



Hammer™ XMS Services

Empirix is the leading provider of Voice application testing and monitoring solutions



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Deployment Services

Consulting Services

Training Services

Maintenance Services

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Introduction

The Hammer XMS portfolio is a powerful set of products providing high-value solutions designed to meet the complex needs of Service Providers for real-time, performance monitoring and service assurance of VoIP. These solutions are flexible enough to work in most every environment; however this flexibility increases the complexity of installation and configuration for our customers. To ensure our customers success, Empirix has created a suite of services and support packages to meet the needs of each unique customer environment. It should be noted that in most cases, services are required for the deployment of XMS into a customer's network.

Services and Support Framework

Empirix provides a range of post-sales services for the Hammer XMS portfolio. They fall into the following categories:

Deployment Services. Begins with the development of the system requirements documentation and network planning, to installation, through system acceptance, and hand-off of system(s) to the customer.

Consulting Services. On-site or remote support for services not otherwise covered.

Training Services. Empirix delivered training for the use and administration of Hammer XMS.

Maintenance Services. On-going technical, troubleshooting and maintenance support from Empirix for all deployed Hammer XMS products.

It is Empirix's goal that the provision of these services be an integral part of any sale of Hammer XMS, however each of these services are stand alone and therefore can be bundled individually or in whole with Hammer XMS.


Deployment Services

Successful deployment is comprised of a series of phases, containing various tasks and milestones that build upon each other to produce the required deliverables. The steps are broken down as follows:

Pre-Deployment Project Planning. This step ensures sufficient project planning takes place at the start to minimize or eliminate hurdles to success. As such it is composed of the following tasks:

Discovery. Gathering the requirements and business goals of the customer. The technical architecture of the customer's environment and the general scope of the deployment are also discussed in this phase.

Planning. Building of the detailed project plan and the identification of key process management procedures. The business goals are revisited to ensure the project plan/deliverables align with the overall scope and goals of the project. The project timeline, key milestones and resources are described in a detailed project plan delivered during this phase.



Design. Deployment configurations are provided, reflecting Empirix's best understanding of the services, network, call volume and traffic flows present or expected in the customer's network. The design phase includes the engineering of the Hammer XMS solution, including the specifications for the rack, power, and cabling of the servers. The management IP addressing for the servers will be assigned, as will VoIP and TDM taps as appropriate. If required, additional output may include recommendations for packet filtering for those cases where the traffic to the switch exceeds a given probe's capacity.

Installation. This represents physical installation of the system and its components. This work is managed and performed by an Empirix Implementation Engineer (IE). Alternatively, the customer, or their approved contractor, could provide the physical installation service themselves.

If this service is not done by Empirix, we recommend the purchase of an on-site training package so Empirix personnel can provide hands-on training for the installation of the system and its components. We also recommend the purchase of remote consulting (see section below) for remote technical support during customer provided installations.

Installation service covers all the steps necessary to rack-mount the equipment, provided connection(s) to appropriate AC or DC power sources and wire all the cables needed for system or networking connections.

Hardware installation guidelines are provided as part of the documentation for each release.

Turn-Up and Commissioning. This represents an Empirix IE being on-site to commission the system, after it has been physically installed.

Once on-site the IE performs the following tasks:

Verifying proper connectivity for traffic capture and preferably, for remote access into the system in order to provide faster service support.

Verifying proper access to signaling and/or media streams, making sure the system is properly configured to ensure correct visibility into signaling and/or media streams and that the intended traffic is being properly monitored.

Configuring and tuning the correlation engine to ensure that the protocols and call models are correlating.

For Hammer XMS Active, configuring and tuning the

scripting engine on the Probes to ensure the protocols and call models that are to be emulated are working properly. Also verifying the establishment of end points in the switching systems by making test calls.

Verifying that diagnostics, analysis, reports, and test call (for XMS Active) results are displayed correctly within the system. If appropriate, verifying the system is properly configured for interoperability with other systems. For example, set up of SNMP for integration with upstream Network Management or LDAP for user authentication and security.

System Test and Acceptance. After the IE and the customer are assured the system is operating properly, the system will go through a final set of tests so that the system can be formally handed over to the customer.

A key output of this step is the creation of a RunBook documenting architectural diagrams of the deployment, configuration of the system, and documenting ongoing interaction with Empirix.

To conclude this phase, a project team meeting will be organized to ensure the production system meets the needs of the business and that the initial business goals are realized with an in-production system.

Setting up Remote Access. In order to provide the most efficient and timely response time from support as possible, remote access should be set up for Empirix Hammer XMS Support. Any number of secure mechanisms are acceptable and already in use by Empirix Hammer XMS Support and will understandably be dictated by individual customer requirements.

If remote access is not set up, there will be an additional fee for Limited Direct Access that will be assessed as part of the annual maintenance service.

Hammer™ XMS Services

Consulting Services

With the exception of remote consulting for support during Installation, consulting services are implicitly provided during the service deployment phases and therefore also available after system acceptance and turn-over.

Consulting services are intended to address a customer's need for finetuning or customizing their deployed solution. Typically, consulting focuses on refinement to the configuration or how applications are being used. Consulting may also address questions such as: how to perform capacity assessment; what are Hammer XMS expansion and deployment options; or how to optimize correlation rules.

Consulting services can be provided either on-site or done remotely via phone or email.

Remote consulting, intended for Installation support, is provided to address questions when a customer, or their agent, is responsible for the installation of Hammer XMS products instead of an Empirix IE.

Training Services

Training can be provided on-site or conducted remotely via Webcasts.

There are four different types of on-site training classes:

User training. Intended for 'basic' users to access, investigate and utilize Hammer XMS and its information effectively. This is a half-day class requiring approximately three hours and is intended to be limited to ten total seats.

Advanced training. Intended for in-depth technical user to fully investigate Hammer XMS. This class is expected to be approximately four hours and is intended to be limited to ten total seats. It is expected that students will meet an acceptable level of technical knowledge for participation.

Administrative training. Intended for those personnel who will be given administrative privileges for the purposes of performing advanced system configuration and/or server management. The activities of this training will build upon the Advanced User training, and require pre-existing comprehensive network and monitoring knowledge. This class will be approximately three hours and will be limited to five total seats.

Installation training. Hands-on training for the physical installation of Hammer XMS equipment, including how to rack-mount the equipment, provide connection(s) to appropriate AC or DC power sources and wire all the cables needed for system or networking connections.

Remote training applies to User, Advanced or Administrative classes.

Maintenance Services

Basic maintenance support service is provided on an annual basis and includes the following items:

New releases and software updates. Installation of new software can be done remotely and is the preferred method. If people are required on-site for software upgrades there will be an additional cost.

eSupport. Secure access to electronic trouble ticket reporting and tracking system. eSupport is only available to customers.

Technical Support. Tier 1 technical support for Hammer XMS is available worldwide, depending upon the customer location.

Technical support can be reached during the following hours at the appropriate phone numbers and email addresses.

–**US and Canada.** Between the hours of 8 a.m. and 8 p.m. ET at 781-266-3202 or support@empirix.com.

–**EMEA.** Between the hours of 8:30 a.m. and 6 p.m. GMT at +44 1344 38 2701 or europeansupport@empirix.com.

Tier 1 technical support for Japan or for Asia/Pacific customers will be provided through local distributors.

Tier 2/3 support is provided for worldwide customers at our Bedford, MA office.

Empirix will use all reasonable efforts to provide its customers with technical advice and assistance in connection with their use of Hammer XMS Software and/or Hardware according to severity level. As such, Empirix commits to the response times listed below based upon the severity level of the problem.

Severity	Definition	Target Response	Target Resolution
*1	Product completely unusable. No reasonable workaround available.	2 business hours	Empirix will make every attempt to provide an acceptable solution within 72 hours. The solution may include a workaround or a custom release of the product.
2	Product use is severely impacted. No reasonable workaround available.	4 business hours	Empirix will make every attempt to provide an acceptable solution within five business days after reproducing the problem. The solution may consist of a commitment to implement a fix into a future release or develop a workaround.
3	Product use is moderately impacted. A reasonable workaround is available.	8 business hours	Empirix will make every attempt to provide an acceptable solution within seven business days after reproducing the problem. The solution may consist of a change to the product code in a future release at the discretion of Empirix. It may also consist of a workaround.
4	Product questions (general) or enhancements.	12 business hours	Empirix will make every attempt to provide an acceptable solution within ten business days. The solution may consist of providing answers to questions, submitting feature requests to product management, and/or making changes to future releases of the product.

*Upon acknowledging receipt of the issue, Empirix will attempt to provide continuous support toward a correction of the problem. The Customer should have someone designated to be available to work with Empirix personnel while working to resolve the issue. The Customer should also make every effort to grant network access to Empirix via VPN connection or browser-to-browser internet meeting (Empirix uses WebEx conferencing).

Hammer XMS After-hours Support. For customers wishing for after hours support for priority 1 (P1) issues, Empirix offers access to expert technical resources for an incremental annual fee.

Remote Access. In order to provide the most efficient and timely response time from support as possible, remote access should be set up for Empirix Hammer XMS Support. Any number of secure mechanisms are acceptable and already in use by Empirix Hammer XMS Support and will understandably be dictated by individual customer requirements.

Limited Direct Access. If remote access is not provided then Empirix will charge an additional fee on an annual basis. This is a support fee per probe for customers who do not allow direct access to XMS systems.



About Empirix

Empirix helps organizations adopt complex communications solutions with confidence. We combine the industry's deepest knowledge of telecommunications and self-service applications with award-winning testing and monitoring solutions to ensure our customers realize the promise of their technology investments. Empirix is the only company with expertise that spans the evolution of these advanced technologies across multiple markets – from testing in R&D labs through monitoring the end-user experience. For over a decade, thousands of quality-conscious network equipment manufacturers, service providers and enterprises worldwide have trusted Empirix to reduce the time and cost of integrating new technologies into existing environments.

Empirix is the leading provider of voice application testing and monitoring solutions. For a complete list of offices worldwide, or to find an authorized distributor in your area, please visit www.empirix.com/contactus.

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