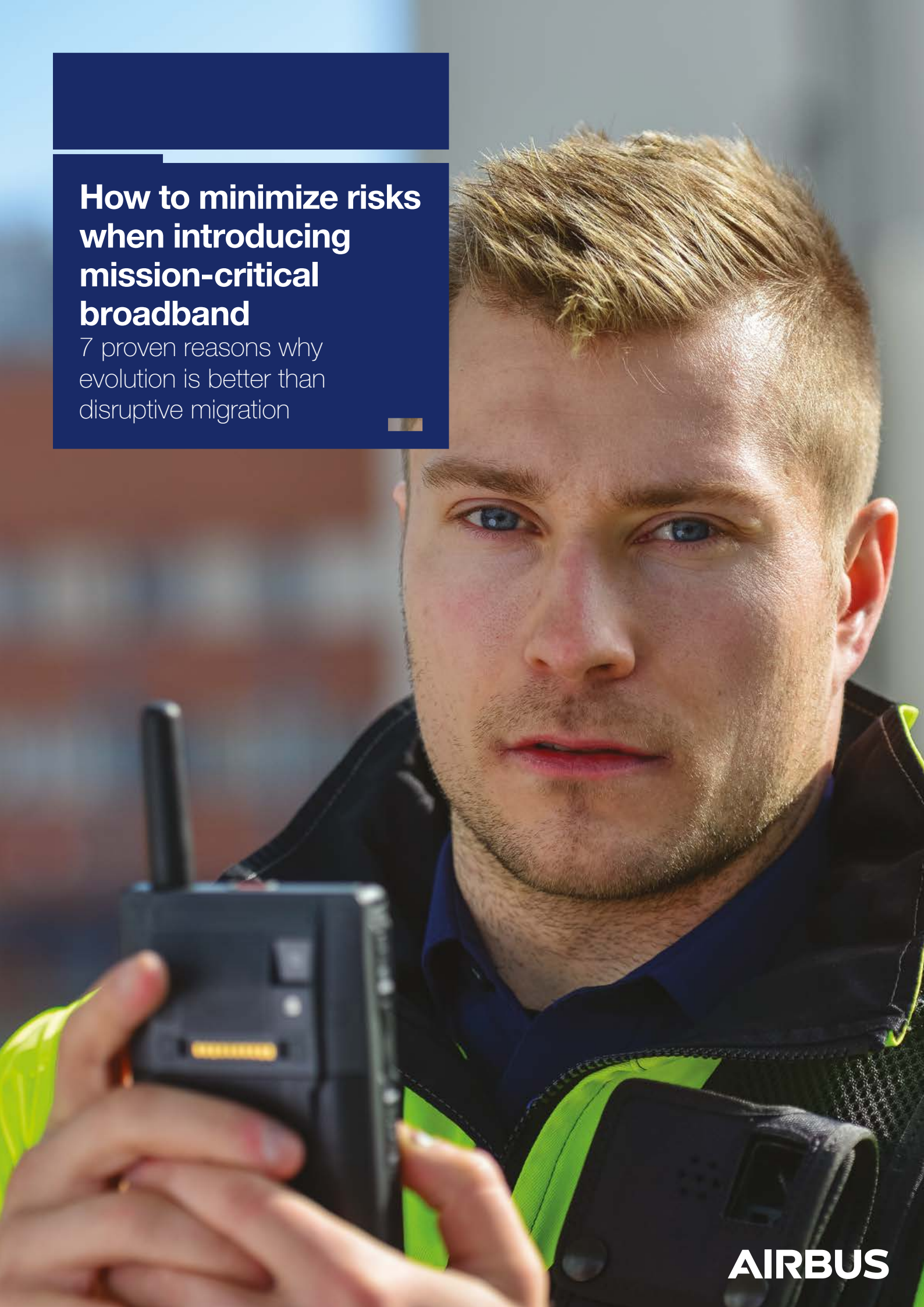


How to minimize risks when introducing mission-critical broadband

7 proven reasons why evolution is better than disruptive migration

AIRBUS

Why mission-critical broadband matters

Implementing mission-critical broadband is much more than just a technical issue. Yet many of these types of project are driven by the IT organization, which is focused on updating or replacing the existing infrastructure. Often, the need to change operational processes is ignored. Instead, maintaining technological continuity becomes the main objective, regardless of the changing needs of users.

Such an approach ignores the underlying reasons for mission-critical broadband.

> “Changing from one technology to another is NOT the driver behind the evolution to broadband.”

So what is the real reason? It’s all those things we see on the TV news and online every day - the terrorism, organized crime and civil conflicts. Emergency services and police forces face these risks every day of their working lives. Broadband is about giving them the tools to manage difficult situations – it helps to keep officers safe so they can keep us safe.

Despite their heroic efforts, it’s clear that public safety organizations are being pressured by the general public to address a growing range of threats. According to the *Special Eurobarometer on EU inhabitants’ security attitudes**, respondents’ top three security challenges are terrorism, organized crime and cybercrime.

But while public safety services are expected to do more, they are not being given extra funding. According to the *Public Safety Technologies Report 2019 by IHS Markit***, the estimated compound annual growth rate (CAGR) of public safety personnel in 2018-2023 is 1% globally and 0% in Europe. This means that public safety services are expected to achieve more results with no additional resources.

> “People want public safety organizations to do even more – with less.”

So, public safety organizations need to work more efficiently to deliver better safety and security, but without more personnel. New technology can provide the answer.

* http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/surveyKy/1569

** https://technology.ihs.com/593851/public-safety-technologies-report-2019

New technology – where and how?

With these growing demands, many public safety organizations are asking how new technology can boost their efficiency. The answer is to make full use of the vast ocean of data that surrounds us.

Using this data where it can make a difference, on the street, at the accident site or at a fire, means being connected to broadband. Nearly every police officer and firefighter in the EU has a digital radio, giving them a superb voice connection, but with severe limitations when dealing with data.

The people who are getting the most from data today are consumers, who use smartphones constantly and naturally. Could public safety professionals get the same fluency with smartphones?

The answer is it depends on how it is done.

Simply replacing professionals’ radios with smartphones would mean a drastic shift from their familiar radio system to a new broadband network – one technology being replaced by another. This approach doesn’t consider how people work. Forcing users to switch suddenly to a completely new technology risks disrupting operations severely.

That is not good enough. Any new solution must support current operational processes while also offering new capabilities. Simply tearing down the old network creates huge risk for the public safety organization’s ability to complete its mission.

In other words, the technology shift should be a seamless evolution, not a disruptive migration.

Seven proven reasons for seamless evolution

Just ditching old technology for new won't work. Here are seven reasons for a gradual evolution using a hybrid network model.

1

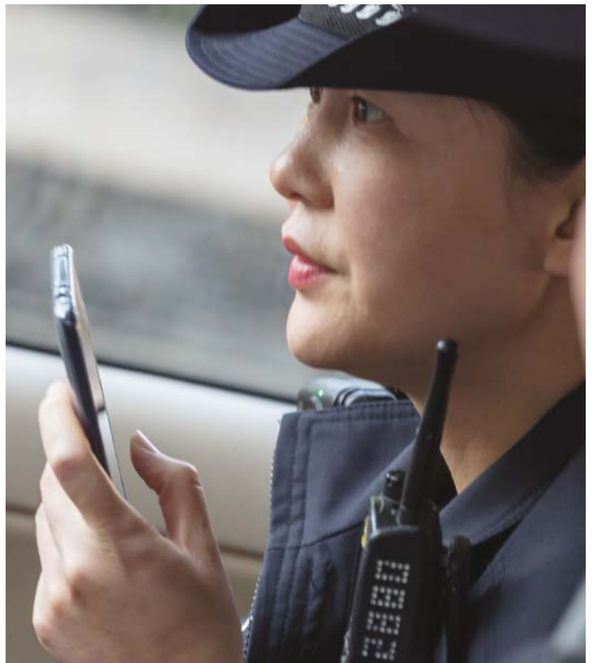
The users should be involved from the start
The early involvement of users ensures an accurate scope for the project and that the evolution plan meets users' needs. Getting users on board early also means they are more likely to actually use a system they helped design. Whenever projects have omitted this stage, they have seen their plans frustrated.

2

You can add value without taking any away
New capabilities are the best promotion for the new system.

3

You can minimize discontinuity
No user wants to adopt new ways of working overnight. The new functions you provide should build on existing ones, allowing a smooth changeover.



4

You can provide at least the same of level service from the start
It's vital the system you choose offers the coverage and availability of existing services. And that includes any special requirements, such as direct mode and coverage for border guards.

5

It's economically feasible
You may think that maintaining the existing system alongside a new one would be "money wasted". Yet, the business case for adopting new technology for public safety should be based on the value it adds. "Saving money" by ramping down a functioning system can become very costly, as reason 6 demonstrates.

6

You can keep your customers
A seamless evolution means your subscriber numbers won't fall off a cliff, protecting your cash flow.

7

You can get some quick wins under your belt
Offering new capabilities can show your users a practical example of the value they are getting, the very reason you are introducing new technology.

However, the flip side of the coin is the five risks to watch out for when adopting new technology for public safety. Find out more on the next page.

What is a hybrid network?

The unique capabilities of digital TETRA and Tetrapol solutions, such as group communications, near-instant connection, mission-critical availability and reliability, and multiple security features, are vital in supporting the work of public safety professionals.

Meanwhile, many new applications that require broadband connectivity are generating considerable interest, particularly those for location awareness and shared situational awareness.

A hybrid network is a TETRA/Tetrapol network and a broadband network, either dedicated or commercial, used in parallel. Working seamlessly together, such hybrid networks deliver the benefits of both mission-critical communications and professional broadband apps.

Five disruptive things that could ruin your project

Technology by itself is not the real disrupter. The biggest threat to any business is failing to put your customer at the heart of things. In fact, four of the following five things that could ruin the introduction of new broadband solutions to public safety are directly linked to users – that is, your customers.

So, what could go wrong?

1

Alienating the users
We know that first responders will not adopt new solutions without thoroughly verifying them. After all, if something doesn't work right during a mission, the risk is not to money, but to lives. Little of this verification work is being performed on mission-critical broadband solutions today.

2

Insurmountable limitations in the new solution
It's never a good idea to replace tried and tested functionality with a new technology unless it can provide equivalent or improved services. Although LTE standards for mission critical communications are being introduced, solutions based on these standards are not yet well developed. A complete test of the technology for use by first responders is vital and likely to take considerable time.

3

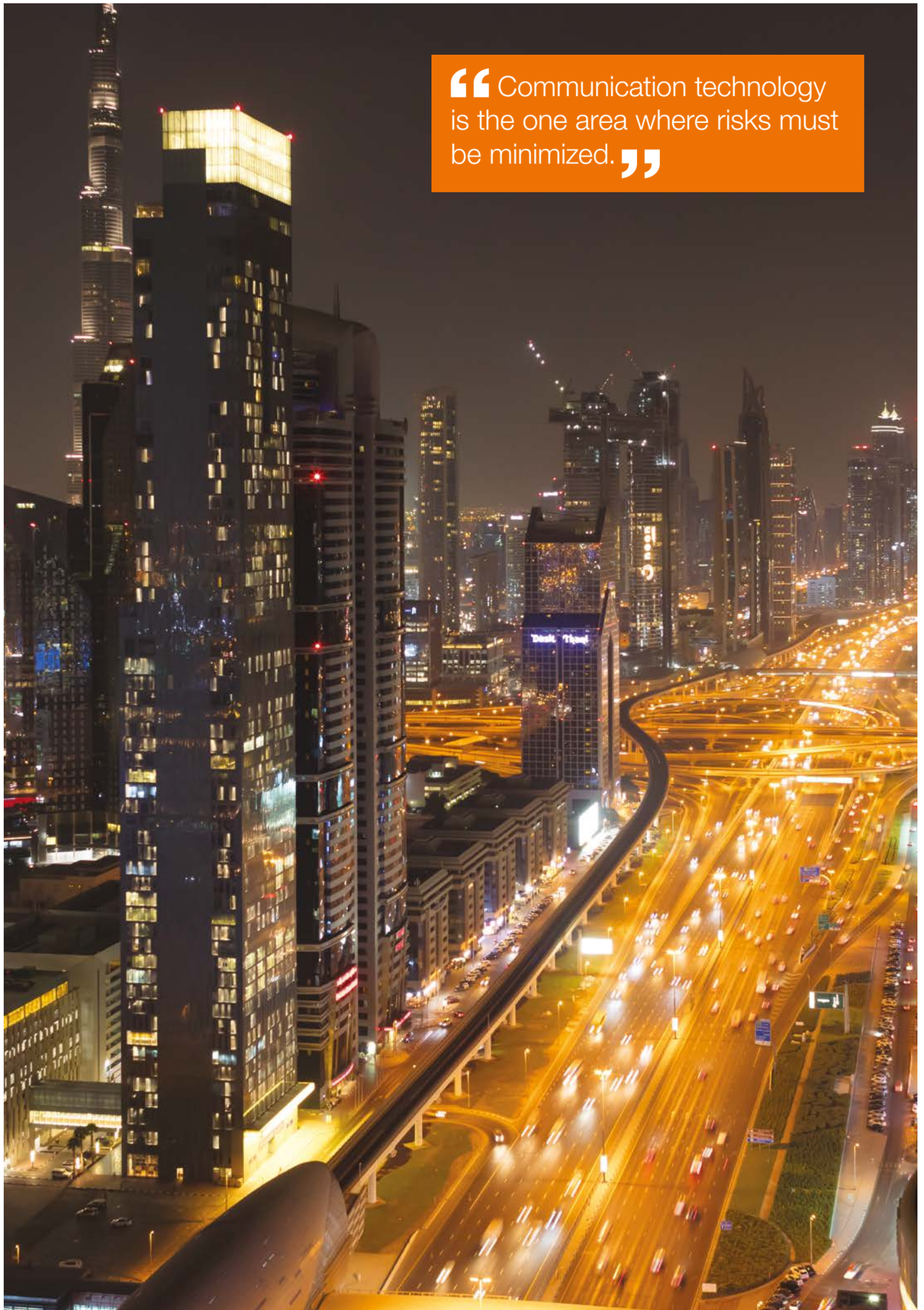
The unnecessary risks
Mission-critical communication is at the heart of public safety operations. Communication glitches can ultimately cost lives, so communication technology is therefore the one area where risks MUST be minimized.

4

Closing down the existing, well-serving system "to save money"
There is no evidence that a "hard migration" would save money. In fact, some projects have attempted it, only to be forced into prolonging the life of the existing system at huge cost.

5

Introducing a system that does not support existing ways of working
This would cause all sorts of disruption and leading to unacceptable service levels. Avoid this risk by always allowing the needs of users to drive the process.



Where to start your seamless evolution

When introducing a broadband solution to complement an existing radio communications system, your first, important step is to define the scope of the project and to identify its key requirements. For this, you should involve the users.

Because you are planning to introduce significant changes that touch a large number of different stakeholders, you will need a structured way to engage the people in the change. Airbus can help with a Transformation Workshop, which is a practical way to start the process.

During the Transformation Workshop, you can gain an understanding on the different needs for functionalities and schedules that different user organizations have. User organizations can define the pace of adoption for the new services. This is true customer-centricity and one of the key guarantees of a successful project.

Ensure the success of your mission-critical broadband implementation by choosing Airbus which has long experience of seamless evolution.

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