

Atman Data Center Services

Quality

& security

The quality of our services, as well as the security of the information entrusted to us and the high level of customer service are evidenced by certificates and dozens of regular recertification audits.

Moreover, at our clients' request, we often undergo audits by third parties, including audits necessary to obtain/maintain PCI-DSS certification by our clients from the financial sector.

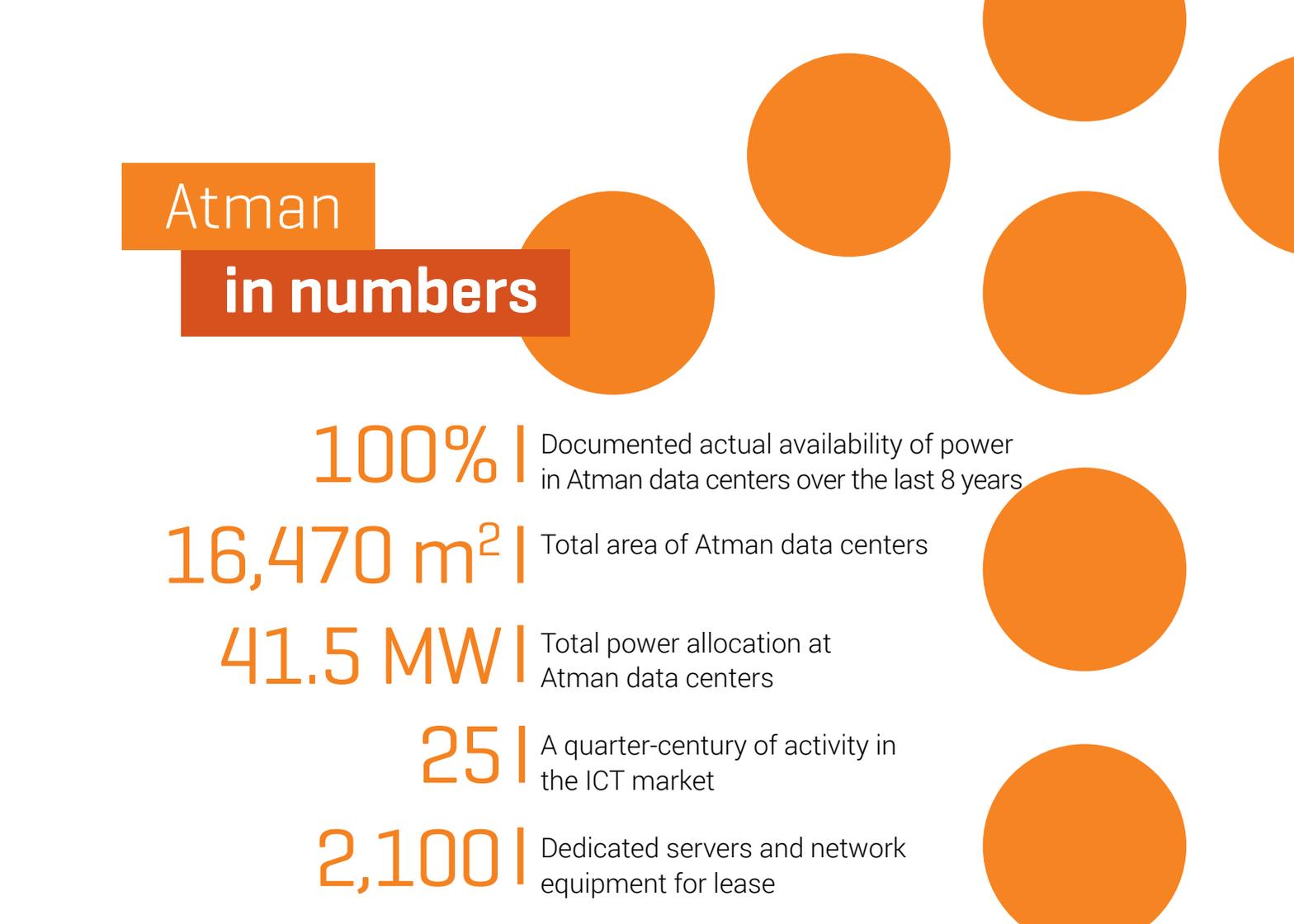


Certificate No. FS 602564



Certificate No. IS 524327





Atman

in numbers

100% | Documented actual availability of power in Atman data centers over the last 8 years

16,470 m² | Total area of Atman data centers

41.5 MW | Total power allocation at Atman data centers

25 | A quarter-century of activity in the ICT market

2,100 | Dedicated servers and network equipment for lease

4,000 | Spare parts available in stock for IaaS

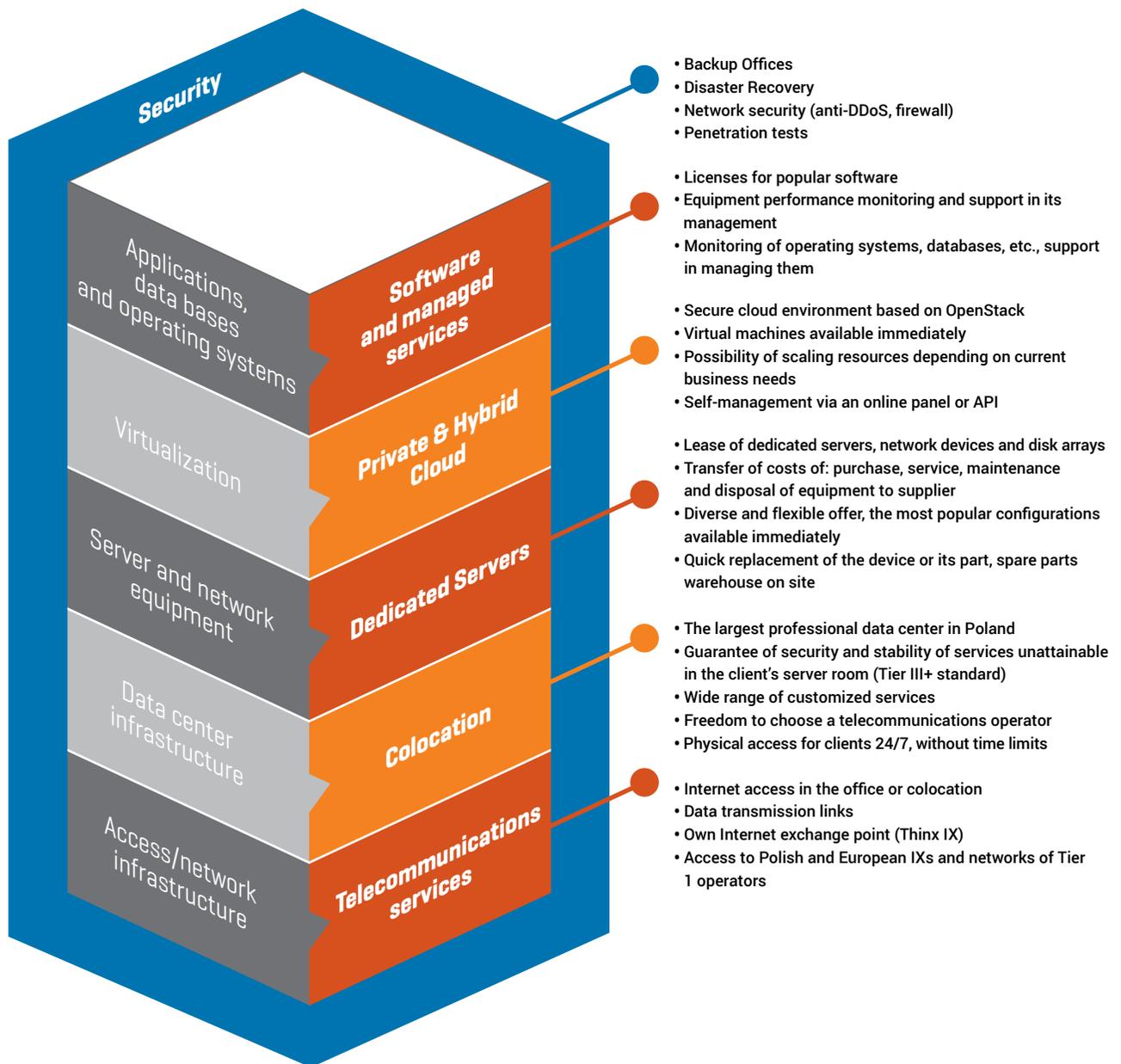
27 | Operators available at Atman's carrier neutral data centers

TIER III+ | The standard requirements met by Atman data centers



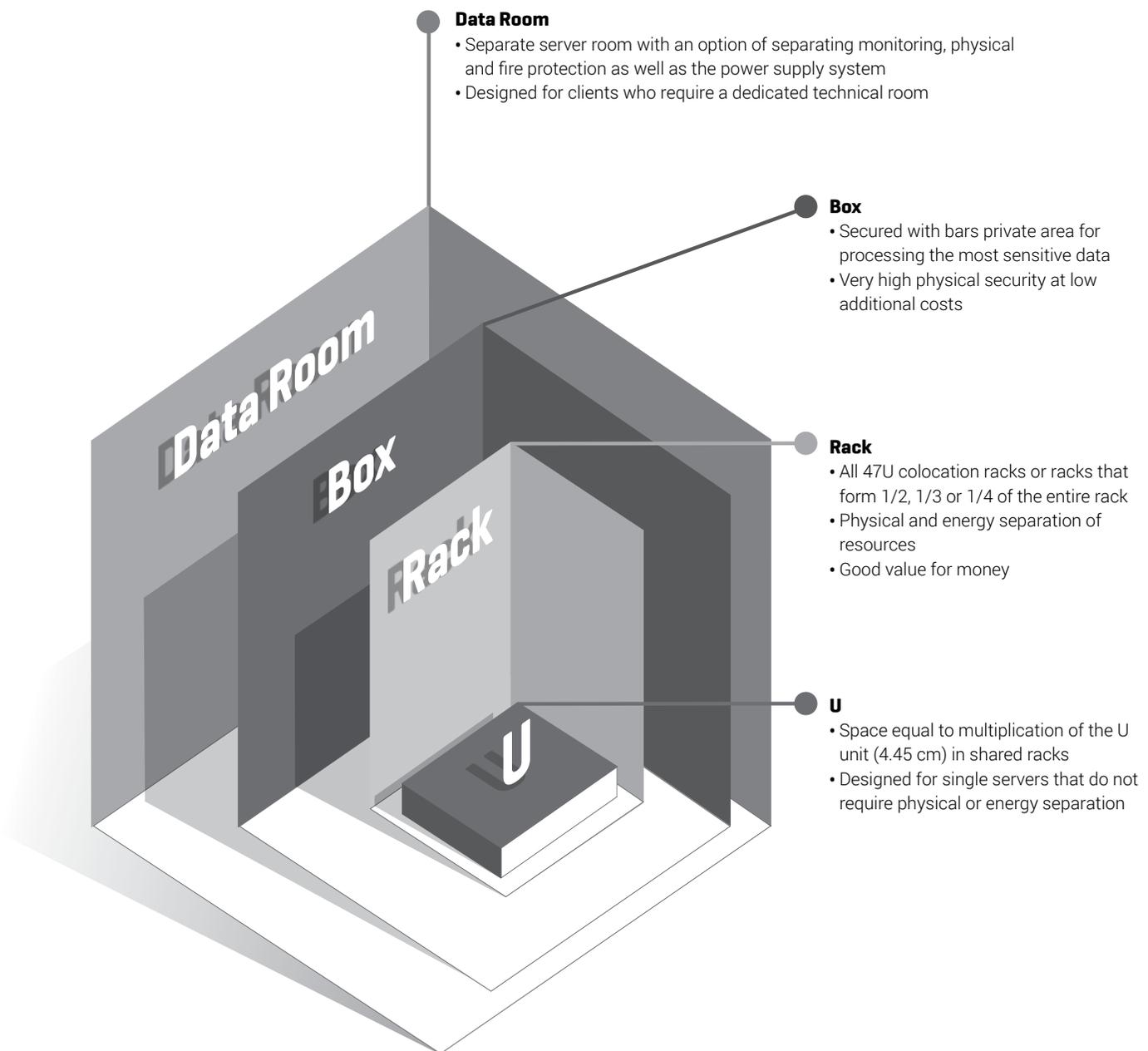
We are the leader of the data center market in Poland and an experienced telecommunications operator providing services to business clients based on own infrastructure. We offer a wide range of colocation and IaaS solutions, including the lease of dedicated servers and cloud computing services, supported with Internet access and high SLA data transmission. We care about the security of our clients' resources by means of such services as efficient anti-DDoS and comprehensive firewall systems, penetration tests and others. Our clients value us for high competences of our technical teams, as well as for exceptional commitment to sales and service.

Atman's IT Solutions Stack



Colocation Services

We are the leader in the data center market with the largest data center campus in Poland, which ensures stability of cooperation and virtually unlimited development possibilities. We support our clients' business by offering them high quality and a wide range of services.



Security personnel monitor data centers 24/7, and recordings from the CCTV system are retained for at least 90 days

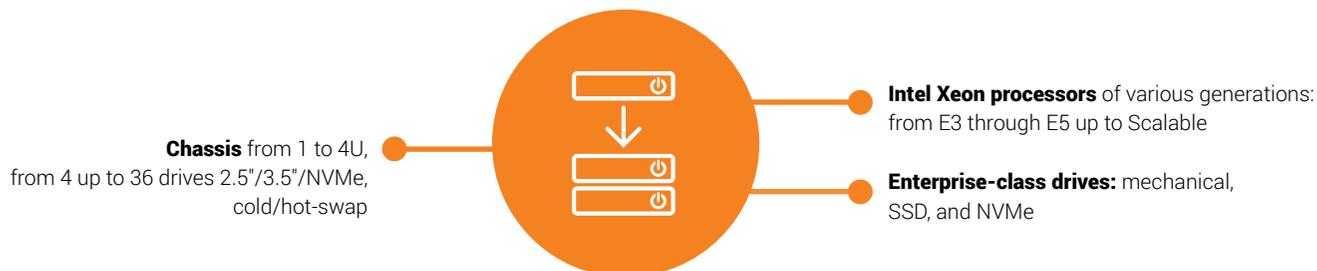
27 telecommunications operators are available in Atman network



Dedicated Servers & IT Infrastructure

We lease dedicated servers and other IT infrastructure elements, such as switches, firewalls and disc arrays. This service enables our clients to limit investments, costs related to maintenance and development of their own infrastructure, and to resign from costly service contracts.

- **Servers** – choose the needed solution from a dozen or so configurations that are available immediately, or compose a server by selecting from 250 different types of components:



- **Switches** from 1 to 100 Gbps Ethernet
- **Firewalls** – branded Fortinet and Cisco solutions
- **NetApp disk arrays** with different disk configurations

We have 250 different types of components in stock, in total over 4,000 spare parts

We are able to provide more than 200 servers in various configurations within a week

The largest order executed within one day involved 94 servers and other devices



Private & Hybrid Cloud

Atman Cloud components
are based on the
OpenStack solution

The continuous traffic
generated by IaaS clients
is over 30 Gbps

One of the elements of our offer is **Atman Cloud**, which is a typical VPC (Virtual Private Cloud) service. Its basic components include:

- **Compute cluster**, i.e. servers which are responsible in the cloud for the computing power (CPU and RAM), on which virtual machines are run. We only use Intel® Xeon® E5 processors with a minimum frequency of 2 GHz.
- **Storage cluster**, i.e. servers that provide disk space. They form a cluster of machines for object storage, providing different levels of performance depending on the selected tier level – storage based on mechanical disks and enterprise-class SSD is available.
- Connectivity, namely an efficient **100 Gbps internal network and 1 Gbps Internet link**. The fully automated **Atman Anti-DDoS** system works on the edge of the network to protect against volumetric attacks.

All computing and storage nodes have a high availability configuration. As a result, Atman Cloud is resistant to a single point of failure and shows very high availability, guaranteed under an SLA (99.97%).

As part of the service, clients are provided with a virtual server room fully equipped with everything they need to effectively manage their IT environment, i.e. the ability to independently create internal networks, demilitarized zones, security groups, firewall rules and routing, as well as load balancing. In addition to a convenient online user panel, Atman Cloud clients get access to the API, thanks to which they can automate their administrative activities.

In contrast to large global players offering highly standardized products, we are able to provide clients with a broader spectrum of network and server services. We also propose modifications of the standard Atman Cloud service in the form of private and hybrid clouds – we efficiently combine into one solution: colocation with client's equipment, dedicated servers, cloud, additionally offering managed services for the client's entire IT infrastructure.

We have chosen ATM S.A. due to positive market opinions about the quality of Atman services as well as a flexible and client-oriented approach to the sales of the company's commercial representatives. We also highly assess the competencies of the Atman technical support departments working with us. Following our to-date cooperation, we may confirm the opinions about high quality of Atman services and reliable, timely implementation. We value smooth business relationships with this provider and recommend Atman services to other companies.

Sanofi-Aventis

Atman Cloud Connect

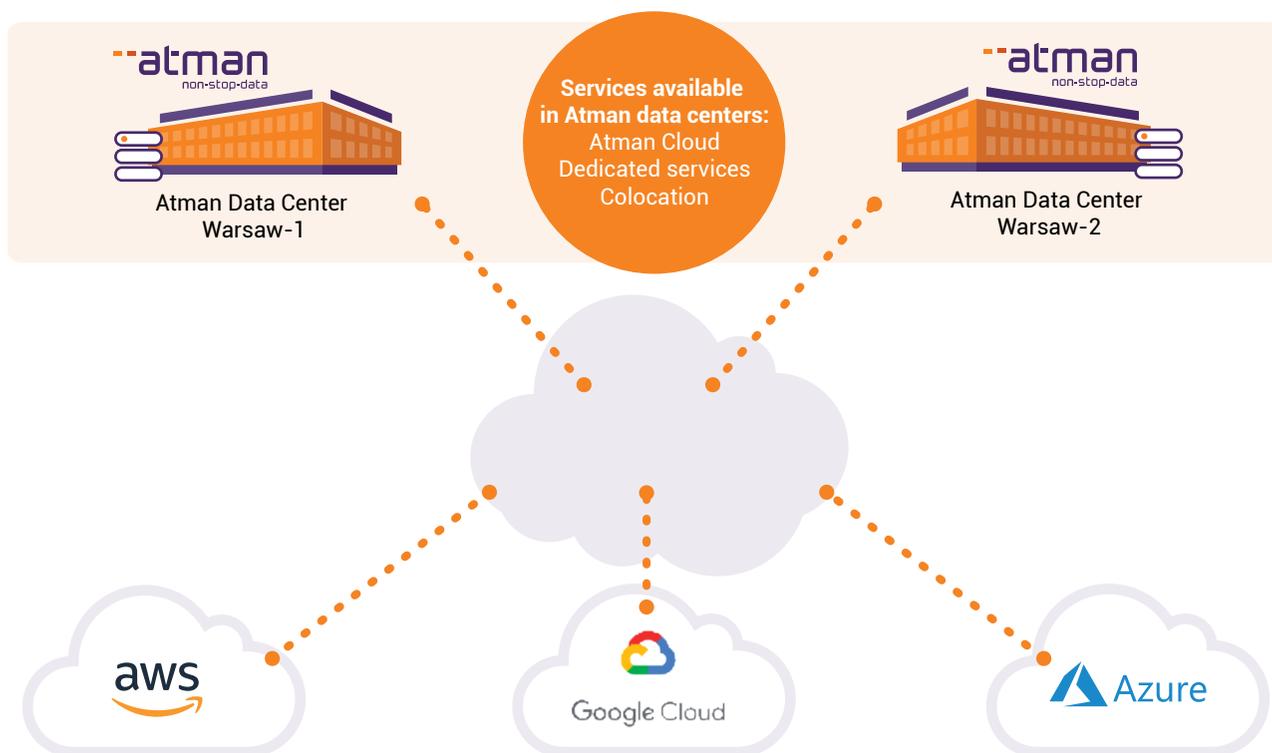
Thanks to this service, Atman's clients receive another degree of flexibility in developing solutions – not only may they rely on infrastructure from various IT stack levels (i.e. combine, for example, dedicated servers with the cloud, colocation with the cloud, colocation with the dedicated servers), but also use different cloud providers.

Atman Cloud Connect is a data transmission service that connects the client's systems located at Atman or on their own premises with the cloud service infrastructure (IaaS) using a secure, dedicated connection, which is fully isolated from the Internet and with SLA guaranteed performance.

The service is implemented by setting up a connection (Ethernet Virtual Circuit) between the port in the client's infrastructure and on the interface of a public cloud provider.

It is also possible to set up:

- Multiple connections to the same provider or
- Connections to various cloud providers using the same port on the client's end.





By using Atman Cloud Connect, the client gains:

- Combination of the security of data processing in local infrastructure with the flexibility and high availability of the largest global cloud computing providers
- Dedicated connection allows not to use the public Internet network for data transmission, which in consequence:
 - Increases security
 - Reduces transfer costs and saves bandwidth
- Possibility of creating a dispersed Disaster Recovery architecture with full georedundancy
- Possibility of building multicloud solutions.

Atman Cloud Connect offers connections to the following global cloud computing platforms:

- Amazon Web Services (AWS)
 - Microsoft Azure
 - Google Cloud Platform (GCP)
- and other.

We provide a minimum of two connections to all regions at each supplier, which allows the client to build a redundant infrastructure. Some providers require partial redundancy (at the interface on the cloud provider's end).

When we started working with Atman, we were looking for a server infrastructure provider that would guarantee us professional and stable services. Atman's offer met our expectations. When it comes to cooperation, we also highly value the commitment and professionalism of employees. Thanks to the cooperation with Atman, we can achieve our business goals by providing our Clients with the highest quality hosting and cloud services.

Marek Panek, CEO LH.pl

Managed IT Services

The managed IT service enables transferring to Atman the responsibility for administering and monitoring infrastructure as well as activities intended to keep the IT systems operational. At the same time, we are able to comprehensively take care of migration and Disaster Recovery processes.

Scope of services

The managed IT services form a comprehensive set of activities performed to keep key systems operational and secure. Among them it is worth highlighting:

- Monitoring
- Updating
- Management (of changes)
- Testing and analyzing
- Migration
- Installation and configuration

Depending on the type of technologies and solutions used, these activities may include, among others, such layers in the IT stack as:

- Applications and backup systems
- Services and data bases
- Operating systems
- Virtual environment
- Equipment
- Network

Options

Administrative services are available in packages containing the most frequently chosen scopes of support; they can also be selected individually and priced on request.

SCOPE	MINI	FULL	PREMIUM	CUSTOM
Equipment and system monitoring	✓	✓	✓	✓
Customer support	✓	✓	✓	✓
Update of systems, AV, FW	-	✓	✓	✓
Database and backup management	-	✓	✓	✓
Virtualized environment management	-	-	✓	✓
Software installation	-	-	✓	✓
Load tests	-	-	-	✓
Data or environment migration	-	-	-	✓

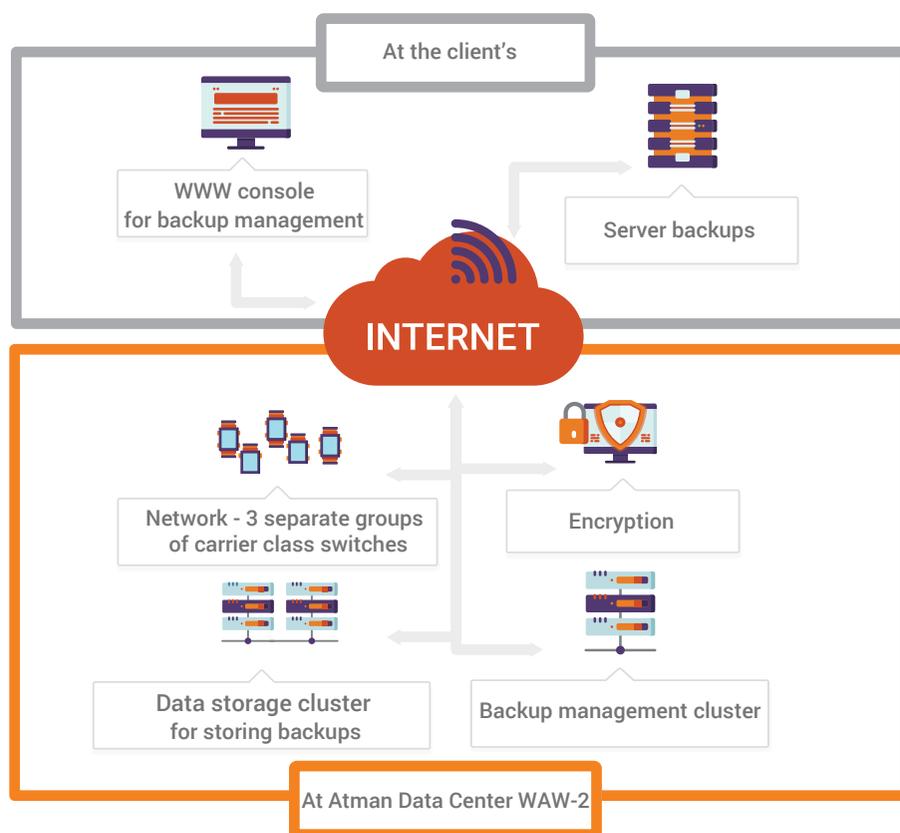
Thanks to managed IT services, the client gains:

- **Business continuity** – ensured by constant (24/7) care over IT infrastructure
- **Optimized environment** – because in addition to the care over it, we will also advise on how to optimize it
- **Peace of mind** – because a team of engineers monitors security vulnerabilities and availability of updates on a regular basis
- **Flexibility** – in the selection of technologies for projects and services regardless of the company's internal competences
- **Lightening the IT team's load** – so it can focus on tasks related to the company's core business

Backup as a Service

Atman Backup helps the clients to back up their data. Our service is distinguished by three key elements:

- The solution provides **360° security**, which consists of:
 - Complex organism resistant to failures
 - Backup space independent of source data, located outside the client's premises – in a professional Tier III+ data center
 - Encrypted transmission of source data to the platform where their copies are also stored in an encrypted form.
- The heart of the service is **multifunctional and superefficient** software - Commvault. Any type of backup may be made, with any retention and according to any schedule.
- The system enables independent management of all backup parameters. Cyclic task settings, unscheduled on-demand backups, analyzes, reports and alerts – **everything is under control of the** client.



Storage as a Service

Object Storage **provides:**

- Remote static data store
- Shared file repository
- Large space for archives

It is possible to **communicate** with the object space using the following protocols:

- S3
- Swift

through many commercial and open tools such as: S3Browser, CyberDuck, s3cmd, S3Express, etc. Object Storage is integrated with our cloud computing, so the client can manage it directly in the Atman Cloud administration panel.

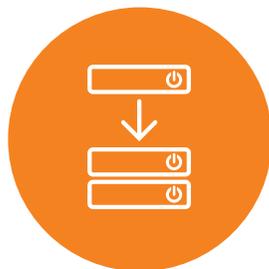
Flexible Individual Solutions

Upon clients' request we prepare customized solutions. This applies to both of the above-mentioned services separately, as well as to projects which combine various projects architecturally. Examples are given below.



Colocation

- Unusual power strips or circuits
- Dedicated cameras in a separate box built for the client and other additional security at the client's request
- Individual arrangement of a dedicated server room, equipment and security in accordance with the client's requirements



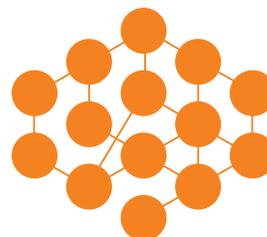
Dedicated servers

- Servers with highly efficient CPU or GPU
- Storage solutions with large capacity
- Instant response to requests and change of equipment configuration at any time thanks to our spare parts warehouse on premises and qualified technical staff



Cloud

- The amount of resources used can be dynamically changed depending on current needs
- Using the API or online panel, the client makes changes in the real-time mode
- The possibility of dividing the infrastructure into so-called availability zones, i.e. physically separated rack groups in which compute nodes are located



Hybrid projects

- Server rooms cluster based on the services of two Atman data centers guaranteeing georedundance – the possibility of using any operating model (active-active, DRC, backup etc.) and any services (e.g. colocation + cloud)
- Using dedicated servers located in the client's colocation rack – full physical control over the equipment without any investment and operating costs



Comparison of Solutions

	Server room on premises	Colocation of client equipment in Atman DC	Dedicated server	Cloud computing
REAL PROPERTY <ul style="list-style-type: none"> Construction/lease and adaptation/equipment costs 24-hour service and infrastructure maintenance 				
SECURITY <ul style="list-style-type: none"> Protection physical and monitoring (CCTV) Fire, flooding protection, etc. 				
COOLING <ul style="list-style-type: none"> Equipment purchase and maintenance equipment Air conditioning redundancy 				
POWER SUPPLY <ul style="list-style-type: none"> Adequate power allocation Redundancy of power lines Emergency power supply (UPS, power generator) Cyclical tests, inspections and maintenance of infrastructure 				
TELECOMMUNICATIONS <ul style="list-style-type: none"> Access links Link redundancy 	 Possibility of purchasing link from Atman, SLA 99.98% if redundant	 a) Redundant link from Atman with SLA 99.98% b) Available links from other operators	 * Redundant link from Atman with SLA 99.98%	 Redundant link from Atman with SLA 99.98%
NETWORK INFRASTRUCTURE (INTERNAL) <ul style="list-style-type: none"> Purchase, service, replacement of equipment Network monitoring Scaling, internal network redundancy 			  **	
SERVER INFRASTRUCTURE				
<ul style="list-style-type: none"> Purchase, service, replacement, disposal of equipment 				
<ul style="list-style-type: none"> Automation of installation and management Network automation 				
<ul style="list-style-type: none"> Equipment monitoring Provisioning automation HA solutions Load Balancer services 				
<ul style="list-style-type: none"> Development of resources 	 Requires investment in equipment, possibly also expansion/reconstruction of the server room	 Requires from the client to invest in equipment, Atman guarantees space availability in DC	 Additional server even in 1 hour	 Immediate, through the client panel
CYBERSECURITY <ul style="list-style-type: none"> Anti-DDoS protection FirewallaaS solutions 	 Possible as an additional service in the case of access link from Atman	 Possible as an additional service in the case of access link from Atman	 ***	

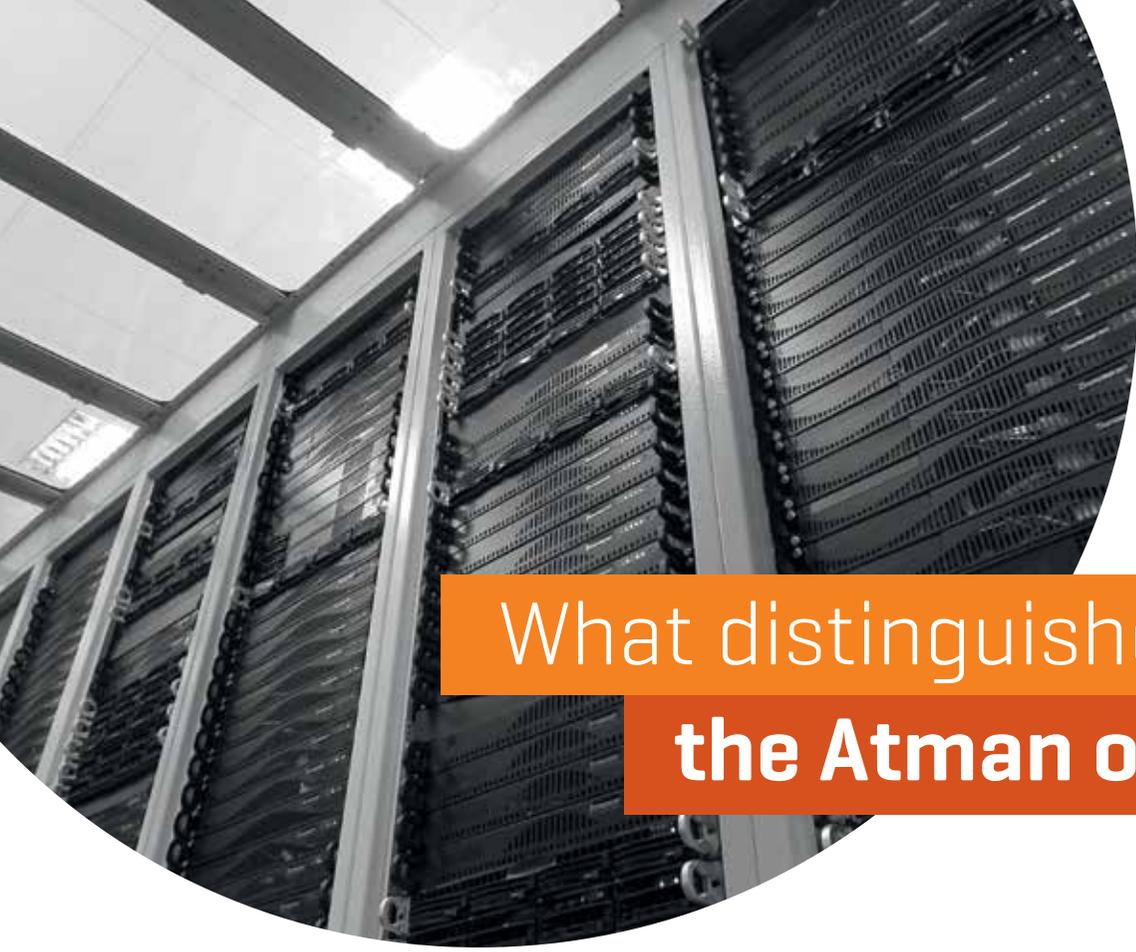
 on the client's side
  on Atman's side

If a leased server and/or network device is placed in a rack with collocated equipment:

* Available links from other operators

** On the client's side

*** Possible as an additional service in the case of access link from Atman



What distinguishes the Atman offer?

- 1 | Flexibility and potential**

Each of the services offered to clients is characterized by modularity allowing for precise adjustment of services to the client's individual requirements. Due to our vast experience and openness, we are eager to advise on choosing the solution best suited to the client's needs.
- 2 | Excellent connectivity**

Our carrier neutrality means instant availability of several telecommunications operators in the data center. Own Internet exchange point (ThinX) and access to the most significant European Internet exchanges. Direct connections with Tier 1 operators. Own nationwide network: 2,560 km of long-distance links and 2,480 km of fiber-optic MANs.
- 3 | 100% power supply availability**

Independently maintained medium voltage lines for each data center facility (building), UPS farm and regularly tested power generators. SLA for power supply in our data centers is 99.999%, but the real power availability documented in the last 8 years is 100%.
- 4 | Unlimited access**

Our clients can use Atman data center services as if it was their own server room on premises, i.e. without any limits: 24 hours a day, 7 days a week, all year round. Moreover, clients can manage their services online through the client panel.
- 5 | IT cost optimization**

As TCO (total cost of ownership) analysis shows, outsourcing of IT infrastructure in a professional data center allows to save up to half of the capital needed to build and maintain own server room, hardware or virtualized environment. Lease also has an advantage over investing in equipment in terms of the flexibility of the lease period (according to the pay-as-you-go principle) and expansion (pay-as-you-grow).

Atman data centers

in a nutshell

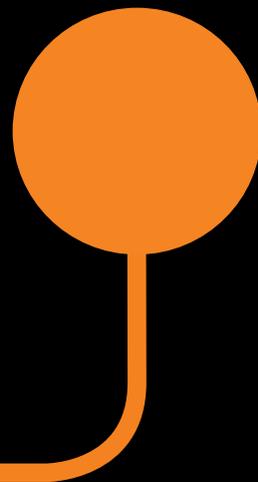


- 3 Tier III+ compliant data centers, with total area of 16,470 sq m
- 41.5 MW total power allocation, 2N redundancy power supply, UPS systems and power generators with guaranteed fuel supply
- Carrier neutrality and telecommunications redundancy: availability of 27 operators
- Air conditioning with N+1 redundancy
- Fire protection with early smoke detection, flood protection system
- Physical access security and CCTV monitoring outside and inside of the facilities – 24/7
- Visits of guests accompanied by the facility's services
- Zone access control systems and intruder alarm systems
- 24/7 control and recording of climatic conditions as well as opening/closing of rack doors, boxes, etc. (SCADA system)
- 24/7 support and Remote Hands

In September 2010, 3GNS and ATM S.A. signed a colocation agreement for the lease of a complete room in a new colocation center in Warsaw at 5 Konstruktorska St. This decision was based on the basic pillars: favorable price, high flexibility of the supplier in terms of occupied space, complete technical infrastructure and exceptional conditions of using the transmission network. Significantly, the location has great potential – the ease of expansion and launching of subsequent rooms is a clear advantage of this facility.

The colocation service determined according to the 3GNS's requirements is implemented using systems operating with multilevel security. The implementation of such solutions results in an exceptional stability of the service.

3GNS sincerely recommends ATM S.A. as a proven partner in the colocation area.



European Code of Conduct for Energy Efficiency in Data Centre

Atman data centers adhere to the European Commission program: European Code of Conduct for Energy Efficiency in Data Centre, which main goal is to educate and stimulate enterprises to reduce energy consumption while maintaining cost effectiveness and not disturbing the critical functions of data centers, as well as to promote best practices in the field of effective energy use among data center clients.



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ATM S.A. is the Polish data center market leader as well as an expert in security of data transmission and processing. Under the Atman brand the company provides colocation, hosting and cloud computing services in its data centers with 16,470 sq m of the total space. Using own international links and fiber-optic networks in the largest Polish cities, Atman offers broadband IP services, including Internet access and data transmission. Major recipients of the services are telecommunications operators, traditional media, Internet portals, financial institutions, commercial and industrial companies.

More information at www.atman.pl.

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