

# THE HIGH-PERFORMANCE INFRASTRUCTURE OWNER AND MULTIPLATFORM SERVICES PROVIDER



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View of a data center

**Star Storage is taking advantage of the current outsourcing trend by providing its customers in Romania with corresponding services. The basis of their offer is a state-of-the-art data center that was planned and built in close cooperation with R&M Romania.**

Star Storage was set up 10 years ago as a document management and storage solution supplier. In 2008 the company decided to follow the current trend and attract companies considering outsourcing their non-core business, such as data/application protection and document management, and offer them the relevant services.

As a consequence Star Storage invested in a high-quality infrastructure and elaborated service packs for SaaS, ASP, SSP, IaaS, MSSP and MSP. These targets materialized in a Tier III Data Center in accordance with TIA942, located in one of the most secure buildings, the FEPER Business Center, in the capital city of Romania, Bucharest. Together with the infrastructure and services, companies hosted in this data center are becoming compliant with current Disaster Recovery and Business Continuity regulations.

#### **STAR STORAGE'S HOSTED CUSTOMER PERSPECTIVE:**

##### **REDUCING TIME TO MARKET**

Once businesses have outsourced their non-core activities to a reliable infrastructure and multiservice platform supplier, they can focus on main targets: This makes them stronger and faster to market than if they built their own infrastructure. Reducing costs with equipment and IT in general, allowing managers to properly control budgets linked to IT, brings security to the business in these current times of unpredictability.

A joint Star Storage and R&M Romania team was established to create the physical infrastructure of the data center. The main target of the team was to create a solution answering today's demands and allowing future developments without any disruptions.

The design started with a detailed evaluation of the applications the data center was expected to run. The next step identified three types of service: telecommunication services, storage and network management. The possibilities of a 10 Gigabit Ethernet in the fiber-optic area were investigated.

The data center currently consists of 78 equipment outlet cabinets (EOs) distributed in six rows, two horizontal distribution area cabinets in each row, one for switching links terminations and one for SAN links terminations, redundant main distribution areas each consisting of three cabinets for routing, switching and core services links terminations. The optical distribution frame, placed in a different room, consists of two redundant cabinets, one for



050.1748

(Left to right) Mihai Ciobanu, Project Manager; Cosmin Tudor, ICT Operations Manager; Laurentiu Duma, Technical Facilities Manager; Cristina Deac, Rep. Office Manager R&M; Viorel Delinschi, Business Development Manager; Dora Vidrighin, Sales Manager Private Networks R&M

the outside plant fiber termination accommodating the incoming lines from the telecom providers and the second to connect the data room to the relevant services, allowing maximum modularity and flexibility in creating the connections.

To evaluate the necessary requirements in the connectivity of each area of the infrastructure (EO, HDA, MDA), the planning team first determined the requirement of every individual EO when fully equipped with servers, then the influence of these servers on the SAN services and the requirement of each server in terms of telecom services and, on this basis, then calculated the necessary capacity of fiber optic connections between the individual EOs and the corresponding HDA and finally between every HDA and the two redundant MDAs. In terms of the ODF planning, the redundancy criteria were first determined and then the possible quantity of services offered.

Overall, at full capacity, the data center will have 6906 fiber optic links and 288 Real10 Cat. 6 links in the data room. First estimations suggest the ODF will host about 10 service providers each with two incoming links supported by different Network Operation Centers.

The monitoring rooms have been connected to various other systems with Real 10 Cat. 6 solutions, including R&M's security system.

*"Number 1 for Layer 1"*

#### CONCLUSIONS

The exemplary cooperation led the Star Storage – R&M Romania team to success. The fact that both teams share the same values, readiness to learn and proactive attitudes, made work easy and provided benefits such as excellent TCO (Total Cost of Ownership) as far as Star Storage's investment is concerned and recognition of R&M in Romania as a "Number 1 supplier for Layer 1".

\*E-2000™, manufactured under license from Diamond SA, Losone.



R&M \*E-2000™ connectivity with color coding



R&M VARIOline solution



R&M's high-density solution with horizontal patch cord management in 1U

#### WHY R&M?

- Local support team able to understand the demands of data center applications and create the right solution with respect to international standards
- Understanding the customer's business model and responding to it with the right modular and flexible approach in design
- Getting involved in all project phases from design to the final testing

#### R&M PRODUCTS USED

- 19" FOM distributor 40U, 900x2000x400 mm ODF
- Fiber module 7HP, metal, splice, 12 x \*E-2000™ G.652.D, APC, ceramic, C/1

- MPO module 7HP, metal, 6xLC-Quad G.652.D, APC/APC, ceramic, D/3
- MPO module 7HP, metal, 6xLC-Duplex G.652.D, APC/PC, PhBr, D/3
- Fiber module 7HP, metal, splice, 6xLC-Duplex OM3, PC, PhBr, M/4
- R&M security system/color coding
- VARIOline preterminated fiber optic cables, OM3 with LC connectors
- Trunk cable 12MPO – 12MPO G.652.D, APC, D/3, 45 m
- Real10 Cat. 6 links for the monitoring room and the switch management



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