

Mitel StreamLine Site Survey

Site Survey Overview

The objective of the site survey is to provide all the necessary details required to provide the customer with a quotation for site preparation work and site deployment work. The information provided will ensure the successful completion of the job on time and on budget.

This site survey is an integral part of the Mitel® StreamLine solution. It is a prerequisite towards Mitel processing your purchase order, as well as being eligible for any necessary Mitel technical support associated with StreamLine.

Note: No site survey work will be accepted unless all details are provided to acceptable levels.

Project overview

The Mitel switches deliver Ethernet and PoE over a single pair of wire with up to 365 m (1,200 ft) reach. The cable length is based on two different types of cabling; i.e., CAT-3 or better, and CW1308 supports up to 365 m (1,200 ft), 24 awg. The objective is to allow the customer to leverage the existing cabling to deploy the Mitel solution and support any IEEE 802.3af compliant PoE device.

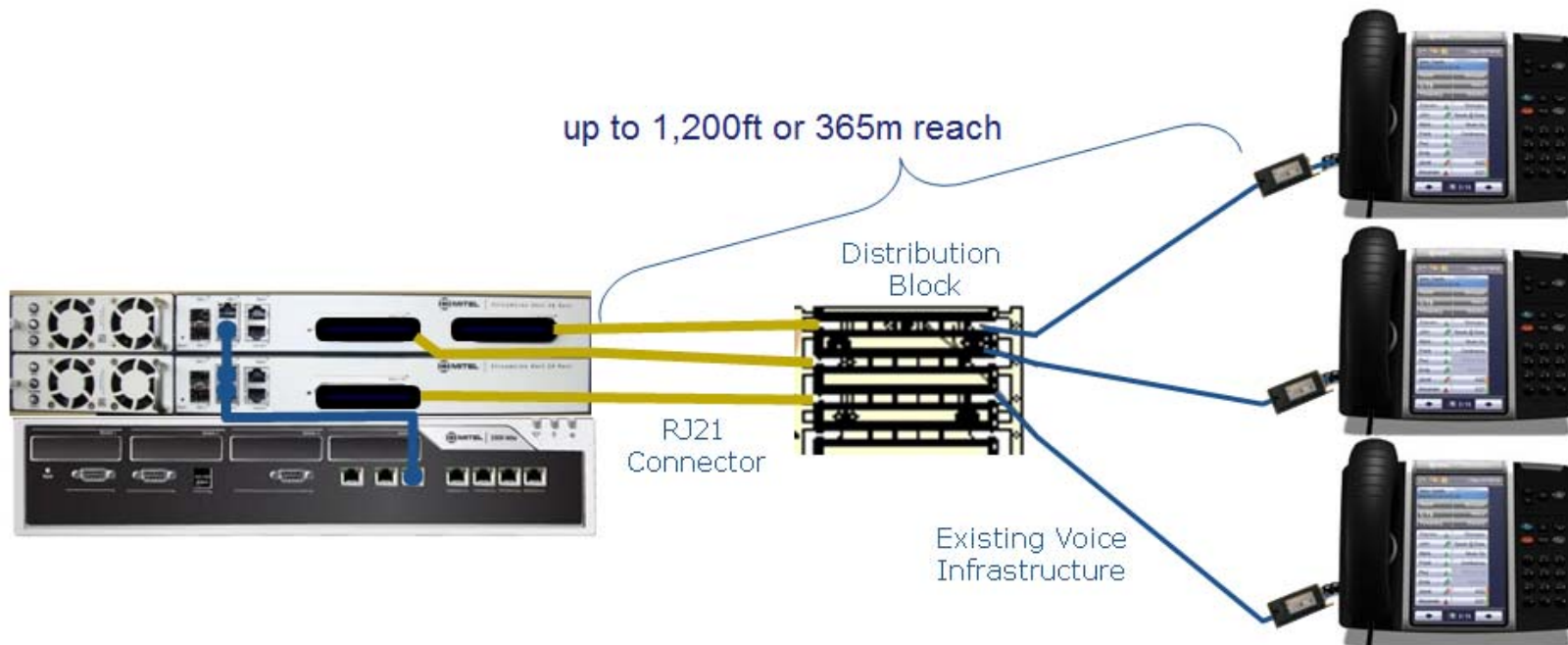


CAUTION: DO NOT POWER UP THE STREAMLINE SWITCH UNTIL ALL ANALOG DEVICES HAVE BEEN REMOVED, ALL THE WIRING HAS BEEN COMPLETED, AND ALL THE IP PHONES HAVE BEEN CONNECTED. WIRING CHANGES OR MODIFICATIONS SHOULD NOT BE PERFORMED WITH THE STREAMLINE SWITCH POWERED ON.



CAUTION: THE STREAMLINE SWITCH IS DESIGNED TO WORK OVER A 24 AWG CAT-3 COMPLIANT (OR BETTER) CABLING PLANT OR A CW1308, 24 AWG CABLING PLANT. BRIDGE TAPS AND MAJOR IMPEDANCE MISMATCHES ARE NOT ACCEPTABLE.

A Time Domain Reflectometer will be required to properly evaluate the wiring plant. The cabling plant should be evaluated prior to installing the StreamLine switch, for details refer to the *StreamLine Hardware Installation Guide, Appendix A - Verifying the Wiring Plant*.



Note: The existing voice infrastructure should be: 24 AWG CAT-3 compliant (or better) cabling, or CW1308, 24 AWG cabling.

SITE SURVEY – CUSTOMER LOCATION AND CONTACT DETAILS

Project Name:			
Location Details: Number of buildings, address location contact details	# of buildings at location	Address	Site Contact Details
Site Survey Dates:			
Cutover Dates and times:	Date(d/m/y): From: To: Circle: During business hours / after hours / Weekends and Holidays:		
Survey Completed by: Name, phone, email			
Project Manager Name, phone, email			
Customer Main Contact: Name, phone, email			
Partner Main Contact: Name, phone, email			
Access To Location:	Confirm and comment on access to location: Recommend to complete switch setup and wiring setup work 5 to 7 days prior to cut date. Confirm this will be possible and any special instructions. This work will be completed during business hours.		
Current Voice Solution:	Type of offering (hosted or CPE)		
Total end points currently supported	Comment on the number of phones currently connected to the existing PBX and confirm that all existing lines are to be converted to a switch backbone.		
Additional End Points	Comment on end points that may be connected to the existing PBX but not being used. Confirm if any of these locations require a switch backbone connection. If so, need to identify the pairs supporting the required locations (wire mapping below)		
Total End Points on Switch Backbone			
Total End Points requiring Analog Connection.	Number of Fax machines and other analog requirements?		
	NOTE: Please make sure that analog devices are not sharing the same 25 pair bundle that are supporting Mitel IP phones over a StreamLine backbone		

CONNECTING DATA DEVICES TO IP PHONES

Types of IP Phones	<i>These endpoints must be Mitel qualified products, or qualified as part of the Mitel SIP Center of Excellence (CoE) Interop program. The Mitel SIP CoE program publishes a list of qualified devices on a periodic basis and can be found on MOL (Knowledge Base Article Section).</i>
Connecting Data Devices	<i>Confirm if data devices will be connected to the back of the Mitel IP phone. If a data device will be connected to the back of the IP phone than VLAN's are recommended to ensure QoS.</i>
VLAN Details	<i>If a data device will be connected gather or ask for VLAN information to be used.</i>

WIRING CONSIDERATIONS:	
Connection to Existing PBX	Are you using a RJ21 connector to the existing PBX? If so, is female or male (note: StreamLine requires female RJ21 connector)
Number of pairs being used by existing PBX	Confirm that the RJ21 that is connecting to the existing PBX uses a single pair of wire for each end point?
Number of end points per existing RJ21	Confirm the number of pairs (end points) currently being supported by a single RJ21 connector. Typically 8, 16, or 24. This information is important because the StreamLine supports 24 users per RJ21 connector. This will determine if consolidation is required or not.
Confirm a single pair per end point being used?	How many pairs are supporting the existing phones? The StreamLine only requires one pair to deliver both Ethernet and PoE. If the existing phone is using more than one pair, then only the centre pair in the RJ11 will be used by the Streamline Unit to support the new phone, this rewiring will take place during the wiring consolidation work.
Wire Type and Gauge	<p>The switch requires a single pair of CAT-3/CW1308 cabling (both types of cabling, CAT-3 or better, and CW1308 supports up to 1,200ft (24 awg)) to support the connection to the end point.</p> <p>Type: Gauge of Wire: Twisted:</p> <p>NOTE: StreamLine has been tested for distance over 24 gauge CAT-3/CW1308 Cable. CAUTION: The gauge of wire will impact distance and power. At 24 gauge StreamLine will provide power and Ethernet up to 365m ((1,200 ft).</p>
IDF Closet Considerations: # of closets, patch cable.	<p>Ensure that all cross connects performed at all IDFs are implemented with a minimum of CAT-3/CW1308 cabling.</p> <p># of IDF closets: Confirm that cross connect wire is properly twisted all the way to where it is crimped to the connection, if existing:</p>
Any Bridge Taps? NO BRIDGE TAP SUPPORT	<p>Please note that StreamLine does not support bridge taps. All bridge taps must be removed. Recommend the use of a Time Domain Reflectometer (TDR) be employed to verify that there are no bridge taps.</p> <p>Refer to the StreamLine Hardware Installation Guide, Appendix A - Verifying the Wiring Plant, for information on Time Domain Reflectometers and how to use them to verify that the wiring plant is acceptable for a StreamLine installation.</p>
Distance Test	<p>StreamLine will deliver Ethernet and PoE over a single pair with up to 1,200ft/365m reach. Need to test longest runs to determine if length is within reach limits. Confirm length of longest runs are within 365m(1,200ft). Number of end points tested? Recommend the use of a Time Domain Reflectometer (TDR) be employed to verify the wiring length. Note: Locally powering the IP phone with a power brick is not supported.</p> <p>Please refer to the StreamLine Hardware Installation Guide, Appendix A - Verifying the Wiring Plant, for information on Time Domain Reflectometers and how to use them to verify that the wiring plant is acceptable for a StreamLine installation.</p>
Wiring Between Buildings	<p>The product is not approved for outdoor cabling and that deployment should be limited to a campus environment.</p> <p>Confirmation and comments:</p>
Exiting RJ11 wire, review wire that is supporting existing phones.	<p>It is recommended that a short RJ11 cable is used from the wall jack to the Dongle and a longer RJ45 cable to the Mitel IP Phone. If the existing RJ11 cable is being used confirm that the wire is in good working order and has no damages. Also determine if the wall plate location for the RJ11 connector can be easily identified. Note: For sites using BT connectors, e.g. UK, there is an optional BT Adapter Cable to connect to the Dongles RJ11 connector.</p> <p>Comment on length condition and if existing cable can be used:</p>
Connecting a PC Behind the IP Phone	<p>Plug one end of the CAT-5 or better cable to the Ethernet connector on the PC.</p> <p>Plug the other end of the same cable to the port marked LAN on the IP phone.</p> <p>It is recommended to establish VLAN's to ensure Quality of Service. For more information on how to set up VLAN's, see the StreamLine Admin Guide.</p> <p>Note: Data Speeds are 10 Mb/s Full Duplex.</p>

WIRING CONSIDERATIONS:

WIRE MAPPING FROM EXISTING PBX TO BREAKOUT BOX.

To avoid the cost of tone and tag it is advisable to get the wire mapping from the customer. The customer would have this or the customer's current provider can provide the customer with these details.

Wire Mapping - can the pairs that are moving to the StreamLine be identified at 66 or 110 block connecting the RJ21 to the existing PBX or solution? Is a record map available? The current provider would have these records.

Yes No Don't Know

If customer doesn't know, can they get information from current provider or get current providers details so we can contact them?

Name, phone, email.

This information is critical to minimizing the cost of Tone and Tag work. Most often this information will exist. Note we do not need to follow the pairs to the desk location we just need the pairs identified at the PBX location where the RJ21 meets the 110 or 66 block.

Will we be re-using the existing 110 block or 66 blocks? If new, identify location with customer

Will we re-use or provide new RJ21 Connectors and if so what length?

Wiring Comments: General comments on wire status, any concerns and recommendations.

BUILDING AND CLOSET CONSIDERATIONS				
# of buildings?		# of Mitel switch closets?		Connection between Mitel switch closets? Fiber, twisted pair? Comment.
Will Mitel switches in one building be supporting end points in different buildings? Yes / no Comments:		If so ensure wire is buried in conduit between buildings. StreamLine is not approved for outdoor cabling.		
Power Calculations	The StreamLine Power Calculator can be used to determine the overall power requirements for StreamLine switches, IP Phones, and networking infrastructure. This data can then be used to determine if the building location has adequate power available, adequate cooling capacity, and also to size a UPS system.			
Main Closet Considerations – First Building:				
Switch location identified? Yes / No		Power Availability Confirmed? Yes / No <i>Inform customer that power calculation will be provided to ensure available power is sufficient.</i>		Cooling Availability Confirmed? Yes / No <i>Inform customer that cooling requirements will be calculated and provided.</i>
Mounting of Switches?	Rack mount only	Rack Space availability?	Yes / No	Network connection? Yes / No
Backup Power Availability and Sizing Details? Will be calculated for customer				
Comments:				
Main Closet Considerations – Second Building				
Switch location identified? Yes / No		Power Availability Confirmed? Yes / No <i>Inform customer that power calculation will be provided to ensure available power is sufficient.</i>		Cooling Availability Confirmed? Yes / No <i>Inform customer that cooling requirements will be calculated and provided.</i>
Mounting of Switches?	Rack mount only	Rack Space availability?	Yes / No	Network connection? Yes / No
Backup Power Availability and Sizing Details? Will be calculated for customer				
Comments:				
Main Closet Considerations – Third Building				
Switch location identified? Yes / No		Power Availability Confirmed? Yes / No <i>Inform customer that power calculation will be provided to ensure available power is sufficient.</i>		Cooling Availability Confirmed? Yes / No <i>Inform customer that cooling requirements will be calculated and provided.</i>
Mounting of Switches?	Rack mount only	Rack Space availability?	Yes / No	Network connection? Yes / No

Backup Power Availability and Sizing Details? Will be calculated for customer

Comments:

Pictures Required:

Pictures of MDF closet highlighting location of switches:

Pictures of MDF closet showing existing wiring and location of new 110 block if required:

Pictures of IDF closets showing any wiring connections between blocks needing to confirm cross connect wiring is twisted.

