

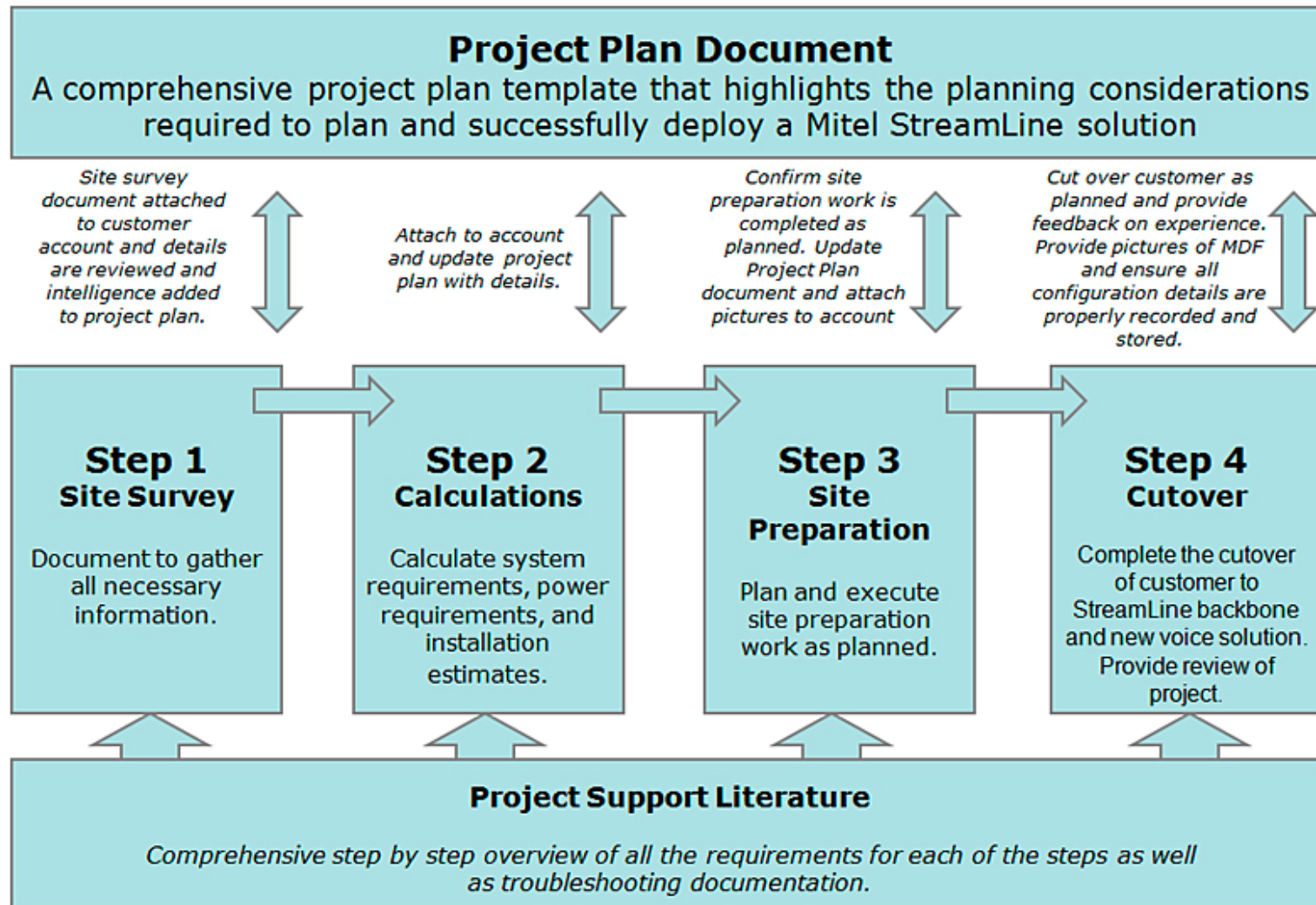
Mitel StreamLine Project Work Sheet and Overview

Best Practices to ensure a Successful Migration



Note: This document is only an example of a project plan and it is not intended to be representative of any specifications approved by Mitel.

Process Map Overview



PROJECT PLAN SUMMARY SECTION					
PROJECT NAME:					
Main Project Management Details:		Other Project team Details:		Other Site Team Details:	
Name:		Name:		Name:	
Email:		Email:		Email:	
Main Phone:		Main Phone:		Main Phone:	
Mobile Phone:		Mobile Phone:		Mobile Phone:	
Number of Dongles being placed:		Number of switches: _____ 24 port _____ 48 port			
Cut Date & Time:		Number of Users:			
Current Solution CPE or Hosted		How many pairs currently in use?			
Site Survey Completed?		If yes attach If not all answers must be complete and understanding that customer is liable for inaccuracies.		Site Survey file link:	
Installation Quote Provided with scope of work?		If yes attach both quote and scope of work.		Links to file.	
Mitel Certified Installer: (person name)		Date completed certification:			
PRE DEPLOYMENT WORK					
MDF Wiring Work:		The best strategy is to hire the customer's current provider. They would have wiring records and could do all or any wire consolidation work. Ask the customer who it is and if it is ok to contact them. They can come on cut day and complete the wiring setup and cutover as phones are being deployed. See resource document for wiring consolidation under site prep.			
Consideration or Requirement:		Yes/No	Date:	Responsibility:	Contact Details:
Confirmation of wiring environment at the MDF and where all the new voice gear will be located. – use site survey for details					
Confirm wire mapping for IP phones is identifiable at MDF (see resource document - Site preparation for details and site survey)					
Confirm if wiring to support Analog devices are identified and consolidated to be connected to the analog switch.					
Confirm rack space availability for switches and gear confirmed					
Confirm Power source, backup power and cooling availability. Use Power calculator to calculate requirements					
Topology and Configuration:					
Best practice is to consolidate all the Mitel switches into a consolidating data switch that supports the voice applications. That switch would have a single or redundant connection to the data LAN if required. VLAN's are highly recommended if data traffic will be flowing over Mitel backbone. Consider spanning tree if redundancy is required. See Configuration diagram below.					
Note: all gear can be configured and tested together at a single site and shipped to customer location for deployment.					
Consideration or Requirement:		Yes/No	Completion Date:	Responsibility:	Contact Details:
Confirm Topology Details (Complete Topology and Configuration Requirements sheet below)					
Confirm Network Design Diagram and details provided:					
Configuration Details (Complete Topology and Switch Configuration Requirements - sheet below)					

SWITCH SETUP AND CUT OVER DAY – See images and description below

Best practice is to complete the wiring setup work, switch setup and configuration during business hours on the day of or day before the cut. Once the Mitel switches and the PBX is established complete a local testing of end points to ensure that everything is working properly together. Test every 24 pair on every Mitel switch and ensure phone registers.

At cutover time: the individual in the main closet would cross connect the wiring to the new block. Make sure that the switches are not powered up during this process. Once complete, power up switches. Team deploys the Dongle and IP phones. Best practice would be that both the IP phone and the Dongle would be deployed at the same time. At the desktop take the RJ11 from the existing Phone and connect to the Dongle. The Dongle and IP phone may take a few minutes to sync up.

NOTE: Important to make sure WAN requirements are addressed such as Number porting etc. if required. **Not our responsibility but important to project.**

Consideration or Requirement:	Yes/No	Start date and time:	Responsibility:	Contact Details:	Comments:
(Not our responsibility but important) All WAN/telecommunication considerations will be completed, e.g. DID's if required, Line porting, Sip Trunks, Other					
NOTE: The existing voice infrastructure will be used to support new IP solution and it is important to ensure that the co-ordination of the requirements above are aligned with the cutover of the phones.					
Confirm Switches and Gear, racked stacked, configured and tested can be completed during business hours and provide contact details – site survey for details					
MDF wiring cutover required and details: Use existing 66 or 110 box and RJ21 connector or setup new ones? Site survey – for details					
Deploy IP phones and or Dongles – site survey for details					
Set up analog requirements and test. – site survey for details					
Reports and Monitoring	There are many reports and monitoring capabilities to the Mitel backbone. Some of these requirements may require configuration so please refer to the user's manual for more details. Please have technical staff certified to understand more of the capabilities.				
Consideration or Requirement:	Yes/No	Start date and time:	Responsibility:	Contact Details:	Comments:
Mapping device MAC address to ports on switch. This report when compared to the IP phone's MAP will provide the location of each port. Good for E911 support. See step by step process below.					

Topology and Configuration Details and Requirements

CPE or Hosted Deployment		Config by:	Name & contact info
Number of Dongles		# of Switches	_____ 24 port _____ 48 port
Solution being Deployed			
Switch location on Rack (provide design Visio or clear directions			
Topology comments:			
Network Diagram included:		Online Resource	

Switch ID (Unique name for each Mitel Switch) - Optional	IP Address (For each switch, GBE inband)	NetMask	IP Address (For each switch, MGMT out of band) - optional	NetMask for MGMT out of band - optional	Default Gateway	VLANs used on StreamLine	Spanning Tree Priority	Date and Time Set (yes/no)	Was config. written to flash (yes/no)

CUT DAY CONSIDERATIONS

End Point Summary:					Confirmation of common practice: Common practice is to re-use the existing RJ11 supporting the existing phone. We will disconnect the existing phone and connect the Dongle and confirm that it is working.	
Building	Floor#	Offices	Cubicles	Total		
					Confirmation by customer: Yes / No	
					If not and customer wants new RJ11 cables additional RJ11 cable charges will apply and additional labour will apply per end point.	
					Confirm by customer: Yes / No	
					What is being deployed?	
					Just the Dongle?	Yes / No
					Connect new IP phone that is at desk location?	Yes / No
					Comment on what is being deployed at the desk location:	
Comments on End Point Observations:						

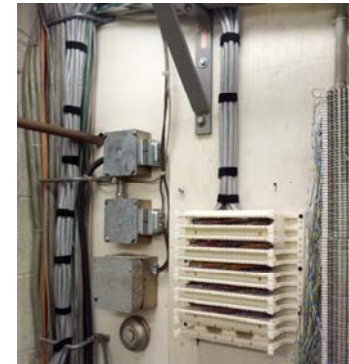
Project Debrief and Comments:		
Item	Person Responsible	Comments & Lessons Learned.
Site Preparation Work		
Wiring Setup		
Rack, Stack, Configure, Test		
Cut Over		
Dongle and Phone Setup		
Wiring Cross Connecting		
Trouble Shooting		
Summary		

Project Scope of Work:	For: Site, location		
# of Dongles being Placed:			
# of Switches being Deployed:			
Scope of work based on Site Survey?	YES / NO If not customer must authorize attached acknowledgement.		
Site Survey date?			
Site Preparation and Quotation date?			
Site preparation work date?			
Cut over date and deployment date?			
Site Preparation - Wiring	Yes	No	
Utilize existing PBX wiring connections			The existing RJ21 connectors that are connected to the existing PBX (female connector) can be connected as is to the Mitel switch fabric so no wiring work is required. If any wiring pairs need to be removed or added additional charges will apply.
Wire Consolidation of IP Phone Deployment Required			The pairs of wires to support the new IP phone system are identifiable but need to be consolidated on a new 110 block. We will set-up a new 110 block and new RJ21 cables for the consolidation work. If the pairs are not identifiable or the records provided are not correct additional tone and tag charges will apply.
Wiring Consolidation for Analog Devices Required.			The pairs of wires to support any analog devices are identifiable but need to be consolidated on a new 110 block. We will set-up separate RJ21 cables (female or male to be determined by lead) for the consolidation work. If the pairs are not identifiable or the records provided are not correct additional tone and tag charges will apply.
Site Preparation – Switch Setup	Yes	No	
New Equipment Rack Setup			To assemble and place new switch racks as per quotation in the location desired by the customer.
Install New Mitel Switches			Rack and stack Mitel switches as per network design provided.
Configure New Mitel Switches			To complete switch configuration work as per switch configuration information provided.
Connecting Mitel Switches to Network			Connect Mitel switches to network as per design.
Test Mitel Switches with Voice Solution Prior to Cut Date.			All Mitel switches will be tested with provided IP phones to ensure phones properly register. Testing will include making extension to extension calls and outside calls if access is provided. This is based on the assumption that the voice solution is installed and ready for testing at the time of site preparation work is completed. If not available, dealer will not be responsible.
Site Cut Over			
Wiring work			
Connecting New 110 block to wiring supporting desired end point.			We will cross connect all pairs from the new block established during site preparation work and connect to the pairs supporting the end point migrating to a Mitel backbone. This work will be completed based on the information provided by the customer. Any incorrect wire mapping information will result in additional tone and tag charges. Charges will be based on the time required to complete requirements at a rate highlighted in the quotation.
Dongle Placement			As per plan, we will place all Dongles at approved locations. We will make sure Dongles register with the Mitel switches and are ready for IEEE device connection such as an IP phone.
Connecting the IP Phone to the Dongle at desk locations			_____ total phones. We are responsible for connecting the IP phone to the Dongle. The phone will be at the desired location and will have the RJ45 cable properly connected and ready for deployment and connection to Mitel Dongle. Dealer will not be responsible for wall mounting any phones and will install Dongle at location for phone deployment.
Wall Mounting IP Phones			_____ total phones. Wall Mount IP phones in proper location and install as per customer request and quotation provided.
IP Phone Connection Verification			Once all Dongles and IP phones are deployed dealer will verify that all ports on the Mitel switches have IP devices connected to it based on quotation.
Trouble Shooting and Rectification			_____ hours maximum is allocated for trouble shooting cut over issues. If addition time is required dealer will charge customer at the rate included in the quotation. If trouble shooting problem is an error made by dealer, no trouble shooting charges will be made.

Site Preparation: The images highlight the minimum standard acceptable.

Setting Up New RJ21 Connectors if Required

1. New 110 block and RJ21 wiring with female connector.
2. Identify location to mount 110 block
3. Mount 110 block.
4. Connect female RJ21 connector to switch (if available) or tie wrap to side of rack. If wall mount secure to wall. Make sure to leave enough give to connect to rack of switches once installed.
5. Neatly position the cables in the most organized fashion similar to picture. Use existing cable hangers or install new ones to organize cables. Use tie wraps every 12 inches or so to keep together.
6. Punch down the 24 pair from RJ21 to 110 blocks.

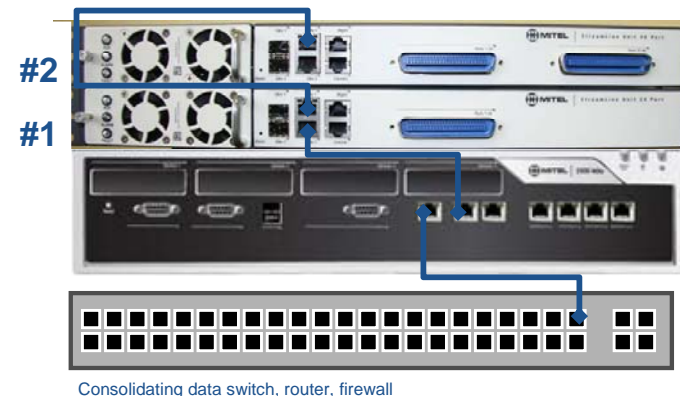


Setting Up The Mitel Switches

1. Confirm the location for switch deployment.
2. Calculate and ensure available space for switches on cross reference with design.
3. Unpack switches, connect L-brackets and mount to rack or wall location. (each box comes with L brackets screws to mount L-brackets but do not come with screws to mount onto rack. Make sure to have sufficient rack mounting screws.)
4. Configure Mitel switches as per plan.
5. Connect the RJ21 connectors to the switches and strap in place. (right side of lower picture)
6. RJ 45 cable connecting the Mitel switches to network as per design (picture shows Mitel switches being connected to consolidating data switch with voice server and other voice switches being connected to same consolidating data switch.
7. If you are using both GigE ports on the Streamline to connect to the consolidating switch, ensure that STP/RSTP is enabled on the Streamline (See the Administrator's Guide).
8. Use vertical cable organizer to make job look professional. Determine best strategy. (Picture show a zero u height channel used vertically with Velcro straps to keep cables in place.)
9. Once voice solution and Mitel Switches are connected to consolidating switch and consolidating switch is connected to Router to access WAN connectivity you can test both internal and external calls.
10. Complete Testing
 - a. Take a RJ21 female Harmonica connect to each switch (both 1-24 ports and 25 to 48 ports) connect short RJ11 and connect to Dongle that is connected to IP phone.
 - b. Take a pair of wire with RJ11 connect to a pair on the 110 block and connect that Amphenol to each switch.
 - c. For both a & b above the phone should register and you should be able to make outside call if WAN is connected. You can also connect another RJ11 cable to harmonica and setup second Dongle and IP phone and call each extension for internal call. Once the setup is done just move the harmonica to each switch and repeat the test.
11. Once tested and confirmed you are ready for cutover.

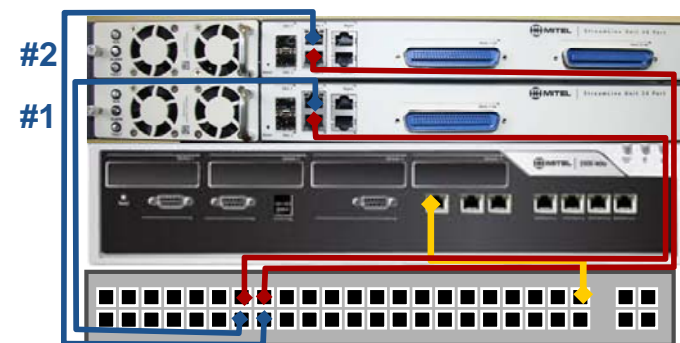


Switch Setup Overview For Smaller Deployments



Consolidating data switch, router, firewall

Setup - For Larger Deployments



Consolidating data switch, router, firewall

Connecting a PC Behind the IP Phone

1. Plug one end of the CAT-5 or better cable to the Ethernet connector on the PC.
2. Plug the other end of the same cable to the port marked LAN on the IP phone.
3. 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.

Note: Data Speeds are 10 Mb/s Full Duplex.

