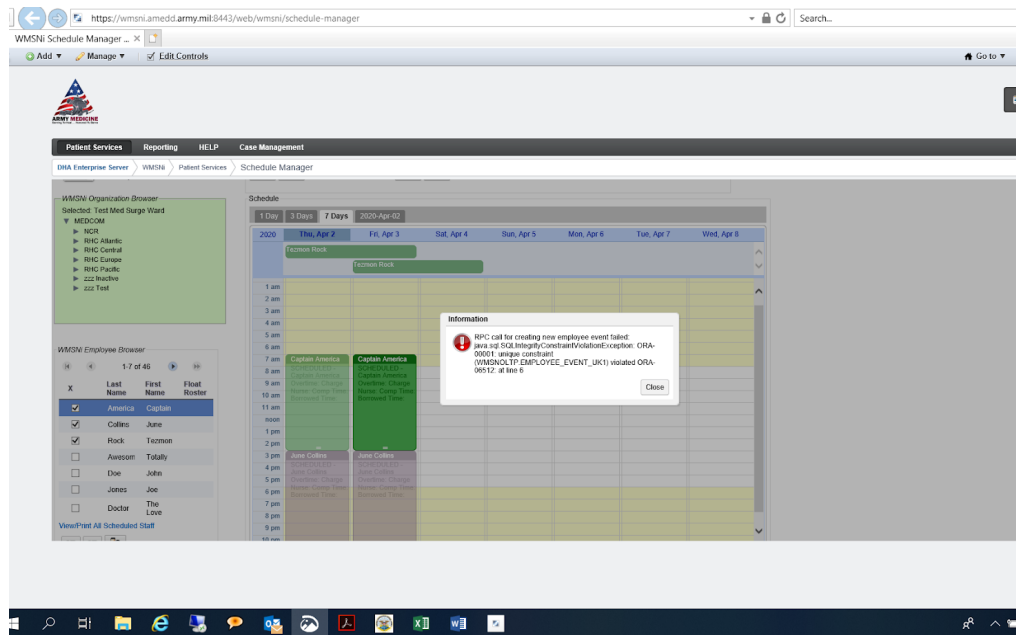
Insert a screenshot of your input screen results here:

2  
0

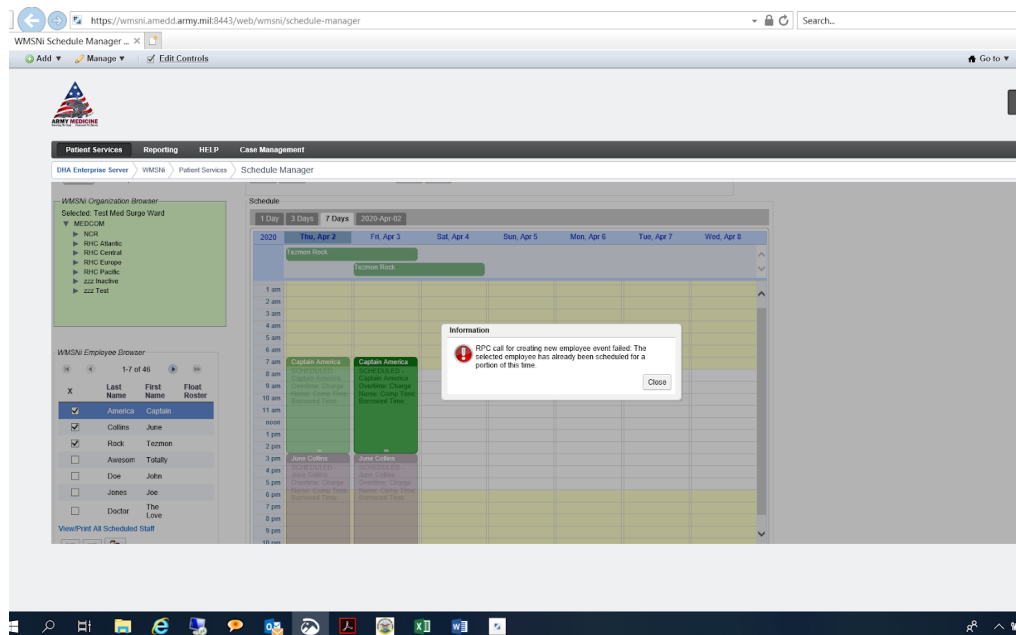


Select 3 employees, enter each employee on the same shift for 2 consecutive days. One employee on each 8 hour shift.

Same shift overlap: Select any employee and attempt to enter a second shift for the same employee at the same time as an existing shift. You should receive an error message and not be allowed to create the second same shift for the same employee.



Partial Shift overlap: Select any employee and attempt to enter a second shift for the same employee at a time that overlaps an existing shift by at least an hour. You should receive an error message and not be allowed to create the second same shift for the same employee.



Insert a screenshot of your View/Print All Schedule screen results here:

View Print Schedule: Link to Report is on the Schedule Manager page. The Report should include the employees you created schedules for and the roll-up should report the number of employees for each shift correctly.

WMSNI Schedule Manager - D:\wmsni.amedd.army.mil

Test Med Surge Ward - Two Week Schedule

Apr 2, 2020 at 11:25:47 AM EDT

WMSNI  
Test Med Surge Ward - Two Week Schedule

Shift	Skill	Sun, Mar 29	Mon, Mar 30	Tue, Mar 31	Wed, Apr 01	Thu, Apr 02	Fri, Apr 03	Sat, Apr 04	Sun, Apr 05	Mon, Apr 06	Tue, Apr 07	Wed, Apr 08	Thu, Apr 09
17:00 - 15:00	OC	0	0	0	0	0	0	0	0	0	0	0	0
	EN	0	0	0	0	0.75	0.75	0	0	0	0	0	0
	NA	0	0	0	0	0	0.25	0.25	0	0	0	0	0
	CU	0	0	0	0	0	0	0	0	0	0	0	0
23:00 - 23:00	OC	0	0	0	0	0	0	0	0	0	0	0	0
	EN	0	0	0	0	1	1	0	0	0	0	0	0
	NA	0	0	0	0	0	0	0	0	0	0	0	0
	CU	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 07:00	OC	0	0	0	0	0	0	0	0	0	0	0	0
	EN	0	0	0	0	0.25	0.25	0	0	0	0	0	0
	NA	0	0	0	0	0.75	0.75	0	0	0	0	0	0
	CU	0	0	0	0	0	0	0	0	0	0	0	0

Apr 2, 2020 at 11:25:47 AM EDT

Delete employee schedule on removal of employee access: Return to Personnel Manager and place an above scheduled employee in an InTransit Status. Return to Schedule Manager and select the same 3 employees. The employee that you placed in InTransit Status should no longer be visible on the unit's schedule.

Personnel Manager - DHA L...

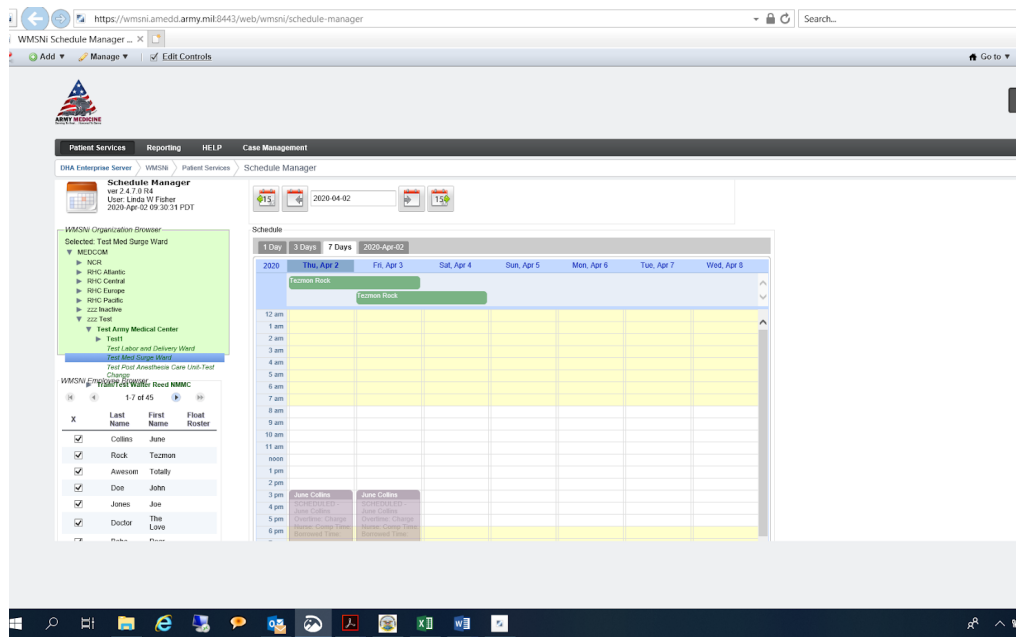
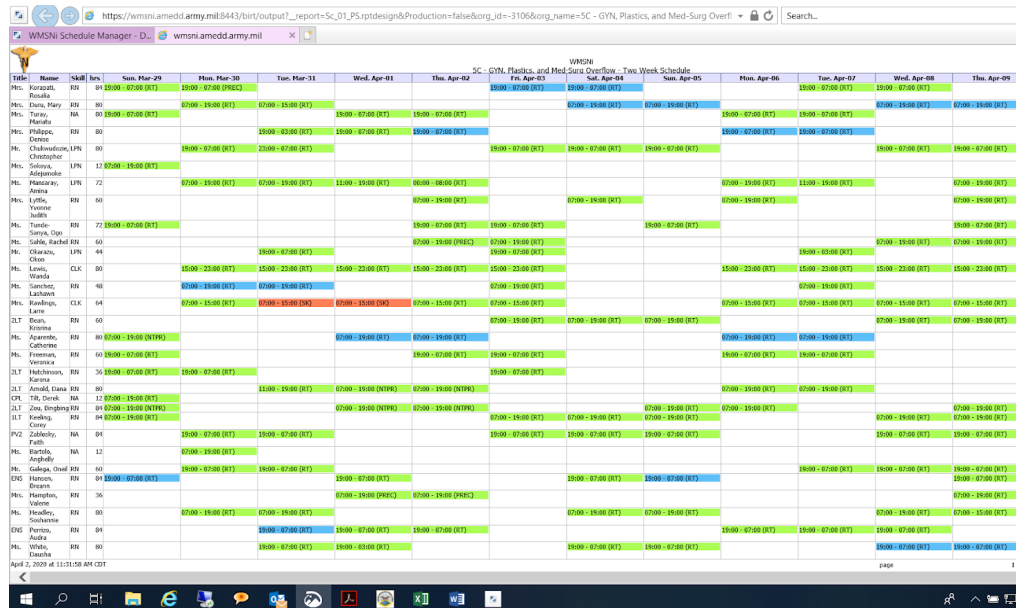
Personnel Manager

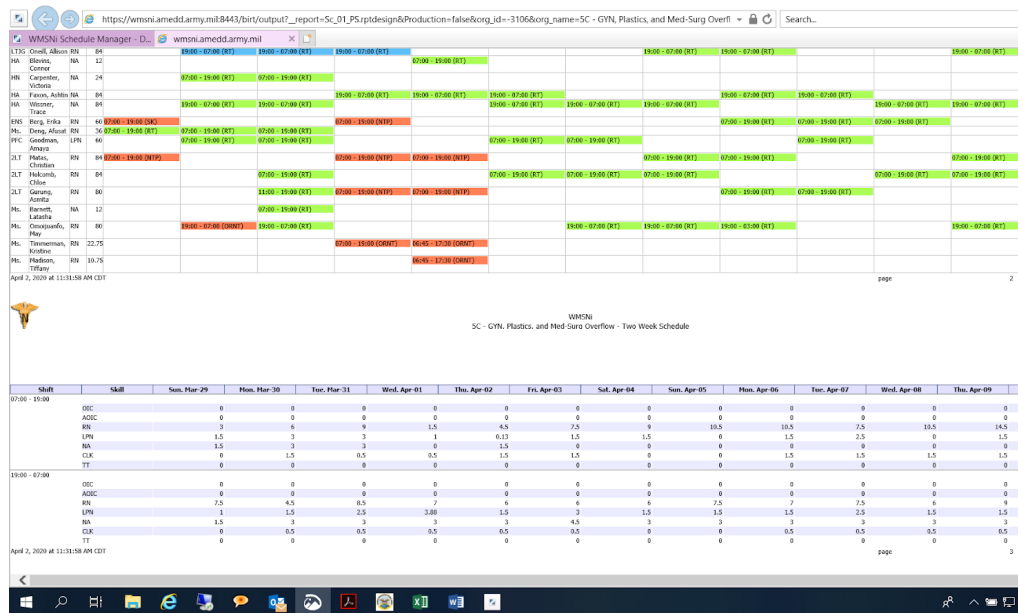
Personnel Data Editor

Organization: Test Med Surge Ward

Filter: 1-17 of 32

Status	Last	First	Email Address	Skill Level
INTRANSIT	America	Captain	captain.america@mail.mil	Readiness Required
ACTIVE	Collins	June	june.l.collins.mil@mail.mil	Experienced RN Classifier
ACTIVE	Rock	Tezmon	tezmon.rock.us@mail.mil	Ward Master
ACTIVE	Awesome	Totally	totally.awesome@mail.mil	Head Nurse
ACTIVE	Doe	John	john.doe.mil@mail.mil	Nurses Aid
ACTIVE	Jones	Joe	joe.a.jones@mail.mil	Experienced RN Classifier
ACTIVE	Doctor	The Love	thelove.doctor.mil@mail.mil	Assistant DIC
ACTIVE	Bobo	Bear	bear@bobo.com	Head Nurse
ACTIVE	Rabbit	Roger	roger.e.rabbit.mil@mail.mil	None
ACTIVE	Thomas	John	thomas.john@mail.mil	Registered Nurse
ACTIVE	Sanitizer	Hand	hand.e.sanitizer.mil@mail.mil	Registered Nurse
ACTIVE	Michaels	John	john.michaels.civ@mail.mil	Registered Nurse
ACTIVE	BooBoo	Honey	honey.booBoo.mil@mail.mil	Registered Nurse
ACTIVE	Moose	Mickey	mickymoose@us.army.mil	Registered Nurse
ACTIVE	Mouse	Mickey	mickymouse.mil@mail.mil	Registered Nurse
ACTIVE	Test	User	test@ARMY.MIL	Registered Nurse
ACTIVE	Ready	You	You Ready.mil@mail.mil	Registered Nurse

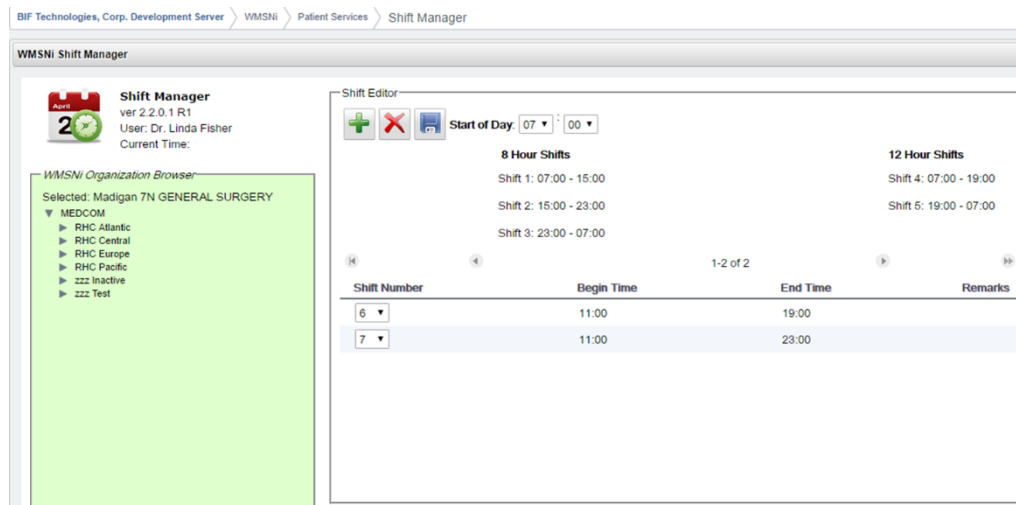





The screenshot displays the WMSNi Schedule Manager interface. At the top, there's a search bar and a list of staff members. Below this, a detailed shift schedule grid is shown, organized by shift (e.g., 07:00 - 15:00, 15:00 - 07:00) and staff member. The grid includes columns for dates from Sunday, March 29 to Thursday, April 9. The interface also shows a 'Shift' column and a 'Staff' column. The bottom of the screenshot shows a Windows taskbar with various application icons.

Pass	Passing Criteria	Comments
1	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened. View/Print Schedule Report has returned to function. The additions of preventing same and partial shift overlaps is functioning as expected. And the schedule update to remove personnel from the schedule when no longer active now functions correctly. The Print/View schedule Roll-up numbers and the employee list in the Print/View All Schedule are functioning correctly (see live ward example).
2	The user must login to the WMSNi user system using their CAC card.	
2	Once logged into the WMSNi system the user must navigate to the Patient Services Tab.	
3	From the submenu select the Shift Manager.	

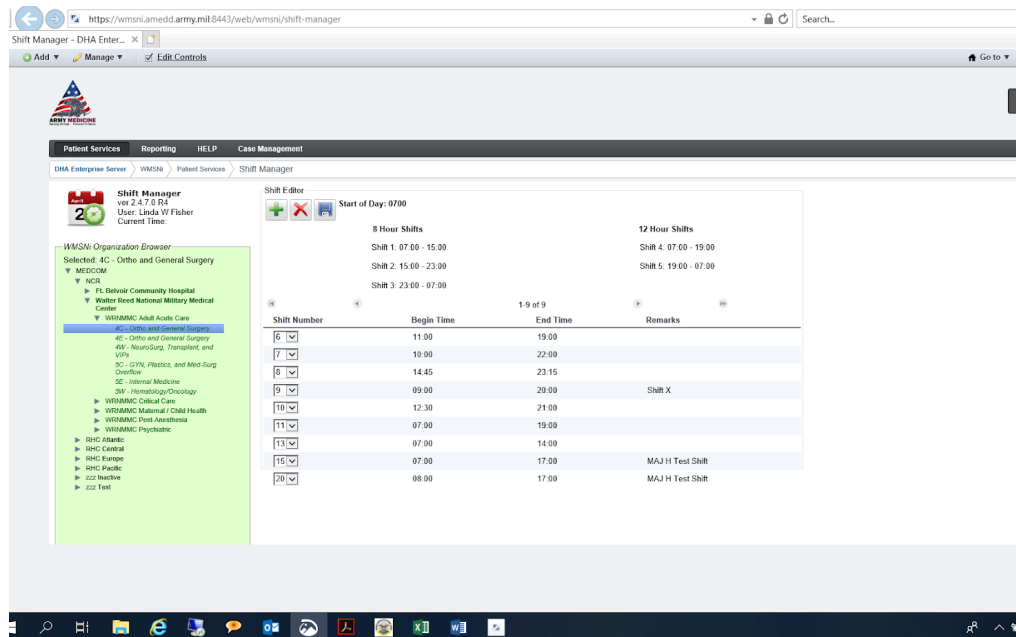
2  
4 The following is the expected screen view:



Insert a screenshot of your results here: The Shift Manager should show the Start of the Day 0700, without the ability to change it. It should also show the Standard Shifts for any selected individual ward.

8 Hour Shifts  
Shift 1: 07:00 - 15:00  
Shift 2: 15:00 - 23:00  
Shift 3: 23:00 - 07:00

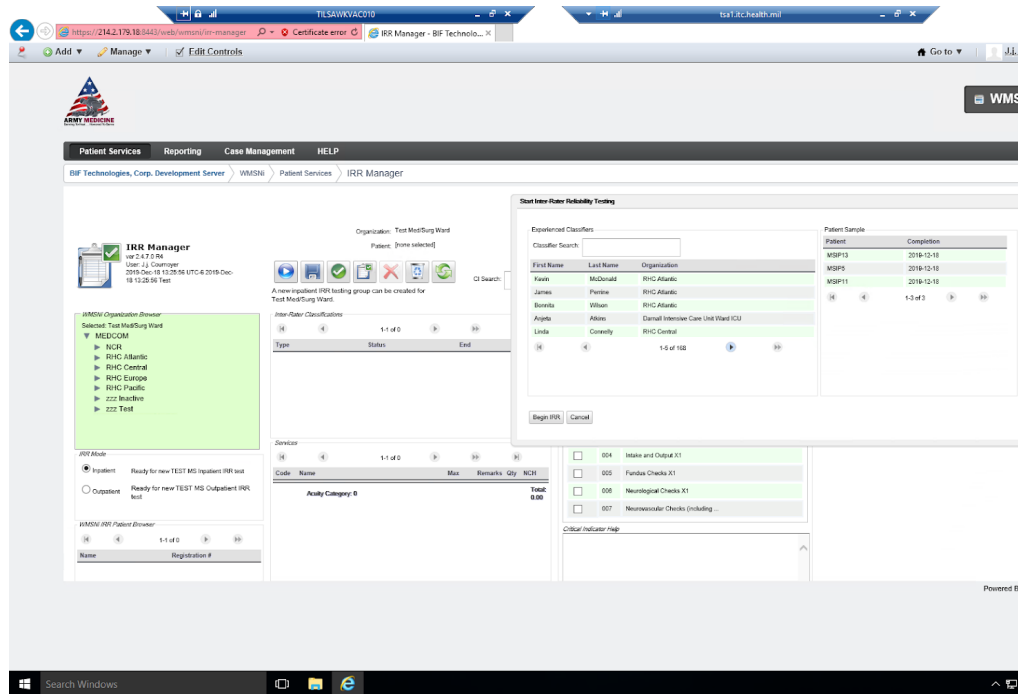
12 Hour Shifts  
Shift 4: 07:00 - 19:00  
Shift 5: 19:00 - 07:00



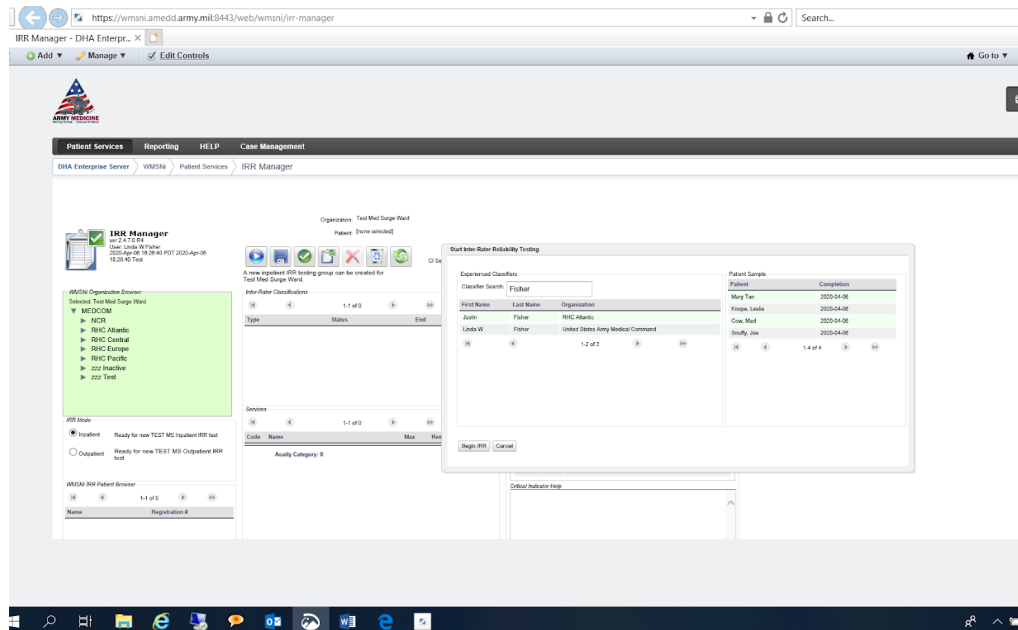
P ass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
2 5	The user must login to the WMSNi user system using their CAC card.	
2 6	Once logged into the WMSNi system the user must navigate to the Patient Services Tab.	
2 7	From the submenu select the IRR Manager.	

The following is the expected screen view: Select a unit and select  to ensure function

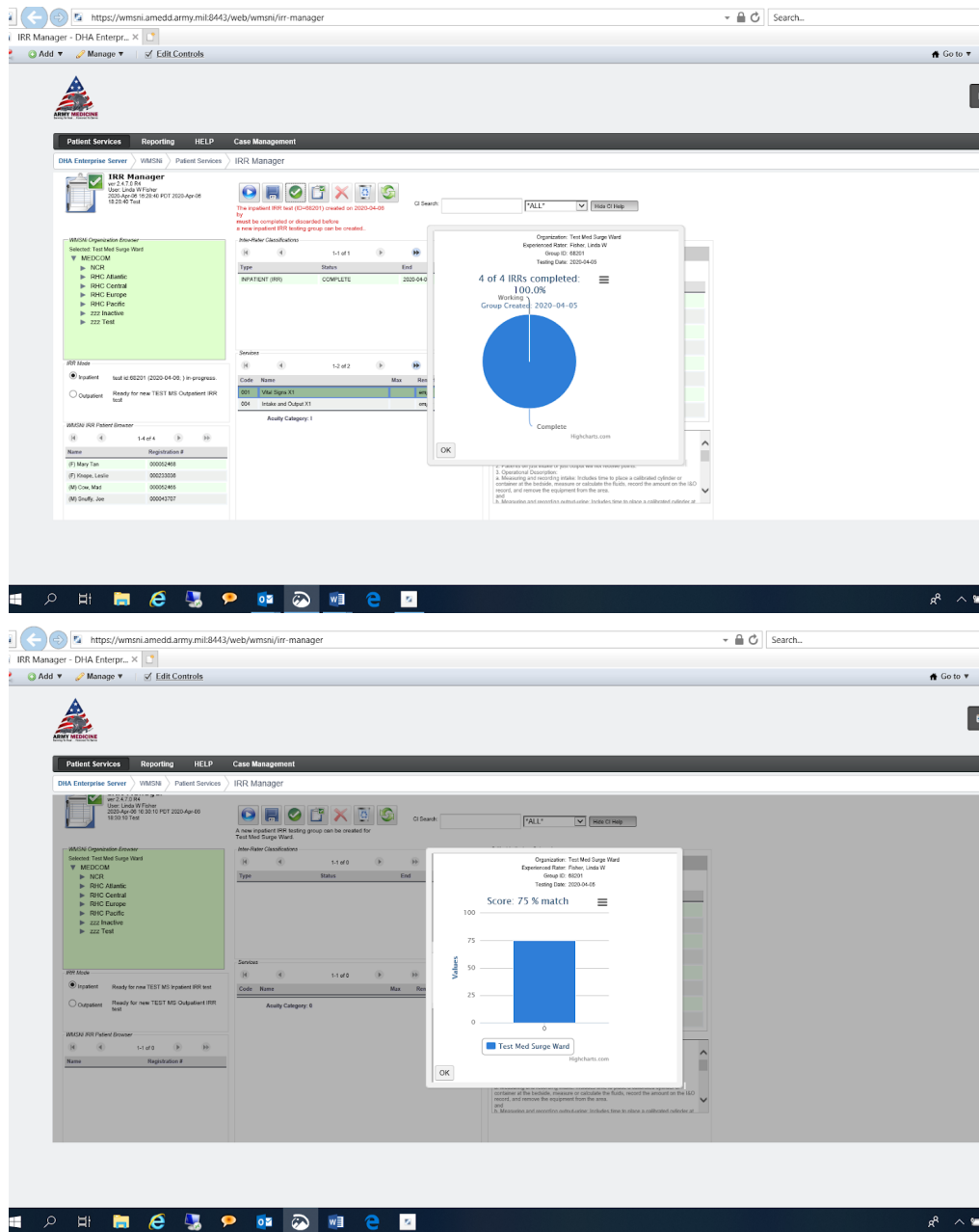
2  
8



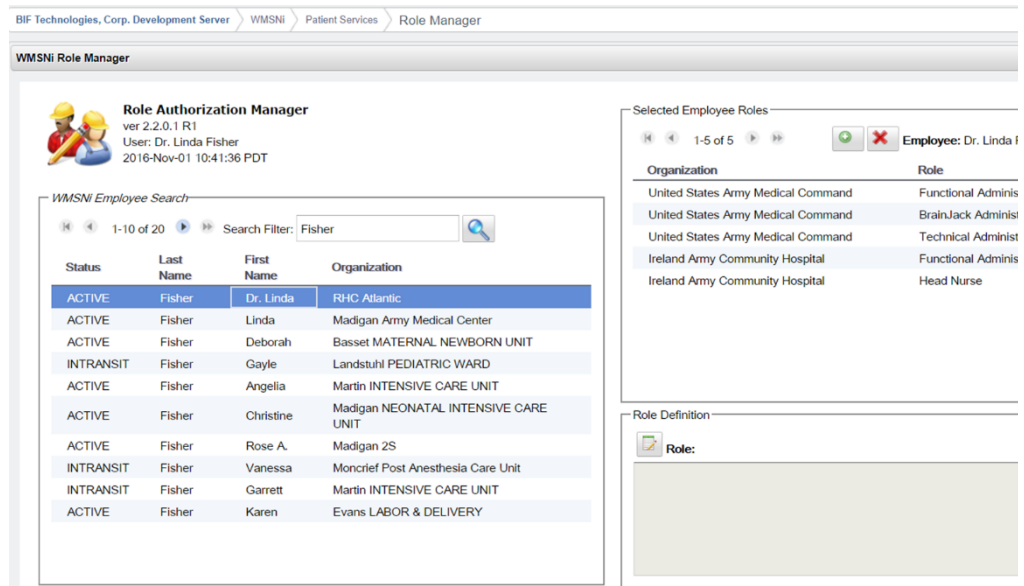
Insert a screenshot of your results here: The 3 patients the user classified in the Classification Manager should appear in the Patient Sample list.



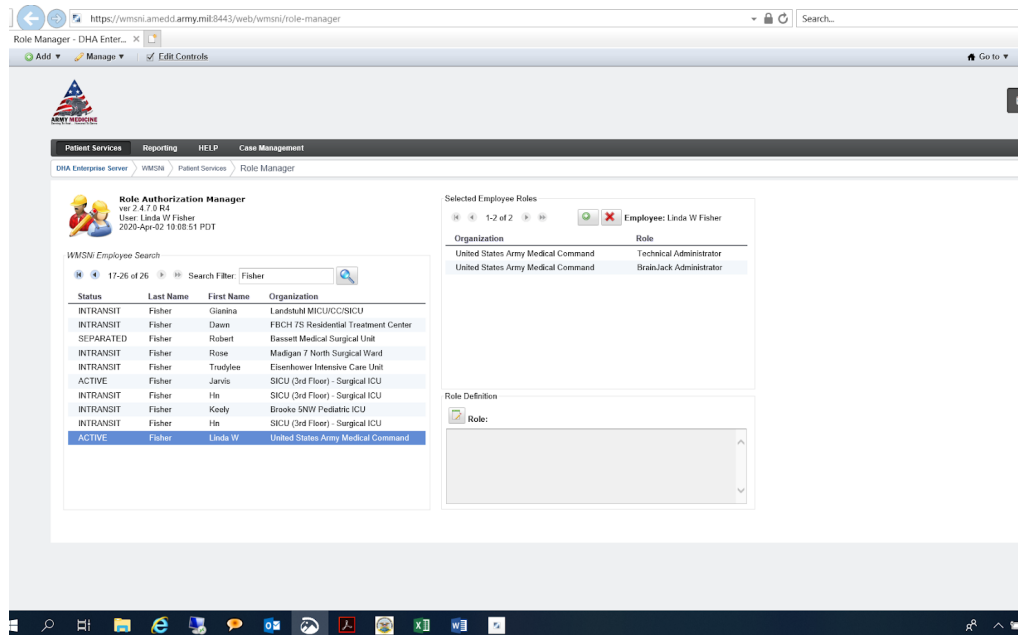




Pass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screens were displayed when the module opened and throughout each portion of the IRR test.
2		The user must login to the WMSNi user system using their CAC card.
3		Once logged into the WMSNi system the user must navigate to the Patient Services Tab.
3		From the submenu select the Role Authorization Manager.
3		The following is the expected screen view: Type a name into the Search Filter and select from the list to ensure function.



Insert a screenshot of your results here:



P	Passing Criteria	Comments
3	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
3	The user must login to the WMSNi user system using their CAC card.	
3	Once logged into the WMSNi system the user must navigate to the Patient Services Tab.	
3	From the submenu select the Authentication Manager.	
3	The following is the expected screen view: Type a name into the Search Filter and select from the list to ensure function.	

BIF Technologies, Corp. Development Server WMSNI Patient Services Authentication Manager

**Authentication Manager**  
ver 2.2.0.1 R1  
User: Dr. Linda Fisher  
2016-Nov-01 10:45:11 PDT

**WMSNI Employee Search**

1-10 of 20 Search Filter: Fisher

Status	Last Name	First Name	Organization
ACTIVE	Fisher	Dr. Linda	RHC Atlantic
ACTIVE	Fisher	Linda	Madigan Army Medical Center
ACTIVE	Fisher	Deborah	Basset MATERNAL NEWBORN UNIT
INTRANSIT	Fisher	Gayle	Landstuhl PEDIATRIC WARD
ACTIVE	Fisher	Angella	Martin INTENSIVE CARE UNIT
ACTIVE	Fisher	Christine	Madigan NEONATAL INTENSIVE CARE UNIT
ACTIVE	Fisher	Rose A.	Madigan 2S
INTRANSIT	Fisher	Vanessa	Moncrief Post Anesthesia Care Unit
INTRANSIT	Fisher	Garrett	Martin INTENSIVE CARE UNIT
ACTIVE	Fisher	Karen	Evans LABOR & DELIVERY

**CAC Credential Manager**

Remove Choose File No file chosen Upload

Employee: Dr. Linda Fisher

E-Mail Address: brandon.vanvaerenbergh@mail.mil

CAC ID: CN=VAN  
VAERENBERGH.BRANDON.J.14054  
8, OU=CONTRACTOR, OU=PKI,  
OU=DoD, O=U.S. Government, C=US

Insert a screenshot of your results here:

WMSNI Authentication Manager ver 2.2.0.1 R1 User: Linda W Fisher 2016-Apr-02 18:12:55 PDT

**WMSNI Employee Search**

17-26 of 26 Search Filter: Fisher

Status	Last Name	First Name	Organization
INTRANSIT	Fisher	Gianina	Landstuhl MICU/CC/SICU
INTRANSIT	Fisher	Dawn	FBCH 75 Residential Treatment Center
SEPARATED	Fisher	Robert	Basset Medical Surgical Unit
INTRANSIT	Fisher	Rose	Madigan 7 North Surgical Ward
INTRANSIT	Fisher	Trudyette	Eisenhower Intensive Care Unit
ACTIVE	Fisher	Jarvis	SICU (3rd Floor) - Surgical ICU
INTRANSIT	Fisher	Hin	SICU (3rd Floor) - Surgical ICU
INTRANSIT	Fisher	Keely	Brooke SNW Pediatric ICU
INTRANSIT	Fisher	Hin	SICU (3rd Floor) - Surgical ICU
ACTIVE	Fisher	Linda W	United States Army Medical Command

**CAC Credential Manager**

Remove Browse Upload

Employee: Linda W Fisher

E-Mail Address: linda.w.fisher.ch@mail.mil

CAC ID: CN=FISHER,LINDA,WILEY,11636442  
31, OU=CONTRACTOR, OU=PKI,  
OU=DoD, O=U.S. Government, C=US

Pass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.

Delivery Assessment: PASS	All modules performed as expected.
---------------------------	------------------------------------

## 2.3 Reports Critical Paths Test Plan



The Reports Modules are where all WMSN<sub>i</sub> reports and data outputs are performed. These modules must function as expected for the purpose of data integrity and reliability. The following Test are meant to test operability for high level quick functions testing. These tests do not test data accuracy. More detailed testing is required to test the data input and output validation.

The test steps will return a WMSN<sub>i</sub> screen for each test. Screenshots of correctly working modules are provided for comparison. Please note any portions of the screens that do not populate or any unexpected returned errors or other malfunctions.

### Functional Testing


































Step	Description: Reports Critical Paths Test Plan
1	The user must login to the WMSN <sub>i</sub> user system using their CAC card.
2	Once logged into the WMSN <sub>i</sub> system the user must navigate to the Reports Tab.
3	From the submenu select the Analytic Reporting / Capacity Cube.

The following is the expected screen view:

BIF Technologies, Corp. Development Server
WMSN<sub>i</sub>
Reporting
Analytic Reporting
Capacity Cube

Capacity Cube

WMSN<sub>i</sub> Capacity Cube

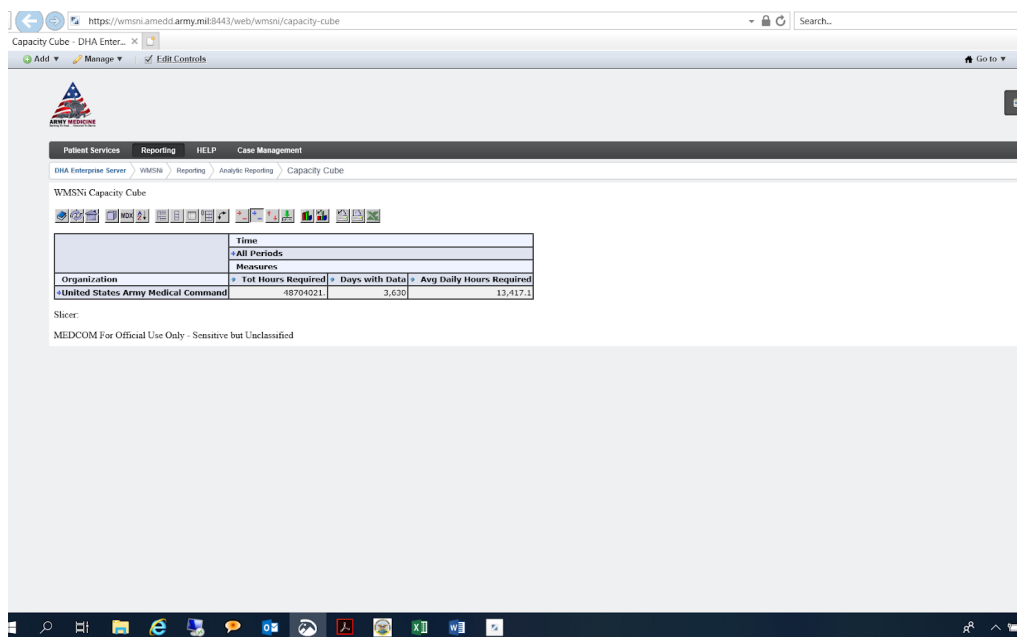
































		Organization
		+ALL Organizations
		Casualty Status
Gender	FMP Status	+All Casualty Statuses
+All Genders	+All FMP Statuses	399347.

Slicer:

MEDCOM For Official Use Only - Sensitive but Unclassified

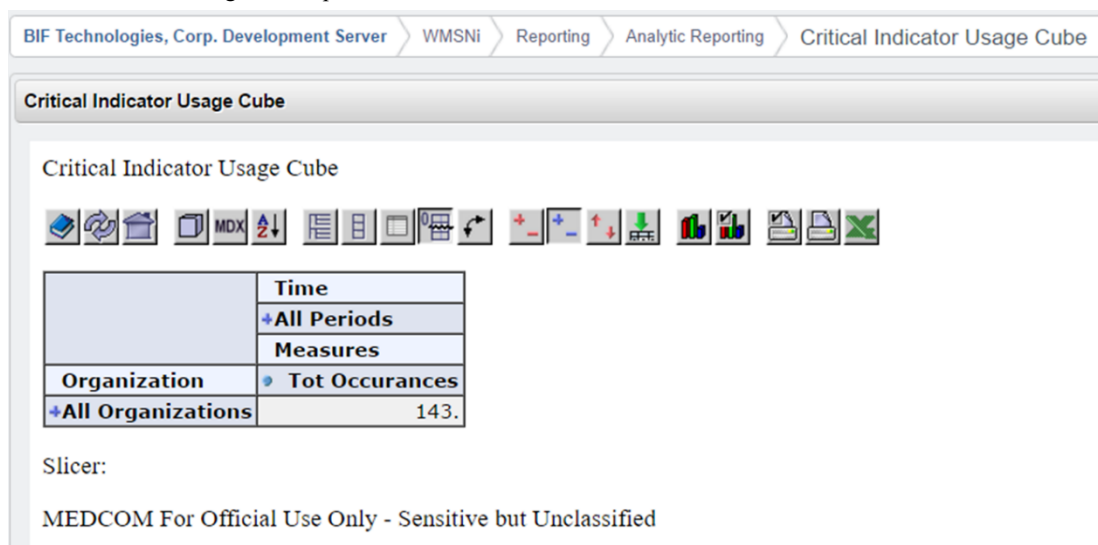
Insert a screenshot of your results here:



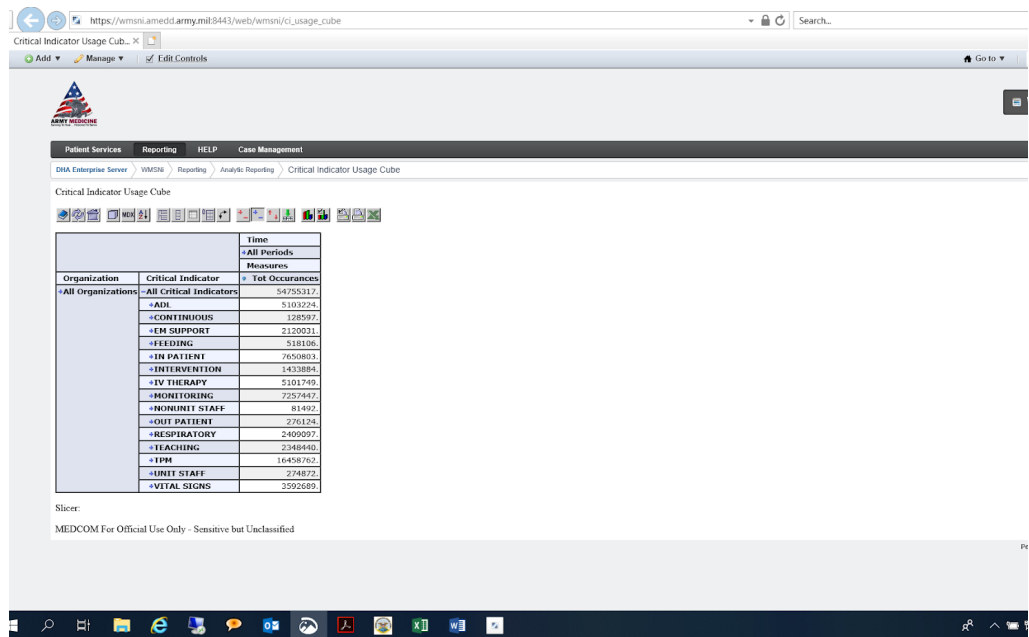
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
5	The user must login to the WMSNi user system using their CAC card.	
6	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
7	From the submenu select the Analytic Reporting / Critical Indicator Usage Cube.	

The following is the expected screen view:

8



Insert a screenshot of your results here:



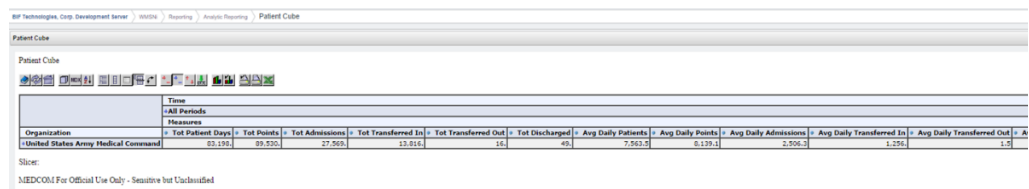
Organization	Critical Indicator	Tot Occurrences
+All Organizations	+All Critical Indicators	54755317
	+ADL	5103224
	+CONTINUOUS	128597
	+EM SUPPORT	2120031
	+FEEDING	518186
	+IN PATIENT	7650803
	+INTERVENTION	1433884
	+IV THERAPY	5101749
	+MONITORING	7257447
	+NIGHT STAFF	81492
	+OUT PATIENT	276124
	+RESPIRATORY	2409097
	+TEACHING	2348440
	+TPH	16458762
	+UNIT STAFF	274872
	+VITAL SIGNS	3592689

Slicer:  
MEDCOM For Official Use Only - Sensitive but Unclassified

Pas s	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
9	The user must login to the WMSNi user system using their CAC card.	
10	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
11	From the submenu select the Analytic Reporting / Patient Cube.	

The following is the expected screen view:

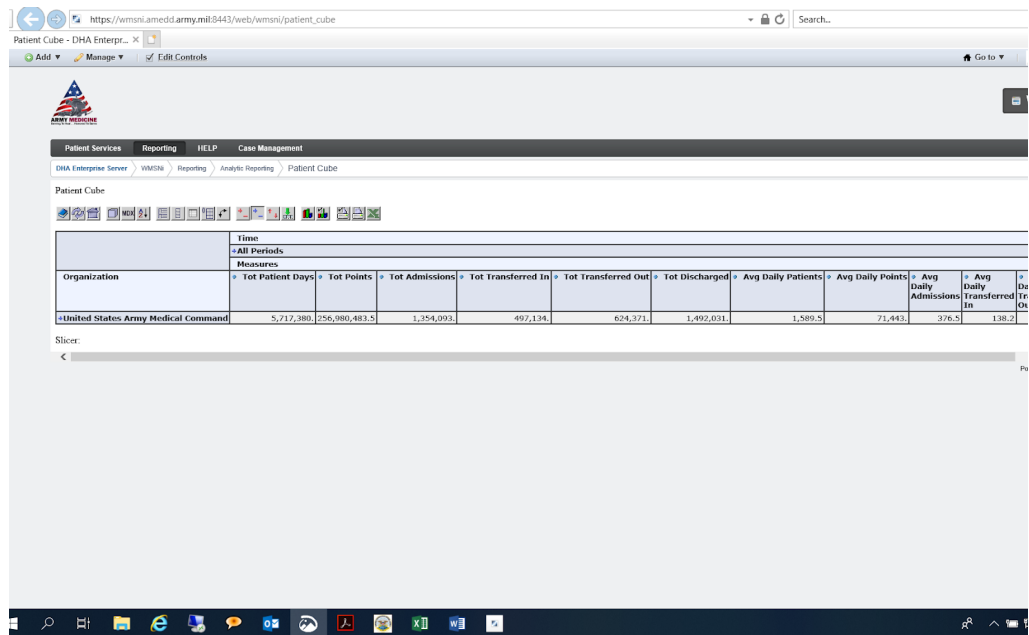
12



Organization	Tot Patient Days	Tot Points	Tot Admissions	Tot Transferred In	Tot Transferred Out	Tot Discharged	Avg Daily Patients	Avg Daily Points	Avg Daily Admissions	Avg Daily Transferred In	Avg Daily Transferred Out	Avg Daily Discharged
United States Army Medical Command	83,198	89,530	27,565	13,816	16	48	7,563.0	8,139.1	2,506.3	1,236	1.5	

Slicer:  
MEDCOM For Official Use Only - Sensitive but Unclassified

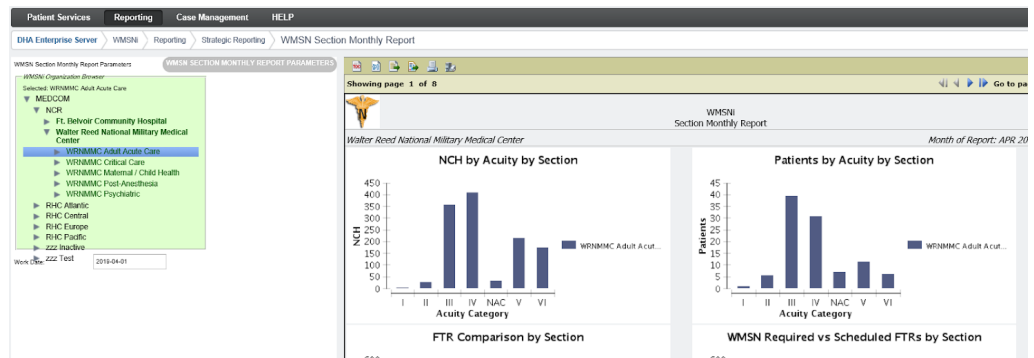
Insert a screenshot of your results here:



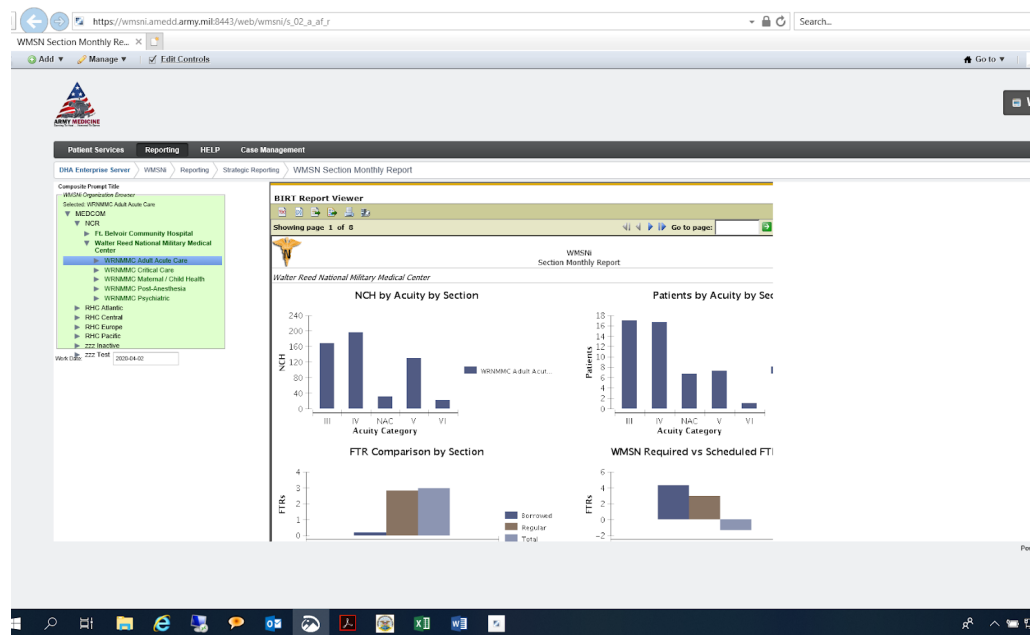
Pas s	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
13	The user must login to the WMSN user system using their CAC card.	
14	Once logged into the WMSN system the user must navigate to the Reports Tab.	
15	From the submenu select the Strategic Reports / WMSN Section Monthly Report.	

The following is the expected screen view: Select a Section and date and the report should populate.

16



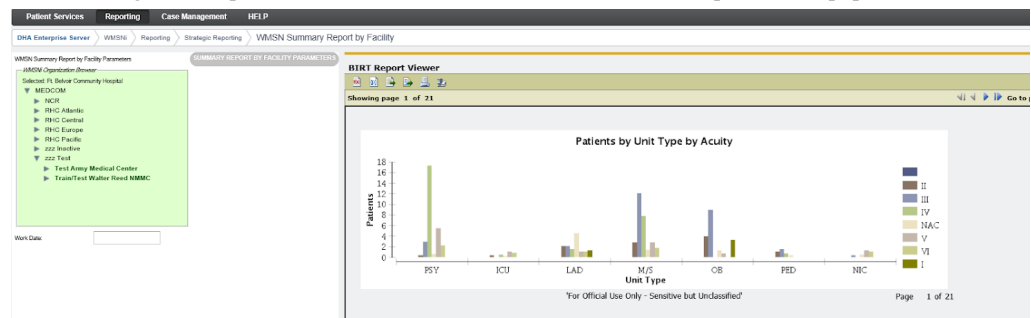
Insert a screenshot of your results here:



Pas s	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
17	The user must login to the WMSNi user system using their CAC card.	
18	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
19	From the submenu select the Strategic Reports / WMSNi Summary Report by Facility.	

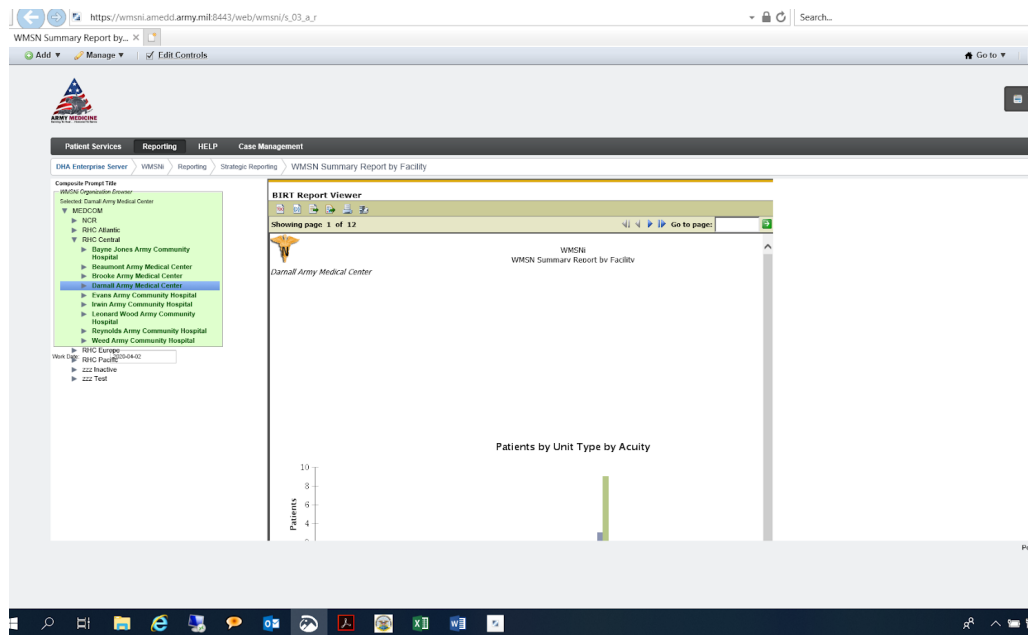
The following is the expected screen view: Select an MTF and date the report should populate.

20



Insert a screenshot of your results here:

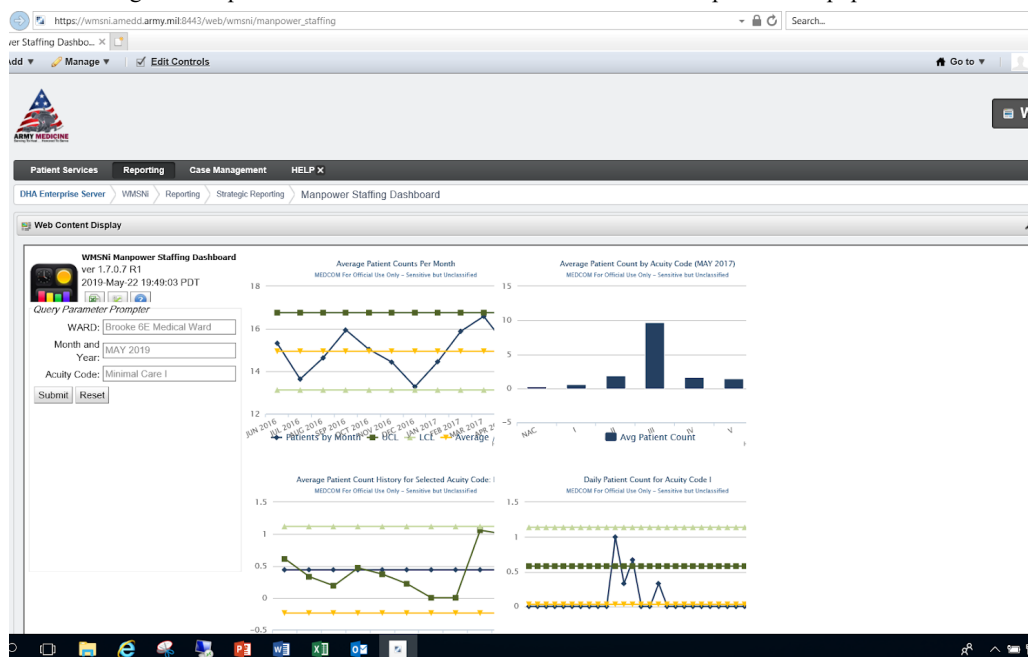




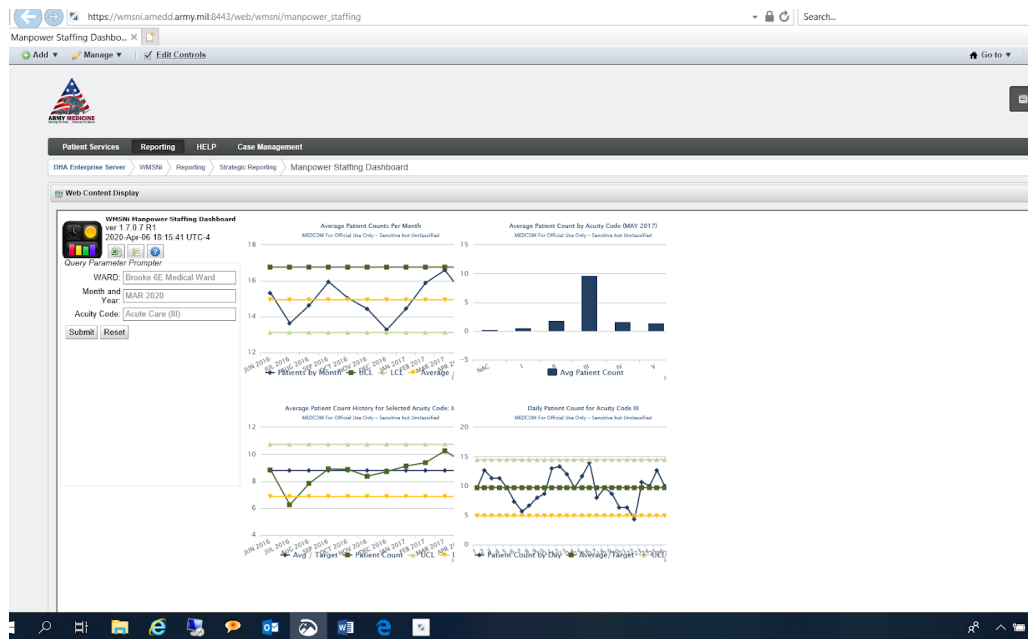
Passes	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
21	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
22	From the submenu select the Strategic Reports / Manpower Staffing Standards Report.	

The following is the expected screen view: Select an MTF and date the report should populate.

23



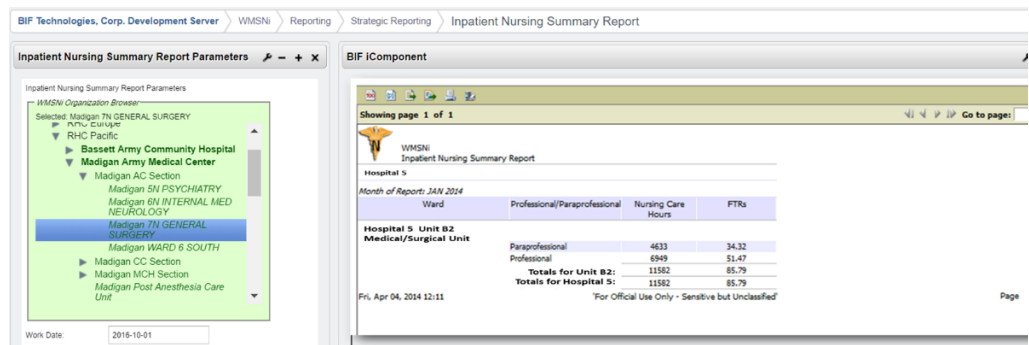
Insert a screenshot of your results here:



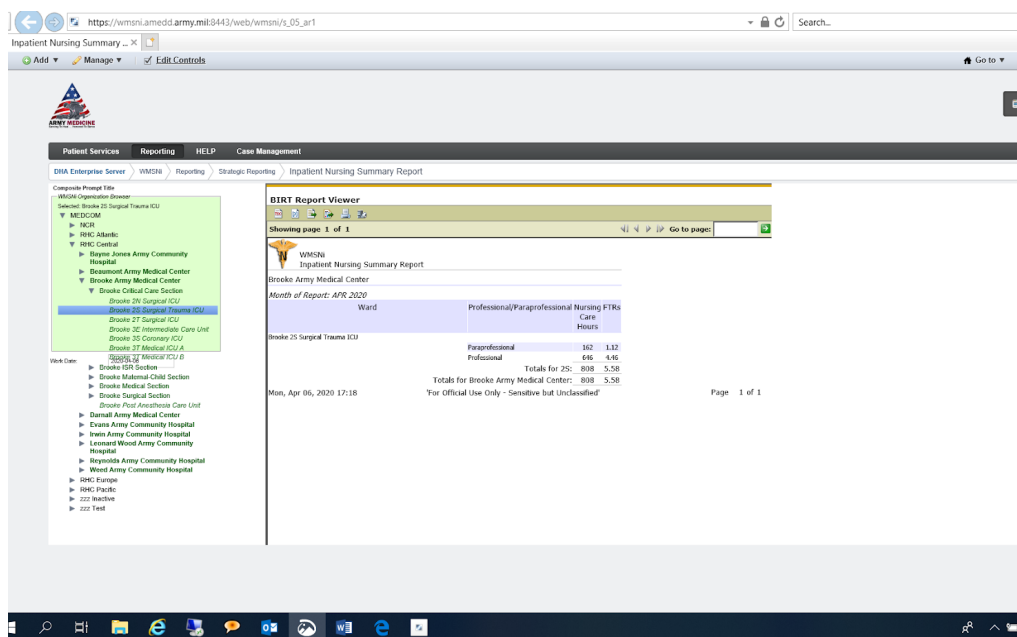
Pas s	Passing Criteria	Comments
X	Module opened as intended and appears to be properly functioning.	The expected screen was not displayed when the module opened. Not reporting correct data.
24	The user must login to the WMSNi user system using their CAC card.	
25	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
26	From the submenu select the Strategic Reports / Inpatient Nursing Summary Report.	

The following is the expected screen view: Select a unit and date the report should populate.

27



Insert a screenshot of your results here:

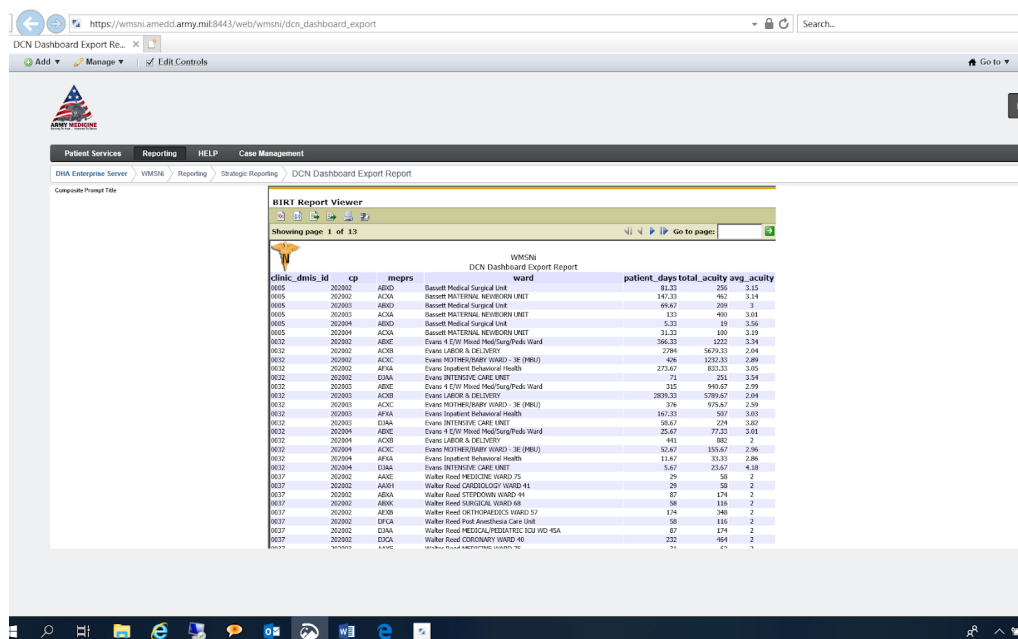


Pas s	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
28	The user must login to the WMSNi user system using their CAC card.	
29	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
30	From the submenu select the Strategic Reports / DCN Dashboard Export Report.	

The following is the expected screen view:

31

Insert a screenshot of your results here:

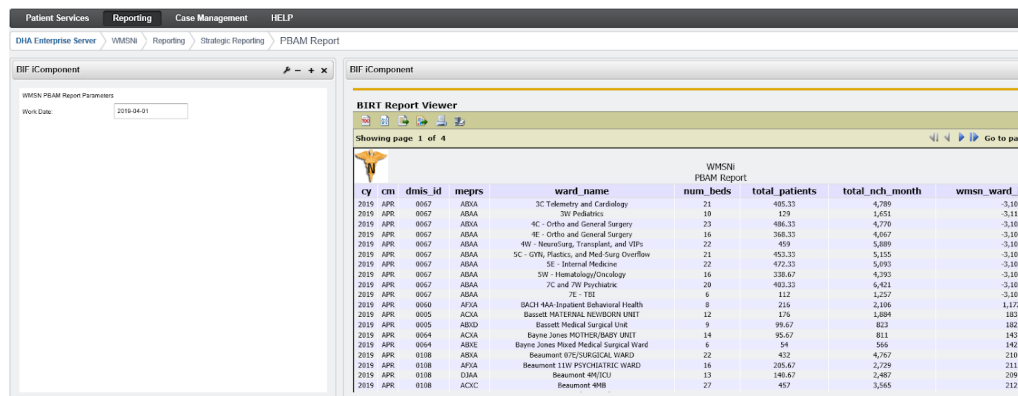


The screenshot shows a web application interface for the WMSNi DASH Board Export Report. The main content area displays a BIRT Report Viewer showing a table of patient data. The table has columns for clinic, dmis\_id, cp, meprs, ward, patient, days, total, acuity, and avg. acuity. The data is filtered by the date 2019-04-01.

clinic	dmis_id	cp	meprs	ward	patient	days	total	acuity	avg. acuity
0005	202002	ABDO	Bassett Medical Surgical Unit	81.33	256	3.15			
0005	202002	ACCA	Bassett MATERNAL NEONATAL UNIT	141.33	462	3.15			
0005	202003	ABDO	Bassett Medical Surgical Unit	89.67	209	3			
0005	202003	ACCA	Bassett MATERNAL NEONATAL UNIT	133	409	3.02			
0005	202004	ABDO	Bassett Medical Surgical Unit	5.33	19	3.56			
0005	202004	ACCA	Bassett MATERNAL NEONATAL UNIT	31.33	100	3.19			
0032	202002	ABDC	Evans 4 EIV Med/Surg/Peds Ward	366.33	1222	3.34			
0032	202002	ACCB	Evans LABOR & DELIVERY	2784	5679.33	2.64			
0032	202002	ACCC	Evans MOTHER/BABY WARD - 3E (PBU)	426	1233.33	2.88			
0032	202002	AFXA	Evans Inpatient Behavioral Health	273.67	833.33	3.05			
0032	202002	DAAA	Evans INTERCARE CARE UNIT	71	261	3.54			
0032	202003	ABDC	Evans 4 EIV Med/Surg/Peds Ward	315	940.67	2.99			
0032	202003	ACCB	Evans LABOR & DELIVERY	2839.33	5399.67	2.04			
0032	202003	ACCC	Evans MOTHER/BABY WARD - 3E (PBU)	376	875.67	2.09			
0032	202003	AFXA	Evans Inpatient Behavioral Health	167.33	507	3.03			
0032	202003	DAAA	Evans INTERCARE CARE UNIT	58.67	224	3.82			
0032	202004	ABDC	Evans 4 EIV Med/Surg/Peds Ward	25.67	77.33	3.01			
0032	202004	ACCB	Evans LABOR & DELIVERY	491	885	2			
0032	202004	ACCC	Evans MOTHER/BABY WARD - 3E (PBU)	52.67	155.67	2.96			
0032	202004	AFXA	Evans Inpatient Behavioral Health	11.67	33.33	2.88			
0032	202004	DAAA	Evans INTERCARE CARE UNIT	5.67	23.67	4.18			
0037	202002	AAAC	Walker Road MEDICINE WARD 75	29	58	2			
0037	202002	AAAC	Walker Road RADIOLOGY WARD 41	29	58	2			
0037	202002	ABDA	Walker Road STEPPED WARD 44	87	174	2			
0037	202002	ABDC	Walker Road MEDICAL WARD 18	56	116	2			
0037	202002	ABDB	Walker Road ORTHOPAEDICS WARD 57	174	348	2			
0037	202002	DFCA	Walker Road Post Anesthesia Care Unit	56	116	2			
0037	202002	DAAA	Walker Road MEDICAL/PEDIATRIC ICU WARD 65A	87	174	2			
0037	202002	EDCA	Walker Road CORONARY WARD 10	222	444	2			
0037	202002	EAAC	Walker Road MEDICAL/ICU WARD 70	71	142	2			

Pas s	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
32	The user must login to the WMSNi user system using their CAC card.	
33	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
34	From the submenu select the Strategic Reports / PBAM Report.	

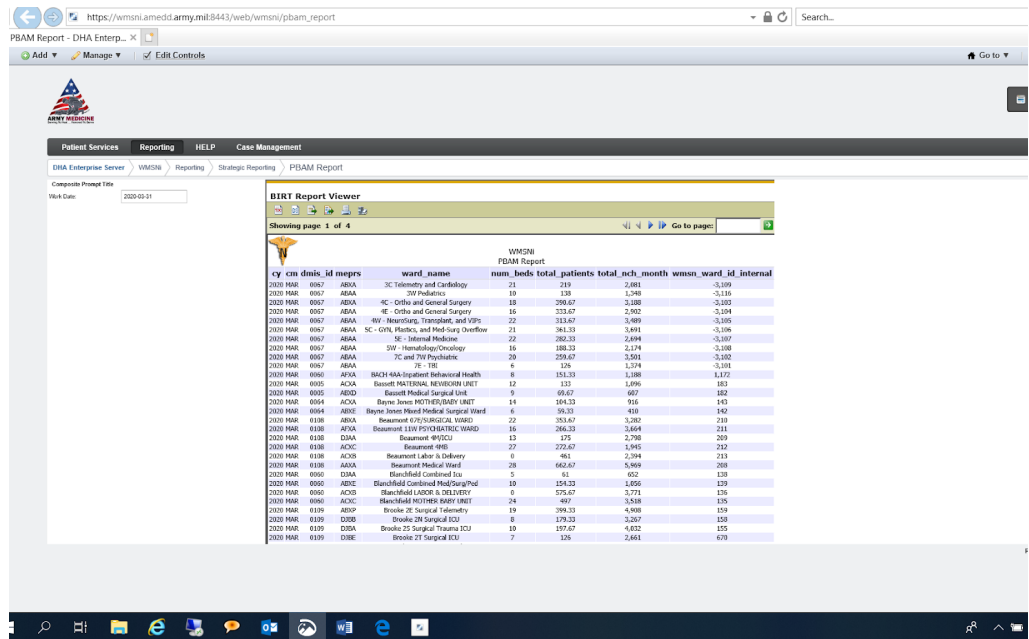
The following is the expected screen view: Select 1<sup>st</sup> of the month date and the report should populate.



The screenshot shows a web application interface for the WMSNi PBAM Report. The main content area displays a BIRT Report Viewer showing a table of patient data. The table has columns for cy, cm, dmis\_id, meprs, ward\_name, num\_beds, total\_patients, total\_nch\_month, and wmsni\_ward\_id. The data is filtered by the date 2019-04-01.

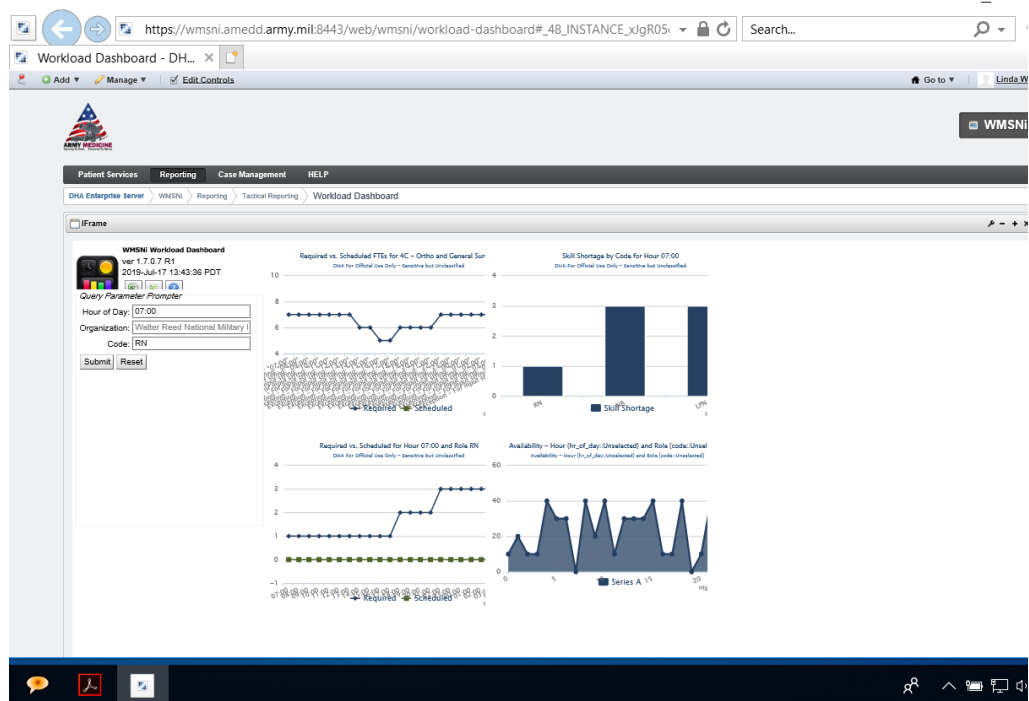
cy	cm	dmis_id	meprs	ward_name	num_beds	total_patients	total_nch_month	wmsni_ward_id
2019	APR	0067	ABDA	3C Telemetry and Cardiology	21	405.33	4,789	-3,109
2019	APR	0067	ABDA	3D Pulmonology	19	179	1,651	-3,116
2019	APR	0067	ABDA	4C - Ortho and General Surgery	23	486.33	4,770	-3,103
2019	APR	0067	ABDA	4E - Ortho and General Surgery	16	368.33	4,067	-3,104
2019	APR	0067	ABDA	4W - Neurology, Transplant, and VIPs	22	459	5,889	-3,105
2019	APR	0067	ABDA	5C - GYN, Pediatrics, and Med Surg Overflow	21	453.33	5,155	-3,106
2019	APR	0067	ABDA	5E - Internal Medicine	22	472.33	5,039	-3,107
2019	APR	0067	ABDA	5W - Hematology/Oncology	16	338.67	4,793	-3,108
2019	APR	0067	ABDA	7C and 7W Psychiatric	20	403.33	4,421	-3,102
2019	APR	0067	ABDA	7E - TBS	6	112	1,257	-3,101
2019	APR	0060	AFXA	BACH 4AA Inpatient Behavioral Health	8	216	2,106	1,172
2019	APR	0005	ACCA	Bassett MATERNAL NEONATAL UNIT	12	176	1,894	182
2019	APR	0005	ABDO	Bassett Medical Surgical Unit	9	89.67	823	142
2019	APR	0064	ACCA	Bayne Jones MOTHER/BABY UNIT	14	95.67	811	143
2019	APR	0064	ABDC	Bayne Jones Med/Surg Surgical Ward	8	54	366	142
2019	APR	0108	ABDA	Beaumont 67E/SURGICAL WARD	22	432	4,767	210
2019	APR	0108	AFXA	Beaumont 110W PSYCHIATRIC WARD	16	285.67	2,729	211
2019	APR	0108	DAAA	Beaumont 4W/ICU	13	146.67	2,487	209
2019	APR	0108	ACCC	Beaumont 4WB	27	457	3,585	212

Insert a screenshot of your results here:

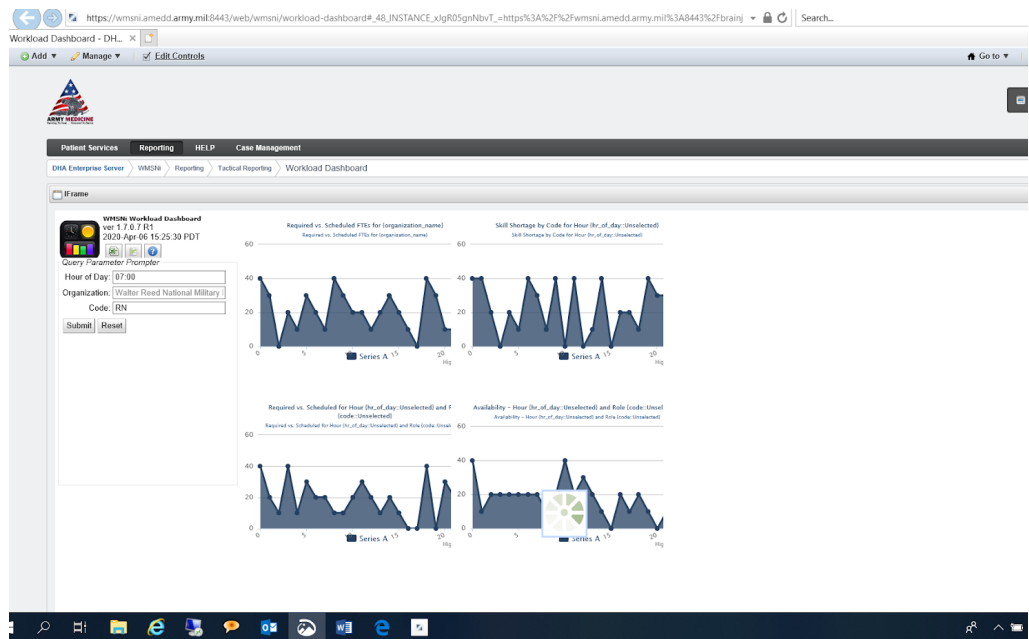


Pas	Passing Criteria	Comments
36	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
37	The user must login to the WMSNi user system using their CAC card.	
38	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
	From the submenu select the Tactical Reports / Workload Dashboard.	

The following is the expected screen view: Select a unit and the report should populate.



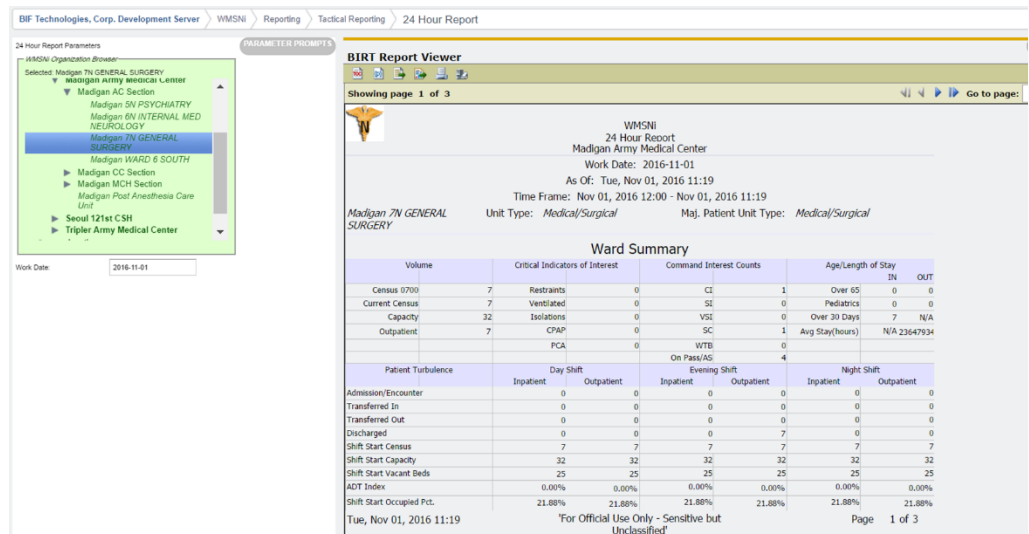
Insert a screenshot of your results here:



Pas s	Passing Criteria	Comments
X	Module opened as intended and appears to be properly functioning.	Does not retrieve data as expected.
40	The user must login to the WMSNi user system using their CAC card.	
41	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
42	From the submenu select the Tactical Reports / 24 Hour Report.	

The following is the expected screen view: Select a unit and date and the report should populate.

43



Insert a screenshot of your results here: Any ward that is not a WRNMMC ward

**Ward Summary**

Volume	Critical Indicators of Interest	Command Interest Counts	Appt Length of Stay	DN	OUT
Census 0700	8	Restraints	0	0	1
Current Census	10	Ventilated	0	0	0
Capacity	10	Isolation	0	0	0
Outpatient	0	CPAP	1	0	0
		PCA	1	0	0
		On Pump/AG	0	0	0

**Patient Turbulence**

	Day Shift	Evening Shift	Night Shift
Admission/Encounter	1	0	0
Transferred In	0	0	0
Transferred Out	0	0	0
Discharged	0	0	0
Shift Start Census	8	0	0
Shift Start Capacity	10	0	0
Shift Start Vacant Beds	2	0	0
ADT Index	12.50%	0.00%	0.00%
Shift Start Occupied Pct.	80.00%	0.00%	0.00%

### WRNMMC:

**Ward Summary**

Volume	Critical Indicators of Interest	Command Interest Counts	Appt Length of Stay	DN	OUT
Census 0700	8	Restraints	0	0	1
Current Census	9	Ventilated	0	0	0
Capacity	21	Isolation	4	0	0
Outpatient	0	CPAP	4	0	0
		PCA	1	0	0
		On Pump/AG	0	0	0

**Patient Turbulence**

	Day Shift	Evening Shift	Night Shift
Admission/Encounter	1	0	0
Transferred In	1	0	0
Transferred Out	0	0	0
Discharged	1	0	0
Shift Start Census	8	0	0
Shift Start Capacity	21	0	0
Shift Start Vacant Beds	13	0	0
ADT Index	37.50%	0.00%	0.00%
Shift Start Occupied Pct.	38.10%	0.00%	0.00%

Pas s	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
44	The user must login to the WMSNi user system using their CAC card.	
45	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
46	From the submenu select the Tactical Reports / Patient Acuity File Listing.	
47	The following is the expected screen view: Select a unit and the report should populate.	

Insert a screenshot of your results here:

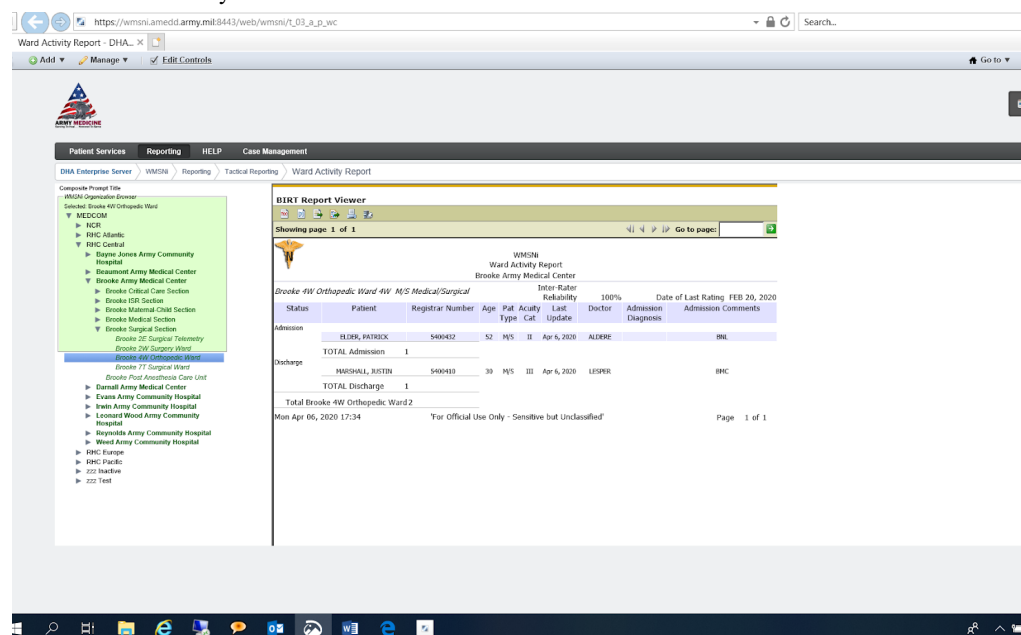
Pass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
48	The user must login to the WMSN system using their CAC card.	
49	Once logged into the WMSN system the user must navigate to the Reports Tab.	
50	From the submenu select the Tactical Reports / Ward Activity Report.	

The following is the expected screen view: Select a unit and the report should populate.

51



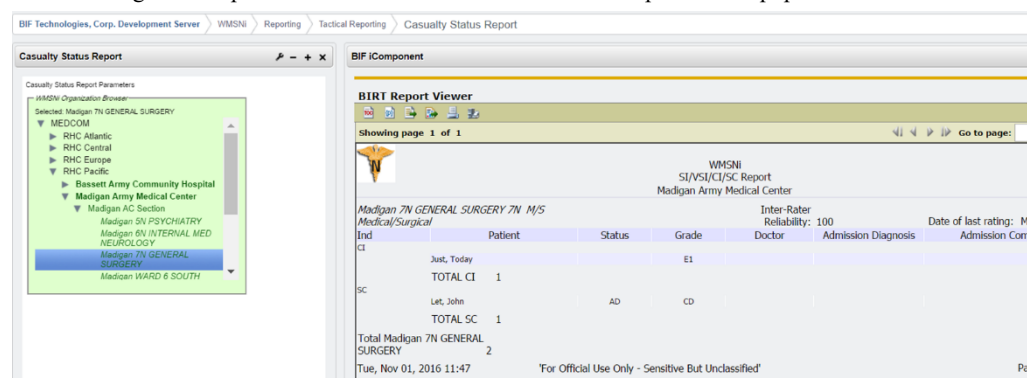
Insert a screenshot of your results here:



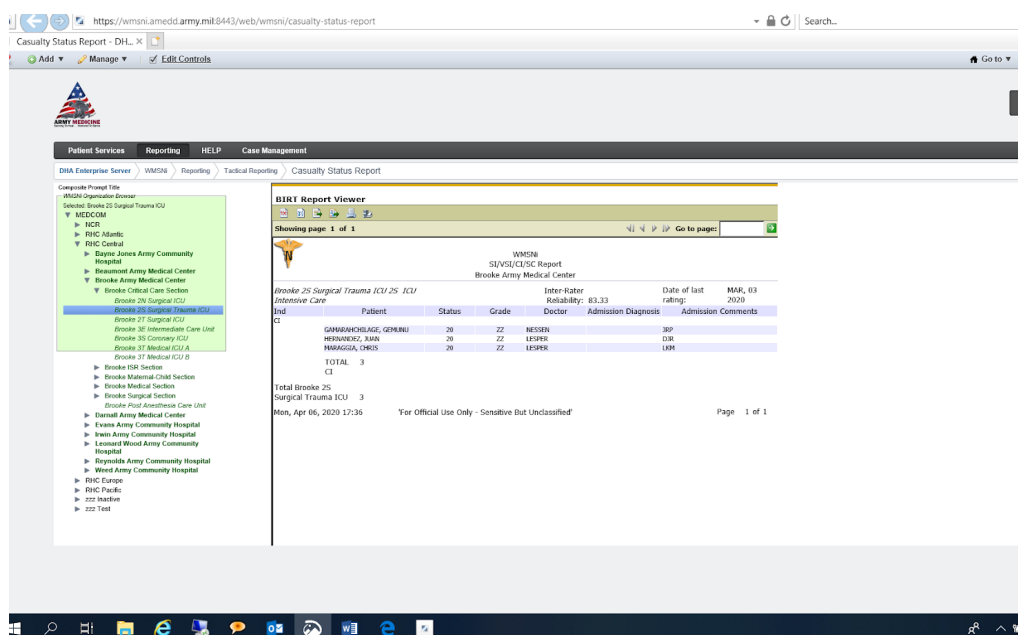
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
52	The user must login to the WMSNi user system using their CAC card.	
53	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
54	From the submenu select the Tactical Reports / Casualty Status Report.	

The following is the expected screen view: Select a unit and the report should populate.

55



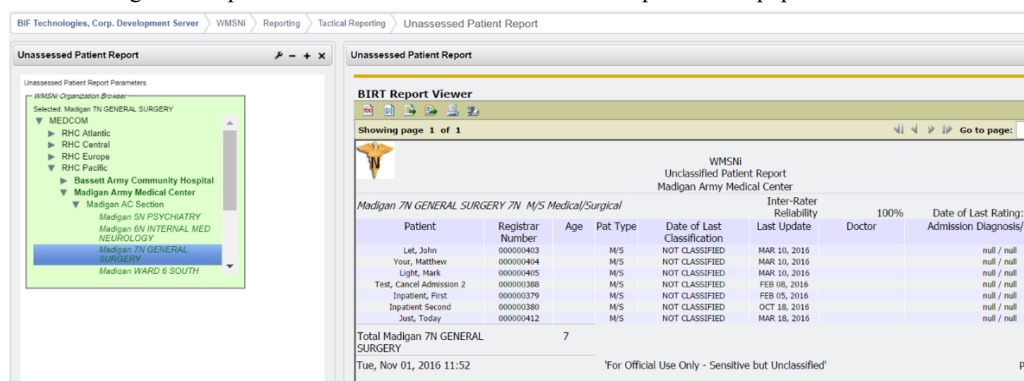
Insert a screenshot of your results here:



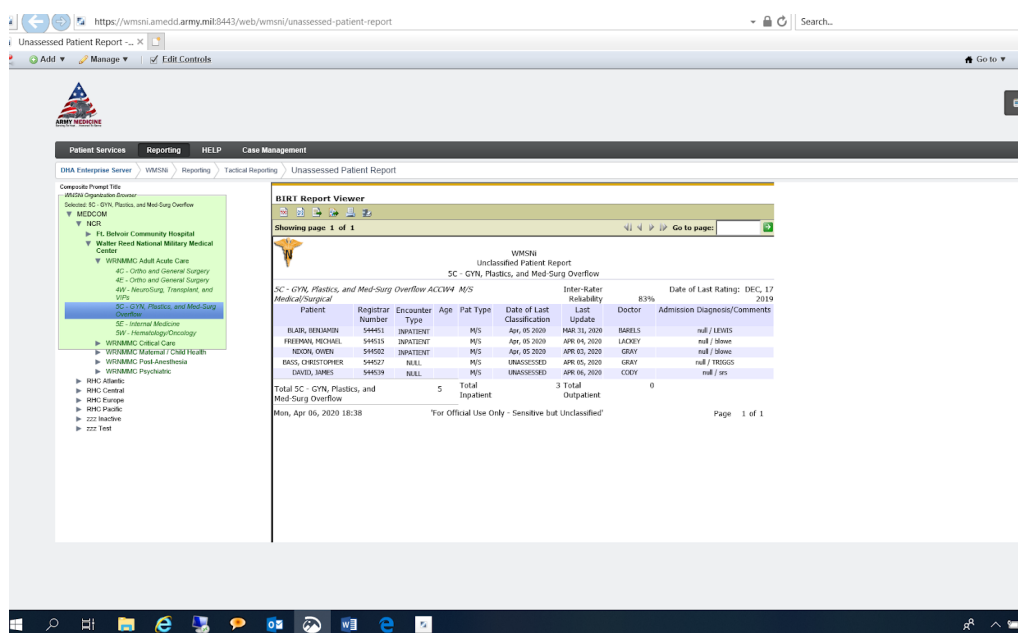
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
56	The user must login to the WMSNi user system using their CAC card.	
57	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
58	From the submenu select the Tactical Reports / Unassessed Patient Report.	

The following is the expected screen view: Select a unit and the report should populate.

59



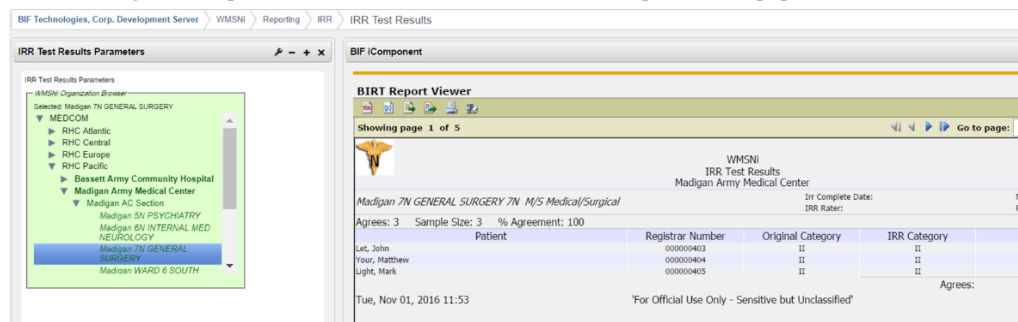
Insert a screenshot of your results here:



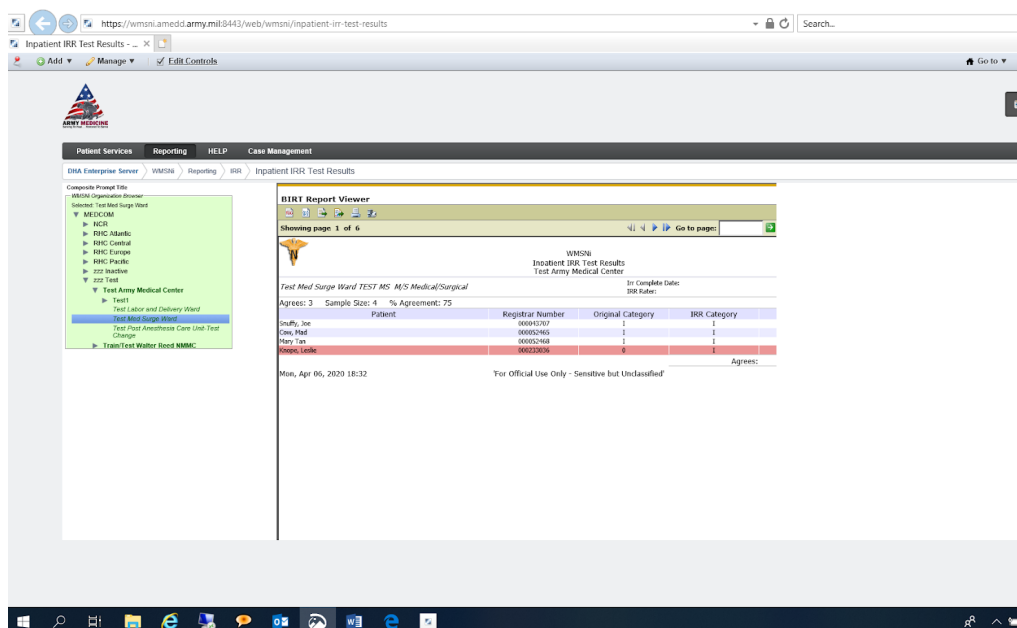
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
60	The user must login to the WMSNi user system using their CAC card.	
61	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
62	From the submenu select the IRR / IRR Test Results.	

The following is the expected screen view: Select a unit and the report should populate.

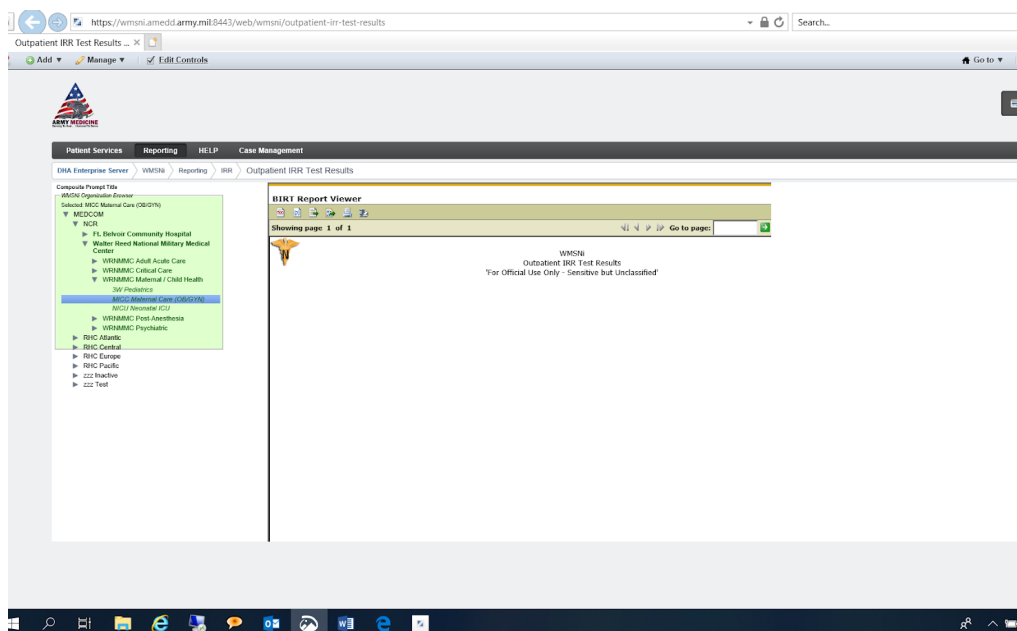
63



Insert a screenshot of your Inpatient results here:

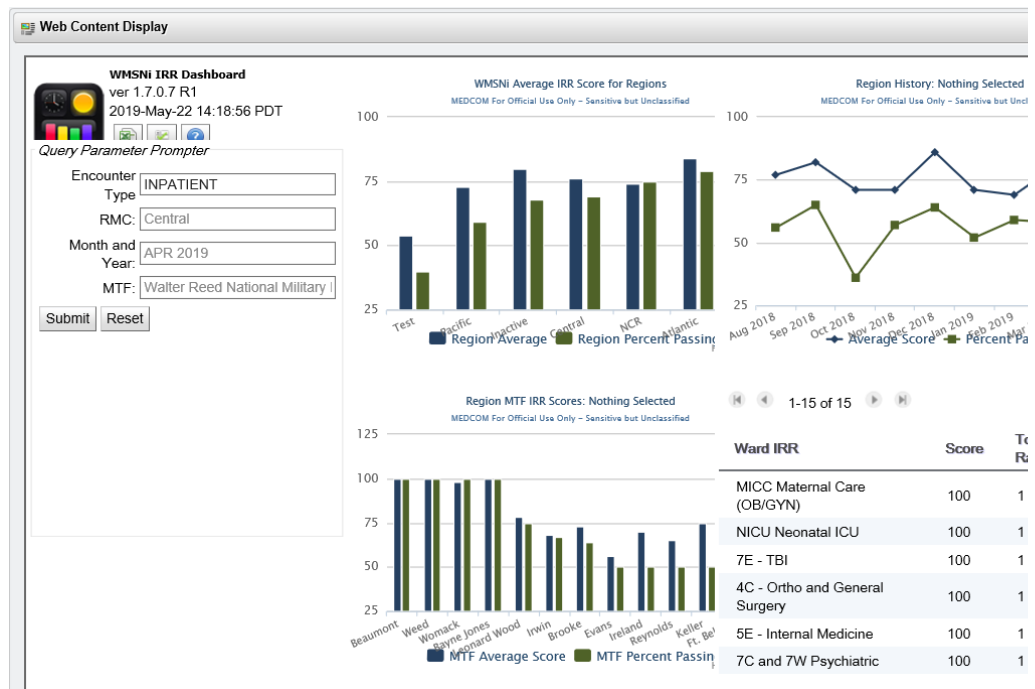


Insert a screenshot of your Outpatient results here:



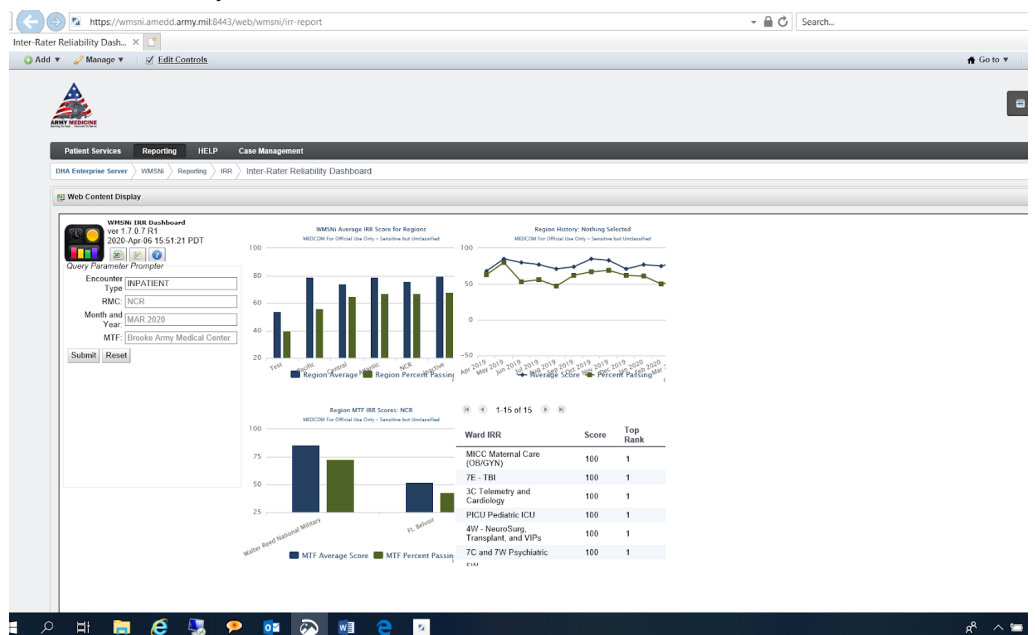
Pass	Passing Criteria	Comments
✓	Module opened as intended and appears to be properly functioning.	The Inpatient IRR results ran but seems a little slow (based on patients in IRR Module Test). The expected screen was displayed when the Outpatient report was opened (lack of Outpatient data).
64	The user must login to the WMSNi user system using their CAC card.	
65	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
66	From the submenu select the IRR / Inter-Rater Reliability Dashboard.	

The following is the expected screen view:

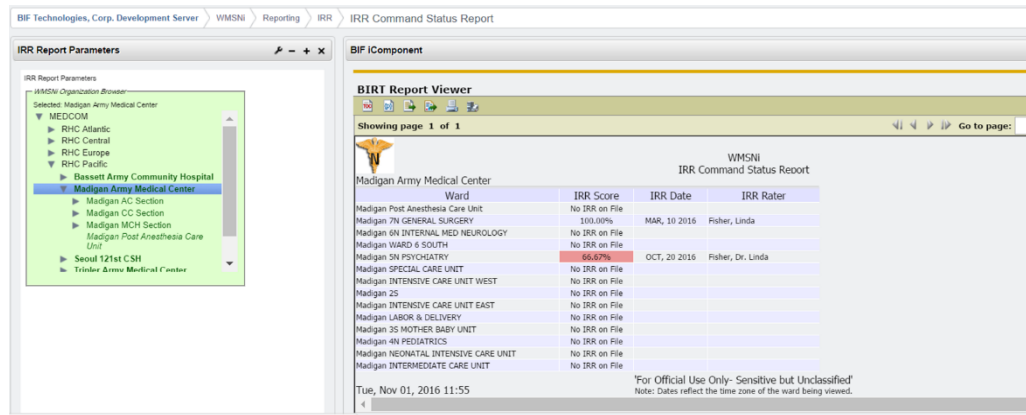


67

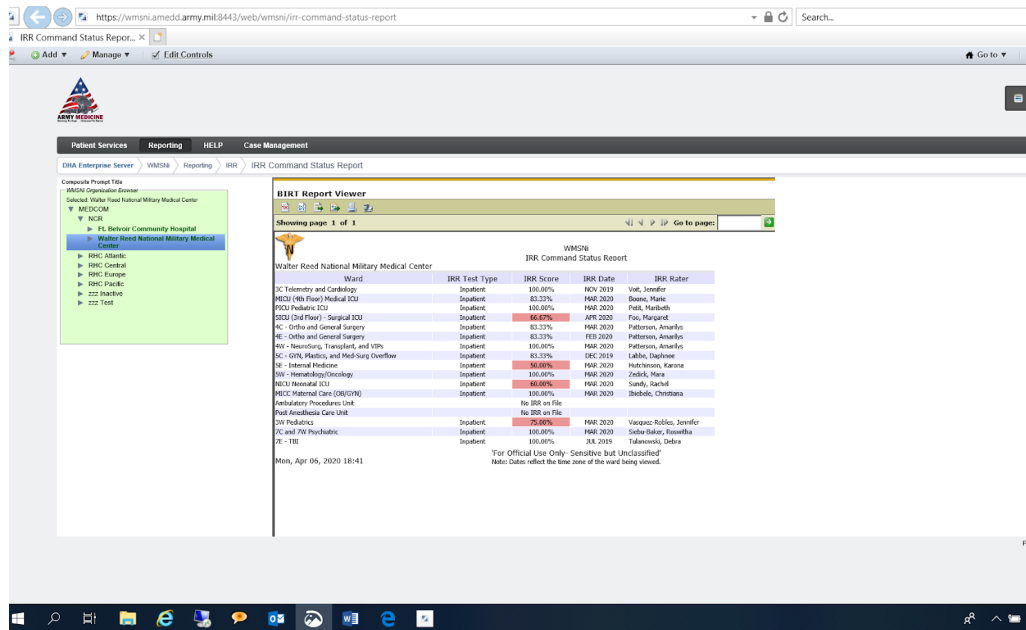
Insert a screenshot of your results here:



Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
68	The user must login to the WMSNi user system using their CAC card.	
69	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
70	From the submenu select the IRR / IRR Command Status Report.	
71	The following is the expected screen view: Select a unit, section, or MTF and the report should populate.	



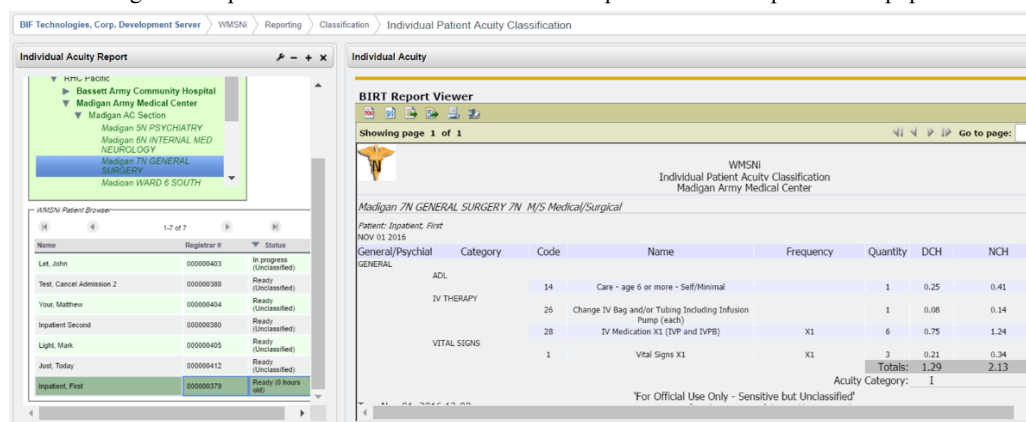
Insert a screenshot of your results here:



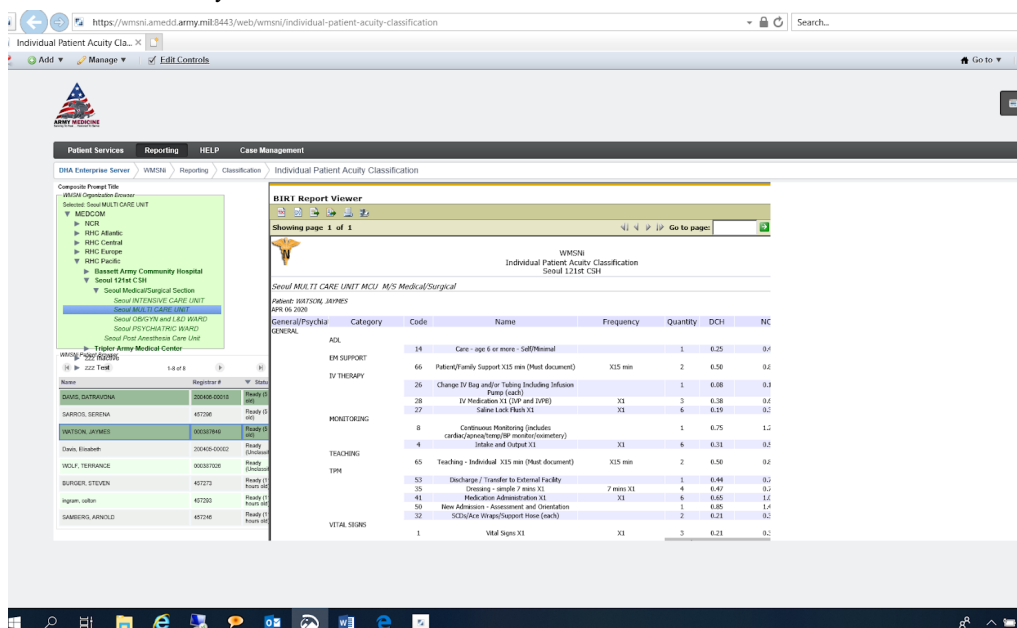
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
72	The user must login to the WMSNi user system using their CAC card.	
73	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
74	From the submenu select the Classification / Individual Patient Acuity Classification.	

The following is the expected screen view: Select a unit and a patient and the report should populate.

75



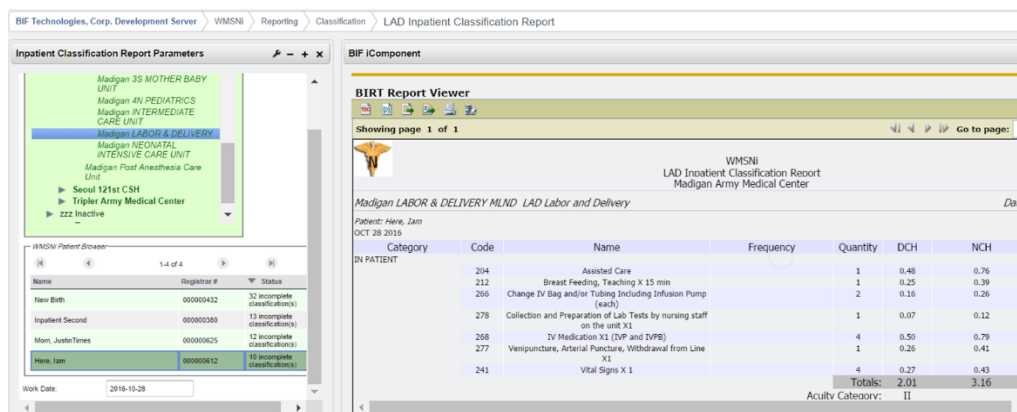
Insert a screenshot of your results here:



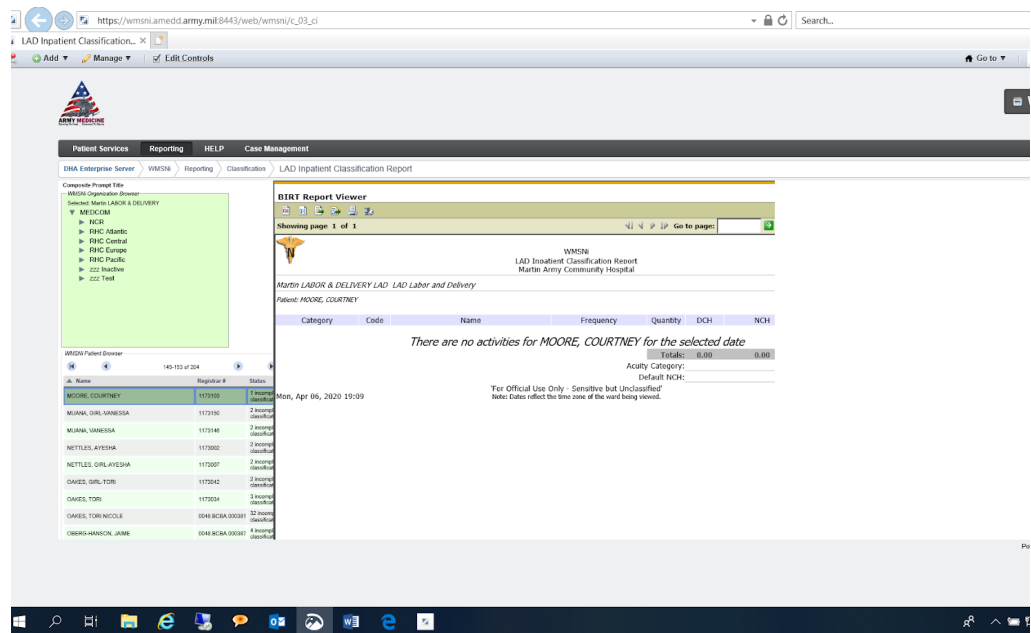
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
76	The user must login to the WMSNi user system using their CAC card.	
77	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
78	From the submenu select the Classification / LAD Inpatient Classification Report.	

The following is the expected screen view: Select an L&D unit and a patient and the report should populate.

79

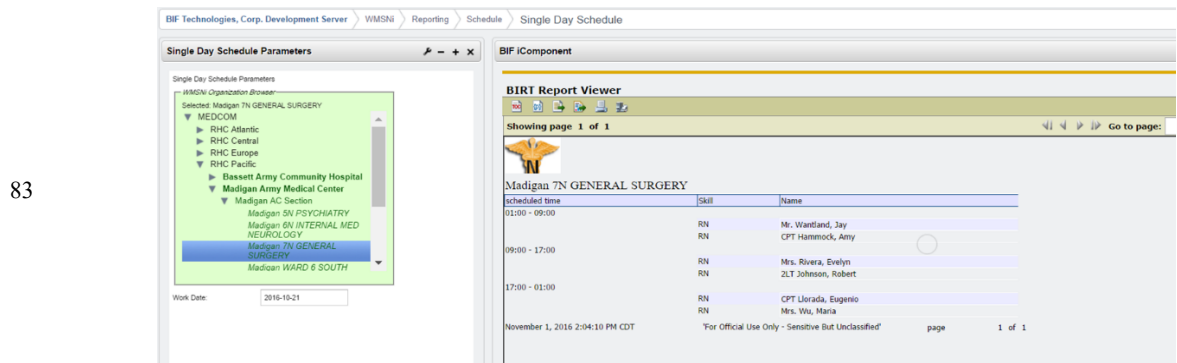


Insert a screenshot of your results here:



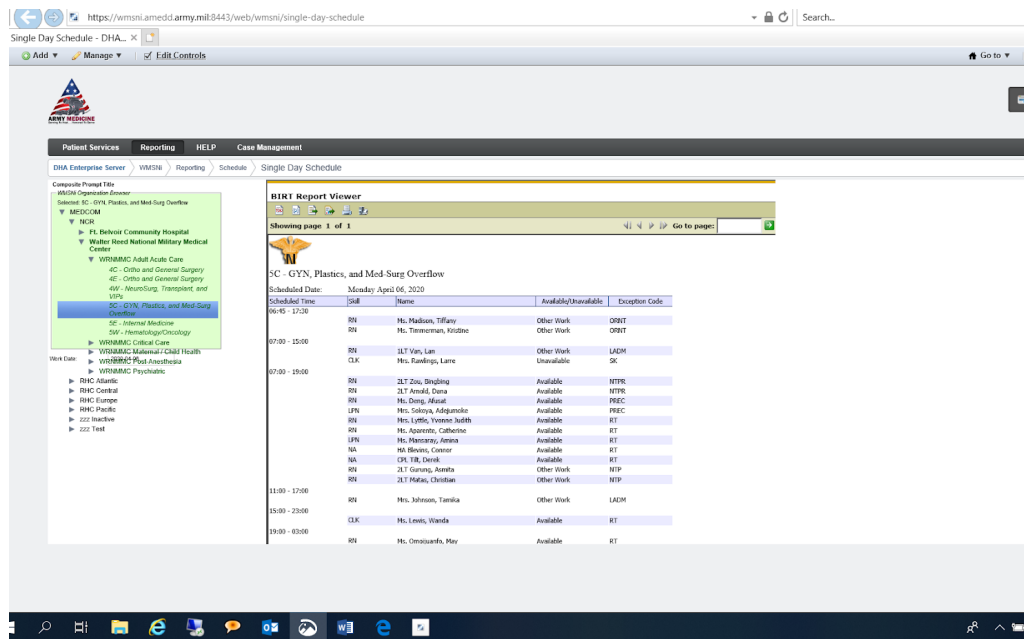
Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened. A Labor & Delivery patient is only visible if there is a remaining unclassified journal day. Working to change the Patient Browser to show all active patients. Works but patient is not visible if all Journals are classified. It is unclear if the patients have been classified.
80	The user must login to the WMSNi user system using their CAC card.	
81	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
82	From the submenu select the Schedule / Single Day Schedule.	

The following is the expected screen view: Select a unit and a date and the report should populate.



Insert a screenshot of your results here:

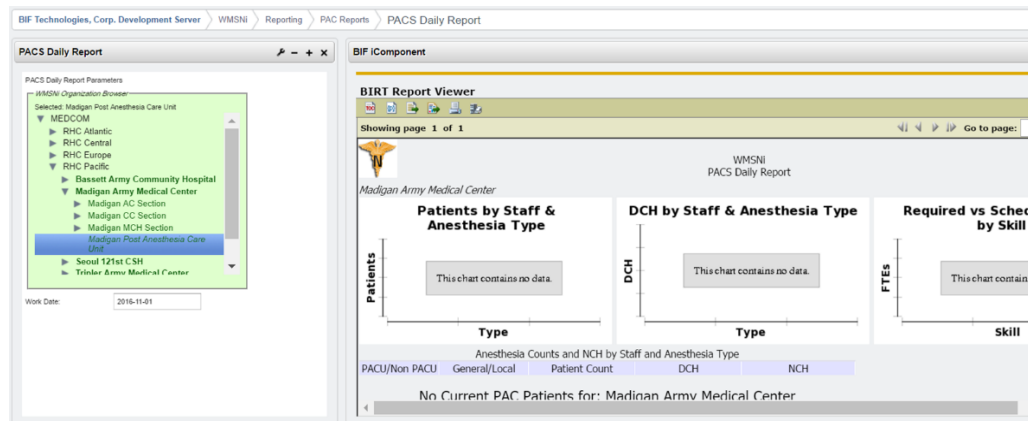




Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
84	The user must login to the WMSNi user system using their CAC card.	
85	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
86	From the submenu select the PAC Reports / PACS Daily Report.	

The following is the expected screen view: Select a PACS unit and a date and the report should populate.

87



Insert a screenshot of your results here:

Report no longer used. Not Tested.

Pass	Passing Criteria	Comments
<input type="checkbox"/>	Module opened as intended and appears to be properly functioning.	This report is no longer used.
88	The user must login to the WMSNi user system using their CAC card.	
89	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
90	From the submenu select the Other Reports / Scheduling Time Exceptions.	

The following is the expected screen view:

BIF Technologies, Corp. Development Server WMSNi Reporting Other Reports Scheduling Time Exceptions

BIF iComponent

BIRT Report Viewer

Showing page 1 of 2

WMSNi Scheduling Time Exceptions Report

Code	Name	Readiness	Extra Duty	Available	Military	Civilian	Description
PT	Physical Training	Y	N	N	Y	N	Physical fitness. Organized unit PT (place of duty) during normal duty hours. Does not include individual PT time.
TH	Training Holiday	N	N	N	Y	N	MILITARY OTHER: training holidays, pass, paternity leave (Assigned Military Only)
TNG	Medical and Non-Medical Education and Training	N	N	N	Y	Y	Medical Staff Training (Staff attending training). Birth month medical and non-medical training: Back to Basics; time spent learning, attending and participating in formal skill self development courses/programs supporting continuing education, i.e., CPR, ATLS, ACLS, HOPPA, local or TDY, CO2, Ethics, OPSEC, POSH, attending in house or local in-service and other proficiency training; attending local conducted non-healthcare related training (e.g. EEO, Sexual Harassment, Risk Management, Safety, etc)
TRNR	Teaching - Medical and Non-Medical Training and Education	N	N	Y	Y	Y	Teaching medical and non-medical training-includes life support training, CPR, ATLS, ACLS, CO2, Ethics, OPSEC, POSH, preparing/presenting lectures for a medical related conference inside or outside the MTF
HSPT	Humanitarian Support	N	N	N	Y	Y	Humanitarian Support for MEDRETE (Regardless of location)
JC	MTF Joint Commission Time	N	N	Y	Y	Y	Personnel assigned to an inpatient or outpatient (A or B MEPR/FCC code) when they attend formal Joint Commission meetings outside their work center.
LADM	Leadership - Admin Time	N	N	N	Y	Y	Clinical Nurse OSC/Asst and NCOIC only administrative time and functions. Includes clinic meeting, supervisory duties, evaluations and

Insert a screenshot of your results here:

https://wmsni.amedd.army.mil/8443/web/wmsni/exception\_report

Scheduling Time Exception... x

Add Manage Edit Controls

Go to

91

AMEDD ARMY MEDICAL CENTER

Patient Services Reporting HELP Case Management

DHA Enterprise Server WMSNi Reporting Other Reports Scheduling Time Exceptions

Composite Prompt Title

BIRT Report Viewer

Showing page 1 of 2

WMSNi Scheduling Time Exceptions Report

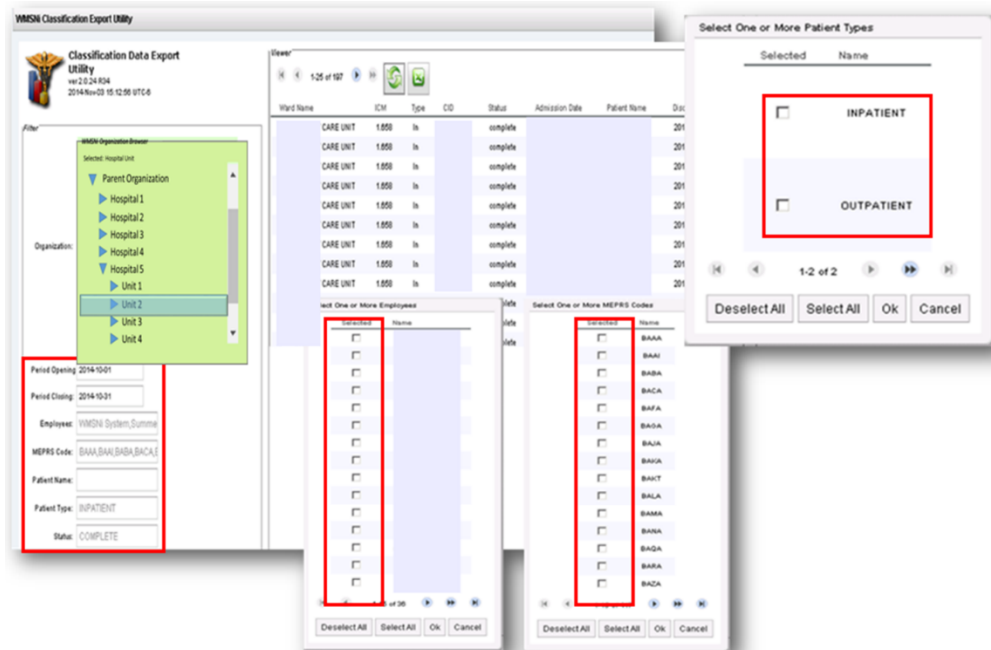
Code	Name	Readiness	Extra Duty	Available	Military	Civilian	Desc
MASS	Mass Casualties	Y	N	N	Y	Y	Disaster preparedness time. Evacual threats, MEDICAL, WREK missions, include training.
MOBA	Military Organizational Related Activities	N	N	N	Y	Y	Use FCCA for medical military organ for medical related processing, center team full meetings, inactiva, formal
MTNG	Military Training	Y	N	N	Y	N	Time spent participating and/or con includes but not limited to Army The Externets, local Externets, ADESH, Confed Environmental Transition Tr (CET), Free Med Clinics
PT	Physical Training	Y	N	N	Y	N	Physical fitness. Organized unit PT ( hours. Does not include individual P
TH	Training Holiday	N	N	N	Y	N	MILITARY OTHER: training holidays, Military Only)
TNG	Medical and Non-Medical Education and Training	N	N	N	Y	Y	Medical Staff Training (Staff attend non medical training: back to baser participating in formal skill self deve continuing education, i.e., CPR, ATL Ethics, OPSEC, POSH, attending in h proficiency training; attending local training (e.g. EEO, Sexual Harassment
TRNR	Teaching - Medical and Non-Medical Training and Education	N	N	Y	Y	Y	Teaching medical and non-medical t CPR, ATLS, ACLS, CO2, Ethics, OPSE lectures for a medical related confer Humanitarian Support for MEDRETE
HSPT	Humanitarian Support	N	N	N	Y	Y	Personnel assigned to an inpatient o when they attend formal Joint Com center.
JC	MTF Joint Commission Time	N	N	Y	Y	Y	
LADM	Leadership - Admin Time	N	N	N	Y	Y	Clinical Nurse OSC/Asst and NCOIC functions. Includes clinic meeting, in evaluations, controller medicines, an

Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	The expected screen was displayed when the module opened.
92	The user must login to the WMSNi user system using their CAC card.	
93	Once logged into the WMSNi system the user must navigate to the Reports Tab.	
94	From the submenu select the Other Reports / Classification Data Export.	

The following is the expected screen view: Select items from the dropdowns, then click the run button

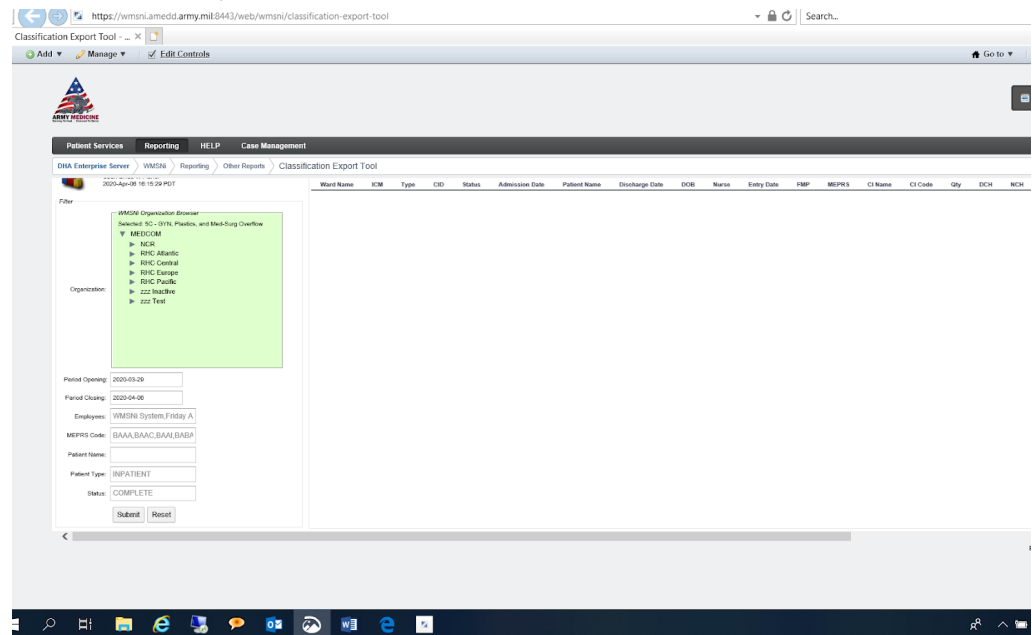


and the report should populate. The lists are expanded in this view.

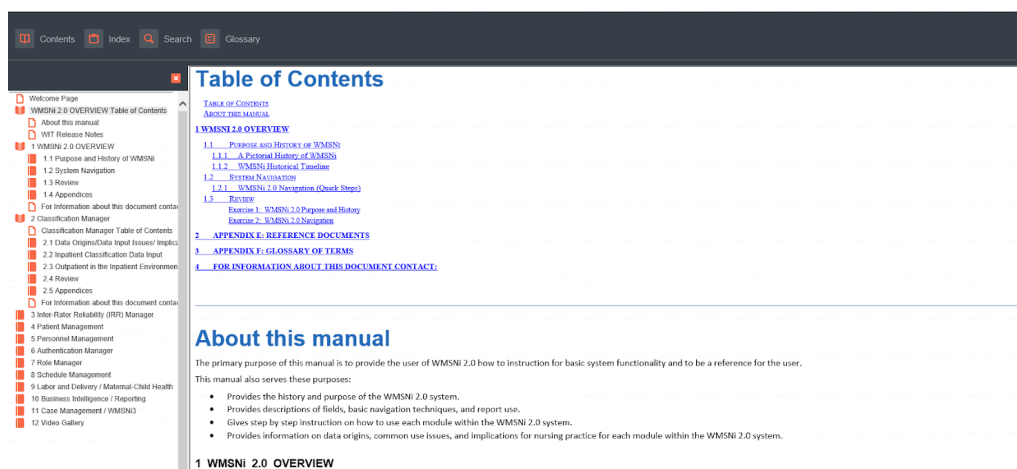


95

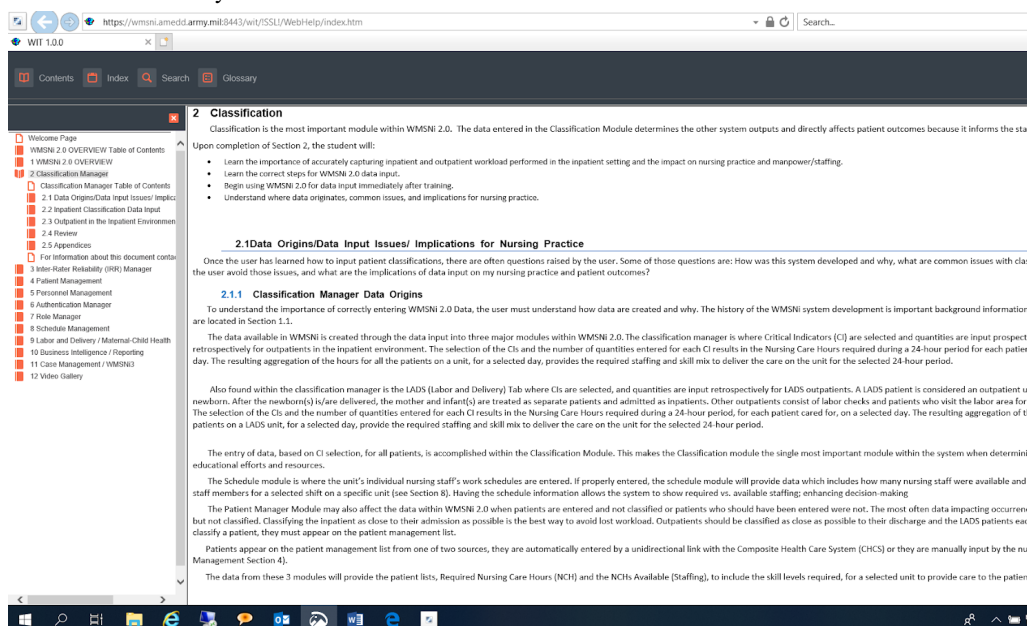
Insert a screenshot of your results here:



Pass	Passing Criteria	Comments
X	Module opened as intended and appears to be properly functioning.	Report opens but does not display data when run. Know issue. Excel export worked.
96	The user must login to the WMSNi user system using their CAC card.	
97	Once logged into the WMSNi system the user must navigate to the HELP Tab.	
98	Select Online Help.	
99	The following is the expected screen view: Select an MTF and date the report should populate.	



Insert a screenshot of your results here:



Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	Help document displays as expected.
100	The user must login to the WMSNi user system using their CAC card.	
101	Once logged into the WMSNi system the user must locate the Video message on the entry screen.	
102	Select <a href="https://login.milsuite.mil/?goto=https%3A%2F%2Fwww.milsuite.mil%3A443%2Fvideo%2Fsearch%2F%26tags%3DWMSNi">https://login.milsuite.mil/?goto=https%3A%2F%2Fwww.milsuite.mil%3A443%2Fvideo%2Fsearch%2F%26tags%3DWMSNi</a> From the Entry Screen.	
103	The following is the expected screen view: Select an MTF and date the report should populate.	



I AGREE

I agree to adhere to the [milSuite User Agreement](#) and the below terms and conditions:  
[milSuite Help and Support](#)

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- At any time, the USG may inspect and seize data stored on this IS.
- Communications using, or data stored on, this IS are not private, are subject to routine monitoring, interception, and search, and may be disclosed or used for any USG-authorized purpose.
- This IS includes security measures (e.g., authentication and access controls) to protect USG interests - not for your personal benefit or privacy.
- Notwithstanding the above, using this IS does not constitute consent to PM, LE or CI investigative searching or monitoring of the content of privileged communications, or work product, related to personal representation or services by attorneys, psychotherapists, or clergy, and their assistants. Such communications and work product are private and confidential. See [User Agreement](#) for details.

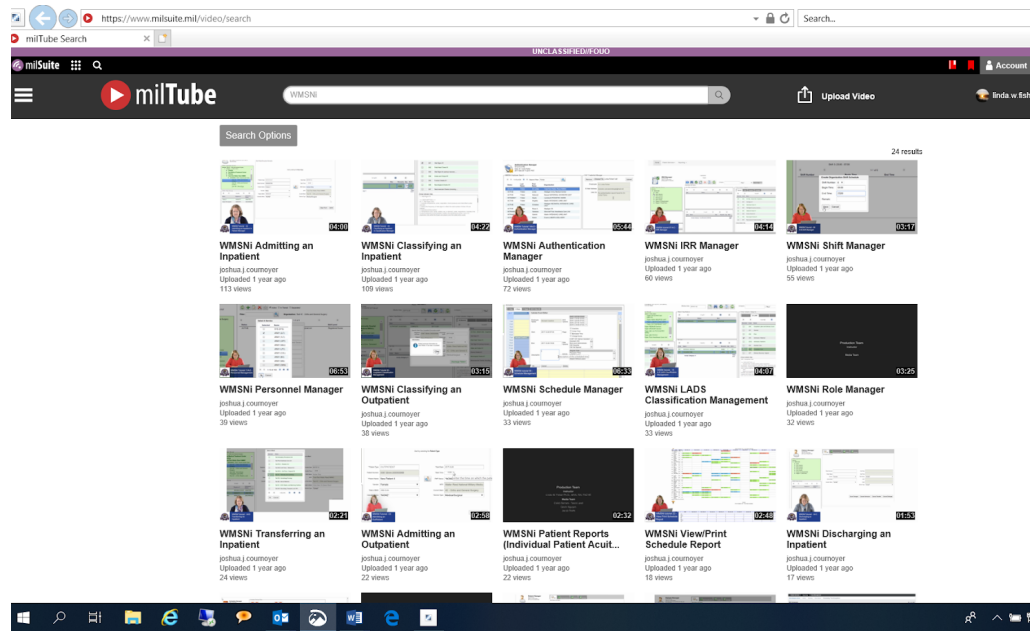
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### Privacy Act Statement

- **AUTHORITY:** 10 U.S.C. 3013, Secretary of the Army; Department of Defense Instruction 8500.01, Cybersecurity; Army Regulation 25-1, Army Information Technology; Army Regulation 25-2, Information Assurance.

Insert a screenshot of your results here:





Pass	Passing Criteria	Comments
<input checked="" type="checkbox"/>	Module opened as intended and appears to be properly functioning.	Help Manual displays as expected. Videos will not connect from ITC.

<p>Delivery Assessment: PASS</p>	<p>Issues:</p> <ol style="list-style-type: none"> <li>2 of 3 Dashboards not working (Manpower Staffing &amp; Workload Dashboards. There were issues with these prior to the 12c update.</li> <li>The Classification Data Export accepts selections but does not render a report, this behavior was present prior to the 12c update.</li> <li>The Inpatient LAD Individual Classification report appears to run but patients are not available for selection – known issue.</li> </ol>
--------------------------------------	---



...making data meaningful

## 9 IDUT Release Plan Example Only

### Overview

Short summary specifying the objective to be accomplished by the document. Key points for the reader are mentioned in this section.

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## 1 Deployment Summary

### 1.1 Technical Summary: Version x.x.x

A description and the delivery method of each item in the release. What are you fixing/changing/updating?

What are the artifacts being delivered to provide that fix?

1. Item 1
2. Item 2
3. Etc...

#### 1.1.1 Item 1

**Version Number:** x.x.x.x OR N/A

**Description:** Includes

**Delivery Method:** [SQL DML, SQL DDL, .war deployment, .jar deployment]

**SHA 256:**

#### 1.1.2 Item 2

**Version Number:** x.x.x.x OR N/A

**Description:** Includes

**Delivery Method:** [SQL DML, SQL DDL, .war deployment, .jar deployment]

**SHA 256:**

## 2 Installation Instructions

The following are examples of potential deployment exercises.

### 2.1 Retrieving Artifacts

The above have been provided via TFS.

### 2.2 Installation Steps

NOTE:

- 1) Download/move above artifacts to the working environment from TFS.
- 2)

### 2.3 RPTDESIGN File Deployment Instructions

NOTE:

- 1) Copy report files into an installation directory and execute subsequent commands from the installation directory.
- 2) Copy existing BIRT reports directory (for use in rolling back)  

```
$ sudo -i cp -R /var/webapps/birt/bif\  
/var/webapps/birt/bif.pre*release*.BAK
```
- 3) Confirm that the new directory exists



```
$ sudo -i ls -lt /var/webapps/birt/bif.pre*release*.BAK
```

- 4) Give ownership of report files to insight

```
$ sudo -i chown insight:insight ~/.rptdesign
```

- 5) Copy all .rptdesign files to reports directory

```
$ sudo -i mv ~/.rptdesign /var/webapps/birt/bif/
```

- 6) Execute shell script to update report database connection details. Be prepared to interactively supply the database password, database IP address, database SID, and the path to the reports directory.

```
$ sudo -i /opt/insight/server/set_report_URL_plus_enc_pw.sh
```

## 2.4 Pre-deployment Preparation

- 1) Shutdown TomCat

```
$ sudo -i /opt/insight/server/bin/shutdown.sh
```

- 2) Rename the log file

```
$ sudo -i mv /opt/insight/server/logs/catalina.out \
/opt/insight/server/logs/catalina_out_$(date \
+%0Y-%0m-%0d_%0k%0M).txt
```

- 3) Backup existing **wmsn2.war** file (for use in rolling back).

```
$ sudo -i mv /var/webapps/wmsn2.war \
/var/webapps/brainjack.pre2.4.7R1.war.BAK
```

- 5) Give ownership of the file to **insight**

```
$ sudo -i chown insight:insight ~/.war
```

## 2.5 WAR File Deployment Instructions

- 1) Remove the **wmsn2** deployment directory.

```
$ sudo -i rm -rf /var/webapps/wmsn2
```

- 2) Deploy the new WAR files to the **webapps** directory.

```
$ sudo -i mv ~/wmsn2.war /var/webapps/wmsn2.war
```

## 2.6 JAR File Deployment Instructions

- 1) Copy jar files from CD into an installation directory and execute subsequent commands from the installation directory.

- 2) Copy existing java library directory (for use in rolling back)

```
$ sudo -i cp -R /opt/insight/server/lib /opt/insight/server/lib.pre*release*.BAK
```

- 3) Confirm that the new directory exists

```
$ sudo -i ls -lt /opt/insight/server/lib.pre*release*.BAK
```

- 4) Give ownership of jar files to insight

```
$ sudo -i chown insight:insight ~/.jar
```

- 5) Copy all .jar files to lib directory

```
$ sudo -i mv ~/.jar /opt/insight/server/lib/
```

- 6) Stop the tomcat server

```
$ sudo -i /opt/insight/server/bin/shutdown.sh
```

- 7) Restart the tomcat server

```
$ sudo -i /opt/insight/server/bin/startup.sh
```

- 8) Monitor server startup

```
$ sudo -i tail -f -n 200 /opt/insight/server/logs/catalina.out
```

## **2.7 SQL File Deployment Instructions**

- 1) Back-up the database.
- 2) Copy contents of the sql directory on TFS to an installation directory on the database server. Execute subsequent commands from that directory location.
- 3) Execute the driver SQL script.

```
$ sqlplus / as sysdba @*File_Name*.sql
```

- 4) Examine logs directory for errors.

```
crt_ccl_core.log
```

```
sql_resource_*.log
```

```
compile_wmsni_schemas_report_errors.log
```