

Customer Name: **Crossland – Home Towne Studios**

Project Overview

Windstream will provide an SD WAN overlay network for 43 Crossland locations.
 Data center – Will have single customer-provided WAN access with Hub VPN.
 Remote sites – For primary access will have new or existing WIN Ethernet, or Broadband. For secondary access will use new or existing Broadband.

All sites will receive Windstream Installation Services, per the Customer Contract, the Master Services Agreement and any subsequent amendments or change orders.

Service Bundle Summary		Scheduled Work Times	
❖ SB 1: Pre-Install (PTD) ○ CPE Install & Testing (*Svc Interruption for DC) ○ SD WAN Activation (New Access)	Start:	Scheduled Time	
	End:	+2.5 Hours	
❖ SB 2: Cutover ○ *Existing WAN Migration ○ *Data Cutover ○ Customer Application Testing	Start:	Scheduled Time	
	End:	+2.5 Hours	
Contact Information		Customer References	
Windstream Service Activation Pre-Install - Data Translations Support: (844) 673-7180, option 3 Cutover/Hotcut - WIN SAT Conference Bridge: See Remedy ETA Project Manager: Carol Long (704) 319-1196 Project Coordinator: Theresa Jenkins (864) 331-7258		VSR ID: 98199 Tech Wiki Page Project Site List	
Custom Activity Overview			
<ul style="list-style-type: none"> Multiple LAN connections (Remotes Only) 			

* Service Interruption

Installation Standards

- **Covid-19 Protocols in place – Review [Covid19 Field Protocols](#)**
- Review all MOP Procedures Prior to Beginning Work
- Notify the Site Contact before any Service Interruption.
- Google Chrome Browser must be installed on your laptop prior to arrival.
- All Instructions are for Installer unless otherwise specified.
- Do not unplug power from existing equipment in order to plug in router.
- The installation equipment must be arranged in such a way that allows for future accessibility.
- Cables must be neatly bundled with no loose wires left unorganized.
- **Network Diagram** provided at the end of the MOP.

Equipment Inventory

Confirm all CPE for your site type before proceeding. Refer to Work Order or SOW for site-specific service requirements.

Service	CPE	Qty	Function/Service	Install Location
Primary WAN				
Data Center	Existing Handoff	1	100M Customer IAD	Existing/Installed
New Ethernet	Accedian GT-AC	1	50M ENID	See LCON for Location
Existing Eth	Existing NID or Router	1	50M Eth Access	Existing/Installed
Broadband	Cable Modem	1	New or existing IAD	Existing or LEC Installed
Secondary WAN				
Broadband	Cable Modem	1	New or existing IAD	Existing or LEC Installed
SD WAN				
Data Center	VeloCloud Edge 540	1	SD WAN Router	See LCON for Location
Remotes	VeloCloud Edge 520	1	SD WAN Router	See LCON for Location

Existing Equipment Directives:

1. AFTER successful Cutover, unmount old/displaced CPE and provide to Site Contact.

Service Bundle 1

Activity Upon Arrival at Site

- **Data Center Only** ----- See Work Order or SOW for site access requirements
- Make Contact with Local Contact Person (LCON): ---- See Work Order for LCON info
- Check Work Order or Ticket for Site-Specific Information
- In case of access denial, contact: ----- Alexa Suida: (407) 352-1161 x203
- Check in with Windstream ----- Remotes - (844) 673-7180, option 2
DC – See Remedy ETA for Bridge & PIN

Installation Prep

1. Take photos of the existing installation, including port connections, and upload to your ticket
2. Identify Access Circuits to be used.
 - a. Identify as New/Reuse
 - b. Contact Windstream Service Activation if unable to locate Demarc
3. Confirm signal at any new access
 - a. **Cable/BYOB/Fixed Wireless:** Confirm Internet access at handoff from your laptop
 - b. **Ethernet/Fiber:** Confirm signal at NID or ONT
4. Evaluate Inside Wiring Requirements
See **Scope of Work Exclusions** to confirm IW activity is within scope
 - a. **New Ethernet:** Up to 300' Demarc extension
 - b. **Cable/Broadband:** Up to 300' Demarc extension, if modem not installed in Telco suite

Service Bundle Activity

New Access (Remotes Only)

1. Run required Inside Wiring as described in **Installation Prep**.
2. Mount the Windstream CPE in the location designated in **Equipment Inventory**.
 - a. **If there is insufficient space for the new CPE, perform a soft-install near the existing Telco equipment. The new CPE can be mounted in place of the old CPE after cutover.**
3. Connect New WAN to CPE as described in the **Table 1**.
4. Connect laptop to CPE for testing.
5. **WIN FT ENID:** Complete Pre-Testing Verification (See [CLEC Field Ops PRETEST](#) for detailed info)
 - a. VPN into ENID (Verify Remote access).
 - b. Verify Negotiation (Network, Client & WAN router ports).
 - c. Run TrueSpeed – From Laptop or 5800.
 - d. Archive TrueSpeed results (PDF) in WinCare-CRM “Documents”.
 - e. Note M6 with “TrueSpeed Passed” include upload/download results.

3rd Party AIC ENID: Run TrueSpeed test using link provided by WIN SAT/DTS

6. If Applicable, connect laptop to new cable modem and confirm connectivity & speed.

Table 1 - WAN Connections

WAN Access	CPE	Port		CPE	Port
New Ethernet	Accedian GT	1	➔	50M LEC Handoff	-

WIN SAT Activity

SD WAN – VeloCloud

Note: Data Center will be worked as a Hotcut. Perform SB 1 and SB 2 activity in sequence.

1. Connect VeloCloud to Primary WAN as described in **Table 2**.
 - a. DC will have Single WAN Link Only.
 - b. Remote WAN links may be new for one or both WANs. Activate SD WAN on a New loop. Existing access loops will be moved over at cutover (SB 2)
2. Connect Laptop to VeloCloud LAN port for activation
 - a. **WiFi (all models) – SSID: “velocloud-xxx” / Passcode: “vcsecret”**
 - b. **Edge 520/540 – LAN 1**
3. **WIN FT** Generate a VeloCloud Activation Key [using Blue Planet](#).
 - a. **After generating, you must disconnect from the VPN and copy and paste the activation key locally**
3rd Party AIC WIN SAT will send you an activation email.
4. Copy link and paste it into the address bar of your Google Chrome Browser to activate VeloCloud.
 - a. Confirm activation – Cloud LED is Green and you can browse the internet from a LAN port.
5. Connect additional WAN links and CPE as described in **Table 3**.
 - a. Connect only if new or currently not in use. In-Use circuits will be added at cutover (SB 2).
6. Connect Laptop to an internet accessible port on the VeloCloud Edge and run TrueSpeed test.
 - a. **3rd Party AIC** will use test link provided by WIN DTS.
7. Perform any additional testing as directed by WIN DTS.

Table 2 - SD WAN Primary WAN Connect

First Access	CPE	Port		CPE	Port
New Ethernet	Edge 520	GE 1	➔	Accedian GT	2
New Broadband	Edge 520	GE 2	➔	Cable Modem	LAN

Table 3 – Additional WAN & CPE Connect

Secondary Access	CPE	Port		CPE	Port
New Broadband	Edge 520	GE 2	➔	Cable Modem	LAN

SB 1 Closeout

- Verify with Customer that all services are up and running.
- Clean up wire, plastic, paper, or any other trash left over from install. Dispose of all debris into Customer-approved debris bin.
- Take “after” photos of the completed installation and attach them to your ticket.
- Complete Work Order documentation.
- See Manager before leaving site and obtain signature on Work Order.
- Leave CPE shipping box with Manager on duty (for use if RMA is required).

Service Bundle 2

Activity Upon Arrival

- Make Contact with Local Contact Person (LCON) and -- locate pre-installation location: **See Work Order for LCON info**
- Check Work Order or Ticket for Site-Specific Information
- In case of access denial, contact: ----- **Alexa Suida: (407) 352-1161 x203**
- Take photos of the existing installation, including port- connections** **Upload all photos to your ticket**
- Call into Windstream Conference Bridge ----- **See Remedy ETA for Bridge and PIN**

Backout Plan

In the event that installation is unsuccessful, the installer will restore all equipment to the former, Legacy state using “before” photos from **Activity Upon Arrival** as a reference and ensure that all phones and other applicable services are working as they did in the Legacy environment.

Service Bundle Activity

WAN Migration to SD WAN

1. WIN SAT and Customer IT will join the Windstream conference bridge.
2. Upon direction from Customer IT, Move the existing WAN connection to the SD WAN router
 - a. Connect to open GE 1 (Primary Data) or GE 2 (Broadband) port
 - b. WIN SAT will confirm path comes up in Orchestrator.

LAN Migration/Cutover

1. WIN SAT and Customer IT will join the Windstream conference bridge.
2. Retest access and connectivity as required by WIN SAT
3. Upon direction from Customer IT, connect Windstream equipment to the Customer LAN as described in **Table 4**.
4. WIN SAT will verify connectivity as required.
5. Customer IT will test applications as required.
6. Perform Failover Testing as directed by WIN SAT.
 - a. Customer will confirm application functionality during testing.

Table 4 - LAN Connections

Site Type	CPE	Port		CPE	Port
Data Center	Edge 540	LAN 2	➔	Customer Firewall	As Directed
Remotes	Edge 520	LAN 1	➔	FortiGate/Westmont Firewall	
		LAN 2	➔	VoIP Equipment – Cloud5/Telnet	
		LAN 3	➔	WiFi - Guest-Tek/Innflux/Cloud5/GNS	
		LAN 4	➔	CATV Provider – World Cinema	
		LAN 5	➔	Security Cam System – If Present	

WIN SAT Activity

- If existing Ethernet is configured as MPLS, reconfigure as Internet Only

SB 2 Closeout

- Verify with Customer that all services are up and running.
- Clean up wire, plastic, paper, or any other trash left over from install. Dispose of all debris into Customer-approved debris bin.
- Take “after” photos of the completed installation and attach them to your ticket.
- Complete Work Order documentation.
- See Manager before leaving site and obtain signature on Work Order.
- Leave CPE shipping box with Manager on duty (for use if RMA is required).

Routers and Items Included in Shipping Box

SD WAN Routers (VeloCloud)

VeloCloud Edge 520/540	
Included in Shipping Box	
1	Base Unit
1	12V DC Power supply
2	Ethernet Cables



- 1. USB Ports 1-2
- 2. SPF Slots 1-2
- 3. WAN Ports (GE 1 - GE 2)
- 4. LAN Ports (LAN 1 - LAN 8)
- 5. 12V DC Power Port
- 6. USB Port 3
- 7. USB Port 4

WAN Routers

Accedian GT-AC	
Included in Shipping Box	
1	Ethernet/Fiber Router



Neatly Bundled Wiring Examples



Scope of Work Exclusions

The Scope of Work for this MOP EXCLUDES the following:

- Work which requires a technician access an unmanned site or access the site without a customer representative at least 18 years of age present.
- Work requiring specific union labor, or a customer “preferred” contractor
- Installation or troubleshooting of other equipment, cables, software that Field Operations is not installing or which is not listed in this document
- Ongoing monitoring or support of any device, software, or equipment not expressly included in the Master Services Agreement
- Ground Wire over 100'
- More than 2 Cable runs
- Backboards
- Moving existing customer equipment
- Fiber cable
- Cat3,4,6, or 7 Cable
- Conduit Installation
- Any Electrical work requiring licensed electricians
- Installation of new grounding electrode system/pipe/etc.
- Drilling through masonry, firewalls or walls leading to exterior of the customer premises
- Wiring external to the suite/premise (with the exception of the circuit extension)
- Cable runs through plenum
- Cable runs via conduit without available pull string
- Running replacement pull string
- Vertical heights in excess of 10 feet
- Cable runs between floors, buildings, crawl space or attics
- Disposal of existing customer owned cable

Parts and Materials

Standard Equipment:

- Laptop with network interface card (NIC), Ethernet, Wi-Fi, USB with serial port adaptor, CD/DVD-ROM, Windows 7 or newer, and Google Chrome browser.
- Wire strippers and Telco Snips
- Tone Generator and Wand
- Cat5, 4 pair cable (100 feet or more)
- Cross-Connect Wire (24 Gauge)
- 100' Extension Cord
- Assorted Iffi through #12 concrete anchors
- Basic Hand Tools
- Punchdown Tool with 66 and 110 bit
- RJ-11, RJ-21, RJ-45, and RJ-48x connectors
- RJ11/45 Crimp Tool
- Butt Set (amplified recommended)
- Cell Phone
- Serial Console Cable
- Tie Wraps
- Assorted pan-head, self-tapping screws (#8, 10, and 12), or other assorted mounting screws

For Ethernet Access:

- Ethernet Test Set

Network Diagram



