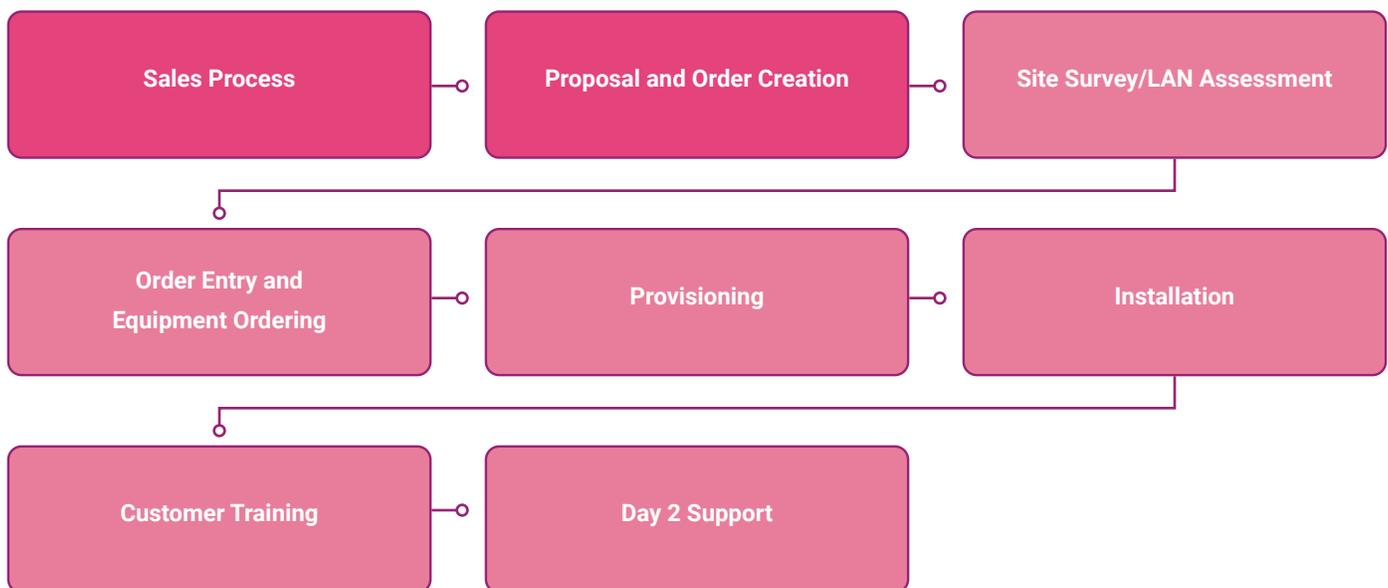


# Best Practices for Hosted Unified Communications Implementation

## Introduction

There is little doubt that customer turn-up of hosted Unified Communications (UC) is a complicated endeavor. Implementation involves many moving parts, including internal hand-offs, the capturing of granular customer information, a complex installation process, and end-user training. Typically, this level of complexity is a big step forward to what service providers are accustomed to—providing relatively straight-forward services such as internet access and voice circuits.

Leveraging best practices from Ribbon's extensive experience with service providers big and small, this document details the critical process steps for Hosted UC implementation—from sales handoff through installation and day two support. As seen below, this document will focus on the orange boxes below, where the operations team is presented with a customer and must get them up and running.



## Prelude

In this series of white papers, we've covered the three major topics of Hosted UC—offer development, sales/marketing implementation, and customer turn-up and support. Many of the items in the first two papers are a precursor to this one, particularly around offer development and the sales process.

Creating a simple-to-understand offer eliminates many downstream problems in implementation, as the process becomes much more "cookie cutter." Limiting options in the sales process and walking away from deals that don't fit your customer profile will limit your exposure and ensure you don't get in over your head. By having a simple offer and discrete "knockouts"—criteria that your sales team must meet to take an order—you will reduce the number of customer touch points, reduce support costs, and increase customer satisfaction.

We'll now detail the discrete customer implementation steps and recommendations on how to implement.

## Site Survey/LAN Assessment

Accurately gathering site-level information is perhaps the most critical element of the implementation process. Every downstream activity flows from it, and errors will be discovered in either installation or post-installation, causing delays and customer dissatisfaction. This step must be well executed.

What is the role of the site survey? The key functions are as follows:

- Verifying where equipment will be installed and whether the correct infrastructure (e.g., power) is in place
- Verifying that the LAN is voice ready—e.g., can support a converged LAN infrastructure and that Cat 5e/6 drops are in every phone location
- Gathering detailed information on the call flows (receptionist or no, shared call appearances, hunt groups) and specific features for individual users
- Verifying the access circuit is of sufficient quality to support a converged voice/data solution

**There are several methods by which customer information can be gathered, detailed in the table below:**

Process	Pros	Cons	Conclusion
Sales team gathers information as part of the sales process	Sales is already on-site—saves cost of sending a dedicated resource	Sales team is focused on selling, not information gathering	Not recommended
Site survey occurs before deal is complete	All relevant information gathered for a proposal—no downstream surprises	Might waste site survey resource time if customer does not ultimately buy	Possibility
Sales gathers high level information; on-site survey after deal closes	Good hybrid approach to gathering information	Still involves on-site labor—can be expensive for small implementations	Good Practice
Site survey data gathered remotely	Saves the cost of an on-site visit	Can be difficult in gathering data remotely	Possibility

As seen above, there are some methods by which a site survey can be implemented, depending on your organization. Most SP's rely on an in-person site survey, and it's a tried and true method for information gathering. Ribbon has an example site survey document that can be accessed [here](#). This document can capture the call flows, individual seat requirements, and site survey specifics.

However, best in class SP's are beginning to forgo the site survey as they become more experienced in implementing Hosted UC. It's also becoming easier to make quick adjustments on the day of install that previously required a skilled technician. The "Intelligent Edge™" model of deployment makes this easier, as the SP has easy insight into the demarcation point and the phones behind it. Key elements of this approach are:

- Developing a list of POE switches you will support, and requiring the customer to provide the switches to initiate service
- Minimizing variability with the configurations you will support (e.g., limit the number of seat types and require the customer to configure specific features and phone buttons)
- Conducting a site survey either via a phone interview or online data gathering portal

This approach, along with using functions such as zero-touch provisioning (ZTP) from phone vendors (discussed below), will allow you to optimize the installation process.

## Order Entry for Equipment

Inventory management can take one of two forms. Having inventory on-hand gives you the opportunity to quickly respond to customers and potentially reduce your time to install. However, inventory holding costs can add up. Alternatively, another approach would be to assume a “just-in-time” inventory strategy – ordering equipment as you need it for specific customer opportunities, and have minimal stock for repairs and replacements.

In our view, the best option is just-in-time inventory management. We recommend SP's work with distributors that have optimized the process of ordering phones, edge devices, and POE switches. These distributors can drop ship the necessary equipment directly to the customer as nearly as fast to pull from dedicated inventory. Additionally, several vendors can pre-configure phones before shipping, which vastly cuts down on the amount of work for implementation.

## Provisioning

Given the tools available to the SP, provisioning has become a relatively easy task. The major Hosted UC application servers have very good platforms for provisioning services, and with adequate training, an operator will become quite proficient. As stated above, however, accurate site survey data will greatly assist in making this step a successful one.

However, to further streamline the configuration process, examine the use of a zero touch provisioning (ZTP) server. A ZTP server is a redirection tool—it allows phones that come on to the network at the time of installation to “find” your provisioning server and get its configuration. This tool speeds the installation process, as specific phones (with a specific MAC address) do not need to be installed in particular locations. Instead, the installer puts a phone on a desk, logs into it, and the ZTP allows the specific configuration to be loaded on the device.

Most phone and equipment providers provide these ZTP servers to their vendor partners free of charge. Ribbon Communications offers zero touch provisioning to speed deployment of EdgeMarc Intelligent Edge™ devices.

## Installation

Installation is the final step in the implementation process. It's one of the few steps a customer sees, and assuming the steps before it have been done accurately, it is generally a smooth process. Typically, the installation process follows the following script.

1. Assuming you are using an edge device (and we hope you are!), this is connected first and used to verify WAN connectivity and LAN-side functions (typically an extra phone is brought to assist this). The edge device is connected to the POE switch (either customer provided or supplied by you).
2. Phones are installed. Generally, there will be a single Ethernet drop to each phone location—the phone is connected to the LAN between the computer and the LAN port.

3. Phones boot and pull down their configuration.
4. Once the installer has verified the service is installed correctly, they will “cut over”—order the number port to move the service to the new SP.
5. The installer runs through a checklist to ensure the service is operating correctly. This is done for every phone. Ribbon has a checklist that can assist with this process.
6. The installer does a final check to ensure proper service operation.

One of your considerations in your service offering is whether or not to include an edge device such as an EdgeMarc Intelligent Edge™ device. Best-in-class providers see high value in deploying an edge device, as it gives significant insight into deployments and service operation.

## Some of the benefits of using an EdgeMarc Intelligent Edge™ are:

- Deploying an EdgeMarc provides a consistent boot environment for the phones. Without an EM you are dependent on customer firewall/server for DHCP which can have unpredictable results.
- EdgeMarc SIP Proxy avoids problems caused by customer NAT firewalls that can corrupt SIP signaling. Many basic firewalls will work fine with a few phones but get confused with 10+ phones, shared lines and complex signaling.
- Using EdgeView, EM Network Statistics and MOS scores help identify defects in WAN/LAN connections. VoIP Test User Agent, ping, and trace-route are valuable tools for rapid remote troubleshooting.
- EdgeMarc Packet Capture gives detailed visibility to WAN/LAN activity. This allows advanced remote troubleshooting of an unknown environment.
- EdgeMarc can be preconfigured to connect to EdgeView with little on-site customization. If on-site configuration changes are needed, the EM GUI is simple for end-users or technicians to configure.

## Training

Training is a critical element to ensure your customer knows how to properly use the service and getting the most out of it, significantly adding to customer satisfaction. Historically this has been a hands-on process—employees are gathered into a meeting room and shown how to use the service. While this approach works, it can be costly as it usually involves another resource to come on-site to provide training (generally the installer is not the right resource to provide training). Today, many best-in-class SPs have invested in a library of videos and online tools to train end-users. Power users, such as administrators and receptionists, may still require hands-on training, but best-in-class providers have been able to achieve good results from teaching these users using remote workers. Don't forget that these training resources can be provided weeks in advance of an install.

## Day Two Support

After installation is complete, the challenge of supporting the customer begins. A proper installation will hopefully eliminate service issues, but problems will arise. These problems will fall to Tier 1/2/3 resources depending on the complexity of the problem. The more issues that can be solved by the front line Tier 1 rep will be the most cost-effective. Consider training them on the service so they can solve issues like voicemail access and basic feature configurations. Whatever architecture you decide, ensure that you have delineated roles on who is responsible for different types of issues.

Customers should be encouraged to use self-service support resources featured on your website. These might consist of a knowledge base of common issues, and video guides that elaborate on the features of their new equipment.

## Conclusion

The implementation process for customer turn-up can be complicated. Ribbon recommend you devote the time to developing a consistent process that works for your organization, with clear roles and responsibilities for each supporting organization. Apply a lot of focus to information gathering, as many errors can result from haphazard site surveys. Continue to monitor the process with installation timeline goals and look for ways to improve.

Solutions from Ribbon can greatly assist in the implementation process. By making use of the performance management tools of an EdgeMarc and the monitoring and analytic capabilities of the EdgeView Service Control Center, SPs will be able to impact the satisfaction of their customers significantly throughout the entire customer lifetime. This will result in a positive ROI in faster installations, reduced support costs, and increased customer satisfaction.

## About Ribbon

Ribbon Communications (Nasdaq: RBBN) delivers communications software, IP and optical networking solutions to service providers, enterprises and critical infrastructure sectors globally. We engage deeply with our customers, helping them modernize their networks for improved competitive positioning and business outcomes in today's smart, always-on and data-hungry world. Our innovative, end-to-end solutions portfolio delivers unparalleled scale, performance, and agility, including core to edge software-centric solutions, cloud-native offers, leading-edge security and analytics tools, along with IP and optical networking solutions for 5G. We maintain a keen focus on our commitments to Environmental, Social and Governance (ESG) matters, offering an annual Sustainability Report to our stakeholders. To learn more about Ribbon, please visit [rbbn.com](https://www.ribbon.com).

**Contact Us**



We are here to help. Let us know if you are interested in a quote or if you have any questions.