



ADTRAN ProServices

Description of Service Offering

ProStart On-Site Installation Services – virtual Wireless Local Area Networking (vWLAN)

This Description of Service Offering (DSO) is provided by ADTRAN, Inc. to describe the on-site installation services available for ADTRAN's virtual Wireless Local Area Networking (vWLAN) solutions under ADTRAN ProServices. This DSO combined with the ADTRAN Manufacturer's Warranty, the vWLAN-specific ProStart Statement of Work (SOW) as applicable, the ProServices Terms and Conditions, and the specific ProStart installation items on the order cover the agreement between ADTRAN and the purchaser of the service from ADTRAN. Purchasers are encouraged to read this DSO carefully, as it contains details of the coverage offered, and the responsibilities associated with obtaining this service.

1. OVERVIEW

ADTRAN offers ProStart installation services for Enterprise Networks Division customer premises equipment (CPE) and select Carrier Networks Division (Telco) equipment manufactured by ADTRAN, as well as for approved third party products as part of an overall ADTRAN solution. This document describes the installation services specific to ADTRAN's virtual Wireless Local Area Networking (vWLAN) solutions which include products branded as "Bluesocket". ADTRAN solutions (hardware, software, and ProStart services) are purchased by the End-User customer from a Channel Partner which may be either a Value Added Reseller (VAR) or a Network Service Provider (NSP) such as a telephone company. The Channel Partner may purchase the ADTRAN solution from an authorized distributor or directly from ADTRAN.

ProStart offers two levels of installation services for ADTRAN's vWLAN products: on-site and remote. This DSO specifically covers the services that are included with on-site vWLAN Installations. There is a separate DSO for remote installations.

ProStart Staff Roles

For each on-site installation ProStart provides staff to cover the following roles: Project Coordinator (PC), Project Manager (PM), Project Engineer (PE), and On-site Technician (OST).

The ProStart Project Coordinator (PC) is the person that initially receives the order for the ProStart installation. The PC gathers and validates the preliminary information that is required to assign a Project Manager to the installation. The required information includes: one or more valid purchase orders (POs), contact information for key project stakeholders, and a network diagram or network description with sufficient detail to identify the ADTRAN vWLAN solution components to be installed and all relevant network elements with which the vWLAN solution will integrate.

Once assigned, the ProStart Project Manager (PM) is the primary point of contact for all stakeholders throughout the project. The PM will work with the project stakeholders remotely over the phone, via email, and using web collaboration tools throughout the project to coordinate all tasks and ensure the success of the installation.

The ProStart Project Engineer (PE) will configure, stage, and test the system. Some of these tasks may be performed in a ProStart staging center before the equipment is shipped to the End-User's place of business. The PE will also direct the efforts of the On-site Technician (OST) remotely over the phone during the physical installation.

The ProStart On-site Technician (OST) will go to the End-User's place of business to physically install, configure, and test the equipment under the direction of the ProStart PE (remotely over the phone) to ensure a working installation.

Installation Services

Upon receipt of a valid purchase order (PO) from the Channel Partner, the ProStart PC will gather preliminary data in order to assign a PM to each installation. Once assigned to the project, the PM will coordinate detailed data gathering, staging and will serve as the primary point of contact for all stakeholders throughout the ProStart installation.

For a ProStart On-Site WLAN Installation the ProStart team will:

1. Review and validate the application in which the equipment will be used
2. Provide Project Management Support and Coordination: Working remotely over the phone the ProStart PM will gather circuit / network / application / End-User configuration parameters required for proper configuration of equipment; coordinate the installation schedule among ProStart, End-User, and other vendors / providers as needed; and monitor the installation process, escalating as necessary to the End-User, other vendors / providers, and within ADTRAN
3. Provide Project Engineering: The ProStart PE will create and verify equipment configuration; configure, stage, and test configured equipment. Remotely over the phone the ProStart PE will direct the on-site activities of the ProStart OST. Those activities include: unpacking, mounting of the equipment, connecting the equipment to the End-User's network, verify success of power-on self-test and diagnostics, testing the installed equipment and assist in testing the associated networks and applications to ensure proper operation.
4. Provide access to online training via recorded webinar.

Limits and inclusions

As part of the base level on-site installation bundle ADTRAN will:

1. Conduct a remote "Predictive Design" of a facility, up to 40,000 square feet or four floors. Though the predictive design does not guarantee every aspect of the network, such designs provide for the optimum deployment and placement of wireless access points (APs), along with channel assignments and transmit power settings based on the requirements and known sources of interference and attenuation. The predictive design requires that the End-User provide to ProStart a scaled floor plan of their facility, a general description of the building materials, and the number of users that will utilize the WLAN. ProStart will use that information to model the End-User's environment using a WLAN modeling software package. The software will produce a report with that will validate the number of APs required and diagrams indicating where they should be placed for optimal signal coverage. This task may be waived if other ADTRAN personnel have completed a similar survey as part of the sales cycle or if the customer is unable or unwilling to provide an appropriate scaled floor-plan. Waiving this task will not change the price of the service and could have a negative effect on the final performance of the wireless network. Note that failure to provide a scaled floor plan will result in the ProStart deployment not being responsible for the performance of the Wi-Fi network.
2. Conduct a site readiness assessment. For large deployments, a ProStart OST will be dispatched to site to review the proposed placement of APs, availability of Ethernet cabling, and inspect any network closets where hardware may need to be installed or reconfigured to complete the vWLAN deployment. When applicable, the OST will also mount the vWLAN controller appliance where designated by the end-user, and ensure remote access is available.
3. Stage the appropriate vWLAN controller. This can be a vWLAN Appliance, VMware instance, or ProCloud Wi-Fi service. If the controller is physically located on-premises then the ProStart team will work with the

- appropriate contact to gain remote access to the controller.
4. Configure a second vWLAN controller in High Availability (HA) mode if remote access is available. There is no additional cost for ProStart to configure the HA vWLAN controller if it is co-located at the same site as the primary vWLAN controller. An additional fee will apply if an OST must be dispatched to a different site to install the HA vWLAN controller.
 5. Provide the customer's network administrator guidance regarding VLANs that may need to be created for the deployment of the primary physical site. ProStart does not reconfigure customer-provided networking equipment as part of the installation bundle. Additional installation or configuration services must be purchased for hardware such as switches, routers, or POE devices in order for them to integrate with the new wireless network. Otherwise the channel partner and customer are responsible for proper configuration of these devices. ADTRAN installation services can only be purchased for ADTRAN branded hardware.
 6. Physically mount all APs in indoor locations up to 12ft high and connect to pre-installed Ethernet cabling.
 7. Configure and work with the OST to test the functionality of each AP for which an installation has been purchased.
 8. Configure up to two distinct authentication methods for vWLAN clients. Available authentication methods include:
 - a. Web-auth using either LDAP integration or RADIUS connection to vWLAN server
 - b. 802.1x with RADIUS connection to the APs
 - c. Pre-Shared key
 - d. MAC authentication
 9. Configure up to three distinct Roles or SSIDs.

Supplemental services:

1. Multi-Site - When deploying a system for multiple physical locations interconnected via a WAN a Multi-Site fee must be ordered for each additional physical site.
2. Additional Roles/SSIDs – if more than three Roles or SSIDs need to be configured per the customer's requirements, an additional Roles/SSIDs fee must be purchased per additional Role or SSID beyond the included three.
3. Additional Authentications – if more than two authentication methods need to be configured per the customer's requirements, an additional Authentications fee must be purchased per additional Authentication type beyond the included two.
4. External Logging/Custom Alerts – if logging to an external collector or custom configuration of vWLAN alerts is required then the External Logging/Custom alerts fee must be purchased.
5. Wired user support – if wired user authentication is desired then a custom quote must be developed by the ProStart team.
6. Outdoor Access Points – Installation of outdoor APs up to 12 feet high connected to pre-installed Ethernet cabling. If outdoor APs are to be installed by ADTRAN, an on-site survey and custom quote must be provided by the ProStart team. Otherwise the customer is responsible for proper installation and configuration of outdoor APs.

Scheduling

The ProStart PM will schedule the installation as soon as practical. The data gathering timeline will vary according to End-User's, Channel Partner's, and Service Provider's (i.e. telephone company, Internet provider, etc.) availability and/or responsiveness to ProStart requests for information. ProStart requires a minimum scheduling interval of five business days after the End-User has confirmed the completeness and accuracy of all equipment and application data assembled by ProStart in order to schedule the on-site installation tasks. This scheduling interval ensures that there is sufficient time for ProStart to acquire, configure, test, and ship the equipment per the End-User's specifications. This interval may be accelerated only if ProStart receives payment for an expedite

fee and has the resources available to meet the requested installation date. Installation dates are not guaranteed until confirmed by the ProStart PM. All work must be completed during normal business hours (8:00 AM – 5:00 PM local site time, Monday through Friday excluding ADTRAN holidays). Additional fees will apply if work must be performed outside these hours.

2. CONTACTS FOR SUPPORT SERVICES

Purpose/Need	Contact	Hours of Operation	Contact Information
Questions about ProCare Service Plan	ProServices Sales Operations	Monday – Friday 8:00am-5:00pm Central Time excluding ADTRAN holidays	888-874-2237 256-963-8716 proservices@adtran.com www.adtran.com
Questions about ProStart Installation, technical support during install	ProStart Install Group	Monday – Friday 8:00am-5:00pm Central Time excluding ADTRAN holidays	888-874-2237 256-963-8716 prostart@adtran.com www.adtran.com
Technical Support (post-install)	ADTRAN Technical Support	Monday – Friday 7:00am-7:00pm Central Time excluding ADTRAN holidays Service affecting emergencies: 24 hours/day 7 days/week	888-874-2237 256-963-8716 https://www.adtran.com/submitcase https://supportforums.adtran.com
ProServices Purchase Orders	ProServices Sales Operations	Monday – Friday 8:00am-5:00pm Central Time excluding ADTRAN holidays	Fax: 256-963-7956 Email: proservices.po@adtran.com

There may be a delayed response to inquiries submitted via the web or email. Critical issues and escalations should be submitted via telephone for fastest response.

3. CHANNEL PARTNER AND END-USER RESPONSIBILITIES

Purchasing ProStart Installation Services

Purchase orders (POs) for ProStart Installation must include the following:

1. ProStart part number(s), quantity, and pricing;
2. End-User site information, including company name and street address (shipping address);

In order to facilitate the installation process it is helpful to include the following supplemental information on or with ProStart Installation POs:

1. Channel Partner contact information including company name, billing address, contact name, email address and phone number;
2. Channel Partner or End-User installation coordinator contact information including name, email address, and phone number;
3. End-User site contact information, including name, phone number, and email address;
4. Equipment information, including hardware, software, maintenance, and PO number(s).
5. **Requested** date of installation (PLEASE NOTE: Installation date is dependent upon many variables and is not guaranteed until confirmed by the ProStart PM).

End-User Installation Responsibilities

To ensure a successful installation ProStart requires the following End-User responsibilities:

1. Communicate with the ProStart PM, providing appropriate advance notice for all changes;
2. Submit site and site contact information including company name, street address, contact name, email

- address, and phone number;
3. Collect and submit specific network configuration and technical information as requested. End-User can help to avoid schedule delays by ensuring that ProStart receives complete information no later than three weeks prior to the requested installation date to allow for verification and equipment staging. Some examples of the needed information include:
 - a. Network diagram of the application and all pertinent equipment. This diagram should include all of the proposed equipment and any existing equipment with which it is expected to interact (Power over Ethernet (PoE) switches, Wi-Fi phones, scanners, firewalls, routers, DHCP server, DNS server, etc.) including details regarding existing VLANs and the capability to add new VLANs as recommended;
 - b. Network service parameters, such as numbers of WLAN users, Wi-Fi protocols (IEEE 802.11 a/b/g/n/ac), SSIDs, authentication, encryption, etc.;
 - c. Interface configuration and addressing information for other equipment with which the installed equipment will interoperate;
 - d. Network security requirements and parameters, such as firewall rules and NAT configuration, port forwards; and
 - e. Premises layout or floor plan diagram(s) for the requested wireless coverage areas and recommended placement of wireless access points (APs). By default the APs will be placed in the locations specified on the ProStart Predictive Design. If the included ProStart Predictive Design was waived by the customer, then it is the End-User's responsibility to specify the location for each AP to be installed. Any deviation from the ADTRAN-recommended AP placement may have a negative impact on signal coverage and network performance. ADTRAN will not be responsible for the performance of the Wi-Fi network in situations where the APs are not placed in the locations specified by ProStart.
 - f. Devices/Clients – Number of client devices expected to simultaneously connect to the wireless network. Type of devices (laptops, tablets, smart phones, Wi-Fi phones, handheld scanners, etc.) expected to connect to the WLAN network, as well as their capabilities, ensuring they are in line with the requirements specified for SSIDs, authentications, encryption, etc.
 4. Verify and submit documentation of site qualifications to be sure that:
 - a. All AP mounting points are accessible and no higher than 12 feet from the floor (no lifts);
 - b. The location meets the environmental requirements specified in the equipment documentation;
 - c. Physical mounting points and interfaces are compatible with the ADTRAN equipment;
 - d. Adequate electrical power is available and within six feet (cable length) of the ADTRAN equipment, protected by a surge protector or uninterruptable power supply (UPS);
 - e. If the APs are not going to receive power from a PoE switch or PoE injector then the End-user must ensure that there is 120 VAC / 60 HZ power available within six feet (cable length) of the recommended placement point for each of the APs;
 - f. End-User premises wiring is installed, toned, tagged, and properly terminated. In general, properly installed standard Category 5 wiring with RJ45 connectors is adequate. ADTRAN strongly encourages the End-user to allow for cable tolerance should minor AP placement adjustments be needed;
 - g. Other equipment or networks to which the ADTRAN equipment will be connected are available and accessible, all interfaces are compatible, and that the networks are capable and properly configured for carrying the network traffic;
 - h. Arrange for representatives of other vendors and providers (such as the telephone company, IT vendor, wiring vendor, PBX vendor, etc.) to be available during data gathering and at the time of installation as appropriate for configuration and testing of other equipment and networks with which the ADTRAN equipment interacts;
 5. Provide secure remote broadband access (i.e., port forward via a Cable, DSL, etc.) to the equipment via

- the public Internet to allow testing, configuration, and maintenance. End-User must ensure that their network is properly secured;
6. Verify that all equipment, supplies, and materials have been received and are on-site and available before the installation commences;
 7. Provide supplies and materials that are not provided by ProStart but are required for the installation. Examples include: equipment racks, rack mount screws, patch cables, extension cords, etc.
 8. Be present, and provide access to the equipment installation location(s) at the time of arrival of the OST.
 9. Identify up to three key areas where coverage must be verified and tested by the OST during turn-up.
 10. Secure the ADTRAN equipment by changing the passwords when the installation is complete.

The PM and/or PC will provide appropriate checklists and worksheets to assist the End-User in gathering and submitting the required information and in planning for the installation. In order to ensure that installations are successful and timely, ProStart schedules resources in advance. Scheduling changes within five business days of a planned event or cancellations may result in additional costs to End-User. ProStart encourages End-User to notify the PM of any requested schedule changes or cancellations as soon as practical.

Installation Acceptance and Labor Warranty

The system will be considered “in service” when it has been physically installed, configured, and is capable of passing the End-User’s traffic. At this point ProStart will notify the appropriate project stakeholders via email that the system is in service. This notification initiates the 14-calendar-day installation labor warranty, during which ProStart will make configuration adjustments based on written requests to fine-tune the network parameters, provided remote access is available. The ProStart PM will review these requests and schedule the changes provided they are within the scope of what was purchased. If a ProCare or ProCloud Maintenance Plan has been purchased then the plan will be activated on the same “in service” date as the beginning of the labor warranty. At the end of the labor warranty the installation will be deemed complete and accepted. At this point the login credentials will be provided to the appropriate stakeholders so that their network administrator can take responsibility for the equipment.

4. OUT OF SCOPE

Exclusions

ProStart Installation Service does **NOT** include:

1. Implementation or installation of products for which there is no installation order or for those products not described in the Statement of Work, including labor, hardware, cables, etc.
2. Equipment required to perform installation services at the End-User location
3. Troubleshooting or managing third party vendor issues
4. Services made necessary by failures related to misuse, neglect, accident, alteration, modification, or willful or negligent acts by the End-User or other parties beyond the control of ADTRAN
5. Force majeure: acts of God, acts of public enemy, acts of government, freight embargoes, strikes, quarantine restrictions, unusually severe weather conditions, insurrection, riot, etc.
6. Wiring or cabling: installation or modification of End-User’s in-house wiring; extension of telephone company demarcation point (DMARC); ancillary materials such as power/extension cords
7. Racks, shelves, or wall boards: supply, assembly, installation of racks, shelves, wall boards or any other physical structure to which the covered equipment is mounted (unless specifically included in the ProStart Statement of Work)
8. Optimization or troubleshooting of the End-User’s network or applications
9. Installation of Bluesocket BSC controllers

10. Mitigation of Radio Frequency (RF) interference for sources other than ADTRAN APs included in the installation. To help with any environmental problems, an on-site RF spectrum analysis survey can be ordered separately and performed before or after the installation.
11. Remediation of problems if the deployment does not match the ADTRAN-approved vWLAN design including, but not limited to, the number, placement, and recommended settings of ADTRAN APs.

5. ADDITIONAL CHARGES FOR INSTALLATION SERVICES

Beyond the services offered as part of a ProStart Installation, ADTRAN can arrange for additional services that are charged separately. Such expenses include:

1. Time and Materials (T&M): hourly rate for services performed beyond those covered by the specific ProStart installation items that were purchased or the Statement of Work created for a project implementation by the assigned PM. With advance notice and at ProStart PM discretion, ProStart can arrange for the ProStart PE or OST to perform work in addition to the tasks covered in ProStart installation.
2. Site Not Ready (SNR), Rescheduling, or Cancellation: fees to cover costs of canceling or rescheduling the installation. ProStart will waive these fees if five business days' notice is given.
3. Expedite: fixed rate surcharge to schedule the installation with less than the required scheduling interval. You may request that your installation process be accelerated. ProStart will grant an expedite request and accept the fee only if the service personnel and equipment are available.

6. GENERAL INFORMATION

Language

Installation services are provided in English.

Invoicing of Installation Services

Upon completion of each phase of an installation, ADTRAN reserves the right to invoice ADTRAN's direct customer (typically the Channel Partner) for that portion of the installation service that is in service or complete. ADTRAN further reserves the right to invoice the direct customer at the completion of each site installation, even in a case where multiple installation sites were submitted on a single purchase order.

Cancellation

ADTRAN reserves the right to cancel any installation project in whole or in part at ADTRAN's sole discretion. ADTRAN will submit its cancellation notice to the project stakeholders in writing and may then invoice any portion of the installation services performed on or prior to the date of cancellation. End-User or Channel Partner may cancel any pending installation service without penalty by submitting its cancellation notice in writing and this notice must be received prior to the occurrence of any of the following activities, otherwise charges may apply: 1) the shipment of any ADTRAN equipment purchased for installation, 2) the performance of any fee-based service or site survey, or 3) the appointment of a ProStart PM.