# THE **NRB** GROUP

# MAINFRAME:
## CORE SYSTEM IN A HYPER CONNECTED WORLD

**NRB**
DARING TO COMMIT

**TRIGONE**
OSER S'ENGAGER

OUR PARTNER

**IBM**

# MAINFRAME: MORE RELEVANT THAN EVER!

## CONTEXT

- In today's hyper-connected world, consumers have instant access to and response from their social and personal networks. Your employees, customers and partners expect the same **speed, interactivity and personalised services** in a professional context.

- Speed and time-to-market are indeed more crucial than ever: your organisation needs not only to react quickly to market changes but also to **proactively prepare for the challenges** it is or will soon be facing.

- Thanks to **cloud environments**, your customers, suppliers, and competitors have **access to an almost unlimited number of IT tools, services and capabilities** needed to achieve their digital transformation. Your organization too, must ensure that it does not miss this opportunity to sustain its business success.

- Your organization is undoubtedly challenged to **develop new services or business models** to serve existing or new audiences and to create new revenue streams. Competitors and new entrants will disrupt your business if you do not occupy the territory first.

- **Security threats, privacy regulations and regulatory compliance requirements** - such as GDPR, Schrems 2, ISO27001 - require your organisation to ensure **full protection of its systems, applications and data**.

## WHY A MAINFRAME?

- Mainframe technology has come a long way in recent years and, although it has never really lost its strategic position in the ICT landscape, it is back in the spotlight as it can offer the **fast, reliable, scalable and secure** environment your organisation needs to operate in the new digital reality.

- Combined with the cloud, the connected mainframe can **process massive amounts of data in record time**, providing optimal security and instant cognitive analysis capability.

- **Today's mainframe is open** to the new cloud and development environments that will support the digital transformation of your organisation.

- The mainframe offers **true end-to-end encryption**, near-infinite **scalability** and the **flexibility** to meet rapidly changing IT needs and ambitions.

## WHY YOUR **CEO** SHOULD CONSIDER A MAINFRAME

- To capitalize on *legacy* applications while **progressively modernising** them by taking advantage of the **opportunities offered by digital transformation**.

- To **ensure the continuity of his core business while being able to leverage the nearly endless technological possibilities** of new development environments and cloud services.

- To enforce the **digital transformation of your company** by making the most of the opportunities that accompany the new digital reality.

- To **optimise costs and avoid the risks of migration** or redevelopment projects.

## WHY YOUR **CIO** SHOULD CONSIDER A MAINFRAME

- **To dispose of a homogeneous solution**. Today, the strength of the mainframe no longer relies solely on the security, speed and robustness for which it is known, but also on the agility and adaptability of contemporary development tools running on this platform.

- To **recruit and retain the best possible developers**. Modern mainframes no longer rely on COBOL or PL/I only to operate. They can work with new popular languages and tools like Java, Node.js, Swift, Python, etc. The next generation of developers (the 'millennials') will indeed love working with or on the mainframe.

- To take advantage of the mainframe as a hyper-converged environment that is offering significant **productivity gains** (both in terms of system performance and in terms of the human resources required), rationalising maintenance and ensuring 24x7 availability.

- To rely on **the most secure and protected** environment on the market, as z systems automatically enforce full encryption of all incoming and outgoing data.

# THE MAINFRAME FOLLOWS TECHNOLOGICAL DEVELOPMENTS

Some organisations are considering - mainly inspired by the decreasing availability of mainframe skills and pessimistic media predictions about the end of the mainframe – replacing their mainframe applications. This remains after all acostly and risky endeavor, whereas the simplest solution is to **make your mainframe platform evolve**.

You can ensure that your *legacy* applications keep pace with current technological developments:

- As the mainframe has become an 'open' environment, you can enrich your mainframe application environment with Java, Node.js, Swift or other modern technologies.

- You can integrate your mainframe applications with existing (managed) solutions in the cloud.

- You can connect the mainframe to modern mobile and web interfaces, as well as to the Internet of Things (IOT).

- With advanced **deep learning** analytics, you can capitalise on the data stored for many years in your mainframe, extracting insights to optimise your business operations.

> " **Capitalise on the best of both worlds: modernise your mainframe applications environment and open it up to the world of the cloud.**
>
> — *Henri Arnold,*
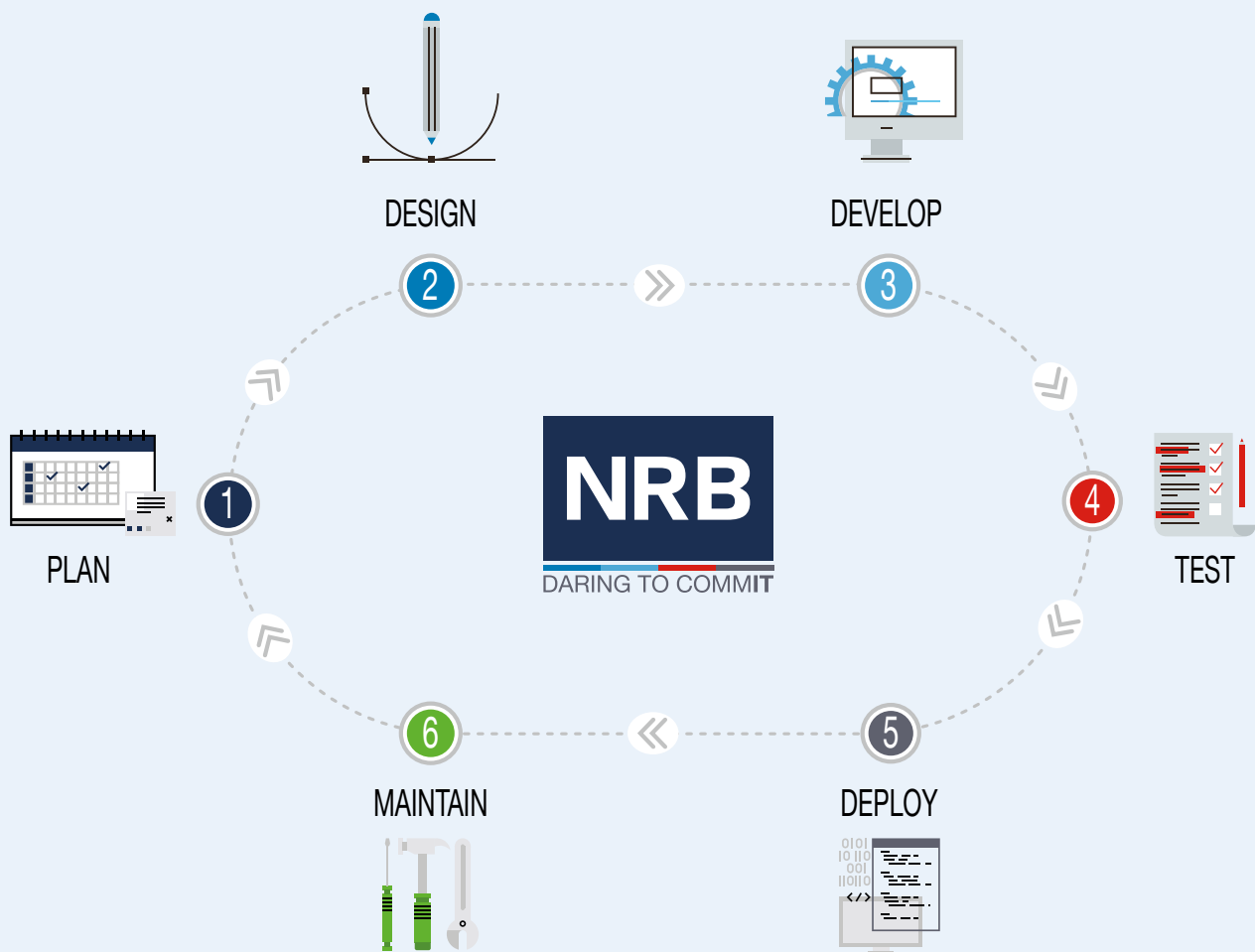> Head of the mainframe centre of The NRB Group's

# WHY WORK WITH THE NRB GROUP

## THE NRB GROUP CAN TAKE CARE OF THE WHOLE LIFECYCLE OF YOUR MAINFRAME AND NON-MAINFRAME APPLICATIONS

### TRIGONE, BASED IN PARIS, REPRESENTS THE NRB GROUP IN FRANCE SINCE OCTOBER 2020

- Design, application development, implementation, application management.

DESIGN

DEVELOP

PLAN

TEST

MAINTAIN

DEPLOY

## THE MAINFRAME APPLICATION DEVELOPMENT EXPERTISE OF NRB IS SECTOR AND BUSINESS INDEPENDENT

- The NRB Group applies best practices in architecture, development methodology, project management and application management.

- The NRB Group's experts can - while mastering these best practices - bring great added value to any organisation or company, whatever its activities.

# THE NRB GROUP: A COMPLETE MAINFRAME SERVICES PORTFOLIO

## APPLICATION DEVELOPMENT AND MAINTENANCE

We offer application development and maintenance services to maximise the value of your application portfolio.

Of course, we support classic languages such as COBOL or PL/I and maintain your applications using our proven SDLC methodology and the best tools available. But our service offering goes far beyond that, in terms of modernisation and digital transformation, since we believe that the mainframe remains one of the major players in tomorrow's IT environment.

### MODERNISATION

We conceived a development framework designed to help you reuse existing applications while expanding towards new horizons.
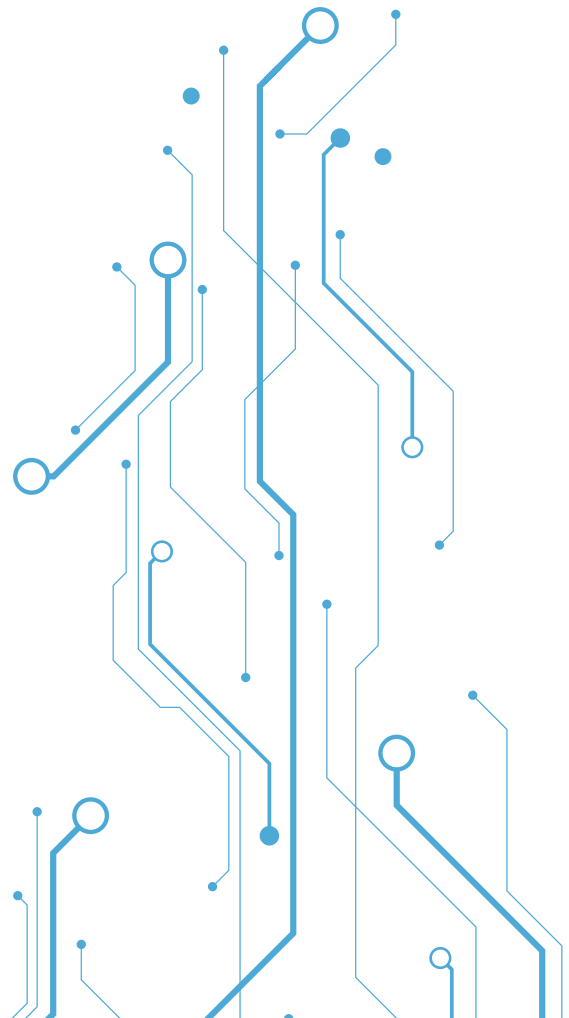
- By fragmenting legacy code into independent services, we create an ecosystem of APIs on the z environment, available for other platforms.

- By externalising business rules, we make the code less likely to need reviewing when rules change, while improving time to market responsiveness.

- By deploying new languages and methods on the z-system we allow agile development and reducing the maintenance costs.

### INNOVATION

Our vision of innovation encompasses advanced concepts in a microservices architectural approach, such as the deployment of machine learning, the deployment of AIOPS solutions (via Watson), the use of modern programming languages, and the segmentation of existing applications (APIs).

### CONNECTED MAINFRAME

Integration is now the guiding principle. By bringing data closer to its consumption processes, we reduce its transport time and streamline the architecture considerably. By connecting the mainframe to the outside world, we finally achieve total efficiency.

## OPERATIONAL SERVICES

We provide operational services tailored to your needs. We can work on the continuity of your application development and maintenance or offer you our services in a a stand-alone mode.

Our professional staff will deploy, schedule and monitor state-of-the-art applications.

## PRODUCTION MANAGEMENT

We take care of the technical and application management of platforms and networks: remote monitoring and remote management on z/OS, distributed, Cloud and in some cases AS/400.

## GOVERNANCE STEERING

We are committed to following the correct application of rules within the company and in particular for everything related to security and cybersecurity in order to protect the value of your company.

## SUPPORT & ADMINISTRATION

Our Support and Administration services offer an answer to the lack of available resources. They are aimed at all distributed environments, for example for notaries, hospitals and clinics, retail (large and medium-sized stores), etc. You can rely on rigour and traceability in the management of services, allowing you to improve quality at reduced costs.

Our multilingual Service Desk - available 24/7 - will route all your requests to the appropriate team.

## ADVICE & EXPERTISE

We share its experience through specialised consulting services, outsourced and independent expertise at the tactical, technical and technological levels of the company. We help you to innovate your IT model.

## INFRASTRUCTURE & HOSTING

We offer a wide range of infrastructure and hosting services covering the common IaaS and PaaS business models. From hardware resource allocation to database administration, we provide you with the products, support and the guidance of highly skilled specialists in each field of application.

We continuously maintain our shared mainframe infrastructure at the latest technological level, allowing you to benefit from all improvements brought by new hardware.

Optimal capacity management is one of our prime objectives. By providing you with flexible resources, we will let you reduce your operating costs and leverage the exact power you need to fulfil your critical business requirements.

## SEAMLESS MIGRATION

Our migration methodology relies on proven best practices that have passed the test of several major client projects. Our specialised equipment and virtualisation methods allow us to perform seamless DASD and tape migrations while limiting the impact on your business activities, and on the total cost and time required.

# NRB IS THE #1 MAINFRAME SERVICE PROVIDER IN BELGIUM!

## OVER **30 YEARS** OF MAINFRAME EXPERIENCE

NRB was founded in the 1980s as a **shared mainframe infrastructure and service centre**.

Since then, NRB has been providing **mainframe** services - **infrastructure and development** - **mainly on the IBM platform** that has a capacity of over **33,000 MIPS** in a **z15** configuration - but also on the **BUL GCOS8** platform.

NRB's mainframe service center has become a **leader** in its field.

Moreover, thanks to the arrival of **Trigone** in the group, the NRB Group's mainframe service centre is still increasing its leading position in the mainframe field.

## STATE-OF-THE-ART GEO-RESILIENT **DATA CENTRES**

NRB has an exceptional data centre infrastructure that meets the requirements of Tier 3+ (Uptime Institute): two state-of-the-art georesilient sites connected via **Dark Fibre**. The main site in Herstal, near Liège, consists of three data centres in separate buildings. The secondary site is located in Villers-le-Bouillet, only 30 km from the other data centre. All systems are **fully redundant** with automatic **switch-over**.

This configuration allows NRB to provide **the highest level of disaster recovery capabilities in Belgium**:

- Recovery Point Objective (RPO) = 0 hours

- Recovery Time Objective (RTO) = 2 hours

## 250 MAINFRAME SPECIALISTS

With over 250 mainframe specialists, the NRB Group is able to provide complete **operational management** as well as **development and maintenance** of mainframe applications in Western Europe. Their expertise covers both IBM and Bull mainframe environments:

- 70 mainframe infrastructure specialists are responsible for operational management at various levels: operations, engineering, service management, etc.

- 180 mainframe application specialists ensure the development and maintenance of applications: developers (COBOL, PL1, Java), application managers, project managers or quality assurance managers.

**NRB is the leading mainframe supplier in Belgium and has the ambition, thanks to Trigone, to establish itself in France and Western Europe.**
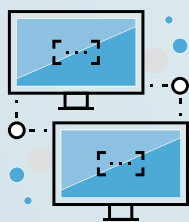
# NEW MAINFRAME TALENT AT YOUR DISPOSAL

Faced with a shortage of young talent that has experience with mainframe technologies, the NRB Group has created the «Mainframe Academy»: an in-house training system that allows senior staff to take on the role of coach for several months to accompany the new generation of IT specialists.

This is an educational role taken to heart by NRB since several of its experts regularly give training courses dedicated to the mainframe to various students from graduate school and universities.

This ensures the continuity of mainframe know-how for new generations.

# KEY FIGURES NRB MAINFRAME CENTRE



**3.5 billion**
of transactions per year

**22.000 active users**
at our customers and many more
at our customers' customers

**33.000 zSeries**
MIPS of installed capacity

# THREE SERVICE MODELS OFFERED BY NRB

| RESPONSIBILITY | IAAS | PAAS | PAAS+ | PAAS++ |
|---|---|---|---|---|
| APPLICATION DEVELOPMENT | CUSTOMER | CUSTOMER | CUSTOMER | NRB |
| APPLICATION DEPLOYMENT & OPERATIONS | CUSTOMER | CUSTOMER | TRIGONE / NRB | TRIGONE / NRB |
| SYSTEM MAINTENANCE & OPERATIONS | CUSTOMER | TRIGONE / NRB | TRIGONE / NRB | TRIGONE / NRB |
| HARDWARE ALLOCATION & MANAGEMENT | NRB | CUSTOMER / NRB | CUSTOMER / NRB | CUSTOMER / NRB |

# THE NRB GROUP COUNTS A NUMBER OF THE LARGEST CORPORATE USERS OF MAINFRAME AMONGST ITS CUSTOMERS

We consider our customers as true partners. Our working together is based on transparency and open mindedness in our common striving for cost effectiveness, innovation and resilience.

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# THE NRB GROUP

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| ISO 9001:2015 Quality Management | ISO/IEC 27001 Information Security Management |
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| FS 706532 | IS 706533 |

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