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DOMESTIC CLOUD PROVIDER: WHAT'S OFFERED, WHAT'S EXPECTED AND WHAT WAS REQUIRED TO BUILD IT?

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● We introduce innovations, enabling Polish Companies, Public Administration, and Education Sector to create and maintain competitive advantages

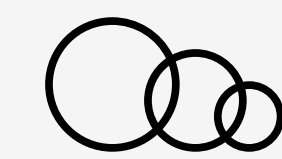
The Mission
of Domestic Cloud Operator is to provide a technology platform to improve innovativeness of Polish economy.

● We provide services which enable our Clients' flexibility and freedom to act

● We optimize our Clients' IT costs

● We involve ourselves in educational activities regarding Digital Technologies

● The principle of our activities is Security



Domestic Cloud Provider's Value Proposition:

Data Residence

Services in Poland, Data Centers in Poland, location of data fully transparent and auditable.

Regulatory Compliance

Contracts based on Polish law, services compliant with Polish regulators' requirements.

Flexibility

Services created with investors in mind, particularly large enterprises, delivered in Pay as you Go model.

Scale

Guaranteed ability to bear legal and financial responsibility, unlimited growth potential based on investors economic potential (PKO BP & PFR)

Security

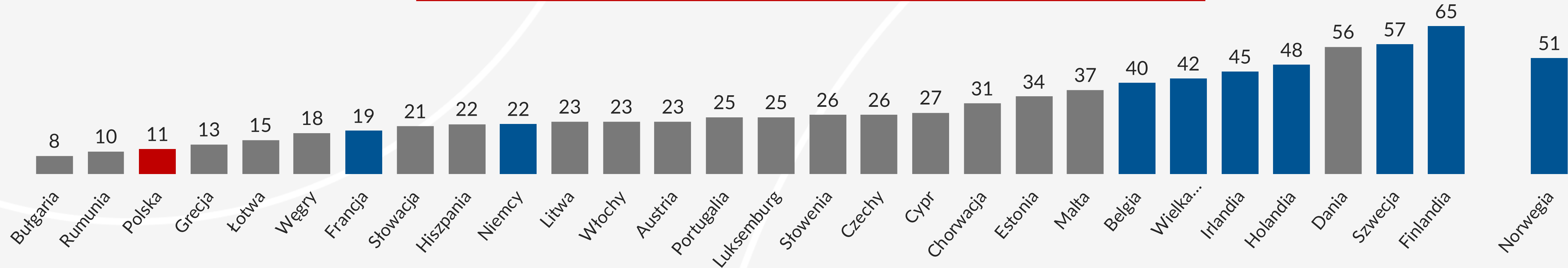
Security as a Service and security as a design principle

Multi Specialization

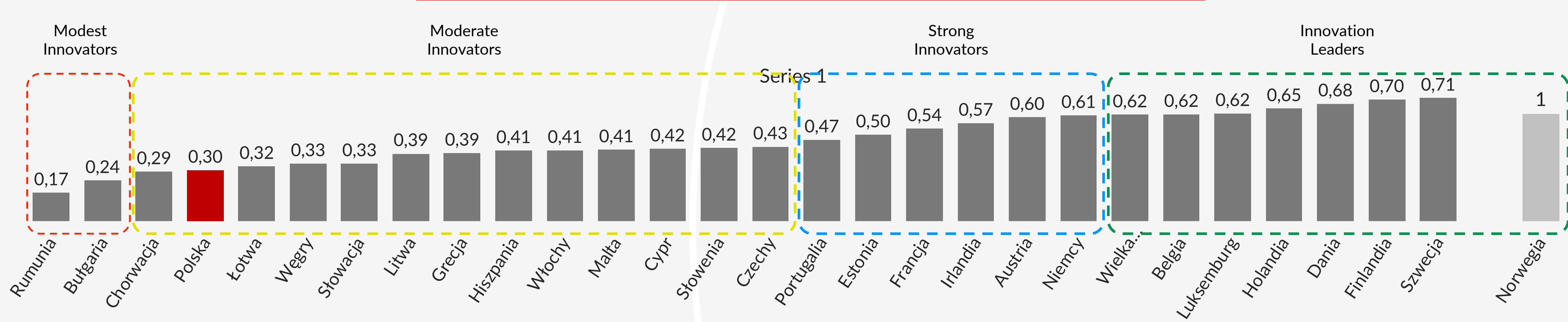
Cloud Services provider, focused on the most innovative Cloud technologies from diverse range of technological partners, as well as Digital Transformation processes.

Why Poland needs **yet another** Cloud provider?

Share of companies using Cloud in 2018 (%)

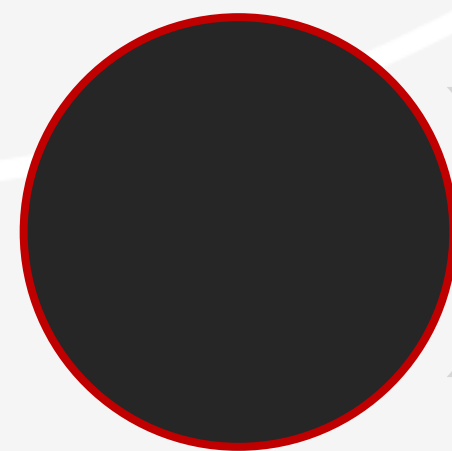


European Innovation Scoreboard 2018



Source: Eurostat

Innovation: experimenting & investing

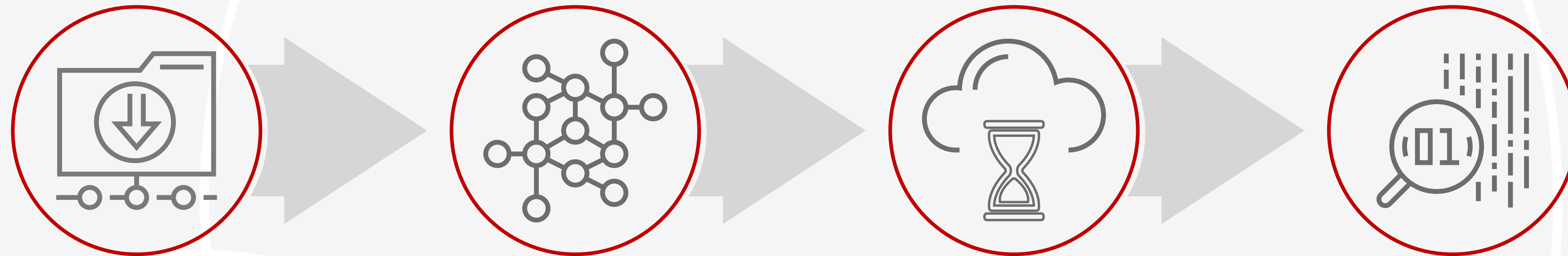


How long it takes to mobilize resources?

- determining the specification needed
- negotiating the budget
- inscribing investments in a broader policy / strategy
- purchasing process
- delivery, assembly, start-up ...

6 month? A year?

Real life answer: Testing Environments for PKO BP



Test Environment request

External Configuration
(defined as a repository code)

waiting for automatic
deployment

Application testing

	Previous time to appoint	Current time to appoint	Tasks	Lines od Code
app 1	2 weeks	4,5h	926	5808
app 2	2 weeks	3h	1308	3353
app 3	2 weeks	1h	698	1761
app 4	2 weeks	1,5h	553	4644
app 5	2 weeks	1h	139	1920
app 6	2 weeks	1h	150	2242
app 7	2 weeks	1h	175	2010

14
weeks

Process of appointing Test Environments on DCP's VMware automation

6h
19m

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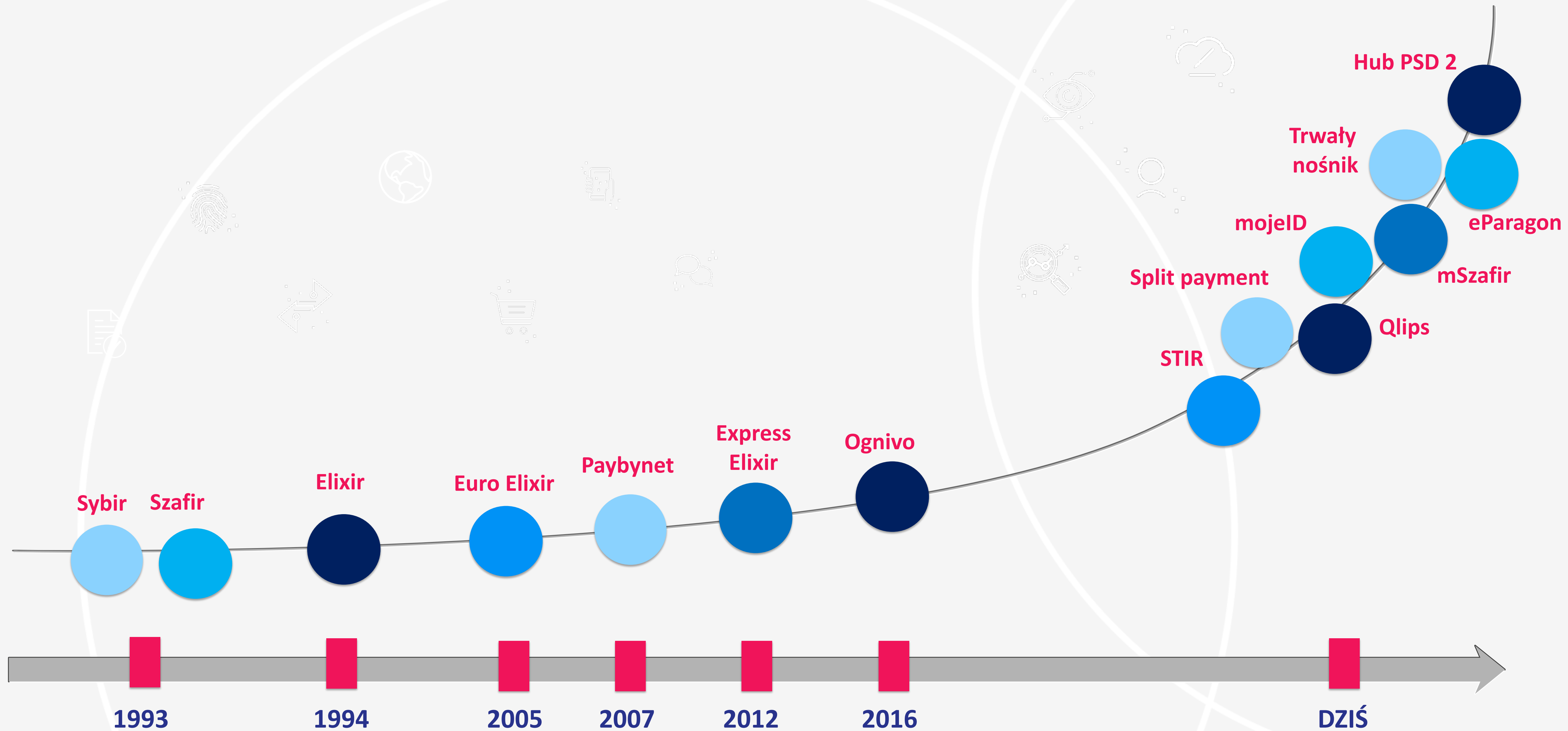


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KIR REQUIREMENTS: INITIATIVES PLANNED WITH DCP

We address the needs of the banking sector and e-economy

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Durable medium – what is it?

Definition:

Durable medium is a permanent information carrier – it is understood as any instrument enabling the user to store information addressed personally to them in a manner enabling access to it in the future for a period appropriate for the purposes of this information and enabling the reproduction of stored information in an unchanged form.

Features:

- allows storing information,
- allows access to information for a period appropriate to the purpose of its preparation,
- allows the information to be restored unchanged for a period appropriate to the purpose of its preparation

Durable medium – what is it?



The system meets the requirements detailed in DIRECTIVE 2007/64 / EC OF THE EUROPEAN PARLIAMENT AND OF THE EU COUNCIL of November 13th, 2007 on payment services in the internal market



According to the directive, the publisher of the document (e.g. bank) guarantees the customer access to documents in a durable and indisputable form



Guarantees access to documents published by the publisher at any chosen moment



The document version and every operation performed on the document is saved in the Blockchain network and the document itself is stored in a secure archive in the national cloud

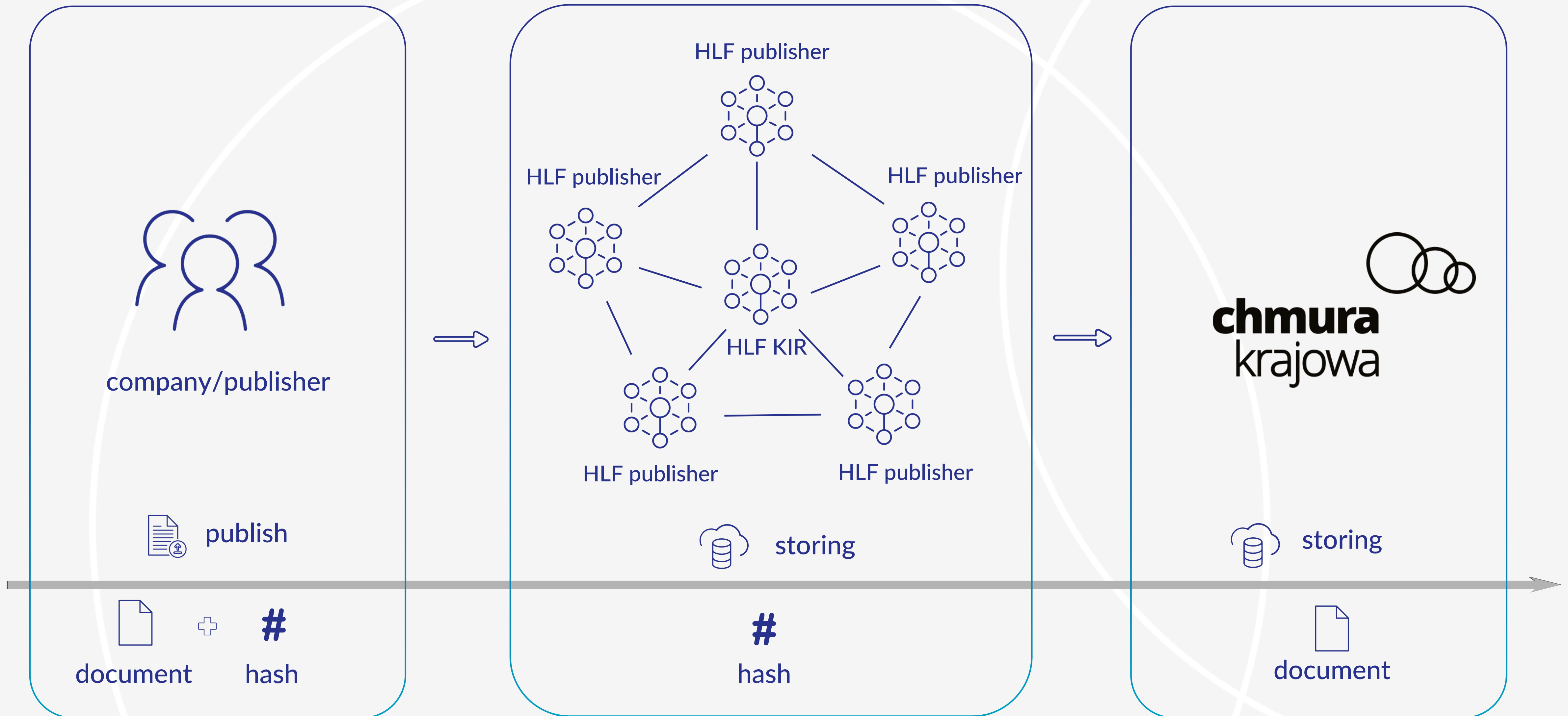


It enables the document verification by URL containing a document shortcut. Such an address can be used as a short link and sent to a customer in a message.



It enables secure customer identification (credentials, mojID, electronic signature) guaranteeing document confidentiality

Durable medium using domestic cloud architecture



Business benefits of Cloud



Other KIR projects regarding Cloud



mojeID

secure online identity confirmation tool



mSzafir

remote qualified e-signature



eParagon

electronic equivalent of a fiscal receipt in e-banking



HUB PSD2

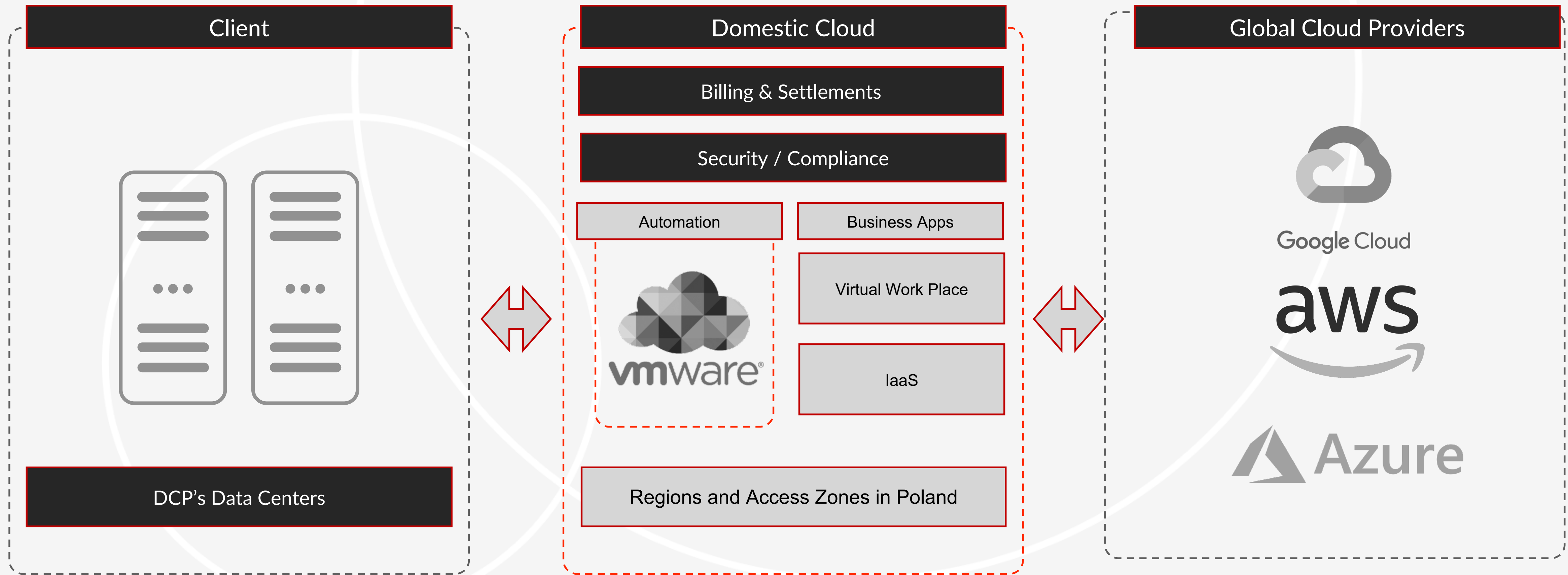
open banking services



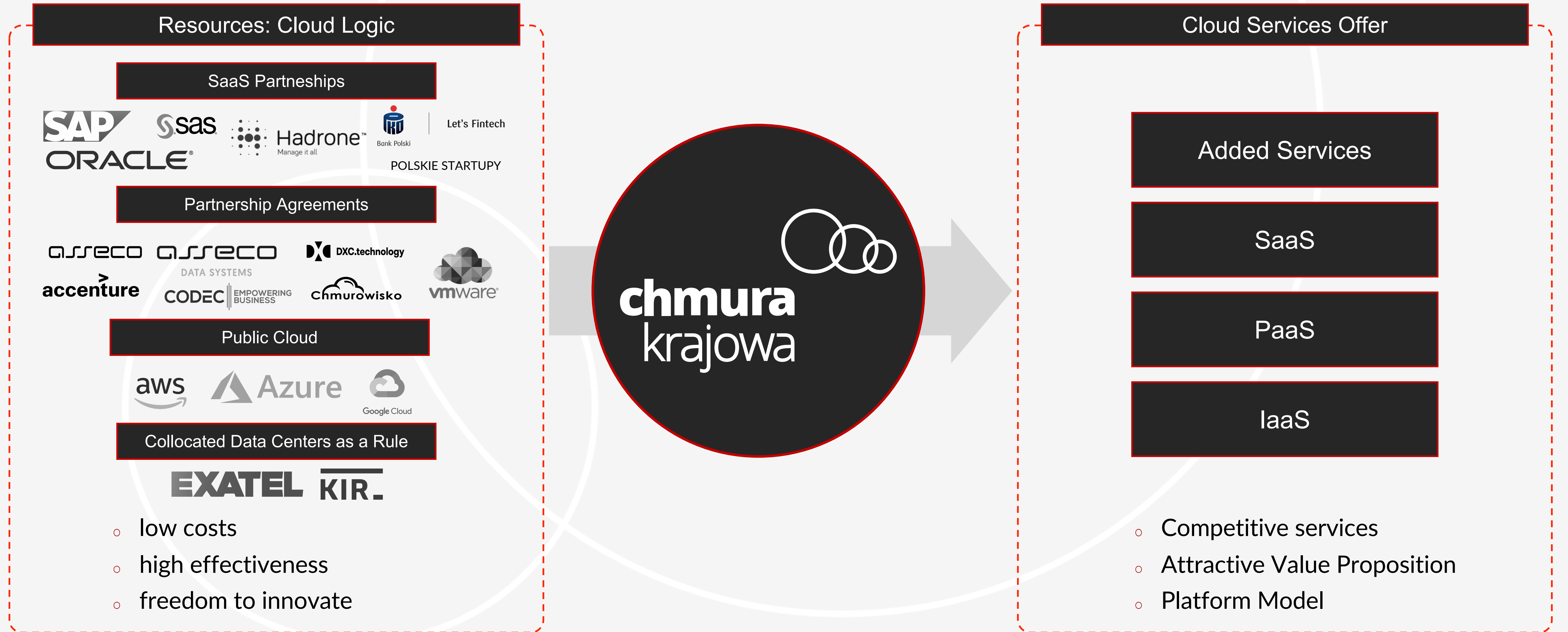
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SUCCESSFUL IMPLEMENTATION: **KEY CHALLENGES**

Hybrid Multi Cloud – Diversity & Effectiveness

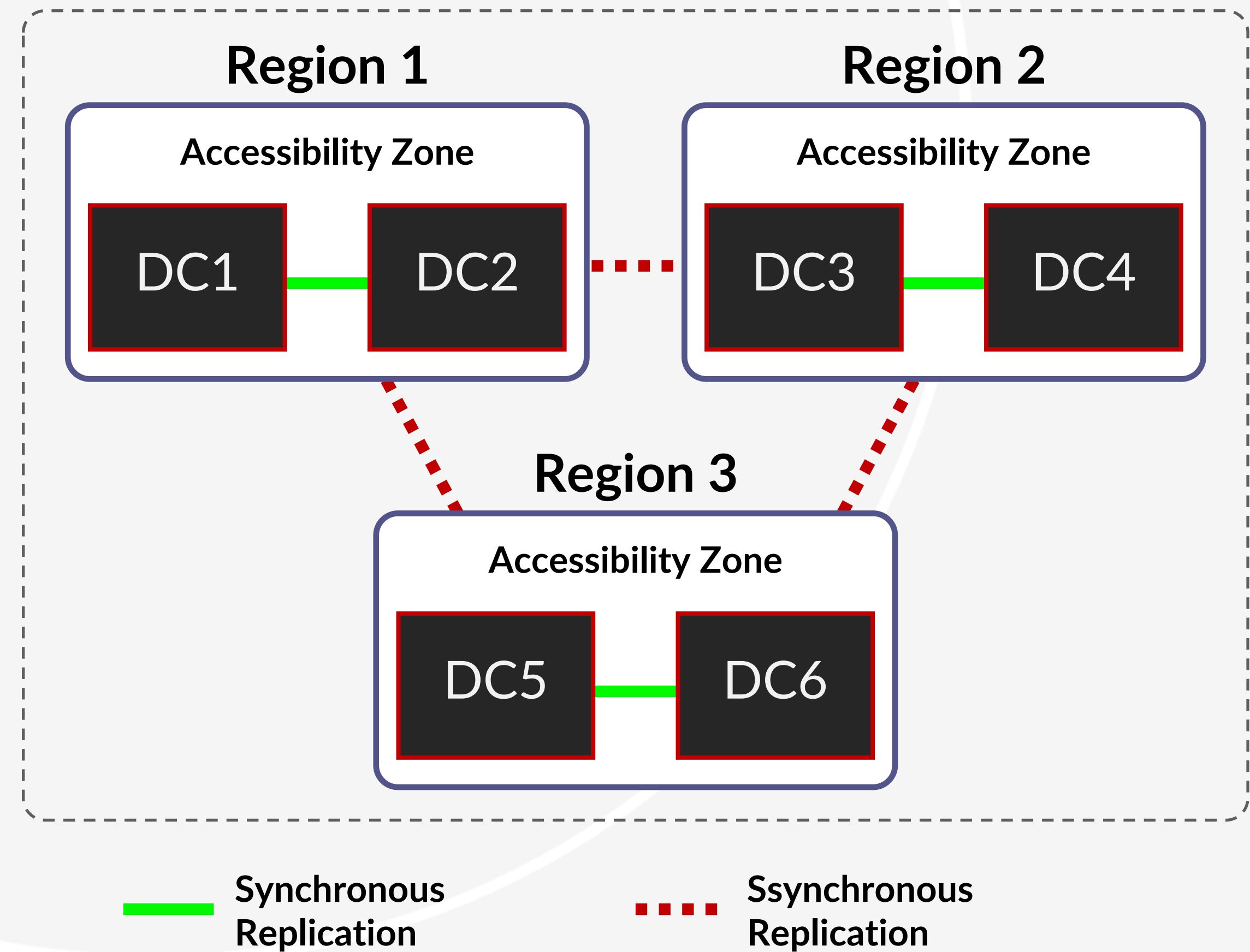


Domestic Cloud Operator: Agility & Scalability

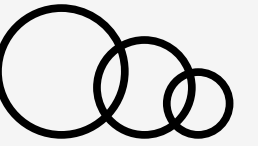


DCP at Work: Security by Design

- DC – Data Center
- Region – minimum 1 Accessibility Zone. Regions are at a distance of not less than 150 km
- Accessibility Zone – two DCs working as one logic resource. AZ ensures high availability, and its CDs are within a short geographical distance of less than 50 km to ensure low latency for Active – Active synchronisation.

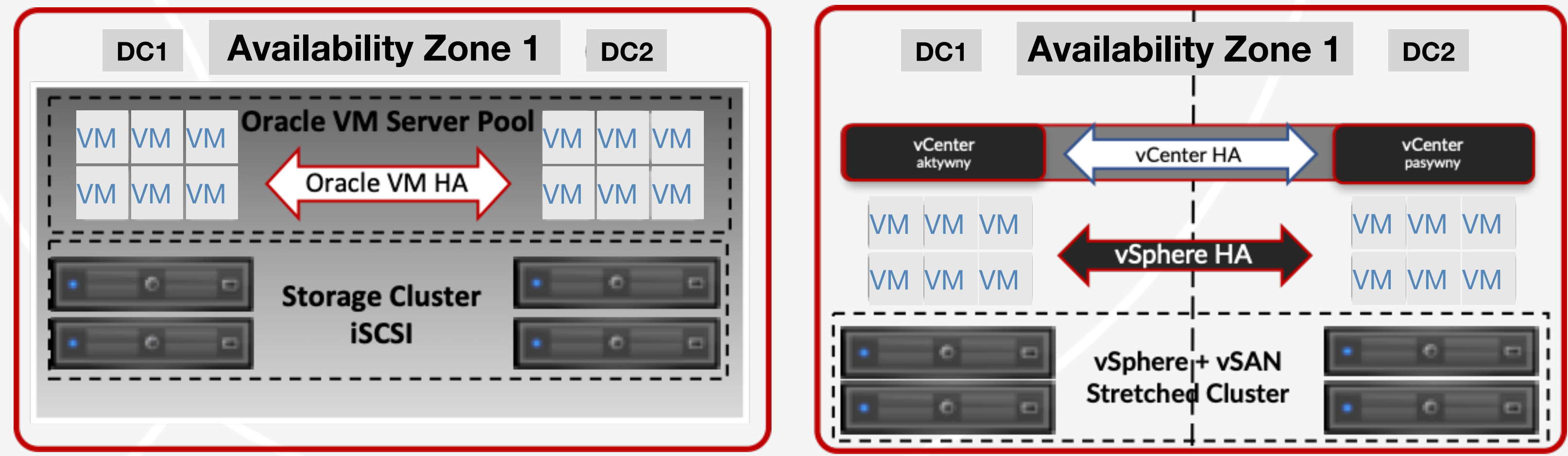


CHALLENGE: CONNECTIVITY + DC INFRASTRUCTURE



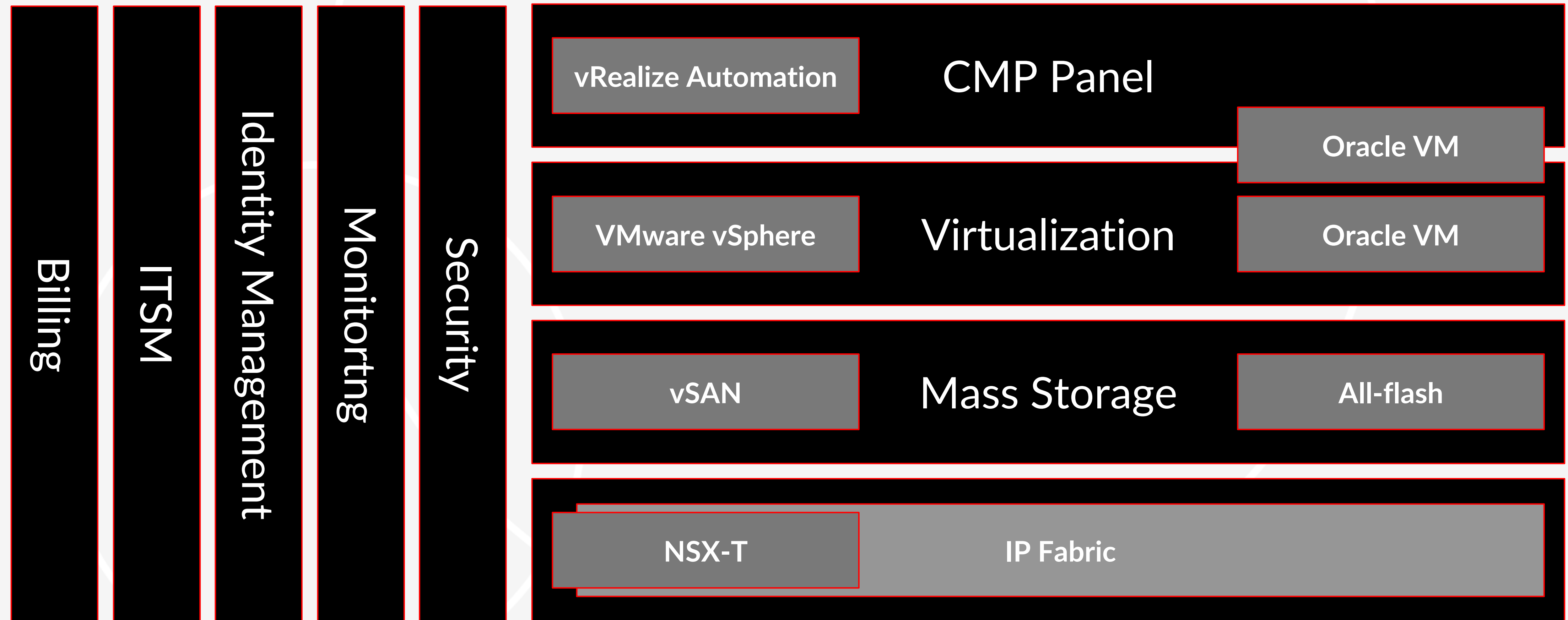
Virtualization: What Clients Need Most

- VMware vSphere cluster stretched between two physical locations
- Disk resources replicated between Data Centers
- High availability of technical infrastructure elements
- Failure resistance of the entire Data Center



CHALLENGE: CHOOSING THE RIGHT PARTNERS FOR THE NEEDS OF CLIENTS

The Stack: Designed For the Latest Technologies



CHALLENGE: CHOOSING THE RIGHT PARTNERS FOR PRICING AND SYS. INTEGR.

The wrap-up:

- Recognized need + some demand
- Existing infrastructure allowing for advanced applications
- Knowledge of the market regarding existing technologies and emerging trends
- Ability to make right technological & business choices, including pricing analysis



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THANK YOU.