



BreakingPoint Firmware Release Notes

Release 8.10, June. 2016

Release Notes Version 4.0



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Overview

Document Purpose

These release notes provide information regarding the Breaking Point 8.10 release. This includes information about new features, resolved SRs, known defects and workarounds (if available).

Background

Powered by Application and Threat Intelligence, BreakingPoint enables companies to maintain resilient IT infrastructures against escalating threats. Only BreakingPoint security and performance testing products stress and optimize end-to-end IT infrastructures by creating real user actions with a blend of application and attack traffic including malware, mobile malware, DDoS, and more.

Technical Support

To contact the BreakingPoint Support team, e-mail them at support@ixiacom.com or call them at 1-818 595 2599.

Documentation

The following table lists the latest documentation for all BreakingPoint products.

Document	Location
Ixia BreakingPoint User Guide	https://strikecenter.ixiacom.com/docs/BPS_UserGuide_8.10.pdf
Ixia BreakingPoint Storm Installation Guide	https://strikecenter.ixiacom.com/docs/BPSStorm_InstallationGuide_8.10.pdf
Ixia BreakingPoint FireStorm Installation Guide	https://strikecenter.ixiacom.com/docs/BPS_FS_InstallationGuide_8.10.pdf
Ixia BreakingPoint FireStorm ONE Installation Guide	https://strikecenter.ixiacom.com/docs/BPS_FS_ONE_InstallationGuide_8.10.pdf
Ixia BreakingPoint 20 Installation Guide	https://strikecenter.ixiacom.com/docs/BPS_20_InstallationGuide_8.10.pdf
Ixia BreakingPoint Virtual Edition (VE) Installation Guide	https://strikecenter.ixiacom.com/docs/BPS_VirtualEdition_InstallationGuide_8.10.pdf
PerfectStorm - XGS12 Chassis Platform Assembly Guide	http://downloads.ixiacom.com/library/user_guides/IxOS/8.00/EA_8.00_Rev_A/XGS12ChassisPlatformAssemblyGuide/XGS12ChassisPlatformAssemblyGuide.pdf

New Features

This release is mainly focused on BreakingPoint VE features and performance improvements, in addition to a number of market driven enhancements.

Deployment and Provisioning using OpenStack

BreakingPoint VE can now be deployed by OpenStack based orchestrations via Horizon GUI, command line APIs or via sample Heat Orchestration Templates (HOT). This release has been qualified on a vanilla OpenStack Liberty and Mitaka Multi-Node system including with Open vSwitch. It is also compatible with other orchestration systems that are built on top of vanilla OpenStack.

BreakingPoint VE Performance Optimization

In the quest to improve performance we are introducing support for Intel DPDK via VMXNET3 driver on ESXi. This has resulted in 2x improvement in HTTP throughput when Throughput as Performance Emphasis mode is enabled. In subsequent releases you'll see more performance optimizations are being applied.

10GE Performance Tier for BreakingPoint VE

Support for new 10G Subscription license as well as for a new 10G Perpetual license. This license serves as an indestructible 10G unit can't be broken up or shared in smaller increments. It benefits the customer in that it is a more cost effective way to buy units of 10G compared to lots of 1G.

BreakingPoint VE Feature Gap Reduction

LTE support has been enabled through addition of GTP v1/v2 for IPv4 in Network Neighborhood.

BPS Infrastructure Enhancements

Sequential IP generation algorithm in Network Neighborhood allows BreakingPoint to model the behavior of various attacks and applications with a predictable IP addresses usage patterns. This functionality is available for selected components (i.e. AppSim, ClientSim, Recreate, Security NP, Stack Scrambler) and on a per range basis giving customers complete flexibility.

Recreate Component Enhancements

To better address forensics and/or behavior analysis scenarios we have made some enhancements to the Recreate component that is used to replay captured traffic. These enhancements include:

- Replay capture while preserving the server IP addresses in order to realistically model their services and servers (i.e., the real server IPs for Google, Facebook, etc.).

- Relative flow direction is maintained meaning the flow is either client or server initiated, as specified in the packet capture, unlike the current behavior both server/client initiated flows started from the client side.
- Interdependent Flows in Single Mode - now you can have a different source and destination IP address pair for each packet capture flow within one superflow iteration.

User Interface Enhancements

Aside from converting new screens (Test Workspace and Multicast Lab) to HTML5, BreakingPoint UI benefits from new improvements greatly increasing user productivity and ease of use. These enhancements include:

- New buttons to quickly edit Application Profiles, Superflows and Strike lists within Test Components settings.
- Component settings reordering for faster parameter referencing and a consistent look and feel across test components.
- Persistent menu buttons while navigating to Device Status page.

Software Compatibility

BreakingPoint 8.10 Firmware Release is a cross-platform release. Please review the following table to identify the software required for your hardware platform.

Platform	BreakingPoint Firmware	IxOS Software	Flix OS Software
Firestorm chassis (Storm, Firestorm, Firestorm20)	BreakingPoint 8.10	Not applicable	
Firestorm ONE appliance	BreakingPoint 8.10		
XGS12-HS chassis (PerfectStorm Load Modules)	BreakingPoint 8.10	IxOS 8.10EA	Flix OS 2016.1.1001.100
PerfectStorm ONE Fusion appliances	BreakingPoint 8.10	IxOS 8.10EA	Flix OS 2016.1.1001.100
BreakingPoint Virtual	BreakingPoint 8.10	Not Applicable	

Hardware Compatibility

The BreakingPoint 8.10 Release is supported on all hardware platforms and BreakingPoint VE.

3-slot Firestorm Chassis and Firestorm ONE appliance

Part Number	Description
981-0001	BreakingPoint Firestorm, 3-slot chassis
981-0058	BreakingPoint Firestorm ONE, 4-port 10/1 GigE SFP+ appliance
982-0001	BreakingPoint Firestorm 4-port 10/1GigE SFP+ blade
982-0021	BreakingPoint System Controller
982-0037	BreakingPoint Storm, 1 GigE 4-port blade
982-0026	BreakingPoint Storm, 1 GigE 8-port blade
982-0027	BreakingPoint Storm, 10 GigE 4-port blade
982-0040	BreakingPoint Firestorm 20, 20-port 10/1GigE SFP+ blade

12-slot XGS12 chassis and PerfectStorm Fusion Load Modules

Part Number	Description
940-0006	XGS12-HS 12-slot, Chassis Bundle
944-1201	PerfectStorm Fusion, 2-port 40/10GE QSFP+ Load Module (PS40GE2NG)
944-1200	PerfectStorm Fusion, 8-port 10/1 GE SFP+ Load Module (PS10GE8NG)
944-1209	PerfectStorm Fusion, 4-port 10/1 GE SFP+ Load Module (PS10GE4NG)
944-1210	PerfectStorm Fusion, 2-port 10/1 GE SFP+ Load Module (PS10GE2NG)
944-1202	PerfectStorm Fusion, 1-port 100GE CXP Load Module (PS100GE1NG)

PerfectStorm ONE Fusion Appliances

Part Number	Description
941-0028	PerfectStorm ONE Fusion, 40GE 2-port QSFP+ appliance (PS40GE2NG)
941-0027	PerfectStorm ONE Fusion, 8-port 10/1 GE SFP+ appliance (PS10GE8NG)
941-0031	PerfectStorm ONE Fusion, 4-port 10/1 GE SFP+ appliance (PS10GE4NG)
941-0032	PerfectStorm ONE Fusion, 2-port 10/1 GE SFP+ appliance (PS10GE2NG)
941-0033	PerfectStorm ONE Fusion, 8-port 1 GE SFP+ appliance (PS1GE8NG)
941-0034	PerfectStorm ONE Fusion, 4-port 1 GE SFP+ appliance (PS1GE4NG)

For PerfectStorm platform, please refer to the [Product Compatibility Matrix](#) available on Ixia's website. An Ixia website account is required before accessing.

Browser Compatibility

Firmware Release 8.10 continues Ixia's transition to an HTML5-based architecture for the Ixia BreakingPoint user interface. Mac users with OS 10.8.2 can use Firefox or Google Chrome as their browser.

Note: The table below lists the browsers supported by BreakingPoint. Browser versions that are more current than the versions listed in the table may work, but have not been tested at this time. Beta versions of HTML browsers are not supported.

Browser	Recommendation for Windows	Recommendation for MAC
Google Chrome	51.0.2704.84 (64-bit)	51.0.2704.84 (64-bit)
Firefox	47.0	47.0
Microsoft Edge	20	N/A
Safari	Not supported	Not supported
Internet Explorer	Not supported	Not supported

Note: In BreakingPoint 3.5.1, and higher releases, logging in to the management UI will not be allowed from HTML browsers that have a maximum SSL version setting that is limited to only sslv3 (ssl3).

Note: Note that Chrome is supported on Windows and MAC operating systems.

Upgrading to Release 8.10

Before you upgrade to a new firmware release, please create a backup of your current system.

Release Compatibility

BreakingPoint	8.10
IxOS	8.10 EA
Flix OS	2016.1.1001.100
IxLoad	8.10 EA
IxNetwork	8.10 EA
Licensing	4.40 EA

General Notes

Specific instructions for installation on PerfectStorm and FireStorm systems are contained in the sections below.

Note: Be aware that you must upgrade your BreakingPoint system to the latest ATI package before initiating Security component testing.

Backing Up the Ixia BreakingPoint to a NFS Server

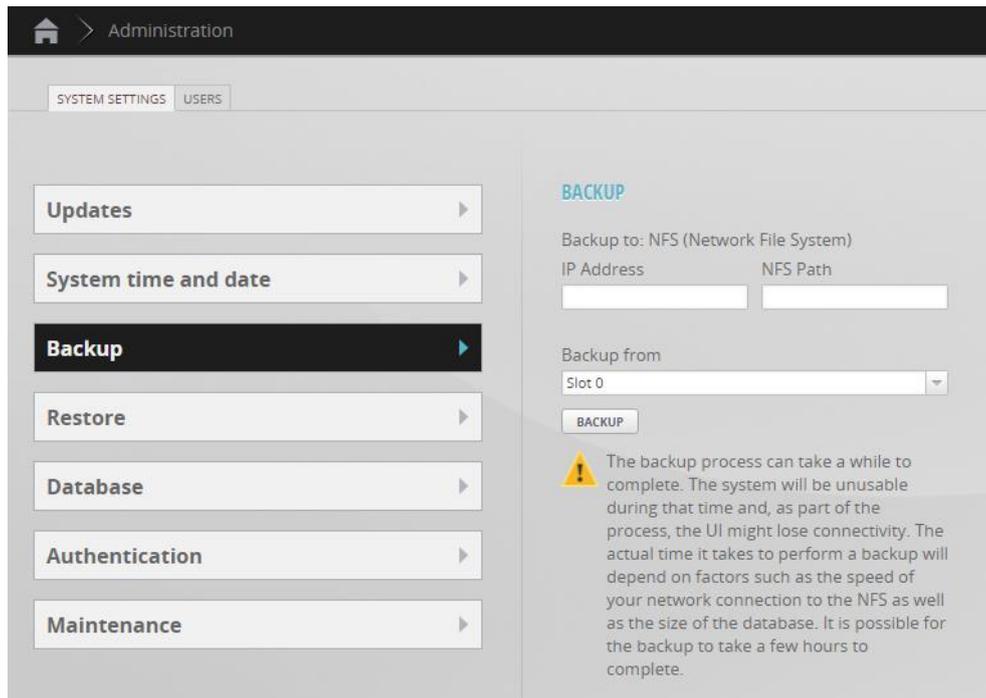
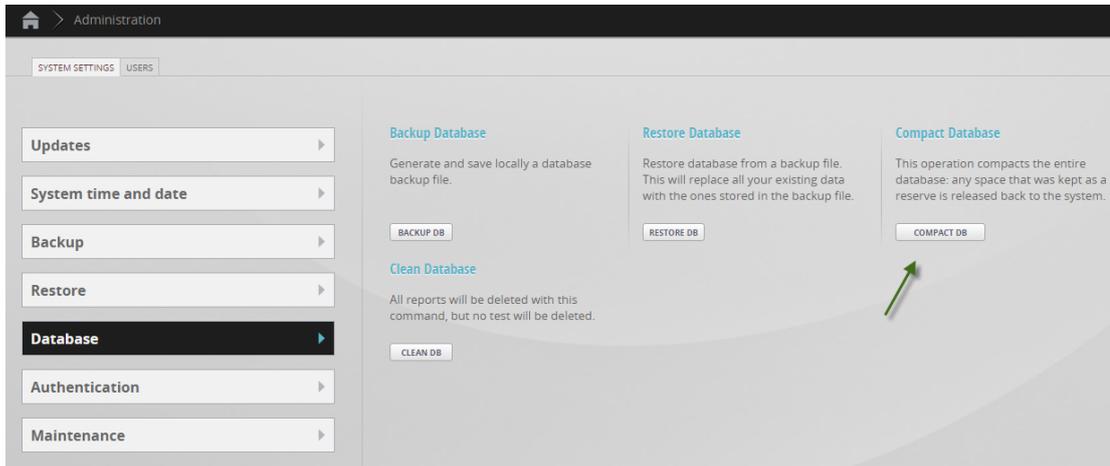
This example uses an Ubuntu Linux computer and the Ixia BreakingPoint system.

Starting from the Linux computer:

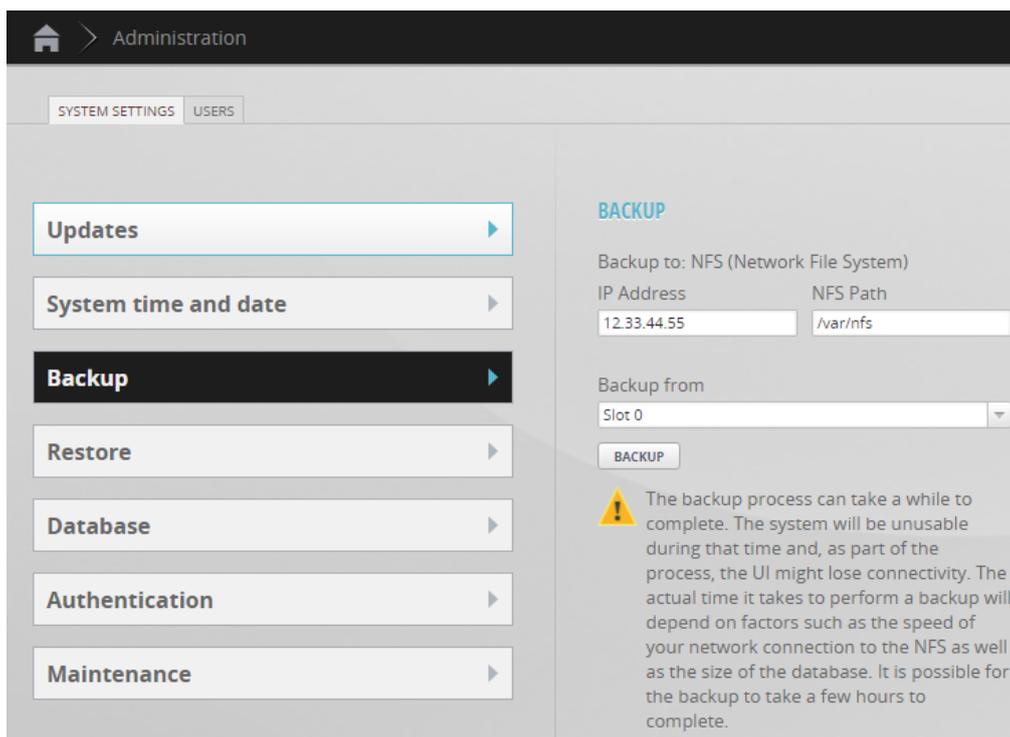
1. Download the required software
 - a. `sudo apt-get install nfs-kernel-server portmap`
 - b. `sudo /etc/init.d/nfs-kernel-server start`
2. Export the shared directory
 - a. `sudo mkdir /var/nfs/`
 - b. `sudo chown nobody:nogroup /var/nfs`
 - c. `sudo chmod 777 /var/nfs`
3. Allow Directory Exporting
 - a. `sudo vi /etc/exports`
4. Add the Following Line to /etc/exports
 - a. `/var/nfs 12.33.44.555(rw, sync, no_subtree_check, insecure)`
5. Export the Shared Directory
 - a. `sudo exportfs -a`

Setup NFS Backup on the Ixia BreakingPoint System

1. Log in to the Ixia BreakingPoint and navigate to **Database** within the Ixia Web Apps (Administration > System Settings).
2. Run the **Compact Database** option (this may take some time to complete).
3. Log in to the Ixia BreakingPoint and navigate to **Backup** within the Ixia Web Apps:



4. Enter the IP address of the NFS Server and the Location of the Shared Directory:
 - a. (example) IP Address: 12.33.44.55
 - b. (example) NFS Path: /var/nfs
 - c. (example) Backup From: Slot 0



Installation on BreakingPoint FireStorm

Ixia strongly recommends that you create backups of your system before upgrading to the 8.10 Firmware release *and* after upgrading to the 8.10 Firmware release.

Note: After upgrading to 3.4.1 and above, Backup and Restore to USB is supported on Firestorm and Firestorm ONE.

The table below describes the steps that are required to upgrade to 8.10 from earlier BreakingPoint Firmware releases.

Current BreakingPoint Firmware	Upgrade Path to BreakingPoint 8.10 Firmware
8.0.x	-> 8.10
3.5.x	-> 8.10
3.4.x	-> 3.5.x or 8.0.x -> 8.10
3.3.x	-> 3.5.x -> 8.10
3.2 or earlier	-> 3.3.x -> 3.5.x -> 8.10

Note: During an update from 3.0, the user may encounter the following system error: "Nov 21 16:03:54 localhost [dbchecker] database connection not

functional, restarting". This is a normal occurrence. Ignore the message and continue with the upgrade.

After upgrading the FireStorm system to version 8.10, you must restart the system in order for all of the subsystems to initialize.

Upgrading multi-blade FireStorm systems to Release 8.10, requires installation of the new firmware to all Firestorm blades. For example, if the Ixia BreakingPoint software needs to upgrade a Firestorm in slots 0, 1, and 2, all blades must be checked before upgrading. The FireStorm in slot 0 will upgrade at a relatively shorter time than the Firestorms in slots 1 and 2.

Installation on XGS12-HS Chassis and PerfectStorm ONE Fusion Appliances

To install BreakingPoint 8.10, you must perform the following steps:

1. Upgrade the FLIX OS to version 2016.1.1001.100.
2. Upgrade the IxOS version to 8.10 EA.
3. Upgrade BreakingPoint software to firmware 8.10.
4. After the BreakingPoint software upgrade has completed, we recommend that you perform a backup.

Upgrading FLIX OS

In order to install BreakingPoint 8.10 on a XGS12-HS chassis the operating system running the chassis controller must be updated to FLIX OS 2016.1.1001.100. The update procedure is described in a document named, "FlixOS-2016.1.1001.100 Upgrade Guide", which is available on the [StrikeCenter BreakingPoint OS Updates](#) site.

Note: New PerfectStorm and PerfectStorm ONE systems currently shipped to customers do not require a FLIX OS update. The systems ship with the latest FLIX OS version. Customers who currently use the PerfectStorm system must upgrade the FLIX OS.

Upgrading IxOS 8.10 EA

Software and Installation Instructions are located at the following location:

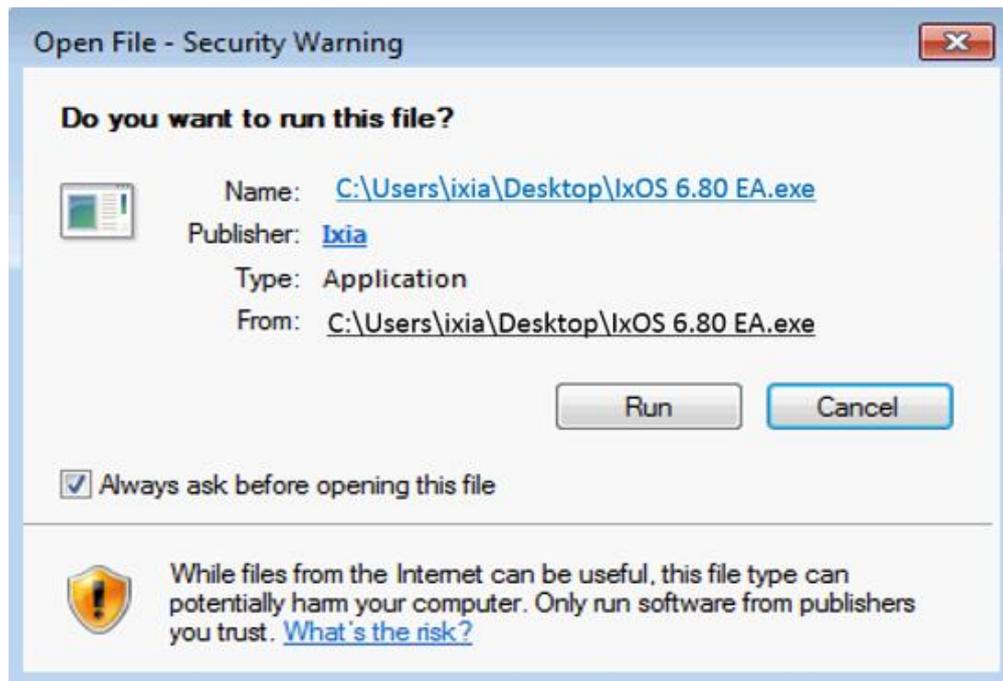
<http://support.ixiacom.com/support-overview/product-support/downloads-updates/versions/21>

Note: The version numbers displayed in the images below may differ from the version numbers that are displayed when you upgrade IxOS 8.10 EA.

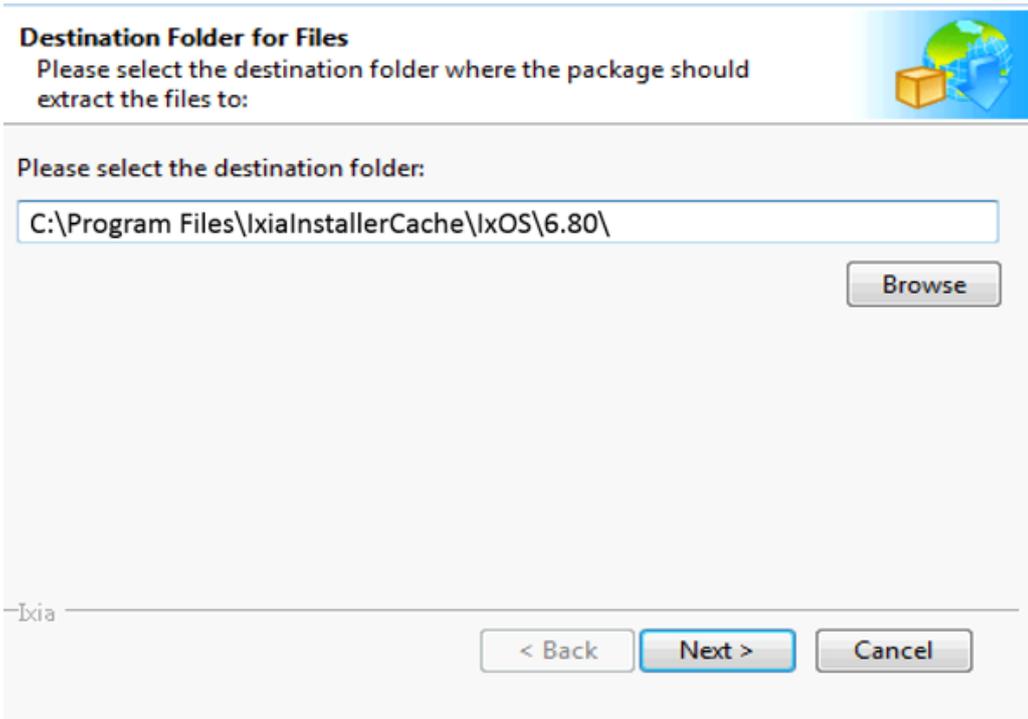
Note: BUG1354074: A Stop Error (Blue Screen) may occur while upgrading IxOS due to a Microsoft Windows issue. A Microsoft hotfix is available to resolve this issue, see [Windows Update kb2675806](#).

Starting From the Windows VM:

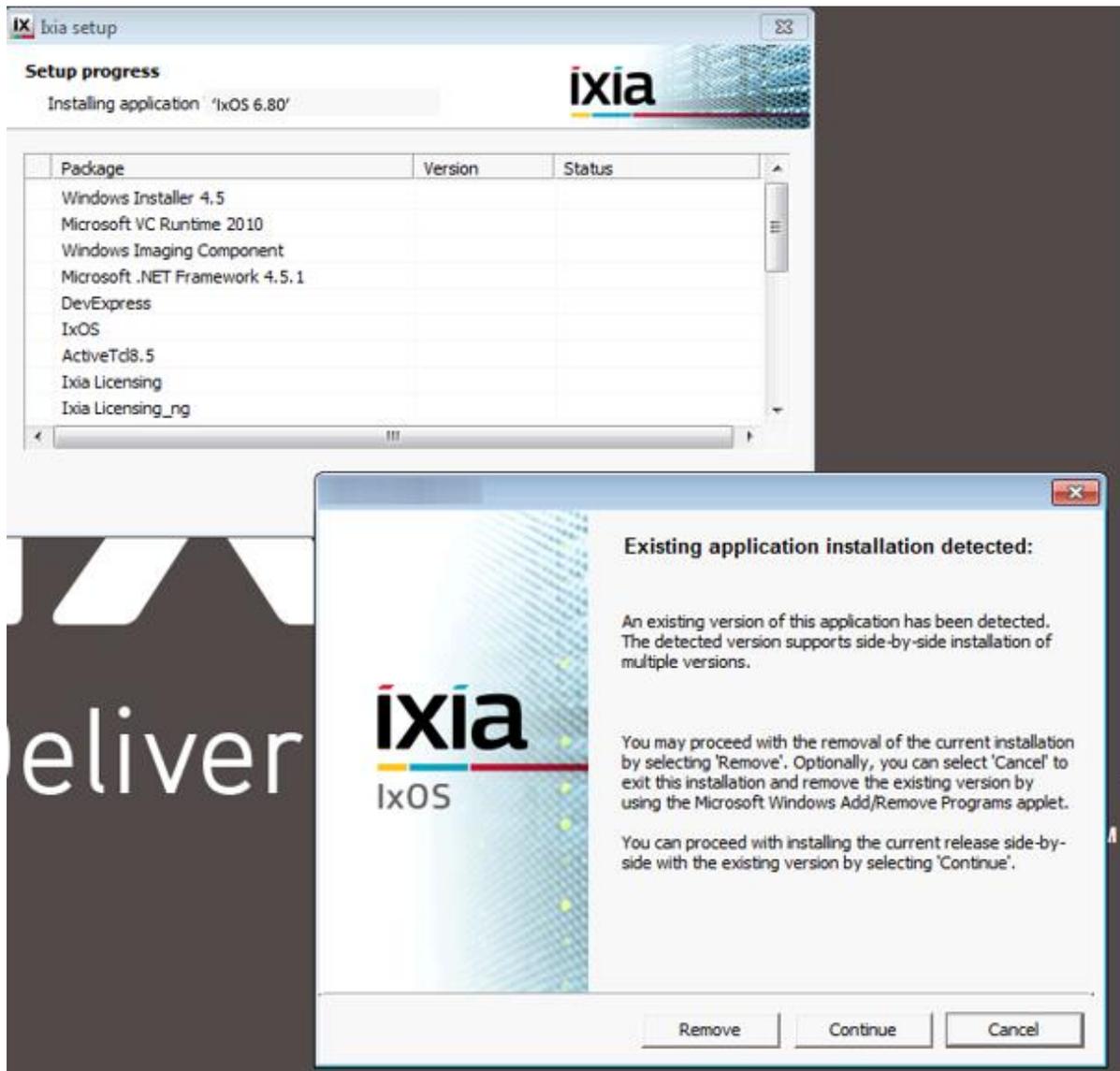
1. Open Remote Desktop and Login to the Ixia Windows VM.
2. Copy the IxOS executable to the Desktop.
 - a. You may need to copy the *.exe file onto the Ixia Windows VM.
 - b. The file can be directly downloaded on the VM using the link above.
 - c. If no direct network access to ixiacom exists, then a shared file system with the Ixia Windows VM is needed to gain access to the VM.
3. Stop IxExplorer and IxServer.
 - a. Use a graceful shutdown, File -> Exit
4. Run *.exe.



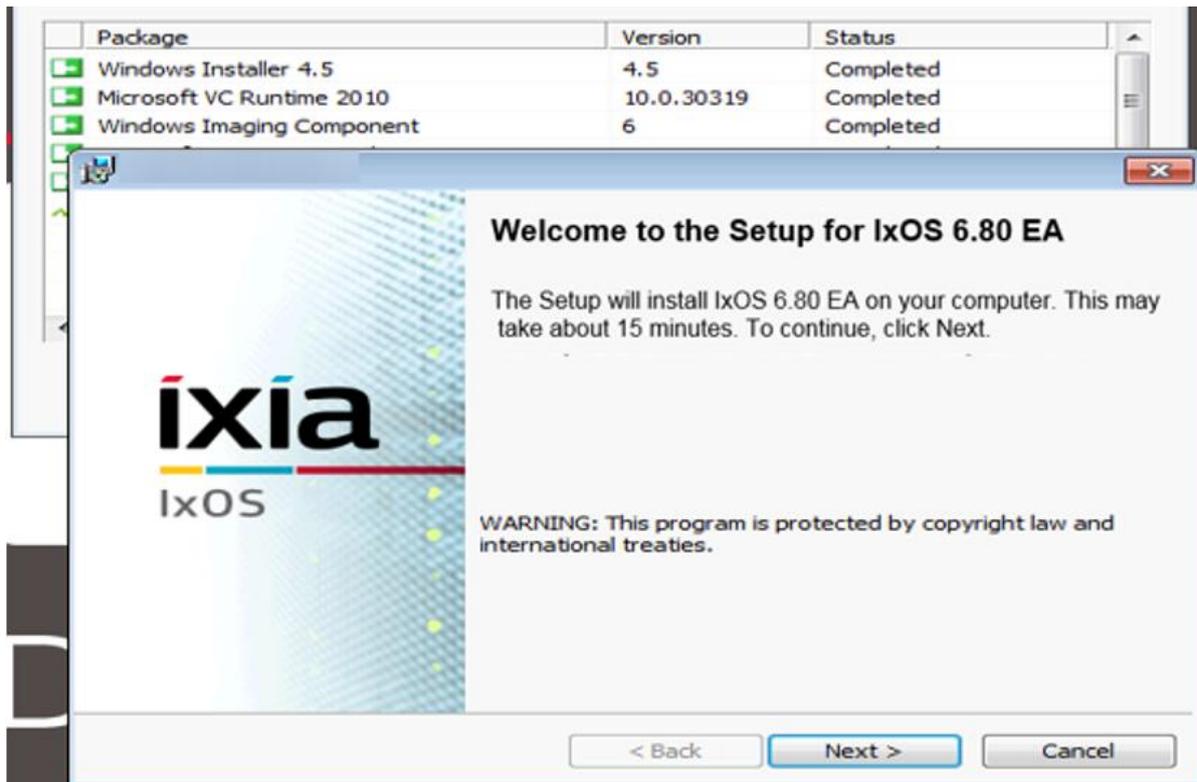
5. Click the **Run** button.



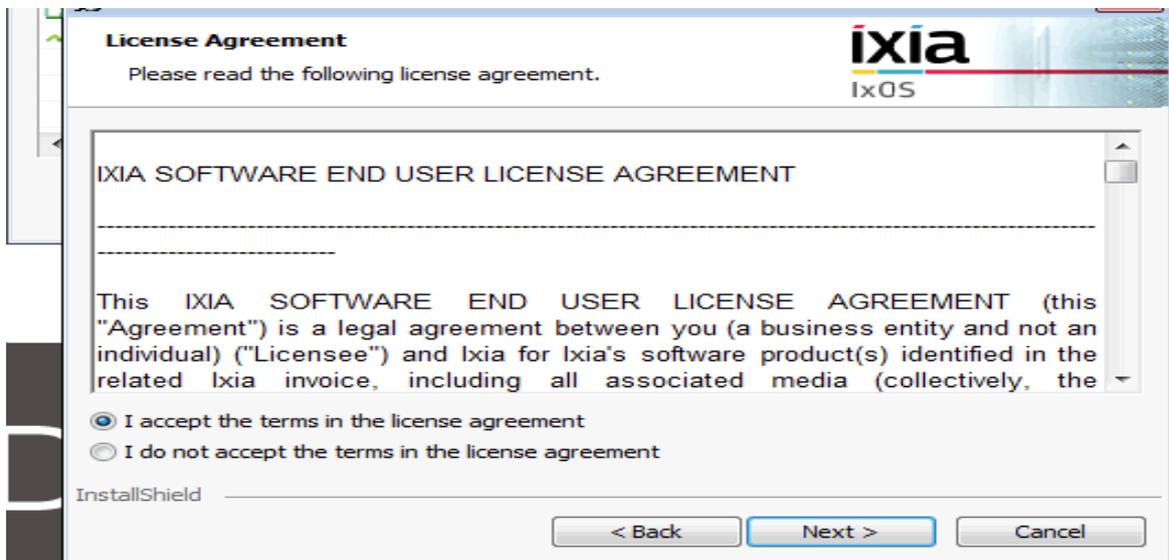
6. Accept the Default Destination Folder for the Installation. Click **Next**.



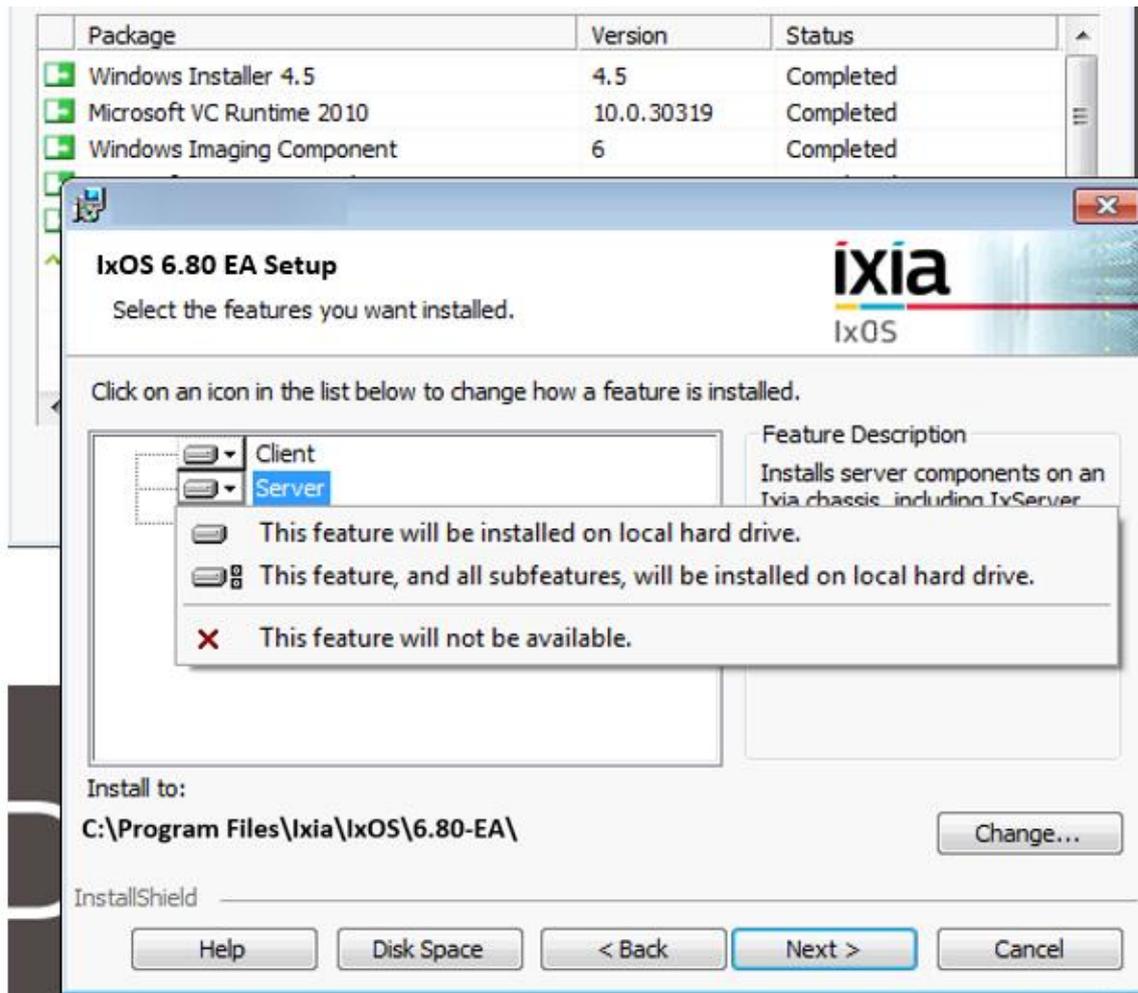
- a. Select **Continue** on the "**Existing application Installation detected:**" window.



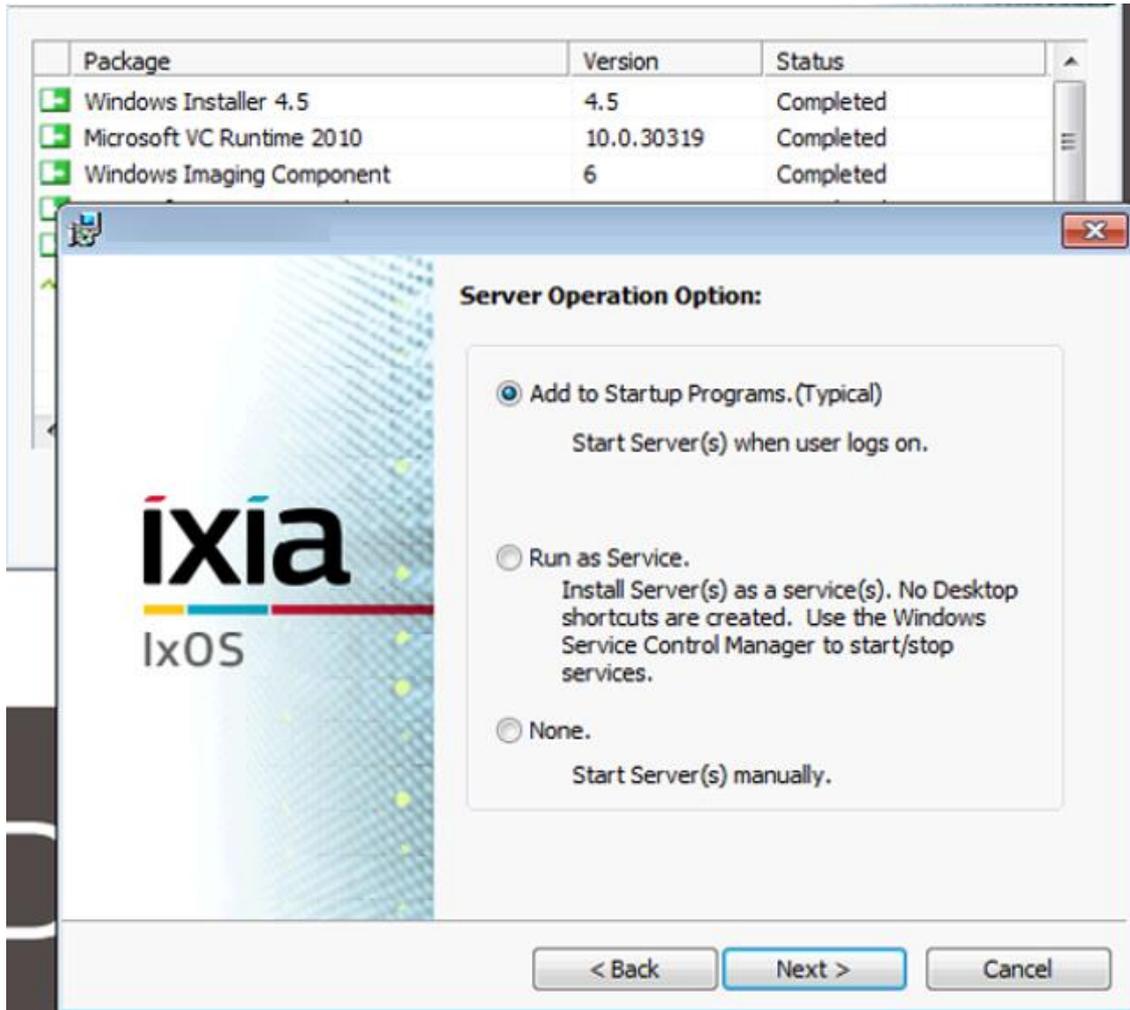
7. Click **Next** on the “**Welcome to the Setup for IxOS x.xx..**” window.



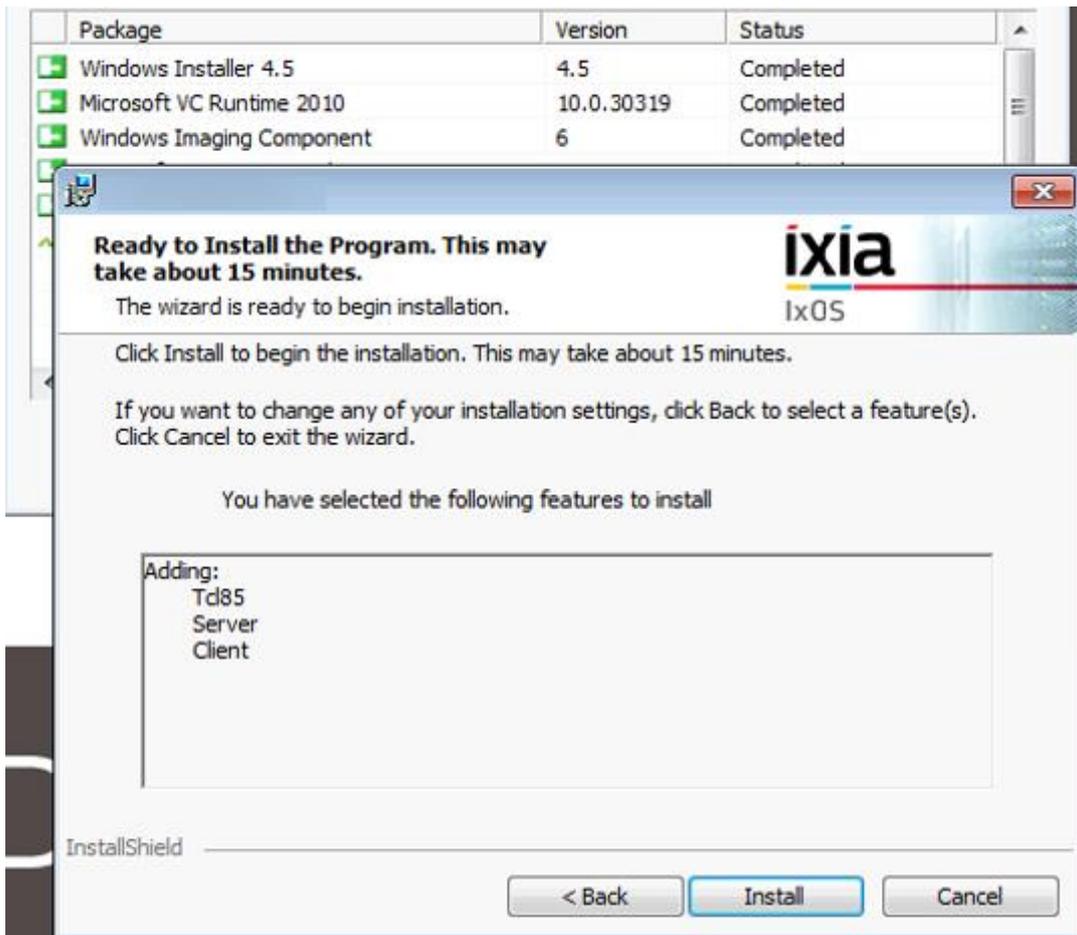
8. Accept the License Agreement, then click **Next**.



9. Set Client and Server to install and **"This feature, and all sub features, will be installed on local hard drive"**, then click **Next**.
 - a. Note: TCL server install is optional.



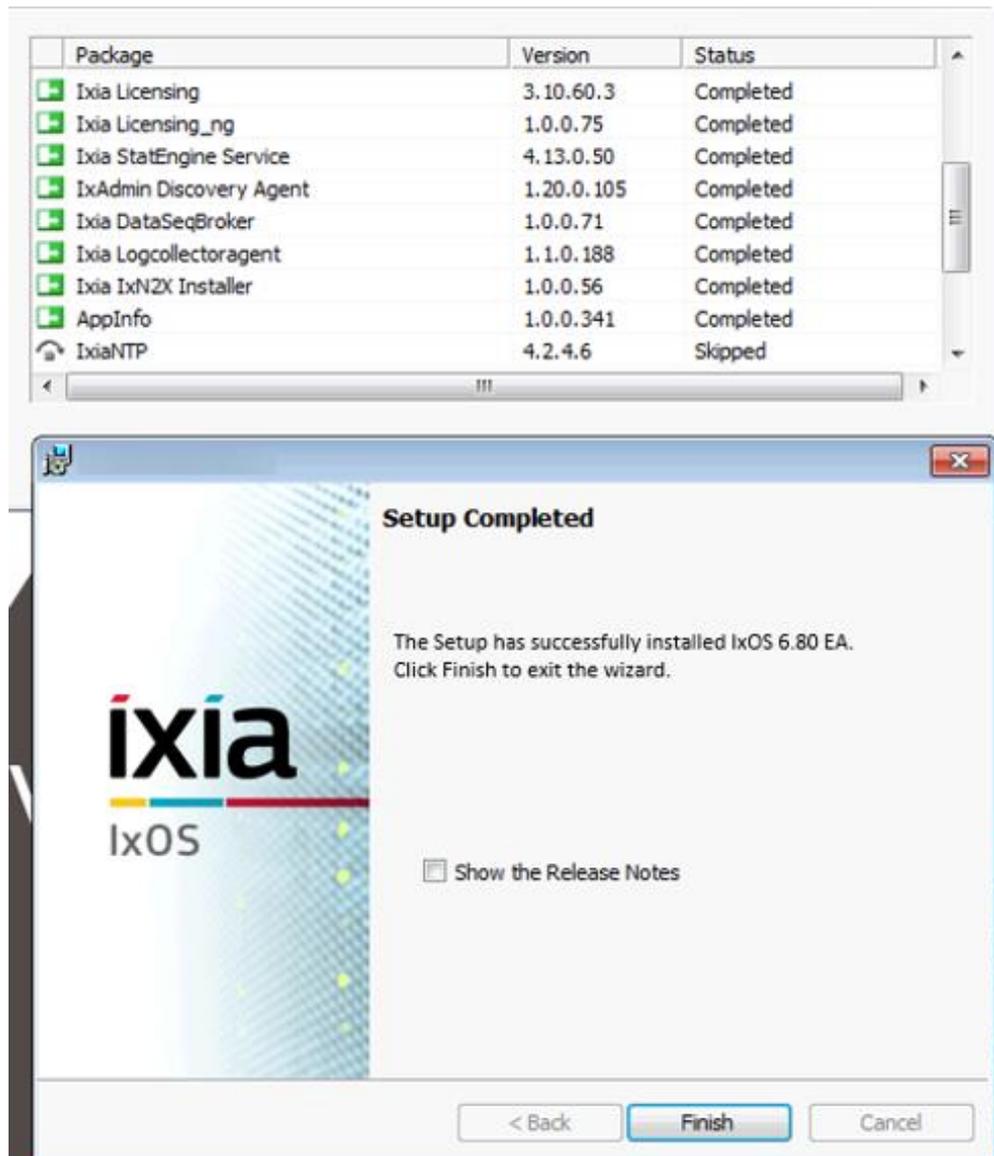
10. Select the following option: **"Add to Startup Programs.(Typical)"**, then click **Next**.



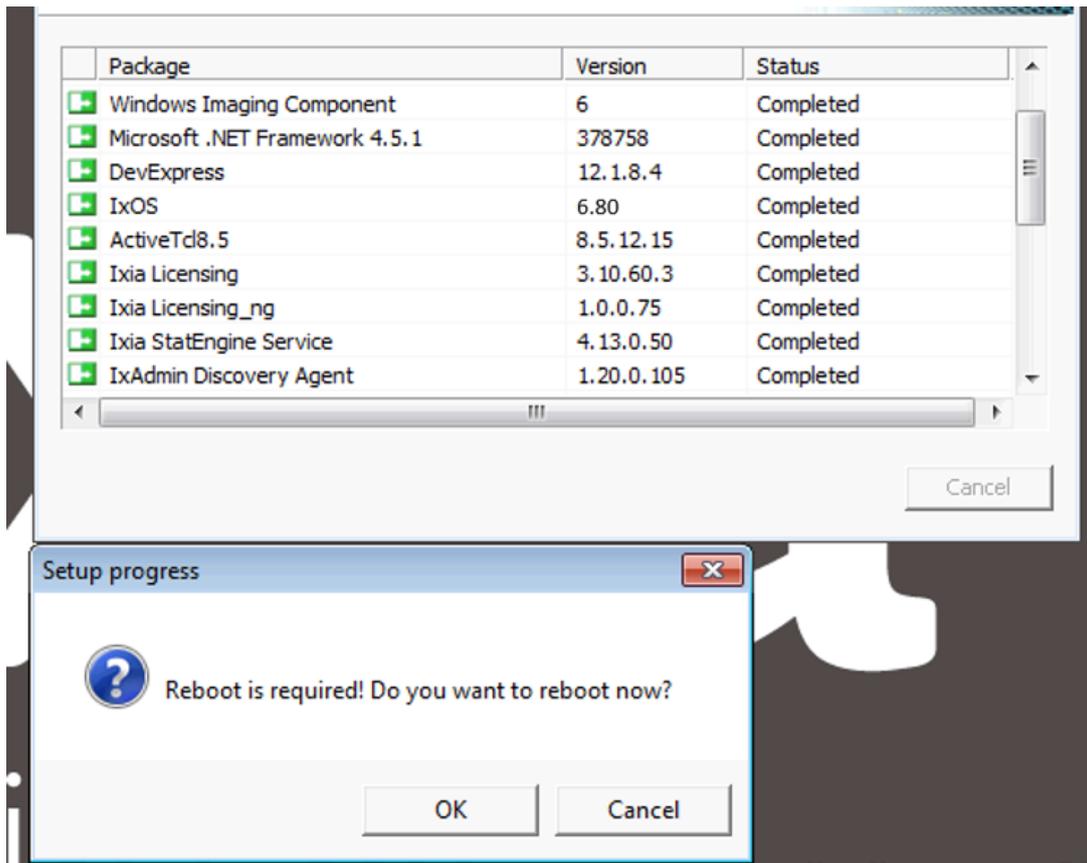
11. After some essential components complete installation, the IxOS server will be ready to install, click **Install**.



12. After several minutes of installation, new IxOS application links will be copied to the desktop.



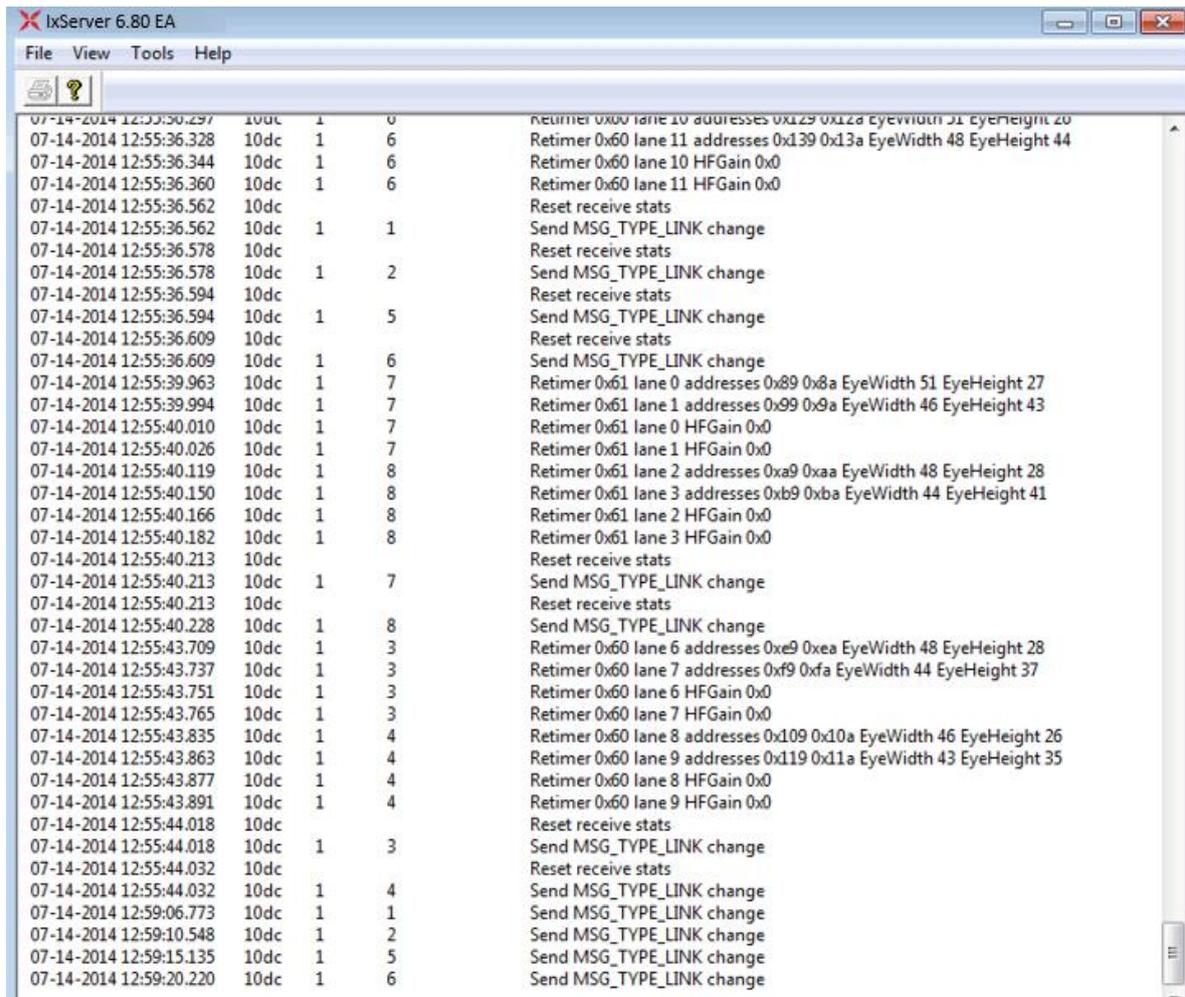
13. After the installation has completed, click **Finish**.



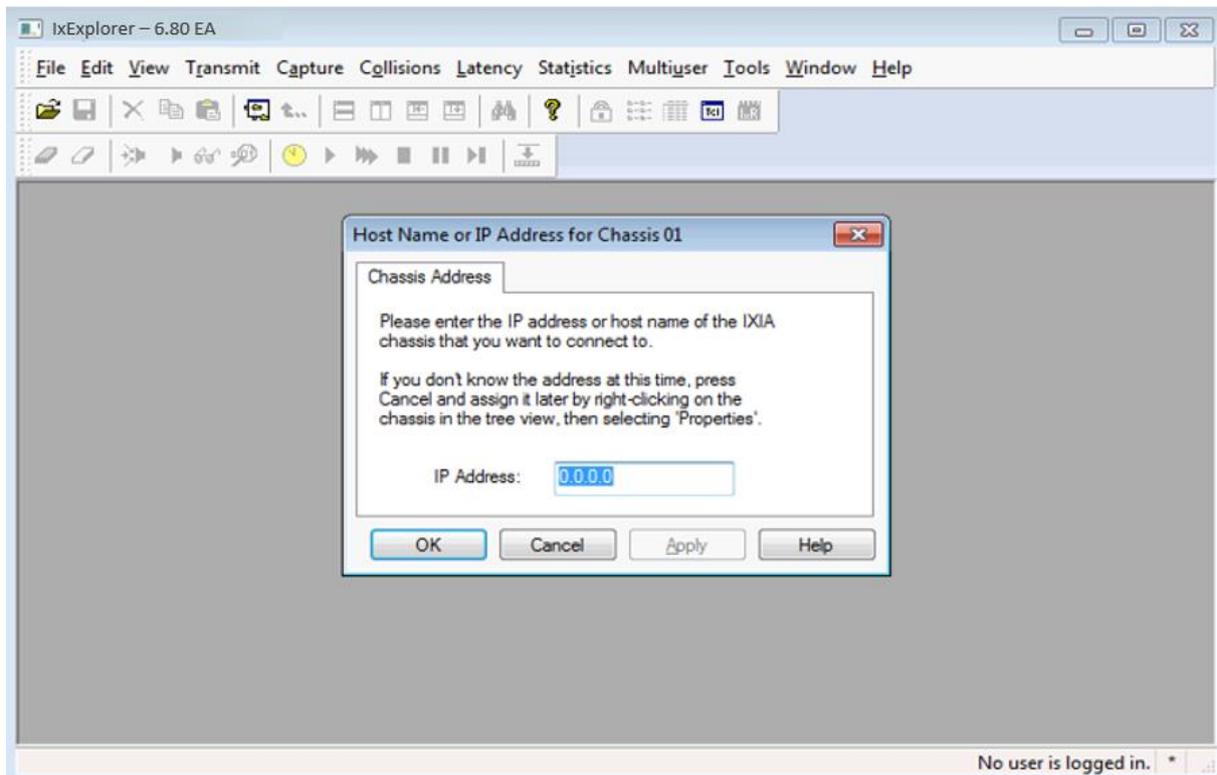
14. The system will ask the user to reboot the Windows VM.

15. After the Windows VM reboots IxServer will start automatically and will continue setting up the system hardware.

- a. Note: Starting IxServer the first time after installation will be slower and may take more than 10 minutes for each slot to be prepared to run with the new IxOS version.



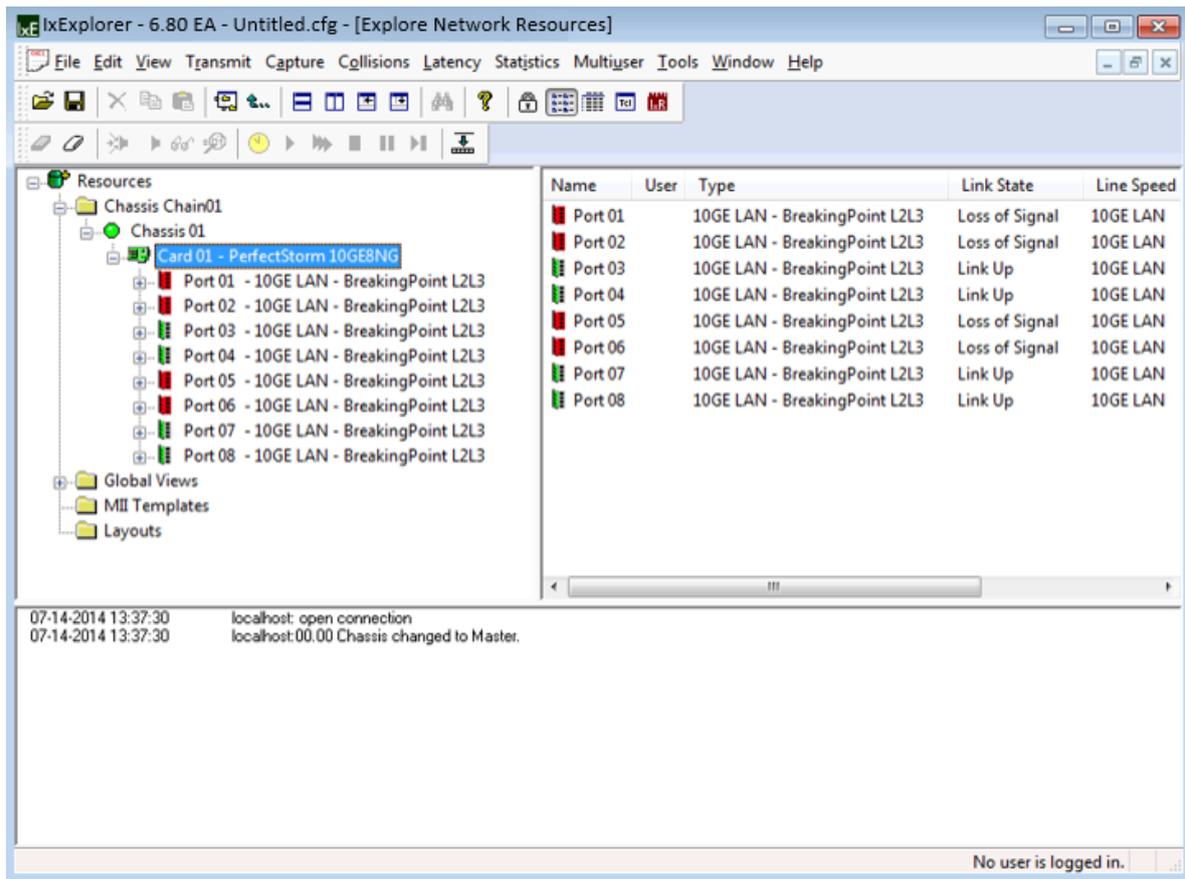
16. The image above shows an example of an IxServer that has completed initialization.



17. Then open IxExplorer and make sure that it is the same version as IxServer.

- a. In the **IP Address** field, type: `localhost`
- b. **Click OK.**

Saving the configuration for a later time is optional, we selected **No** for this example.



18. IxExplorer will show the status of the blades connected to the chassis along with the mode they are running in.

- a. Seeing a green status indicator for Chassis indicates the blade is communicating with IxServer.
- b. Green Ports indicate Link Up status.
- c. Red Ports indicate Link Down status.

Upgrading BreakingPoint Virtual Edition

Note: You must have BreakingPoint VE controller version 3.4.2 or higher to perform this upgrade.

1. Download the BreakingPoint Virtual Edition VM update file.
2. Log in to the Ixia BreakingPoint VE System.
3. Navigate to **ADMINISTRATION -> SYSTEM SETTINGS -> UPDATES**.
4. Select **UPDATE SYSTEM** and then see the image below.
 - a. After you have created a backup of your vController, select the, **I already created a backup**, option.
 - b. **Browse** to the location of the BreakingPoint VE update file and select **OK** to start the update.

UPDATE SYSTEM

⚠ Please make sure you created a backup of your vController before starting the update process!

I already created a backup

	SLOT	VERSION	PROD BUILD	STRIKE BUILD
<input checked="" type="checkbox"/>	0	3.4.2	236924	236208

Local File **BROWSE**

Web Location

Server Location

OK CANCEL

5. The BreakingPoint VE update will take 15-20 minutes to complete.
6. To verify that the update has been installed, see the version information in the **Installed Applications** section of the **UPDATES** tab.

Upgrading the BreakingPoint System

To update the Ixia BreakingPoint System.

1. Download the required Ixia BreakingPoint image.
2. Log in to the Ixia BreakingPoint System.
3. Navigate to **ADMINISTRATION -> SYSTEM SETTINGS -> UPDATES.**
4. Select **UPDATE SYSTEM** (see **figure 1** below).
5. Browse to the location of the BreakingPoint update file and select **OK.**
6. The BreakingPoint update will take 30-45 minutes to complete.

Update Packages

The Application and Threat Intelligence (ATI) program provides updates every 2 weeks ensuring delivery of the industry's most up to date application and threat intelligence.

We recommend that customers install the latest ATI update since some BreakingPoint issues are resolved by installing ATI updates (see **Update Packages** in **figure 1** below). ATI Update Packages are obtained from the ATI Strike Center at: <https://strikecenter.ixiacom.com/bps/strikepacks>.

Figure 1: Ixia WEB APPS Start Page

The screenshot displays the Administration interface of the Ixia WEB APPS. The top navigation bar shows 'Administration' with a home icon. Below it, there are tabs for 'SYSTEM SETTINGS' and 'USERS'. The main content area is divided into two columns. The left column contains a sidebar with several menu items: 'Updates' (highlighted in black), 'System time and date', 'Backup', 'Restore', 'Database', 'Authentication', and 'Maintenance'. The right column is titled 'SYSTEM INFORMATION' and contains a table with the following data:

Property	Value
Application Version	8.10.0
BPS Product Build	270437
ATI Strike Build	270341
WAF version	1.3.0.409
OS Type	PerfectStorm
Serial Number	BPSVM000000
Disk Usage	20.26% used

Below the table are three buttons: 'UPDATE SYSTEM' (highlighted with a red box), 'FACTORY REVERT', and 'WIPE SYSTEM'. Below this section is another section titled 'INSTALLED APPLICATIONS' with a table:

Application	Version
LICENSING	Version: 1.2.1.42
BREAKINGPOINT	Version: 8.10.0
ATI STRIKE BUILD	Version: 270341

At the bottom of this section is a button labeled 'UPDATE PACKAGES' (highlighted with a red box).

Switching to BreakingPoint Mode

All PerfectStorm Fusion load modules (blades) are capable of operating in IxLoad or BreakingPoint mode. When booting up, all PerfectStorm Fusion load modules default to IxLoad mode.

Note: Load modules retain the mode they were in prior to being rebooted.

On PerfectStorm (XGS12-HS), a red square in the upper right corner of the load module on the Device Status screen indicates that the module is in IxLoad mode. A green square indicates that the module is in BreakingPoint mode. On PerfectStorm ONE, the text "IxLoad Mode" at the bottom left side of the chassis on the Device Status screen indicates that the unit is in IxLoad mode. The text "Settings" indicates that the PerfectStorm ONE unit is in BreakingPoint mode.

To Transition from IxLoad Mode to BreakingPoint Mode:

1. Click a port on the load module to begin the transition process. The **Reboot Slot** window will display.
2. Change the Slot Option setting to **Mode**. Select **BreakingPoint Mode** or **BreakingPoint L2/L3 Mode**.
3. Click **Apply** and wait for the mode change to complete.

Note: The transition from IxLoad mode to BreakingPoint mode takes approximately three minutes for each load module.

Note: To transition multiple load modules to BreakingPoint mode on PerfectStorm, each load module must be allowed to completely transition before the mode change process for the next load module can begin. Transitioning multiple modules simultaneously is prohibited.

Resolved Defects

The following table lists defects from previous releases that have been resolved. If you have any concerns or questions regarding the defects listed here, please contact the BreakingPoint support team at support@ixiacom.com or call them at 1-818 595-2599.

Reference #	Description
SR712589	Resolved the Tcl API issue where 'listLoadProfiles' failed due to an "unexpected condition".
SR710847	Resolved the issue where running the getReportTable Tcl command produced a "can't read 'series(0)': no such variable" error.
SR704652	Resolved the issue where a TLS1.2 server cipher from a superflow did not match the cipher sent in the TLS SERVER HELLO.
SR704213	Fixed the issue that prevented a BPS SSL sever from accepting only one specific cipher suite.
SR703821	Resolved the issue where an AppSim NP shutdowns due to signal "terminated".
SR701461	Resolved the issue on BPS VE where selecting the bi-directional option in Routing Robot, did not produce bi-directional traffic.
SR700237	Resolved the issue on BPS-VE where extra IP addresses (outside the scope of what was configured), were added to RFC2544 tests. The extra IP addresses affected ARP and resulted in packet drop.
SR697555	Resolved the issue where a majority of the packets sent from a RFC2544 test with VLAN and 64 byte packets were dropped with bad checksums.
SR685021	Resolved the issue where running, ADMINISTRATION > SYSTEM SETTINGS > WIPE SYSTEM reports "Operation in Progress - wiping system" but never completes the task.
SR683367	Resolved the issue where running a RFC2544 test with Packet Type configured as TCP, produced packets with an invalid TCP header length.
BUG1395382	Fixed broken/misdirected links to Help topics.
BUG1394050	Resolved the issue where a HTTP ERROR 404 message was received after clicking the Help button inside the Impairments and Packet Filter pop-up windows.
BUG1367507	Resolved the issue where the Port Menu button inside the Device Status page was not always visible.

BUG1345743	Resolved the issue where buttons from the header menu were unavailable for short a period of time after opening the Device Status.
BUG1334135	Be aware that the Strike List search functionality has been improved in order to reduce false positives and search results that are too broad. The example below describes the current functionality: Searching for "reftype:'CVE 2016'" returns all 2016 CVEs Searching for "reftype:'CVE 2016-1010'" returns only one result searching for "reftype:'CVE 1010'" returns no results

Known Issues and Defects

The following section details the known issues and defects of Firmware Release 8.10. Workarounds are listed for each defect if they are available. If you have any concerns or questions regarding the defects listed here, please contact the BreakingPoint support team at support@ixiacom.com or call them at 1-818-595-2599.

Multiple Platforms

Reference #	Description
BUG1368600	SSL server may retransmit FIN-ACKs after a connection has been closed. This can occur because the client or server needs additional time to process the packet in the queue. Workaround: Increase the retry quantum.
BUG1396164	When running a BPS VE test make sure not to enable the "Data Rate Unlimited" option since this might lead to a higher number of licenses being used by that test than the actual achieved traffic values.
BUG1396697	In a scenario where a dynamic interface is running with a security component, some initial strikes may be blocked due to the fact that the interface is still initializing. Workaround: Delay the start of strikes in your test for approximately 5-10 seconds.
BUG1398364	BPS intermittently gives warning messages about missing files in disabled components although all tests are currently running without error. These messages can be disregarded.
BUG1403289	In a test scenario where the defined Network Neighborhood IP ranges are the same as the IP ranges of captured server data, BPS will report failures and TCP resets to due to the IP range overlap. Workaround: In this scenario, reconfigure the IP ranges to avoid the IP range overlap.

BUG1403522	<p>When running tests with "Performance Acceleration" mode enabled, in order to avoid transaction failures caused by a higher rate of packet injection, it is recommended to use "Balanced" as "Performance emphasis" instead of "Throughput" in the component UI for the following scenarios:</p> <ul style="list-style-type: none"> • For Virtual DUTs that do not use Large Receive Offload (LRO) • For setups where both physical NIC and Hypervisor are not TCP Segmentation Offload (TSO) enabled and testing External connected DUTs (including virtual DUTs on different hypervisor)
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Operational Considerations

Reference #	Description
1309762	When PerfectStorm is in L2/L3 mode, only one network processor is available to generate application traffic. Therefore, maximum performance/throughput is expected to be lower for L4/L7 test components while L2/L3 tests will perform as expected.
1396164	In a scenario where the configured throughput of a test exceeds link speed, the licenses that are allocated (checked out) are based on the link speed that can be achieved on the NIC.
1397517	<p>Currently, the BPS UI will not allow you to add a user if there are uppercase letters in the name.</p> <p>Workaround: Use lower case letters in user names.</p>
1398134	Note that GTP tunnel creation is not dependent on the number of sessions. BPS creates tunnels irrespective of session rate.
1399069	<p>When running BPS VE on EXSi 5.5, L2/L3 components drop a large number of packets due to the vSwitch.</p> <p>Workaround: To work around this issue, use ESXi 6.0.</p>
1399525	On BPS VE, the Security component should be shared with other test components in order for security packets to be successfully delivered.
1401796	When in "Performance Acceleration" (DPDK) mode, increasing available resources for BPS VE may not help to successfully deploy vBlades.
1401956	When a BPS VE host supports required CPU flags, you must select "Copy host CPU configuration" in the Virtual Machine Manager in order to deploy a vBlade.
1402051	Due to a queuing mechanism in "Performance Acceleration" (DPDK) mode, intermittently, response times may be slow if there are a large number of requests in queue. Tests that have a short duration may appear to stop without proper closure of sessions.

1402873

Note that starting with 8.10 release, BPS VE support on is only available on DPDK enabled hardware.