

A Case to upgrade Android Chrome with an Industrial Mobile Browser Part 1



Part 1

The world's supply chain is a highly complex system of transactions between raw material suppliers, product manufacturers, distributors, and retailers. When those transactions involve physical goods, it is the mobile workers (production line, warehouse, transporters, and retail associates) that ensure product flows with minimal interruption. With thousands of trading partners and millions of transactions taking place every hour, this is an enormous undertaking. Fortunately, technology providers are continuously delivering solutions that improve mobile worker productivity and reduce errors.

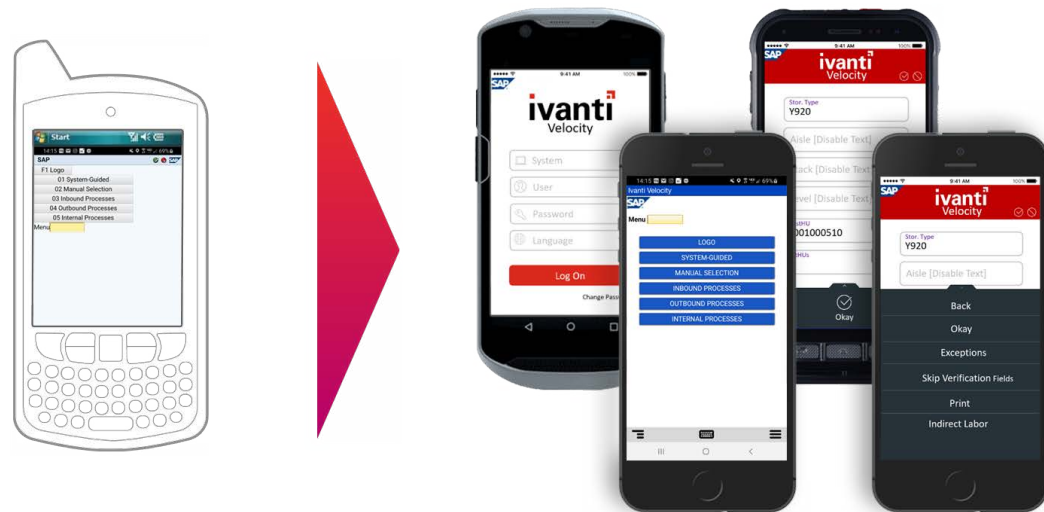
At the center of these technology solutions are warehouse management system (WMS) providers. These software organizations enable supply chain companies to manage and track most of these supply chain transactions. They do this by connecting the various processes of ordering, receiving, picking, shipment and transport with intelligent workflows and databases to create a single version of the truth. WMS providers cover a broad range of industries and specialties with each providing their unique deployment options and feature sets and most of these solutions provide workflows for mobile workers that are performed on rugged mobile computers or smart phones.

In the early days of mobile computing, these mobile workflows were delivered on the mobile device

through a Telnet (TE) interface. These text-based user interfaces (UI's) provided the mobile user with a set of directions (workflow) on where to go (aisle, shelf, bin) and what to do (collect information on an order, product, or inventory level). Some 30 years later this technology is still commonly used and supported throughout the supply chain. More recent WMS solutions are moving to web interfaces as this technology has become standard for cloud-based solutions and most mobile computers are delivered with a consumer browser such as Internet Explorer (IE) on Microsoft, Chrome on Android, and Safari on Apple.

While these browsers provide the ability to render (display) content and collect information via keyboard, they DO NOT allow the WMS provider the ability to control the mobile workflow at the same level as a purpose-built Industrial Browser can. For example,

industrial browsers and Telnet clients enable the WMS provider to gain additional access to hardware features such as barcode scanners, imagers and cameras, force cursor or prompt positioning and create screen specific keyboards to reduce data entry errors. Industrial Browsers and Telnet clients such as Ivanti Velocity from Ivanti Wavelink also allow WMS providers to adjust mobile workflows by adding graphics, product photos and alter specific workflows at the device level rather than making server code modifications. This feature is ideally suited to add unique capabilities for a specific customer or introduce new product capabilities without having to make server code modifications. Examples include modernizing the UI to replace function keys with touch buttons, inserting images into textual screens or adding support for voice input and voice guided prompting.





Another short coming of consumer browsers such as IE and Chrome are that they tend to render web pages differently. A prime example that we are currently seeing in the market is that web pages that were originally designed for IE do not allow display as expected when they are run on a Chrome based device. Since many customers are beginning to or investigating upgrading their legacy Windows devices to new Android devices this issue is timely. There are many possible reasons including differences in browser versions, manufacture implementations, and display sizes.

This is where Ivanti Velocity truly shines in the eyes of customers and WMS providers. Ivanti Wavelink got our start 30 years ago as a pioneer in mobile application

interfaces with the release of our first Telnet client which was accompanied by similar clients for 5250 and 3270. Since the very beginning, we have stood side by side supply chain mobile workers listening to their unique needs and creating software solutions to improve their productivity and reduce errors.

Our 30 years of experience and learning has been incorporated into the Velocity browser for Android with more to come. Wavelink and Naurtech, an acquired leader in industrial browsers, let the industry in this category. Velocity Web Browser is a culmination of experience and learning from these heavily used products.

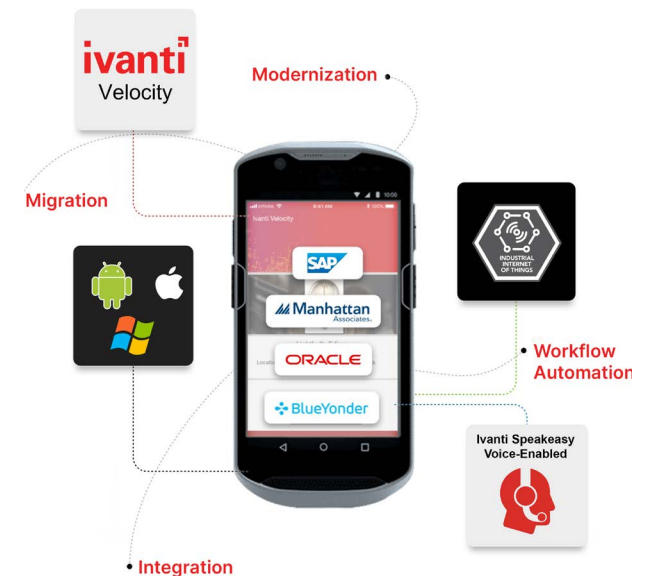
Several companies recognize the need for an industrial browser and have even tried to develop their own. The maintenance and validation overhead for apps that actually execute on mobile devices can be overwhelming and is ongoing. Ivanti Wavelink understands this as that is exactly the role our products fill.

By moving your app to a web platform, you relieve yourself of that ongoing maintenance. But if you leave browser selection up to the end user, you may be introducing a whole new level of version and platform validation to your list of tasks. Targeting your app to Velocity Web removes that complexity and allows you to be much more agile.

Below are a few of the many reasons why Velocity is the chosen browser of leading device manufacturers.

Reasons why WMS providers favor Ivanti Velocity

- Validated by over 30 device manufactures and 100's of form factors means they are assured that their customers will get the same experience regardless of device selection.
- Avoids adding all the complication of a mobile device into the application. By using a web-based app, the WMS no longer needs to account for different mobile OSs, updates of device firmware and OS, changes in standard keyboards across devices, integration exceptions for specific models and integrations, scanner oddities.
- Supporting one TE or Browser client reduces support costs and enhances customer experience.



More reasons why WMS providers favor Ivanti Velocity

- Get off the Android treadmill – each release of Android brings new features, updates and in some cases feature deprecation. Layer on each device manufacturer's implementation and unique software components and you have hundreds of variables to manage as a mobile application provider. Velocity handles all these changes allowing you to focus on what you do best, Build WMS applications that run across the majority of mobile devices.
- Broad native scripting capabilities extends what is possible at the device level.
- No server requirements. Velocity utilizes the power of the mobile computer, so no additional server requirements or code changes are required.
- Velocity does not require any changes to the host server code. This allows WMS providers to leverage the power of the mobile device and reduce network traffic and server application complexity.
- Allows WMS providers to control the entire application experience such as Barcode scanners to enable symbology's and parse barcode entries.
- Adds a new revenue source as WMS providers can include Velocity as part of their application stack.
- One common client reduces user training requirements and support costs.
- Velocity is an industry proven solution supported by a broad range of device manufacturers so they are not limited by device selection.
- Direct hardware integration support reduces deployment time, risk, and cost.
- Delivers the same user experience, regardless of device Operating System.

Now that you understand the reasons to support an Industrial Browser, stay tuned for Part 2 where we show you the additional benefits of the Velocity Industrial Browser from Ivanti Wavelink, including the support of Voice, Heads Up displays (HUD), operational insights and IoT integration.



“Driven from user-requests, they turned all the function keys into buttons. So they’re navigating, instead of F3 back, they’re hitting the button that says ‘Back’. For the new user, it just makes sense. It works just like your phone, so it’s great.

Greg Bowen, OpEx Engineer, Dorman Product

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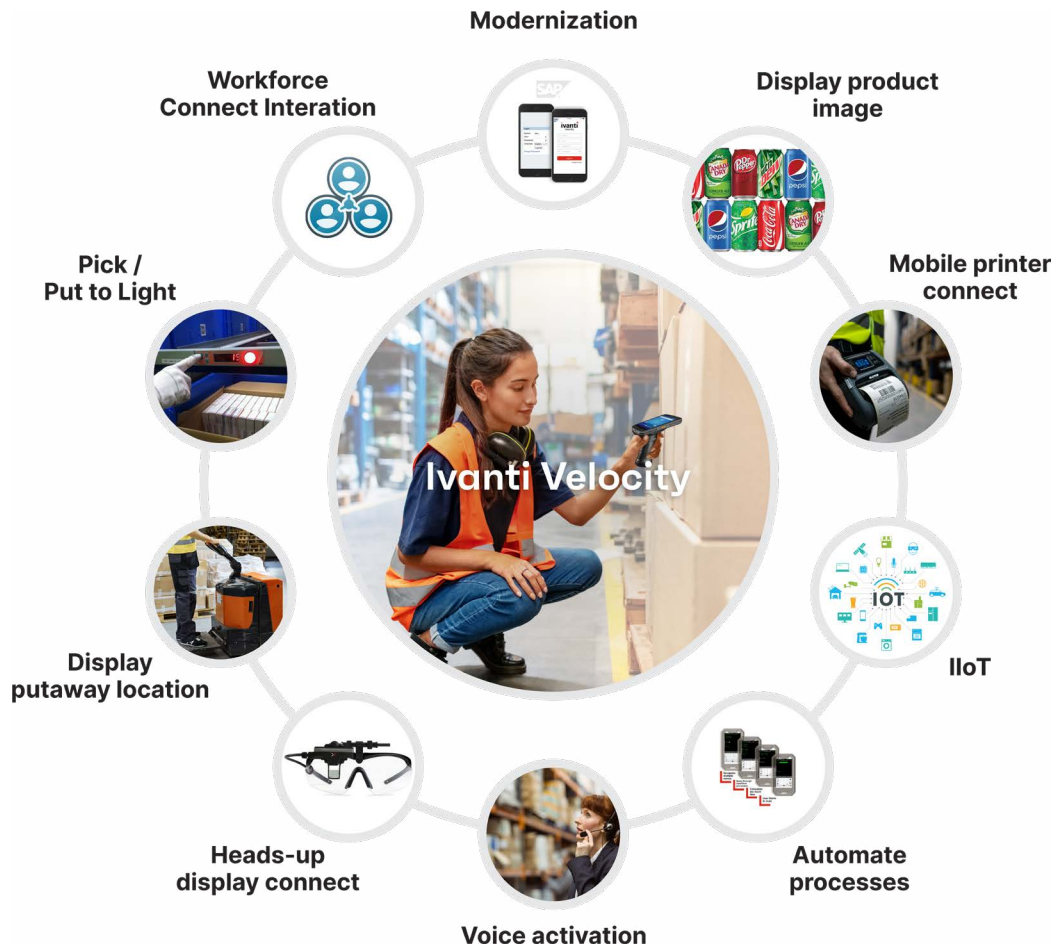
Request a demo today



About the Author

Greg Henry has spent the last 30 years within the mobile computing and supply chain industry. He is a well-rounded mobility expert holding positions in solution engineering, product development, sales, and executive leadership. He has had the privilege of working for industry leading device and application manufactures and solution providers throughout his career. In his current role at Ivanti Wavelink, Greg focuses on educating WMS and supply chain partners to help expand their mobile offerings and leverage new technologies to make supplies more productive, while reducing errors.





About Ivanti Wavelink

Ivanti Wavelink, the Supply Chain division of Ivanti, is the global leader in supply chain solutions that focus on task worker operational excellence in business-critical environments. We'll help you find the right solution to deliver products, improve order accuracy, and increase worker productivity. Call us +1-206-274-4280 or email wavelink@ivanti.com to connect with us.

To learn more about Ivanti Wavelink's supply chain products, please visit ivanti.com/wavelink.

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