Xperience™ User Interface Requirements, Assessment Process, Implementation Plan, and FAQ

SilverLake System®, CIF 20/20®, & Core Director®

Last Updated: February 2017
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General Information

Xperience Framework

Xperience is a framework that runs multiple software products or multiple sessions of the same product, simultaneously. The framework coordinates Windows® web applications and services, giving each application a consistent appearance. It also facilitates communication between the products.

In addition to providing a user interface, Xperience employs a single sign-on system. Once you log on to Xperience, all products that you have access to can be launched with just a few clicks and without the need to log on to each product separately.

Xperience Products

The Xperience Framework hosts many Xperience products:

- 4|sight Xperience (in-house)
- CIF 20/20
- CIF 20/20 Teller (formerly Vertex)
- Core Director
- jhaEnterprise Workflow
- jhaCall Center
- OnBoard Deposits
- PowerOn
- SilverLake
- SilverLake Teller (formerly Vertex)
- Synapsys CRM
- Synergy ECM

Depending on the JHA products you have and their current release levels, your organization may have one or many of these Xperience products.
**System Requirements**

Xperience works with several configuration options. Most of those options are outlined in the *Best Practices References* section, but if you still have questions, then let your sales representative know.

**Server Requirements**

A typical Xperience setup consists of two application servers and one database server. The application servers are network load balanced using Microsoft® NLB software to prevent downtime if one application server goes down for any reason. If the financial institution has their own physical network load balancer, then that may be used in place of the Microsoft® NLB software.

Xperience resides on the same servers as jXchange. Due to the criticality of Xperience and jXchange, the application servers are to be dedicated and not shared to host other applications or services. The database server may be shared with other applications, as long as it has ample resources to supply the needs of all its applications.

For single sign-on to work with Xperience, the three servers must reside on the same domain as Active Directory, whether that is in-house or at a cloud services provider.

**Disclaimer:**

Cisco® NX-OS Release 6.1(2)I2(2b) supports flooding for Microsoft® Network Load Balancing (NLB) unicast mode on Cisco® Nexus 9500 Series switches but not on Cisco® Nexus 9300 Series switches. NLB is not supported in max-host system routing mode. NLB multicast mode is not supported on Cisco® Nexus 9500 or 9300 Series switches.

To work around the situation of Unicast NLB limitation, we can statically hard code the ARP and MAC address pointing to the correct interface. Refer to bug ID CSCuq03168 in detail in the “Open Caveats—Cisco NX-OS Release 7.0(3)I1(1)” section. Affected NX-OS versions (as of 25Jun2015) are: 6.1(2)I2(1), 6.1(2)I2(2), 6.1(2)I2(2a), 6.1(2)I2(2b), 6.1(2)I2(3), 6.1(2)I3(1), 6.1(2)I3(2), 6.1(2)I3(3), 6.1(2)I3(3a), 7.0(3)I1(1).
Physical Server

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows Server® 2008 R2&lt;sup&gt;2,5&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Windows Server® 2012&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Windows Server® 2012 R2&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>CPU</td>
<td>Multiprocessor/Multicore 2 GHz or higher&lt;sup&gt;1,7&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>100 GB Application Servers&lt;sup&gt;11&lt;/sup&gt; / 150 GB Database Server&lt;sup&gt;1,9&lt;/sup&gt;</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB&lt;sup&gt;1,10&lt;/sup&gt;</td>
</tr>
<tr>
<td>Network</td>
<td>At least one 1 Gb Network Adapter&lt;sup&gt;3,4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Microsoft® .NET Framework</td>
<td>Microsoft® Internet Information Server 7.5 Application and Web Server (IIS)</td>
</tr>
<tr>
<td>Windows® Roles</td>
<td>SQL Server® 2008 R2&lt;sup&gt;5,8&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>SQL Server® 2012&lt;sup&gt;6,8&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>SQL Server® 2014&lt;sup&gt;6,8&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

If virtual, dedicate resources.

Servers are to be dedicated to jXchange and not shared to host other applications or services.

NLB Unicast mode 2 NICs.

jXchange will use TCP/80, 443 as listeners.

2008 x64 is not supported. Only 2008 R2 is supported as x64.

Copy media to server or have available during install. Do not install, JHA will load during jXchange install.

If virtual, 2 vCPUs minimum.

If SQL is distributed, these items are not required to be available.

OS and data partition may be used instead of single. Minimum 100 GB each partition.

Machine needs to be scalable to higher amounts if needed.

Virtual Server

Same as physical server specifications listed, but note:

- Resources need to be dedicated to these services, not shared with other virtuals.
- Two vCPUs are required at a minimum.

Xperience Edge Server

When physical desktops will be deployed on client workstations, then an Edge Server is highly recommended at each branch location where bandwidth is low. An infrastructure assessment can determine which locations, if any, an Edge Server is recommended.

The Edge Server is meant to reduce the bandwidth needs and alleviate a possible bandwidth bottleneck when client workstations are updated. In a typical financial institution, a high percentage of workstations will be started at approximately the same time. When updates have been pushed, those clients will all get the update and have it applied before Xperience is ready for use. (A typical payload is 35 MB per client per product pushing an update.)

Locations that have an Edge Server receive a single set of update packages, and then all client workstations within that branch get their updates from the Edge Server. With all machines on
the same network backbone in that branch, the update is quickly received and applied, allowing workstations to be ready for work with minimal delay.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows® 7&lt;br&gt;Windows® 8&lt;br&gt;Windows® 8.1&lt;br&gt;Windows® 10&lt;br&gt;Windows Server® 2008R2 SP1&lt;br&gt;Windows Server® 2012&lt;br&gt;Windows Server® 2012R2</td>
</tr>
<tr>
<td>Microsoft® .NET Framework</td>
<td>4.5</td>
</tr>
<tr>
<td>SQL Software</td>
<td>SQL Express or SQL Server® must be installed or remotely available for the server to connect to</td>
</tr>
<tr>
<td>Other</td>
<td>Certificate using the FQDN</td>
</tr>
</tbody>
</table>

**Client Requirements**

Resource consumption on client workstations is highly dependent upon the types of applications used by the user community, and the individual user’s habits. To see and maintain high system performance, users need to be aware of the number of applications and tabs within Xperience that are open. This applies to Xperience and non-Xperience applications including Microsoft® products.

**RAM Considerations**

Windows® clients with a 32-bit operating system are limited to 4 GB of RAM. Once physical memory consumption reaches 80%, the OS starts to store information to the physical hard drive. This causes a slow-down in performance as more physical memory is consumed and more data goes to disk. A light amount of paging is expected in an OS, but a heavy amount of paging causes a noticeable degradation in performance. Essentially, the effective memory on a 4-GB system is 3.2 GB before paging starts. For this reason, 64-bit operating systems are required for the client workstations.

Windows® client operating systems consume about 1.5–2 GB of RAM. VMWare provides guidelines for 400–500 MB per session for nine applications that includes Microsoft® Office and Adobe® Acrobat®. It might be different for your applications, so select appropriately based on the working set of your applications.

<table>
<thead>
<tr>
<th>GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Operating System</td>
</tr>
<tr>
<td>Typical Application Mix</td>
</tr>
<tr>
<td>Xperience Framework and Help System</td>
</tr>
<tr>
<td>Xperience and Browser</td>
</tr>
</tbody>
</table>

**Total** 3.5

With this scenario, assuming light to average application usage, a workstation at 4 GB of RAM could support the Xperience Framework and the SilverLake Xperience product. An effort is
underway to appropriately size each Xperience product. Until that analysis is complete, usage can be estimated at 200-500 MB per Xperience product.

Non-Teller Workstations

Physical Desktop

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows® 7 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Windows® 8 (64-bit)</td>
</tr>
<tr>
<td></td>
<td>Windows® 10 (64-bit)</td>
</tr>
<tr>
<td>OS (Thin Client Server)</td>
<td>Windows Server® 2008</td>
</tr>
<tr>
<td></td>
<td>Windows Server® 2012</td>
</tr>
<tr>
<td></td>
<td>Windows Server® 2012R2</td>
</tr>
<tr>
<td>CPU</td>
<td>Multiprocessor / Multicore 3 GHz or higher</td>
</tr>
<tr>
<td>Memory</td>
<td>4 GB RAM or higher²</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>10 GB free space for Xperience run time and product modules</td>
</tr>
<tr>
<td>Network</td>
<td>100 Mb/sec or higher</td>
</tr>
<tr>
<td>Microsoft Silverlight®</td>
<td>4.0¹</td>
</tr>
<tr>
<td>Microsoft® .NET Framework</td>
<td>4.6.1</td>
</tr>
<tr>
<td>Microsoft® Internet Explorer</td>
<td>9.0 or higher</td>
</tr>
<tr>
<td>Screen</td>
<td>Minimum 1024 x 768, 16-bit high color</td>
</tr>
</tbody>
</table>

¹. Not required if XHS 2015.0 server and client are being used.
². 4 GB base requirement is for the Xperience Framework plus a single application, such as SilverLake, CIF 20/20, or Core Director. An extra 200–500 MB of RAM per Xperience compatible product such as Synergy, Synapsys, etc. needs to be added to the base requirement. However, results vary depending on usage.

Virtual Desktop Running Remote Desktop Services (RDSH)

RDS session host configuration – supports up to 20 users. For user counts greater than 20, additional session hosts should be set up. Assumes CPU hyper threading is enabled and the underlying host is not overcommitted.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>6 vCPU at 2.8 GHz or higher</td>
</tr>
<tr>
<td>Memory</td>
<td>32-GB RAM</td>
</tr>
<tr>
<td>Users Supported</td>
<td>20</td>
</tr>
</tbody>
</table>
Virtual Desktop Running Virtual Desktop Infrastructure (VDI)
Based on assumptions that best practices are followed, CPU hyper threading is enabled, and the underlying host is not overcommitted.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>2 processors</td>
</tr>
<tr>
<td>Memory</td>
<td>4-GB RAM + 200–500 MB RAM for each additional Xperience application</td>
</tr>
</tbody>
</table>

**Teller Workstations – Using SilverLake Teller Capture, CIF 20/20 Teller Capture, or Core Director Teller Capture**

This section does not apply to Vertex Teller Capture using Browser. For Vertex Teller Capture, the Non-Teller Workstation requirements apply.

**Physical Desktop**

A physical desktop configuration is the only supported configuration for Teller Capture clients at this time. The Teller Capture 2017 release will support thin client.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows® 7 (64-bit) Windows® 8 (64-bit) Windows® 10 (64-bit) – only Teller Capture 2017 and later</td>
</tr>
<tr>
<td>CPU</td>
<td>Multiprocessor / Multicore 3 GHz or higher</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>10 GB free space for Xperience run time and product modules</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB RAM or higher</td>
</tr>
<tr>
<td>Network</td>
<td>100 Mb/sec or higher</td>
</tr>
<tr>
<td>Microsoft® Silverlight®</td>
<td>4.0¹</td>
</tr>
<tr>
<td>Microsoft® .NET Framework</td>
<td>4.6.1</td>
</tr>
<tr>
<td>Microsoft® Internet Explorer®</td>
<td>9.0 or higher</td>
</tr>
<tr>
<td>Screen</td>
<td>Minimum 1024 x 768, 16-bit high color</td>
</tr>
</tbody>
</table>

¹ Not required if XHS 2015.0 server and client are being used.
Teller Workstations – Using SilverLake Branch Capture, CIF 20/20 Branch Capture, or Core Director Branch Capture

Physical Desktop
Same as non-teller workstation requirements.

Virtual Desktop Running Virtual Desktop Infrastructure (VDI)

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Multiple processors</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB RAM + 200-500 MB RAM for each additional Xperience application</td>
</tr>
</tbody>
</table>

Considerations for Optimum Performance
A dedicated graphics card or onboard GPU can positively affect overall Xperience performance with more video RAM and faster GPU being better. However, any computer with an Intel Core i3, i5, or i7 processor 4\textsuperscript{th} generation or equivalent satisfies the graphics requirements for running Xperience.

Network Guidelines

Bandwidth Requirements
Bandwidth requirements for Xperience vary depending on several variables. For this reason, an assessment is recommended as part of the Xperience implementation. Prior to signing contracts and initiating the implementation plan, a preliminary assessment can be performed for close approximations.

In general, it has been observed that 1.5 Mbps (T1) support approximately 5–7 physical workstation clients or 7–10 virtual desktop clients with compression on and using a typical selection of JHA products. Results vary, though, dependent on other bandwidth-intensive applications.

Latency Requirements
To ensure optimum performance of Xperience, latency should never exceed 35 MS from the client workstation to your data center. There will be additional latency that is imposed by the internet on the connection from your data center to the JHA hosting data center if you are a JHA hosting customer. Overutilization of bandwidth and Quality of Service definitions will have an impact on latency. It is important that you have monitoring tools in place to monitor the performance of your network. Reporting is available from JHA hosting, if applicable.
Power System i (iSeries) Requirements

For in-house institutions, the Power System i has additional resource requirements that are needed to be applied to the iAdapter. Specific requirements by model are still being worked out. However, a couple of examples are described for gauging needs. For a recommendation on your specific requirements, complete the preliminary assessment questions and return the answers to your sales representative or CRM. An engineer will work up a response and get back to you.

Implementation Process Overview

The following is a high-level overview of the Xperience Implementation process which helps familiarize your organization with Xperience from an operational and a technical perspective. This process also allows Jack Henry & Associates to gain insight into your organization’s infrastructure and deployment plans.

There are numerous differences between a traditional Green Screen (GS) or Browser (BUI) implementation and a deployment using Xperience. This document and the implementation program highlight those differences and allow you to prepare appropriately for implementation and adoption across your organization.

Xperience is a modern user interface enabling users to be more efficient at their day to day activities. Xperience allows the customization of screens to bring together information that may have been multiple menu levels deep in GS or BUI. Templates can be created for each user function and not just at the institution level. The history screens can be tailored to bring together pertinent information without requiring multiple inquiries. Xperience also brings together multiple products into a single user interface while providing consistent context between the applications.

Xperience Architecture eLearning Classes

Recommended Attendees: IT Staff and System Administrators

The architecture eLearning classes include information on the behind-the-scenes processing of Xperience. Topics include framework architecture and communications, single sign-on, integration points, and the built-in Xperience deployment model. There are also several new Readiness classes, which cover information previously only found in the Introduction and Architecture webinars.
Infrastructure Readiness

**Recommended Attendees:** IT Staff and System Administrators

Based on your responses to the *Self Assessment Checklist*, it may be beneficial for you to schedule a consultation with the Infrastructure Services team. During this consultation, the team can review your infrastructure and offer recommendations for the implementation and rollout of Xperience in your environment. This consultation gives you a level of confidence in understanding resource and application usage within your organization. This analysis is an automated data collection process that will give you a scorecard and areas of potential concern prior, during, or after your rollout of Xperience.

This is a separate chargeable contracted service. If interested in this service, contact your CRM or sales representative for a quote.

**Workstation Deployment**

Your deployment may include a deployment of Xperience to physical workstations, virtual desktops, application streaming, or any combination of those options. Xperience has been deployed in numerous scenarios at numerous institutions. Each implementation varies based on the infrastructure of the institution, and their practices and policies.

**Physical and Virtual Desktop Workstation Requirements**

Xperience can be deployed to a physical workstation directly or delivered by a virtualized desktop interface like Terminal Services, Remote Desktop Services, Citrix® XenDesktop®, or VMWare Horizon View. The workstation requirements must meet at least the minimum standard for deployment. This information is provided in a separate document for your reference. The actual requirements for the workstation (CPU, memory, hard drive) depend on your user base and their application usage patterns. A user that is a heavy Internet Explorer® or Microsoft® Office user may consume large amounts of memory, even in the absence of Xperience. It is important to consider the entire application mix and user usage pattern when planning physical and virtual desktop deployments.

It is also important to consider the resources of the host system to ensure that the physical host machines can support the desktop requirements for Xperience. If using virtual machines as the virtualization host, be sure to review any configurations or utilities that may move virtual machines between physical hosts.

**Edge Servers**

A physical deployment of Xperience may require the use of Xperience Edge Servers (XES). Edge Servers allow Xperience update packages to be deployed to a central location for your branch users instead of having all the user workstations contact the main server for the update packages. This can reduce the bandwidth required for your infrastructure and improve the delivery of Xperience packages.

**Xperience Client Agent**

The Xperience Client Agent (XCA) allows for pre-deployment of Xperience packages to the physical workstations. The XCA runs as a Windows® service under the local system account. This service allows for the update of Xperience without requiring that users have full permission.
privileges to the Xperience installation folder. The XCA also allows for after-hours deployment of Xperience to the workstations.

Network Review
As part of the self-assessment, you are asked questions regarding your network. The information is aimed at identifying any troublesome spots within your infrastructure. Based on your application mix, you may have additional bandwidth requirements for some locations over others. Based on the findings, you may want to schedule a consultation with the Infrastructure team.

Environments and Disaster Recovery
As part of the implementation of Xperience in your environment, multiple instances can be set up to allow different versions of client software. The User Acceptance Test (UAT) environment can be used to test new versions of the Xperience product packages prior to promoting to your production environment. The UAT instance can point to a designated test bank or you can use it to parallel test against your production bank. Additionally, the review instance allows you to point to your review bank.

There are no additional libraries that need to be replicated on the Power System i for Xperience. However, it is important that you plan for disaster recovery of your jXchange and Xperience servers. The jXchange/Xperience servers do not contain configuration data that change frequently. Most institution-specific configuration is stored in the jXchange and Xperience related databases. You should have a process in place to replicate both the jXchange/Xperience virtual machines and the SQL databases.

Centurion, a Jack Henry company, now offers DR services for Xperience. CELR™ VSR is Centurion’s virtual server recovery solution. For more information you can contact Centurion at (800) 299-4222 or create a case using the JHA For Clients site.

Implementation Review
Recommended Attendees: IT
Time Frame: 4 weeks prior to installation (for both jXchange and Xperience)

The project management team holds an implementation review session with your IT staff preparing them for the installation of the jXchange and Xperience servers and the core Xperience product in your environment. Information is provided for server specifications, assignments for your teams, and an overall schedule of activities for the installation weeks for jXchange/Xperience and the core Xperience product.

An implementation case is created that is used by the JHA teams to install the products in your environment. This case contains notes with assignments for your teams that must be performed prior to installation. If you have questions about any of the case notes or prerequisites, contact your project manager.

jXchange and Xperience Product Installation
Recommended Attendees: IT
Time Frame: Installation Date
The jXchange and core Xperience teams install the products in your environment.

Prior to installation it is critical that your teams complete the assignments defined in the implementation case notes. If the prerequisites are not complete prior to the JHA teams installing the software, this may delay your installation.

If you have questions about any of the case notes or prerequisites, contact your project manager.

Client Walkthrough

**Recommended Attendees:** Operations and IT  
**Time Frame:** 5 business days after installation (for both jXchange and Xperience)

The walkthrough is geared towards the administration of the system, but there is also a review of topics, like screen customizations and merge documents. It is good for your operational staff to understand all features available for customization within your environment so that you get the most out of Xperience.

The same holds true for the jXchange installation. If jXchange is installed on a Monday, then typically the client walkthrough occurs the following Friday.

Performance Testing

**Recommended Attendees:** Operations and IT  
**Time Frame:** 5 business days after installation of Xperience

Performance testing occurs after the installation of the Xperience Framework and products within your environment. A defined test script is executed that is used to compare your performance against other implementations. This ensures that the product is set up and tuned properly. If you are doing a virtual deployment, it is recommended to execute the performance tests on a physical workstation in addition to your virtual desktop. This sets a baseline for performance in your environment independent of other factors that virtualization may apply.

Support and Upgrades

Release notes for primary products are added to the client portal. If you are interested in a specific release, open a support case with the primary product group. The release can be installed to your UAT instance of Xperience to allow you to verify new functionality in your environment prior to promoting to production.
Implementation Plan

Audience
As part of the implementation process, there may be several meetings that require different audience members. A kick-off call helps determine project audience, roles, and responsibilities. The product overview should consist of a project manager, supervisors or officers, and IT staff.

- Project Manager – needed for single point of contact
- Supervisors or Officers – needed to discuss multiple product processes
- IT Staff – needed for consulting and implementation to their infrastructure
- Other members of the institution – as deemed necessary

Over the course of the implementation, JHA uses these defined members to complete specific tasks outlined in the Implementation Process. These members have certain responsibilities that help ensure successful completion of the implementation.

Xperience Consulting Services
Institutions wanting to customize the default Xperience screens, but needing assistance in doing so can enlist the help of Jack Henry’s Xperience Professional Services team. This team of professionals consults with the institution to gather requirements, and then builds role-based user interface screens in the Xperience Framework. This service is not required for the institution to customize their own Xperience screens, but is offered as a service separate from the Xperience license for those institutions wanting JHA to customize the content for them.

This is a separate chargeable contracted service. If interested in this service, contact your CRM or sales representative for a quote.

This engagement includes a consultation with the bank-defined areas to observe, ask questions, and document how JHA and third-party products are used throughout the bank. The Implementation Consultant uses this information to build Xperience screens based on the various roles in the bank.

The Implementation Consultant holds periodic review meetings, and schedules time to ask questions and refine the process prior to testing with the customer.

The Implementation Consultant works with technical programmers as needed to complete the design of the defined UI.

Consulting Milestones
- Establish project scope and baseline
- Project kick-off
- Site survey – IDG group leads the site survey
- Implementation Consultant onsite review with business lines
  - Approximately 1 week to gather additional information related to product workflow that can be used with the site survey
- Project Check Point
  - Identification of number screens to be designed
  - Review with each area
• Estimated completion date based on review of input
• Implementation Consultant will develop defined menus, role-based UI
• Implementation Consultant will test defined UI and document results
• Implementation Consultant will review with customer
  o Defined UI
  o Test results
  o Test with customer the defined UI
• Make adjustments as needed
• Project completion

The goal is to provide an efficient role-based UI that is easy to use and roll out through the organization.

Institution Training

eLearning
Depending on the Xperience product, there may be eLearning sessions available on the For Clients site. It is recommended that your users take the eLearning to get familiar with the new look and feel of the Xperience product.

Onsite Training
Training plans are flexible and certainly may consist of onsite training tailored to the financial institution’s needs. Live training plans are available in the End User, Admin, Setup, and Troubleshooting areas.

New Financial Institution
Xperience product training may include a Train-the-Trainer session for new institutions. Our Implementation Consultant will be on site to provide the key institution personnel this training if that is the case.

Existing Financial Institution
For our existing institutions, some product training will be conducted via WebEx™. During this class, the key individuals are instructed on operational functions of the system. The personnel who complete the class can then roll out training for the institution staff.

Rollout Planning
The rollout plan should include clear success criteria for the deployment and adoption of Xperience. The success criteria could be a short-term and a long-term goal for the rollout. In the short term, you may be looking for adoption of a particular product. In the long term, you may be looking for full integration with all JHA Xperience products. The success criteria should be well-defined and obtainable.

To start off the adoption of Xperience, it is recommended that you identify a pilot group. This group is typically a call center or customer support group. These groups have the most functionality available within Xperience, and they will be able to give immediate feedback on the usage. Other groups have a wide variety of functionality in Xperience, but there may be elegant
transitions to browser to complete some functions. The product team is constantly improving the Xperience products to include all functionality from legacy systems.

You may elect to roll out to your user base by line of business (LOB), branch location, or other infrastructural or operational factors. If you are doing a hybrid deployment, you may want to target groups that use different deployment mechanisms. It is important to identify an initial order of rollout and target dates for each group of users. This allows you to plan out training and educational materials for the target groups.

Project Timeline

Project estimated timelines vary per bank, but typically are not longer than 6 months.

- Onsite review
- Project scope document
- Onsite review of project scope
- Creation of product and testing
- Review of product and documentation onsite and confirmation of training plan
- Training plan rollout
- Onsite test
- Onsite live
- Post review and follow up 30 days post live
- Additional training is optional

Project Timeline Overview

<table>
<thead>
<tr>
<th>Xperience Review</th>
<th># of Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Review</td>
<td>10</td>
</tr>
<tr>
<td>Development</td>
<td>20</td>
</tr>
<tr>
<td>Xperience Review</td>
<td>10</td>
</tr>
<tr>
<td>Setup/Testing w/Customer</td>
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<tr>
<td>Training</td>
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<tr>
<td>Test</td>
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<tr>
<td>Live</td>
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<tr>
<td>In-Office Prep</td>
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<td>Technical</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>184</strong></td>
</tr>
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</table>

Timelines to deploy the most efficient Xperience product vary per bank.
Frequently Asked Questions

Is Xperience free? Will I have any costs associated with moving to Xperience?
The Xperience license is free. However, the system requirements to successfully run Xperience may require an investment to get the institution’s configuration where it needs to be. Key requirements:

- **Servers In-House (2 application – 1 database)**
  - Virtual or physical
  - Microsoft® licenses
  - Can use jXchange servers if already in-house, but they must meet the minimum current specification for the current version of jXchange and the Xperience Framework
- **Workstations**
  - 64-bit, 4+ GB RAM for non-teller, 8+ GB RAM for Teller Capture
- **Power System i (in-house customers)**
  - May require additional memory
- **Bandwidth between branches and the main location, as well as overall bandwidth contracted with your Internet Service Provider to your main and backup locations may require an increase to handle the additional traffic volume.**
- **A network infrastructure self-assessment is provided at the beginning of the Xperience implementation project. This self-assessment asks detailed questions which allow JHA to determine if your network infrastructure is capable of running Xperience.** The review of the completed self-assessment questionnaire from JHA is free of charge, but that assumes you have the ability to provide the information requested.
  - If you cannot provide the information, you can either contract with a networking consultant to help you gather the information, or you may contract with Jack Henry to perform the network assessment for you. This is a chargeable service. If interested in a quote, please contact your CRM or Sales Rep and request a formal Network Infrastructure Assessment.

Do I really need three servers? Why can’t I just use two?
The two application servers are set up to avoid downtime if one of the servers were to go down. When one server goes down or is taken offline, the other stands-in and moves all the jXchange and Xperience traffic. This is also helpful when performing server upgrades, as one can be upgraded while the other continues providing service.

Do you support virtual servers?
Yes, we officially support VMware and have resources that can support VMware configurations. We can also install on other virtual servers, although Jack Henry may rely on you to provide the needed support to get the configuration working correctly.

Do you support virtual client desktops?
Yes, we support Citrix® and Terminal Services. We do not support virtual desktops for Teller Capture workstations currently. At present, Teller Capture workstations must install a physical client to the workstation’s local desktop for peripherals to work correctly. The 2017 release of Teller Capture is expected to support virtual client desktops.
When will my implementation begin?
Once a contract is signed and received by the Xperience team, your project will be scheduled to align on or around your release date for Xp 2017.

I haven’t signed my contract for Xperience yet, but I know that I want it installed on a particular date. Can you reserve that date for me?
Unfortunately, until a contract is signed, a date cannot be reserved due to the high number of clients installing Xperience. Once a contract has been signed installation should be scheduled to be on or around your 2017 release date. If there is a business reason to install prior to the scheduled 2017 Xp release, exceptions will be made on a case by case basis.

I’m a brand new customer. What teller product will be installed?
For new Jack Henry customers, you will be installed with SilverLake Teller, CIF 20/20 Teller, or Core Director Teller. (Either Branch Capture or Teller Capture – whatever product was licensed.)

I’m an existing customer running Vertex. Will I automatically move to SilverLake Teller, CIF 20/20 Teller, or Core Director Teller when I upgrade to Xperience?
No. Your Xperience implementation does not include movement to the latest SilverLake Teller, CIF 20/20 Teller, or Core Director Teller unless you have signed a new contract for one of those products. Even with a contract for one of the new teller products, the implementation is separate, and at a later time, than the initial Xperience implementation. Your current Vertex products continue working, even with Xperience installed.

Without a new contract, you will be left on your current Vertex product and will need to plan for the upgrade prior to the December 31, 2018 deadline.

I have to have a new license for SilverLake Teller, CIF 20/20 Teller, or Core Director Teller? What is that going to cost?
A new contract is issued licensing the new teller products to your banks and includes the appropriate equivalent modules as already licensed by the bank for Vertex.

There are no license or installation fees. However, there may be miscellaneous fees for services or additional licenses that may be required, such as:
- Synergy One
- ECS conversion services
- MOVEit™ for OutLink Item Processing customers
- Customization desired to be brought forward will be quoted
For Teller Capture users, Orbograph licensing remains in place, as it is still required for Teller Capture.

**How many GL banks are included in the implementation?**
One production GL bank is included in the implementation at no additional fee. Additional GL banks in production, or any GL setup within test or training environments, can be set up for a fee.

**Can I use my existing SQL Server® instead of setting up another one?**
Yes, as long as you are running the Standard Edition of SQL Server® at a minimum. The Web Edition of SQL Server® is not supported. A new database instance needs to be set up on SQL Server®.

**I already have jXchange and its three servers. Do I need three more servers for Xperience?**
No. Xperience can run on the same servers as jXchange, as long as the jXchange servers are configured with the resources as noted, or better. If the servers have fewer resources than noted, then the servers need to be upgraded before Xperience can be deployed on them.

**I’m an OutLink customer and I licensed jXchange through OutLink. I don’t have jXchange servers in-house. Do I need in-house servers for Xperience?**
Yes. You will need to deploy servers in-house for them to be on the same domain as Active Directory and allow single sign-on to work properly.

**How large is the update file that Xperience pushes to each client workstation?**
If the client workstation is set up as a physical desktop / fat client, then a typical payload per client per product is about 35 MB.

**Do you support Windows® 10?**
- SilverLake Xperience – yes
- CIF 20/20 Xperience – yes
- Core Director Xperience – yes, with release 2016.0
- If the client is also accessing the JHA applications through those application native interfaces, then you need to verify with your CRM the current readiness for Windows® 10. As of December 2016, here are the statuses:
  - jhaCall Center – supported now
  - PowerOn – supported now
  - Argo – when it is ready for Xperience (time frame uncertain)
  - Synergy – yes with release 2016
  - 4|sight – yes with release 2016 (due out in June 2016)
  - jhaEnterprise Workflow – waiting on testing (worst case with release 2016)
  - OnBoard Deposits – yes with release 2016

**When will I get training?**
See the sample implementation plan for information on training modules and the time frames for when those are to occur.
**Will everyone in the bank get Xperience at the same time?**
That decision is up to the bank. It is not unusual for a bank to roll out Xperience in a phased approach to the different groups within the bank. However, some JHA products, such as jhaEnterprise Workflow and OnBoard Deposits require the Xperience Framework. So any group requiring functionality from those products will need Xperience immediately since it is a prerequisite.

**Can I get an assessment done before I sign the contracts to help with budgeting?**
A preliminary assessment can be provided which gives you a good estimate on if your existing bandwidth at each of your locations is adequate to support Xperience, or if you should consider upgrading. See your sales representative for the five questions that need to be answered to provide this preliminary assessment to you.

**Do I need to design menus in Global Security that fit Xperience? How do the two work together?**
Xperience automatically adapts to Global Security or JH Security, whichever is set for a user profile, and provides the correct view and permissions within Xperience. No change is necessary to current user profiles for them to work correctly in Xperience.

**If I decide to implement Global Security first, what is the typical time frame to get it setup?**
JHA Client Services Consulting offers services to assist with the Global Security roles setup. There is a fee for this service. JHA Client Services Consulting has provided the following information related to that type of project.

The time frame to get a bank’s roles defined and set up in Global Security depends somewhat on the size of the bank – not so much asset size as number of users. For a bank with fewer than 250 users, the elapsed time is 3–4 weeks:

- One week onsite for discovery.
- One or two weeks offsite to build the templates and users and possibly begin testing.
- One week onsite for test/live.

A bank of this size is done by one consultant.

For a bank with 250–750 users, the elapsed time is 4–6 weeks:

- One week onsite for discovery.
- One week offsite to build the templates and users.
- One week onsite for testing.
- One more week onsite for live.
- There may be an additional week between discovery and test or a week offsite between test and live.

A project of this size involves two consultants.

Our next size tier is 751–1,200 users. The onsite time for a bank of that size may be the same as the 250–750 or there may be an additional week for discovery. Also, there would be a week offsite between test and live to add testers remotely. A project of this size would include at least two and possibly three consultants.
For banks with more than 1,200 users, a custom quote takes place. The phases of discovery, test, and live remain the same, but there would be two weeks of discovery, two weeks to build, and at least one week between test and live. There is also a week of remote support scheduled after live. This ensures the bank’s administrators can handle any questions that come up and know how to make the necessary changes to templates and users.

*Is there a Global Security project plan I can look at?*
Yes, see the attached file, supplied by JHA Client Services Consulting, or you can request directly from your Customer Relationship Manager (CRM).

![Global Security Project timeline.pdf](Global Security Project timeline.pdf)

*How is load balancing done with virtual servers? Is it necessary if both virtuals are hosted on the same physical hardware?*
Load balancing can be accomplished using a physical or virtual load balancer. Many organizations elect to use Microsoft NLB which is a feature that is part of Windows Server® OS. This feature is provided at no charge with the OS.

The use of an NLB ensures high availability of the applications in your environment and allows for servicing of one server while the other undergoes maintenance. JHA staff will set up MS NLB in your environment. There is a configuration that will need to be performed in your router closest to the server farm due to how the MAC address is used in VMWare. The teams know how to do this, and will give specific instructions and guide you through the process if you need assistance.

*What do you recommend for backups?*

**Application Servers**
- The jXchange/Xperience application servers do not change with any frequency. It is recommended that the full VM is backed up or replicated to an offsite location on a monthly basis or whenever the server is modified manually.

**Database Server**
- Most configuration data for jXchange/Xperience is stored in the SQL database. These databases do not contain transactional data, and as such do not need to be backed up often. The data stored includes enterprise configuration information, packages, user favorites, themes, and preferences.

It is recommended that the jXchange and Xperience databases be backed up on a nightly or weekly basis depending on how often changes are made to the system. It is also recommended that the databases be restored on a weekly basis to verify integrity.

*If I’m running Jconnect +D (dual active/active), do I need two sets of Xperience servers?*
No. A single set of jXchange/Xperience servers (two application servers and one database server) work fine in a network that is outfitted with Jconnect in an active/active configuration.

The two application servers in jXchange/Xperience are network load balanced, so if one goes down, the other automatically handles the full load.
I am a CIF 20/20 customer considering moving to SilverLake. If I build custom Xperience screens in 20/20, will they transfer to SilverLake?

Xperience templates built with CIF 20/20 could have their screen layouts exported and imported into SilverLake. Most of the data would likely map in fine. However, because there are file and field differences between the two cores, updates would need to be applied to the Xperience templates once they were migrated over to SilverLake.

There are no utilities to support a direct conversion between the two cores, so although a migration is possible, it is not a straightforward process and requires a remapping effort.

What is the status of the remaining SilverLake and CIF 20/20 Xperience screens?

With the successful completion of both SilverLake and CIF 20/20 Betas for Xperience Remaining Screens, Jack Henry and Associates is pleased to announce the General Availability of the remaining Xperience screens for both SilverLake and CIF 20/20.

When will my bank be contacted to bring the remaining screens into Xperience?

We will be coordinating this effort in close alignment with your annual release process. A coordinator will be contacting you before release to discuss work effort and next steps.

What are next steps needed to bring the remaining screens into Xperience?

The additional work effort needed will occur outside of but in close alignment with your annual release process include setup of IBM Enterprise Identity Mapping (EIM), Xperience server configuration and turning on remaining screens following your core annual release. A coordinator will guide you through these steps.

My institution has custom needs that need to be brought forward into Xperience. How will this be handled?

We will be delivering any custom code needed for Xperience as part of your annual release process. We will not be assessing an additional fee for this work effort.

If my institution is using StreamLine, will the PLATJHA and PLATPAR menus also be available within Xperience?

Currently, StreamLine is not included in Xperience.

What authentication changes are required for the IBM i to enable Single Sign-On (SSO)?

The new screens use the IBM i Network Authentication Services (NAS) and native Windows® Kerberos authentication with Enterprise Identity Mapping (EIM). This provides seamless transition to the new screens without multiple login prompts to the users. Based on the setup, users may no longer need to remember a separate password for the IBM i. Jack Henry has documented this process and it is available on the For Clients Portal.

Are the SilverLake jhaPassPort™ screens now in Xperience?

Yes, the SilverLake and CIF 20/20 jhaPassPort screens are now in Xperience.

Is TimeTrack now in Xperience?

Yes, TimeTrack is now in Xperience.
What will happen for SilverLake Teller, CIF 20/20 Teller, and Vertex Teller?
SilverLake Teller and CIF 20/20 Teller currently support teller processing in Xperience. Back-end processing and maintenance is also now in Xperience. Vertex Teller screens are not included in Xperience and will continue to require a browser client.

What will happen for StreamLine customers who are ready to migrate to Xperience screens for SilverLake and CIF 20/20?
These options will use Browser in Xperience just as they do now. Currently, there are no plans to create screens for StreamLine, so StreamLine support for Xperience may be discontinued. If it is, StreamLine will run in a separate Green Screen or Browser window.

When all screens are available within Xperience, will that include all menus as well (i.e., Enhanced Account Analysis™, Enhanced Loan Collections™, ARP/Positive Pay, STM MENU, NetTeller®, NetPar)?
It will contain all menus for the affected products.

I signed a contract for Xperience but haven’t installed it yet or received an install date. When will my install be scheduled?
We will be scheduling new Xperience installs in alignment with your annual core release in either 2017 or 2018.

Is it true that Green Screen and Browser will be “going away” by December 31, 2018?
During the 2016 BEC conference, JHA Executives conveyed that the end-of-life date of iSeries Green Screen and Browser support has been set at December 31, 2018. All banking customers will need to move to Xperience.

I want to install SilverLake or CIF 20/20 Teller or OnBoard Deposits along with core Xperience, can’t I wait?
We will be working one-one-one with customers who have not yet installed Xperience to determine right timing to for install. We will schedule your install in close alignment with your core annual release in either 2017 or 2018.

I’d like to have Xperience install dates for all products, is that possible?
When you install SilverLake or CIF 20/20 Xperience we will also be enabling all possible Xperience integrations for those products you own at the time of installation that are able to integrated into Xperience.

Will an infrastructure upgrade be required before I install Xperience?
If you’ve signed an Xperience contract and are nearing your annual core release date, a coordinator will be contacting you to discuss Xperience requirements with you.

What if I don’t have the expertise to manage servers and other infrastructure required?
We would be happy to discuss Gladiator Hosted Network Services (HNS) with you. Please contact your Sales Executive, CRM or email clientservicesconsulting@jackhenry.com if you’d like more information.

What are my options for Xperience rollout to my staff?
A bank can choose to do a self-guided rollout to staff and we provide the following tools to assist at no cost:
- Free eLearnings
• Xperience Rollout Webinar
• Xperience Rollout Template Project Plan

If you would like additional assistance, Client Services Consulting can work with you to tailor a consulting engagement that meets your needs. *(Will include a standard statement of work here if needed)* Please contact your sales executive, your CRM or email clientservicesconsulting@jackhenry.com for additional information.

**What is included on a Core Xperience contract?**
A SilverLake, CIF 20/20 or Core Director Xperience contract will include:

- An integration server staging fee for $1,500
- 2 Day WebEx instructor led training from the JHA Education Team for $1,800
  - Curriculum is available upon request

**What Xperience products require a contract?**
Some products will require an additional contract, for example, SilverLake Teller, CIF 20/20 Teller and Core Director Teller. Others will not.

Please contact your Sales Executive if you need any/more information on pricing including application hardware costs for complementary products integrated within Xperience.

**I’m a Core Director bank, I’ve signed a contract for Core Director Xperience but haven’t received an install date yet. When will I?**
Core Director Xperience is now installed in two In House beta sites. We will be installing Core Director Xperience in an OutLink beta customer location. Once betas are complete we will begin scheduling Core Director Xperience installs in alignment with annual release in either 2017 or 2018.

**Who can I contact with additional questions?**
If you need additional information, please contact us at tellmemore@jackhenry.com or through your bank’s Customer Relationship Manager (CRM).
Appendix A

Network, Server, and Workstation Readiness
See the Xperience Self-Assessment Checklist document, which is a self-review of your network, server, and workstations. This document is available from your CRM or by request to XpServices@jackhenry.com. This document provides an initial infrastructure readiness rating. The rating defines whether your infrastructure is suitable for the Xperience Framework and any complimentary products you intend to use.

If the Self-Assessment Checklist returns a rating of RISK, then further discussion is required with the Xperience Infrastructure team.

Power System i Readiness
Power System i Specifications
*Only complete if in-house*

1. ☐ iAdapter settings are set as the following:
   a. JHASYSIXP memory as per number of Xperience users (See chart)
   b. ParmValSrch Cache set to “Y 9999”
   c. PrvdUsrOptSrch Cache set to “Y 9999”
   d. SvcDictSrch Cache set to “Y 9999”
   e. Suppression set to “Y”
   f. Compression set “Y”

2. ☐ Use the JHASYSIXP memory formula to calculate memory requirement based on the number of Xperience users.
Best Practices References

Best Practices for SQL:

Best Practices for Windows® Desktop and Server Optimization for VMware View:

Best Practices for Latency Sensitive Applications:

Best Practices for Web Servers:

Best Practices for Enterprise Java® Applications:

Best Practices for Performance Tuning for Microsoft® RDSH:

Best Practices for Citrix® on VMware:
Product Information

Use the following questions as a guide when planning for products to include in the Xperience Framework:

- What products do you intend to use in the Xperience Framework?
- Are all the products you plan on using in Xperience currently available?
- Do you plan on using Teller Capture inside Xperience (SilverLake Teller Capture or CIF 20/20 Teller Capture)?
- Did you calculate the necessary memory requirements for the products you plan to use inside the Xperience Framework?

Use the following space to list any questions or areas which you may need assistance.