

WHITE PAPER

# Automating Fulfillment and Management of Wholesale Networks Transactions

A business case for leveraging TruContact Universal Order Connect (UOC)

## Executive Summary

As Communications Service Providers (CSPs) evolve beyond offering traditional voice and data to more comprehensive business solutions, such as network-as-a-service or SD-WAN, a critical yet often overlooked component lies in providing the underlying broadband or Ethernet services that power these new offerings. Sometimes getting these critical services to the right locations can be a challenge.

For example, a large enterprise client may want to open new satellite offices outside of their operator's network footprint. To serve these locations, operators need to lease circuits from another carrier. The process of finding the best providers, getting quotes, and managing all the details related to these off-net orders is a highly manual process that often results in mistakes and frustrating delays. That's because it involves a messy mix of emails, phone calls and spreadsheets. Despite the introduction of automated systems in the provisioning of new overlay services

like SD-WAN and cloud computing, the intercarrier purchasing process for underlying connectivity services continues to be a bottleneck. It remains a highly manual process that is impossible to scale without adding additional headcount.

Higher costs, installation issues, and delays can cause customer satisfaction scores to suffer. In addition, higher operational costs mean tighter margins for the operator – and the additional mark-up often means less competitive pricing. Revenue leakage is another problem, especially when leased circuits aren't properly disconnected or 'groomed' – or when customer moves are left unreconciled.

TransUnion has developed a solution to help overcome these challenges. [TruContact™ Universal Order Connect \(UOC\), Powered by Neustar®](#) is an API-based order management platform that seamlessly connects to other carriers and helps streamline the entire intercarrier ordering process for both Ethernet and broadband.

# TruContact™ Universal Order Connect (UOC)

From connecting buyers to hundreds of sellers and identifying the best quotes, to improving the entire order creation and submission process – UOC helps simplify each critical step.



Figure 1: UOC End-to-End Service Fulfillment

# Problem Statement

**In a market where service providers rely upon off-net connections to serve their business customers, installation intervals are typically measured in months rather than days or weeks.**

A typical off-net installation requires 90 -120 calendar days per location, with the majority experiencing these long wait times due to underlying connectivity. These wait times not only delay revenue recognition but can also harm the CSP's brand - resulting in poor customer satisfaction scores.

**Currently, the fulfillment of intercarrier connectivity services is done manually** by navigating a combination of portals, emails, phone calls, and other supplier systems and processes that are in a constant state of change. Furthermore, each process is different for each supplier and for each order type. These archaic, highly detailed processes and business rules are often known only by a handful of experienced personnel - creating a huge business risk. Policy changes, new headcount, and process changes can also negatively impact the time it takes to provide connectivity services. Without a doubt, the overall impact on the customer journey is poor. A study published in the [Harvard Business Review](#) suggests workers are on average switching from app to app, website to website, nearly 1,200 times a day – this productivity tax amounts to a total of 9% of their annual time at work.

**Manual processes do not scale.** Based on our investigation, study, and interviewing with numerous customers, a headcount of 20 people is often the tipping point at which adding additional operational personnel diminishes efficiency. This diminishing return limits the number of orders a service provider can process per month to roughly 60-65 orders per head count. Once this is exceeded, there are typically additional costs incurred due to the increased chaos of additional order volumes. If operators fail to account for these costs, order backlogs and even longer installation intervals will be the likely result.

Another network related issue is the need to reconcile NEW and DISCONNECT service orders with the appropriate suppliers. Based on our experience, we have seen Move/Add/Change (MAC) orders processed with the wrong supply side vendors, leading to cumulative losses that can quickly impact financial forecasts.

Finally, many of the metrics used to evaluate and substantiate intercarrier claims and create reconciliation reports are extremely limited. The ability to reconcile quoted amounts to actual amounts and identify missed disconnects is dependent upon properly collecting and sharing critical data across organizations. PON, BAN, FOC and other valuable information is often only captured in 'notes' fields, so the ability to report on it is lacking.

Consequently, delivering off-net connectivity requires so much effort and added costs that selling rates quickly become non-competitive. This can greatly reduce the ability for operators to win new deals and keep business customers happy.

## THE INTERCARRIER ORDERING PROCESS REMAINS FLAWED

**1. Creating Orders:** Agents are required to log into multiple systems to place and manage orders. Paper orders are often faxed (yes - faxed!) or emailed and are often stored locally - making it difficult to retrieve data that can be used to identify loss, reconcile invoices, and perform revenue assurance activities.

**2. Tracking Orders:** Orders are then typically tracked via spreadsheets - or some other internal method. Real time order status is non-existent, which means customers and internal teams often don't receive accurate information.

**3. Reporting:** Reporting is done manually and is highly time consuming (due to poor data quality and missing information.) Order rework and fallout can be difficult to measure, and process improvements are difficult to identify - because of lack of benchmarks and critical data.

# Intercarrier Order Fulfillment Program

A programmatic approach to automated order fulfillment is needed. We recommend the following steps for improvement:

## 1. Centrally administer network supplier business transactions

- Automatically capture milestone time stamps
- Automatically alert and trigger related disconnect orders
- Centrally control order templates and forms
- Maintain a complete inventory of order information

## 2. Automate order fulfillment tasks

- Pre-qualification data automatically flows directly into orders - triggered by a workflow process

## 3. Reduce operational expenses related to the cost of leased circuits (loss mitigation)

## 4. Use a Vendor Dashboard to manage vendors

- Reconcile quotes for cost of goods sold to actuals
- Identify missed circuit disconnects by creating exception reports

### THE VALUE OF AUTOMATION

The figure below represents how order automation can improve the various aspects of service delivery.

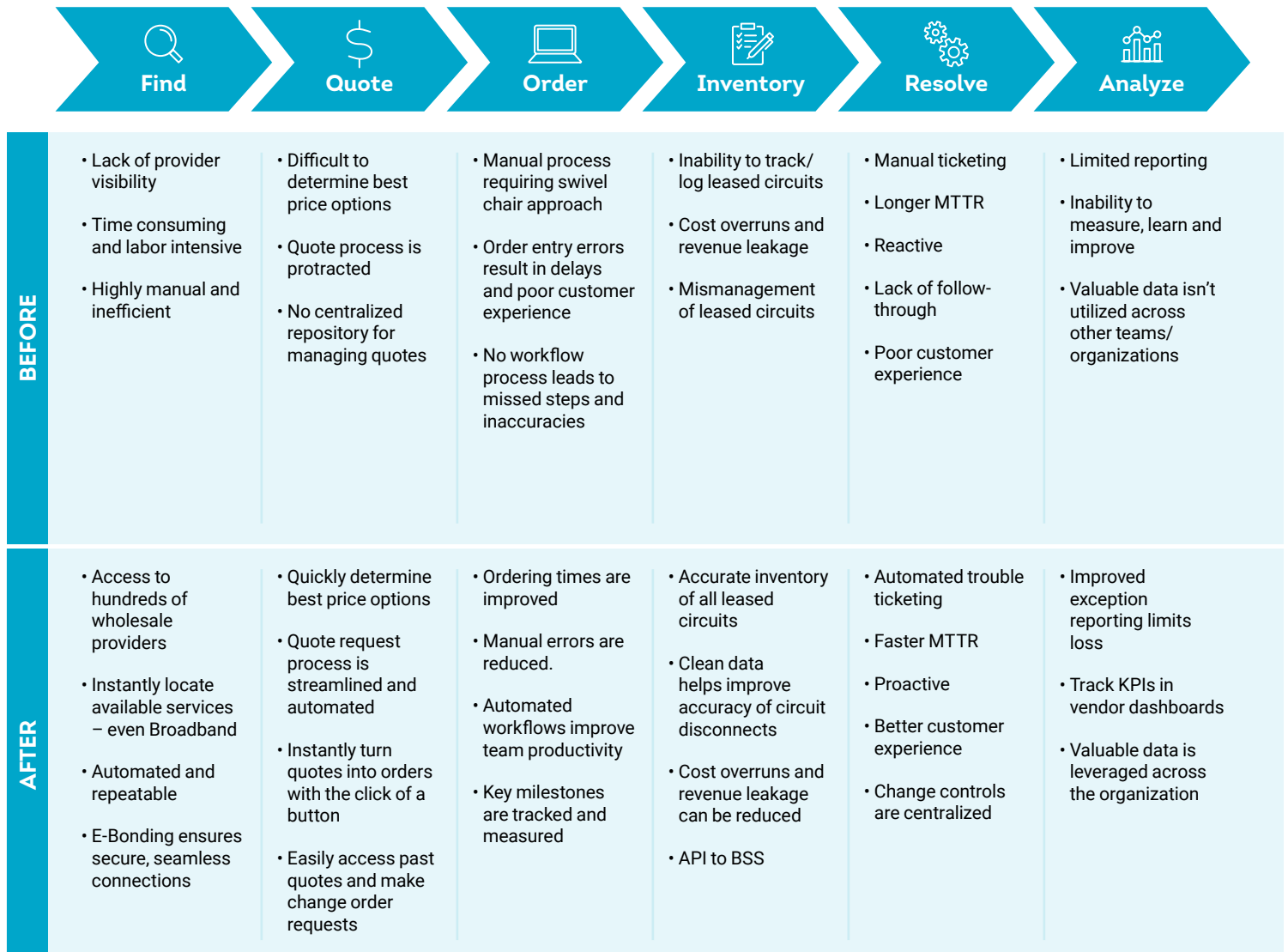


Figure 2: Connectivity Value Chain Key Benefits

# Order Automation Helps Improve Four Key Objectives

## **Key Objective 1 – Scalability**

The ability to scale is usually necessary to meet various deadlines imposed by government agencies (i.e., FCC 19-72 that set a deadline to retire offering and support of UNE by August 2, 2022 in the US), merger and acquisition synergies, as well as the timely delivery of connectivity services to end users. Manual ordering processes typically limit the number of orders and cannot scale without adding additional headcount.

## **Key Objective 2 – Lower Cost per Order**

Manual processes typically result in higher costs, especially if additional headcount is needed to keep up with increased order volumes. This then gets passed on to the connectivity service and places downward pressure on future sales and the profitability of the service provider. Automation helps lower operational expenses and allows CSPs to price their services more competitively, while also maintaining attractive margins.

Platforms like Universal Order Connect help CSPs scale at a fixed cost and lower the cost per order. (See use cases, beginning on page 7.)

## **Key Objective 3 – Improved Revenue Assurance**

Our UOC platform enables automatic data collection and reporting. These features are vital to performing reconciliation between cost-of-goods-sold and revenue on a per-location basis. Exception-based reports help to automatically alert the business when service is disconnected, and billing should cease.

While revenue assurance and loss prevention are important, these activities require clean data to be effective. But errors are common when information like addresses, timestamps, service dates, terms, costs, and other circuit information is manually entered, and this can corrupt data over time. Our experience suggests that a significant number of service providers' leased circuits are not properly disconnected in a timely manner. This perpetual residual spend can add up to a considerable loss if not quickly identified. Exception reports created with properly cleansed data can help alleviate this loss with improvements going directly to margins.

## **Key Objective 4 – Improved customer journey**

Securing off-net connectivity and managing supply side vendors at scale requires a considerable effort. Without automation, milestones, tasks, and data collected during the fulfillment process are all managed manually. This is not only more expensive, but also highly inefficient and error prone, often resulting in installation delays, errors, and ultimately, unhappy customers.

# Financial Impact

## 3-year Projected Operational Financial Impacts

Following are three generalized use case examples that show how operational efficiency could be impacted as a function of order volumes, order types, and trading partner selections.

- The gray columns represent the cost per order in a manual environment.
- The blue column represents a 'light' implementation of UOC with only the basic order receipt and order management modules in place.
- The green is UOC with CPQ capabilities included.
- The purple column shows a UOC implementation that includes the CPQ module with integration into additional BSS modules including order insights, circuit insights, and international ordering capabilities.

Some of the efficiencies that can be anticipated when using UOC, but in all cases ultimately based on individual customer experience and observation include:

- Up to 45% improvement in efficiency over baseline in a Stand-Alone configuration
- Up to 63% improvement in efficiency over baseline in an Integrated Quote-to-Order (CPQ) configuration
- Up to 88% improvement in efficiency over baseline in a fully Integrated BSS configuration

We can also present personalized carrier findings based on input and discovery using actual customer IT, Operations, Revenue, and Vendor Management data. These figures would vary, as would the relative benefits, and would require a more detailed discussion.



The following are some illustrative use cases that can be used to show estimated benefits of introducing UOC\*:

## USE CASE 1

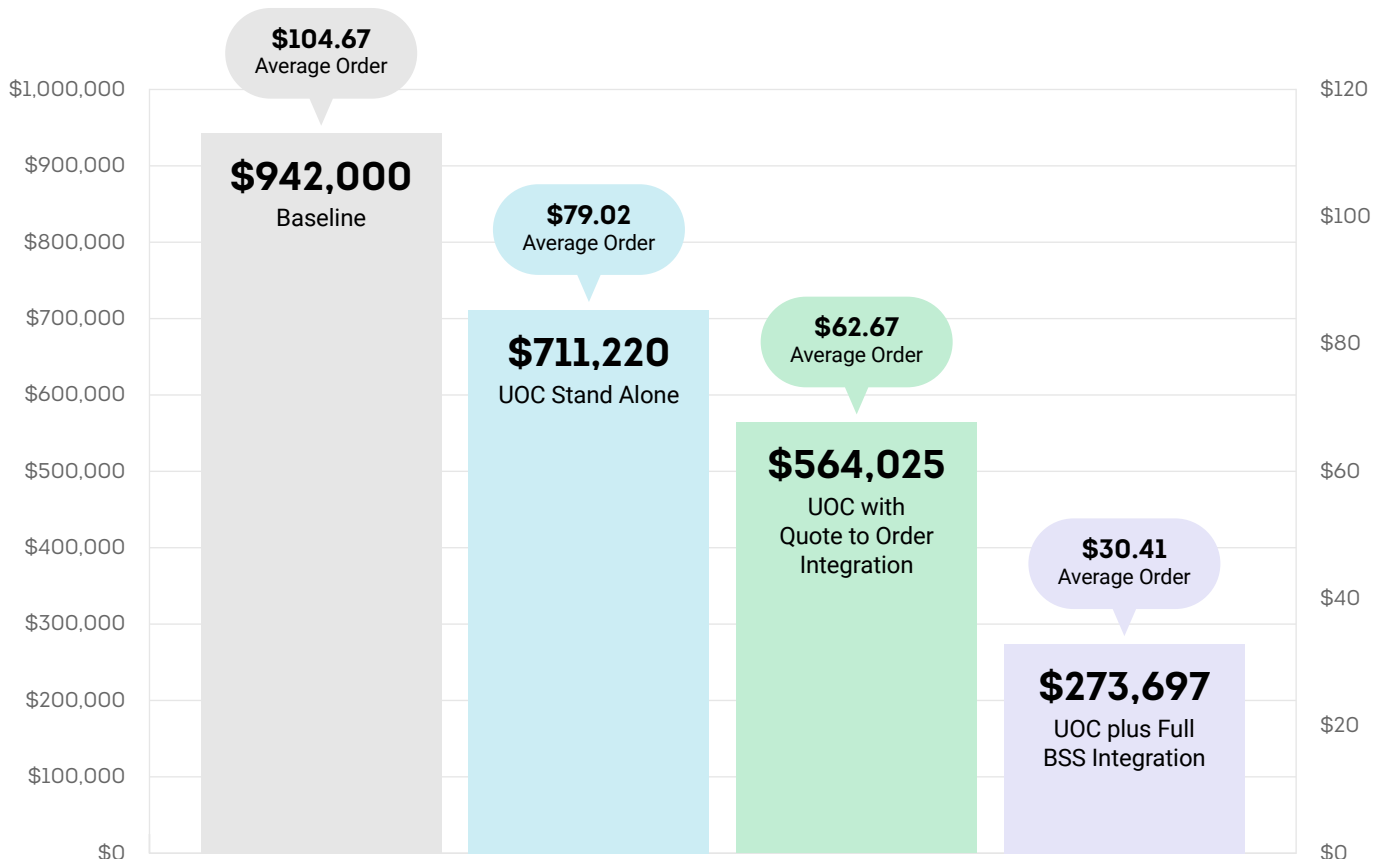
### Low Volume User

250 Orders Per Month; 50% BB/50% ASR; 10 Trading Partners; 5 Head Count

In this first ROI illustrative use case, every month for three years a carrier purchases an average of 250 'off-net' orders from ten trading partners. They are evenly split between Broadband and Ethernet (ASR) and the orders are managed by a team of five agents. This scenario includes an estimated baseline cost of \$104.67 per order before the introduction of UOC.

When UOC is first introduced the per-order cost declines to approximately \$79.02, with further savings achievable upon adding additional capabilities. The 3-year ROI for full BSS integration is predicted at 460%, with an estimated payback period of just under one year.

	STAND ALONE	QUOTE TO ORDER	FULL INTEGRATION
Cummulative 3 Year Savings	\$230,780	\$377,975	\$668,303
Investment	\$136,600	\$124,600	\$145,400
Return on Investment	169%	303%	460%
Payback Period (Months)	21.3	19.0	11.8



**USE CASE 2**

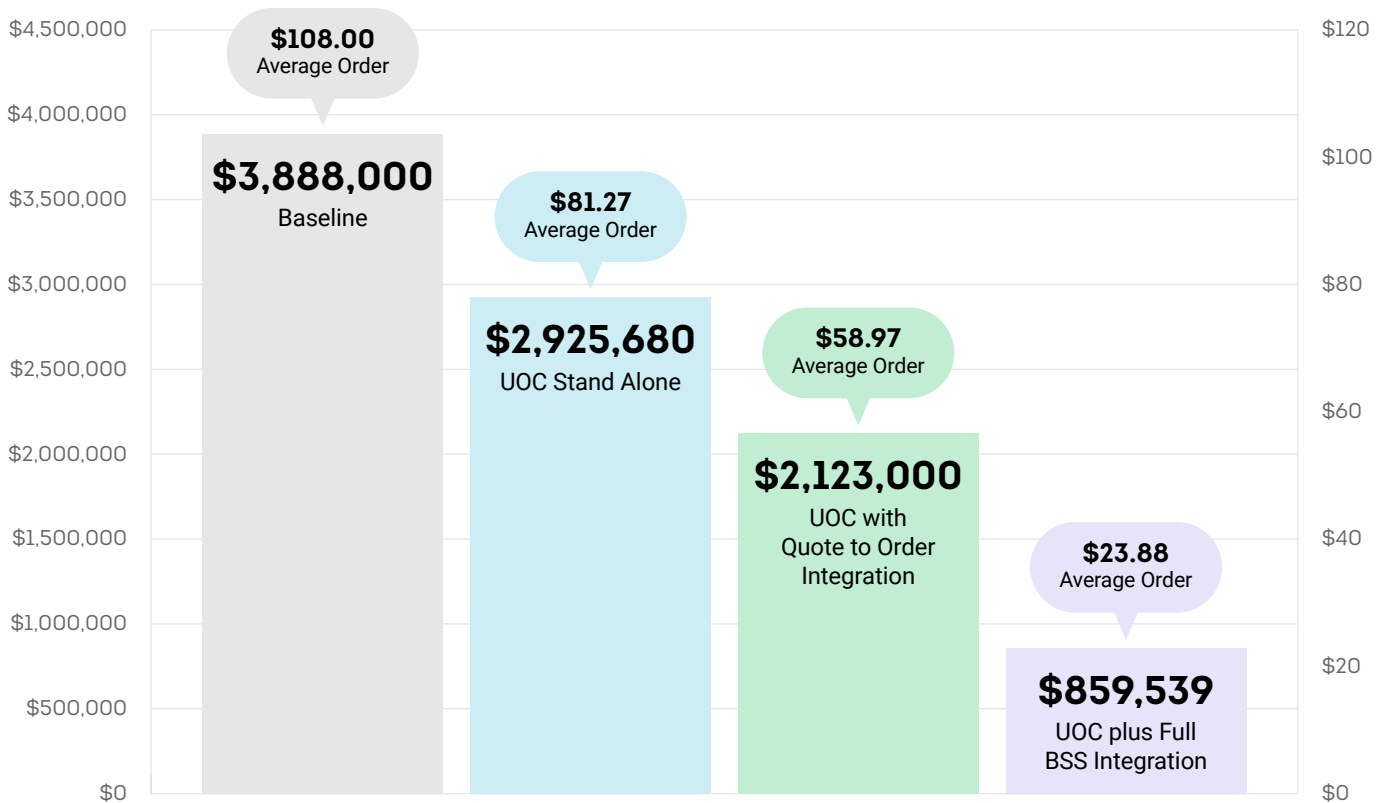
# Medium Volume User

1000 Orders Per Month; 50% BB/50% ASR; 25 Trading Partners; 20 Head Count

In the second illustrative use case shown below, every month for three years a carrier purchases an average of 1,000 'off-net' orders from twenty-five trading partners. They are evenly split between Broadband and Ethernet (ASR) and the orders are managed by a team of twenty agents.

When UOC is first introduced in this scenario, the 'Stand-Alone' per-order cost goes from an estimated \$108.00 to \$81.27, with further projected savings upon adding additional integration capabilities. The 3- year ROI for full BSS integration is estimated at 1,005%, with a per-order cost of approximately \$23.88 and an estimated payback period of just 7.6 months.

	STAND ALONE	QUOTE TO ORDER	FULL INTEGRATION
Cummulative 3 Year Savings	\$962,320	\$1,765,000	\$3,028,461
Investment	\$554,000	\$280,400	\$301,200
Return on Investment	174%	629%	1005%
Payback Period (Months)	20.7	12.6	7.6



\*Actual results will vary, depending on use of platform



**USE CASE 3**

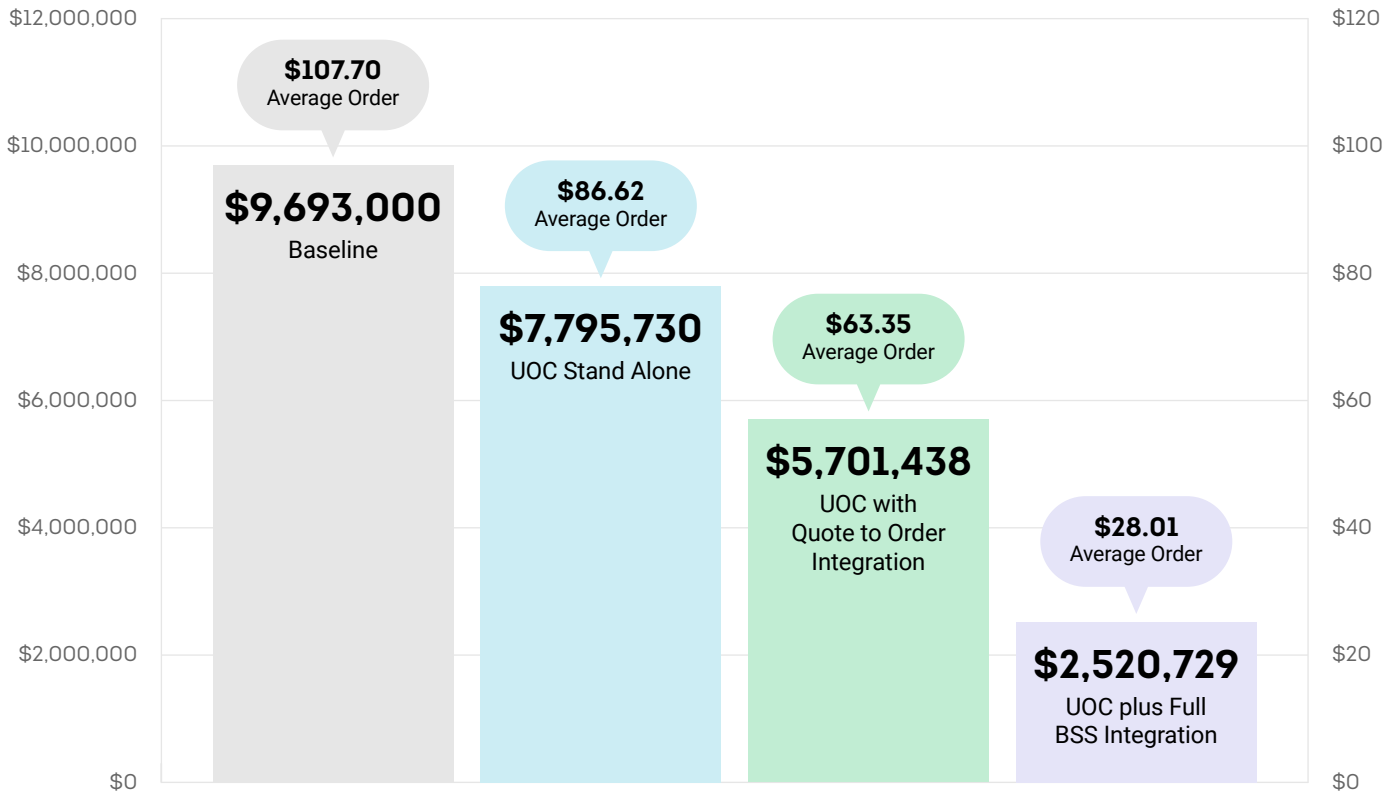
# High Volume/High Headcount User

2500 Orders Per Month; 50% BB / 50% ASR; 50 Trading Partners; 50 Head Count

In the final illustrative use case scenario presented below, every month for three years a carrier purchases an average of 2,500 'off-net' orders from fifty trading partners. They are evenly split between Broadband and Ethernet (ASR) and the orders are managed by a large team of fifty agents.

When a 'stand-alone' UOC instance is introduced in this scenario, the estimated per-order cost goes from \$107.70 to \$86.62. It then declines to \$28.01 with full BSS integration and achieves an ROI of approximately 9.9 months.

	STAND ALONE	QUOTE TO ORDER	FULL INTEGRATION
Cummulative 3 Year Savings	\$1,897,270	\$3,991,563	\$7,172,271
Investment	\$1,883,000	\$733,400	\$754,200
Return on Investment	101%	544%	951%
Payback Period (Months)	35.7	17.5	9.9



\*Actual results will vary, depending on use of platform

# Recommended Solution

## Full Integration

As show in the use case scenarios/user models, the API integration between UOC and systems like Salesforce, CPQ tools, and other BSS systems and workflow engines, enables a frictionless automated back office that not only scales, but also greatly improves the customer journey and lowers operational costs.

## Program Timeline

The UOC platform is typically deployed in two phases.

The initial Stand-Alone phase will normally consist of the platform being e-bonded with all suppliers and will present a single order entry portal and management platform. There are expected to be modest productivity improvements during this period, as outlined in the use cases above.

The second phase is normally the Integration phase where the platform will make use of additional modules along with automated triggers and data entry to realize most of the productivity gains and benefits of the program.

# High Level Risks

As with any transformation effort, there are risks involved which can impact the achievement of the financial, operational and customer benefits. The main risks to the recommended solution encompass the following:

- Lack of decisive direction by management to guide the project
- Unavailability of resources. The project will require the appropriate resources be available to work through the implementation to meet the timeline
- Underfunding of the project. Appropriate funding is required to achieve the goals
- Lack of organizational alignment. Prioritization of automation efforts AND alignment of the leadership of the service provider organization will have the highest impact on successfully achieving the goals of the program.
- 'Customer Journey' is a subjective term, potentially making it difficult to quantify improvements.

In addition, if order volumes are lower or higher than anticipated, this will have an impact on financial goals.

And, the benefits of automation may be underestimated and therefore an organization might achieve greater benefits than what is shown in the user models above. Not all potential financial benefits are shown.

## Summary

The telecom industry is quickly evolving. Enterprise customers are becoming [a larger percentage of the business](#) and have high expectations when it comes to service availability and performance. It's no longer acceptable for enterprise customers to wait months for connectivity – especially with new competitors around every corner. This business case provides examples of how wholesale order automation can help improve margins, increase speed to market for new services, and win new business customers.

It's time for carriers to take a hard look at where operational bottlenecks exist and find ways to fix them. Wholesale connectivity is an area that is ripe for improvement, and [TruContact™ Universal Order Connect \(UOC\), Powered by Neustar®](#) can help.



Learn more at:  
[transunion.com/trucontact](https://transunion.com/trucontact)

## About TransUnion (NYSE: TRU)

TransUnion is a global information and insights company that makes trust possible in the modern economy. We do this by providing an actionable picture of each person so they can be reliably represented in the marketplace. As a result, businesses and consumers can transact with confidence and achieve great things. We call this Information for Good.®

A leading presence in more than 30 countries across five continents, TransUnion provides solutions that help create economic opportunity, great experiences, and personal empowerment for hundreds of millions of people.

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