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People's Corner

Ranger Pro Interview with Pamela Litka & Chris McMillen

Pamela:

Alright, so tell me about Ranger Pro.

Chris:

Well, thanks for having me first; Ranger Pro is Bently Nevada's wireless condition monitoring solution. Ranger Pro is a wireless transducer for vibration that provides our end users an opportunity to either expand existing or deploy condition monitoring regimes for their plants. Expansion compliments existing reliability programs and wireless solutions are sought out for their ease of deployment cost wise, due to lack of field wiring, which enables more assets to be monitored above the line criticality wise. Criticality to machine and process defines which solution to best deploy. The flexibility with wireless enables users to broaden monitored assets more readily. It's easy to easier to deploy and it's relatively simple to use and provides a robust condition monitoring solution when combined with our System 1 software for trending and further analytics.

Pamela:

Okay so, you mentioned system 1; How does Ranger pro and system 1 correlate and work together?

Chris:

Certainly, with Ranger Pro, there's the wireless transmitter aspect of it, so it's a sensor, it's monitoring the vibration on a particular machine and transmits the reading wireless to a gateway. The gateway in turn interfaces with System 1. Ranger Pro provides both overall and spectrum/waveform data plus temperature. System 1 leverages the overall acceleration or velocity for trending purposes, customers will use that over the long term, look for increasing or decreasing trends and sets of alarms accordingly via System 1. The other piece of information the wireless transducer transmits outside of just a trend or an overall is the waveform/spectrum; and it's the waveform that provides significantly more value in condition monitoring. The overall value is like a check engine light whereas the waveform is why the check engine light. When it comes to a diagnostician, looking at the waveform/spectrum for why said trend increase helps narrow down root cause and what action to take. Leveraging System 1 analytics on the both overall and spectrum/waveform for root cause like bearing issues, ball pass frequencies, inner/outer race etc.

Pamela:

Can you tell me as the product manager your involvement in the product and the process?

Chris:

My role as a senior product manager encompasses Ranger Pro for sure but also the entire Bently Nevada sensor platform ... all sensors. I'm responsible for the entire product lifecycle or roadmap which is birth to death. At birth or a new product, it's about feasibility and portfolio strategy fit, validating customer wants/needs both external and internal such as features and functions for the entire solution said sensor fits into, what provides value, how will customers leverage said solution etc. From there, product management works cross functionally with technology on a concept together and business case. It's my role as senior product manager to continually pivot or persevere on the solution roadmap as both market, customer, and business needs dictate. What direction does that particular product need to go etc. As a product matures and sunset in on the horizon, what is that transition period and plan for existing customers, etc. So, cradle to grave.

Pamela:

So, for Ranger Pro, do we have revision control and if so, what is our revision on Ranger Pro?

Chris:

Ranger Pro, like all Bently products, has revision control, not only from a technical requirements like, technical regs and standards perspective but we have revision control so we can track any enhancements made. Enhancements can be new features/ functions or quality improvements. All are tracked with revision control.

Pamela:

What revision is Bently Nevada on currently?

Chris:

Okay, Ranger Pro is on its second major revision commercially. Revision 1 released with overall value only. The current released version is revision 2 with the addition of waveform/spectrum support discussed earlier. Each revision is a simple over the air firmware update. We are currently working on the third revision that will be adding even more features/functions that will be coming out mid-2020. This third release will be backwards compatible with release 1. It's just an over the air update for existing users while new users automatically have revision 3 from the factory. Ranger Pro is on the emerging side of that lifecycle curves and is an exciting new product for Bently Nevada. It hasn't even hit its peak yet, so it's got quite a long product lifecycle runway for years to come.

Pamela:

Cool. Can you share with me the history of Ranger pro that you haven't shared already, maybe when it came out, and the timelines that you've had for revision one, two, and soon to be three?

Chris:

Good. The version one first commercial released January of 2018. Release 2, which added spectrums and waveforms that we discussed a little bit earlier, came out June 2019. Now we're working on release three which is slated as I said earlier to come out mid-2020, so we're looking at June or July timeframe. So, about a year or so between releases with a robust roadmap ahead of us as well.

Pamela:

When you look at these dates and the different releases, what have you seen as far as how many have been produced and sold during this time frame, because it is quite a big deal right now with the idea of 10,000 sold correct? Can you highlight that a little bit for us?

Chris:

So, I don't have to break down necessarily on released 1 versus released 2, because again we track these, it's the same product just a simple firmware update, but I can certainly say the Range Pro product has been well received by the market and our end users. I said earlier, released in 2018 with any new product there's always an adoption curve, right, not only for customers to try the pilot, if you will, before doing any sort of larger deployments, but I can certainly say Ranger Pro has been well received, as you mentioned earlier, we've surpassed 10,000 units shipping out to end users and not only our core oil and gas Powergen markets, but we're certainly seeing an increased adoption in less traditional Bently Nevada markets as well. It's been a great product for Bently and very well received from our end users.

Pamela:

How often are you at events, and with the customers to be able to showcase this product, and what kind of feedback do you see and interact with when you're at these locations?

Chris:

So, trade shows, I personally am involved in usually about two or three per year specifically targeting wireless showcasing Ranger Pro. However, Bently Nevada is at many trade shows and events globally supported by our sales and services teams, typically something going on monthly. I greatly enjoy visiting regions and customers but it's really our sales and service arms that do the heavy lifting. I will typically see customers at least once a quarter to hear firsthand both the good and the bad. While the good is always great to hear, I'm most keen on understanding what are the things that customers would like to see, and it can be quality improvements, new features and functions, etc. We make a lot of assumptions as best we can on how a product will be used and add value. It's when one observes, without interjecting, an end user uses the product, deploy it etc., that provides invaluable insights to either validate or change product assumptions.

Pamela:

So, in your viewpoint and obviously you have a soft heart for the product... Why Ranger Pro?

Chris:

Ah, so yes, I'm definitely biased on Ranger Pro, it's a great product and it's a Bently product, but why Ranger Pro, what is the value that Ranger Pro brings to a customer? I'd say it's a couple of different things, a couple of key pillars, that guide Ranger Pro roadmap developments. One of them is around scalability, right. A product or feature with Ranger Pro has to be readily scalable. For release 1 and 2, Ranger Pro adopted the ISA100 protocol. This is an open protocol that allows our customer flexibility when they go out there to deploy. Another pillar is ease of use. We want to make sure that the product is fairly simple to use, even though a lot is going on under the hood. We want to make the product user friendly. And the third principle is a Bently Nevada pillar, quality. We must have a quality and a robust product. The three pillars are key.

Value wise a customer has reduced field wiring expenses, simple and easy to deploy, and there is an ergonomics/safety aspect on some assets as well. For example, like a cooling tower fan or a cooling tower bank. Typically, these are vertical, they can be measured just fine with a portable data collector or portal analyzer. But you still typically need to have a human, depending on the application either get on the ladder, it could be an unsafe environment, so Ranger Pro offers an opportunity for measurements and these type of applications a bit safe.

Pamela:

What is in the name, why was Ranger Pro chosen as the name?

Chris:

Why was Ranger Pro taken as the name? We had an existing product of ours from the acquisition by Bently Nevada. In 2011, Commtest was acquired by Bently Nevada for their superior portables' product offerings. At the time of acquisition, Commtest was working on a proof of concept wireless product. This product was on the market for a select few customers and regions for product feedback. This product was called Ranger. So obviously several years have passed plus the Commtest integration into the Bently Nevada portfolio. When it came time to revisit wireless, we wanted to build upon that Ranger name, and what better way to say that it's enhanced than it was Pro. So, Ranger Pro, it came to be simple enough.

Pamela:

So, when a customer purchases a ranger Pro, what comes with Ranger Pro?

Chris:

The customer has the option for a couple of different things - different mountain configurations of course, depending on what the customer may wish to do, a Ranger Pro comes with or without a provided battery. The battery itself is readily available around the world. And so, customers, if they have a stock room, or if they do want to replace a battery in the future, they can certainly contact us here at Bently Nevada, as our battery is readily available. They can also procure that of their own accord, if they so choose. There's a configuration software, of course on how to determine the limits and all of these features and functions. Customers have the flexibility to turn them on or off or set their own limits as well. That's it. That's a free software too on how to configure the system. And then it interfaces with the gateway system. Today's ISA100 gateway systems are from Honeywell and/or Yokogawa.

Pamela:

What are the future plans that you haven't shared any more on other than option three coming in 2020 for Ranger Pro?

Chris:

Well I'm certainly not going to completely go behind the curtains here. But I'd say the future plans centered around again three things: Scalability, flexibility, and reliability/ease of use .. quality. So new features and functions consideration must hit one or more of these pillars. Different operating environments, different assets, possibly different measurement types. Wireless is continually gaining industrial market acceptance. Bently Nevada must continue to provide leading edge value.

Pamela:

What makes Ranger Pro differentiate on the market than our competitors?

Chris:

Ranger Pro offers a several items to consider as far as market differentiation. From a vibration perspective, the frequency range of the sensor itself is 5hz to 10kHz which covers a broad range of application types while offering some of higher frequency bearing diagnostic capability. Hazardous areas. Ranger Pro a zone zero rated wireless sensor. ISA100 certified product not just compliant. Long battery life. Most wireless sensors have a battery claims, and I can only speak for Ranger Pro here when we say a battery life of a minimum of three years, we stand behind it. Product lifecycle assurance. This is certainly important for all our end users in that Bently Nevada will support this product for the long term. Wireless is a exponentially changing technology that's coming out, if an end user picks on a wireless technology, are they picking a supplier of set technology that's going to be around the next three years, five years, 20 years down the road? Bently Nevada has been in the vibration world for over 60 years ... we're here for the long term.

Pamela:

Awesome. So, what would be the warranty, what you just stated the battery life has lasted three years, is there an extended warranty on that in addition to the three years?

Chris:

Ranger Pro, like all Bently products with a minor exception for portables, carries a three year warranty. Our portables carry a 5 year warranty. Bently Nevada warranties are no hassle.

Pamela:

Thank you for your time in sharing current updates on Bently Nevada's product, Ranger Pro and its offerings to our current customers. One final question, anyone else you'd like to highlight on this product?

Chris:

Yes, two individuals highlighted is Lam Campbell and Michael Thevahn both in Houston.



Chris McMillen
Senior Product Manager
Bently Nevada, a Baker Hughes Company



Pamela Litka
Marketing Operations Specialist,
Bently Nevada, a Baker Hughes Company