# stryker®

# iBed® Server v2

## Installation/Configuration Manual

REF 5212 Connected Hospital®



# Symbols

	General warning
	Caution
	Manufacturer
	Direct current
~	Alternating current

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# Warning/Caution/Note Definition

The words WARNING, CAUTION, and NOTE carry special meanings and should be carefully reviewed.

**WARNING** - Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

**CAUTION** - Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

Note - Provides special information to make maintenance easier or important instructions clearer.

5212-209-001 Rev C.0

# Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

#### CAUTION

- Before proceeding with this installation, make sure that a previous version of the *i*Bed Server application is not currently installed on the target system. If a previous version was installed, uninstall the software. If you attempt to install the application on a system where a previous version was installed, the installer behavior may be unpredictable.
- Before proceeding with this installation, make sure that a previous version of the *i*Bed Wireless configuration tool application is not currently installed on the target system. If a previous version was installed, uninstall the software. If you attempt to install the application on a system where a previous version was installed, the installer behavior may be unpredictable.

# Introduction

This manual assists you with the operation or maintenance of your Stryker product. Read this manual before operating or maintaining this product. Set methods and procedures to educate and train your staff on the safe operation or maintenance of this product.

**Note** - Stryker continually seeks advancements in product design and quality. This manual contains the most current product information available at the time of printing. There may be minor discrepancies between your product and this manual. If you have any questions, contact Stryker Customer Service or Technical Support at 1-800-327-0770.

## Indications for use

The intended use for the *i***Bed**® Wireless (with *i***Bed** Awareness) is to assist clinical staff to monitor bed parameters on specific Stryker beds. The desired bed parameters are set by operators at the bedside. The *i***Bed** Wireless software is only intended for use with specifically enabled Stryker beds that have been verified and validated with the *i***Bed** Wireless software is not intended to provide bed status information for non-Stryker beds. The *i***Bed** Wireless software is not intended to communicate any patient status information, nor to permanently store any type of data. The *i***Bed** Wireless with *i***Bed** Awareness System is not intended to provide automated treatment decisions or as a substitute for professional healthcare judgment. The *i***Bed** Wireless with *i***Bed** Awareness System is not a replacement or substitute for vital signs monitoring or alert equipment. All patient medical diagnosis and treatment are to be performed under direct supervision and oversight of an appropriate healthcare professional.

## iBed Server software

The included *iBed* Server installation CD (5212-501-001) contains the software required for the *iBed* Server installation.

**Note** - Before uninstalling the application, copy the following files to the **Public Documents** folder. The files will import to the new application. Using the *i*Bed Server Tool, configure the Master Device List and the Locator Associations.

Install directory\Stryker\iBedServerApplication\Data

BBIDList.xml	DeviceURLs.xml
DeviceBBIDLocationAssociation.xml	HospitalLocationList.xml

Stryker disclaims all responsibility for information transmitted off of its devices.

## System requirements and recommendations

#### Note

- · If minimum system requirements are not met, system performance will be impacted.
- Apply relevant software patches annually.

#### Hardware:

Minimum requirements for the *i*Bed Server hardware is dependent on the number of beds connected to the system.

#### 1 - 300 connected beds:

- 2.x GHz processor or higher with a total of 4 cores
- Memory: 8 GB RAM
- Hard Drive: 150 GB

#### 301 - 600 connected beds:

- 2.x GHz processor or higher with a total of 8 cores
- Memory: 16 GB RAM

• Hard Drive: 150 GB

#### 601 - 800 connected beds:

- 2.x GHz processor or higher with a total of 16 cores
- Memory: 32 GB RAM
- Hard Drive: 150 GB

#### 801 - 1,000 connected beds:

- 2.x GHz processor or higher with a total of 24 cores
- Memory: 32 GB RAM
- Hard Drive: 150 GB

#### 1,001 - 1,300 connected beds:

- 2.x GHz processor or higher with a total of 32 cores
- Memory: 64 GB RAM
- Hard Drive: 150 GB

#### Note

- For systems that have over 1,300 connected beds, add a core for every 50 additional beds.
- Two server environments are recommended for the *iBed* Wireless System: TEST and PROD
- The *i*Bed Wireless System is supported in either physical or virtual environments.

#### Software:

#### Windows Server 2008 R2 / 2012 R2

- Add Roles
  - Web Server (IIS) (Installed)
  - Roles Services
    - Application development
      - ASP.NET (Installed)
      - ASP (Installed)
    - Management tools
      - IIS Management Console (Installed)
- Features
  - .NET Framework 4.5 (or higher) features (Installed)
    - WCF Services
      - HTTP Activation
- All current Microsoft High Priority Updates (Installed) and optional update for .NET Framework 4.5 (or higher)

Additional configuration or setup may be required depending on equipment and other variables. If you have difficulties during installation, setup, configuration, or while attempting to establish a connection between the *i*Bed Server and Stryker wireless clients, contact Stryker Technical Support at 1-800-327-0770.

## **Device connection requirements**

**Note** - You are required to use the DNS naming convention for each Stryker device if the devices can travel to multiple subnets.

- · DHCP connections using a reserved IP address for each device via its MAC address
- Static connections using static IP address for each device via its MAC address
- DNS naming convention using each device host name that is hard-coded to the device (Host name example = SYK-82453f21f0c2 [SYK device MAC address])

## **Contact information**

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

Stryker Medical 3800 E. Centre Avenue Portage, MI 49002 USA

E-mail: medicaliBedWirelessSupport@stryker.com

# Installation

## Server configuration

### Windows Server 2008

- 1. In the Server Manager navigate to the Dashboard.
- 2. Click on the Add Roles and Features link (Figure 1).

E.		Server Manager				_ 🗆 X
€ Ə ▼ Server Ma	anager • Dashboard			• @   🖡	Manage Tools	View Help
Dashboard           Local Server           Land Servers           All Servers           File and Storage Services	VELCOME TO SERVER MANAGER	re this local server bles and features ther servers to manage				
	WHAT'S NEW 4 Create 5 Conne LEARN MORE ROLES AND SERVER GROUPS Role: 1   Server group: 1   Servers totak 1	e a server group	es			Hide
	File and Storage 1 Services 1 Manageability Events Services Performance BPA results	Local Server 1     Manageability     Events     Services     Performance     BPA results	All Servers     All Servers     All Servers     Services     Performance     BPA results	1		

Figure 1 – Add Roles and Features

3. Click the Next button in the Add Roles and Features Wizard (Figure 2).

L	Add Roles and Features Wizard
Before you begin Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	DESTINATION SERVER IZCOBBADI strytercorp.com This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website. To remove roles, role services, or features: Start the Remove Roles and Features Wizard Before you continue, verify that the following tasks have been completed: • The Administrator account has a strong password • Network settings, such as static IP addresses, are configured • Network settings, such as static IP addresses, are configured • Network settings, such as static IP addresses, are configured • The most current security updates from Windows Update are installed If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again. To continue, click Next.
	< Previous Next > Install Cancel

Figure 2 – Add Roles and Features Wizard

4. In the Installation Type step, select the Role-based or feature-based installation if not already selected and click Next (Figure 3).

	Add Roles and Features Wizard	_		x	
E Select installation Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard  Type  Select the installation type. You can install roles and features on a running physical comp machine, or on an offline virtual hard disk (VHD).  Role-based or feature-based installation Configure a single server by adding roles, role services, and features.  Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual or session-based desktop deployment.	NATION .strykerco uter or	SERVE yrp.co virtu	X m al	
	< Previous Next > Install	Ca	ancel		

Figure 3 – Installation Type

5. In the Server Selection step, click Select a server from the server pool and make sure that the server is correct in the Server Pool box and click Next (Figure 4).

L	Add Roles and Features Wizard
Select destination	DESTINATION SERVER KZOIBed01 strykercorp.com
Before You Begin Installation Type Server Selection	Select a server or a virtual hard disk on which to install roles and features.  Select a server from the server pool Select a virtual hard disk
Server Roles Features Confirmation	Server Pool Filter:
	Name         IP Address         Operating System           KZOIBed01.strykercorp.c         10:30.51.132         Microsoft Windows Server 2012 R2 Standard
	1 Computer(s) found This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.
	< Previous Next > Install Cancel

Figure 4 – Server Selection

6. In the Server Roles step, scroll through the options in the Roles box and select Web Server (IIS) (Figure 5).

<b>a</b>	Add Roles and Features Wizard	_ 🗆 X
ES Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles Application Server DHCP Server DHCP Server Fax Server Fax Server File and Storage Services (2 of 12 installed) Hyper-V Network Policy and Access Services Print and Document Services Remote Access Remote Access Remote Desktop Services Volume Accustation Services Volume Access Services Volume Access Services Volume Access Services New Server Services Volume Access Services Volume Access Services Volume Access Services New Server	DESTINATION SERVER KZOIBed01.strykercorp.com
	Windows Deployment Services     Windows Server Essentials Experience     Windows Server Locate Services	
	< Previous Next :	Install Cancel

Figure 5 – Web Server (IIS)

7. In the pop-up, Add features that are required for Web Server (IIS), click the Add Features button (Figure 6).

Ado The f	I features that are required for Web Server (IIS)?
4	Web Server (IIS) Management Tools [Tools] IIS Management Console
	Include management tools (if applicable) Add Features Cancel

Figure 6 – Add features

8. In the **Server Roles** step, click the **Next** button (Figure 7).

L	Add Roles and Features Wizard	_ 🗆 X
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Add Roles and Features Wizard  S Select one or more roles to install on the selected server. Roles Application Server DHCP Server DNS Server As Server Bile and Storage Services (2 of 12 installed) Hyper-V Network Policy and Access Services Print and Document Services Remote Access	DESTINATION SERVER KZOIBed01.strykercorp.com
	Volume Activation Services  Veb Server (IIS)  Windows Deployment Services  Windows Server Essentials Experience  Windows Server Update Services	> Install Cancel

Figure 7 – Server confirmation

9. In the Features step, select .NET Framework 3.5 Features and Telnet Client in the Features box (Figure 8).

L	Add Roles and Features Wizard	_ 🗆 X
Select features Before You Begin Installation Type Server Selection Server Roles Features Web Server Role ((IS))	Add Roles and Features Wizard         Select one or more features to install on the selected server.         Features <ul> <li>NET Framework 3.5 Features (2 of 7 installed)</li> <li>Background Intelligent Transfer Service (BITS)</li> <li>Background Intelligent Transfer Service (BITS)</li> </ul>	DESTINATION SERVER KZOIBed01.stry/kercorp.com Description Telnet Client uses the Telnet protocol to connect to a remote Telnet server and run applications on that server.
Web Server Role (IIS) Role Services Confirmation Results	BitLocker Drive Encryption       BitLocker Network Unlock       BranchCache       Client for NFS       Data Center Bridging       Direct Play       Enhanced Storage       Failover Clustering       Group Policy Management       IIS Hostable Web Core       Ink and Handwriting Services       ✓	
	< Previous Next >	Install Cancel

Figure 8 – Features selection

10. In the Web Server Role (IIS) step, click the Next button (Figure 9).



Figure 9 – Web Server Role (IIS)

11. In the **Role Services** step, click the **Next** button (Figure 10).

Select role serv	ices	DESTINATION SERVER KZOIBed01.strykercorp.com
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services	Select the role services to install for Web Server (IIS) Role services Digest Authentication IIS Client Certificate Mapping Authenticatio IP and Domain Restrictions URL Authorization Windows Authentication	Description Web Server provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications
Results		

Figure 10 – Role Services

12. In the **Confirmation** step, click the **Install** button to start the installation of the role and features (Figure 11).

<b>a</b>	Add Roles and Features Wizard					
Confirm installati	ion selections KZOIBed01.	NATION stryker	I SERV	ER		
Before You Begin	To install the following roles, role services, or features on selected server, click Install.					
Installation Type	Restart the destination server automatically if required					
Server Selection Server Roles Features	Optional features (such as administration tools) might be displayed on this page because been selected automatically. If you do not want to install these optional features, click Pre their check boxes.	they vious	have to cle	ar		
Web Server Role (IIS) Role Services	.NET Framework 3.5 Features .NET Framework 3.5 (includes .NET 2.0 and 3.0)			^		
Confirmation	Telnet Client			=		
	Web Server (iii) Management Tools IIS Management Console Web Server Common HTTP Features Default Document					
	Directory Browsing UTTO E Export configuration settings Specify an alternate source path			~		
	< Previous Next > Install	0	ancel			

Figure 11 – Install confirmation

13. When the installation is finished, click the **Close** button (Figure 12).

Feature installation	
Installation succeeded on KZOIBed01.strykercorp.com.	
.NET Framework 3.5 Features	^
.NET Framework 3.5 (includes .NET 2.0 and 3.0)	
Telnet Client	
Web Server (IIS)	=
Management Tools	
IIS Management Console	
Web Server	
Default Document	
Directory Browsing	
HTTP Errors	~
	Installation succeeded on K2OBedU1.strykercorp.com. INET Framework 3.5 Features INET Framework 3.5 (includes .NET 2.0 and 3.0) Telnet Client Web Server (IIS) Management Tools IIS Management Console Web Server Common HTTP Features Default Document Directory Browsing HTTP Errors

Figure 12 – Completed installation

14. Click on the Add roles and features link (Figure 13).

<b>E</b>	Server Manager				×	¢	
Server Ma	anager • Dashboard			· 🕲   🖡 🖡	Manage Tools	View Help	
Dashboard	WELCOME TO SERVER MANAGER						
Local Server     All Servers     File and Storage Services	1 Conf	igure this local server					
	QUICK START	d roles and features					
	3 Ad	d other servers to manage					
	WHAT'S NEW 4 Cre	eate a server group					
	5 Co	nnect this server to cloud service	S			Hide	
	ROLES AND SERVER GROUPS Roles: 1   Server groups: 1   Servers total	:1					
	File and Storage Services 1	Local Server 1	All Servers	1			
	Manageability     Events	Manageability     Events	Manageability     Events				
	Services	Services	Services				
	Performance BPA results	Performance BPA results	Performance BPA results				

Figure 13 – Add roles and features

15. Click the Next button in the Add Roles and Features Wizard (Figure 14).



Figure 14 – Add Roles and Features Wizard

16. In the Installation Type step, select the Role-based or feature-based installation and click Next (Figure 15).

Figure 15 – Installation Type

17. In the Server Selection step, click Select a server from the server pool and verify that the server is correct in the Server Pool box and click Next (Figure 16).

SETVET Select a server or a virtual h Select a server from the Select a virtual hard disi Server Pool Filter:	aard disk on which server pool k	DESTINATION SERVER KZOIBed01.strykercorp.com
Select a server or a virtual h <ul> <li>Select a server from the</li> <li>Select a virtual hard dist</li> </ul> Server Pool Filter:	aard disk on which server pool k	1 to install roles and features.
Server Pool		
Name KZOIBed01.strykercorp.c	IP Address 10.30.51.132	Operating System Microsoft Windows Server 2012 R2 Standard
1 Computer(s) found This page shows servers the Add Servers command in S collection is still incomplete	at are running Win erver Manager. Of are not shown.	ndows Server 2012, and that have been added by using the ffline servers and newly-added servers from which data
	1 Computer(s) found This page shows servers th Add Servers command in S collection is still incomplete	1 Computer(s) found This page shows servers that are running Wir Add Servers command in Server Manager. O collection is still incomplete are not shown.

Figure 16 – Server selection

18. In the Server Roles step in the Roles box, expand the Web Server (IIS) heading, Web Server heading, and then Application Development. Select ASP.NET 3.5 and click Next (Figure 17).

<b>E</b> .	Add Roles and Features Wizard	_ 🗆 X
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select one or more roles to install on the selected server. Roles    Web Server (IIS) (8 of 43 installed)   Web Server (7 of 34 installed)   Web Server (7 of 34 installed)  Web Server (7 of 2 installed)  Web Server (1 of 2 installed)  Web Server (1 of 2 installed)  Web Server (1 of 9 installed)  Security	DESTINATION SERVER           KZOIBed01.strykercorp.com           ASP.NET provides a server side           object oriented programming           environment for building Web sites           and Web applications using           managed code. ASP.NET is not           simply a new version of ASP. Having           been entirely re-architected to           provide a highly productive           provide a not write a robust infrastructure for           building web applications.
	☐ CGI ☐ ISAPI Extensions < Previous ☐ I	v Next > Install Cancel

Figure 17 – Server Roles

19. In the pop-up window, click **Add Features** (Figure 18).

<b>a</b>	Add Roles and Features Wizard
Ac	Id features that are required for ASP.NET 3.5?
You feat	cannot install ASP.NET 3.5 unless the following role services or tures are also installed.
⊿	Web Server (IIS)
	▲ Web Server
	<ul> <li>Application Development</li> </ul>
	.NET Extensibility 3.5
	ISAPI Extensions
	ISAPI Filters
~	Include management tools (if applicable)
	Add Features Cancel

Figure 18 – Add Features

20. In the Server Roles step, select ASP and click Next (Figure 19).

2	Add Roles and Features Wizard	_ <b>D</b> X
Select server role Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	S Select one or more roles to install on the selected server. Roles	DESTINATION SERVER KZOI8ed01.strykercorp.com
	< Previous	Next > Install Cancel

Figure 19 – ASP role

21. In the Features step, click Next (Figure 20).

Select features		DESTINATION SERVER KZOIBed01.strykercorp.com
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Select one or more features to install on the selected server.  Features  Select one or more features to install on the selected server.  Background Intelligent Transfer Service (BITS) BitLocker Drive Encryption BitLocker Network Unlock BranchCache Client for NFS Data Center Bridging Direct Play Enhanced Storage Client for NFS	Description Telnet Client uses the Telnet protocol to connect to a remote Telnet server and run applications on that server.
	Group Policy Management     IIS Hostable Web Core     Ink and Handwriting Services     C     III     C     Previous     Next :	> Install Cancel

Figure 20 – Features selection

22. In the Confirm installation selections step, click Install (Figure 21).

<b>a</b>	Add Roles and Features Wizard	_ <b>□</b> ×
Confirm installat Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard Con selections To install the following roles, role services, or features on selected serv Restart the destination server automatically if required Optional features (such as administration tools) might be displayed or been selected automatically. If you do not want to install these option their check boxes. Web Server (IIS) Web Server Application Development ASP	er, click Install.
	ASP.NET 3.5 ISAPI Extensions ISAPI Filters .NET Extensibility 3.5 Export configuration settings Specify an alternate source path	
	< Previous Next >	Install Cancel

Figure 21 – Confirm installation

23. When installation is complete, click the **Close** button (Figure 22).

<b>a</b>	Add Roles and Features Wizard	_ <b>D</b> X
Installation progre	PSS RZOIBed	FINATION SERVER 1.strykercorp.com
Before You Begin	View installation progress	
Installation Type	Feature installation	
Server Roles	Installation succeeded on KZOIBed01.strykercorp.com.	
Features Confirmation Results	Web Server (IIS) Web Server Application Development ASP ASPNET 3.5 ISAPI Extensions ISAPI Filters .NET Extensibility 3.5	
	You can close this wizard without interrupting running tasks. View task progress page again by clicking Notifications in the command bar, and then Task Details. Export configuration settings	or open this
	< Previous Next > Close	Cancel

Figure 22 – Installation complete

24. Restart the server.

25. Run Windows Update to look for any important and optional updates and install them. Restart the server if required.

#### Windows Server 2012

1. In the Server Manager navigate to the Dashboard.

2. Click on the Add roles and features link (Figure 23).

<b>E</b>	Server Manager					x	
€ 🔊 🔹 Server Ma	anager • Dashboard			• 🕲   🏲	Manage Tools	View Hel	lp
Image: Dashboard           Image: Local Server           Image: Lo	ANAGER > Dashboard	gure this local server d roles and features d other servers to manage tate a server group nnect this server to cloud services	All Servers     All Servers     Manageability     Events	• ②   <b>F</b>	Manage Tools	View Het	P
	Services Performance BPA results	Services Performance BPA results	Services Performance BPA results				

Figure 23 – Add roles and features

3. Click the Next button in the Add Roles and Features Wizard (Figure 24).

<b>a</b>	Add Roles and Features Wizard
Before you begin Refore You Begin Installation Type Server Selection Server Roles Features Confirmation Results	DESTINATION SERVER KZOIBedD1.strykercorp.com
	< Previous Next > Install Cancel

Figure 24 – Add Roles and Features Wizard

4. In the Installation Type step, select the Role-based or feature-based installation if not already selected and click Next (Figure 25).

<u>k</u>	Add Roles and Features Wizard	-		x	
Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard  Type  Select the installation type. You can install roles and features on a running physical com machine, or on an offline virtual hard disk (VHD).  Role-based or feature-based installation Configure a single server by adding roles, role services, and features.  Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtua or session-based desktop deployment.	INATION 1.stryken puter o	serv corp.co	X reR om ual	
	< Previous Next > Install		Cance	1	

Figure 25 – Installation Type

5. In the Server Selection step, click Select a server from the server pool and make sure that the server is correct in the Server Pool box and click Next (Figure 26).

<b>a</b>	Add Roles and Features Wizard
Select destinati	ON SERVER KZOIBed01 strykercorp.com
Before You Begin Installation Type Server Selection Server Roles	Select a server or a virtual hard disk on which to install roles and features.   Select a server from the server pool  Select a virtual hard disk Server Pool
Features Confirmation	Filter:
	Name         IP Address         Operating System           KZOIBed01.strykercorp.c         10.30.51.132         Microsoft Windows Server 2012 R2 Standard
	1 Computer(s) found This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

Figure 26 – Server Selection

6. In the Server Roles step, scroll through the options in the Roles box and select Web Server (IIS) (Figure 27).

<b>E</b>	Add Roles and Features Wizard	_ 🗆 X
Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Koles and Features Wizard         Select one or more roles to install on the selected server.         Roles         Application Server         DHCP Server         DNS Server         Fax Server         Pile and Storage Services (2 of 12 installed)         Hyper-V         Network Policy and Access Services         Print and Document Services         Remote Desktop Services         Volume Activation Services         Web Server (IIS)         Windows Deployment Services	DESTINATION SERVER KZOI8ed01.strykercorp.com Description Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.
	Windows Server Update Services	N Install Correl
	< Previous Next -	instail Cancel

Figure 27 – Web Server (IIS)

7. In the pop-up, Add features that are required for Web Server (IIS), click the Add Features button (Figure 28).

	Add Roles and Features Wizard
Ad	d features that are required for Web Server (IIS)?
The have	following tools are required to manage this feature, but do not to be installed on the same server.
⊿	Web Server (IIS)
- 3	▲ Management Tools
	[Tools] IIS Management Console
~	Include management tools (if applicable) Add Features Cancel

Figure 28 – Add Features

8. In the **Server Roles** step, click the **Next** button (Figure 29).

<b>A</b>	Add Roles and Features Wizard	_ 🗆 X
Select server ro Before You Begin Installation Type Server Selection Server Boles	CS Select one or more roles to install on the selected server. Roles Application Server	DESTINATION SERVER KZOIBed01.strykercorp.com Description Web Server (IIS) provides a reliable, manageable, and scalable Web
Features Web Server Role (IIS) Role Services Confirmation Results	<ul> <li>DHCP Server</li> <li>DNS Server</li> <li>Fax Server</li> <li>Fax Server</li> <li>IFile and Storage Services (2 of 12 installed)</li> <li>Hyper-V</li> <li>Network Policy and Access Services</li> <li>Print and Document Services</li> <li>Remote Access</li> <li>Remote Desktop Services</li> <li>Volume Activation Services</li> <li>Volume Activation Services</li> <li>Web Server (IIS)</li> <li>Windows Deployment Services</li> </ul>	application infrastructure.
	Windows Server Essentials Experience     Windows Server Update Services         Yerevious          Next	> Install Cancel

Figure 29 – Server confirmation

9. In the Features step, select .NET Framework 3.5 Features and Telnet Client in the Features box (Figure 30).

Select features		DESTINATION SERVER KZOIBed01.strykercorp.com
Before You Begin Installation Type Server Selection Server Roles <b>Features</b> Web Server Role (IIS) Role Services Confirmation Results	Select one or more features to install on the selected server  Features  Select one or more features to install on the selected server  Background Intelligent Transfer Service (BITS) BitLocker Drive Encryption BitLocker Network Unlock BranchCache Client for NFS Data Center Bridging Direct Play Enhanced Storage Failover Clustering Group Policy Management Uliet Client for Nes Come	Description Telnet Client uses the Telnet protocol to connect to a remote Telnet server and run applications on that server.
	Ink and Handwriting Services	~

Figure 30 – Features selection

10. In the Web Server Role (IIS) step, click the Next button (Figure 31).



Figure 31 – Web Server Role (IIS)

11. In the **Role Services** step, click the **Next** button (Figure 32).

Select role servi	ces	DESTINATION SERVER KZOIBed01.strykercorp.com
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Select the role services to install for Web Server (IIS)  Role services  Digest Authentication Digest Authenticate Mapping Authenticatio P and Domain Restrictions URL Authorization Application Development  FTP Service FTP Service FTP Service FTP Service STP Service FTP	Description Web Server provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications.

Figure 32 – Role Services

12. In the **Confirmation** step, click the **Install** button to start the installation of the role and features (Figure 33).

<b>L</b>	Add Roles and Features Wizard	-		x
Confirm installation	on selections KZOIBed01	NATIO! .stryker	N SERV corp.co	ER
Before You Begin	To install the following roles, role services, or features on selected server, click Install.			
Installation Type	Restart the destination server automatically if required			
Server Selection Server Roles Features	Optional features (such as administration tools) might be displayed on this page because been selected automatically. If you do not want to install these optional features, click Pre their check boxes.	e they evious	have to cle	ar
Web Server Role (IIS) Role Services	.NET Framework 3.5 Features .NET Framework 3.5 (includes .NET 2.0 and 3.0)			^
Confirmation	Telnet Client			=
	Web Server (IIS) Management Tools IIS Management Console Web Server Common HTTP Features Default Document Directory Browsing			~
	Export configuration settings Specify an alternate source path			
	< Previous Next > Install	(	Cancel	

Figure 33 – Install confirmation

13. When the installation is finished, click the **Close** button (Figure 34).

Feature installation	
Installation succeeded on KZOIBed01.strykercorp.com.	
.NET Framework 3.5 Features	^
.NET Framework 3.5 (includes .NET 2.0 and 3.0)	
Telnet Client	
Web Server (IIS)	=
Management Tools	
IIS Management Console	
Web Server	
Default Document	
Directory Browsing	
HTTP Errors	~
	Installation succeeded on K2OBedU1.strykercorp.com. INET Framework 3.5 Features INET Framework 3.5 (includes .NET 2.0 and 3.0) Telnet Client Web Server (IIS) Management Tools IIS Management Console Web Server Common HTTP Features Default Document Directory Browsing HTTP Errors

Figure 34 – Completed installation

14. Click on the Add roles and features link (Figure 35).

<b>E</b>		Server Manager				×	¢
Server Ma	anager • Dashboard			· 🕲   🖡 🖡	Manage Tools	View Help	
Dashboard	WELCOME TO SERVER MANAGER						
Local Server     All Servers     File and Storage Services	1 Conf	igure this local server					
	QUICK START	d roles and features					
	3 Ad	d other servers to manage					
	WHAT'S NEW 4 Cre	eate a server group					
	5 Co	nnect this server to cloud service	S			Hide	
	ROLES AND SERVER GROUPS Roles: 1   Server groups: 1   Servers total	:1					
	File and Storage Services 1	Local Server 1	All Servers	1			
	Manageability     Events	Manageability     Events	Manageability     Events				
	Services	Services	Services				
	Performance BPA results	Performance BPA results	Performance BPA results				

Figure 35 – Add roles and features

15. Click the Next button in the Add Roles and Features Wizard (Figure 36).

2	Add Roles and Features Wizard	-		x
Before you begin Installation Type Server Selection Server Roles Features Confirmation Results	DEST     K2018ed01      This wizard helps you install roles, role services, or features. You determine which roles, r features to install based on the computing needs of your organization, such as sharing d hosting a website.      To remove roles, role services, or features:     Start the Remove Roles and Features Wizard Before you continue, verify that the following tasks have been completed:      The Administrator account has a strong password      Network settings, such as static IP addresses, are configured      The most current security updates from Windows Update are installed      If you must verify that any of the preceding prerequisites have been completed, close the complete the steps, and then run the wizard again.      To continue, click Next.      Skip this page by default	INATION Istrykerc ole sen ocume	d,	or r
	< Previous Next > Install	С	ancel	

Figure 36 – Add Roles and Features Wizard

16. In the Installation Type step, select the Role-based or feature-based installation and click Next (Figure 37).

-	Add Roles and Features Wizard	-		x	
Add Roles and Features Wizard   Select installation type     Before You Begin   Installation Type   Server Selection   Server Selection   Server Roles   Peatures   Confirmation   Results   Server Selection Server Sel	ER m ial	]			
	or session-based desktop deployment.	nachi	ne-ba	seu	
	< Previous Next > Install	(	ance		

Figure 37 – Installation Type

17. In the Server Selection step, click Select a server from the server pool and verify that the server is correct in the Server Pool box and click Next (Figure 38).

L	Ado	d Roles and Features V	Vizard	_ 🗆 X	
Select destination	server			DESTINATION SERVER KZOIBed01.strykercorp.com	
Before You Begin Select a server or a virtual hard disk on which to install roles and features.					
Installation Type	<ul> <li>Select a server</li> </ul>	from the server pool			
Server Selection	<ul> <li>Select a virtual</li> </ul>	hard disk			
Server Roles	Server Pool				
Features					
	Filter:				
	Name	IP Address	Operating System		
	K7OlBed01.stryke	rcorp.c., 10.30.51.132	Microsoft Windows Serve	er 2012 R2 Standard	
	1 Computer(s) four	nd			
	This page shows se Add Servers comm collection is still inc	ervers that are running Win and in Server Manager. Off complete are not shown.	dows Server 2012, and that fline servers and newly-adde	have been added by using the d servers from which data	
		< Pre	vious Next >	Install	

Figure 38 – Server Selection

18. In the Server Roles step in the Roles box, expand the Web Server (IIS) heading, Web Server heading, and then Application Development. Select ASP.NET 3.5 and click Next (Figure 39).

R.	Add Roles and Features Wizard	_ <b>D</b> X
Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select one or more roles to install on the selected server. Roles	DESTINATION SERVER KZOI8ed01.strykercorp.com
	ISAPI Extensions	
	< Previous	Vext > Install Cancel

Figure 39 – Server Roles

19. In the pop-up window, click **Add Features** (Figure 40).

i.	Add Roles and Features Wizard			
Ac	Add features that are required for ASP.NET 3.5?			
You cannot install ASP.NET 3.5 unless the following role services or features are also installed.				
⊿	Web Server (IIS)			
	⊿ Web Server			
	<ul> <li>Application Development</li> </ul>			
	.NET Extensibility 3.5			
	ISAPI Extensions			
	ISAPI Filters			
~	Include management tools (if applicable)			
	Add Features Cancel			

Figure 40 – Add Features

20. In the Server Roles step, select ASP and click Next (Figure 41).

Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Select one or more roles to install on the selected server. Roles	Description     Active Server Pages (ASP) provides a     server side scripting environment for     building Web sites and Web     applications. Offering improved     performance over CGI scripts, ASP     provides IS with native support for     both VBScript and JScript. Use ASP if     you have existing applications that     require ASP support. For new     dASP.NET.
	< Previous	Next > Install Cancel

Figure 41 – ASP

#### 21. In the Features step, click Next (Figure 42).

Select features		DESTINATION SERVER KZOIBed01.strykercorp.com
Before You Begin Installation Type Server Selection Server Roles Features Web Server Role (IIS) Role Services Confirmation Results	Select one or more features to install on the selected server.  Features	Description Telnet Client uses the Telnet protocol to connect to a remote Telnet server and run applications on that server.
	< III >	

Figure 42 – Features selection

22. In the **Confirm installation selections** step, click **Install** (Figure 43).

<b>a</b>	Add Roles and Features Wizard	_ <b>D</b> X		
Confirm installa	tion selections	DESTINATION SERVER KZOIBed01.strykercorp.com		
Before You Begin	Before You Begin To install the following roles, role services, or features on selected server, click			
Installation Type	Installation Type Restart the destination server automatically if required			
Server Selection Server Roles	Optional features (such as administration tools) might be displayed or been selected automatically. If you do not want to install these option their check boxes.	on this page because they have nal features, click Previous to clear		
Confirmation	Web Server (IIS)			
Results	Web Server Application Development ASP ASP.NET 3.5 ISAPI Extensions ISAPI Fitters .NET Extensibility 3.5			
	Export configuration settings Specify an alternate source path			
	< Previous Next >	Install Cancel		

Figure 43 – Confirm installation

23. When installation is complete, click the **Close** button (Figure 44).

2	Add Roles and Features Wizard		x
Installation progre	DEST SS KZOIBed0	INATION SERVE 1.strykercorp.co	ER m
Before You Begin	View installation progress		
Installation Type	Feature installation		
Server Roles	Installation succeeded on KZOIBed01.strykercorp.com.		
Features Confirmation Results	Web Server (IIS) Web Server Application Development ASP ASP.NET 3.5 ISAPI Extensions ISAPI Filters .NET Extensibility 3.5		
	You can close this wizard without interrupting running tasks. View task progress page again by clicking Notifications in the command bar, and then Task Details. Export configuration settings	or open this	
	< Previous Next > Close	Cancel	

Figure 44 – Installation complete

24. Restart the server.

25. Run Windows Update to look for any important and optional updates and install them. Restart the server if required.

# iBed Server application

**CAUTION** - Before proceeding with this installation, make sure that a previous version of the *i*Bed Server application is not currently installed on the target system. If a previous version was installed, uninstall the software. If you attempt to install the application on a system where a previous version was installed, the installer behavior may be unpredictable.

- 1. Begin the *i*Bed Server Application installation by right clicking the 5212-502-001 Server Application Setup.exe file and select Run as Administrator.
- 2. If Microsoft SQL Server 2012 Express is not already installed, the InstallShield Wizard requirements window will open. Click the Install button (Figure 45).

Note - If Microsoft SQL Server 2012 Express is already installed, go to step 11.

	Stryker iBed Server Application - InstallShield Wizard				
Stryker iBed Server Application requires the following items to be installed on your computer. Click Install to begin installing these requirements.					
Status	Requirement				
Pending	Microsoft SQL Server 2012 Express				
2					
	Install Cancel				
	Listai Calicei				

Figure 45 – Microsoft SQL service

3. Click the Yes button in the confirmation pop-up to start the SQL Server installation (Figure 46).



Figure 46 – SQL confirmation

4. Select I accept the license terms box and then click the Next button (Figure 47).

1	SQL Server 2012 Setup	- • ×
License Terms To install SQL Server 2012, you	u must accept the Microsoft Software License Terms.	
License Terms Product Updates Install Setup Files	MICROSOFT SOFTWARE LICENSE TERMS         MICROSOFT SQL SERVER 2012 EXPRESS         These license terms are an agreement between Microsoft Corporation (or based on live, one of its affiliates) and you. Please read them. They apply to the software nar which includes the media on which you received it, if any. The terms also apply to a         • updates,       • updates,         • supplements,       • Internet-based services, and         • sunnort services       ✓ I accept the license terms.         □ Send feature usage data to Microsoft. Feature usage data includes information about you configuration and how you use SQL Server and its components.         See the Microsoft SQL Server 2012 Privacy Statement for more information.	where you ned above, ny Microsoft
	< Back Next >	Cancel

Figure 47 – SQL license

 In the Feature Selection step, leave the Features selection at the defaults. If the Shared feature directory does not default to C:\Program Files, browse or create the new destination location for the installation and then click Next (Figure 48).

1	SQL Server 2012 Setup	_ <b>D</b> X
Feature Selection Select the Express features to in	nstall.	
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Features:	Feature description:          The configuration and operation of each instance feature of a SQL Server instances is isolated from other SQL Server instances.         SQL Server instances can operate side-by-side on the same computer.         v         Prerequisites for selected features:         Already installed:         Microsoft .NET Framework 4.0         Windows PowerShell 2.0         Microsoft .NET Framework 3.5         To be installed from media:         Microsoft Visual Studio 2010 Shell
	Select All         Unselect All           Shared feature directory:         C:\Program Files\Micro           Shared feature directory (x86):         C:\Program Files (x86)\L	soft SQL Server\
	< Back	Next > Cancel Help

Figure 48 – SQL features

6. In the **Instance Configuration** step, click **Next** (Figure 49).

1	SC	QL Server 2012	Setup		-		x
Instance Configuration Specify the name and instance	<b>n</b> e ID for the instance of SQL	. Server. Instance I	ID becomes part of t	he installation path.			
Setup Support Rules Feature Selection Installation Rules	Support Rules O Default instance re Selection Intion Rules SQLEXPRESS						
Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules	Instance ID: Instance root directory:	Instance ID: SQL2012 Instance root directory: C:\Program Files\Microsoft SQL Server\					
Installation Progress Complete	SQL server directory: Installed instances:	Instance ID	Features	Edition	Version	1	
		[	< Back	Next > Cancel		Help	

Figure 49 – Instance Configuration

7. In the **Server Configuration** step, click **Next** (Figure 50).

	SQL Server	2012 Setup			1
Server Configuration					
Specify the service accounts	and collation configuration.				
Setup Support Rules	Service Accounts Collation				
Feature Selection Installation Rules	Microsoft recommends that you	use a separate account for each SQL S	Gerver service		
Instance Configuration	Service	Account Name	Password	Startup Type	
Disk Space Requirements	SQL Server Database Engine	NT AUTHORITY\NETWORK S		Automatic	~
Server Configuration	SQL Server Browser	NT AUTHORITY\LOCAL SERVI		Automatic	~
Complete					

Figure 50 – Server Configuration

8. In the **Database Engine Configuration** step, click **Next** (Figure 51).

1	SQL Server 2012 Setup				x			
Database Engine Confi Specify Database Engine auther Setup Support Rules	guration ntication security mode, a Server Configuration	administrators and Data Directories	data directories. User Instances	FILESTREAM		Ê		
Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration <b>Database Engine Configuration</b> Error Reporting Installation Configuration Rules Installation Progress Complete	Specify the authentication mode and administrators for the Database Engine. Authentication Mode    Windows authentication mode  Mixed Mode (SQL Server authentication and Windows authentication) Specify the password for the SQL Server system administrator (sa) account. Enter password: Confirm password: Specify SQL Server administrators							
	BUILTINVADMINIST NT AUTHORITV\SY MEDICALDOM1\ag Add Current User	RATORS STEM amache (Gamache Add R	e Aaron) emove		SQL Server a have unrestri to the Datab	dminist icted ac ase Eng	rators cess ine.	
		[	< Back	Next >	Cancel	H	lelp	

#### Figure 51 – Database Engine Configuration

9. In the Error Reporting step, click Next to start the SQL Server 2012 install process (Figure 52).

1	SQL Server 2012 Setup				
Error Reporting Help Microsoft improve SQL S Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	SQL Server 2012 Setup   SQL Server 2012 Setup   Setup  Specify the information that you would like to automatically send to Microsoft to improve future releases of SQL Server. These settings are optional. Microsoft treats this information as confidential. Microsoft may provide updates through Microsoft Update to modify feature usage data. These updates might be downloaded and installed on your machine automatically, depending on your Automatic Update settings.  See the Microsoft SQL Server 2012 Privacy Statement for more information.  Read more about Microsoft Update and Automatic Update.  — Send Windows and SQL Server Error Reports to Microsoft or your corporate report server. This setting				
	< Back Next > Cancel Help				

Figure 52 – Error Reporting
10. When installation is complete, click **Close** in the **Complete** window which will start the *i***Bed** Server Application installation (Figure 53).



Figure 53 – SQL server install complete

11. In the InstallShield Wizard window, click Next (Figure 54).



Figure 54 - InstallShield Wizard

12. In the *iBed Server Application* system configuration window, enter the sites information and click Next (Figure 55).

iBed Server Applic	cation - InstallShield Wizard	x
	<u></u>	
Please Enter the IP address for SEWSI:		
Plazes Enter the CMTP Heat Address:		
Fieldse Enkerkne Smith Hust Audress.		
TO Email address for Error Reporting:		
FROM Email address for Error Reporting:		
InstallChield		
Installonielu		
	< Back Next > Cancel	]

Figure 55 – Application configuration

- 13. The Choose Destination Location screen will appear (Figure 56).
  - a. If using the default location, click Next.
  - b. If using a different location, click Change and then Next to confirm.

	Stryker iBed Server Application - InstallShield Wizard
Choose D Select fo	Destination Location Ider where setup will install files.
	Install Stryker iBed Server Application to: C:\Program Files\Stryker\iBed Server Application\ Change
InstallShield -	< Back Next > Cancel

Figure 56 – Choose Destination Location

### 14. The Select Program Folder screen will appear (Figure 57).

- a. If using the default folder, click Next.
- b. If using a different folder, create a different folder name and click Next.

Stryker iBed Server Application - InstallShield Wizard	x
Select Program Folder Please select a program folder.	
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue. Program Folder:	
Stryker Existing Folders:	
Maintenance // Microsoft Silverlight // Microsoft SQL Server 2008 // Microsoft SQL Server 2012 // Microsoft System Center // Notepad++ // SmartBear // StartUp // Stryker // StartUp	
InstallShield Cancel	

Figure 57 – Select Program Folder

15. Click Install to begin the installation (Figure 58).

Note - To return to the Select Program Folder, click Back.

Stryker iBed Server Application - InstallShield Wizard
Ready to Install the Program The wizard is ready to begin installation.
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit
the wizard.
nstallShield
< Back Install Cancel

Figure 58 – Install iBed Server

16. Click Finish to exit the InstallShield Wizard (Figure 59).

Stryker iBed Server Application - InstallShield Wizard									
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed Stryker iBed Server Application. Click Finish to exit the wizard.								
	< Back Finish Cancel								

Figure 59 – Finish

# iBed Wireless Configuration Tool

**CAUTION** - Before proceeding with this installation, make sure that a previous version of the *iBed* Wireless configuration tool application is not currently installed on the target system. If a previous version was installed, uninstall the software. If you attempt to install the application on a system where a previous version was installed, the installer behavior may be unpredictable.

- 1. Run the *i*Bed Wireless Configuration Tool by double-clicking the **5212-503-001** *i*Bed Wireless configuration tool Setup.exe file on the source location.
- 2. In the InstallShield Wizard screen, click Next (Figure 60).



Figure 60 – InstallShield Wizard

- 3. The Choose Destination Location screen will appear (Figure 61).
  - a. If using the default location, click Next.
  - b. If using a different location, click **Change** and then **Next** to confirm.

Stry	ker iBed Wireless Configuration Tool - InstallShield Wizard 🛛 🗙
Choose D Select fo	Ider where setup will install files.
	Install Stryker iBed Wireless Configuration Tool to: C:\\Stryker\iBed Wireless Configuration Tool\ Change
InstallShield –	< Back Next > Cancel

Figure 61 – Choose Destination Location

4. Click Finish to exit the InstallShield Wizard (Figure 62).



Figure 62 – Finish

# **Editing Windows configuration**

- 1. Browse to the machine.config file.
  - C:\Windows\Microsoft.NET\Framework\v2.0.50727\CONFIG\ machine.config (32 bit)
  - C:\Windows\Microsoft.NET\Framework64\v2.0.50727\CONFIG\ machine.config (64 bit)
- To edit the previous file to increase the thread count for the .NET Framework, replace <processModel autoConfig= "false" with <processModel autoConfig="false" maxWorkerThreads="1000" maxIoThreads="1000" minWorkerThreads="50" minIoThreads="50"/>.

- 3. Browse to: C:\Program Files (x86)\Stryker\iBed Server Application\HB\SEWSI.HeartBeatWindowsService.exe. config.
- 4. To increase the available ports (TCP connections):
  - a. Execute using a command prompt: netsh int ipv4 set dynamicport tcp start=1025 num=64510

# Configuring the Internet Information Services (IIS) Manager for iBed Server

- 1. Go to the Internet Information Services (IIS) Manager.
  - a. Expand the Connections tree and Sites folder.
  - b. In the Connections pane, click Application Pools (Figure 63).
  - c. In the Application Pools pane, select DefaultAppPool (Figure 63).
  - d. In the Actions pane, click Recycling (Figure 63).

8				h	nternet Informatio	n Services (IIS) N	Manager		_ 🗆 X
E KZOIBED01 +		🖾 🔟 🔞 -							
File View Help									
Connections	Application Pools This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provisiolation among different applications.						le A	Add Application Pool Set Application Pool Defaults Application Pool Tasks	
⊿ i Sites	Filter:	- 1	🖉 Go 👒 🕁 Sho	w All Group by:	No Grouping			Start	
⊿	Name  DefaultAppPool	Status Started	.NET CLR V v2.0	Managed Pipel Integrated	Identity ApplicationPoolld	Applications 3			Recycle
▷-@ CHAP ▷-@ SERVESCHEMA ▷-@ SEWSI	a sewsi	Started	v2.0	Integrated	NetworkService	1		2	Edit Application Pool         Basic Settings         Recycling         Advanced Settings         Rename         K         Remove         View Applications

### Figure 63 – Disabling recycling conditions

- e. Disable Recycling by clearing any selected boxes (Figure 64).
- f. Click Next, and then click Finish.

Edit Application Pool Recycling Settings						
Recycling Conditions						
Fixed Intervals						
Regular time intervals (in minutes):     Fixed number of requests:						
Specific time(s):						
Example: 8:00 PM,12:00 AM						
Memory Based Maximums						
Virtual memory usage (in KB):						
Previous Next Finish Ca	ncel					

Figure 64 – Recycling Conditions

- 2. Make sure that all Application Pools (Default and SEWSI) are using v2.0 .NET Framework (Figure 63).
- 3. In the **Connections** pane, click **Default Web Site**.

4. In the Actions pane under Manage Website / Configure, click Limits (Figure 65).

Internet Information Services (IIS) Manager										
🛞 🛞 KZOIBEDD1 - Sites - Default Web Site -										
File View Help										
Connections Conne	Pertures View       Content View	Actions       Open Feature            Beplore Edd Permissions Edd Settings             Edd Settings             Basic Settings             Basic Settings             Wew Virtual Directories             Manage Website             Satic             Stop             Browser Website             Browser Website </td								
Ready		¶.:								

Figure 65 – Limits

5. In the Connection Limits area, change the Connection time-out (in seconds): to 8, and then click OK (Figure 66).

Edit Website Limits ? X
Limit bandwidth usage (in bytes): Connection Limits Connection time-out (in seconds):
OK Cancel

Figure 66 – Connection time-out

6. Exit the Internet Information Services (IIS) Manager.

# Verify iBed Server

To verify *i*Bed Server:



Open the Stryker iBed Server Tool by either double-clicking the iBed Server Tools Suite shortcut your desktop, or by clicking Start > All Programs > Stryker > iBed Server Tools (Figure 67).

6	ĵ						S	tryker iBed Serve	r Tool - [Server Data]			- 0	x
	View	Edit	Verificatio	n	About	Exit							
	Server V	Veb Servic	e URL http:/	//loci	alhost/SEW	/SI/SEWS	IWebServiceContrac	t.asmx					
	Conne	cted Devic	e(s) 0	]	Total Devic	e(s) 0					Refresh Server Da	ta	
	Connecte	ed Device (	JRL List Su	ubscr	iption List	Debug De	evices Device Loca	stion List   Master Devic	ce URL List CHAP Registered D	evices			
		Device I	D	-	Location Id	-	Device IP 💌	Device Mac 💌	Software Revision	Device Schema ID 💌			
	•	5212-500	0-005_0000	00			10.30.51.132	005056914350	5212-502-001_2.0.004.01	server_01			
	5212-502	2-001_2.0.0	004.01										

Figure 67 – Stryker iBed Server Tool

- 2. Click Verification>Server in the task bar.
- 3. In the *i*Bed Server Verification window, click Verify Server (Figure 68).

6	Stryker iBed Server Tool - [iBed Server V	/erification]	- 🗆 X
View Edit Verification About Exit			
Server Server Web Service URL <u>Ettp://localhost/SEWSI/SEWSIW</u>	bServiceContract.asmx		
Server Verification Verify Server Verify Server Verification Results	r		
Connected Device List	Total Device(s)		
Device Senal Number      00000	5212-500-005	Server	
3212-302-001_2.0.004.01			



a. If the server interface verification is successful, the system returns a green check (Figure 68).

b. If the server interface verification is unsuccessful, the system returns a red X.

**Note** - Before you continue installing *i*Bed Server, you must resolve this error. To resolve the error, return to the beginning of the installation process and make sure that all steps were executed properly. For further troubleshooting details, see *Troubleshooting* (page 56).

4. Proceed to Adding devices (clients) to the Master Device List (page 42).

# Setup

# Adding devices (clients) to the Master Device List

- 1. Open the *i*Bed Server Tool by either double-clicking the *i*Bed Server Tools Suite shortcut located on your desktop, or by clicking Start > All Programs > Stryker > iBed Server Tools > *i*Bed Server Tools.
- 2. In the *i*Bed Server Tool window, click Edit>Master Device List (Figure 69).

Stryker iBed Server Tool - [Configure Master Device List]	_		x
View Edit Verification About Exit			
Server Web Service URL http://localhost/SEWSIV/SEWSIVeb ServiceContract.asmx			
Add Device URL Add Device URL Beyone URL Beyone URL Deploy Master Device URL(p)			
Master Device URL List	_		
Select Master Device URL			
Quiete Entry(s)	<u>S</u> ave L	ist	
5212-502-001_2.0.004-01	ist to Sen	ver	

Figure 69 – Edit Master Device List

3. In the Add New Device URL box, type in the URL of the device and then click Add Device URL (example: http:// 10.32.56.101:1639 or http://syk-84253f2356a.stryker.com:1639) (Figure 70).

**Note** - Make sure to enter the web extension http:// and the Stryker communication port :1639 to the IP or DNS name for each device (client).

Stryker iBed Server Tool - [Configure Master Device List]	_	•	x
View Edit Verification About Exit			
Serger Web Service URL http://locathost/SEWSI/SEWSI/ServiceContract.asmx			
http://10.32.56.101.1639         Bgrwse           Add Device URL         Display Master Device URL(s)			
Master Device URL List			
Select Mater Device URL			
Delete Entry(s)	Save List		
5212-502-001_2.0.004-01	to Server	-	



4. Repeat step 3 until all new devices have been added.

5. Once all new devices are in the list, click the Select All box of the Master Device URL List and then click the Upload Master Device URL List to the Server button (Figure 71).

Stryker iBed Server Tool - [Configure Master Device List]	_ 🗆 🗙
View Edit Verification About Exit	
View Edit Verrication About Exit Serger Web Service URL bit //tocahost/SEWSI/SEWSIWebServiceContract.asmx Get existing Master Device URL(a) from Server - Add New Master Device URL - Master Device URL - Master Device URL bit - Master Device URL - Master Device UR	
5212502001_20.004.01	vice URL List to Server

Figure 71 – Master Device URL List

- 6. Click the OK button in the Alert window confirming that the Master Device URL List was uploaded to the server.
- 7. To make sure that the **Master Device URL List** uploaded, go to the *i***Bed Server Tool** window and click **View**>*i***Bed Server**.

Note - Allow time for synchronization before you make sure that the Master Device URL List was uploaded.

# Adding *i*Bed Locator IDs and hospital locations

- 1. Open the *i*Bed Server Tool by either double-clicking the *i*Bed Server Tools Suite shortcut *located* on your desktop, or by clicking Start > All Programs > Stryker > iBed Server Tools > *i*Bed Server Tools.
- 2. In the *iBed Server Tool* window, click Edit>Location Association (Figure 72).

Stryker if	3ed Server Tool - [Configure Location Association]
ew Edit Verification About Exit	
Evering Data on Server Server Web Service URL  Fetp://bcahved/SEWSI/SEWSIWebService/Cretent area Get Server Data Locator Lat  Hospital Location Lat	Eeting Location Association List on Dak Location Association File Name Deplay Location Association(b)
Location Association Count: 0	
Number Locator ID	Hospital Location
	Add Row Delete Entry(s) Save List Ubload Location Association(s) to Server
5212-502-001_2.0.004.01	

Figure 72 – Location Association

3. In the Location Association List box, click in the Locator ID box and type the ID from the Locator (Figure 73).

View Edit Verification About Exit         Esting Data on Server         Server Web Service URL         Imply/hockhodr/SEWSU/SEWS/Web ServiceContract asmu         Get Server Data         Location / Association List on Dak         Location / List         Imply/hockhodr/SEWSU/SEWS/Web ServiceContract asmu         Location / List         Imply/hockhodr/SEWSU/SEWS/Web ServiceContract asmu         Location / List         Imply/hockhodr/SEWSU/SEWS/Web ServiceContract asmu         Location / Association List         Location Association Li		Stryker iBed Server Tool - [Configure Location Association]
Existing Data on Server         Server Web Service URL.         Imp://tocahod/SEWSI/SEWSIWebServiceContract aemx	View Edit Verification About Exit	
Add Row         Delete Entry(s)         Save List         Upload Location Association(s) to Server           5212562201_20.004.01         5212562201_20.004.01         5212562201_20.004.01         5212562201_20.004.01	Existing Data on Server Server Web Service URL  http://locathout/SEWSU/SEWSUWeb Service/Contract aerox Get Server Data Locator ID Lat  Hospital Location List  Location Association Court: 1	Existing Location Association List on Disk  Location Association File Name  Browse  Display Location Association(p)  Display Location Association(p)  0
Add Row         Delete Entry(s)         Save Lat         Upload Location Association(s) to Server           5212502-001_20_004_01         5212502-001_20_004_01         5212502-001_20_004_01         5212502-001_20_004_01	Number Locator ID	Heental Location
Add Row Delete Entry(s) Save List Upload Location Association(s) to Server 5212-502-001_20.004.01	☐ 1 684976140000	TS/ICU/1
	5212-502-001_20.004.01	Add Row Delete Entry(s) Save List Ubload Location Association(s) to Server

Figure 73 – Add Location Association

4. In the Location Association List box, click in the Hospital Location box and type the Hospital Location (Figure 73).

Note - The Hospital Location is normally formatted using the location HL7 alias name.

- 5. To add another association, click the **Add Row** button (Figure 73).
- 6. Repeat steps 3 and 4 until all new Locator IDs and Hospital Locations have been entered.
- 7. Once all new location associations have been made, click the upper left **Select All** box of the Location Association List, and then click **Upload Location Association(s) to Server** (Figure 74).

<i>©</i>	tryker iBed Server Tool - [Configure Location Association]
View Edit Verification About Exit	
Exeting Data on Server Server Web Service URL  Pttp://locathot/SEWSI/SEWSIWeb ServiceContract aemx Get Server Data Locator ID List Hospital Location List //dd Location Association Court: 2	Existing Location Association List on Disk Location Association File Name Display Location Association(e)
Location Association List	
I Number Locator ID	Hospital Location
	TS/MED/1
	Add Row Delete Entry(s) Save List Upload Location Association(s) to Server
5212-502-001_2.0.004.01	

### Figure 74 – Upload Location Association

- 8. Click the **OK** button in the **Alert** window to confirm that the Locator ID List, Hospital Location List, and Location Association List have been successfully uploaded to the server.
- 9. To verify in the *iBed Server Tool* window, click *View>iBed Server*.

Note - Allow time for synchronization before you make sure that the Master Device URL List was uploaded.

# Adding an additional Stryker interface

## Smart Equipment Management (SEM)

Note - If the facility has an existing LIFENET account, navigate to Account Definition and check the Smart Equipment Management box under Features.

### Creating a LIFENET® account

Note - Make sure that the facility does not have a pre-existing LIFENET account. If they do not, continue to step 1.

- 1. In an internet browser window, go to https://www.lifenetsystems.com/ to reach the LIFENET website.
- 2. Click on the Account tab and click Accounts in the drop down list (Figure 75).

LIFENET <sup>®</sup> System			PHYSIO
** Account Logon	** Environment Description	= Instructions	
Logon Name: * Password: * Logon Forget your password?	This is an environment where stable builds of Block Release 4 are deployed to.	IF YOU ENTER AN INCORRECT PASSWORD THREE TIMES IN A ROW, YOUR ACCOUNT WILL BE DISABLED. To start a session, you must be a registered LIFENET System user. Please type in your User Name and Password and then click Logon. If you forgot your password, please click Forgot your password?	

## Figure 75 – LIFENET create account

3. To create a new account, click Add Acount (Figure 76).

L	LIFENET <sup>®</sup> System						PHYSIO		
								(UTC-05:00) Eastern Time (US & Canada)	
	≕ <u>Home</u>	*** Assets	≕ <u>System</u>	<u>Admin</u>	*** Account	III My Settings	III Downloads		≕ Log Off
	Physio-Control								
	# Accounts								
Ent	Enter identifying information for all customer accounts. An account cannot be deleted if there are devices, gateways and/or destinations associated with it. ip: fou can click the icons in the Actions column to perform the action you need.								
ŧ	Add Account 🧐	Import New Accour	<u>nt</u>						🔍 Search  Print



- 4. Submit information for all of the required fields:
  - a. Add Account (Figure 77)

Add Account	
Fields marked with an asterisk	(*) are mandatory.
Account Number: *	
Account Name: *	
Description:	
Enabled:	

Figure 77 – Add Account

b. Account Address (Figure 78)

Account Address					
Country: *	United States V				
Address:					
City:					
County:					
State/Province:	Not applicable				
Postal Code:					
Time Zone: *	(UTC-12:00) International Date Line West $$				
Geolocation:	Show Map				

Figure 78 – Account Address

c. Account Definition (Figure 79)

**Note** - Make sure that you select the following: LIFENET, Live, Hospital, Expiration Date, Smart Equipment Management, and Other Devices

C Account Definition						
Warning: Petures that are crossed out do not have regulatory approval in this country.						
Product: *	LIFENET LIFELINKcentral					
Product Family: *	LIFENET Customer Service					
Account Type: *	Live ~					
Customer Type: *	None Hospital EMS					
Expiration Date: *	Thu 1/17/2019					
Subscriptions:	None V					
	Add subscription					
Features:	Features					
	Patient Data Transmission	Patient Data Download		Asset Data Download		
	E-mail Adapter	OnePush		CODE-STAT		
	Software and Setup Options Management	Default Setup Options Profiles		AED Locator		
	Access Points	Smart Equipment Management				
Devices:	Devices					
	CodeManagement Module	LIFEPAK 10		LIFEPAK 11		
	LIFEPAK 12	LIFEPAK 15		LIFEPAK 20		
	LIFEPAK 20e	LIFEPAK 500		LIFEPAK 1000		
	LIFEPAK CR Plus		LIFEPAK CR2		LIPEPAK Express	
	LIFEPAK QS	LIFEPAK TS		LUCAS 3		
	М-РАК		ReadyLink 12-Lead ECG		Other Devices	
Applications:	Application Count			Subscription Expiration Date		Configuration
	LIFENET Printer	Unlimited	1 0			
	Wi-Fi Configuration Tool	Unlimited	1 0			



d. Account Configuration

### Note - This step can be skipped.

e. Account Administrator (Figure 80)

Account Administrator					
First Name: *					
Last Name: *					
Middle Name:					
Job Responsibility: *	None ~				
Phone: *	Priority	Туре	Phone Number		
	Primary Phone	Work Phone 🗸			
	Secondary Phones	No Records Found			
		Add a phone number			
E-Mail: *	Priority	Туре	E-Mail Address		
	Primary E-Mail Address	Work E-Mail			
	Secondary E-Mail Addresses	No Records Found			
		Add an e-mail address			
Language: *	English / English V				
Account Administrator Time Zone: *	(UTC-12:00) International Date Line West	$\checkmark$			
Logon Name: *					

Figure 80 – Account Administrator

f. Notes

Note - This step can be skipped.

5. Click **Done** which will prompt an email to be sent to the newly created Account Administrator. This email will contain a link to the SEM home page and a temporary password that needs to be changed before installing the SEM Device Data Manager (Figure 81).

stryker			SEM smart equipment management
	User name:		
	Password:		
	Log in	Forgot your password?	

### Figure 81 – SEM home page

### Installing the Stryker SEM Device Data Manager

- 1. Upload the Stryker SEM Device Data Manager install file (5212-504-001) onto the Stryker server where the *iBed* Server Application is installed.
- 2. Begin the Stryker SEM Device Data Manager installation by right clicking the **5212-504-001 Device Data Manager** file and select **Run as Administrator**.

3. In the Stryker SEM Device Data Manager - InstallShield Wizard window, click Next (Figure 82).



Figure 82 - InstallShield Wizard

- 4. In the Stryker SEM Device Data Manager InstallShield Wizard window, enter the following values and click Next (Figure 83).
  - iServer IP address: IP address of the machine where the iServer is installed
  - Hospital name: Name of the hospital
  - Agent Serial Number: Enter the MAC address of the server machine where the SEM Device Data Manager is
     installed
  - LIFENET UserName Username that is used to register Device Data Manager with LIFENET
  - LIFENET Password Password that is used to register Device Data Manager with LIFENET
  - LIFENET URL The URL for registering the Device Data Manager installed at the hospital with LIFENET

**Note** - The **LIFENET** user name and password are located in the email sent to the Account Administrator in *Creating a LIFENET® account* (page 45).

Stryker SEM Device Dat	a Manager - InstallShield Wizard
iServer IP Address	l
Hospital Name/Description	
Agent SerialNumber	
LifeNet UserName	
LifeNet Password	
LifeNet URL	https://api.procareconnect.stryker.c
InstallShield	
	< Back Next > Cancel

Figure 83 – Field values

5. In the **Choose Destination Location** step, click **Next** to install the SEM Device Data Manager files to the default location or click **Change** to select a different destination folder (Figure 84).

9	Stryker SEM Device Data Manager - InstallShield Wizard
Choose D Select fo	Destination Location Jider where setup will install files.
	Install Stryker SEM Device Data Manager to: C:\\Stryker\Stryker.DeviceDataManager\ Change
InstallShield -	< Back Next > Cancel

Figure 84 – Choose Destination Location

6. Click Finish to close the Stryker SEM Device Data Manager - InstallShield Wizard window (Figure 85).

Stryker SEM De	vice Data Manager - InstallShield Wizard
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed Stryker SEM Device Data Manager. Click Finish to exit the wizard.
	< Back Finish Cancel

Figure 85 – InstallShield Wizard Complete

## Verifying the Stryker SEM Device Data Manager is installed

- 1. In Windows, click Start.
- 2. Enter run in the search box.
- $3. \ \ In the run window, enter in etmgr.$
- 4. Expand Connections in the left panel.
- 5. Under Sites navigate to and click DeviceDataManager (Figure 86).



Figure 86 – DeviceDataManager

- 6. Right click on **DataManager.svc** and click **Browse**.
- 7. A browser window should open to the Data Manager Service web page.

# Adding a third-party interface

## Integrating Rauland Responder® 5

Note - This installation to be performed by Stryker personnel only.

To integrate Rauland Responder 5, follow the installation steps found in SD-180 available from the Stryker quality system.

# Configuring the wireless router (Stryker device configuration)

Note - *i*Bed Server 1.0 wireless clients only authenticate with TKIP encryption and *i*Bed Server 2.0 wireless clients only authenticate with AES encryption. Below is an example of configuring a LINKSYS N600 E2500 router.

To configure the wireless router for Stryker devices:

- 1. Enter the router's admin menu to configure the router for use.
- 2. In the Setup/Basic Setup tab, verify the router is set for DHCP (Figure 87).

LINKSYS		Firmwara Version: 1.0.00
		Linksys E2500 E2500
Setup	Setup Wireless	Security Storage Access Policy Applications & Administration Status Gaming
	Basic I Setup I	VLAN I IPV6 I DDNS I MAC Address I Advanced Setup I Setup I DDNS I Clone I Routing
Language		
Select your language	English 🗸	Help
Internet Setup		
Internet Connection Type	Automatic Configuration	n-DHCP V
Optional Settings (required by some Internet Service Providers)	Host Name:	
	Domain Name:	
	MTU:	Auto 🗸 Size: 1500
Network Setup		
Router Address	IP Address:	192 . 168 . 1 . 1
	Subnet Mask:	255.255.255.0 🗸
	Router Name :	Linksys31615
DHCP Server Setting	DHCP Server:	Enabled Object DHCP Reservation
	Start IP Address:	192.168.1.100
	Maximum Number of Users:	100
	IP Address Range:	192.168.1.100 to 199
	Client Lease Time:	0 minutes (0 means one day)
	Static DNS 1:	
	Static DNS 2:	
	Static DNS 3:	
	WIND:	
Time Settings	(O) (T. 05-00) Factors T	
	(GMT-05:00) Eastern T	eleek for devlieht eeving changes
Reboot	C Automatically adjust	CIUCK ICE CAYING CHAING CHAING CHAING
Rebool	Reboot	
	(Coool)	
		Save Settings Cancel Changes

Figure 87 – Basic Setup

3. In the **Wireless/Basic Wireless Settings** tab, configure the 2.4 GHz and 5 GHz Wireless Settings so they match Figure 88.

LINKSYS			Firmware Version: 3.0.00
			Linksys E2500 E2500
Wireless	Setup Wireless	Security Storage Access Policy Applica Gan	tions & Administration Status
	Basic Wireless Settings	Wireless Security   Guest Access   Wi	reless MAC Filter
Configuration View 5 GHz Wireless Settings	Manual O Wi-Fi Pr Network Mode:	otected Setup™ Mixed ✔	Help
	Network Name (SSID): Channel Width: Channel: SSID Broadcast:	syk_med_install       Auto (20 MHz or 40 MHz) ▼       Auto (DFS) ▼       ● Enabled ○ Disabled	
2.4 GHz Wireless Settings	Network Mode: Network Name (SSID): Channel Width: Channel: SSID Broadcast:	Wireless-B/G Only       syk_med_install       20 MHz Only       Auto       O Enabled	
_		Save Settings Cancel Changes	

Figure 88 – Basic Wireless Settings

4. In the **Wireless/Wireless Security** tab, configure the 2.4 GHz and 5 GHz Wireless Security Settings so they match Figure 89.

LINKSYS			Firmware Version: 3.0.00
			Linksys E2500 E2500
Wireless	Setup Wireless	Security Storage Access Policy Applic Gal	ations & Administration Status
	Basic Wireless Settings	Wireless Security   Guest Access   W	fireless MAC Filter
5 GHz Wireless Security			
	Security Mode:	WPA2 Personal V	<u>Help</u>
	Passphrase:	Stryk3r1#TfWxP	
2.4 GHz Wireless Security	Security Mode:	WPA2/WPA Mixed Mode	
	Passphrase:	Stryk3r1#TfWxP	
		Save Settings Cancel Changes	

Figure 89 – Wireless Security

5. Click the **Save Settings** button.

# Configuring wireless network connection settings

Applies to Gateway 1 (3002 Secure® II, 3002 / 3005 S3®), Gateway 2 (3002 / 3005 S3), and Gateway 3 (2131 / 2141 InTouch®).

Note - You must have a laptop and a router configured for Stryker defaults.

- 1. Plug in the router configured for Stryker defaults (*Configuring the wireless router (Stryker device configuration)* (page 51)).
- 2. Plug the power cord of the bed into the wall outlet and make sure that the wireless option is turned on.
- 3. Connect the laptop to the syk\_med\_install SSID which the configured router is broadcasting.
- 4. Open the *i*Bed Wireless Configuration Tool.
- 5. On the bed, enter the **Connectivity Info** menu by accessing the service menu on the footboard (see the appropriate product maintenance manual).
- 6. Scroll down to the IP address which the router provided for the bed.
- 7. Enter the bed IP address in the Wireless Device URL/IP box (Figure 90).

deta Device Uhl / P INVE Verice Configuration     Redic Sensing:   converp Code     Tables Sensing:        Sensing:           Sensing:                     <	Relax Status   Other Device Configuration     Relax Status   OHCP     PAddess     Connection Status     OHCP     PAddess     Subnet Mask     Network name (SSD)     Security     Network name (SSD)     Security     Network name (SSD)     Security     Security     Network name (SSD)     Security     Default detextoriation     User Authentication        User Authentication     User Authentication           User Authentication
Cere Werless Device Configuration     Ando Seeings   Contry Code   Code   Contry Code   Code   Code   Code </th <th>Get Wreless Device Configuration         Radio Settings         County Code         Condex Code         Concorden Status         DHCP         IP Addess         Subnet Mask         Default Gateway         Default Gateway         Subnet Mask         Subnet Mask         Concorden Status         Subnet Mask         Default Gateway         Default Gateway         Subnet Mask         Consortion Status         Subnet Mask         Consortion Status         Default Gateway         Default Gateway</th>	Get Wreless Device Configuration         Radio Settings         County Code         Condex Code         Concorden Status         DHCP         IP Addess         Subnet Mask         Default Gateway         Default Gateway         Subnet Mask         Subnet Mask         Concorden Status         Subnet Mask         Default Gateway         Default Gateway         Subnet Mask         Consortion Status         Subnet Mask         Consortion Status         Default Gateway
New Configuration   Radio Stering:   County Code   County Code   Radio Stering:   County Code   Dece   Dece   Dece   P Addess:   County Code   Dece   Dece   P Addess:   County Code   Dece   Dece   P Addess:   County Code   Dece   Dece   Dece   Store Key   Sound Key   Dece Information   Dece Informa	Network name (SSID)     Security Code     Pado Serings     Connection Status     Oncestion Status     Default Gateway     Default Gateway </th
Contry Code   Raio Mode   Contry Code   Contry Code   Contry Code   Pades   Contry Code   Pades   Subnet Mask   Contry Code   Security   Authenication   Subnet Mask   Contry Code   Subnet Mask   Contry Code   Subnet Mask   Su	County Code         WHTEDSTATESUSA           Radio Mode         County Code           Deconty Code         WHTEDSTATESUSA           Concection Status         County Code           DICP         Padoess           DicP         PAdoess           Debuk Gateway         County Code           Subnet Mask         County Code           Debuk Gateway         County Code           Subnet Mask         Code           Debuk Gateway         Code           Debuk Gateway         Code           Debuk Gateway         Code           Debuk Gateway         Code           Stoom Key         Stoom Key           B02 1X         V           User Authentication         User Authentication           User Name         Code and Code
Radio Mode   Connection Status   DrDCP   P Addecs   DrdDes   Default Gateway   Default Gate	Radio Mode   Connection Status   DICP   P Adress   ObcP   P Adress   Default Gateway   Connection Status   Default Gateway   Default Gateway   Connection Status   Default Gateway   Default Gateway   Connection Status   Default Gateway   Default Gateway   Connection   User Authentication   User Name   Connection Status   Default Gateway   Connection   Default Gateway  <
Consection Status PA defees Consection PA de	Connection Status  DHCP  P Addess  Subnet Mask  Subnet Mask  Connection Status  DHCP  P Addess  Subnet Mask
P Addess   P Addess   Subnet Mask   Searly   Mathemication   Searly   Statistication   Searly   Searly   Statistication   Searly	DHCP         P Address
P Addenss	P Address
Bubnet Mask   Defult Gateway   Stook Kay   Stook Kay   Stook Kay   Stook Kay   Defult Gateway   Stook Mask   Defult Gateway   Stook Mask   Defult Gateway   It mas are not available	Subset Mask
Default Garevay     Security   Security </td <td>Default Gateway    </td>	Default Gateway
eterody name (SSD)   Servity   Authenication   Dropsion   Dropsion   Ster Authenication   Ster Authenication   Device Horization   Ser Authenication   Device Horization   Device Horiz	
Security Authenication	Security Auchenication
Authenication   Encryption   Encryption   Network lay   Image: Show Kay   Show Kay   Show Kay   Star Authenication   Jase Authenication   Sawood   Device Identification   Device Identification   Device Identification   Obrain   Device Identification   Mode Wunder   Mode Wunder   Star Ilyunder	Authentication
Encryption   Vetwork key   User Nume   Jaser Aufmentication   Jaser Aufmentication   Jaser Aufmentication   Device Metalitation   Device Metalitation   Device Metalitation   Device Metalitation   Ownain   Device Metalitation   Ownain   Device Metalitation   Device Metalitation   Seriel Munder	Encryption Encryptic Encryption Encryption Encryption Encryption Encryption E
Network key   Dezizk   Sex Aubenciasion   Jeer Name   Dezizk   Dezizk  <	Network key  Show Key  Network
B02 1X     B02 1X       User Authentication     User Authentication       Jet Name     Denain       Device Identification     Denain       Device Identification     Denain       Gold Number     Same Profile       Serial Number     Same Profile       Serial Number     Same Profile       Same Profile (set as default)     Deleve Profile	B02.1X    Jser Authentication    Jser Authentication    User Name      User Name      Description
User Auchentication User Name User N	User Authentication User Authentication User Name User N
User Name	Jee Name User Name Show Personnel
Pesseed     Brow Passeed     Donain     Donain       Device Identification     Donain     Donain       Model Number     Seriel Number     Configuration Profile       Seriel Number     Seriel Cong     Save Profile (set as default)       Items are not available     Save Profile (set as default)     Deleve Profile	Show Password
Domain     Domain       Device Identification     Configuration Profile       Odd Number     Safet Only       Seriel Number     Safet Only       Load Profile     Save Profile       Items are not available     Save Profile (set as default)	Password Show Password Password
Device Identification     Configuration Profile       Model Number     Saith Dany       Setal Number     Saith Onry       Setal Number     Saith Onry       Items are not available     Saith Onry	Domain Domain
Model Number         Gift Day,         Load Profile         Save Profile           Senal Number         Sift Day         Save Profile (set as default)         Delete Profile	Device Identification Configuration Profile
Send Kunder Bitt Day tens are not avalable Save Profile (set as default) Delete Profile	Model Number GW1 Ony. Load Profile Save Profile
tems are not available	Serial Number (GW1 Only) Save Profile (set as default) Delare Profile
	tems are not available
View Device Log	View Device Log
	Model Number Ball Song Laad Profile Save Profile Save Profile (set as default) Delete Profile

Figure 90 – Wireless Device URL

- 8. Click the **Get Wireless Device Configuration** button. This will retrieve the bed wireless default settings and connect to the bed, which is shown in the left column of the tool.
- 9. Click the OK button of the retrieval confirmation.
- 10. Enter the facility network information and make sure that you fill in all of the appropriate blanks in the right column of the tool.
- 11. Select the Radio Mode for the facility requirements.
- 12. Click the Upload Configuration to Device button.

**Note** - If the radio does not connect, make sure that you check the settings entered into the column on the right. If they are incorrect, the radio will need to be reset to defaults and then repeat the configuration process.

# Resetting the wireless module to factory default settings (Med-Surg bed)

Tools required:

• Large paper clip

### Procedure:

- 1. Raise the product to its highest position.
- 2. Using a large paper clip, insert it into the reset hole (A) on the bottom side of the wireless module (B).
- 3. Hold the large paper clip inside the reset hole for five seconds.



Figure 91 – Wireless module

# Resetting the wireless module to factory default settings (Model FL27 InTouch)

Note - For InTouch 2.1-4.0, follow all of the steps below. For InTouch 5.0 or higher, see step 1 to reset Wi-Fi.

Tools required:

Appropriate FL27 InTouch maintenance manual

### Procedure:

- 1. Use the appropriate FL27 InTouch maintenance manual to access the Configuration menu (For InTouch 2.1-4.0 see Figure 92. For InTouch 5.0 or higher, see Figure 94).
- 2. Tap Wi-Fi Configuration (A) (Figure 92).
- 3. Tap the Advanced tab (A) (Figure 93).
- 4. Tap Reset (B) (Figure 93).
- 5. Tap Save.



Figure 92 – InTouch Configuration Menu





InTouch 5.0 or higher

## Figure 94 - InTouch Wi-Fi Reset

55 EN

# InTouch 2.1 - 4.0

# Troubleshooting

# Basic

Problem	Possible cause	Solution
Cannot verify the <i>i</i> Bed Server Tool	The Web Service URL is incorrect.	<ul> <li>Make sure the URL in the Web Service URL box is correct.</li> <li>1. If the URL is incorrect, enter the following URL into the Web Service URL box (<i>Verify iBed Server</i> (page 40)):http://localhost/SEWSI/ SEWSIWebServiceContract. asmx.</li> <li>2. Click Verify Server.</li> </ul>
	The Heartbeat service is not active.	<ol> <li>Make sure that the Heartbeat service is running.</li> <li>1.1. If the Heartbeat service has not started, start the service, restart the server, and then reverify the <i>i</i>Bed Server application.</li> </ol>
	The IIS Manager does not have all of the required Default Web Sites.	<ol> <li>Make sure that the IIS Manager has all of the required Default Web Sites.</li> <li>Go to Internet Information Services (IIS) Manager.</li> <li>Navigate to Web Sites &gt; Default Web Site to verify that the three web sites are listed: CHAP / SERVERSCHEMA / SEWSI.</li> <li>If the Default Web Site is not listed, reinstall the <i>i</i>Bed Server application.</li> </ol>

Problem	Possible cause	Solution
Cannot see the device in the <i>i</i> Bed Server application	The MAC address does not have the bed's IP address or DNS name.	<ol> <li>If the troubleshooting steps in the appropriate bed maintenance manual were followed:         <ol> <li>Use the MAC address from the bed and verify with IT what wireless module's IP address or DNS name is.</li> <li>Ping the wireless module from the server machine using the Command Prompt (ping IP address or DNS name :1639).</li> <li>Press Enter.</li> <li>If you receive four (4) responses, then the bed is on the wireless network.</li> <li>If you receive no response, check the wireless module on the bed.</li> </ol> </li> </ol>
Problem	Possible cause	Solution
Cannot see a device in the Server Tools under the Device Location List, but the device shows under the connected device URL List	The device was not added to the device list.	<ol> <li>Using the server tool, select Verify Device Directly.</li> <li>Click Get Existing Device(s), and then select the device in question.</li> <li>Add it to the Device List.</li> <li>In the Device List, select the device, and then click Verify Device(s).</li> <li>Check the Connection Status once it responds.</li> <li>If there is a response, the device is communicating properly on the wireless network.</li> </ol>

Problem	Possible cause	Solution
	The serial number in the CPU and the serial number on the bed specification label do not match.	<ul> <li>Identify the bed serial number that is stored in the CPU. It should match the serial number on the serial label on the bed.</li> <li>Note - If there are two matching serial numbers in the device list, the server will only recognize the first device that logs on to the server.</li> <li>To find the bed's serial number, put the bed into the Bed Configuration mode and navigate to Serial Number &gt; Current SN to verify the serial number.</li> <li>If the serial number does not match, go to the Edit SN menu to edit the serial number, and then save.</li> </ul>
Problem	Possible cause	Solution
Cannot see a location	The Locator ID was entered incorrectly.	<ol> <li>Using the <i>i</i>Bed Locator Association Tool, select View Current Location Associations.</li> <li>Click Get Location Associations from server.</li> <li>Look through the Hospital Location and verify the Locator ID.</li> <li>Note - The Locator ID is alphanumeric and case sensitive. You must use lower case to enter the Locator ID letters, or the server will not recognize the locator.</li> <li>If the Locator ID is incorrect, use the Update function to update the error.</li> <li>If the Locator ID is missing, see Adding iBed Locator IDs and hospital locations (page 43).</li> </ol>

Problem	Possible cause	Solution
		<ol> <li>Make sure the SEWSI web.config file has the correct Web URL</li> </ol>
		<ol> <li>1.1. Navigate to the directory where the <i>i</i>Bed Server Tool is installed.</li> </ol>
		1.1.1. Navigate to the SEWSI folder and open the <b>web.config</b> file.
		1.1.2. Find the line which contains <b>ServerURL=</b>
Third party does not receive bed		<ol> <li>Make sure the local host was replaced with the IP of the server</li> </ol>
		<b>Note</b> - This cannot be a DNS name.
		2. Make sure <b>Port 80</b> is not blocked.
		2.1. <b>Port 80</b> needs to be open between the Stryker server and products (bi-directional), and the Stryker server and any third-party servers (bi- directional) (LINK HERE).
		2.2. If <b>Port 80</b> is blocked, work with IT to open the port.
		3. Search SEWSI logs to make sure there are no communication failures. Find messages generated for the third-party (LINK HERE)

# Advanced

## Connectivity issues (total device counts)

View total device counts to identify drops.

- Navigate to the directory where iBed Server Tools is installed and open the LOGS folder.
- 1. Find StrykerMainenanceService\_logfile.txt.
- 2. Highlight several of the StrykerMainenanceService\_logfile.txt files during the time when there may have been an outage.
  - a. Right click and select Edit with Notepad++.
- 3. In Notepad++ press Ctrl+F to open a find window.
  - a. Search for the below string and select Find in All Opened Documents.

Note - [Total Connected Devices Count excluding server =

b. The Find Result pane in Notepad++ will populate with the lines of the selected log files (Figure 95).

Search "[	Total	Connected	Devices	Count	exclud	ing serv	er ="	(43107 hit	s in 4 f	iles)					
D:\iBed	Serve	r Tool\LO	GS\Stryke	rMaint	tenance!	Service_	logFile	.txt.3 (1	2060 hit:	s)					
Line	15: [2	018-07-13	23:10:11	,857]	[INFO]	[5504]	[Total	Connected	Devices	Count	excluding	server	-	327]	0
Line	40: [2	018-07-13	23:10:16	6,861]	[INFO]	[3756]	(Total	Connected	Devices	Count	excluding	server	-	327]	0
Line	54: [2	018-07-13	23:10:21	,865]	[INFO]	[3128]	(Total	Connected	Devices	Count	excluding	server	-	327]	0
Line	76: [2	018-07-13	23:10:26	,874]	[INFO]	[1276]	[Total	Connected	Devices	Count	excluding	server	-	327]	0
Line	77: [2	018-07-13	23:10:31	,886]	[INFO]	[1800]	[Total	Connected	Devices	Count	excluding	server	-	327]	[]
Line	78: [2	018-07-13	23:10:36	i,902]	[INFO]	[4992]	(Total	Connected	Devices	Count	excluding	server	-	327]	0
Line	79: [2	018-07-13	23:10:41	,906]	[INFO]	[5688]	(Total	Connected	Devices	Count	excluding	server	-	327]	0
Line	80: 12	018-07-13	23:10:46	,9141	[INFO]	[2804]	(Total	Connected	Devices	Count	excluding	server	-	3271	п

Figure 95 – Total device counts

c. Review the list until you locate the drop in the number of connected devices and the duration of time the devices were offline.

Work with the local IT department to investigate.

## Third party communication issues

Search SEWSI log files for third party messages.

- 1. Open the *i*Bed Server Tool.
- 2. Navigate to the subscription list tab.

Note - When you search for messages from a product, make sure that you use the correct Device ID.

- 3. Copy the subscription ID for a device which is going to the correct third party.
  - a. Verify subscriber URL to find messages to a specific third party.
- 4. Navigate to the directory where *i*Bed Server Tool is installed.
  - a. Open the LOGS folder.
  - b. Find SEWSI\_logfile.txt.
- 5. To search for messages in a specific timeframe, highlight multiple **SEWSI\_logfile.txt** in that range based on the date modified in Windows Explorer.
  - a. Right click the highlighted files and select Edit with Notepad++.
- 6. Press Ctrl+F to open a find window.
  - a. Paste the Subscription ID copied in step 3.
  - b. Select Find in all opened documents.
  - c. The Find result pane will open with all messages containing the Subscriber ID.
- 7. Click the XML message from the Find pane to open the file to that line.
  - a. XML messages will start in format <?xml version="1.0" encoding=utf-8"?>.

Note - Example message with the payload XML data highlighted: <?xml version="1.0" encoding="utf-8"?><soap: Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchemainstance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"><soap:Body><ReceiveSubscriptionRequest xmlns= "http://SEWSI.ServiceContracts/2008/09"><SubscriberID>C3000-000\_180415201155204742</ SubscriberID><PayloadXML>&It;device id="3000-000\_180415201"&gt;&It;BedHeightIn&gt;27&It;/ BedHeightIn>&It;LastLoggedWeightLb>102.900009&It;/LastLoggedWeightLb>&It; BedExitAlarming>false&It;/BedExitAlarming>&It;/device></PayloadXML><TimeStamp>2018-07-16T11:59:14.3410647-04:00</TimeStamp></ReceiveSubscriptionRequest></soap:Body></soap:Envelope>][]

## Device not connecting to server

Search for duplicate serial numbers (devices newer than GW1).

- 1. Open the *i*Bed Server Tool.
- 2. Navigate to the Client Diagnostic Info tab.
- 3. Click the far left blank cell of the header to highlight the entire table.
  - a. Copy and paste the data in Microsoft Excel.
- 4. Highlight the Client ID column.
- 5. In the Home tab of the ribbon, click Conditional Formatting.
  - a. Highlight Cells Rules Duplicate Values.
  - b. Click **OK** to highlight duplicates in red.
  - c. Highlight the row above where the data was pasted, click the Data tab, and select Filter.

Any cells highlighted (except Network Exception / Timeouts) are duplicate serial numbers which need to be resolved.

## Connectivity issues to one / multiple devices

Not receiving specific bed status over port 80.

· Verify communication from devices to the server with SOAP UI.

Note - Requires Stryker supplied project file.

- 1. Open SOAP UI.
- 2. In the Projects pane, expand the SEWSI folder.
- 3. Click Connectivity Mock to open Connectivity Mock window (Figure 96).



Figure 96 – Connectivity Mock

- 4. Click the gear icon to edit settings for Mock Third Party.
  - a. Modify host URL to the IP address of the server where SOAP UI is running (Figure 97).

\$	SOAP MockService Options	x
SOAP MockSer	vice Options this SOAP mock service	X
Path:	/connectivity	
Port:	8092	
Host:	10.185.137.18	
Host Only:	Only binds to specified host	
Docroot:	Browse	
Fault Operation:	- none - 💌	
	OK C	ancel



- b. Click OK to save.
- 5. Click the green Play icon to start the Mock Third Party Service.
- 6. Click the green arrows to open the service webpage to verify.
  - a. Copy the URL of the webpage to the clipboard
- 7. In the Projects Pane, expand SEWSIWebServiceContract.
  - a. Expand SubscribeOnChange.
  - b. Double click VTF Sub 3 (72 hour).
  - c. Modify the Subscriber URL with the URL from step 3.3.1 (Figure 98).



Figure 98 – VTF - Sub 3 (72 hour)

- d. Change the Device ID to the Device ID being searched for (Figure 98).
- e. Click the Play icon in VTF Sub 3 (72 hour) window.

8. In the **ConnectivityMock** window, you will begin to see messages appear in the message log if the ports are open and the server is able to communicate with the device (Figure 99).

Note - If messages do not populate, port 80 may be closed or the WebServiceURL in the SEWSI web.config file may be incorrect.

Image: Set and	Second ConnectivityMock		ĕ₫ 🗵				
Operations         Coperations	▶ <b>= ≈</b> ↔	running on port 8092	0				
<ul> <li>Get</li> <li>Get</li> <li>GetDeviceList</li> <li>GetReservedDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>RenewSubscription</li> <li>RenewSubscription</li> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> </ul> Descri Prop Start Stop OnReques AfterReques Imable Image: Image I	Operations						
<ul> <li>Get</li> <li>GetDeviceList</li> <li>GetDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>ReceiveSubscription</li> <li>RenewSubscription</li> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> </ul> Descri Prop Start Stop OnReques AfterReques Imable Imable Image: Image	\$						
<ul> <li>GetDeviceList</li> <li>GetDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>ReceiveSubscription</li> <li>RenewSubscription</li> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> <li>Descri Prop Start Stop OnReques AfterReques</li> <li>Enable</li></ul>	🗢 Get						
<ul> <li>GetDeviceSchema</li> <li>GetReservedDeviceSchema</li> <li>ReceiveSubscription</li> <li>RenewSubscription</li> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> </ul> Descri Prop Start Stop OnReques AfterReques Imable <ul> <li>Enable</li></ul>	CetDeviceList						
CetReservedDeviceSchema CetReservedDeviceSchema CetReservedDeviceSchema CetReservedDeviceSchema CetReservedDeviceSchema CetReservedDeviceSchema CetReservedDeviceSchema CetReservedDeviceSubscription CetReservedDeviceSchema	💠 GetDeviceSchema						
<ul> <li>ReceiveSubscription</li> <li>RenewSubscription</li> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> </ul> Descri Prop Start Stop OnReques AfterReques Imable	CetReservedDeviceSchema						
<ul> <li>RenewSubscription</li> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> </ul> Descri Prop Start Stop OnReques AfterReques Imable	ReceiveSubscription						
<ul> <li>Set</li> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> </ul> Descri Prop Start Stop OnReques AfterReques Imable Image: Ima	RenewSubscription						
<ul> <li>SubscribeOnChange</li> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> <li>Descri Prop Start Stop OnReques AfterReques</li> <li>Enable</li></ul>	🗘 Set						
<ul> <li>SubscribeOnLimit</li> <li>UnSubscribe</li> <li>Descri Prop Start Stop OnReques AfterReques</li> <li>Enable</li></ul>	🗢 SubscribeOnChange						
<ul> <li>➢ UnSubscribe</li> <li>Descri Prop Start Stop OnReques AfterReques</li> <li>☑ Enable</li></ul>	💠 SubscribeOnLimit						
Descri Prop Start Stop OnReques AfterReques	💠 UnSubscribe						
✓ Enable 全 幸           2018-07-16 12:17:26:407: [ReceiveSubscription] 3ms           2018-07-16 12:17:29:502: [ReceiveSubscription] 1ms           2018-07.16 12:17:29:502: [ReceiveSubscription] 1ms           2018-07.16 12:17:29:501: [ReceiveSubscription] 1ms	Descri Prop Start	Stop OnReques	AfterReques				
2018-07-16 12:17:26:407: [ReceiveSubscription] 3ms 2018-07-16 12:17:29:502: [ReceiveSubscription] 1ms 2018_07_16 12:17:22:581: [ReceiveSubscription] 0ms Message Log	🗹 Enable 👲 🏟						
2018-07-16 12:17:29.502: [ReceiveSubscription] 1ms 2018-07-16 12:17:29.502: [ReceiveSubscription] 1ms 2018-07-16 12:17:32 581- [ReceiveSubscription] 1ms 2018-07-16 2018-07-17-16 2018-07-17-16 2018-07-17-16 2018-07-17-16 2018-07-17-16 2018-07-17-17-18-07-17-18-07-17-17-17-17-17-17-17-17-17-17-17-17-17	2018-07-16 12:17:26.407: [Receiv	eSubscription] 3ms	-				
2019-07-16 12:17:32 581: (ReceiveSubscription) One	2018-07-16 12:17:29.502: [ReceiveSubscription] 1ms						
Message Log	2018-07-16 12-17-22 581- IRecei	Subscription1.0mr	•				
	Message Log						

### Figure 99 – Message Log

9. Double click a message to view the XML generated (Figure 100).



Figure 100 – Message Viewer

## Cannot communicate with device (verify ports are open)

Verify communication with device over port using TELNET.

1. Open a **command** prompt.

2. Enter the command **telnet <IPAddress> <Port>**, where **IP Address** is the address of the device and **Port** is the port number for verification (Figure 101).



Figure 101 – Command prompt

- A blank box with a blinking cursor indicates that the port is open.
- Connecting to indicates that the port is closed or the device is offline (Figure 102).



Figure 102 – Connecting

Note - Only use TELNET for a device that is online and pingable.

## Cannot communicate with device (DNS only)

Verify Hostname with NSLOOKUP

- 1. Open a command prompt.
- 2. Enter the command nslookup <IPAddress> where IP Address is the address of the device for DNS entry verification.
  - A reply with the hostname and IP address indicates success (Figure 103).

Note - The first line is the DNS server name and IP address. The second line is the device hostname/IP.



Figure 103 – DNS success

• A reply that states <DNSServerName> can't find <IPAddress> indicates failure (Figure 104).

C:\U Serv Addr	sers\svc_ca_stryker>ns  er: int-gtm-cdc.nyuma  ess: 10.185.98.100	slooku) 2.org	p 10.1	159.159.200		
***	int-gtm-cdc.nyumc.org	can't	find	10.159.159.200:	Non-existent	domain
C:\U	sers\suc_ca_stryker> <mark>_</mark>					

Figure 104 – DNS failure

3. To verify a reverse lookup, enter the command **nslookup <hostname>** where the **hostname** is the device you are verifying DNS entry for.

Note - The server reply should be the same as seen in step 2.

# Smart Equipment Management (option) troubleshooting

- 1. To verify Device Data Manager Utility:
  - In Windows, click Start.
  - Enter StrykerDeviceDataManagerRegistration in the search box.
  - Make sure that the StrykerDeviceDataManagerRegistration utility is displayed in the search results.
- 2. To verify in *iBed Server Tool*:
  - Locate the machine where the Stryker *i*Bed Server application is installed and open the *i*Bed Server Tool.
  - Click the Subscription List tab and make sure that the Device ID and Subscription ID columns are populated.
  - Make sure that the server has a general subscription and each device has both a general and alarm subscription (Figure 105).

Cor	nnected	Devic	e URL List Subscription List	Debug Dev	ices Device Location List Master Device URL List	CHAP Registered Devices	Client Diagnostic Info	
			Device ID	-	Subscription ID	<u> </u>	Create Time	
	1		5212-500-005_00000		5212-500-005_00000_3af0fc22-ade0-4542-9ddf-386bfc	20a045	12/7/2017 8:39:41 PM	
•	2		3000-000-000_DeviceW1		C3000-000-000_DeviceW1_201712072039427036		12/7/2017 8:39:42 PM	
	3	Γ	3000-000-000_DeviceW1	(	C3000-000-000_DeviceW1_Alams2017120720394270	36	12/7/2017 8:39:42 PM	
	4		3000-000-000_DeviceW2	(	C3000-000-000_DeviceW2_201712072039425276		12/7/2017 8:39:42 PM	
	5		3000-000-000_DeviceW2	(	C3000-000-000_DeviceW2_Alams2017120720394268	06	12/7/2017 8:39:42 PM	
	6		3000-000-000_DeviceW3	(	C3000-000-000_DeviceW3_201712072039423646		12/7/2017 8:39:42 PM	
	7		3000-000-000_DeviceW3		C3000-000-000_DeviceW3_Alarms2017120720394236	26	12/7/2017 8:39:42 PM	

Figure	105 -	General	subsc	ription

 Make sure that the Subscriber URL column displays the same URL shown in the Web.config file of the Device Data Manager (Figure 106 and Figure 107).

Devices   Device Location List   Master Device URL List   CHAP Registered	Devices Client Diagnostic Info			
Subscription ID	Create Time	Last Renew Time	Subscriber URL	
5212-500-005_00000_3af0fc22-ade0-4542-9ddf-386bfd20a045	12/7/2017 8:39:41 PM	12/7/2017 8:39:41 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	
C3000-000_DeviceW1_201712072039427036	12/7/2017 8:39:42 PM	12/7/2017 8:39:42 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	
C3000-000_DeviceW1_Alarms201712072039427036	12/7/2017 8:39:42 PM	12/7/2017 8:39:42 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	
C3000-000_DeviceW2_201712072039425276	12/7/2017 8:39:42 PM	12/7/2017 8:39:42 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	
C3000-000_DeviceW2_Alarms201712072039426806	12/7/2017 8:39:42 PM	12/7/2017 8:39:42 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	
C3000-000_DeviceW3_201712072039423646	12/7/2017 8:39:42 PM	12/7/2017 8:39:42 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	
C3000-000_DeviceW3_Alarms201712072039423626	12/7/2017 8:39:42 PM	12/7/2017 8:39:42 PM	http://10.117.40.238/DeviceDataManager/DataManager.svc	

### Figure 106 – Subscription List

### Figure 107 – Web.config file

- 3. To verify server data in the Device Data Manager log file:
  - Search for string "DeviceID=<SerialNumber> JsonContent=" in the log file (Figure 108)

Note - Replace <SerialNumber> with serial number in the Web.config file.

[2017-11-23 11:51:07.355] [DEBUG] [19364] [Entering function LifenetDataManager::UploadDataToCloud] []
[2017-11-23 11:51:07.394] [INFO] [19364] [In LifenetDataManager DeviceID = 1234567890 JsonContent=
{"GatewaySerial":"1234567890", "GatewayModel":"5212-500-005 00000", "IPAddress":"10.50.113.78", "SoftwareVersion":"1.0.0.2", "Description":"TestHospital", "TotalDevices":6}]
[2017-11-23 11:51:07,470] [DEBUG] [19364] [Leaving function IServerManager::ParseSubscribedDataStream] []

### Figure 108 - Example: DeviceID = 1234567890 JsonContent=

Search for string "Data Uploaded for Server successfully!" in the log file (Figure 109)

1 [2017-05-22 13:33:07,487] [INF0] [3624] [No change detected in server data returning] []
2 [2017-05-22 13:33:07,503] [INF0] [15340] [Data Upload Response for deviceID = :3000-000-000\_DeviceS11Pal43 content = ] []
3 [2017-05-22 13:33:07,503] [INF0] [15340] [Data Uploaded successfully for DeviceID = 3000-000\_OD\_DeviceS11Pal43] []
4 [2017-05-22 13:33:07,518] [INF0] [16072] [Data Upload Response for deviceID = :247703F4B422 content = ] []
5 [2017-05-22 13:33:07,518] [INF0] [16072] [Data Uploaded for Server successfully !]
6 [2017-05-22 13:33:07,612] [INF0] [16072] [Data Uploaded for Server successfully!]
7 [2017-05-22 13:33:07,737] [INF0] [16072] [Data Uploaded for deviceID = :3000-000-000\_DeviceS11Pal78\_201705221317313860] []
7 [2017-05-22 13:33:07,737] [INF0] [15340] [Data Uploaded successfully for DeviceID = :3000-000-000\_DeviceS11Pal188 content = ] []
8 [2017-05-22 13:33:07,737] [INF0] [15340] [Data Uploaded successfully for DeviceID = :3000-000-000\_DeviceS11Pal188 []
9 [2017-05-22 13:33:07,737] [INF0] [1540] [Data Uploaded successfully for DeviceID = :3000-000-000\_DeviceS11Pal188 []
9 [2017-05-22 13:33:07,737] [INF0] [16072] [Time taken for descrilization (ms) = 0] []
9 [2017-05-22 13:33:07,752] [INF0] [6156] [DeviceID = :3000-000-000\_DeviceS11Pal78\_JsonContent=

Figure 109 – Data uploaded in log file

- 4. To verify connected devices in the log file:
  - Search for string "DeviceID = <deviceID> JsonContent=" in the log file (Figure 110)

**Note** - Replace **<deviceID>** with device ID of the connected device.

[2017-12-05 14:13:26,222] [INFO] [10152] [In LifenetDataManager DeviceID = 3000-000\_DeviceS1 JsonContent= ("ActiveDeviceError":true,"ActiveDeviceErrorInformation":"load cell error", "DeviceErrorLog1":"FR LoadCell Error", "DeviceErrorLog2":"FRSR Switch Error", "DeviceErrorLog3":"HSSR Switch Error", "DeviceErrorLog4":"FLSR Switch Error", "DeviceErrorLog1":"FLSR Switch Error", "DeviceErrorLog6":"FLSR Switch Error", "DeviceErrorLog1":"FRSR Switch Error", "DeviceErrorLog3":"FRSR Switch Error", "DeviceErrorLog1":"FRSR Switch Error", "DeviceErrorLog1":"FR LoadCell Error", "IDAdGress":"IJ: 156:10:11", "WACAddress": "Device: "mittor/Log1Nos:Idevice/Serrice.asmx/Interface ", "SoftwareVersion":"1.0", "PatientPresent":false, "RSSI":"20", "LowBedHeight":false, "HRSiderailDp":true, "HESiderailDp":true, "FRSiderailDp":true, "FRSiderailDp:True, "FRSiderailDp:True, "FRSiderailDp":true, "FRSiderailDp:Tr

### Figure 110 - Example: DeviceID = 3000-000-000\_DeviceS1 JsonContent=

• Search for string "Data Uploaded successfully for DeviceID = <deviceID>" in the log file (Figure 111)

Note - Replace <deviceID> with device ID of the connected device.

```
[2017-12-05 13:47:50,425] [INFO] [12000] [connection to Lifenet established successfully. Data oploaded successfully for d
[2017-12-05 13:47:56,425] [DEBUG] [12688] [Leaving function LifenetDataManager::UploadDataToCloud] []
[2017-12-05 13:47:56,425] [INFO] [12688] [Device data successfully uploaded for 3000-000-000 DeviceS1 in Lifenet] []
[2017-12-05 13:47:56,425] [DEBUG] [12688] [Leaving function LifenetDeviceStatusManager::UploadDeviceData] []
[2017-12-05 13:47:56,425] [DEBUG] [12688] [Leaving function LifenetDeviceStatusManager::ProcessData] []
[2017-12-05 13:47:56,425] [DEBUG] [12688] [Leaving function LifenetDeviceStatusManager::ProcessData] []
```

Figure 111 - Example: Data Uploaded successfully for 3000-000\_DeviceS1 in LIFENET

# **Email alerts**

The following email alerts may be generated by the *i*Bed server application.

Email info	Scenario
Email Subject: Stryker iBed Server Alert Email Body: 2015-04-20 00:24:59,298 [2964] ERROR Stryker.IServer. BusinessLogic.SEWSI.RuleManager. EMailToAdminForLowBatteryStatus - SEND EMAIL: Stryker room locator f5d5b2130000 in room 205 has a low battery. Currently connected to device ID 3000-000-000_ 130316141.	Low Battery Status is true for the BBID mapped with a location
Email Subject: Stryker iBed Server Alert Email Body: 2015-04-20 00:35:51,784 [2328] ERROR Stryker.IServer. BusinessLogic.SEWSI.RuleManager. EMailToAdminForLowBatteryStatus - SEND EMAIL: Stryker room locator f5d5b2130000 is not in the location list and has a low battery, update the location and association lists as required. Currently connected to device ID 3000- 000-000_130316141.	Low Battery Status is true for a BBID which is not mapped to any room or the BBID is missing
Email Subject: Stryker iBed Server Alert Email Body: 2015-04-20 00:45:22,254 [2328] ERROR Stryker.IServer. BusinessLogic.SEWSI.RuleManager. EmailToAdminForMissingBBID - SEND EMAIL: Stryker room locator f5d5b2130000 is not in the location list and does not have an association to a room, update or create the location association as required. Currently connected to device ID 3000-000-000_130316141.	BBID is sent in the subscription payload but it is not present in the "BBIDList.xml" file
Email Subject: Stryker iBed Server Alert Email Body: 2015-04-20 00:48:02,395 [2328] ERROR Stryker.IServer. BusinessLogic.SEWSI.RuleManager. EmailToAdminForMissingBBID - SEND EMAIL: Stryker room locator f5d5b2130000 is in the location list but is not associated to a room, update the location association as required. Currently connected to device ID 3000-000_ 130316141.	BBID is sent in payload and it is present in "BBIDList.xml" file but not present in "DeviceBBIdLocationAssciation.xml" file
Email info	Scenario
--	---
Email Subject: Stryker iBed Server Alert Email Body: 2015-04-20 00:50:52,536 [2328] ERROR Stryker.IServer. BusinessLogic.SEWSI.RuleManager. EmailToAdminForMissingBBID - SEND EMAIL: Stryker room locator f5d5b2130000 is in the location list but is associated to an undefined room, update the location association as required. Currently connected to device ID 3000-000-000_130316141.	BBID is sent in payload and it is present in "BBIDList.xml" file and in "DeviceBBIdLocationAssciation.xml" file but location for that BBID is missing in "DeviceBBIdLocationAssciation.xml" file
Email Subject : Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 1 -> iBedServer is unable to access the database. Please restart the MS-SQL database. After restart, if the message continues, please contact Stryker support.	When DB is down
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 2 -> The MS- SQL database is corrupt. Following Tables are missing in Database ->DeviceConnectionInfoList. Please contact Stryker support to rebuild.Application Health Check Failed at Step 3 -> iBedServer is unable to access SEWSI. Please restart the World Wide Web Publishing Service and StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support.	DeviceConnectionInfoList table doesn't exist
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 2 -> The MS- SQL database is corrupt.Following Tables are missing in Database ->MasterSubscriptionInfo. Please contact Stryker support to rebuild.	MasterSubscriptionInfo table doesn't exist
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 2 -> The MS- SQL database is corrupt.Following Logins are missing in Database ->NT AUTHORITY\LOCAL SERVICE. Please contact Stryker support to rebuild.	LOCAL SERVICE doesn't exist

Email info	Scenario
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 2 -> The MS- SQL database is corrupt.Following Logins are missing in Database ->NT AUTHORITY\NETWORK SERVICE. Please contact Stryker support to rebuild. Application Health Check Failed at Step 3 -> iBedServer is unable to access SEWSI. Please restart the World Wide Web Publishing Service and StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support.	NETWORK SERVICE doesn't exist
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 3 -> iBedServer is unable to access SEWSI. Please restart the World Wide Web Publishing Service and StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support. Application Health Check Failed at Step 4 -> StrykerSEWSIHeartbeatservice is not running. Please restart StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support.	Both SEWSI and HB services are down
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 2 -> The MS- SQL database is corrupt.Following Tables are missing in Database ->MasterSubscriptionInfo . Please contact Stryker support to rebuild. Application Health Check Failed at Step 3 -> iBedServer is unable to access SEWSI. Please restart the World Wide Web Publishing Service and StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support. Application Health Check Failed at Step 4 -> StrykerSEWSIHeartbeatservice is not running. Please restart StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support.	Both SEWSI and HB services are down and MasterSubscriptionInfo table doesn't exist

Email info	Scenario
Email Subject: Stryker iBed Server Urgent Alert Email Body: Application Health Check Failed at Step 3 -> iBedServer is unable to access SEWSI. Please restart the World Wide Web Publishing Service and StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support. Application Health Check Failed at Step 4 -> StrykerSEWSIHeartbeatservice is not running. Please restart StrykerSEWSIHeartbeatservice. After restart, if the message continues, please contact Stryker support.	HB is down
Email Subject: Stryker iBed Server Urgent Alert Email Body: iBed Server is unable to communicate with Stryker clients. Please check the server/network configuration. If the message continues, please contact Stryker Technical Support.	No devices are detected
Email Subject: Stryker iBed Server Urgent Alert Email Body: Total number of clients connected to iBed Server has gone below <configured threshold="">. Please check the server/network configuration. If the message continues, please contact Stryker Technical Support.</configured>	Number of connected devices drops below the configured threshold value
Email Subject: Stryker iBed Server Urgent Alert Email Body: The following errors with Third Party Communication has been recorded in last 1 hour. <error></error>	Error with third party

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2019/03