

Capstone Project Idea: Product Training Modules

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Setting the stage

When system administrators purchase our product, they are required to purchase 4 to 12 hours of training as well. This training is required because the product is complex, and without training, the learning curve required to get up to speed with the product would be prohibitively steep for most customers.

Training is currently provided in two-hour sessions and presented by trainers who work for our company, or by third-party partners or resellers who sell the product. Each training session is conducted using WebEx online meeting software, and it is recorded for future reference.

To find out what is working well and what needs improvement, I spoke with project managers, trainers, and support engineers. Customers were not available for contact at this time.

What is currently working well

The WebEx sessions work well for many customers, especially when the sessions are conducted by seasoned trainers. In these sessions, the expert trainers listen to what customers want to do, and help them install and configure the system to meet their needs. Trainers help customers develop and implement custom inventory rules, scripts, patching schedules, and more. Having a dedicated expert to help set up the appliance shortens the learning curve for customers, builds confidence in the product, and boosts customer satisfaction.

Problems

There are several problems with this type of training:

1. **Timing requirements:** Customers are required to complete the training within 60 days of purchasing the product, but this timeline might not match their implementation schedule. For example, if customers have a complicated roll-out, or if key team members are unavailable, they might not be ready for the training within 60 days. We need a solution that will provide more flexibility in terms of timing.

2. **Scalability issues:** Custom WebEx training sessions worked well when there were only a handful of customers and several seasoned trainers. But the company is adding more than 500 customers per quarter, and the training department is having trouble keeping up with the demand for WebEx training. We need a solution that will scale with growth.
3. **Train the trainer issues:** With the demand for training increasing, the company has had to hire new trainers. To learn the product, new trainers read the product documentation, install and begin using a test system, get familiar with support resources and Knowledge Base articles, and listen to sessions conducted by seasoned trainers. This process takes a great deal of time and effort, and the results can be inconsistent, depending on the diligence and persistence of the new trainer and the content of the training sessions he or she listens to (some sessions might be more comprehensive or challenging than others). As a result, new trainers might not be prepared to deliver the same level of quality that seasoned trainers can provide. We need a better way to train our internal trainers, assess their capabilities, remedy their shortfalls, and certify their skills.
4. **Referencing problems:** Referencing the information in WebEx recordings is difficult. The information is not currently searchable, and users often spend a great deal of time looking for the information they want. For example, they might remember that a feature was described in a specific session, but it takes time to go through the session and find the 30-second clip that contains the information. If they cannot find the information, they contact Support. This training process is inefficient and frustrating for users and increases the burden on Support. We need a better way to reference and manage the information presented in our training materials.

Target user groups

There are potentially three target user groups for this project:

1. **System administrators who purchase and use the product:** System administrators are skilled in working with a wide variety of computers and operating systems, including Windows, Mac, and Linux. They are familiar with the process of patching computers, or applying software updates to systems and applications, and they are skilled in managing and maintaining networks, servers, and other systems. They respond to questions from users, and they assist users in troubleshooting system and network issues. However, they are new to the product, and they need help understanding how to configure, use, and maintain it to meet the needs of their organization.
2. **Internal trainers who work for the company and train users on the product:** In general, these internal trainers have strong backgrounds in system

administration and information technology. Some of the trainers who work for the company are also experts with deep knowledge of the product. Others are new to the product and need to get up to speed quickly. As the company grows, we need a better way to train new trainers, and we need to ensure that the deep product knowledge possessed by seasoned trainers gets transferred to new trainers. In addition, we need better ways to assess what trainers know, to help them learn what they don't know, and to verify that trainers understand the features and concepts related to the product.

- 3. Third-party partners and resellers who sell the product and train customers to use it:** Third-party resellers have a vested interest in learning about the product. The more they learn, the more they'll earn, because they'll be better equipped to sell and support the product. They have access to some of the same resources as internal trainers, such as documentation and WebEx recordings. However, since they are not company employees, they don't have access to the internal mailing lists or support resources, and they have limited opportunities to learn from seasoned trainers. We need to provide initial training to these resellers, to assess what they know, and to certify that the training they provide is on par with the training offered by company trainers.

Solution

The solution is a self-paced, modular, online training system. This training system would provide the following solutions to the problems identified earlier:

- **No time requirements:** Since the training is self-paced, and since it does not rely on the availability of trainers, customers can complete the training at their own pace and on their own schedule. There would no longer be a need for the 60-day requirement.
- **Scalable:** Unlike WebEx sessions, the training system would be deployable to any number of customers without greatly increasing its resource requirements. Of course, the system would require resources for design, prototyping, implementation, and maintenance, and it might require the installation of dedicated servers to deliver the training. After these resources are in place, however, the system could easily accommodate an expanding number of customers, and it would enable trainers to focus on activities other than initial customer training.
- **Train the trainer:** The training system could be used to standardize train-the-trainer sessions, assess the skills of trainers, and certify that trainers have achieved a specified level of competence with the product.

- **Referencing:** In addition to being modular, the training system would be searchable, which would make finding and referencing information in the system much easier than the current WebEx sessions.

Standard content of modules

Each module could be completed in 10 to 20 minutes, depending on how much time users spend drilling-down into details, exploring scenarios, or performing tasks. Each module would include the following components:

- **Overview:** A brief description of the module and the expected outcomes for users.
- **Feature description:** A general overview of the feature, concept, or task being presented. Users would be able to drill-down into documentation, knowledge base articles, and support information to get additional details.
- **Task-based scenarios:** Scenarios that enable users to see how to perform specific tasks. The product provides several different methods for performing tasks, and these scenarios would enable users to explore each one and identify the method that is most appropriate for their installation. Scenarios could be reset and reworked as needed.
- **Best practices:** Recommendations for enhancing productivity and reducing maintenance.
- **Do it now:** Interaction that enables users to perform tasks in the web-based Administrator Interface. This would require the module to connect to the user's server, and it is a "stretch goal."
- **Reviews, summaries, and quizzes:** A section that reiterates the key points of the module and enables users to test what they have learned. In addition, this would provide a way to assess trainers (both internal and third-party), to identify their strengths, and to identify areas where they might need improvement.
- **Comments, feedback, and ratings:** An opportunity to add comments to the module and rate its usefulness. Users could choose whether to make the comments and ratings public, or keep them private for internal use. In addition, users could provide feedback on the module to the company training team through a Service Desk "help ticket" process. This section might also include integration with Facebook, Twitter, and other social media sites.

- **Bookmarks and sharing:** The ability to bookmark any section or training module for later reference. In addition, users could send a link to the section or training module through email to share the information with others.
- **Create a custom module:** An interface that enables users to create a custom module by either recording a session or selecting items in modules that they want to highlight. This would be useful for customers who want to create targeted training modules for their own administrators. This would require a special interface, and it is a stretch goal.

Potential modules

Based on the product documentation set and training outline, initial customer training would include these modules:

1. **Introduction to the product:** This module would provide an overview of the product features and show how the product adds value to organizations. Customers could use this module to review product features and identify the features that are most important for their implementation. This module could also be used as a sales tool.
2. **Installation and configuration:** The product is available as a physical appliance and as a virtual appliance that runs on a VMware platform. The installation and setup module would provide step-by-step instructions for installing and configuring each version of the appliance.
3. **Agent software:** This module would introduce the concept of “Agent software,” which is software that is installed on company laptops and servers, and which enables the product to manage those laptops and servers.
4. **Active Directory and LDAP configuration:** This module would explain how to configure the product to use a company’s Active Directory and LDAP servers to authenticate users on the product.
5. **Labels:** This module would introduce the concept of labels and explain how they can be used to manage computers, users, patches, and other items.
6. **Custom inventory:** This module would explain how to use WSAPI to obtain inventory information from managed laptops, servers, and other devices.
7. **Reporting:** This module would provide an overview of standard reports and explain how reports can be customized.

8. **Organizations:** This module would explain the concept of organizations, and show how they can be used to manage various computers and users.
9. **Asset management:** This module would explain how the product can help system administrators manage assets such as software, computers, and other physical assets.
10. **Patching:** This module would explain the patching capabilities of the product, and show the options for detecting and deploying patches for laptops, servers, and other devices.
11. **Scripting:** This module would explain the options for using scripts to enforce policies and automate system administration tasks through the product.
12. **Service Desk:** This module would introduce the product Service Desk and explain the ways in which it can be implemented.
13. **System maintenance:** This module would explain the maintenance tasks required to keep the product running smoothly.
14. **Troubleshooting:** This module would introduce users to support resources and show standard procedures for troubleshooting the product.
15. **New features:** This module would provide an overview of features introduced by the latest release and show how to use them.

Access points for for the training system

The training system would be accessible from within the web-based user interface of the product, providing users with access to training when and where they need it. For example, users who were viewing the patching section of the user interface would see a link to the related module in the training system. Conversely, users viewing the patching training module would see a link that would take them to the patching section of the user interface. This would be an efficient way for users to get up to speed with product features.