



West Virginia Purchasing Division

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The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 4

List View

General Information Contact Default Values Discount Document Information

Procurement Folder: 158725

SO Doc Code: CRFQ

Procurement Type: Central Contract - Fixed Amt

SO Dept: 0802

Vendor ID: VS0000010524

SO Doc ID: DMV1600000003

Legal Name: QLess, Inc.

Published Date: 9/19/16

Alias/DBA: QLess

Close Date: 10/5/16

Total Bid: \$522,950.00

Close Time: 13:30

Response Date: 10/05/2016

Status: Closed

Response Time: 10:23

Solicitation Description: Addendum 4 - Customer Queuing hdwe and sttwe for dmvpUBLISH

Total of Header Attachments: 4

Total of All Attachments: 4



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
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**State of West Virginia
 Solicitation Response**

Proc Folder : 158725

Solicitation Description : Addendum 4 - Customer Queuing hdwe and sftwe for dmvPUBLISH

Proc Type : Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation Response	Version
	2016-10-05 13:30:00	SR 0802 ESR10041600000001463	1

VENDOR
VS0000010524 QLess, Inc. QLess

Solicitation Number: CRFQ 0802 DMV1600000003

Total Bid : \$522,950.00 **Response Date:** 2016-10-05 **Response Time:** 10:23:46

Comments: QLess looks forward to working with the State of West Virginia. Additional documentation will be provided as requested.

FOR INFORMATION CONTACT THE BUYER
 Melissa Pettrey
 (304) 558-0094
 melissa.k.pettrey@wv.gov

Signature on File	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Customer queuing hardware, software and Implementation.	1.00000	EA	\$195,950.000000	\$195,950.00

Comm Code	Manufacturer	Specification	Model #
46151507			

Extended Description : Customer queuing hardware, software and Implementation.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Customer queuing system maintenance year 2				\$104,000.00

Comm Code	Manufacturer	Specification	Model #
81112200			

Extended Description : Customer queuing system maintenance year 2

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Customer queuing system maintenance year 3				\$109,000.00

Comm Code	Manufacturer	Specification	Model #
81112200			

Extended Description : Customer queuing system maintenance year 3

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Customer queuing system maintenance year 4				\$114,000.00

Comm Code	Manufacturer	Specification	Model #
81112200			

Extended Description : Customer queuing system maintenance year 4

Join us in eliminating line from the planet



State of West Virginia
Customer Queuing hardware and software for dmVUBLISH
Request for Quotation



150 S. Los Robles Ave
Suite 900
Pasadena, CA 91101

Kristen Becker

Director of Client Experience

m 785-577-0609

e Kristen.becker@qless.com

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Executive Summary

We at QLess, Inc. would like to thank you for the opportunity to participate in this RFQ process, and we are confident that the QLess software can meet and exceed the West Virginia DMV expectations of what can be accomplished with a cutting edge electronic queuing and appointment system.

QLess is 100% web-based software as a service. This means; no licensing fees, no local servers to buy or maintain, no proprietary software or hardware required, including no Planner PC needed locally at each office, and altogether greatly reducing IT maintenance costs. QLess is compatible with every standard browser, including, but not limited to: including Firefox 3 or higher, Internet Explorer 7 or higher, Google Chrome, and Android Browser, and due to our frequent (averaging bi-weekly) updates, our software will always be compatible with the latest releases of every standard browser. You can rest assured that with QLess your system will always be on the cutting edge. We can meet your needs with non-proprietary hardware (Kiosks/ Television Monitors) in which we can mix and match with our software or you can provide yourself if you choose.

QLess is the worlds first and only Interactive Remote Mobile Queuing Solution, allowing residents to join the line remotely or make an appointment in the following ways: online in real-time; by scheduling a FlexAppointment for the time and date of their choice and by calling or texting into their desired offices custom phone number and following some highly-intuitive prompts. The QLess systems keeps residents apprised of their wait times and/or the number of people ahead of them in line, throughout their time in queue, and are able to request on-demand status update as well. When a resident is nearing the front of the line, QLess sends the resident a “predictive pre-summon” text message, notifying them to return in X number of minutes, and offering them the option of pushing themselves back in line if they cant make it in time. Therefore, residents are never made to stand in line to be serviced at your DMV. In addition to QLess reducing residents actual wait times, QLess drastically reduces residents perceived wait times, as residents never have to step foot in the office for service until the office staff is ready to see them.

QLess meets and exceeds all features and options that West Virginia DMV is requesting in this Request for Quotation.

We want West Virginia DMV to enjoy all of the advantages by QLess being used by hundreds of DMVs across the world today. QLess has the largest install base of DMVs of any queuing system today.

Thank you again for the opportunity to provide a bid for QLess services and we look forward to working with you in the near future!

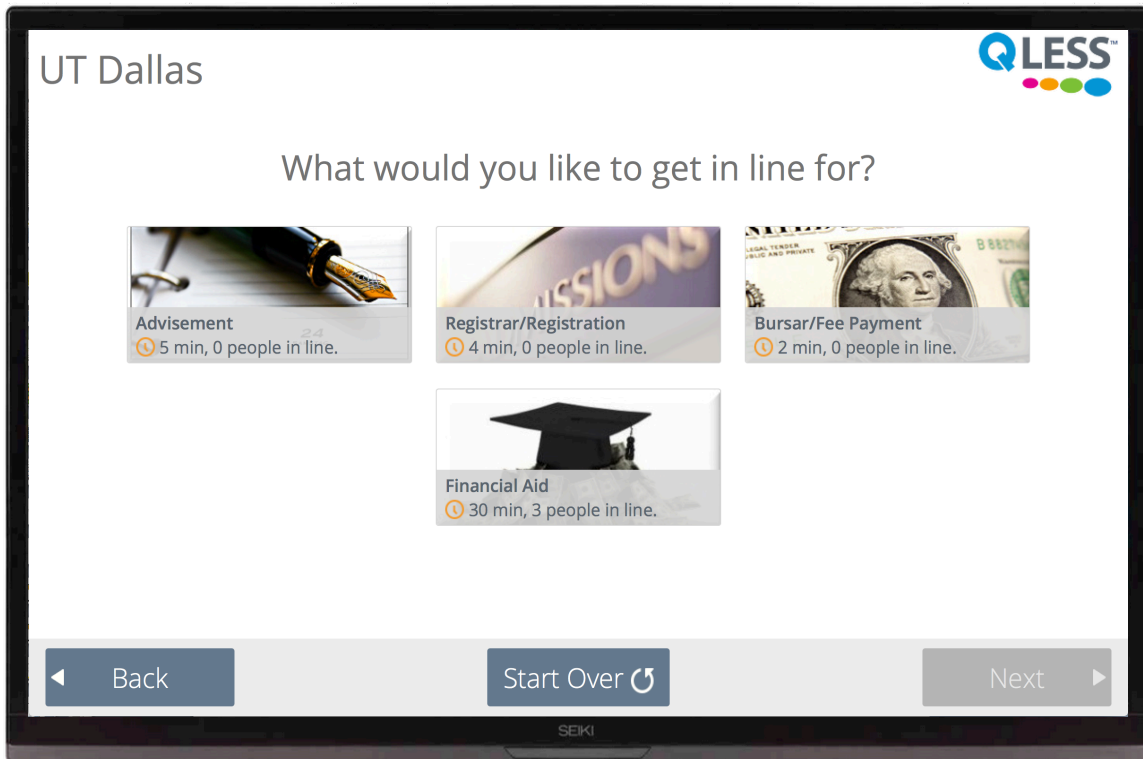


Solution Components

QLess is a 100% web-based SaaS (Software as a Service) mobile queuing solution. The advantages of being web-based is that West Virginia DMV only needs to run a standard web browser to run all QLess components. This also provides flexibility in choosing any hardware as all QLess hardware is non-proprietary.



Lobby / Remote **Kiosk for Residents**

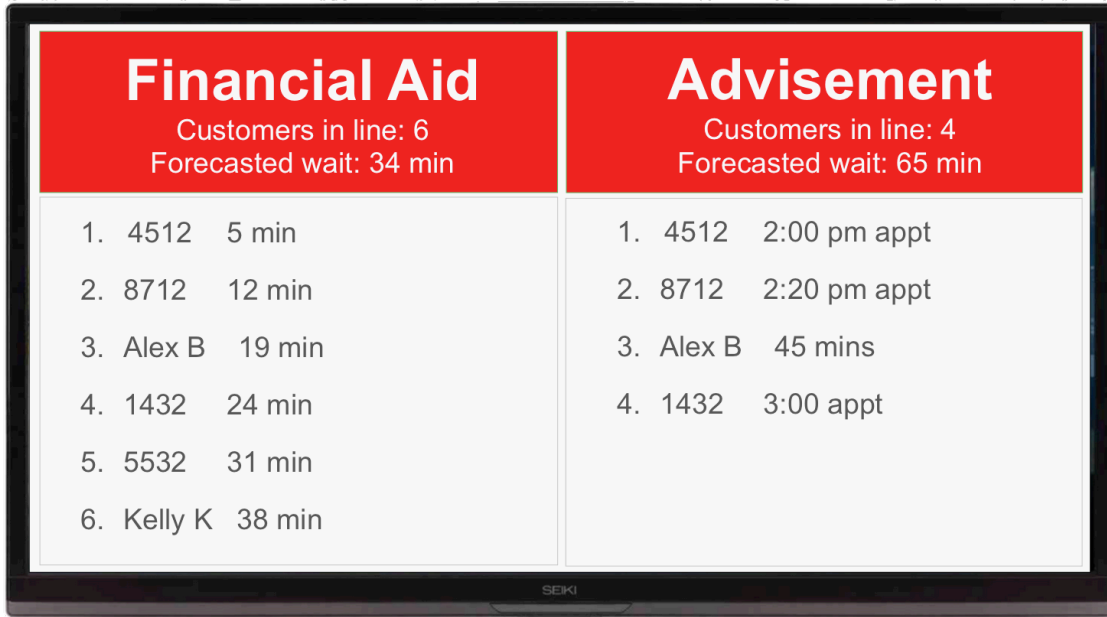


Web page that runs on any standard browser. Allows residents to choose a queue/dept., reason for visit, and either get in line or make an appointment. The QLess “Home Kiosk” uses the exact same interface allowing residents to get in line from anywhere using a computer or any mobile device running a browser.

- Lobby check-in or remote check-in
- Runs on a traditional kiosk
- Runs on a tablet kiosk
- Not required to enter a mobile number
- Can notify staff if they are handicap or ADA
- Does NOT require any proprietary hardware
- Get in line or make an appointment



QLess Monitor



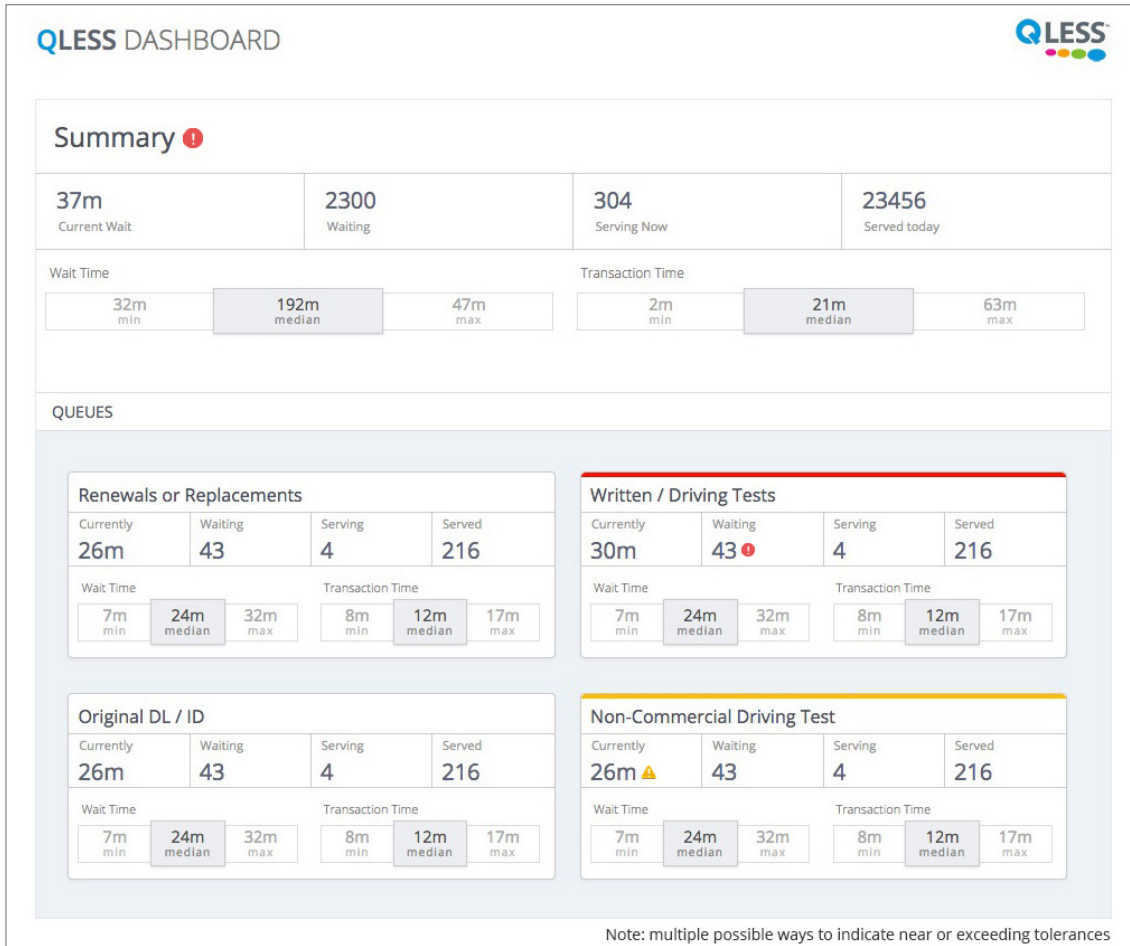
Description:

Web page that runs on any browser connected to digital signage (LED TV's). Provides residents with a visual view in your lobby of their wait time.

- Shows ticket number of resident
- Forecasted wait times provide an improved wait experience due to knowing how long the wait is.
- Summoned residents are told on the display where to go
- Supports audio so that residents can hear when they are summoned



QLess Dashboard

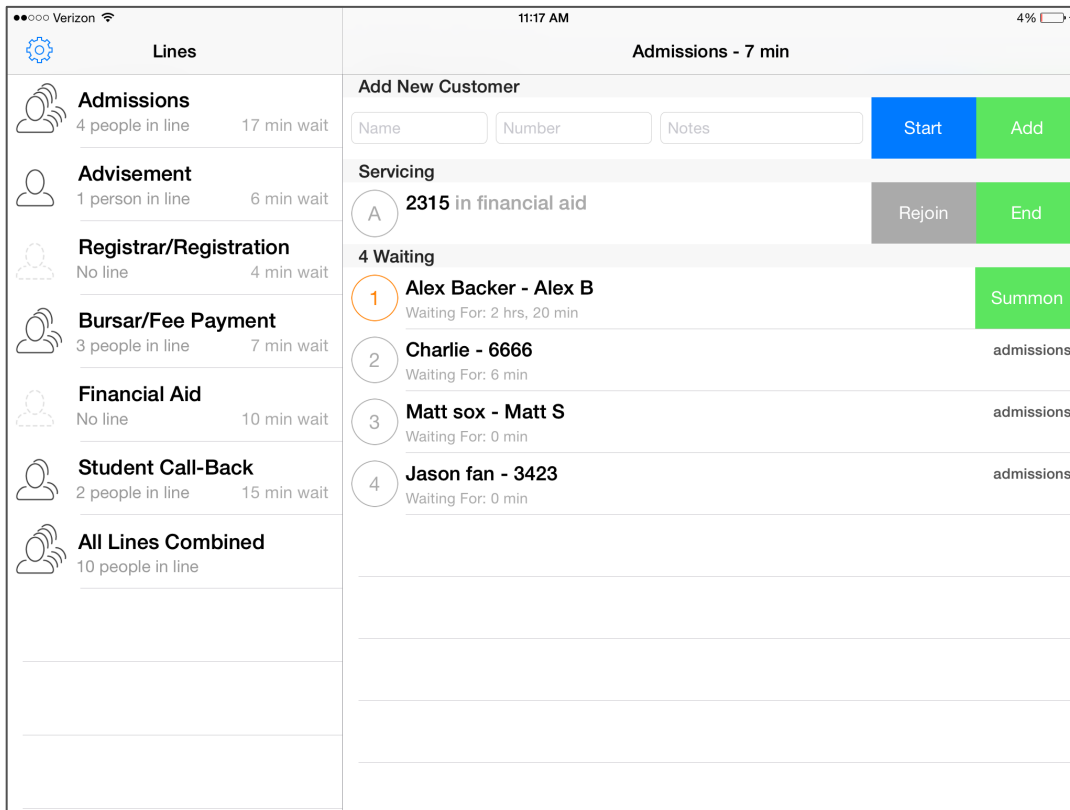


Description:

Web page that allows managers to login and see what is happening live at every office, every department, and every queue.

- How many residents in line
- Average wait time, median wait time
- How many residents are being served
- Threshold notifications via SMS are sent to managers

QLess QManager / Concierge App



The QLess Manager can be setup at each location and department with the ability to view only one queue or multiple queues based upon user logins. Staff interface is flexible enough and can even be enabled to view all queues at one location, at all locations, or only specific locations.

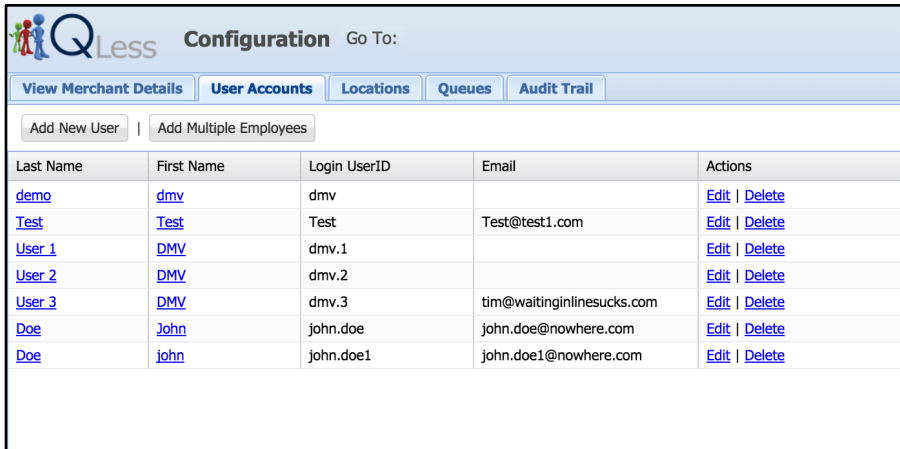
QLess Manager has the ability to provide unique logins for each employee so that administrators have better visibility into workforce management. Also, QLess has the ability to tell residents which window, employee or office they are being summoned too.

The simple interface enables employees to always view how many residents are in line, appointments for the day, and residents who are late. It even allows for employees to record an outcome for each customer from a pre-defined list. The simplicity of the interface allows for a shortened training time.

Runs on a standard web browser or Concierge iPad app.

QLess Configuration Tool

Our configuration tool allows administrative users to manage employee logins and certain account setup features. QLess is releasing updates every quarter to the Configuration Tool and will keep you up to date on all the latest releases each quarter. We will roll these out to you for no additional charges per the contract. Some of the features and functionality included are shown below in the screenshot.



The screenshot shows the QLess Configuration Tool interface. At the top, there is a navigation bar with the QLess logo and the word "Configuration". Below this, there are tabs for "View Merchant Details", "User Accounts", "Locations", "Queues", and "Audit Trail". The "User Accounts" tab is selected. Below the tabs, there are two buttons: "Add New User" and "Add Multiple Employees". The main content area is a table with the following columns: Last Name, First Name, Login UserID, Email, and Actions. The table contains the following data:

Last Name	First Name	Login UserID	Email	Actions
demo	dmv	dmv		Edit Delete
Test	Test	Test	Test@test1.com	Edit Delete
User_1	DMV	dmv.1		Edit Delete
User_2	DMV	dmv.2		Edit Delete
User_3	DMV	dmv.3	tim@waitinginlinesucks.com	Edit Delete
Doe	John	john.doe	john.doe@nowhere.com	Edit Delete
Doe	john	john.doe1	john.doe1@nowhere.com	Edit Delete

QLess Reports & Analytics



Allows staff and managers to look at all metrics hourly, daily, weekly, monthly, yearly. Reports can also be exported to csv, excel, or access.



Advantages of QLess

1. Never Obsolete: Updates and upgrades delivered every 2 weeks
2. Cloud redundancy. 99.9% uptime guarantee
3. Inventors of mobile queuing allowing resident to join the line for any department from anywhere - **Optional service not included in RFQ Response.**
4. Forecast Learning Algorithms provide each resident with their own personal wait time or wait range that updates in real time.
5. Interactive Queuing: Allows residents to ask for status updates, ask for more time and push themselves back or leave the line with Interactive Queuing - **Optional service not included in RFQ Response.**
6. Flex- Appointments are interactive. QLess knows if the resident is on their way or not coming at all so appointments can be auto-filled. More efficient than traditional appointments - **Optional service not included in RFQ Response.**
7. Auto- close queues. Allows staff to go home on time. When there are enough residents in the queue to get to closing the system tells residents trying to join to check back tomorrow. #1 feature per QLess DMVs!!!! - **Optional service not included in RFQ Response.**
8. Phone-in IVR: insures no resident is left behind due to ADA, age or phone capabilities. West Virginia DMV is provided a dedicated phone number enabling residents to call-in to a digital IVR to get in line. These residents also receive their updates via automated phone calls. - **Optional service not included in RFQ Response.**
9. Over 180 REST-based API's for integration with any software or databases



QLess References

Customer	Michigan Secretary of State (SOS)
Industry	Secretary of State (Department of Motor Vehicles)
Contact	Bill Strong
Title	Director
Phone	(517) 636-6050
Email	strongb1@michigan.gov
Project Description	DMV Queuing System – Includes Interactive Mobile Queuing with SMS, Web, and Call in (IVR)

Customer	State of Nevada DMV
Industry	Department of Motor Vehicles (DMV)
Contact	Tonya Laney
Title	Administrator – Field Services Division
Phone	775-684-4791
Email	Tlaney@dmv.nv.gov
Project Description	DMV Queuing System – Includes Interactive Mobile Queuing with SMS, Web, and Call in (IVR)

Customer	State of Texas DPS
Industry	Department of Public Safety
Contact	Paul Watkins
Title	Deputy Assistant Director
Phone	512-424-5413
Email	Paul.watkins@dps.texas.gov
Project Description	DMV Queuing System for Mega Centers in TX

QLess Team

The following QLess team members will interact closely with West Virginia DMV staff throughout the life of the relationship.

Kira Deffner – Director of Implementation and Support

Kira and her launch team are responsible for guiding West Virginia DMV through the account setup, configurations, and customizations integrations. Upon launch Kira and her team will have daily/weekly meetings with West Virginia DMV staff during the 30 Day HyperCare period. The launch team provides West Virginia DMV with direct access to support and real-time account configuration changes.

Angie McCune – Workflow Analyst and Trainer

Angie's strengths and background in education have been the perfect fit for her position as Trainer for QLess. She has the technological expertise to understand the software, and a background in education that allows her to train people with a variety of skill levels and backgrounds to use QLess. She uses her strong organization skills to set goals, time limes, and deadlines for customer launches. She is able communicate easily with others including residents, sales staff, and support/technical staff.

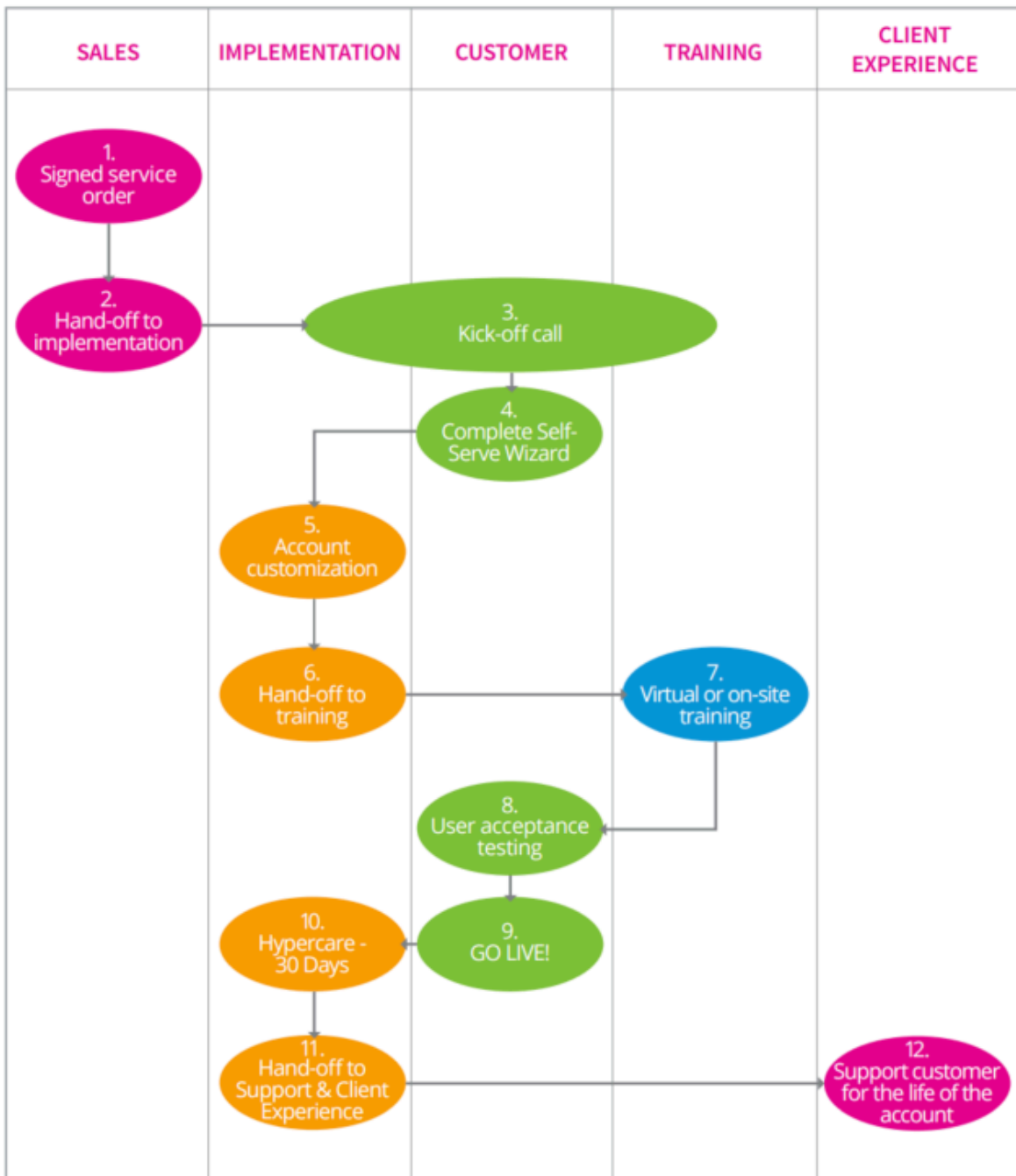
Angie is also responsible for the on-line QLess Knowledge base, a valuable resource to West Virginia DMV staff.

Kristen Becker – Director of Client Experience

Kristen is responsible for the success of our clients after they have launched the QLess service. Following the initial 30 days, Kristen will be your point of contact for all non-support related issues. Kristen also will be heavily involved with West Virginia from the time of award through the life of the contract.



QLess Launch Process

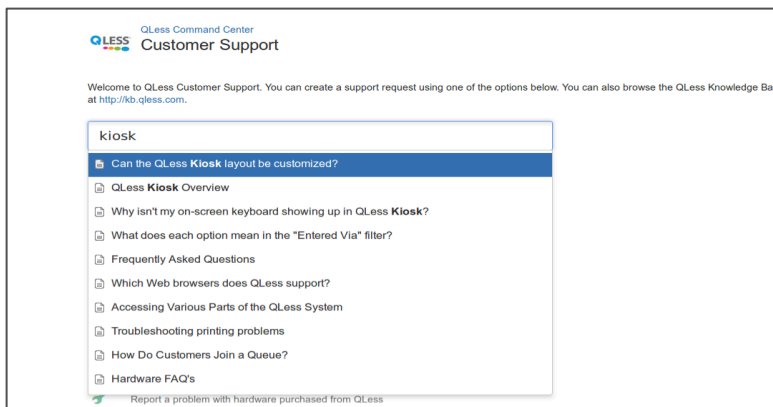
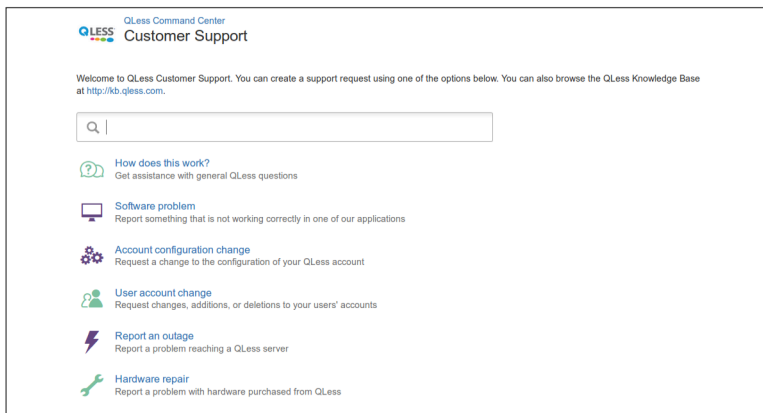


QLess Support

QLess provides 3 levels of support:

1. Online Support Portal - <https://support.qless.com>
2. By phone at 877-QLESS-SOS - Staffed 24/7
3. By email at support@qless.com

QLess also provides a support "Portal" to file tickets, view open tickets and current status. QLess sends emails when tickets are updated. Access to the QLess knowledge base for self-help and videos.



QLess Training

The QLess training policy is “as long as it takes”. QLess has included one (1) day of on-site training and two (2) web-based virtual training sessions.

Training Methodology:

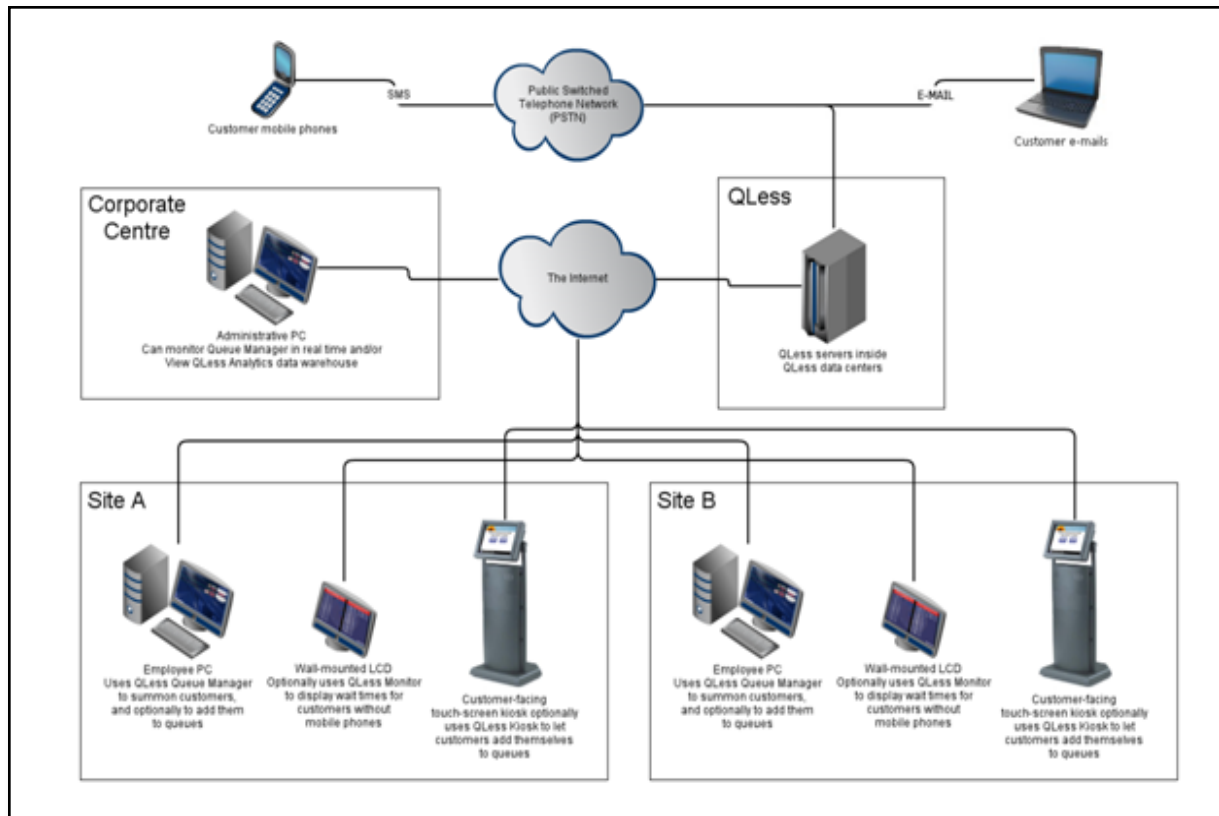
- Training options include the following. One or more of these formats can be utilized as determined by
- On-Site Training
- Course outline will vary based on the configuration
- Hands-on interaction with the queuing system
- Courses led by the Trainer at the location(s) requested
- Web-based Training
- E-Learning

Training Materials (electronic and/or paper-based)

- Course outline will vary based on the configuration
- Hands-on interaction with the queuing system
- Courses led by the Trainer via web conference (such as Join.me or Webex)
- General description of the component or procedure
- Queue-Tip videos
- Evaluation question(s) related to the component or procedure
- Queue Manager User Manual



QLess System Architecture



Operating Systems:

- Ubuntu 12.04.2
- Ubuntu 10.04.4

Databases:

- MySQL 5.5.35
- MySQL 5.1.73

Application Servers:

- JBoss 4.2.3

Telephony:

- Asterisk 1.8.10
- Asterisk 1.6.2.5

Java Virtual Machines:

- Java 1.6.0_45
- Java 1.6.0_24

Redundancy

QLess offers 3 US-based data centers in 3 different cities, connected to a global network with 21 points of presence. All QLess servers use hot-swappable redundant disk arrays to protect against drive failure. All QLess servers are also deployed in pairs, with a primary server in one data center, and a secondary in another. In the event of a hardware or network failure with a primary server, the corresponding secondary server will take over. Here is the series of events that follow: Within 1 minute of failure: QLess Domain Name Server detects primary server failure, and reassigns necessary host names to secondary server.



Within 4 minutes: All Domain Name Server caches expire, change takes effect globally. Within 5 minutes: Secondary server in secondary data center detects the fail-over, starts all services, and restores the state of all QLess queues. Within 5.5 minutes: Transfer of services to secondary server complete. We use dual-master database replication in order to ensure that both the primary and the secondary data center have a database that is up-to-date at all times.

Security Architecture

All of your communications with QLess servers are protected by 256-bit SSL encryption, with certificates issued by a trusted third party. QLess Web Services include mechanisms to prevent Cross-Site Request Forgery (XSRF) attacks, and are rate-limited to prevent Denial Of Service (DOS) attacks. QLess Web Service URLs are never required to contain any sensitive information, such as customer phone numbers. QLess servers are hardened and protected by firewalls, preventing access to unauthorized ports, and preventing IP spoofing. All of our Java Applets are signed by a digital code signing certificate that is issued by a trusted third party. QLess servers are hardened and only allow communication via approved protocols and ports. All applications run following the principle of least privilege. Security updates to system components are installed on a regular basis. All server-side software is written in Java, which does not suffer from some of the vulnerabilities such as buffer overruns that affect other languages. All access to QLess servers by QLess Operations staff is authenticated, encrypted, and audited. QLess data centers have regulated climate control, uninterrupted power with on-site diesel-powered generators, monitored closed-circuit television, a 24x7x365 on-site security team, military-grade pass cards, and biometric finger-scan/hand-scan units.

Disaster Recovery

QLess uses clustered databases to ensure that multiple servers have an up-to-date view of your data at all times. QLess uses this capability to guarantee a 99.9% up-time guarantee as detailed at <http://qless.com/sla>.



QLess Service Level Agreement (SLA)

QLESS GUARANTEES 99.9% uptime on a monthly basis. Any outage in excess of:

- 10 minutes per day, or
- 30 minutes per month, or
- 8 hours per year

During VERMONT DMV OFFICES configured operating hours, would constitute an SLA violation. The start of downtime is defined as when the service is completely unavailable.

QLESS FURTHER GUARANTEES THAT:

- 50% of network requests will complete within 100 ms, and
- 90% of network requests will complete within 500 ms

These times exclude any network latency; it is only the time for a request to complete after we have received it, and the time for us to send the response back over the network. In other words, it does not include the time for a customer's request to reach us, or for the first byte of our response to reach the customer.

Any violation of this SLA Guarantee will result in a **200% credit** for the total duration of the violation. This guarantee does not apply to any problems or limitations that are local only to the customer or their connection to the Internet. The credit would be based upon the total Annual License fees paid by Vermont DMV calculated to per minute of operation. If a credit is rewarded, it will be applied to the next invoice issued. Scheduled outages/downtime will never be scheduled during VERMONT DMV operating hours and will always be completed before Vermont DMV operations begin.

Formulas for violations that result in a Vermont DMV credit are as follows:

Daily:

Total annual license fees (divided) by minutes of operation per year (multiplied) by minutes of outage in excess of daily SLA (multiplied) by 200%

Monthly:

Total annual license fee (divided) by minutes of operation per year (multiplied) by minutes of outage in excess of monthly SLA (multiplied) by 200%

Yearly:

Total annual license fee (divided) by hours of operation per year (multiplied) by hours and minutes of outage in excess of annual SLA (multiplied) by 200%

Within thirty (30) days after the end of each month, that an SLA violation has occurred, Contractor will provide to the State a report describing the violation of the Hosted Services during that calendar month as compared to the SLA guarantee. A description, in sufficient detail, to inform the State of the cause of such failure and the corrective actions the Contractor has taken and will take to ensure that the SLA guarantees are fully met. Within 90 days QLess will provide detailing compliance with the network SLA.

Following each month, QLess and the State would determine if a violation occurred, and if so, calculate the maximum credit owed to West Virginia DMV.

The awarded 200% credit would be applied to West Virginia DMV account with QLess, and applied against the next invoice issued by QLess.

RESPONSE AND RESOLUTION TARGETS

The severity levels listed below would be determined by West Virginia DMV and QLess staff at the time of the reporting issue via phone or email. Also, all hardware issues shall be deemed "critical at minimum or a blocker as agreed upon by West Virginia DMV and QLess.

- **Blocker:** An emergency condition causing Vermont DMV to be completely unable to operate QLess or effectively serve their residents.
- **Critical:** Any condition which makes the use of QLess difficult and which Vermont DMV cannot reasonably circumvent or avoid on a temporary basis without the expenditure of significant time or effort.
- **Major:** The default priority for most support issues. Any issue that is not Blocker, Critical, or Minor.
- **Minor:** A problem that can be easily circumvented and has little to no impact on regular operation of QLess. Any open Support issue that has been waiting on a response from Vermont DMV for more than 1 month but is left open will be assigned this priority.



System Requirements

Overview

- QLess UIs are Web-based, and work on several different operating systems, including Windows, OSX, Linux, iOS, and Android.
- QLess works on the latest versions of several popular web browsers. We recommend Firefox.
- QLess requires the Adobe Flash Player plugin, version 10 or higher, or an iPad 2 or higher.
- QLess requires 1 GB of dedicated RAM.
- QLess can provide any hardware you don't currently own.

Windows Users

- Adobe Flash Player, version 10 or higher is required.
- Printed tickets in QLess Kiosk and spoken alerts in QLess Monitor require the Java Runtime plugin, version 7, update 7, or higher.
- Firefox version 4 or higher is supported.
- Chrome version 12 or higher is supported.
- Internet Explorer version 9 or higher is supported. Versions 7 and 8 will work, but do not play audio alerts in QLess Monitor. Versions older than 7 will not work at all. You must have port 8000 open to QLess servers if you are behind a firewall that blocks access to non-standard ports.
- Safari version 5.1 or higher is supported.

Mac Users

- Adobe Flash Player, version 10 or higher is required.
- Printed tickets in QLess Kiosk and spoken alerts in QLess Monitor require the Java Runtime plugin, version 7, update 7, or higher.
- Safari version 5.1 or higher is supported.
- Firefox version 4 or higher is supported.
- Chrome version 12 or higher is supported.

Linux Users

- Adobe Flash Player, version 10 or higher is required.
- Printed tickets in QLess Kiosk and spoken alerts in QLess Monitor require the Java Runtime plugin, version 7, update 7, or higher. There is currently a [bug](#) in Java versions newer than version 7, update 67, that causes spoken alerts in QLess Monitor not to work on Linux.
- Firefox version 4 or higher is supported.
- Chrome version 12 through version 34 is supported. Support for Java has been removed from versions of Chrome newer than version 34 on Linux.

iPad Users

- iPad versions 2 and higher are supported.
- Safari, Mercury, and Dolphin browsers are recommended.
- You must have port 8000 open to QLess servers if you are behind a firewall



that blocks access to non-standard ports.

- Printed tickets in QLess Kiosk are supported via a native iOS app using Zebra wireless printers.
- Spoken alerts in QLess Monitor are not available on iPads.

Android Users

- Chrome is recommended.
- Android Browser 4.4+
- Printed tickets in QLess Kiosk are not available on Android.
- Spoken alerts in QLess Monitor are not available on Android.



Features and Benefits

100% WEB-BASED SOLUTION – IT Cost Savings

Benefit:

Software updates are provided by QLess at least twice a month. Because all of QLess components are web based these updates are done on the fly with no impact to staff. There are no local servers or local software for IT department to manage. IT only needs to provide web access for standard browsers. This provides a time and cost savings to IT staff.

REMOTE JOIN

Benefit:

Omni-channel entry is the most powerful in the mobile check-in space. QLess enables residents to check-in for service via the DMV web-site, lobby kiosk, text-in, phone-in, android / iOS apps. This insures that no resident is left behind due to age, disability, etc.

Because residents are waiting where they choose, lobbies and offices are not over crowded.

DMV staff that use QLess report that the residents treat them with respect and are in a much better mood when they arrive for service!!

INTERACTIVE MOBILE QUEUEING

Benefit:

Whether using SMS texts, DIGITAL-IVR voice, or apps residents are updated throughout their wait with their place in line and how much time they have left. Residents can also ask for more time and push themselves back, ask for status updates, and leave the line. No other queuing solution allows for interactive capabilities across SMS text, Digital IVR-voice, or apps. This engaged experience delivers 5 star reviews.

FREEDOM TO ROAM

Benefit:

Residents can join a queue remotely and roam freely. Residents can wait at the library, quad, Starbucks, work, etc. and QLess will tell them when to arrive. Residents can also request notification when they are X minutes from the front of the line.

FORECAST WAITING ALGORITHMS

Benefit:

QLess' learning algorithms process many different data points in order to create a forecasted wait time for each resident. Some data points include: how many service staff is available, reason for visit, historical service times, live data, etc. The algorithm is always running and updating residents through out their wait. Any other solution that gives a forecasted wait time is just guessing while QLess is the only company that uses "learning algorithms".



TRANSACTION TYPES AND OUTCOMES

Benefit:

QLess captures 2 important pieces of data for reporting that are invaluable to management. 1. Why is the resident coming in for service? 2. What was the outcome of the resident's visit? This type of data enables departments to improve the efficiency of the services.

COMMUNICATION CUSTOMIZATION

Benefit:

DMVs can customize each message sent to a resident (text, voice-call, apps). The messaging can also be customized based upon each department and each transaction type. This allows departments to provide reminders of documentation to bring to their visit.

VOICE QUEUEING:

Benefit:

Residents who do NOT wish to receive texts or do NOT have texting are able to call a dedicated number provided by QLess. This is a digital-IVR service that will help residents choose the right queue for service. During their wait they will receive phone calls regarding how long their wait is and also when they are being summoned for service. This insures no resident is left behind. You don't need a smart phone!!! This powerful feature has proven to be really important to ADA residents!!

SEQUENTIAL QUEUEING:

Benefit:

Many DMVs at the beginning of each semester want residents to go through several queues in order. This feature allows residents automatically to be placed into multiple queues that they will visit in a specific order. When a resident completes service at one queue they become active in the second queue. This insures a streamlined efficient process at the beginning of each semester.

CONCURRENT QUEUEING:

Benefit:

If enabled residents can be in multiple queues at one time. Should a resident receive a summons from a department while with staff at another queue, they can push themselves back. Insures residents get through the different services as efficiently as possible.

SPECIAL NEEDS / LANGUAGE QUEUEING:

Benefit:

During check-in process residents can identify themselves for special needs. This automatically assigns that resident to a specific staff member or specific window. Examples: Spanish speaking resident, handicapped, ADA, etc.

ACTIVE DIRECTORY / FEDERATED IDENTITY:

Benefit:

Allows DMV IT Department to manage the logins for all employees and staff using QLess. Integration with the DMVs login environment.

MULTIPLE LANGUAGES:

Benefit:

QLess Kiosk, SMS messages, and Digital IVR voice, can be enabled for up to 8 different languages. There is a \$1,000 fee (one-time fee) per language.

FLEX-APPOINTMENTS

Benefit:

Allow residents using the Kiosk or Home Kiosk to make an appointment time. This can be enabled by department or queue. QLess Manager, can manage both appointments and residents who just got in line, simultaneously (the only solution in the world that can combine and manage both). Flex-Appointments can be set up to account for a variety of departmental needs including: the use Appointments only, variability by time of year or time of day to account for individual department needs and resident flow. Department heads can choose how to set up Flex-Appointments and change their setup over time.

Flex-Appointments 2.0 will be ready for release in Q4 of 2016. 2.0 will allow for appointment integration with g-cal, i-cal, and Outlook. It will populate both resident and staff calendars. Will also provide calendar views for individual staff (counseling/advising depts.)

ANDROID & IOS APPS:

Benefit:

Residents can also download QLess Android and iOS apps should they not wish to receive texts. The apps are always showing live data and information.

TRANSFER QUEUES:

Benefit:

Should a resident get in the wrong queue staff can drag and drop them to the correct queue and it will auto place them at their same wait time.

QLESS DASHBOARD

Benefit:

Live dashboard showing live what is happening at each location, dept/queue, etc. Provide manager with live data: how many residents in line, average wait time, median wait time, total wait time, and more. Managers can also set thresholds (number of residents, staff logins, total wait time, etc.) so that when they are exceeded the manager is notified via SMS text.

QLESS API's

Benefit:

QLess offers a suite of over 80 REST-based Web services that you can use for



integration with both upstream and downstream systems. The API's allow for seamless integration with any 3rd party software solutions. Also enables DMVs to integrate QLess with any 3rd party digital signage, reporting databases, posting wait times in other solutions, etc..

QLESS CONCIERGE APP FOR iOS (iPad)

Benefit:

The QLess Concierge App allows your staff to get out from behind the counter and interact with residents at busy times of the year. With an internet connected iPad, staff can both add residents to queues for service, see and share information on expected wait times for any and all queues and even summon residents all from the same interface. It is a modern, all-in-one user interface, which empowers your staff to serve your residents in a new way.

QLESS ANALYTICS & REPORTING

Benefit:

Enterprise reporting of all queues, including no-show rates, return rates, outcomes, transaction type, duration/service times, delay times. All reports can be viewed or downloaded by date, employee, department, location, etc. The data can also be downloaded in access, csv, or excel formats.

Resident Data:

- How long each resident waited including average wait times
- Forecasted vs Actual wait times
- Delays (time between they were summoned and when they arrived)
- Service Duration (how long to complete their transaction)
- Transaction Type (the reason for their visit)

Employee Data:

- Track how long each employee spent by "transaction type"
- Total & average number of transactions completed by employee
- Great "Workforce Management" tool

Location Data:

- No Show rates, removed from the queue, length of each queue, Arrival rates, etc.
- How residents got in line or made an appointment (web, kiosk, text-in, phone-in, DMV app, employee)
- Compare all metrics by location

Data Warehouse

UT Arlington can download all data in csv or excel and mine their own data.

RE-JOIN QUEUE

Benefit:

Should a resident not arrive on time or if they arrived for service and forgot their paperwork they can rejoin the queue at the front of the line when they return through the kiosk, sending an SMS text, or voice call.

AUDIBLE SUMMONING:

Benefit:

Should QLess web based monitor software be connected to a speaker system it will allow for an audible summon in the lobby “next resident please”. Will also announce in multiple languages if enabled.

QLESS SMS SURVEYS:

Benefit:

30 Minutes after completing their visit, residents will receive an SMS asking them to take part in a survey as to rate their experience. QLess typically imbeds links to 3rd party surveys as chosen by the University. Due to being delivered via SMS they responses rate is much higher than email.

QLESS MARKETING SERVICES:

Benefit:

QLess monitor is enabled to run video or slide show marketing on behalf of the DMV. DMV needs to provide the slides or video that they would like shown and the monitor / digital signage will be partitioned properly.

QLess can also send marketing SMS messages if they resident opts-in. Some DMVs have worked with Starbucks or other local businesses promoting discounts etc. while they wait.

West Virginia DMV's General Requirements

3. GENERAL REQUIREMENTS:

Mandatory Contract Item Requirements: Contract Item must meet or exceed the mandatory requirements listed below.

Section	Description	QLess Response
3.1.1	The Vendor must provide web based queuing software and queue ticket printers to integrate with dmvPUBLISH for use in regional DMV offices throughout the state.	The QLess Wait Management system is a hosted, web-based software solution, which allows queue ticket printing through an in-office kiosk (MRC). Unlike other queuing software vendors, QLess is hardware agnostic and can be used with any Internet connected device. Additionally, QLess integrates with dmvPUBLISH in several states and has a strong partnership with MVN.
3.1.1.1	The queuing software must be installed in these regional offices (Attachment B - Regional Office Addresses).	QLess software is SaaS (Software as a Service) and not typically physically installed on-site. However, we do have options, which allow this type of set-up. The QLess software is scalable and can be deployed in one office or hundreds of offices depending on the needs of West Virginia. Upon award, the QLess Implementation team will work closely with West Virginia to create an Implementation Project Plan to roll QLess out to all Regional offices.
3.1.1.2	The queuing software must use audio and video systems to direct customers to the correct counter for the type of service selected.	QLess provides Audio and Video systems to direct customers to the correct counter for the type of service selected. For QLess clients using Mobile or Interactive Queuing the solution also goes beyond Audio and Video system notification by allowing customers to provide a cell phone number or to use either our Android or iOS consumer apps. Customers using a phone number will receive an SMS message directly them to the correct counter and app users will receive updates via the QLess app. Only QLess allows customers to get in line remotely via a cell phone and receive status updates via a mobile device. Data from QLess DMVs and government offices show residents who use mobile technology to manage their wait experience respond more quickly to the summon message (arrive at the counter more quickly) and have a lower No Show rate than

		<p>individuals who receive a paper ticket. Mobile and Interactive Queuing is an optional service and not included in the cost tables.</p> <p>QLess visual displays provide real-time customer queuing information, designed to be displayed on the offices' LCD monitors via the QLess Monitor application. QLess also facilitates an abbreviated version of QLess Monitor on those MVN-provided monitors designated for integrated queuing displays. QLess is fully integrated with MVN, with our integrated solution actively deployed by: Michigan Department of State (DOS); Tennessee Department of Safety (DOS), and; Nevada Department of Motor Vehicles (DMV).</p>
3.1.1.3	The queuing software must display the previous three queues called, in addition to the current queue.	QLess Monitor will display all residents that have been summoned, but not yet arrived or expired in the dropdown banner with the appropriate window or counter number.
3.1.1.4	The queuing software must automatically assign customer queues for CSR windows, using pre-designated priority levels.	QLess can provide priority queuing to WV DMV in several ways. 1) When the customer selects the appropriate transaction, they are placed in a pre-designated queue for that type of service. 2) CSR permissions may be set to allow the CSR to only summon customers with specific transaction types set. Priority queuing can be configured through complex rules provided by West Virginia DMV. We would need specific descriptions of how WV DMV envisions the workflow of Priority Queuing in order to provide a timeline for how long it would take to write the initial rules.
3.1.1.4.1	The queuing software shall include business intelligence so it will be possible to determine which services are provided by which CSR, and also determine the priorities between services and business logic to determine which of a number of queues will be served by the next available CSR.	QLess can accommodate skills-based workload distribution, whereby, as opposed to a traditional FIFO prioritization system, particular employees (as dictated by WV DMV during account setup) are charged with processing the particular transaction types that they are best equipped and trained to handle. Thus, customers who join your queues are directed to the most appropriate CSR to process their particular transaction type, thereby availing the most effective customer service. Likewise, QLess can route customers who join in Spanish, and other foreign languages, to those queues being processed by employees who speak the customer's selected language, such as we

		<p>provide for Texas DPS, and many other clients worldwide.</p> <p>QLess can also aggregate different transaction types into one queue, so as to accommodate those employees who are cross-trained in the different transaction types, or, at WV DMV's discretion, queues can be kept transaction type-specific. Further, when virtual line customers are called, they receive a final text message or voice call directing them in real time as to which window to report to, and our customer communications are highly customizable, enabling WV DMV to send different, unique messages per office and/or queue.</p> <p>Each of these settings is located in the Command Center and QLess Command Center Administrators can adjust the user permissions in real-time.</p>
<p>3.1.1.4.2</p>	<p>The Regional or Central Office Management will be able to set and change the priorities for the queuing software, allowing optimal customer flow.</p>	<p>QLess uses FIFO (first in, first out) as the default algorithm today when summoning customers by queue, but a comprehensive rules engine has been built into QLess allowing you to override and supplant all core summoning rules should you choose to do so. The rules engine has access to the in-memory state of your queues, allowing you to write rules based on an almost endless combination of algorithms and live data. Queues are given a priority weight by one or more rules, and this weight value is used by the system to decide from which queue to summon. Queues with higher priorities will be summoned from first, in ascending order. A queue's priority is constantly reassessed, both during the summoning process as well as during the queue's lifecycle.</p> <p>The default FIFO (ordinal) summoning rules can be replaced with a comprehensive set of rules that describe in detail from which queue a customer should be summoned, based on an almost endless combination of rules and live data. For example, rules can be written to summon customers based on, but not limited to, their current wait times, their forecasted wait times, their transaction times, or just about any other criteria</p>

		<p>available to the system.</p> <p>Below are rules in which the priority/rules engine can live by:</p> <ul style="list-style-type: none"> • The rules engine has access to all queues, as well as the customers waiting in said queues, their current wait times, their forecasted wait times, and their category, known in our system as a transaction type. Rules can be written to use any or all of these values to decide what priority weight to give to a queue when deciding from which queue to summon. • All available data about which employees are able to service a queue, as well as which of them are currently servicing a customer is also made available to the rules engine. These values can be taken into account when deciding what priority weight a queue will be given when summoning a customer. • Historical data about average transaction times can be made available to the rules engine should you decide to use that data when writing a rule. • The rule engine has the ability to hold arbitrary values about a queue or transaction type, such as a predetermined service level time, inside the rule itself. Said values can be used when writing a rule like any other system-backed value that is made available. <p>The rules engine can be given access to logging and reporting facilities, to ensure that we are aware of exactly which rules are run and why their decisions were made in a specific way. Login and reports can be used to tweak rules and allow for maximum performance.</p>
<p>3.1.1.5</p>	<p>The queuing software will allow central office staff to monitor lobby activity and enforce accountability for the regional</p>	<p>QLess Dashboard is a Web-based application that DMV staff members may use to view real-time reporting statistics at a glance about everything that has occurred so far during the current day,</p>

	<p>offices.</p>	<p>and what is currently occurring, across all Field Offices to which the user has access. It provides data on:</p> <ol style="list-style-type: none"> 1. Minimum, median, and maximum customer wait times in each queue, at each Field Office, and across the entire enterprise 2. Minimum, median, and maximum service times in each queue, at each Field Office, and across the entire enterprise 3. Current forecast wait time for each queue, each Field Office, and across the entire enterprise 4. Number of customer currently waiting for each queue, each Field Office, and across the entire enterprise 5. Number of customers currently being served from each queue, in each Field Office, and across the entire enterprise 6. Number of customers served so far today from each queue, in each Field Office, and across the entire enterprise 7. Percentage of no-show customers so far today from each queue, in each Field Office, and across the entire enterprise <p>DMV staff members can subscribe to real-time SMS alerts from QLess Dashboard to be alerted when forecasted wait times or customer service times is higher than normal historical levels. These alerts have two different levels of severity: yellow alerts and red alerts, depending on how far the metric deviates from the historical norms.</p> <p>QLess Dashboard is certified to work on all of the different Web browsers and devices that are supported for QLess Web-based user interfaces, including mobile devices. QLess Dashboard data is loaded via REST-based Web services that are part of the QLess API. The DMV may utilize these same Web services to extract live data via XML for a separate DMV information dashboard.</p>
<p>3.1.1.5.1</p>	<p>The queuing software's capability must provide live up to date information regarding the business status, such as quantity of customers waiting in each category, customer wait times, customer</p>	<p>QLess enables authorized users to view real-time and historic data on-demand, at any time throughout the day, for all WV DMV offices, as can be filtered on the basis of: each individual office, only selected offices (as selected from a list of all offices), or; all offices. Historic data is available on QLess Reports, and real-time data is available on</p>

<p>transaction time, and counter activity.</p>	<p>QLess Queue Manager, QLess Concierge Application, and the QLess Dashboard. Below is a synopsis of the information provided, including which QLess application(s) on which the various data is provided:</p> <p>Current customer wait times, by queue, are displayed on both Queue Manager and the QLess Concierge App. for each queue, at each office, in real-time. Historic wait times for each queue, at each office; selected offices, and; as averaged across all offices, is available on QLess Reports, on-demand.</p> <p>Number of customers waiting, by queue, is displayed in Queue Manager, QLess Concierge App, and the QLess Dashboard for each queue, at each office, in real-time. Historic data on the number of customers in the queues at each office; selected offices, and; total across all offices, for any selected time period, is available on QLess Reports, on-demand.</p> <p>Actual and average transaction processing time data, by queue, is available on QLess Reports and the QLess Dashboard for each queue, and each employee, at each office; selected offices, and; as averaged across all offices, for any selected time period.</p> <p>Total number of customers serviced by queue, by employee, by select employees (from a list of all employees), at each office; at selected offices, and; total across all offices, for any selected time period, is available on QLess Reports, on-demand and the QLess Dashboard displays this information in real-time.</p> <p>Total number of customer transactions serviced by type of transaction data, by employee, by select employees (from a list of all employees), at each office; at selected offices, and; total across all offices, for any selected time period, is available on QLess Reports, on-demand and the QLess Dashboard displays this information in real-time.</p> <p>QLess Dashboard captures the number of open, closed and servicing CSR workstations, by office.</p>
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		<p>Data on the CSRs logged in to all workstations, by office, at all offices, is captured by QLess and can be provided at any time by QLess Support, upon request by authorized WV DMV personnel. The QLess Dashboard provides this information in real-time as well by location.</p> <p>The current ticket called for service at each window is displayed on the top of the user's Queue Manager, applicable to all users at all offices. This data is also displayed on the public-facing QLess Monitor interface when customers are called, letting customers know which window to report to. The tickets called and processed at each window are logged, as are the users servicing those windows, and data on which user serviced each customer, at each office is provided in the Command Center's Play-by-Play tool.</p> <p>The current transaction time of a particular customer ticket at workstation is captured by QLess and can be provided at any time by QLess Support, upon request by authorized WV DMV personnel, and; historic transaction times for all employees, select employees, all offices, and select offices is available on-demand on QLess Reports. The display of current transaction times on QLess Queue Manager, per user (workstation), as applicable at each office, is available in the QLess Dashboard.</p>
<p>3.1.1.5.2</p>	<p>The queuing software must provide configurable reporting in editable and non-editable formats for: Customer totals, customer wait time, session time, employee productivity, number of waiting customers, open/closed workstations, login information, waiting customers per category and site, status and productivity of each employee.</p>	<p>QLess provides a variety of reports in the Queue Manager, Dashboard, and Reports/Analytics such as Customer totals, Customer wait times, transaction time, etc.</p>
<p>3.1.1.6</p>	<p>The queuing software will provide an onscreen application on each CSR</p>	<p>QLess provides the Queue Manager for CSRs to use for summoning, arriving, ending service and moving residents within the solution. The QLess</p>

	terminal for employee login, and to signal the next customer in queue.	Concierge app for iPad is also available to staff for accessing and utilizing the QLess solution for CSRs.
3.1.1.7	The Vendor must provide and deliver a comprehensive and technical, online customer queuing training module that is designed to demonstrate the proper use and functionality of the printing hardware, MRC hardware, CSR application, Management application and Administrative application and system configuration.	Upon award and in consultation with West Virginia DMV, QLess will provide and deliver a comprehensive and technical, online customer queuing training module that is designed to demonstrate the proper use and functionality of the printing hardware, MRC hardware, CSR application, Management application and Administrative application and system configuration.
3.1.1.8	The Vendor will provide thirty-four (34) Epson TM-T88V ticket/receipt printers or equal. Two (2) printers will be installed at each of the regional offices indicated on Attachment B. Printers must use a USB interface, have an auto-cut feature with a minimum 2 million cut life expectancy, print information and graphics at 300 mm per second, provide 16 levels of grayscale, and provide drop-in paper loading.	QLess can provide the necessary Epson TM-T88V ticket/receipt printers or equal with the required specifications.
3.1.19	A ticket will be printed for each customer using the queuing software. Information will be printed on the ticket, including queuing number, estimated wait time and date of issuance.	QLess can provide printed tickets using the QLess web-based SaaS software solution with the following information printed on the ticket: queuing number, estimated wait time and date of issuance.
3.1.1.10	The Vendor must supply a web service or a method to transfer data (i.e. XML, text file) needed to integrate as part of the dmVUBLISH solution currently being supported by Motor Vehicle Network (MVN)	QLess currently works with MVN in several state DMV locations and can easily integrate as part of the dmVUBLISH solution currently being supported by Motor Vehicle Network (MVN).
3.1.1.11	The vendor must support and maintenance of the queuing software and printing hardware	QLess will support and maintain the QLess solution and printing hardware in all designated regional offices, at no cost for the first year.

	in all designated regional offices, at no cost for the first year.	
3.1.1.12	The vendor must provide both the labor and materials necessary to repair or replace printers. The Vendor will be responsible for the replacement of faulty system parts/components via overnight delivery. Two fully operational printers shall remain at each location at all times.	QLess will provide an additional two fully operational printers for each location and will overnight replacement printers in the event a printer becomes faulty.
3.1.1.13	The vendor must provide technical support for both software and printers via phone, Monday through Friday 7:00 am to 8:00 pm, and Saturdays from 7:00 am to 2:00 pm, Eastern Time.	QLess offers 24/7 support via phone by calling 1-877-QLESS-SOS (877-753-7776). Support items may also be logged using the Support portal at support.qless.com or by email to support@qless.com. Additionally, QLess provides information on the status of our servers at status.qless.com and Knowledge Base articles on frequently asked questions and events at kb.qless.com.
3.1.2	The Vendor must provide 17 Mobile Reception Consoles (MRCs) with a built-in printer that shall allow for CSRs to enter customers in to the queuing system remotely.	QLess will provide 17 iPadAir2 devices with SM-T300i printers. The QLess Concierge app be able downloaded onto the iPadAir2 devices which allows CSRs to enter customers into the queuing system remotely.
3.1.2.1	The MRC must be able to integrate with the queuing software solution listed in 3.1.1.	QLess integrates with dmvPUBLISH and has several current contracts with MVN.
3.1.2.2	One MRC must be installed in these 17 regional offices (Attachment B -Regional Office Locations).	QLess will provide one (1) MRC for each of the 17 regional offices as outlined in the RFP Attachment B - Regional Office Locations. However, we highly recommend two (2) MRCs for each of the 17 regional offices.
3.1.2.3	The MRC must be able to print tickets. For each customer, information will be printed on the ticket, including queuing number, estimated wait time, and date of issuance. (Attachment C -Example	QLess allows tickets to be printed using the MRC. Information listed on the ticket is customizable and can be edited within the QLess Command Center by WV DMV QLess Administrators at any time.

	Ticket)	
3.1.2.4	The Vendor must provide hardware and software support and maintenance of the MRC in all designated regional offices, at no cost for the first year.	QLess will provide hardware and software support and maintenance of the MRC in all designated regional offices at no cost during the first year.
3.1.2.5	The Vendor must provide both the labor and material necessary to repair or replace the MRC. The Vendor will be responsible for the replacement of faulty system parts/components via overnight delivery.	QLess will provide both the labor and materials necessary to repair or replace the MRC. WV DMV will be responsible for purchasing kiosk paper for printed tickets and vendor information will be provided upon award.
3.1.2.6	The vendor must provide technical support of the MRC via phone, Monday through Friday 7:00 am to 8:00 pm, and Saturdays from 7:00 am to 2:00 pm, Eastern Time.	QLess offers 24/7 support via phone by calling 1-877-QLESS-SOS (877-753-7776). Support items may also be logged using the Support portal at support.qless.com or by email to support@qless.com. Additionally, QLess provides information on the status of our servers at status.qless.com and Knowledge Base articles on frequently asked questions and events at kb.qless.com.

iPad Air 2 – Technical Specification



Finish

- Silver
- Gold
- Space Gray

Capacity¹

- 16GB
- 64GB
- 128GB

Weight and dimensions²

- **Wi-Fi**
 - Height: 9.4 inches (240 mm)
 - Width: 6.6 inches (169.5 mm)
 - Depth: 0.24 inch (6.1 mm)
 - Weight: 0.96 pound (437 g)

- **Wi-Fi + Cellular**
 - Height: 9.4 inches (240 mm)
 - Width: 6.6 inches (169.5 mm)
 - Depth: 0.24 inch (6.1 mm)
 - Weight: 0.98 pound (444 g)

Display

- Retina Display
- 9.7-inch (diagonal) LED-backlit widescreen Multi-Touch display with IPS technology
- 2048-by-1536-pixel resolution at 264 ppi
- Fingerprint-resistant oleophobic coating
- Fully laminated display
- Antireflective coating

Chip

- A8X chip with 64-bit architecture
- M8 motion coprocessor

iSight Camera

- 8MP iSight camera
- Autofocus
- *f*/2.4 aperture
- Five-element lens
- Hybrid IR filter
- Backside illumination
- Improved face detection
- Exposure control
- Panorama (up to 43MP)
- Burst mode
- Tap to focus
- Photo geotagging
- Timer mode

Video Recording

- 1080p HD video recording (30 fps)
- Slo-mo (120 fps)
- Time-lapse video
- Video image stabilization
- Improved face detection
- 3x video zoom
- Video geotagging

FaceTime HD Camera

- 1.2MP photos
- *f*/2.2 aperture
- 720p HD video recording
- Backside illumination
- Auto HDR photos and videos
- Improved face detection
- Burst mode
- Exposure control
- Timer mode

Apple Pay

- Pay with your iPad using Touch ID in apps

Touch ID

- Fingerprint identity sensor built into the Home button

Cellular and Wireless

- **Wi-Fi**
 - Wi-Fi (802.11a/ b/ g/ n/ ac); dual channel (2.4GHz and 5GHz); HT80 with MIMO
 - Bluetooth 4.0 technology
- **Wi-Fi + Cellular**
 - Wi-Fi (802.11a/ b/ g/ n/ ac); dual channel (2.4GHz and 5GHz); HT80 with MIMO
 - Bluetooth 4.0 technology
 - UMTS/HSPA/HSPA+/DC-HSDPA (850, 900, 1700/2100, 1900, 2100 MHz); GSM/EDGE (850, 900, 1800, 1900 MHz)
 - CDMA EV-DO Rev. A and Rev. B (800, 1900 MHz)
 - LTE (Bands 1, 2, 3, 4, 5, 7, 8, 13, 17, 18, 19, 20, 25, 26, 28, 29, 38, 39, 40, 41)³
 - Data only⁴
 - Includes Apple SIM — U.S. and UK only

Location

- **Wi-Fi**
 - Digital compass
 - Wi-Fi
 - iBeacon microlocation
- **Wi-Fi + Cellular**
 - Digital compass
 - Wi-Fi
 - Assisted GPS and GLONASS
 - Cellular
 - iBeacon microlocation

Video Calling⁵

- **Wi-Fi**
 - FaceTime video
 - iPad Air to any FaceTime-enabled device over Wi-Fi
- **Wi-Fi + Cellular**
 - FaceTime video
 - iPad Air to any FaceTime-enabled device over Wi-Fi or cellular

Audio Calling⁵

- **Wi-Fi**
 - FaceTime audio
 - iPad Air to any FaceTime-enabled device over Wi-Fi
- **Wi-Fi + Cellular**
 - FaceTime audio
 - iPad Air to any FaceTime-enabled device over Wi-Fi or cellular

Audio Playback

- Frequency response: 20Hz to 20,000Hz
- Audio formats supported: AAC (8 to 320 Kbps), Protected AAC (from iTunes Store), HE-AAC, MP3 (8 to 320 Kbps), MP3 VBR, Audible (formats 2, 3, 4, Audible Enhanced Audio, AAX, and AAX+), Apple Lossless, AIFF, and WAV
- User-configurable maximum volume limit

TV and Video

- AirPlay Mirroring, photos, audio, and video out to Apple TV (2nd generation or later)
- Video mirroring and video out support: Up to 1080p through Lightning Digital AV Adapter and Lightning to VGA Adapter (adapters sold separately)
- Video formats supported: H.264 video up to 1080p, 60 frames per second, High Profile level 5.0 with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats; MPEG-4 video up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps per channel, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats; Motion JPEG (M-JPEG) up to 35 Mbps, 1280 by 720 pixels, 30 frames per second, audio in ulaw, PCM stereo audio in .avi file format

Intelligent Assistant⁶

- Siri — Use your voice to send messages, set reminders, and more
- Use hands-free
- Listen and identify songs
- [Learn more about Siri](#)

External Buttons and Connectors

- Home/Touch ID sensor
- Built-in speaker
- Lightning connector
- 3.5-mm stereo headphone jack
- Dual microphones
- On/Off Sleep/Wake
- Volume up/down

Power and Battery⁷

- **Wi-Fi**
 - Built-in 27.3-watt-hour rechargeable lithium-polymer battery
 - Up to 10 hours of surfing the web on Wi-Fi, watching video, or listening to music
 - Charging via power adapter or USB to computer system
- **Wi-Fi + Cellular**
 - Built-in 27.3-watt-hour rechargeable lithium-polymer battery
 - Up to 10 hours of surfing the web on Wi-Fi, watching video, or listening to music
 - Up to 9 hours of surfing the web using cellular data network
 - Charging via power adapter or USB to computer system

Sensors

- Touch ID
- Three-axis gyro
- Accelerometer
- Barometer
- Ambient light sensor

Operating System

iOS 8

With amazing new capabilities and updates to features you use every day, iOS 8 is the biggest iOS release ever.

[Learn more about iOS 8](#)

iOS 8 includes:

- AirDrop
- AirPlay
- Control Center
- Family Sharing
- iCloud Drive
- iTunes Radio
- Multitasking
- Notification Center
- QuickType keyboard
- Siri
- Spotlight Search

Built-in Apps

- Camera
- Photos
- Messages
- FaceTime
- Mail
- Music
- Safari
- Maps
- Siri
- Calendar
- iTunes Store
- App Store
- Notes
- Contacts
- iBooks
- Game Center
- Reminders
- Clock
- Videos
- Newsstand
- Photo Booth
- Podcasts

Free Apps from Apple⁸

- Pages
- Numbers
- Keynote
- iMovie
- GarageBand
- iTunes U
- Find My iPhone
- Find My Friends
- Apple Store
- Trailers
- Remote

Connector

- Lightning

Mail Attachment Support

- **Viewable document types**
 - .jpg, .tiff, .gif (images); .doc and .docx (Microsoft Word); .htm and .html (web pages); .key (Keynote); .numbers (Numbers); .pages (Pages); .pdf (Preview and Adobe Acrobat); .ppt and .pptx (Microsoft PowerPoint); .txt (text); .rtf (rich text format); .vcf (contact information); .xls and .xlsx (Microsoft Excel); .zip; .ics

System Requirements

- Apple ID (required for some features)
- Internet access⁹
- **Syncing with iTunes on a Mac or PC requires:**
 - Mac: OS X v10.6.8 or later
 - PC: Windows 8; Windows 7; Windows Vista; or Windows XP Home or Professional with Service Pack 3 or later
 - iTunes (free download from www.itunes.com/download)

Environmental Requirements

- Operating ambient temperature: 32° to 95° F (0° to 35° C)
- Nonoperating temperature: -4° to 113° F (-20° to 45° C)
- Relative humidity: 5% to 95% noncondensing
- Operating altitude: tested up to 10,000 feet (3000 m)

Languages

- **Language support**
 - English (Australia, Canada, UK, U.S.), Chinese (Simplified, Traditional, Traditional Hong Kong), French (Canada, France), German, Italian, Japanese, Korean, Spanish (Mexico, Spain), Arabic, Catalan, Croatian, Czech, Danish, Dutch, Finnish, Greek, Hebrew, Hindi, Hungarian, Indonesian, Malay, Norwegian, Polish, Portuguese (Brazil, Portugal), Romanian, Russian, Slovak, Swedish, Thai, Turkish, Ukrainian, Vietnamese
- **QuickType keyboard support**
 - English (Australia, Canada, India, UK, U.S.), Chinese – Simplified (Handwriting, Pinyin, Stroke), Chinese – Traditional (Cangjie, Handwriting, Pinyin, Stroke, Sucheng, Zhuyin), French (Canada, France, Switzerland), German (Germany, Switzerland), Italian, Japanese (Kana, Romaji), Korean, Spanish, Arabic, Bengali, Bulgarian, Catalan, Cherokee, Croatian, Czech, Danish, Dutch, Emoji, Estonian, Filipino, Finnish, Flemish, Greek, Hawaiian, Hebrew, Hindi, Hungarian, Icelandic, Indonesian, Latvian, Lithuanian, Macedonian, Malay, Marathi, Norwegian, Polish, Portuguese (Brazil, Portugal), Romanian, Russian, Serbian (Cyrillic, Latin), Slovak, Slovenian, Swedish, Tamil, Thai, Turkish, Ukrainian, Urdu, Vietnamese
- **QuickType keyboard support with predictive input¹⁰**
 - English (Australia, Canada, India, UK, U.S.), Chinese (Simplified, Traditional), French (Canada, France, Switzerland), German (Germany, Switzerland), Italian, Japanese, Spanish, Portuguese (Brazil), Thai
- **Siri languages**
 - English (Australia, Canada, UK, U.S.), Spanish (Mexico, Spain, U.S.), French (Canada, France, Switzerland), German (Germany, Switzerland), Italian (Italy, Switzerland), Japanese, Korean, Mandarin (Mainland China, Taiwan), Cantonese (Hong Kong)
- **Dictionation languages**
 - English (Australia, Canada, UK, U.S.), Spanish (Mexico, Spain, U.S.), French (Canada, France, Switzerland), German (Germany, Switzerland), Italian (Italy, Switzerland), Japanese, Korean, Mandarin (Mainland China, Taiwan), Cantonese (Hong Kong), Catalan, Croatian, Czech, Danish, Dutch, Finnish, Greek, Hungarian, Indonesian, Malaysian, Norwegian, Polish, Portuguese (Brazil, Portugal), Romanian, Russian, Slovakian, Swedish, Turkish, Thai, Ukrainian, Vietnamese
- **Definition dictionary support**
 - English, Chinese (Simplified), French, German, Italian, Japanese, Korean, Spanish, Dutch, Portuguese (Brazil), Russian, Thai, Turkish
- **Bilingual dictionary support**
 - Simplified Chinese, Japanese, Korean, Spanish
- **Spell check**
 - English (Australia, Canada, UK, U.S.), French, German, Italian, Spanish, Danish, Dutch, Polish, Portuguese (Brazil, Portugal), Russian, Swedish, Turkish

In The Box

- iPad Air 2
- Lightning to USB Cable
- USB Power Adapter

1. 1GB = 1 billion bytes; actual formatted capacity less.

2. Size and weight vary by configuration and manufacturing process.

3. For details on LTE support, contact your carrier and see www.apple.com/ipad/LTE.

4. Cellular data plan is sold separately. The model you purchase is configured to work with a particular cellular network technology. Check with your carrier for compatibility and cellular data plan availability.

5. FaceTime calling requires a FaceTime-enabled device for the caller and recipient and a Wi-Fi connection. Availability over a cellular network depends on carrier policies; data charges may apply.

6. Siri may not be available in all languages or in all areas, and features may vary by area. Internet access required. Cellular data charges may apply.

7. Testing conducted by Apple in October 2014 using preproduction iPad Air 2 units and software. Testing consisted of full battery discharge while performing each of the following tasks: video playback, audio playback, and Internet browsing using Wi-Fi or cellular data network. Video content was a repeated 2-hour 23-minute movie purchased from the iTunes Store. Audio content was a playlist of 358 unique audio tracks purchased from the iTunes Store. Internet over Wi-Fi and cellular data network tests were conducted using dedicated web and mail servers, browsing snapshot versions of 20 popular web pages, and receiving mail once an hour. All settings were default except: Wi-Fi was associated with a network (except for Internet browsing over cellular data network); the Wi-Fi feature Ask to Join Networks and Auto-Brightness were turned off; Brightness was set to 50%; and WPA2 encryption was enabled. Battery life depends on device settings, usage, and many other factors. Battery tests are conducted using specific iPad units; actual results may vary.

8. iMovie, Pages, Numbers, and Keynote are free on the App Store for qualifying iOS 8 compatible devices with initial activation on or after September 1, 2013. GarageBand is free on the App Store for qualifying iOS 8 compatible devices with initial activation on or after September 1, 2014. See www.apple.com/ios/whats-new for iOS 8 compatible devices. Downloading apps requires an Apple ID.

9. Wireless broadband recommended; fees may apply.

10. Customized suggestions based on recipient and app are not available for Chinese (Simplified, Traditional) and Japanese.



SM-T300i

Dust Protected & Splash Proof Three Inch, iOS Compatible Bluetooth Portable Printer

The Star SM-T300i is a revolutionary ruggedized portable Bluetooth printer that is compatible with all operating systems (iOS, Android™, Windows®) including devices such as the Apple iPad®, iPhone® and iPod touch®. Compatibility with iOS is a result of Apple Inc.'s MFi certification of the SM-T300i portable printer.

The SM-T300i has easy “Drop-In & Print” paper loading, a reliable and quick print speed of 75mm per second, an intuitive LCD display and optional magnetic stripe reader. Dust protected and splash-proof resistant (IP54 Certified), the SM-T300i is rugged enough for outside field workers requiring handhelds to seamlessly print from a mobile device to a durable portable printer.

The SM-T300i also allows for restaurant servers and clerks working in demanding retail and hospitality environments to print standard three inch format receipts wherever they need to. Its rugged and splash proof design combined with standard three inch receipt printing and a long battery life make the SM-T300i a welcomed option.

In addition to its ability to pair with iOS, Android other popular mobile platforms, the SM-T300i can print receipts or data from a web browser-based application running on a mobile device wirelessly by configuring Star's WebPRNT Browser App. Once configured, simply pair your mobile device to the SM-T300i, and print from WebPRNT Browser.

- **3 Inch Ultra Durable Portable Printer**
- **Dust Protected, Splash Proof (IP54 Certified)**
- **High Speed: 75mm/second**
- **Bluetooth (2.1: SPP) / Serial Connections**
- **Backlit LCD Display**
- **Optional Magnetic Stripe Reader**
- **Apple MFi Certified – pairs with all Bluetooth SPP devices as well as iPad®, iPhone® and iPod® touch**
- **Available with WebPRNT Browser**

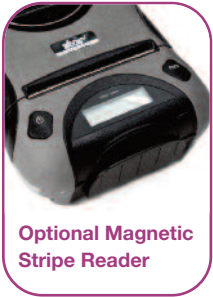


Compatible with all Operating Systems supporting Bluetooth SPP





SM-T300i



Optional Magnetic Stripe Reader



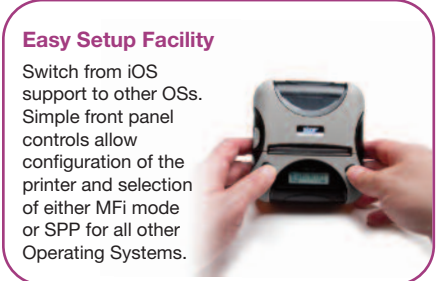
Standard 3 Inch Receipts



Quick Release Paper Loading



Drop-In & Print



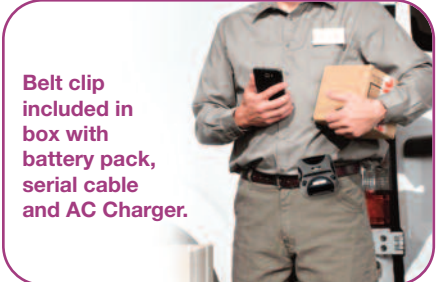
Easy Setup Facility

Switch from iOS support to other OSs. Simple front panel controls allow configuration of the printer and selection of either MFi mode or SPP for all other Operating Systems.



Optional Shoulder Strap Available

Convenient shoulder strap keeps the SM-T300i close and allows easy and secure access for mobile printing environments.



Belt clip included in box with battery pack, serial cable and AC Charger.

SM-T300i Specifications

Features – Hardware:

Apple MFi certified – pairs with iPad, iPhone, iPod, as well as all Bluetooth devices supporting SPP (Windows, Android, etc.)
Small and Lightweight Design
Rugged Design
Long-Lasting Battery Life
Dust Protected, Splash Proof (IP54 Certified)
Backlit LCD Display
Standard and 2D Barcode Support
Configurable Friendly Auto Power Down Mode
Cover Open Sensor as Standard
Black Mark Sensor as Standard (Tickets Only)
Drop-In and Print Paper Loading
Optional Magnetic Stripe Reader

Connectivity:

Serial, Bluetooth SPP and iAP (iOS Standard),
Wireless LAN available, WebPRINT Browser

Operating System Support:

iOS, Android, Windows, etc.

What's included:

AC Charger, Battery Pack, Sample Paper Roll, Serial Cable, Belt Clip, Shoulder Strap

Options:

4 unit Battery Charger, Car Charger, Extra Charger or Battery Pack

Technical Specifications:

Print Method	Direct Thermal
Print Resolution	203 dpi
Print Speed	75mm/second
Paper Width	80mm
Paper Thickness	0.060 – 0.070mm
Paper Roll Diameter	Max 50mm
Battery Life	11 hours at 5 minute Printing Intervals
Power	DC7.4V Lithium-Ion Battery 1130mAh
Mechanical Life	50km
Dimensions	120 (W) x 130 (H) x 58 (D) mm
Weight	Without MSR 435g (Including Battery) / With MSR 442g (Including Battery)
Drop Test	Without MSR 5ft. (1.5m) / With MSR 4ft. (1.2m)
Black Mark Sensor	Supported on front of paper
Reliability:	
Printer MCBF	37 million lines
Print Head	50km
Character Support	Cyrillic, Russian, Turkish, Greek, Japanese, Persian, Latin 9 and others (upon request)

Warranty:

1-Year Limited Warranty, FCC Approved (Certified)

Part Number:

Without MSR 39631810 / With MSR 39631910

For further information:

Sales 1-855-809-2010
Technical Support 1-800-782-7636
Web www.starmicronics.com

"Made for iPod", "Made for iPhone", "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone and iPad respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. iPod is a trademark of Apple Inc., registered in the U.S. and other countries. iPod touch is a trademark of Apple Inc. iPhone is a trademark of Apple Inc. iPad is a trademark of Apple Inc.

4/20/15

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