Operating Room Information System

stryker®

Pre-Installation Manual

May 2012 1004-400-059 REV G www.Stryker.com

Operating Room Information System

Pre-Installation Manual

Operating Room Information System Pre-Installation Manual

1004-400-059 REV G

Contents

1. Scope

This document describes the rough-in requirements and specifications for Stryker Operating Room Information System (ORIS) equipment. It covers pre-installation requirements for all electrical and information systems services needed. It does not describe in detail the installation of this equipment which is accomplished by Stryker Communications' technicians.

Note Please refer to the Boom and Lights Pre-Installation Manuals for mechanical and structural requirements for Stryker equipment booms, surgical lights, flat panel arms, and navigation arms.

Note Junction boxes are called out in this manual. The term dual gang junction box with single gang mud ring refers to an actual dual gang junction box with an adaptor that is designed for attachment of a single gang wall plate. This provides more internal room for cabling and wire termination. The exact type used depends on local building codes and electrical standards.

2. Warnings and Cautions

Please read this manual and follow its instructions carefully. The words WARNING, CAUTION, and Note carry special meanings and should be carefully reviewed.

WARNING **The personal safety of the patient or user may be involved. Disregarding this information could result in injury to the patient.**

Caution **Special service procedures or precautions must be followed to avoid damaging the instrument.**

Note Special information to make maintenance easier or important information more clear.

2.1 Warnings

To avoid potential serious injury to the user and the patient, the user must:

1. Read this manual thoroughly, and be familiar with its contents prior to using this equipment.
2. Be qualified physician/technician or medical personnel, having complete knowledge of the use of this equipment.
3. Test this equipment prior to a surgical procedure. This product was fully tested at the factory before shipment.
4. DO NOT remove covers on the product, to avoid an electric shock.
5. DO NOT perform internal repairs or adjustments unless specifically instructed to do so in this manual.
6. The electrical installation of relevant operating room equipment must comply with the applicable IEC, CEC, and NEC requirements, and any other applicable international requirements where this product is sold. In the case where the information in this manual conflicts with local building/electrical regulations, local regulations will take precedence.

3. Product Symbol Definition

The following symbols may be found on the Stryker SwitchPoint Infinity® 3 equipment:

	An exclamation mark within a triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the product.
	A lightning bolt within a triangle indicates the presence of hazardous voltage. Refer all service to authorized personnel.
	Denotes temperature limits.
	Denotes humidity limits.
	Denotes pressure limits.
	Denotes usage tips and useful information.
	Denotes compliance to European Community Directive 93/42/EEC.
	Denotes compliance to CSA Standard C22.2, 60601-1 - M90, AS 3200, IEC 60601-1, UL 60601-1, EN 60601-1
	Denotes the date the equipment was manufactured.
	Denotes the manufacturer of the device.
REF	Denotes product/part number.
SN	Denotes product/serial number.
LOT	Denotes lot or batch number.
EC REP	Denotes European Representative.
!USA ℞ ONLY	For U.S. audience only - Caution: Federal Law (USA) restricts this device to sale by or on the order of a physician.
	Denotes quantity.

	Denotes Class 1 Class 1 Equipment: equipment in which the protection against electric shock does not rely on Basic Insulation only, but includes an additional safety precaution in such a way that means are provided for the connection of Accessible Conductive Parts to Protective (ground) Conductor in the fixed wiring of the installation in such a way that Accessible Conductive Parts cannot become Live in the event of a failure of the Basic Insulation.
	In accordance with European Community Directive 2002/96/EC on Waste Electrical and Electronic Equipment, this symbol indicates that the product must not be disposed of as unsorted municipal waste but should be collected separately. **Note:** The device does not contain any hazardous materials. Legal regulations may include specifications regarding the disposal of this product. We request that you contact Stryker when you plan to withdraw this device from service for discard.
	Denotes the device contains more than .002% cadmium.
	Denotes the device contains more than .0005% mercury.
	Denotes the device contains more than .004% lead.
	Limited Availability - Equipment may not be available in all regions.
	Not Stryker Provided - Doc Stations must be provided by the customer outside the U.S.

3.1 EMC Precautions

This device is considered medical electrical equipment and requires special precautions regarding EMC and needs to be installed and put into service according to the information provided.

Portable and mobile RF communications equipment can affect this device's performance and must be used in accordance with the following information.

WARNING **The use of accessories, transducers, or cables other than those specified, with the exception of those sold by Stryker, may result in increased emissions or decreased immunity of the equipment or system.**

WARNING **The equipment should not be used adjacent to or stacked with other equipment. If stacking or adjacent placement is necessary, the equipment should be observed to verify normal operation in the configuration in which it will be used.**

4. Party Responsibilities

The responsibilities associated with planning and preparation for installation of Operating Room Information System equipment will be shared between the Hospital, Contractor, and Stryker. These responsibilities are outlined below.

4.1 Hospital Responsibilities

1. Fill out the Ship and Installation Confirmation Form provided by the Stryker Representative. This must be completed eight (8) weeks prior to the requested installation date.
2. The hospital must supply Stryker with up-to-date drawings in .dwg format (CAD) including but not limited to:
   - Room layout plans (current and proposed)
   - Electrical services drawings
   - Mechanical services drawings
   - Elevation drawings
   - Structural steel (support structure) drawings
   - Ceiling drawings
3. The hospital must ensure Stryker is notified of all revisions and changes to drawings prior to and during the scope of the project.
4. Accept delivery of Stryker equipment.
5. All Stryker-supplied equipment should be stored in a clean, temperature-controlled, dry environment prior to installation. Failure to comply may result in damage to the equipment, failure of life support components, damage, and theft.
6. On or before the installation start date, deliver Stryker crates and equipment to the proper room(s).
7. Remove and dispose of the pallets, boxes, and trash during and after the installation.
8. On the final day of installation, sign Stryker Installation Acknowledgement Form. This form must be signed before the room can be turned over to the hospital.

4.2 Contractor Responsibilities

1. Coordinate subcontractors.
2. Prior to the installation start date, provide all rough-in requirements as explained in this manual and the Stryker rough-in drawings.
3. Prior to the installation start date, run all cabling, electrical, and data as instructed in this manual and the Stryker Communications drawings.
4. Provide and pull all cables outside the operating room as specified in this manual.
5. Prior to the installation start date, connect all the required electrical circuits.
6. Prior to the installation start date, complete all work involving dust, paint, and flooring.
7. All non-Stryker equipment that is going to be connected to Stryker's ORIS equipment must be installed prior to Stryker's installation start date.
8. All Stryker equipment that attaches to the building structure, such as Documentation Stations, Plasma/LCD display mounting brackets, and LCD projector mounting brackets, must be mounted prior to Stryker's installation date. Exceptions are Stryker's booms and lights.
9. Prior to installation start date, any documentation station or cabinets that will house Stryker

ORIS equipment must be fully assembled and connected to phone, data and power.

10. The proper Stryker cable kits must be pulled through any non-Stryker ceiling-mounted equipment prior to the Stryker installation date.

    - **International Only:** If Stryker technicians are requested to pull cables through non-Stryker ceiling-mounted equipment, the vendor of the equipment must be present to assist and provide instructions. The vendor will maintain responsibility for the finished, combined product.

11. All rooms must be reserved for Stryker Installation technicians only at all times during the installation dates.

4.3 Stryker Responsibilities

1. Provide design assistance and recommendations.
2. Provide rough-in, cabling, electrical, and voice/data requirements listed in this manual.
3. Provide rough-in drawings.
4. Provide the hospital with a scope of work for Stryker's equipment installation.
5. Inventory all Stryker ORIS System components.
6. Pull all cables within the operating room. Hospital provides and pulls all cables outside of the operating room, including auditoriums and conference rooms.
7. Terminate and test all low voltage cabling used to connect ORIS equipment with actual equipment or functionally equivalent signal generators.
8. Break down packaging material and gather all trash in a central location in the work area for Hospital/Contractor removal.
9. Perform a final review and "walk through" of the installation to ensure all equipment is functioning and all installation requirements have been met.

5. iSuite Operating Room

The Stryker iSuite may consist of, but is not limited to, the following Stryker Communications equipment: SwitchPoint Infinity, SwitchPoint Element, Documentation Station, Stryker Booms and Lights, Speakers, PTZ Camera, and Wall Mounted Plasma/LCD. The operating room may also integrate with an ORIS Video Network Hub and may contain a Fixed OR Status Camera. This section describes site preparation requirements necessary for the installation phase of all Stryker ORIS equipment in the operating room.

Note All electrical circuits called out in this manual are single Branch Circuits. For example: 20 Amp/115 VAC within the US and 16/13 Amp 230 VAC in Europe or equivalent per local electrical codes.

5.1 Documentation Station (Stryker Provided)

The Stryker-provided documentation station houses all the essential components of the iSuite. Prior to receiving the documentation station the customer/Contractor must complete the Documentation Station Order Confirmation Form (Provided by the Stryker Project Manager) and return to the PM at least eight (8) weeks prior to the desired delivery date.

5.1.1 Receiving and Assembling the Documentation Station

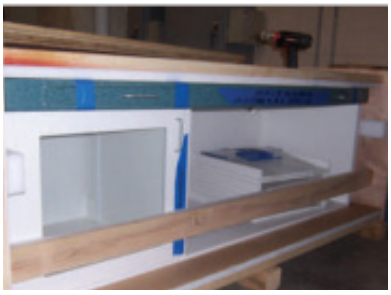
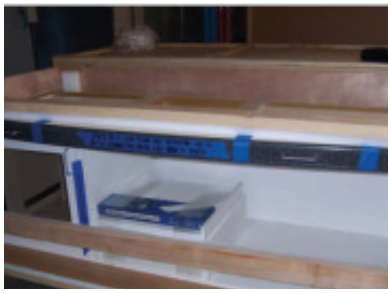
Note Hospital/Contractor is responsible for receiving and assembling the documentation station prior to Stryker installation. The assembly may require up to four people to complete the lifts.

The documentation station will be delivered in three large wooden crates (top, middle, and base). This is a large delivery and may require extra labor.

Dimensions of the Shipping Crates:

- **3-Bay:** 40 x 80 x 36 40 x 80 x 42 40 x 80 x 48
- **2-Bay:** 40 x 54 x 36 40 x 54 x 42 40 x 54 x 48
- **1-Bay:** 40 x 60 x 48

Shipping crates:


Upon delivery, uncrate the Stryker Documentation Station, transport to the appropriate location, and assemble the three sections:

1. Roll the base section into place.
2. Lift and level the base by adjusting the four leg levelers, found at each corner, with a screw driver.
3. Lift the middle section and set it on top of the base.
4. Center the middle section over the base and then push the middle section back until it stops.
5. Use the 2" #10 fasteners provided by the manufacturer to screw the middle section to the base section. Use the pre-drilled holes at the top of each of the four corners of the base section to attach the two sections.
6. Repeat steps 2-5 to attach the top section to the middle section.

Note OSPHD anchoring details available from project manager upon request.

5.1.2 Additional Documentation Station Notes

- The right side of the documentation station is the standard side for the Infinity router.
- Stryker provides the back boxes for all the outlets in the documentation station. All electrical outlets and face plates must be provided and installed by the hospital/Contractor.
- Stryker does not engrave or label circuit IDs on faceplates.
- Use the duplex outlet, in the bottom left cabinet of the documentation station, for the Ethernet/Comm connection plate. Stryker only supplies the metal back box for this outlet.
- The bottom section is on casters and will easily roll into place. This allows for the electrician to easily run power to the documentation station before rolling into place.
- There will be a 1" gap between the base of the cabinet and the finished floor. Stryker recommends coving/flashing up the floor for cleaning purposes.
- Once in place, Stryker recommends sealing or caulking the sides of the documentation station to the wall.
- The top of the documentation station is a flat surface and Stryker does not provide a soffit.
- Stryker recommends one circuit to feed the top and middle outlets, one circuit to feed the Infinity side of the cabinet, and one circuit for the Power Supply box side of the cabinet.

5.1.3 Installing the Documentation Station

Note All conduits should be provided with pull strings and should have minimum bends or curves. All conduits have a maximum length of 45'. Conduits must have insulated bushings on all open ends.

If an ORIS Hub is installed (not applicable with the Element), install two (2) Ethernet connections (one [1] for ORIS Hub and one [1] for SDC, as required). A telephone connection may be necessary for a nurse's phone. Similarly, additional Ethernet connections may be necessary for a nurse computer and/or PACS computer. If local Video Conferencing via a CODEC is installed, an additional Ethernet connection is required. All additional telephone/Ethernet connections will be specified by the Hospital

If an ORIS Video Hub is not installed, install two (2) Ethernet connections for the SORN (Stryker's Remote Device Management System) and SDC, respectively. A telephone connection may be desired for a nurse's phone. Similarly, additional Ethernet connections may be desired for a Nurses Computer and/or PACS Computer. If local Video Conferencing via a CODEC is installed, an additional Ethernet connection is required. All additional telephone/Ethernet connections will be specified by the Hospital.

ONE-BAY DOCUMENTATION STATION (DOC1) US

Dimensions	25.5"W x 90"H x 30.2"D
Power	Three (3) – 20 Amp circuits • One (1) circuit for quad outlet in lower section. • One (1) circuit for 2 duplex outlets in lower section. • One (1) circuit for quad outlet in upper section. • All documentation station circuits require critical power.
Data	Per listed equipment
Backbox	Per listed equipment

TWO-BAY DOCUMENTATION STATION (DOC2) US

Dimensions	48"W x 90"H x 37"D
Power	Recommend Six (6) - 20 amp circuits: • One (1) circuit for quad outlet in lower section behind video router. • One (1) circuit for quad outlet in lower section behind the light power supply box (if required). • One (1) circuit for duplex outlet in lower section under touch panel. • One (1) circuit for quad outlet in middle section behind digital capture device. • One (1) circuit for quad outlet in upper left section (if required). • One (1) circuit for quad outlet in upper right section (if required). • All documentation station circuits require critical power.
Data	Per listed equipment
Backbox	Per listed equipment

THREE-BAY DOCUMENTATION STATION (DOC3) US

Dimensions	72"W x 90"H x 37"D
Power	Recommend seven (7) - 20 amp circuits • One (1) circuit for quad outlet in lower section behind video router. • One (1) circuit for quad outlet in lower section behind light PSB (if required). • One (1) circuit for duplex outlet in lower section under touch panel. • One (1) circuit for quad outlet in middle section behind digital capture device. • One (1) circuit for quad outlet in upper left section (if required). • One (1) circuit for quad outlet in upper middle section (if required). • One (1) circuit for quad outlet in upper right section (if required). • All documentation station circuits require critical power.
Data	Per listed equipment
Backbox	Per listed equipment

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. EQUIPMENT LIST:

    1. THIS DRAWING IS FOR REFERENCE OF CUT-OUT LOCATIONS ONLY. IT IS NOT INTENDED FOR MANUFACTURING USE.
    2. DRAWING DISPLAYS FRONT VIEW OF DOCUMENTATION STATION WITH DOORS OMITTED.
    3. PROVIDE AND INSTALL SIX (6) ELECTRICAL QUAD OUTLETS AND SIX (6) DUAL GANG FACE PLATES AS WELL AS TWO (2) ELECTRICAL DUPLEX OUTLETS WITH TWO (2) SINGLE GANG FACE PLATES INTO THE ELECTRICAL JUNCTION BOXES PROVIDED.
    4. INSTALL AND CONNECT FLUORESCENT LIGHTING FIXTURE IF PROVIDED.

5. PROVIDE AND CONNECT 20 AMP CIRCUITS FOR THE STRYKER DOCUMENTATION STATION FOR EACH QUAD PLEX OUTLET: ONE (1) 20 AMP CIRCUIT FOR EACH OF THE TWO (2) DUPLEX OUTLETS IN THE DOCUMENTATION STATION WITH ONE (1) CIRCUIT ALSO POWERING THE FLUORESCENT LIGHTING. IF INSTALLING STRYKER VISUM LIGHTS, ONE (1) 20 AMP CIRCUIT IS REQUIRED FOR EACH LIGHT POWER SUPPLY BOX (REFER TO VISUM PRE-INSTALLATION GUIDE FOR LOCATION OF POWER SUPPLY BOX). POWER SHOULD BE CONNECTED USING CONDUIT FROM THE WALL TO FACILITATE FUTURE ACCESS TO THE CABLE CHASE IN THE BACK OF THE DOCUMENTATION STATION. ALL STRYKER DOCUMENTATION STATION CIRCUITS SHOULD BE ON CRITICAL POWER.

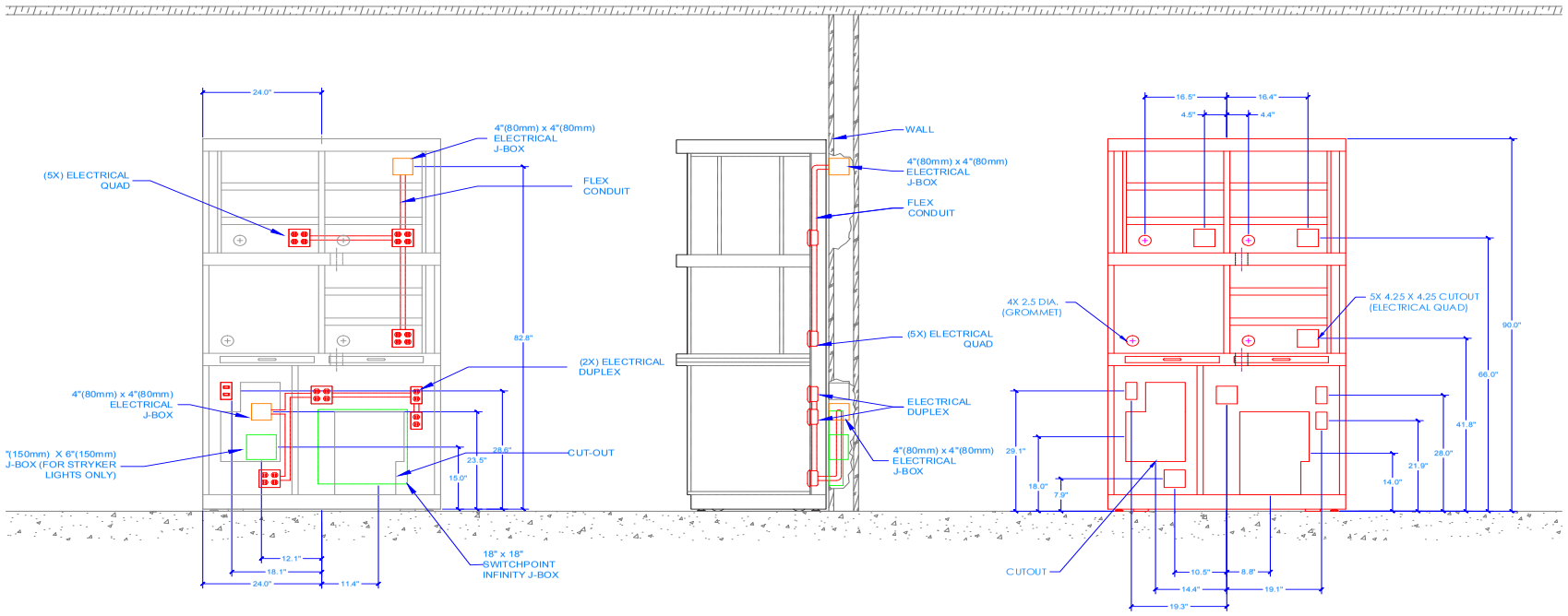


Figure 5.4 - Two-Bay Documentation Station

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. EQUIPMENT LIST:

1. THIS DRAWING IS FOR REFERENCE OF CUT-OUT LOCATIONS ONLY. IT IS NOT INTENDED FOR MANUFACTURING USE.
2. DRAWING DISPLAYS FRONT VIEW OF DOCUMENTATION STATION WITH DOORS OMITTED.
3. PROVIDE AND INSTALL SIX (6) ELECTRICAL QUAD OUTLETS AND SIX (6) DUAL GANG FACE PLATES AS WELL AS TWO (2) ELECTRICAL DUPLEX OUTLETS WITH TWO (2) SINGLE GANG FACE PLATES INTO THE ELECTRICAL JUNCTION BOXES PROVIDED.
4. INSTALL AND CONNECT FLUORESCENT LIGHTING FIXTURE IF PROVIDED.
5. PROVIDE AND CONNECT 20 AMP CIRCUITS FOR THE STRYKER DOCUMENTATION STATION FOR EACH QUAD PLEX OUTLET: ONE (1) 20 AMP CIRCUIT FOR EACH OF THE TWO (2) DUPLEX OUTLETS IN THE DOCUMENTATION STATION WITH ONE (1) CIRCUIT ALSO POWERING THE FLUORESCENT LIGHTING. IF INSTALLING STRYKER VISUM LIGHTS, ONE (1) 20 AMP CIRCUIT IS REQUIRED FOR EACH LIGHT POWER SUPPLY BOX (REFER TO VISUM PRE-INSTALLATION GUIDE FOR LOCATION OF POWER SUPPLY BOX). POWER SHOULD BE CONNECTED USING CONDUIT FROM THE WALL TO FACILITATE FUTURE ACCESS TO THE CABLE CHASE IN THE BACK OF THE DOCUMENTATION STATION. ALL STRYKER DOCUMENTATION STATION CIRCUITS SHOULD BE ON CRITICAL POWER.

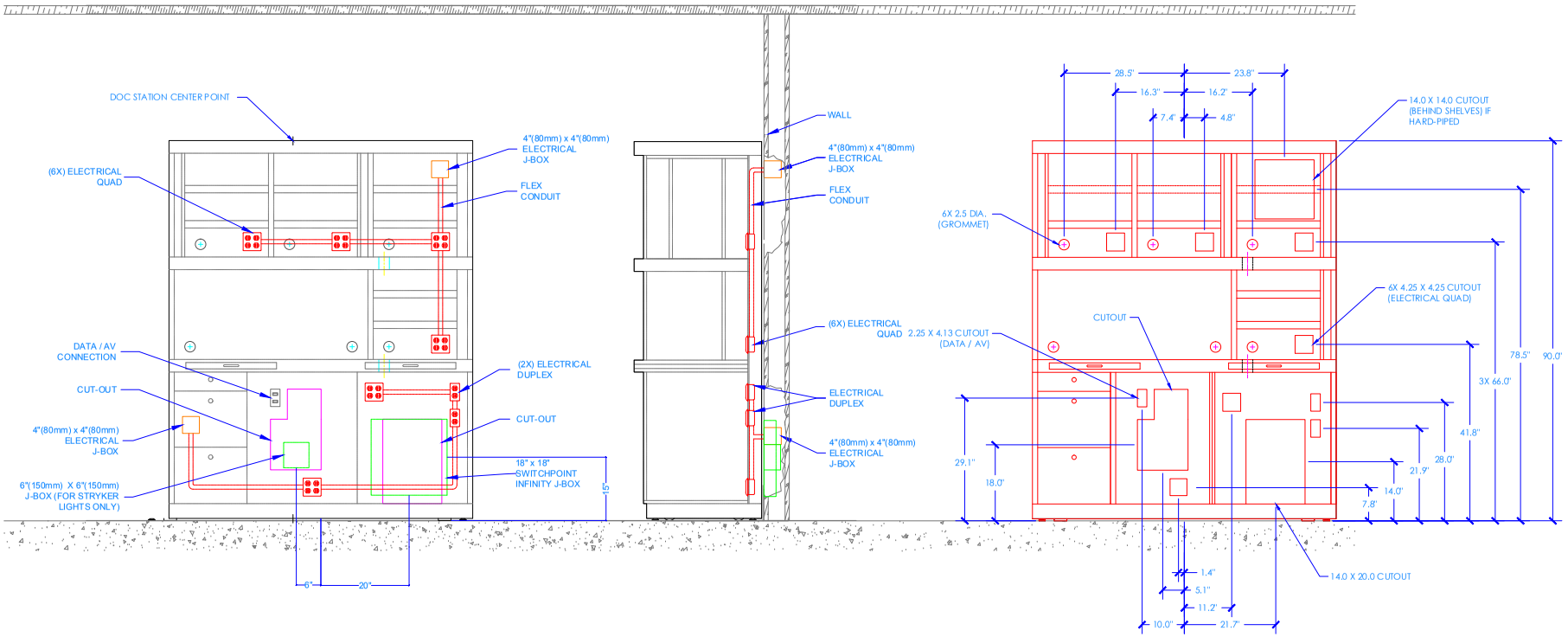


Figure 5.5 - Three-Bay Documentation Station

5.2 Documentation Station (Hospital Provided)

Note All conduits should be provided with pullstrings and have minimum bends or curves. All conduits have a maximum length of 45' (13.7m). Conduits must have insulated bushings on all open ends.

The hospital-provided documentation station must allow for the physical dimensions and power requirements for all equipment it is to hold.

CUSTOMER SUPPLIED DOCUMENTATION STATION (DOC4)

Power	Recommend four (4) - 20 amp circuits • One (1) circuit for quad outlet behind video router. • One (1) circuit for quad outlet behind light PSB (if required). • One (1) circuit for duplex outlet under touch panel. • One (1) circuit for quad outlet behind digital capture device. • All documentation station circuits require critical power.
Space Requirements	Doc station must allow for a minimum 2" cable passage between all components housed inside. • Section housing video router must have an interior dimension of at least 27.5"W x 31"H x 29"D. • Section housing video router must be vented. • Doc station must allow for direct access to backboxes per requirements listed below.
Data	Per listed equipment
Backbox	Per listed equipment

If an ORIS Video Hub is not installed, install two (2) Ethernet connections for the SORN (Stryker's Remote Device Management System) and SDC, respectively. A telephone connection may be desired for a nurse's phone. Similarly, additional Ethernet connections may be desired for a Nurses Computer and/or PACS Computer. If local Video Conferencing via a CODEC is installed, an additional Ethernet connection is required. All additional telephone/Ethernet connections will be specified by the Hospital.

5.3 Documentation Station Equipment Requirements

SWITCHPOINT INFINITY 3 (A1)

Dimensions	• Media Router: 20.6"W x 24"H x 17"D • Control Section: 12.5"W x 2.6"H x 17"D • Total Space Required: 27.5"W x 31"H x 29"D
Data	One (1) Ethernet connection
Back Box	• One (1) 18"W x 18"H x 4"D (or larger) junction box flush mounted. • Set bottom of box 9" above finished floor. • Terminate all integration conduits to this junction box.

SPI3 TOUCH PANEL, 22" (B1)

Dimensions	20.3"W x 15.8"H x 13.5"D with stand

SPI3 TOUCH PANEL, 19" (C)

Dimensions	17.7"W x 15"H x 11.8"D with stand

SWITCHPOINT INFINITY 2 (A2)

Dimensions	• Router: 21.0"W x 24.0"H x 22.3"D • Total space required: 27.5"W x 31"H x 29"D
Data	One (1) Ethernet connection
Back Box	• One (1) 18"W x 18"H x 4"D (or larger) junction box flush mounted. • Set bottom of box 9" above finished floor. • Terminate all integration conduits to this junction box.

SPI2 TOUCH PANEL, 19" (B2)

Dimensions	16.9"W x 15.5"H x 8.2"D with stand

SWITCHPOINT ELEMENT (A3)

Dimensions	• Video Router: 12.5"W x 10"H x 15"D • Control System: 12.5"W x 2"H x 15"D • Total Space Required: 27.5"W x 31"H x 29"D
Data	One (1) Ethernet connection
Back Box	• One (1) 18"W x 18"H x 4"D (or larger) junction box flush mounted. • Set bottom of box 9" above finished floor. • Terminate all integration conduits to this junction box.

SPE TOUCH PANEL, 12" (B3)

Dimensions	11.9"W x 11.3"H x 6.6"D with stand

SUITESTREAM CODEC (D)

Dimensions	12.7"W x 2.6"H x 17.3"D
Data	• Two (2) Ethernet connections • Please refer to Stryker ConnectSuite Pre-Install document, SOP0304.08 for specific network requirements..

SDC ULTRA (F)

Dimensions	12.5"W x 7"H x 16.2"D
Data	One (1) Ethernet connection

SDP1000 PRINTER (H)

Dimensions	12.5"W x 8.2"H x 16.7"D

SIDNE (I)

Dimensions	12.6"W X 4.5"H X 16.2"D

WISE TRANSMITTER (J)

Dimensions	12.5"W X 3.3"H X 15.2"D

NAVIGATION PC (K)

Dimensions	17"W X 20"H X 24"D
Data	One (1) Ethernet connection

HD CODEC (L)

Dimensions	5.1"W X 13.9"H X 11"D
Data	• One (1) Ethernet connection • Please consult project manager if ISDN is utilized

SD CODEC (L1)

Dimensions	19.5"W X 2"H X 12"D
Data	One (1) Ethernet connection Please consult project manager if ISDN is utilized

WIRELESS MICROPHONE RECEIVER (M)

Dimensions	8.3"W X 1.93"H X 7.2"D

VISUM HALOGEN POWER SUPPLY BOX (N)

Dimensions	• PSB: 17.8"W X 6"H X 15.8"D • Total Space Required: 20"W X 9"H X 21"D
Back Box	• One (1) 6"W x 6"H x 4"D (or larger) junction box flush mounted. • Set bottom of box 14" above finished floor. • Terminate all surgical light conduits to this junction box

VISUM LED POWER SUPPLY BOX (N1)

Dimensions	• PSB: 12.5"W X 7"H X 15.5"D • Total Space Required: 20"W X 9"H X 21"D
Back Box	• One (1) 6"W x 6"H x 4"D (or larger) junction box flush mounted. • Set bottom of box 14" above finished floor. • Terminate all surgical light conduits to this junction box

5.4 iSuite Equipment Integration Notes

Note All conduit runs include insulated bushings and pull strings.

Note Conduit runs cannot exceed 50' from end-to-end. Do not exceed four (4) 90 degree bends.

5.4.1 Wall Mounted 46" or 55" LCD Monitor or 42" TouchPanel

Conduit	One (1) 1 1/4" conduit
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Mounted directly above the top of the mounting bracket.
Power	One (1) standard duplex outlet mounted adjacent to junction box
Structural	• Customer/Contractor to mount Stryker provided bracket to the wall in the desired location with proper reinforcement to support the monitor prior to Stryker installation. • Stryker Project Manager will provide mounting specifications.

ITEM-ITEM	QTY	SIZE
WMM – A	1	1 1/4"

5.4.2 Wall/Ceiling Mounted Room Status Camera (WRC, CRC) LA

Conduit	One (1) ¾" conduit terminated at nearest corridor cable tray
Back Box	• 4"W x 4"H junction box with single-gang mud ring • Flush mounted at 12" below finished ceiling (wall mounted only)
Power	None
Cabling	• One (1) power cable and one (1) video cable • One (1) Belden 8723 / 88723 (maximum 1000') • One (1) Belden 8241 / 88241 (maximum 1000') • Cables require 15' service loop at both ends

Note All Status System cabling must be provided and pulled by the Hospital/Contractor prior to Stryker Installation.

ITEM-ITEM	QTY	SIZE
WRC/CRC – *	1	¾"

5.4.3 Wall Plates

Conduit	One (1) ½" conduit
Back Box	• 4"W x 4"H junction box with single-gang mud ring • 4"W x 4"H junction box with dual-gang mud ring (Fiber optical DVI only) • Mounted 18" above finished floor.
Power	None required, but should be located next to outlet

ITEM-ITEM	QTY	SIZE
Copper DVI (CDP) – A	1	1 ½"
VGA/S-Video/BNC (TRP) - A	1	1"
Pass-Through (PTP) - A	1	1"
Fiber Optical DVI - A	1	1"

5.4.4 Observation Room Touch Panel, Microphone and Speaker (OBS) LA

Conduit	One (1) 1" conduit terminated
Cabling	For runs over 50', Hospital/Contractor provides the following: • Two (2) Belden 8723 / 88723 (maximum 1000') • One (1) CAT6 cable (maximum 328') • Cables require 15' service loop at both ends • Cabling provided and pulled by Hospital/Contractor before Stryker installation
Back Box	• 4"W x 4"H junction box with single-gang mud ring • Mounted within 18" of touch panel location
Power	One (1) standard outlet within 18" of touch panel location

ITEM-ITEM	QTY	SIZE
OBS – A	1	1"

5.4.5 Cable Run to Video Network Hub (HRN)

Conduit	One (1) 2" conduit terminated at nearest corridor cable tray.
Cabling	• Four (4) Belden 8241/88241 or equivalent (maximum 1000' - consult Project Manager for runs over 1000') • Two (2) Belden 8723 / 88723 or equivalent (maximum 1000' - consult Project Manager for runs over 1000') • One (1) CAT6 cable (maximum 328' - consult Project Manager for runs over 328')) • Cables require 15' service loop at both ends • Hub cabling provided and pulled by Hospital/Contractor before Stryker installation

ITEM-ITEM	QTY	SIZE
HRN – *	1	2"

5.4.6 Equipment Boom Cable Kit (Brand) (EQB)

Cabling	All cabinets within the boom must be pulled by Hospital/Contractor if not already pulled by boom manufacturer
Conduit	Terminated within 18" of the center of the ceiling mount
Power	Per boom manufacturer specifications
Plumbing	Per boom manufacturer specifications
Access Panel	One (1) 24" x 24" access panel adjacent to suspension
Structural	Per boom manufacturer specifications

ITEM-ITEM	QTY	SIZE
EQB – A	2	2"

5.4.7 Anesthesia Boom Cable Kit (Brand) (ANB)

Cabling	All cables within the boom must be pulled by Hospital/Contractor if not already pulled by boom manufacturer
Conduit	Terminated within 18" of the center of the ceiling mount
Power	Per boom manufacturer specifications
Plumbing	Per boom manufacturer specifications
Access Panel	One (1) 24" x 24" access panel adjacent to suspension
Structural	Per boom manufacturer specifications

ITEM-ITEM	QTY	SIZE
ANB – A	1	2"

5.4.8 Navigation Arm (NAM)

Conduit	Terminated to 10" x 10" x 4" NEMA type 1 box within 18" of the center of the ceiling mount.
Power	No additional power required.
Access Panel	One (1) 24" x 24" access panel adjacent to suspension
Structural	• Optimal location for center of Navigation camera is 47" above finished floor. • Stryker preinstall plate is installed per customer structural engineer specs at 4" above finished ceiling. • A 21" circular hole centered on Stryker preinstall plate in the finished ceiling is required for installation. A 24" diameter ceiling cover conceals hole after suspension is installed. • The Contractor/electrician to hardwire Stryker electrical whip during Stryker installation. • Load location: X=31", Y=45" • Maximum deflection: 1 degree

ITEM-ITEM	QTY	SIZE
NAM – A	1	2"

5.4.9 Stryker Single Flat Panel Arm Cable Kit

Conduit	One (1) 2" (50mm) conduit terminated with insulated bushings within 18" (450mm) of the center of the ceiling mount. This conduit must be accessible from the access panel and terminated in a horizontal orientation. **Pull strings should be provided.**
Power	One (1) - 20 AMP circuit located at junction box within 18" of center of Stryker pre-install plate. Hospital/Contractor should hardwire during installation.
Access Panel	One (1) 24" x 24" access panel adjacent to suspension

5.4.10 Stryker Dual Flat Panel Arm Cable

Conduit	One (1) 2" (50mm) conduit terminated with insulated bushings within 18" (450mm) of the center of the ceiling mount. This conduit must be accessible from the access panel and terminated in a horizontal orientation. **Pull strings should be provided.**
Power	One (1) - 20 AMP circuit located at junction box within 18" of center of Stryker pre-install plate. Hospital/Contractor should hardwire during installation.
Access Panel	One (1) 24" x 24" (610mm x 610mm) access panel adjacent to suspension

5.4.11 Single Flat Panel Arm Cable Kit (Non-Stryker Flat Panel Arm) (NAM)

Conduit	Two (2) 2" (50mm) conduit terminated with insulated bushings within 18" (450mm) of the center of the ceiling mount. This conduit must be accessible from the access panel and terminated in a horizontal orientation. **Pull strings should be provided.**
Power	Two (2) - 20 AMP circuit located at junction box within 18" of center of Stryker pre-install plate. Hospital/Contractor should hardwire during installation.
Access Panel	One (1) 24" x 24" (610mm x 610mm) access panel adjacent to suspension

5.4.12 Dual Flat Panel Arm Cable Kit (Non-Stryker Flat Panel Arm)

Conduit	Two (2) 2" (50mm) conduit terminated with insulated bushings within 18" (450mm) of the center of the ceiling mount. This conduit must be accessible from the access panel and terminated in a horizontal orientation. Pull strings should be provided.
Power	Two (2) - 20 AMP circuit located at junction box within 18" of center of Stryker pre-install plate. Hospital/Contractor should hardwire during installation.
Access Panel	One (1) 24" x 24" (610mm x 610mm) access panel adjacent to suspension

6. Infinity Based Conference System (IBC) Rooms LA

Note All cabling must be provided and pulled by Hospital/Contractor prior to Stryker's arrival.

IBC's are most often installed in auditoriums, classrooms, and large conference rooms. The IBC can be installed in a variety of places. The control system can either sit in a closet or in the back of the room. A podium is recommend to accommodate the IBC Touch Panel and cable runs to the control system.

6.1 SPI3 Customer Supplied Casework (SCW)

Data	Per listed equipment
Back Box	Per listed equipment
Power	Recommended two (2) - 20 amp circuits: • One (1) circuit for quad outlet behind video router • One (1) circuit for quad outlet behind support equipment
Space Requirements	• Casework must allow for a minimum 2" cable passage between all components housed inside. • Section housing video router must have an interior dimension of at least 27.5"W X 31"H X 29"D. • Section housing video router must be vented. • Must allow for direct access to backboxes per requirements listed below.

6.2 IBC Unit with Tower (ICW1) LA

Dimensions	27.5"W X 65"H X 30"D
Data	One (1) Ethernet connection
Back Box	• One(1) 18"W X 18"H X 4"D (minimum) junction box flush mounted. • Set bottom of the box 9" above finished floor within the footprint of the tower. • **Terminate all integration conduits to this junction box.** • **Hospital/Contractors will provide and pull all cables.**
Power	One (1) - 20 AMP circuit for quad outlet behind the tower.

6.3 IBC Unit with Stryker Credenza (ICW2) LA

Data	One (1) Ethernet connection
Back Box	• One(1) 18"W X 18"H X 4"D (minimum) junction box flush mounted. • Set bottom of the box 9" above finished floor within the foot print of the tower. • **Terminate all integration conduits to this junction box.** • **Hospital/Contractor will provide and pull all cables.**
Power	One (1) - 20 amp circuit for quad outlet behind the tower.

Note Customer/Contractor responsible for receiving and installing Credenza prior to Stryker installation.

6.4 IBC with Customer Supplied Casework (ICW3)

Data	Per listed equipment
Back Box	• One(1) 18"W X 18"H X 4"D (minimum) junction box flush mounted. • Set bottom of the box 9" above finished floor within the foot print of the tower. • **Terminate all integration conduits to this junction box.** • **Hospital/Contractor will provide and pull all cables.**
Power	• One (1) - 20 amp circuit for outlets behind video router. • One (1) - 20 amp circuit for quad outlet behind casework.
Space Requirements	• Must allow for a minimum 2" cable passage between all components housed inside. • Section housing video router must have an interior dimension of at least 27.5"W X 31"H X 29"D. • Section housing the video router must be vented. • Must allow for direct access to backboxes per requirements listed below.

Note Customer/Contractor responsible for installation of casework prior to Stryker installation.

6.5 Casework Equipment

6.5.1 SwitchPoint Infinity 2 (A2)

Dimensions	• Router 19.5"W X 28.5"H X 23"D • Total Space Required: 27.5"W X 31"H X 29"D
Data	One (1) Ethernet connection
Back Box	• One(1) 18"W X 18"H X 4"D (minimum) junction box flush mounted. • Set bottom of the box 9" above finished floor. • Terminate all integration conduits to this junction box.
Power	One (1) standard outlet within 3'.

6.5.2 SPI2 Touch Panel, 19" (B2)

Dimensions	16.9"W X 15.5"H X 8.2"D with stand
Power	One (1) standard outlet within 3'

6.5.3 Wireless Microphone Receiver (M)

Dimensions	8.3"W X 1.93"H X 7.2"D
Power	One (1) standard outlet within 3'

6.5.4 SD CODEC (L1)

Dimensions	19.5"W X 2"H X 12"D
Data	• One (1) Ethernet connection • Please consult Project Manager if ISDN is utilized.
Power	One (1) standard outlet within 3'

6.6 IBC Podium with Touch Panel LA

Note Customer/Contractor responsible for installation of podium prior to Stryker installation.

Dimensions	32"W X 46"H X 24.3"D

Cabling	• Cables provided by the Hospital/Contractor for runs over 50'.
	• Cables pulled by the Hospital/Contractor.
	• Leave a 15' (4.5m) service loop at each end for terminations.
	• Cable Specifications: Cables may vary depending on conference room configurations. Please consult Project Manager for site specific requirements:
	• Touch Panel:
	  ◦ One (1) Belden 8723 or equivalent (maximum 1000')
	  ◦ One (1) Extron MHR5 or equivalent (maximum 150')
	• Laptop Connection:
	  ◦ One (1) Belden 8723 or equivalent (maximum 1000')
	  ◦ One (1) Extron MHR5 or equivalent (maximum 150')
	• PC Connection:
	  ◦ One (1) Belden 8723 or equivalent (maximum 1000')
	  ◦ One (1) Extron MHR5 or equivalent (maximum 150')
	• Podium Microphone
	  ◦ One (1) Belden 8723 or equivalent (maximum 1000')
	• Network
	  ◦ Two (2) CAT6 cables (maximum 328')

Conduit	Two (2) 2" conduits
Back Box	• 12"W X 12"H junction box • Flush mounted in the floor under the podium
Power	• One (1) standard outlet • Flush mounted in the floor beneath podium adjacent or within 12" X 12" junction box

ITEM-ITEM	QTY	SIZE
IPD – ICW	2	2"

7. Level Systems Room

Note All cabling must be provided and pulled by Hospital/Contractor prior to Stryker's arrival.

Level System's are most often installed in integrated doctor's offices, small conference rooms, and pathology or nuclear medicine labs. This control system is placed in a cabinet next to or in the room's cabinetry or desk. Cable passage must be allowed to the junction box for all equipment placed on the desk or in the cabinetry.

7.1 Customer Supplied Casework (CSC)

Data	Per listed equipment
Back Box	Per listed equipment
Power	One (1) - 20 amo circuit for outlets behind video router
Space Requirements	• Must allow for a minimum 2" cable passage between all components housed inside. • Section housing video router must have an interior dimension of at least 21"W X 16"H X 22"D • Section housing router must be vented. • Must allow for direct access to back boxes per requirements listed below.

Note Customer/Contractor responsible for installation of casework prior to Stryker installation.

7.2 Casework Equipment

7.2.1 Level One System (S1) LA

Dimensions	20.5"W X 8.5"H X 16"D
Data	None
Back Box	• One (1) 6"W X 6"H X 4"D (minimum) junction box flush mounted at same height as Level System • Terminate all integration conduits to this junction box
Power	One (1) duplex outlet next to junction box

7.2.2 Level Two System (S2) LA

Dimensions	20.5"W X 14"H X 19"D
Data	None
Back Box	• One(1) 12"W X 12"H X 4"D (minimum) junction box flush mounted at same height as Level System • Terminate all integration conduits to this junction box
Power	One (1) duplex outlet next to junction box

7.2.3 Level System Touch Panel (T)

Dimensions	• Touch Panel: 11.9"W X 11.3"H X 6.6"D • Touch Panel Interface: 19"W X 2"H X 11"D
Power	One (1) duplex outlet

7.3 Remote Level System Touch Panel (LTP)

Dimensions	• Touch Panel: 11.9"W X 11.3"H X 6.6"D • Touch Panel Interface: 19"W X 2"H X 11"D

Cabling	• Cables provided by the Hospital/Contractor for runs over 50'
	• Cables pulled by the Hospital/Contractor
	• Leave a 15' (4.5m) services loop at each end for terminations
	• Cable Specifications:
	  ◦ Three (3) Belden 8723 or equivalent (maximum 1000')
	  ◦ One (1) Belden 8241 or equivalent (maximum 1000')

Conduit	One (1) 1" conduit
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Mounted within 18" of touch panel location
Power	One (1) standard outlet within 18" of touch panel location

ITEM-ITEM	QTY	SIZE
LTP – S	1	1"

8. Equipment Integration Notes

8.1 Wall Mounted 46" or 55" LCD Monitor, or 42" Touch Panel LA

Dimensions	• 46" Monitor: 41.6" X 24.0" X 4.1" (1055.4 x 608.6 x 103mm) • 55" Monitor: 51.9" X 30.5" X 4.7" (1317.8 x 775.8 x 118.9mm) • 42" Touch Panel: 40.2" X 24.1" X 5.2" (1020 x 132 x 613mm)
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Mounted directly above the top of the mounting bracket
Power	One (1) standard duplex outlet mounted adjacent to the junction box
Structural	• Customer/Contractor to mount Stryker provided bracket to the wall in the desired location with proper reinforcement to support the monitor • Stryker Project Manager will provide mounting specifications
Cabling	• Cables provided by the Hospital/Contractor for runs over 50' • Cables pulled by the Hospital/Contractor • Leave a 15' (4.5m) service loop at each end for terminations

8.1.1 SPI3 Cable Specifications

- One (1) Belden 8723 or equivalent (maximum 1000')
- One (1) - Four (4) strand, multimode fiber optic cable
    - Quantity of fibers within cable - four (4)
    - LC Connectors on each end
    - 50/125 Micron

ITEM-ITEM	QTY	SIZE
3WM – A	1	1 1/4"

8.1.2 SPI3 42" Touch Panel Cable Specifications

- One (1) Extron MHR5 or equivalent (maximum 150')
- One (1) Cat5, Cat5E, or Cat6 network cable (maximum 150')

ITEM-ITEM	QTY	SIZE
3WM – A	1	1 1/4"

8.1.3 IBC Cable Specifications LA

- One (1) Belden 8723 or equivalent (maximum 1000')
- One (1) Extron MHR2 or equivalent (maximum 150')
- One (1) Extron MHR5 or equivalent (maximum 150')

ITEM-ITEM	QTY	SIZE
IWM – ICW	1	1 1/4"

8.1.4 Level System Cable Specifications

- One (1) Belden 8723 or equivalent (maximum 1000')
- One (1) Belden 8241 or equivalent (maximum 1000')

ITEM-ITEM	QTY	SIZE
LWM – S	1	1"

8.2 Motorized Projection Screen (MPS)

Conduit	One (1) 3/4" conduit
Back Box	Junction box is located in left end cap of assembly
Power	• Customer/Contractor to hardwire to standard electrical circuit prior to Stryker installation • Installation instructions included with assembly
Structural	• Customer/Contractor to mount Stryker provided bracket to the wall in the desired location with proper reinforcement to support the monitor • Stryker Project Manager will provide mounting specifications

8.3 Motorized Projection Screen Wall Switch (SWS)

Conduit	One (1) 3/4" conduit
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Flush mounted at standard light switch height
Power	• Customer/Contractor to hardwire to standard electrical circuit prior to Stryker installation • Installation instructions included with assembly

ITEM-ITEM	QTY	SIZE
MPS – SWS	1	3/4"

8.4 Ceiling Mounted Projector

Cabling	• Cables provided by the Hospital/Contractor for runs over 50' • Cables pulled by the Hospital/Contractor • Leave a 15' service loop at each end for terminations
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Mounted 12" (minimum) behind projector mounting bracket
Power	One (1) standard duplex outlet ceiling mounted adjacent to junction box
Structural	• Customer/Contractor to mount Stryker provided bracket to the ceiling in the designated location with proper reinforcement to support the projector prior to Stryker installation • Stryker Project Manager will provide mounting specifications

8.4.1 SPI3 Cable Specifications

- One (1) Belden 8723 or equivalent (maximum 1000')

- One (1) Extron MHR5 or equivalent (maximum 150')
- One (1) - Four (4) strand, multimode fiber optic cable
    - Quantity of fibers within cable - Four (4)
    - LC Connectors on each end
    - 50/125 Micron

ITEM-ITEM	QTY	SIZE
3PR – A	1	1 1/4"

8.4.2 IBC Cable Specifications

- One (1) Belden 8723 or equivalent (maximum 1000')
- One (1) Extron MHR5 or equivalent (maximum 150')
- One (1) Extron MHR5 or equivalent (maximum 150')

ITEM-ITEM	QTY	SIZE
IPR – ICW	1	1 1/4"

8.4.3 Level System Cable Specifications

- One (1) Belden 8723 or equivalent (maximum 1000')
- One (1) Belden 8241 or equivalent (maximum 1000')

ITEM-ITEM	QTY	SIZE
LPR – S	1	1"

8.5 Bracket Mounted Wall /Ceiling Speaker

Conduit	One (1) 3/4" conduit
Cabling	• Cables provided by the Hospital/Contractor for runs over 50' • Cables pulled by the Hospital/Contractor • Leave a 15' (4.5m) service loop at each end for terminations • Cable Specifications: ◦ One (1) Belden 8723 or equivalent (maximum 1000')
Back Box	• 4"W X 4"H junction box with single-gang mud ring. • Mounted 12" (minimum) behind projector mounting bracket (wall mounted only) • Flush Mounted in ceiling (ceiling mounted only)
Power	None

ITEM-ITEM	QTY	SIZE
3WS/3CS – A (SPI3)	1	3/4"
IWS/ICS – ICW (IBC)	1	3/4"

8.6 Flush Mounted Rectangular Wall/Ceiling Speaker

Conduit	One (1) 3/4" conduit terminated 2" above speaker cutout
Cabling	• Cables provided by the Hospital/Contractor for runs over 50' • Cables pulled by the Hospital/Contractor • Leave a 15' (4.5m) service loop at each end for terminations • Cable Specifications: ◦ One (1) Belden 8723 or equivalent (maximum 1000')

Power	None
Structural	• Customer/Contractor to cut one 7 1/4"W X 10 3/4"L (template supplied with speaker) in the wall at each speaker mounting location. Fits into a standard 2" X 4" wall (wall mounted only) • Minimum 4" ceiling clearance (ceiling mounted only)

ITEM-ITEM	QTY	SIZE
3RW/3RC – A (SPI3)	1	3/4"
IRW/IRC – ICW (IBC)	1	3/4"

8.7 Flush Mounted Circular Ceiling Speaker

Conduit	One (1) 3/4" conduit terminated 6" above speaker cutout
Cabling	• Cables provided by the Hospital/Contractor for runs over 50'. • Cables pulled by the Hospital/Contractor. • Leave a 15' (4.5m) service loop at each end for terminations. • Cable Specifications: ◦ One (1) Belden 8723 or equivalent (maximum 1000')
Power	None
Structural	• Customer/Contractor to cut one 10 3/4" diameter circle at speaker mounting location • Outer diameter dimension is 13.4" • Minimum 4" ceiling clearance

ITEM-ITEM	QTY	SIZE
3CC – A (SPI3)	1	3/4"
ICC – ICW (IBC)	1	3/4"

8.8 Wall/Ceiling Mounted Pan/Tilt/Zoom Camera LA

Conduit	One (1) 1" conduit

Cabling	• Cables provided by the Hospital/Contractor for runs over 50'
	• Cables pulled by the Hospital/Contractor
	• Leave a 15' (4.5m) service loop at each end for terminations
	• Cable Specifications:
	  ◦ Two (2) Belden 8723 or equivalent (maximum 150')
	  ◦ One (1) Extron MHR2 or equivalent (maximum 150')

Back Box	• 4"W X 4"H junction box with dual-gang mud ring • Flush mounted in wall 12" below finished ceiling (wall mounted only) • Flush mounted in ceiling (ceiling mounted only)
Power	None

ITEM-ITEM	QTY	SIZE
3WP/3CP – A (SPI3)	1	1"
IWP/ ICP – ICW (IBC)	1	1"

8.9 Wall/Ceiling Mounted HD Pan/Tilt/Zoom Camera LA

Conduit	One (1) 1" conduit
Cabling	• Cables pulled by the Hospital/Contractor • Leave a 15' (4.5m) service loop at each end for terminations • Cables provided by Stryker (max length 50')
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Flush mounted in wall 12" below finished ceiling (wall mounted only) • Flush mounted in ceiling (ceiling mounted only)
Power	None

ITEM-ITEM	QTY	SIZE
3HW/3HC – A	1	1"

8.10 Echo Canceling Microphone with Internal Speaker LA

Conduit	One (1) 1" conduit
Cabling	• Cables provided by the Hospital/Contractor for runs over 50'. • Cables pulled by the Hospital/Contractor. • Leave a 15' (4.5m) service loop at each end for terminations. • Cable Specifications: ◦ Four (4) Belden 8723 or equivalent (maximum 1000')
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Mounted in desired location near microphone
Power	One (1) standard outlet within 18" of touch panel location.

ITEM-ITEM	QTY	SIZE
3EM – A (SPI3)	1	1"
IEM – ICW (IBC)	1	1"
LEM – S (Level)	1	1"

8.11 Ceiling Mounted Microphone

Conduit	One (1) 3/4" conduit
Cabling	• Cables provided by the Hospital/Contractor for runs over 50' • Cables pulled by the Hospital/Contractor • Leave a 15' (4.5m) service loop at each end for terminations • Cable Specifications: ◦ One (1) Belden 8723 or equivalent (maximum 1000')
Back Box	• 4"W X 4"H junction box with single-gang mud ring • Flush mounted in desired location
Power	None

ITEM-ITEM	QTY	SIZE
3CM – A (SPI3)	1	3/4"
ICM – ICW (IBC)	1	3/4"

8.12 Lutron Controller (LTC)

Conduit	One (1) 1" conduit
Back Box	Per Manufacturer
Power	Per Manufacturer

Note The Stryker Infinity Router is compatible with Grafik Eye 3000/4000 Systems.

ITEM-ITEM	QTY	SIZE
LTC – A	1	1"

8.13 Lutron Lighting Control Integration Series

Conduit	Cabling must run from the IBC to the Lutron Controller. Conduit determined by Hospital/Contractor.
Cabling	• Cables provided by the Hospital/Contractor for runs over 50'. • Cables pulled by the Hospital/Contractor. • Leave a 15' (4.5m) service loop at each end for terminations. • Cable Specifications: ◦ One (1) Belden 8723, 88723 or equivalent
Power	None

9. ORIS Video Network Hub

The Stryker ORIS Video Network Hub (Hub) allows rooms to communicate via audio and video with each other. With the addition of a Videoconferencing Coder/Decoder (CODEC), the hub will allow a room to connect to any other facility equipped with a Videoconferencing CODEC. The ORIS Video Network Hub should be placed in a secured communications closet centrally located between all of the rooms connecting to it. The hub generates less than 1150 BTU/hr and can withstand sustained temperatures of up to 104˚ F (40˚ C) and 85% relative humidity (non-condensing).

9.1 Elevation Drawings

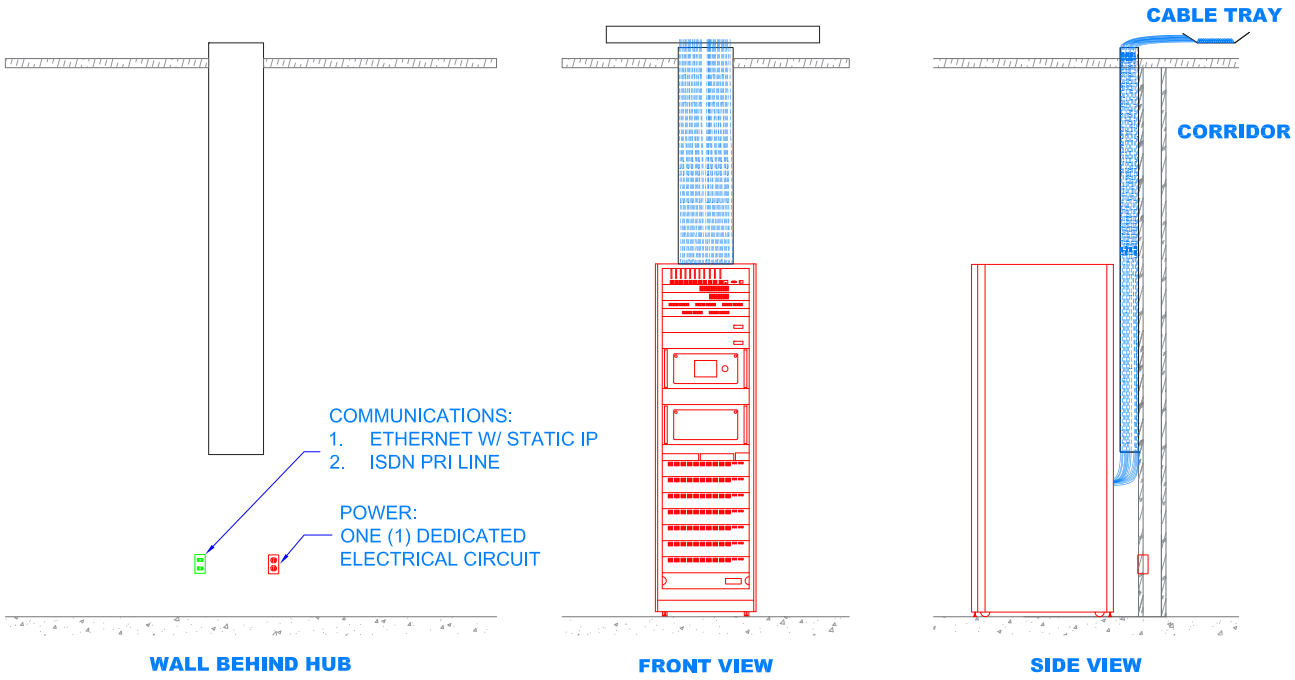


Figure 5.1 - ORIS Video Network Hub Elevation

9.2 Site Preparation Requirements

The following connections must be present and live at the time of installation:

Note See Appendix B for more information on ORIS network connectivity and complete the ORIS Network Connectivity Questionnaire.

1. One (1) ISDN PRI line for videoconferencing configured per the PRI Provisioning Instructions in Appendix A.
2. One (1) Ethernet connection (10/100Mbs) at the location of the ORIS Video Hub with static IP address for IP videoconferencing.
   a. For IP-based videoconferencing to endpoints within the institution's private network, this Ethernet connection should be connected to the institution's private LAN/WAN with no firewalls between it and the desired destinations for videoconferencing. This static IP address must be routable throughout the private LAN/WAN of the institution.
   b. For IP-based videoconferencing to endpoints located on the internet, an Ethernet connection should be connected to a public Internet connection outside of any institutional firewalls. This static IP address must be publicly routable on the Internet.

1. One (1) electrical circuit. It is the Hospital's discretion as to whether this circuit should reside on emergency power.
2. One (1) 12"x 4" (300mm x 100mm) wall mounted cable chase from ceiling to 36" (915mm) above the finished floor for cabling to each SwitchPoint, Director's Console, Conference Room, Pathology, and Nuclear Medicine Facility. Leave 15' (4.5m) of cable on both ends of cable runs for Stryker Technician termination and cable management. If any of the cable lengths listed below exceed the maximum length specified, please consult your Project Manager for necessary amplification/transmission equipment.
3. All hub cabling must be provided and pulled by the Hospital/Contractor before the Stryker Installation. This is a list of the cable necessary per connection to a room.
   a. Four (4) Video Cables (Belden 8241/88241 or equivalent) – Maximum 1000' (305m)

Note A single Link hub only requires two (2) Video Cables, but Stryker recommends four (4) in case of future upgrade to Dual Link.

   b. Two (2) Audio Cables (Belden 8723/88723 or equivalent) – Maximum 1000' (305m)
   c. One (1) Category 5E or better Ethernet cable – Maximum 330' (101m)

Note All Ethernet cable pinouts conform to the TIA/EIA 568B (T-568B) standard. For special consideration, consult your Project Manager.

Note For runs over 330 (' 101m) consult your Stryker Project Manager for placement and power requirements for amplification and/or transmission devices.

9.3 Video Network Hub (VNH)

Dimensions	24"W X 80"H X 36"D
Space Requirements	• Requires 3' clearance in front and back • Hub generates 1700 BTU per hour
Data	One (1) Ethernet connection
Back Box	One (1) 12"W X 4"D wall mounted cable chase or equivalent from ceiling to 36' above finished floor
Power	One (1) - dedicated 20 amp circuit within 3'

9.4 High Resolution Video Network Hub Addition (HRH)

Dimensions	24"W X 80"H X 36"D
Space Requirements	• Requires 3' clearance in front and back • This is an additional rack located next to the Video Network Hub rack
Data	None
Back Box	Utilizes cable chases provided for Video Network Hub.
Power	One (1) - dedicated 20 amp circuit within 3'

10. ConnectSuite

Note Refer to Stryker ConnectSuite Pre-Install document, for specific requirements.

ConnectSuite is Stryker's new IP video teleconferencing platform that replaces the previous generation Video Hub 2 (VH2). ConnectSuite is compatible with only SPI3 routers at this time. Its advantages are that rather than running over baseband cable like the VH2, it enables OR-integrated calls over the customer's existing network and it also has the optional SuiteView component, which allows customer computers to view into room endpoints concurrent with room to room calls.

SuiteLink is always required in every installation; it is like the new "hub," which coordinates calls and keeps track of room status. SuiteStream is the codec that must be installed into every room that wants to stream calls. SuiteView is completely optional software that is installed on the SuiteLink server AND on customer computers to enable the desktop view function. The Offsite Package is an optional component needed if the customer wants to make calls to other facilities with 3rd party codecs such as Polycom Codecs or Polycom H.323 room-conferencing systems.

The ConnectSuite Pre-Install document is required to be filled out and returned prior to scheduling installation. The product has strict customer network requirements. All requirements are NOT listed in this document.

10.1 SuiteStream

Note SuiteStream cannot be installed on an SPI3 endpoint in parallel with a local HD codec (Polycom).

Dimensions	12.7"W x 2.6"H x 17.3"D
Data	Two (2) Ethernet drops at each SuiteStream location. Two SuiteStreams in one OR would require 4 Ethernet drops.

10.2 SuiteLink/SuiteView

Note Server is racked in a customer provided-rack, any location with network access is acceptable.

Dimensions	17.32"W x 1.75"(1U)H x 22"D
Data	One (1) drop at its location.

10.4 Offsite Package

Note Offsite Package is racked in a customer-provided rack adjacent to the SuiteLink server.

Dimensions	13”W x 5.6”(4U)H x 17.3”D
Data	Three (3) drops each at SuiteLink server location. Internet connectivity on one drop is required. Two offsite packages would require six (6) Ethernet drops.

11.1 Operating Room Status Systems

The Room Status System combines the Fixed OR Status Camera video signals from separate rooms into one display located at the OR Control Desk. All video, touch panel control, and power cables are run to a central location, usually the Video Network Hub or IT/storage closet. This section describes site preparation requirements necessary prior to the installation phase of the OR Status System.

Note All cabling will be provided and pulled by the Hospital/Contractor prior to Stryker's arrival.

11.1.1 Partial Floor and Elevation Drawings

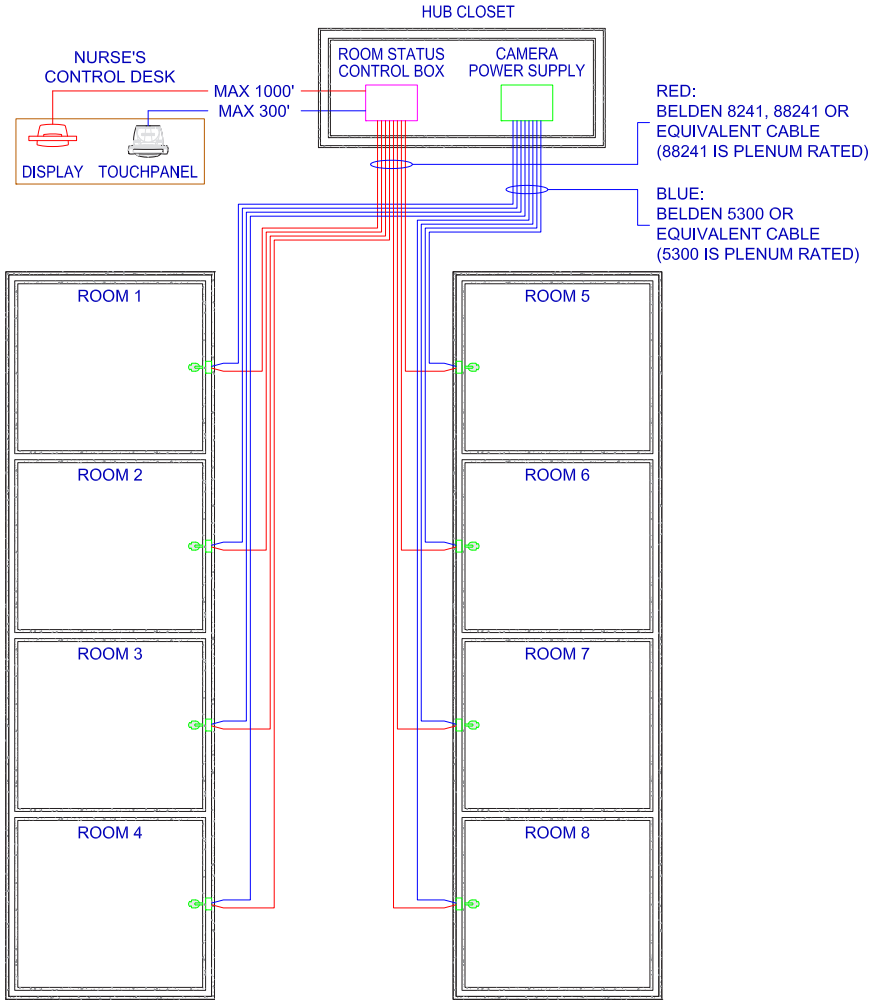


Figure 11.1 - Partial Overhead View—Room Status System

11.1.2 Site Preparation Requirements

The following provide instructions that must be completed before installation.

11.2.1.1 Status System Controller

Each Status System Controller can support up to sixteen (16) cameras. If there is a Video Network Hub, the Status System Controller will sit on top of it and will be powered through the Hub. This controller will be operated by the touch panel.

Rough-in and cabling

One (1) 12" x 4" (300mm x 100mm) wall mounted cable chase from ceiling to 36" (1m) above the finished floor for cabling to each Fixed OR Status Camera. Leave up to 15' (4.5m) of cable on both ends of cable runs for Stryker Technician termination and cable management. If any of the cables exceed the maximum length specified, please consult your Project Manager for necessary amplification/transmission equipment.

Power

This controller will plug into an outlet on the video network hub. If a hub is not present, one (1) standard electrical outlet is required.

11.2.2.2 Status Camera Power Supply

Each Camera Power Supply can support up to eight (8) cameras. The number of Camera Power Supplies depends upon the number of Fixed OR Status Cameras. Please consult the Project Manager if it is unclear as to the number of Camera Power Supplies the site must be prepared for.

Rough-in and cabling

Hospital/Contractor must install this power supply (usually in the ceiling above the Video Network Hub) and will wire the cameras into the power supply. If a hub is not present, the placement of the power supply box is at the Hospital's discretion.

Power

Hospital/Contractor must hard-wire this power supply to the 120V/60Hz Hospital power.

11.2.2.3 Wall/Ceiling Mounted Fixed Room Status Camera (WRC, CRC) LA

Conduit	One (1) ¾" conduit terminated at nearest corridor cable tray
Back Box	• 4"W x 4"H junction box with single-gang mud ring • Flush mounted at 12" below finished ceiling (wall mounted only)
Power	None
Cabling	• One (1) power cable and one (1) video cable • One (1) Belden 8723 / 88723 (maximum 1000') • One (1) Belden 8241 / 88241 (maximum 1000') • Cables require 15' service loop at both ends

Note All Status System cabling must be provided and pulled by the Hospital/Contractor prior to Stryker Installation.

ITEM-ITEM	QTY	SIZE
WRC/CRC – *	1	¾"

11.2.2.4 Touchpanel

Conduit	The control cable must be run to the touchpanel location with a 15' (4.5m) service loop. Conduit required to pull the cables listed below will be determined by the Hospital/ Contractor.
Power	One (1) electrical wall outlet adjacent to the empty junction box.
Cabling	One (1) Belden 8723 or 88723 cable from the junction box to the controller (maximum 300' [91.5m])

11.2.2.5 All Displays

Conduit	The signal cable must be run from the system controller to a double gang junction box with single gang mud ring flush mounted in the wall directly above the mounting bracket with a 15' (4.5m) service loop. Conduit required to accomplish this will be determined by the Hospital/Contractor.
Structural	Hospital/Contractor to mount the Stryker provided mounting bracket to the wall (for 40" LCD option) in the desired location with proper reinforcement to support the correct display before Stryker installation. The mounting bracket and instructions will be delivered with the LCD. (See Appendix A for equipment weight, power, and dimension specifications.)
Power	One (1) standard electrical outlet mounted adjacent to the empty junction box. (See Appendix A for power consumption.)
Cabling	One (1) Belden 8241 or 88241 (or equivalent) from the display to the controller (maximum 1000' [305m])

11.2 SuiteStatus Systems

The SuiteStatus System combines the Fixed, IP Camera video signals from separate rooms into one display located at the OR Control Desk. All video feeds will be sent over a provided network, using the Internet Protocol standard, and are accessible from up to three All-In-One Computer Systems. This section describes site preparation requirements necessary prior to the installation phase of the SuiteStatus System.

Note All networking requirements should be met prior to Stryker's arrival for installation.

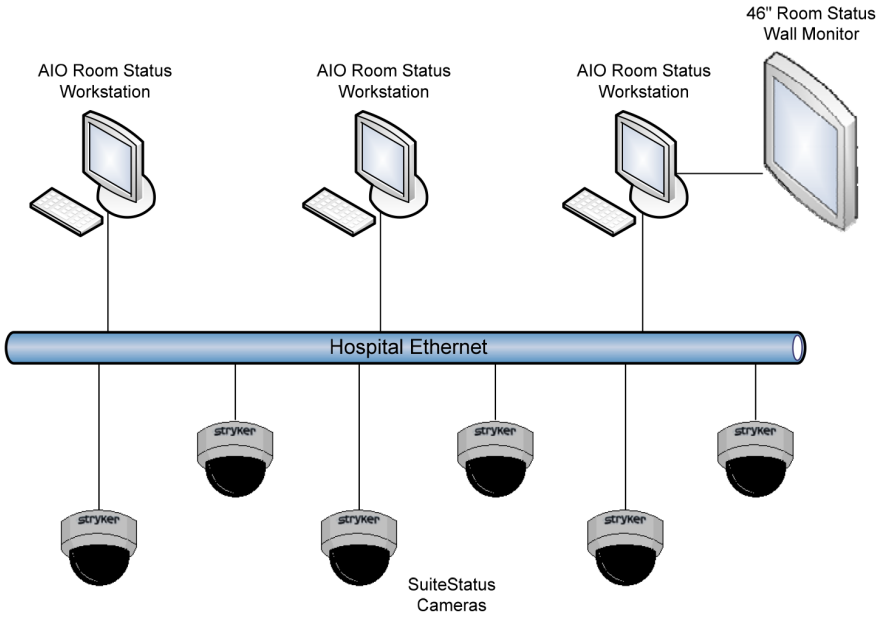


Figure 11.12- - Basic Network Diagram

11.3 Site Preparation Requirements

The following provide instructions that must be completed before installation.

11.3.1 SuiteStatus System

Each SuiteStatus System can support up to sixty-four (64) cameras and three (3) All-In-One Viewing Systems. Each All-In-One Viewing System and SuiteStatus camera must reside on the same network with one CAT-5e (or above) Ethernet cable connection at each device.

11.3.2 Power

The All-In-One Viewing System(s) must have one (1) standard electrical outlet available. Each SuiteStatus camera must have one (1) standard electrical outlet (12V DC outlet) or Power-over-Ethernet (PoE) connection that is located where the camera will reside.

11.3.3 Mounts

A wall or ceiling mount is required when installing a camera; therefore, the number of mounts must match the total number of cameras. Please consult with the Project Manager if there is a discrepancy. The ceiling mount will require a 184mm diameter circle in the ceiling where the camera will reside. The wall mount will require 3, 5/16" holes to be drilled into the wall. Plastic dowels will be included with each camera to fill these holes. For both mounts, ensure that an Ethernet cable extends to the mount to supply the camera with network and/or power connectivity.

11.3.4 External Display

External displays are available for purchase to duplicate the screen of the All-In-One Viewing System. Consult with the Project Manager and/or Engineer to ensure the correct parts are on order.

Conduit	One 2” conduit terminated by All-In-One Viewing system, as converter and cable will extend from system to external display.
Power	One (1) standard electrical outlet available for external display(s).

Note All SuiteStatus cabling must be provided and pulled by the Hospital/Contractor prior to Stryker Installation.

ORIS PRI Provisioning Instructions

Purpose: To provide detailed parameters for ordering and installing a PRI line. The PRI or Primary Rate Interface is one of two subscriber "interfaces" in ISDN. PRI is also referred to as "enhanced T-1" and some long distance carriers are only delivering T-1 in this format. In the ISDN PRI format, it has major benefits – chiefly the extra bandwidth and benefits derived from the much faster out-of-band signaling. PRI consists of 24 "bearer" or B-channels operating at 64,000 bits per second. One of the B-channels is typically used to transmit signaling information for the other 23 channels. In Europe and other regions, there are may be additional B-channels.

Instructions: Use the attached provisioning instructions to order the PRI line through your designated communications carrier. Provide the order/carrier information below and provide to your Stryker Project Engineer.

FACILITY _____

CUSTOMER PROJECT MGR._____

TELEPHONE: _____EXTENSION: _____

FAX_____

E-MAIL _____

PRI ISDN ORDER INFORMATION

DATE ORDERED: _____

ORDERED BY: _____

ORDER NUMBER: _____

PRI/PHONE NUMBER ASSIGNED BY CARRIER:_____

ESTIMATED INSTALLATION DATE: _____

ACTUAL INSTALLATION DATE: _____

CARRIER NAME: _____

CARRIER CONTACT: _____

CONTACT PHONE: _____

A.1 Setting Up a PRI Line

To set up a PRI Line, perform the tasks outlined below. A more in depth explanation of the process follows along with a responsibility matrix for each task.

1. The PRI must be ordered 30-60 days in advance so that installation and turn up occur simultaneously with the Hub and CODEC installation. Long distance service must be ordered for the PRI. Initiate with a conference call between Hospital, Project Manager, Project Engineer, and ISDN Line Provider (if used).
2. The Local Exchange Carrier (LEC) must install the PRI to the Point of Demarcation (POD). Once complete, obtain Circuit ID, PRI numbers, and Switch type information from the LEC.
3. Program the CODEC.
4. Hospital IT or Telco staff must extend the demarcation and bring the PRI line to an RJ45 Jack in the Hub room. Ensure proper cable type and pin out is used.
5. Connect The PRI line to the Hub or CODEC with a straight through RJ45 CAT5 cable.
6. The Local Exchange Carrier must Turn Up the PRI line, have a person on site to test to the POD, and test to the Hub if Stryker or Hospital Personnel are present. It is crucial for all parties to be present and communicating.
7. Test the PRI bi-directionally. The LEC will have a local loop back number if another site is unavailable.
8. Register ISDN line with service provider to ensure there is not service interruption.

A.2 PRI Setup Responsibility Matrix

Task	Stryker Communications	Hospital Staff	Telco
1. Order PRI 30-60 days prior to hub installation	• Project Manager - provide PRI ordering sheet to appropriate Hospital Staff representative and verify is order placed. • Identify both an administrative and technical point of contact for the PRI line. • Provide contact information to Project Engineer.	• Order PRI per Stryker recommendations. • Request PRI information from Telco. • Arrange for analog phone line to the Hub. • Identify point of contact with the Telco for the PRI. • Provide information to Stryker Project Manager.	Process order and provide PRI specifics to Hospital and Project Manager.
2. Initial CODEC setup	Project Engineer - set up CODEC with Admin password, Hospital Name, and standard Stryker Communications Address book during Hub testing.		

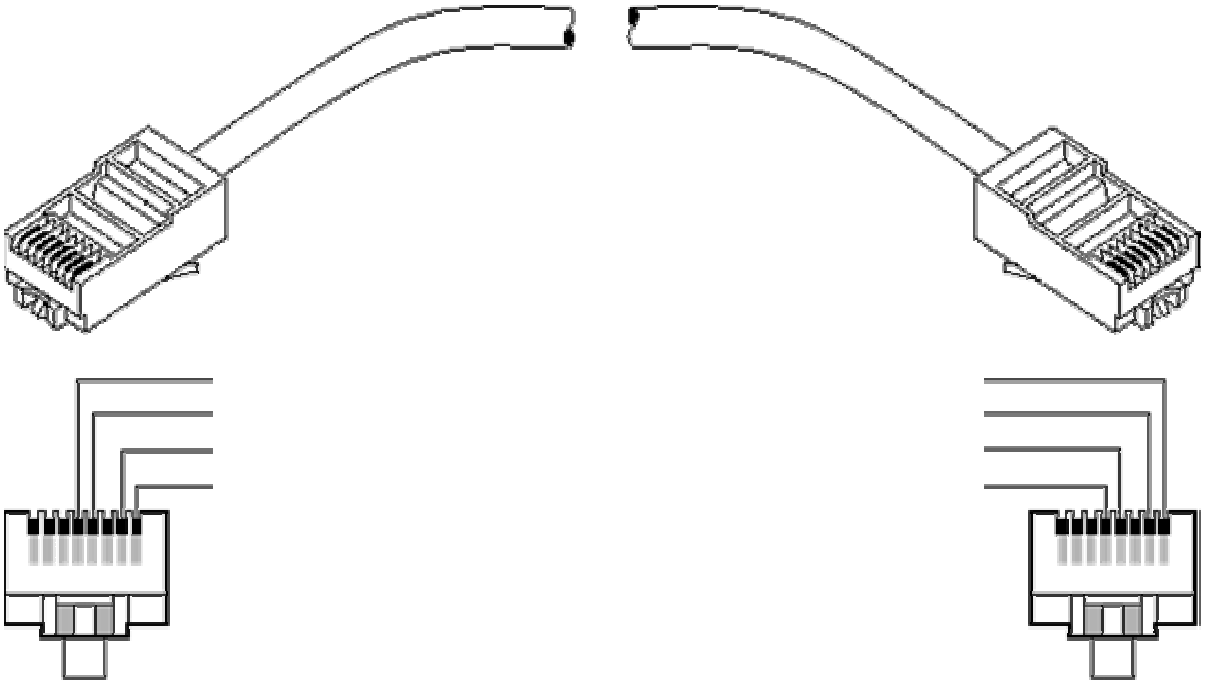
Task	Stryker Communications	Hospital Staff	Telco
3. LEC brings PRI to POD in building	• Project Engineer - verify analog line to hub functions by performing a test call to the Hub. • Project Manager - obtain PRI info and provide to Project Engineer.	• Verify POD is where requested. • Obtain Circuit ID and switch specifics. • Provide to Stryker Project Manager.	Brings PRI to POD.
4. Information for PRI line obtained	Project Engineer - program CODEC.		
5. PRI wiring is extended to the Hub room	Project Manager or Install Team - Verify Hospital wiring to the Hub Room is correct.	Extend the Demarcation to the Hub Room using proper wiring.	
6. Connect the PRI to the Hub	• Connect the Hub to the PRI line in hub room. • Verify IMUX light comes up green.		
7. Turn Up PRI Line	Be present for testing on site.	Be present for testing to provide access to Hub room for LEC.	Test line at POD and Hub room.
8. Test PRI Line	Make both outgoing and incoming calls.		Watch Switch Activity and make any necessary changes.
9. Verify Line Registered with ISDN provider	Call 1(800) 222-7956 to verify.	Register line if not done.	
10. Ensure all PRI information and analog line to hub go into Stryker Install database	Project Manger - provide information to Technical Support Manager.		

PRI Cable Configuration

PRI Standard Wire Color Codes

PRI, RJ-45	Signals	Bare Wires	Remarks
Pin 1	RX+	white/orange	twisted with RX-
Pin 2	RX-	orange	twisted with RX+
Pin 4	TX+	white/blue	twisted with TX-
Pin 5	TX-	Blue	twisted with TX+
shielded plug	shield	Shield	

T1/PRI straight-through cable: RJ48C/RJ48C



RJ48C/RJ48C straight-through cable specifications			
Pair #	**Signal**	**Male RJ48C (Stryker Hub)**	**Male RJ48C (Smart Jack)**
1	Receive	1 2	1 2
2	Transmit	5 4	5 4

B.1 Network Connectivity Information

There are two primary options for installing Stryker equipment, these are: 1) installing the equipment on the customer's existing Local Area Network (LAN), and 2) installing the devices on a closed Stryker network, which contains **only** Stryker equipment. Some Stryker products, such as ConnectSuite, will not have full functionality (e.g., communication with desktop computers) unless the products are installed on the customer's existing network. Stryker equipment should be installed behind the customer's firewall and does not require any outbound communication with the exception of SORN support (see Appendix C for information about SORN).

It is recommended that all Stryker equipment be assigned to the same network subnet, as this will aid in optimal performance and ease of installation.

B.1.1 Ports and Bandwidth

If the customer firewall is not H.323 compatible, a range of fixed ports will be used for Polycoms. The default range of fixed ports follows:

Device	HDX8000	VSX8000
TCP Ports	1720, 3230 to 3243	1720, 3230 to 3239
UDP Ports	3230 to 3341	3230 to 3269

Bandwidth required for Polycoms can be dynamically set from 64 Kbps to 1920 Kbps depending on bandwidth available on the network. The higher the bitrate, the better the picture quality (a 1080p call requires a minimum of 1024 Kbps.)

B.1.2 Gateway/Session Border Controller (V2IU)

A common issue with H.323 is that it uses a number of ports to pass calls through the firewall. Use of a Gatekeeper / Session Border Controller (V2IU) can enable H.460 NAT/Firewall traversal by funneling the H.323 traffic into set ports, making it more suitable for passing through a firewall or NAT setup. The V2IU sits alongside the firewall, acting as a proxy for H.323 traffic. For connections between two locations with firewalls, you'll most likely need a V2IU at both ends, unless an H.323-compatible firewall is being used, such as Cisco's PIX.

When using a Gatekeeper, E.164 IDs are required for each Polycom installed. These may be automatically assigned or manually assigned when configuring the device.

If a V2IU traversal server Gateway is to be used, ensure that firewalls being traversed allow Polycom systems behind them to open outbound TCP and UDP connections. Firewalls with a stricter rules set should allow Polcyom systems to open at least the following outbound TCP and UDP ports: 1720 (TCP), 14085-15084 (TCP), 1719 (UDP), and 16386-25386 (UDP). For a broader range of requirements to enable firewall traversal, refer to Administrator's Guide of the respective Polycom device.

B.1.3 Bridging Services

If bridging services are to be used on the network, Stryker must be provided with a point of contact with the bridging vendor in order to coordinate the proper configuration of equipment for compatibility.

B.2 Network Connectivity Questionnaire *(Response Required)*

Note This form is intended for use only when installing Stryker equipment on a customer's network.

Instructions: Customer IT department must complete this form with assistance from Stryker Project Manager and Engineers (Stryker personnel must enter number of static IP addresses required for ORIS install and for local CODECs before providing this form to the customer, at a minimum). Accurate completion of this form is required for installation. Do not use this form for ConnectSuite.

FACILITY _____

CUSTOMER PROJECT MGR._____

TELEPHONE: _____EXTENSION: _____

HOURS: _____TARGET INSTALL TIME FRAME: _____

E-MAIL _____

Please check all that apply to the network Stryker devices will be installed on:

Cat-3 cable or older	10 Base-T switches	Multicast enabled	Hardware anti-virus
Cat-5 cable	100 Base-T switches	IGMP snooping on	Hardware firewall
Cat-5e or better	1000 Base-T switches	Multicast over VPN	IDS/IPS
	10 G Base-T switches	Static IPs	DHCP Server

ORIS

At peak usage, what percentage of total internal bandwidth is used? _____

Primary manufacturer of network switches: _____ Other: _____

Number of Static IP addresses required for ORIS install: _____ _____

Subnet Mask: _____ Default Gateway: _____

Videoconferencing *(fill in this section if installing a Polycom)*

Is there a Videoconferencing (VC) network subnet separate from the primary network?_____

How much total bandwidth is available on your separate VC network? _____

What percentage of your VC network bandwidth do you currently use? _____

Do CODECs associate with an H.323 Gatekeeper (aka Session Border Controller)? _____

If this institution works with a bridging service, please provide the information below:

Company name: _____ POC name: _____ POC phone/email: _____

Number of IP Addresses required for local CODECs (Polycom): _____

Range of IP Addresses Reserved for local CODECs: _____ to _____

Subnet Mask: _____ Default Gateway: _____

If E.164 IDs are not auto-assigned by an H.323 Gatekeeper, please provide reserved E.164 IDs: (for each Polycom)

_____ _____ _____ _____

I acknowledge the above information submitted us accurate to the best of my knowledge.

Institution Representative Printed Name	Title

Institution Representative Signature	Title

Appendix C: Remote Device Management Network Security SORN

Stryker offers Remote Device Management with its product line through SORN. Previous methods of remote device management were connected via VPN's, proprietary networks, or dedicated phone lines. Stryker's solution, SORN, does not require any special connections, firewall, or proxy server modifications. SORN is designed to use existing infrastructure and is fully compliant with all existing firewall and security policies. For tightly restricted networks, a port 443 is required to open for one specific URL.

- No VPN requirements
  - Service agent initiates communication compliant with Secure Computing environment
  - Stryker only requires an internet connection and uses port 443
- Secure Data Transmission
  - Password authentication
  - 128-bit Secure Socket Layer (SSL) protocol
  - Bi-direction digital certificates can also be used
- Secure Data Collection
  - Only machine performance data is collected
  - No access to patient or case information
  - Data packets are small, typically 50K or less
- Remote Access is secure
  - Connection driven from the client end
  - All interactions are logged for audit purposes
  - Access to our enterprise server is secure and only available to authorized technical personnel via login and password control
  - Connection can only be made to the URL address of our enterprise server
  - URL of the Production Server: https://access-ws.Stryker.com/a2b

Virus Protection

Stryker Communications equipment runs either on a dedicated microcontroller from firmware or runs windows embedded XP. The Windows XP Embedded operating system allows the addition and/or removal of components of the operating system based upon the needs of the device and application. This functionality provides the ability make the operating system as secure and reliable as possible. The operating system is specifically customized to meet the needs of the SwitchPoint Infinity application and the Stryker Operating Room Network.

Though the SwitchPoint Infinity is based upon an embedded PC architecture, it does not function as a full PC, server, or workstation. The SPI application and OS perform only specific tasks within the device related to the routing and switching of s-video, RGBHV and audio and communication of those signals to another SPI device or the Stryker ORIS video hub.

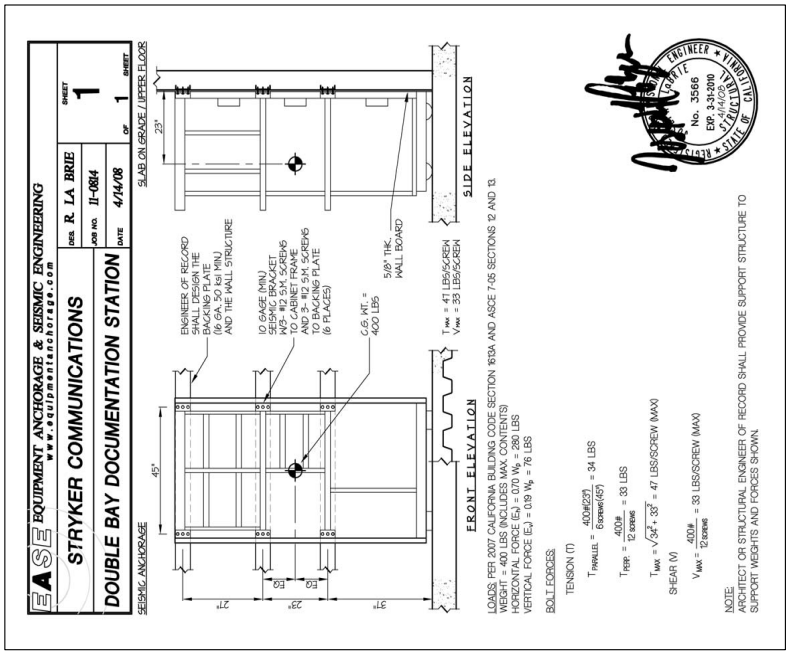
The SwitchPoint Infinity operating system is considered a "hardened" embedded OS. The hardening of the OS includes application of local security policies governing communication, allowed executables, user rights, and user names, the use of an internal firewall preventing communication with anything other than expected devices, deafening of ICMP (ping) responses, disabling of all unnecessary services including but not limited to server, workstation, computer browser, file and print, messenger, and SNMP.

Stryker's Commitment to Security

Security is an ongoing challenge. Stryker products incorporate an end-to-end strategy covering all levels including network, application, user, and data security. Stryker continues to enhance our solutions with the latest, most advanced security features while maintaining independently certified world-class security capabilities.

For more information, please contact Stryker's Network Engineering staff, with any questions regarding SORN, the Stryker Remote Device Management solution.

Appendix D: OSHPD Pre-Approved Mounting Solution



stryker Communications
1410 Lakeside Parkway #100
Flower Mound, TX 75028
Phone: (877) 789-8106

TITLE :
OSHPD PRE-APPROVAL, SEISMIC LOADS, 2 BAY DOC

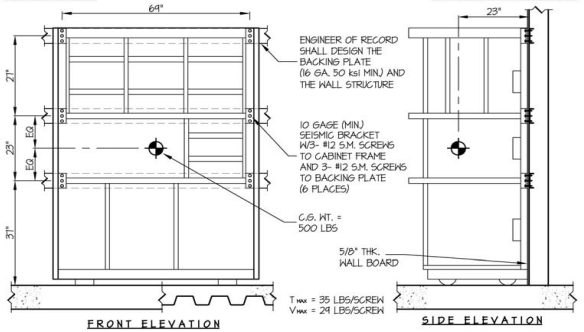
SIZE	SCALE	DRAWING NO.	REV.
B	N/A	1004-400-206	B
DO NOT SCALE DRAWING		SHEET 3 OF 3	

*Only Applicable in California

EASE EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING
www.equipmentanchorage.com

STRYKER COMMUNICATIONS	DES. R. LA BRIE	SHEET 1
TRIPLE BAY DOCUMENTATION STATION	JOB NO. 11-0814	
	DATE 4/14/08	OF 1 SHEET

SEISMIC ANCHORAGE



FRONT ELEVATION

SLAB ON GRADE / UPPER FLOOR

SIDE ELEVATION

LOADS: PER 2007 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13.
WEIGHT = 500 LBS (INCLUDES MAX. CONTENTS)
HORIZONTAL FORCE (E_h) = 0.70 W_p = 350 LBS
VERTICAL FORCE (E_v) = 0.19 W_p = 95 LBS

BOLT FORCES:

TENSION (T)

$$T_{PARALLEL} = \frac{350\#(23")}{6\ \text{SCREWS}(69")} = 19\ \text{LBS}$$

$$T_{PERP.} = \frac{350\#}{12\ \text{SCREWS}} = 29\ \text{LBS}$$

$$T_{MAX} = \sqrt{19^2 + 29^2} = 35\ \text{LBS/SCREW (MAX)}$$

SHEAR (V)

$$V_{MAX} = \frac{350\#}{12\ \text{SCREWS}} = 29\ \text{LBS/SCREW (MAX)}$$

NOTE:
ARCHITECT OR STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

stryker Communications		1410 Lakeside Parkway #100 Flower Mound, TX 75028 Phone: (877) 789-8106	
TITLE : OSHPD PRE-APPROVAL, SEISMIC LOADS, 3 BAY DOC			
SIZE B	SCALE N/A	DRAWING NO. 1004-400-207	REV. B
DO NOT SCALE DRAWING		SHEET 3 OF 3	

*Only Applicable in California

Contact Information

Contact Stryker Customer Service with questions or concerns.

For international service locations, refer to the Stryker website at the following URL: **www.Stryker.com**.

stryker®

Reconstructive

Hips

Knees

Trauma & Extremities

Joint Preservation

Orthobiologics

Medical & Surgical

Power Tools & Surgical Accessories

Image Guided Navigation

Endoscopy & Arthroscopy

Integrated Communications

Beds, Stretchers & EMS

Sustainability Solutions

Neurotechnology & Spine

Craniomaxillofacial

Interventional Spine

Neurosurgical, Spine & ENT

Neurovascular

Spinal Implants

Stryker Communications

1410 Lakeside Parkway #100,

Flower Mound, TX 75028

Tel: 866-841-5663

www.stryker.com

EC REP

Stryker France S.A.

ZAC Satolas Green

Avenue de Satolas Green

69881 Meyzieu Cedex

France

CE