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Smooth Transitions:

A look into our customer's transition from a supplier struggling with on-time delivery and product reliability to iCONN Systems, LLC

>Re-Engineering Case Study

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Background

This case study takes a look at an OEM (Original Equipment Manufacturer) of police radar equipment. The radar equipment can be mounted in or outside of the vehicle, therefore it can be exposed to harsh environments such as extreme weather conditions and exposure to all elements found on the road.

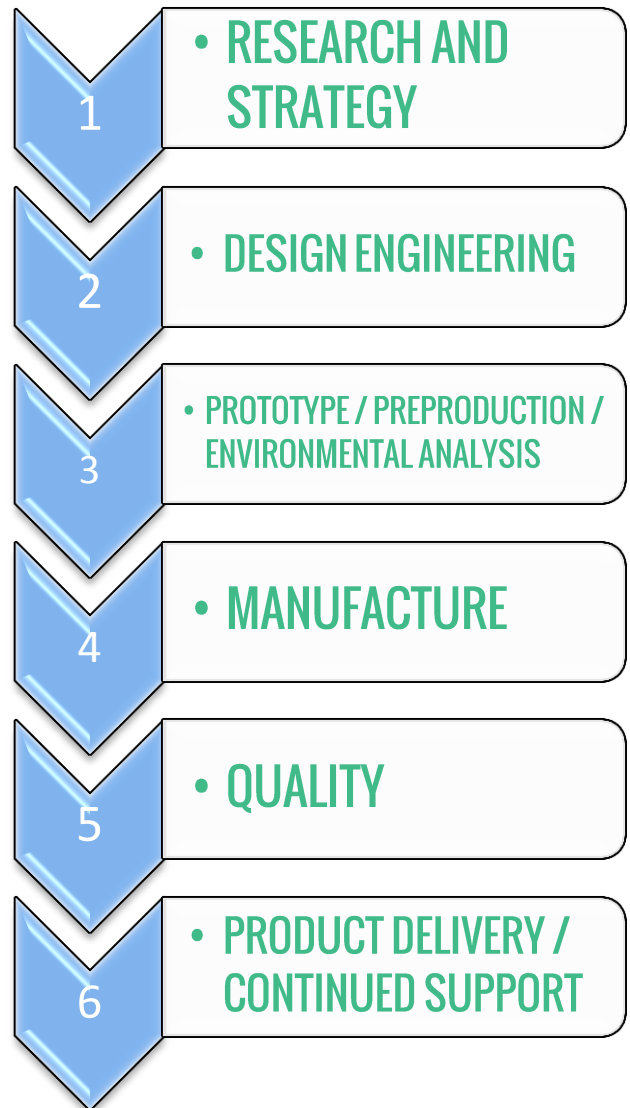
The Customer's Challenge

iCONN Systems was engaged by this customer due to their existing supplier's cost, quality, service and delivery issues. They were looking for a supplier with the ability to reduce lead-times, improve price and quality, offer inventory stocking programs and better overall custom service.

Since the customer currently had existing product in the field, they needed a product that was reverse-compatible and inter-mateable with their existing cable assemblies to facilitate implementation.

The Approach

iCONN Systems capitalized on our vast knowledge and years of experience. We utilized our [Six Step Custom Engineered Solutions Process](#) to re-engineer the existing product addressing every quality / warranty, assembly, pricing and stocking issue the customer was experiencing. We were able to perform this function very timely and efficiently.



“High Quality, On-Time Delivery, & Continuous Improvement”

The Strategy

iCONN Systems began our Six Step Custom Engineered Solutions Process by addressing our customer's key issues and offering advances solutions:

Customer's Problem	iCONN System's Solution
The contact mating was a problem due to deformation of the socket contact.	We added a feature to assist and guide the pin contact into the socket contact.
There was difficulty aligning the keyway when mating.	We placed an indicator on the mating parts to visually align.
The cable was pulling out of the over-mold and failing due to water ingress.	We re-engineered the over-mold design and changed materials to eliminate the cables pulling out.
Water ingress was present in the receptacles.	We developed a new contact and core design to create a water tight press fit.
The installer had difficulty identifying the presence of an o-ring to ensure an IP67 seal.	We changed the color of the o-rings from black to blue, allowing the installer to easily identify the o-ring was present when mating.
The connector was pulling out of the over-mold.	We re-engineered the connector to create a mechanical bond between the over-mold and the connector.
The Receptacles were not maintaining their seal after exposure to heat and/or humidity.	We used an advanced resin compared to their current method and changed the panel nut threads and thickness to tighten the seal.

In addition to re-engineering to alleviate our customer's quality issues, we were able to go above and beyond expectations by offering enhanced design options, improved pricing, an inventory stocking program and better delivery options than they were receiving with their supplier.

Additional Design Features Attained Through Re-Engineering.

Enhanced Design Features:	<ul style="list-style-type: none">○ <i>We re-engineered the coupling nuts to make it easier to fully engage the coupling ring.</i>○ <i>We specified a lower cost cable construction that was more flexible and easier to install.</i>
Pricing:	<ul style="list-style-type: none">○ <i>Through our re-engineering efforts we were able to significantly reduce all pricing while enhancing service, quality, delivery and all warranty issues.</i>
Inventory:	<ul style="list-style-type: none">○ <i>We developed a customized Kanban program to stock assemblies at our facility for same day shipment availability. This program factored in appropriate quantity to mitigate risk of excess inventory.</i>

Conclusion

Not only was iCONN Systems able to create a design that was reverse-compatible and inter-mateable, but we were able to utilize our customer's current inventory to eliminate any E & O inventory from the changeover. iCONN also worked closely with our customer's purchasing and engineering departments on collecting all the requested information and testing to ensure a smooth transition to iCONN's advanced product.

Months after iCONN System's product was being used, during a site visit with our customer, their employee responsible for warranty claims approached us to shake hands and thank iCONN Systems for making his job easier.

About iCONN...

Founded in 2006, iCONN Systems, LLC designs and manufactures electrical and electronic connectors, over-molded and discrete cable assemblies and value added turnkey products serving global markets for a variety of applications including those requiring environmental and EMI/RFI shielding considerations. Our management team has extensive connector/cable assembly experience, in excess of 100 years, to the benefit of our customers.

iCONN focuses on engineered solutions which provide our customers with high quality, cost effective designs for their specific applications, backed by superior customer service. iCONN's U.S. facility is located in Lombard, Illinois, a western suburb of Chicago where we provide sales, engineering support and manufacture a variety of customer product needs including prototypes, quick turn and low – high volume assemblies.

Lombard is also our warehouse and distribution center which includes specific stocking programs designed around our customer's needs. We have partners in strategic global, low cost regions where high volume, labor intensive products are manufactured when necessary.

Our business model has been developed around a total design concept that considers application constraints, durability, ergonomics, even audio and tactical features that provide cost effective, robust quality solutions that meet and exceed any level of pricing and service required to provide the value necessary to assure our customers success.

**For More information
Contact iCONN Systems, LLC today!
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