



RAIN[®]
A L L I A N C E

The effect of the COVID-19 virus on RAIN member companies

RAIN RFID Alliance
Whitepaper

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RAIN RFID White Paper: The effect of the COVID-19 virus on RAIN member companies

Recently, the RAIN Alliance ran a survey of its members to find out the effects that the situation caused by the COVID-19 virus is having on business. Approximately one-third of the members responded to the survey with a broad range of comments. Only 40% of the respondents chose not to be anonymous, and of those 40% were from the U.S.A. with the rest spread around the world.

Executive Summary

- RAIN Alliance members working in many different industries and applications
- RAIN Alliance member's customers are all over the world
- Many RAIN RFID market areas/industries/applications are impacted by the virus
- Biggest challenges have been:
 - Lack of financing, reduction in orders, decrease in demand for products
 - Travel restrictions and no events
 - Managing safety of employees
 - Uncertainty
- Most responses were that orders have decreased from 10 – 30% with a few reporting that they have seen decrease as much as 85%. Some reported that orders were not cancelled, only delayed until summer/autumn.
- Responses to how has the supply chain been affected ranged from "not at all" to shipping issues including cost to ship, to plant shutdowns making product availability difficult.
- Responses to what will the company do if this continues for another 2-3 months included:
 - Cut salaries
 - Personnel reduction
 - Get Government funding assistance
 - Cut costs
 - Smart working
 - Find new customers
- How has the current COVID-19 situation changed your company:
 - Work at home
 - Tighter spending controls
 - Increase training of staff
 - Focus on digital communications
 - No change

The survey asked a series of questions and the following details summarize the responses:

Which markets does your company focus on?

- Agriculture
- Amusement & Leisure
- Asset Tracking
- Aviation
- Component Supply
- Consumer Experience
- Electronic Vehicle Identification (EVI)
- Energy
- Events & Hospitality
- Fashion/Luxury
- Food
- Government
- Healthcare
- Internet of Things (IoT)
- Laundry
- Logistics
- Manufacturing
- Military
- Pharmaceutical
- Postal
- Railways and Vehicle Tracking
- Real Time Location System (RTLS)
- Retail
- RFID equipment manufacturing
- RFID technology providers
- Security
- Sports Timing
- Supply Chain
- Sustainability
- Waste Management

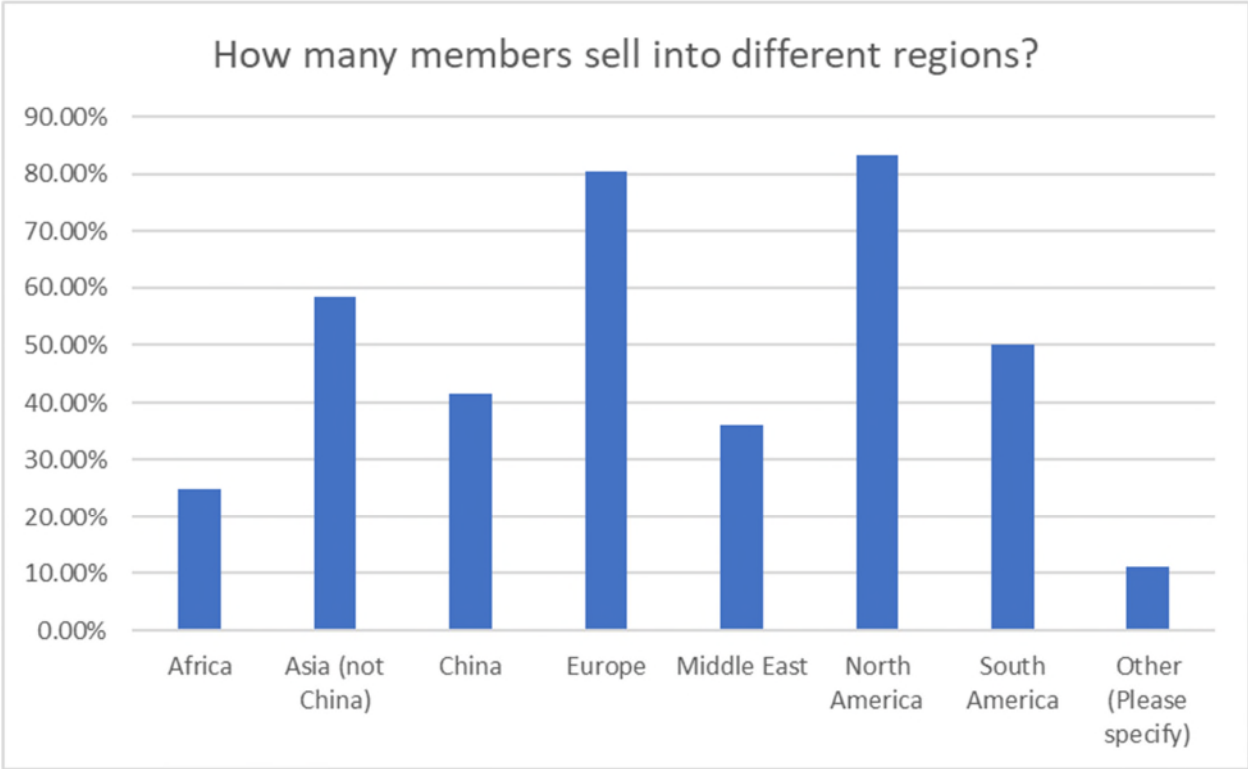
This list seems to cover all areas that RAIN technology is used in.



What part of the world are your customers from?

- Australia/New Zealand
- Africa
- Asia (not China)
- China
- Europe
- Middle East
- North America
- South America

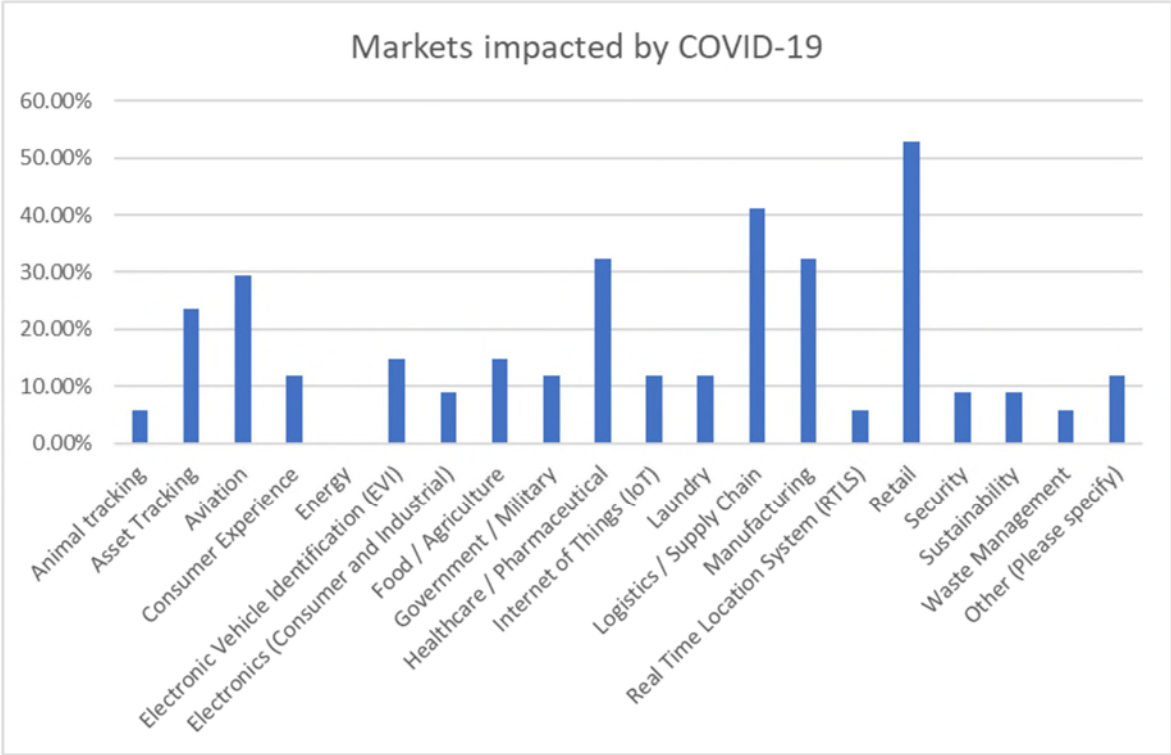
Respondents seem to be from all areas of the world



What effect has COVID-19 had on the markets/industries/applications you work in?

Responses included all the following areas of use:

- Agriculture
- Amusement & Leisure
- Animal tracking
- Asset Tracking
- Aviation
- Consumer Experience
- Electronic Vehicle Identification (EVI)
- Electronics (Consumer and Industrial)
- Food
- Government
- Healthcare
- Internet of Things (IoT)
- Laundry
- Logistics
- Manufacturing
- Military
- Pharmaceutical
- Postal
- Real Time Location System (RTLS)
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- RFID technology providers
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- Supply Chain
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- Waste Management



Specific information for some applications/markets:

Agriculture	Defined as an essential service and generally this sector has not been directly affected. However indirectly no one is spending money on new technology
Aviation	Noticeable slowdown in dialogues and inquiries for both baggage tagging and ATA Spec 2000. Forget for the time being

	Great uncertainty Complete standstill
Consumer experience	What has totally died in every single country is Amusement & Leisure (People ID and Access but also asset management projects at hotels/resorts). Another vertical which is completely dead at the moment is Race Timing. Events & Hospitality & Sports Timing - Can't have people gather around/ crowd controlled
EVI	AVI (Automated Vehicle Identification) and especially ETC (Electronic Toll Collection) - since they are almost always very large national Government projects these are in most cases put on hold for 4-8 months.
Government	Greatly increased while other markets have stalled to some extent
Healthcare	Increase in inquiries and dialogues particularly UDI. Greatly increased although we have been surprised by a number market's still making progress. Pharma has been a good WIP items.
Retail	Significant impact as ROI was focused on store operations. Retail orders have stopped Retail tag need expected to drop 35-40% within the next months. Store closures drop demand Projects in retail put on back burner or cancelled. Expect (new) retail business to be very slow in coming back.

What has been your biggest challenge related to COVID-19?

The responses to this question were diverse from "none" to some common issues.

The largest amount of responses was around the financial issues associated with the lockdown of people and companies but travel and uncertainty featured in the responses as well.

Financial issues

- Lack of financing
- Holding or decrease of orders
- Getting product on time
- Total stop of production, product development, shipping, and receiving of raw materials due to lockdown
- Decrease in demand for our products
- Cash Flow
- No new business and a stoppage of recurring

Travel is also a big issue:

- Tradeshows and events were critical to continuing our progress. Without these shows and events we will have to redouble many of our efforts to get back on track
- Travel ban not possible to visit customer sites to perform site surveys
- Getting out to speak with customers.

- Travel Restrictions

Coordinating staff and work

- Health and safety of our members while trying to keep business operations as normal as possible
- Coordinating non-essential staff working from home and altered levels of access to customers (i.e. hospitals) due to travel and visitation policy changes
- Managing safety
- Keeping the distance while maintaining production

Business Plans

- Drastic review of the production plan of the company and the customer and the disturbance of the distribution
- We have been able to ship orders
- Not being able to test samples sent
- New Projects are on Hold.
- Some applications stopped completely (Events Hospitality & Sports Timing for example)
- Unable to meet business objectives

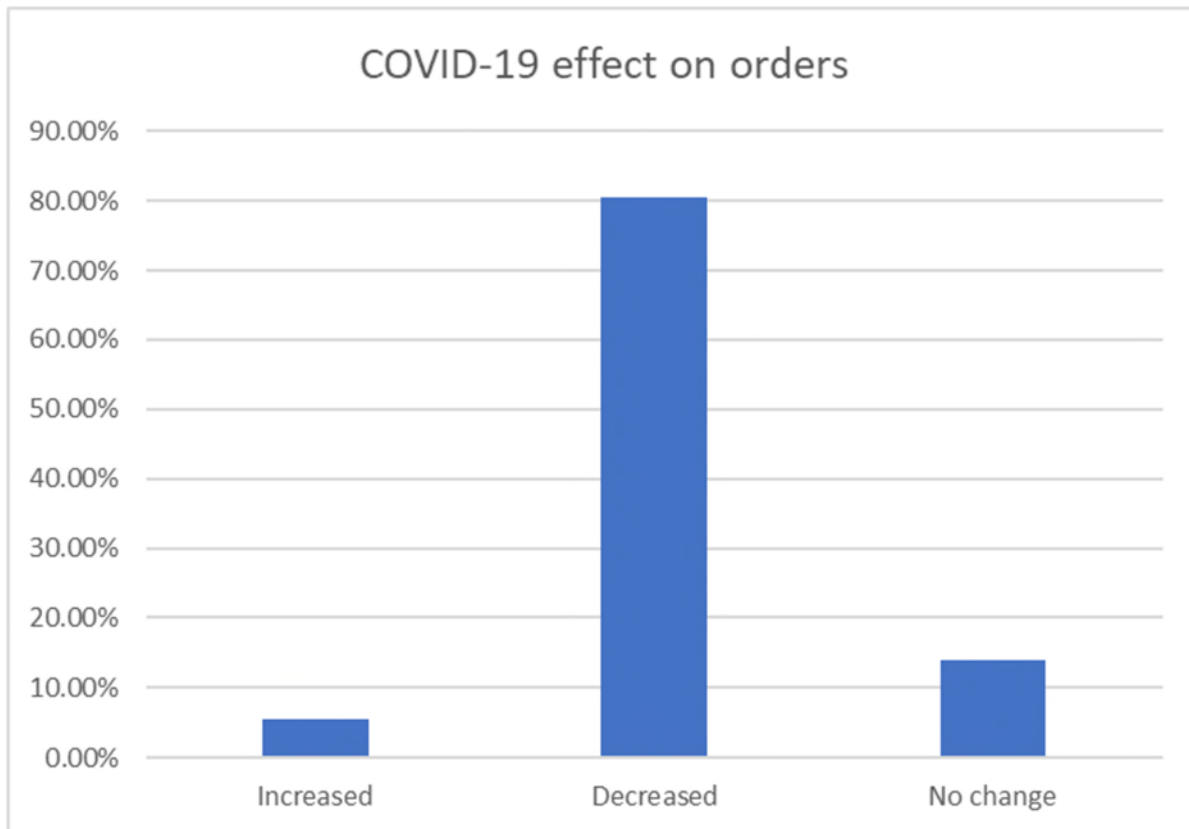
Uncertainty

- uncertainty for all parties involved
- No one really knows at the moment how long the lock downs will extend. If a second wave occurs, then the markets and economy will suffer

What effect has COVID-19 had on your orders? [By how much?]"

Most responses were that orders have decreased from 10 – 30% with a few reporting that they have seen decrease as much as 85%. Some reported that orders were not cancelled, only delayed until summer/autumn.

A few responses reported that there had been little of no impact and in some cases where the orders were for critical equipment, orders have actually gone up.



How has your supply chain been impacted by COVID-19?

A broad range of responses from little or none to shipping issues:

- No impact
- Supply chain not affected because we took in additional inventory; challenge has been shipments not being accepted due to business closings
- None yet
- Very little
- Some delays from suppliers not dramatic
- The impact on our supply chain has been surprisingly small
- No issues as we have ample supplies
- Fortunately, not. We're still able to supply products with no problems

- Shipments to customers since company are closed
- Stores had to close and shipments from suppliers has been stopped
- Some impact on sourcing products
- Some shipments delayed but overall, not bad

- Some consumables are not obtainable, but we are stocked up

- Hard to find forwarders or air carriers available
- Initially our suppliers were shutdown (China) however they are slowly coming back online some came back quite quickly
- We are not receiving orders, so we are not ordering anything from suppliers except urgent stuff to protect cash flow. We planned for this worst-case scenario so prudent cash protection will see us through ok
- Increase in shipping charges. Shipping cost tripled!!
- Some tags not available for purchase. Some tags price increased
- Air cargo prices soared

- Delays esp. to/from Asia
- Increased freight cost
- Delays due to plant shutdowns in China and Mexico
- Some minor delays but nothing drastic.
- Some orders returned because either nobody at recipient to sign for the order or courier could not provide some COVID-19 paperwork
- It takes 2+ weeks to move product from Asia vs. next day.
- Airlines are full of necessary supplies and no commercial carriers means less air freight available.

If the COVID-19 outbreak and government restrictions continue for another 2 to 3 months how will your company adjust?

As expected many companies are tightening their belts and looking for alternate ways to continue in business.

- Cutting salaries or collaborator and renegotiating rental and other expenses
- Biggest concern is getting paid
- Most likely personnel reduction
- Savings program non-essential spending cut down
- If the India Gov't extend the lockdown so customs dept. cannot work, and our factory has to be closed then it will have very negative effects
- Employee payments will be tougher to make
- Hiring freeze requesting government funding
- Utilize government support programs as they increase the financial buffer
- Workforce adjustments may need to be made
- Will reduce production substantially

- Product development and sales will be put on hold to focus on areas
- Depending on level of restrictions we will either be OK or will have to cut costs. Our Business Continuity planning has shown we can last at least another 2 months with strong restrictions, but we would not be able to satisfy customers' requirements and potentially lose market position. Currently expecting to start to resume factory operations in a few weeks and back to normal operations in 6 weeks
- It will be difficult and will cause some layoffs

- Major increase in online events
- customer invests delayed to years (2021/2022)

- Get by
- We will do fine
- It will be tough as there will be next to no demand for our products, but we have cash reserves and will focus on managing cash and costs
- Continue as we have since crisis and policy changes were put in place
- Smart-working finance help from the government
- We will most probably resort to our strong balance sheet and try to focus on developing our operations, marketing, and products during the slower period

- Seek markets that have a need for tracking; re-allocate resources to areas that are in higher demand
- Strong focus on services for digitalization
- Develop new business models around Click& Collect for Food and Apparel
- Drive value proposition in supply chain
- Have restructured some of our manufacturing to producing PPE but that doesn't totally supplement missing sales; will need to make other decisions i.e. reducing hours etc.
- We might have to pivot from providing complete solutions to just software solutions and increase focus on our higher in demand E-governance Services vertical and maybe even look at some new sanitation/hospital oriented solutions to survive in the short run
- Looking for new customers

How has the current COVID-19 situation changed your company?

The theme seems to be work at home, better digital communications, employee safety, and revised planning for the times ahead.

- Working more on marketing activities and long developments
 - Taking advantage to finish some internal work improving remote training of our staff and clients
 - Communicate more regularly and strategically at a global level
 - Much tighter controls on spend
 - Mostly home office for all. No travel at all
 - Remote working has been challenging but also opened up for new ways of doing things. Too early to say whether order decrease will impact long term
 - Forecasting is not possible
 - We're increasing communication via virtual means especially more video meetings with customers
 - We have transformed digitally and will definitely become leaner and more technology oriented in the future.
 - Increased focus on risk management
 - It drove digitization
 - Concentration on seeking new markets considering suspension in other markets
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- Not very much at this time. Other than salespeople are having to work from home
 - Most of the workers work from home
 - Most of the people are working from home and I guess we are more skilled in remote working and meetings.
 - Focused more on digital marketing as trade shows have been postponed
 - On-line work increase.
 - Home office whenever possible. No business trips at all. No customer visits. No exhibitions planned from March until end of summer
 - Sales working from home. Production work in shifts
 - People working remotely working conditions and hours have changed started producing PPE
 - It's a game of two halves - Sales & Marketing and Engineering are fully enabled for working from home and are busier than ever with their activities and responding to customer requests. Factory staff are not able to do much at home, so the focus is on future planning training and working on process improvements.
 - Low revenue as can't manufacture and ship products during the lockdown
 - Greater attention to analysis and planning
 - Short-term mitigation return to work and longer-term postponement of RAIN meetings and other industry events.
 - Restructure some of our manufacturing to producing PPE; have staggered hours in manufacturing and have 60% of office staff working remotely
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- No Change for company in general
 - No major changes yet
 - Not fundamentally
 - Not much

ABOUT RAIN RFID ALLIANCE

The RAIN RFID Alliance is an organization supporting the universal adoption of RAIN UHF RFID technology. A wireless technology that connects billions of everyday items to the internet, enabling businesses and consumers to identify, locate, authenticate, and engage each item. The technology is based on the EPC Gen2 UHF RFID specification, incorporated into the ISO/IEC 18000-63 standard. For more information, visit www.RAINRFID.org. The RAIN Alliance is part of AIM, Inc. AIM is the trusted worldwide industry association for the automatic identification industry, providing unbiased information, educational resources, and standards for nearly half a century.



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