



ACCURATE  
RELIABLE  
CAPABLE

**ARC** is private Macedonian company which was founded with a mission, to enable its clients to achieve a sustainable, high-value, competitive advantage through efficient use of advanced information technology solutions.

We tailor our solutions to your business needs in order to enable you to concentrate on the core business and at the same time to reduce costs, increase collaboration and information exchange in your organization in a safe and highly available IT & C environment.

Our goal is to become one of the best IT system integrators in the region.

#### **OUR VALUES:**

At ARC we aspire to offer our customers the best services in class, and base our approach on the following core values:

- > Integrity
- > Quality
- > Competence
- > Team-work and collaboration
- > Efficiency
- > Responsibility
- > Innovation
- > Confidentiality
- > Maintenance and fulfillment of obligations



**ARC** has local certified and experienced engineers covering all brands and solutions in the portfolio, which can provide 24 hours a day, 7 days a week, to technical support at the local level.

- > Certified ISO 9001
- > Certified ISO 20000
- > Certified ISO 27001

Our company has established partnerships with top brands Lenovo, Dell, Fujitsu, Tunchmatik, Iton, Microsoft, McAfee, Veam, VmWare, Fortinet, Lexmark, Xerox, Cisco, Juniper, Avaya, HPv and others over the years and expanded its local sales teams and support in order to provide faster and more effective customer service.

#### **CERTIFICATES AND EXPERTISE:**

Our engineers have a wide range of certificates from which we would like to mention:

- > Cisco
- > McAfee
- > Fortinet
- > Fujitsu
- > Dell
- > Lenovo
- > Microsoft
- > VmWare
- > Avaya

## PRINTING AND PRINT MANAGEMENT



Most businesses do not know how much they spend on printing costs or how their printers are using them. This makes it very challenging to optimize the print environment and to identify opportunities for cost reduction, security compliance and increased productivity.





**IN ARC WE BELIEVE IN THE POWER OF PARTNERSHIP AND THIS FACT ENABLES US WITH OUR PARTNER ECOSYSTEM TO PROVIDE YOU WITH A COMPLETE PORTFOLIO OF SOLUTIONS:**

### **INFRASTRUCTURE**

Infrastructure is the basis of the data center and contains the following elements: the building that houses the data center, power supply, cooling, ventilation, environmental control, windows and emergency power sources, structural cabling, optics, fire protection and alarm, physical security, access control.

### **NETWORKING SOLUTION**

High speed and low latency communication is essential to enabling the data center to meet its maximum performance parameters. Using our partnerships with top vendors and our extensive experience, we guarantee that every solution is tailored to the specific needs of each client.

### **SECURITY SOLUTIONS**

The integrity of the company and the availability of data and information from them are essential in order to preserve the competitive advantage, intellectual decency, reputation and to ensure profitability and growth.

### **SERVER INFRASTRUCTURE**

Decision makers need a continuous input of processed information in order to define the business strategy of the company. The server's infrastructure must be a design taking into account performance, expansion, density, energy consumption and heat dissipation. ARC has a full portfolio of solutions from top sellers, ranging from stand-alone servers to bundling and HPC infrastructures.

### **STORAGE INFRASTRUCTURE**

To be processed, the information must be stored in a way to facilitate an effective search, update, or deletion approach. As more IT technology progresses, companies want to work with information stored in various formats, ranging from plain text, databases that end with images and video streams. This trend puts pressure on storage solutions that must be able to increase.

### **STORAGE INFRASTRUCTURE**

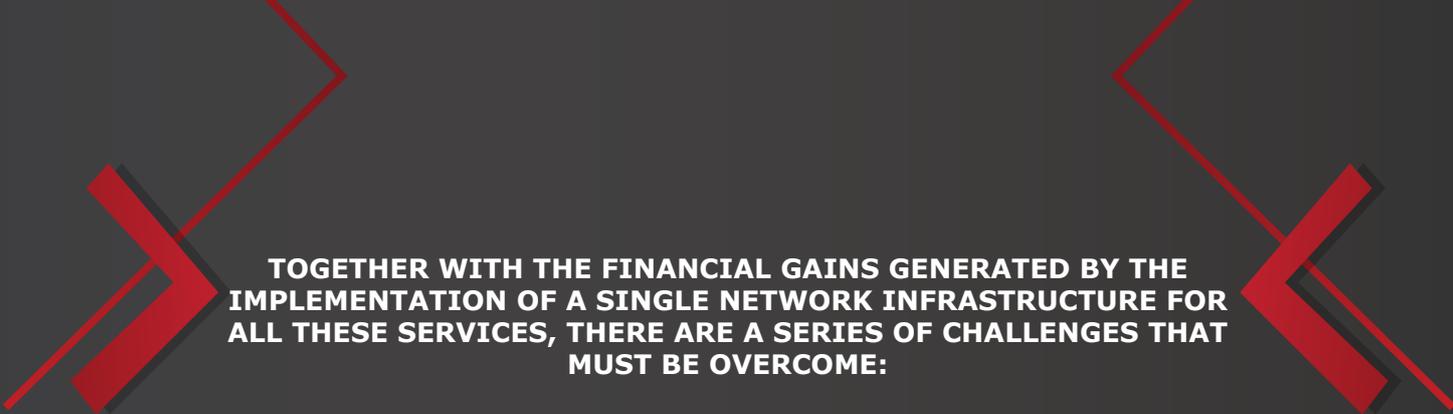
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### **VIRTUALIZATION SOLUTIONS**

Virtualization is an exceptional innovation that allows companies to take advantage of the ever-increasing power of computer hardware, allowing physical servers to be split into multiple virtual instances, ensuring proper use of available resources, while reducing costs.

### **BUSINESS APPLICATIONS**

Ensure that employees can collect, process, and share information with associates, partners, and customers. A few examples are the ERP (Enterprise Resource Planning), CRM (Customer Relationship Manager), web portals, public sector applications, financial applications, training applications.



**TOGETHER WITH THE FINANCIAL GAINS GENERATED BY THE IMPLEMENTATION OF A SINGLE NETWORK INFRASTRUCTURE FOR ALL THESE SERVICES, THERE ARE A SERIES OF CHALLENGES THAT MUST BE OVERCOME:**

### **USER EXPERIENCE**

How will employees react if network utilization will increase by 40% because of new applications deployed?

### **SECURITY**

How safe is my transit data between the headquarters and the branch offices in the network?

### **TRAFFIC ENGINEERING AND ADVANCED QOS**

How is the bandwidth intended for applications?

### **ELASTICITY OF DESIGN**

How does infrastructure react to loss or significant degradation of work on a part of the network?

### **ERROR TOLERANCE**

What is the Impact of Hardware Problems or Software Problems?

### **FLEXIBILITY**

What is the time needed to deploy a new ERP-level network?

### **EXPANSION**

What is the impact, the basic infrastructure if tomorrow we want to open additional 10 branches, can it be dealt with without the upgrade?

### **MANAGEABILITY**

How can we control the exponential growth of the complexity of the network, because our business is spreading?

# ARC - INFRASTRUCTURE SOLUTIONS

## What is the infrastructure?

A modern IT solution must be hosted in an environment that provides:

Appropriate environmental conditions that extend the life of the hardware by controlling the cooling, ventilation, optimum and constant humidity and dust control.

Fire detection and automatic fire fighting systems.  
Physical security of the perimeter and access control for employees and guests.

Reduce the impact of the earthquake with appropriately designed cabinets for equipment and the building IT system for its operation requires to connect high-speed cable network infrastructure using different technologies depending on the environment, distances that must be covered and bandwidth requirements.

As well as in constructions, every successful IT project starts with a very well planned and implemented basis that will provide stability, performance, expansion and optimal operating parameters for the installed active equipment.



**AT ARC WE BELIEVE IN THE POWER OF PARTNERSHIP AND THIS FACT ENABLES US TOGETHER WITH OUR PARTNER ECOSYSTEM TO PROVIDE YOU WITH A COMPLETE PORTFOLIO OF INFRASTRUCTURE SOLUTIONS:**

## **STRUCTURED CABLING SOLUTIONS**

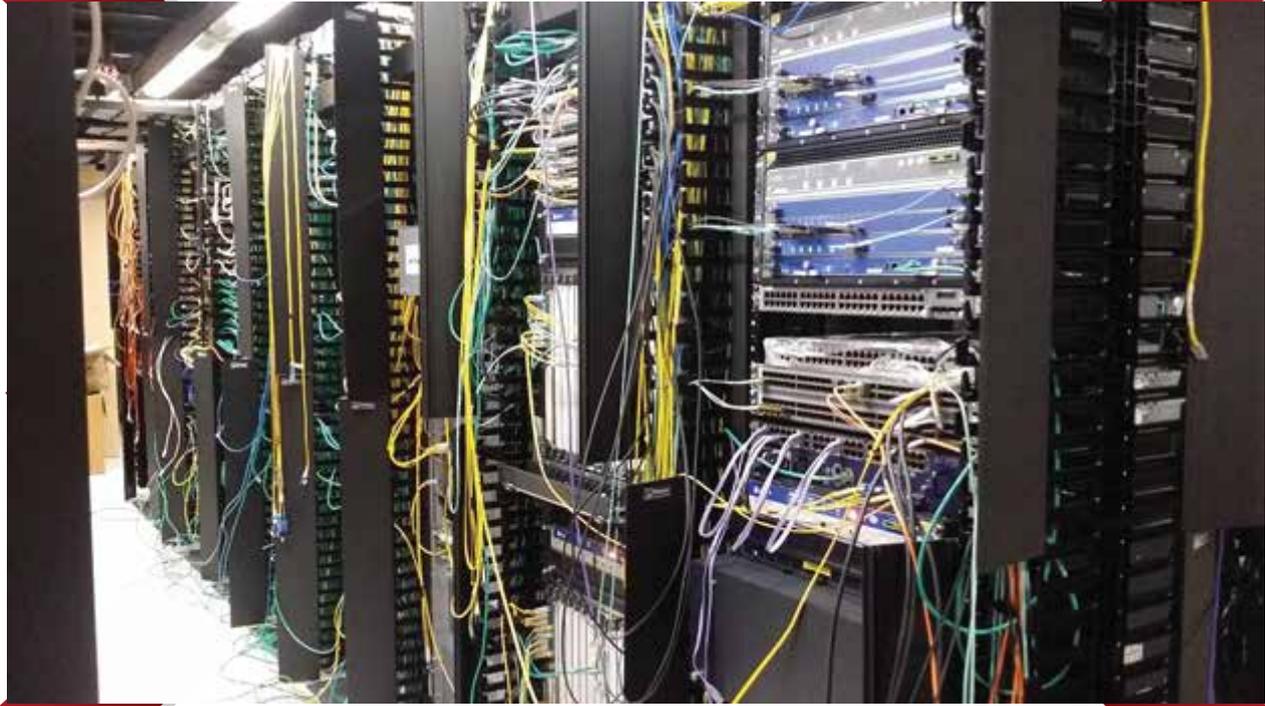
- > Fiber optics solutions
- > Cooling solutions for IT infrastructures
- > UPS solutions
- > Fire detection and fire suppression
- > Video surveillance solutions
- > Rack and equipment cabinets
- > Aggregates for the production of electricity for IT infrastructures
- > Container and mobile solutions at Datacenter
- > Data Planning Solutions and Data Centers
- > Environmental monitoring solutions and sensors

## **ARC - DATACENTER SOLUTIONS**

The main goal of ARC is to help customers achieve lower TCO, business continuity and optimize the Data Center with products, technologies, professional services, better resource utilization, improved management, throughout the lifetime of products in Data Center.

Data Centers are residential complex IT infrastructures, a critical business application and perhaps one of the most important assets of a company; business data.

## ARC - NETWORK SOLUTIONS



The need for efficient and cost-effective communication is essential to business success, and today more and more solutions depend on network infrastructure.

## ARC - DATACENTER SOLUTIONS

Traditionally, the converged infrastructure serves the following types of traffic:

Data: business applications, e-mail, internet

**Voice: IP telephony**

**Video: Video conference**

Nowadays additional services are used through the same converged network infrastructure:

**Storage: iSCSI, FCIP, FCoE**

**Desktop virtualization: PCoIP, RDP**



# ARC SOLUTIONS

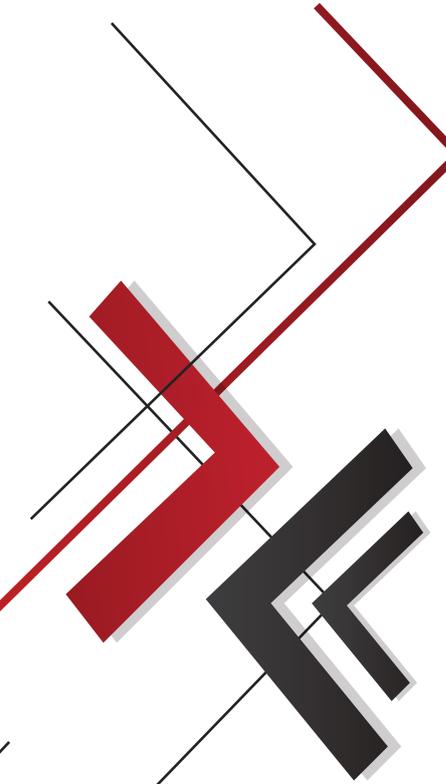
Computer networks not only mean hardware and software, but a complete process of preparation, planning, design, implementation and optimization.

Our experienced and certified team, together with our Cisco, Fortinet, Juniper, HP, Allot, Extreme Networks, Solarwinds technology partners, can create an optimal solution for your business case that can be tailored to your specific needs. We recognize that success comes from the integration of various architectures that are able to work together and we put all of the top features of every major network product vendor to work for the needs of our client.

In ARC we use the PPDIOO methodology, one of the most priced approaches for full life cycle management of network infrastructure:

**Prepare a stage:** Business agility begins with the preparation: predicting the broad vision, requirements and technologies needed to build and maintain a competitive advantage. In the preparation phase, AMC determines a business case and financial justification to support the adoption of new technology. By carefully anticipating future needs and developing high-tech and high-end architecture to meet those needs, the business is better equipped to collect the costs during deployment and operation.

**Planning phase:** The successful deployment of technology depends on the exact assessment of the customer's current network, the security situation and overall willingness to support the proposed solution. At the planning stage, a client assisted by ARC consultants determines whether there are adequate resources to manage a technology development project, and its network is not susceptible to intruders or external networks. The core then develops a detailed plan to identify the resources, potential difficulties, individual responsibilities and critical tasks necessary to deliver the final project on time and to the budget.



**Design phase:** Developing a detailed design is essential for reducing risk, delays and total network deployment costs. The design complies with business goals and technical requirements can improve network performance, while supporting high availability, reliability, security, and scalability. Everyday operations and processes for network management should be expected, and, when necessary, they create their own applications for integrating new systems into the existing infrastructure. The design phase can also lead and accelerate successful implementation with a phase plan, configuration, testing, and validation of network operations.

**Operational phase:** ARC proactively monitor the health and vital signs of the network to improve the quality of services; reducing interruptions; mitigation of outbursts; and maintaining high availability, reliability and security. By providing an efficient framework and operational tools to address the problems, the customer can avoid expensive interruptions and business interruptions.

# SECURITY SOLUTIONS



## ARC Solutions:

Security is huge and is continually developing, due to the continued battle between cyber criminals who are trying to compromise and exploit information and the security community that is trying to defend and protect it.

Profits, information and reputation are threatened every day by new and more advanced types of security attacks, facilitated by the constant need for access and data exchange over the Internet.

The current economic crisis is also a source of instability due to the fact that potential disgruntled employees can act against the interests of the company for personal gain by selling or facilitating access to trade secrets and confidential competition information.

The traditional security solution can no longer provide adequate protection in the face of emerging challenges.

Even if 100% security can not be achieved without the physical separation of the infrastructure, our solutions mitigate the attacks and give you a chance to focus on your core business without having to directly manage security issues:

The deployment of multilayer security solutions can ensure that complex attacks stop at various points in the infrastructure.

Advanced intrusion protection ensures that attacks on applications can be stopped before affecting them.

Application control and SSL inspecting enable the organization to block less desirable business applications and prevent any potential attacks on remote infrastructure managers.

Centralized logging can provide warning and mitigation data for attacks.

Antimalware, Anti-Spam ensures that phishing attacks are stopped before users are affected and have a chance to fall into the trap.

Web filter increases productivity by eliminating websites that are against company policy or intense bandwidth.

Web and database security ensures that potential application errors or faulty configurations can not be used as cyber-attackers.

Remote secure access with powerful encryption and authentication mechanisms is vital to the mobile sales force and to the integrity of exchanged information.

IP telephony is protected from eavesdropping.

Endpoint protection ensures that no malicious activity is performed, malware will not be installed, computers are authenticated in the network (NAC), and the data used is consistent with the company policy and any deviation is recorded.

IP video surveillance can provide physical security of your assets and limit the likelihood of losing theft.

# ARC ACCESS CONTROL SYSTEMS

Solutions access control

1. Biometric Authentication: You are the only key
2. RFID Radio-frequency identification

## The challenge:

Authentic people, no passwords and authentic authentication more confident than competition.



In our society of omnipresent networks, where individuals can easily access their information at anytime and anywhere, we are also faced with the risk that others can easily access the same information - at anytime and anywhere. Due to this risk, personal identification technology that can distinguish between registered, legitimate users and fraudsters generates an increased interest

Fujitsu has developed contactless technology for detecting a vein pattern in the palm, called Fujitsu PalmSecure. Fujitsu PalmSecure technology uses a very complex vein pattern in your palm to ensure the security of your information. Fujitsu, the leader in biometric security of veins in the palm, offers a wide range of individual solutions that include hardware, software and various services. Fujitsu Financial Services helps you acquire tomorrow's technology today with our unique and customized financial solutions, we are referring to budget cuts, transfer technological risks, and the dispersion of financial risk. Fujitsu also supports its own and multi-market products and provides services for maintaining heterogeneous infrastructures from a single source - from installing new products to providing fast and simple hardware and software support for individual products, as well as complete infrastructure.

ARC IS CUSTOMER PRODUCTS AND IT WHOLESALE DISTRIBUTION COMPANY THAT OPERATES ON THE MACEDONIAN MARKET. THANKS TO THE BUSINESS PRINCIPLES AND QUALITY SERVICES POLICY, WE BECOME A KEY FACTOR IN THE IT SECTOR, AND OUR LOYALTY TO PARTNERS AND CUSTOMERS, PROFESSIONALISM AND CONTINUOUS WORK ARE THE GROUNDS OF OUR SUCCESS. WE HAVE BEEN COOPERATING WITH THE WORLD'S MOST FAMOUS BRANDS, AND IN OUR PORTFOLIO YOU CAN FIND A WIDE RANGE OF IT PRODUCTS, MAINLY DIVIDED INTO THE FOLLOWING CATEGORIES:



Computers, notebooks, components



Tablets



Smartphones



Servers



Monitors and multimedia



Printers



Periphery



Software





BIOMETRIC AUTHENTICATION TECHNOLOGY, WHICH IDENTIFIES PEOPLE ACCORDING TO THEIR UNIQUE BIOLOGICAL INFORMATION, ATTRACTS MORE AND MORE ATTENTION. IN BIOMETRIC AUTHENTICATION, THE CHARACTERISTICS OF THE BODY OR BEHAVIOR (HABITS) OF THE ACCOUNT OWNER ARE REGISTERED IN THE DATABASE. WHEN ACCESSING THEIR ACCOUNT, THEIR CHARACTERISTICS ARE COMPARED TO THOSE IN THE DATABASE TO ENSURE THAT THE ATTEMPT IS LEGITIMATE.

### **THE ADVANTAGES ARE:**

#### **CONSTANCY**

Sufficiently invariant over a long period of time.

#### **COLLECTIVITY**

You can quantify the following:

- > Performance
- > Acceptability
- > Resilience

#### **UNIVERSALITY**

Every person has biometric characteristics.

#### **DISTINCTION**

Any two people have sufficiently different characteristics.



BIOMETRIC TECHNOLOGY OFFERS A HUGE INCREASE IN SECURITY FOR MANY DIFFERENT APPLICATIONS, WHICH FURTHER SIMPLIFIES PROCEDURES AND REDUCES COSTS. THERE IS A WIDE RANGE OF BIOMETRIC METHODS AND TECHNOLOGIES: FINGERPRINT RECOGNITION, FACE RECOGNITION, IRIS RECOGNITION, VOICE RECOGNITION AND VEIN PATTERN RECOGNITION. FINGERPRINT RECOGNITION IS THE MOST WIDELY USED APPLICATION. FACE RECOGNITION IS ONE OF THE DEVELOPMENTAL BIOMETRIC METHODS. THE PURPOSE OF THESE METHODS IS TO IDENTIFY EVERYONE ACCORDING TO THEIR PHYSICAL OR BEHAVIORAL CHARACTERISTICS, WHICH ARE UNIQUE TO EVERY PERSON, INVARIANT OVER TIME, AND ALMOST IMPOSSIBLE TO COPY. THESE METHODS SHOULD BE IMPLEMENTED IN MOST AREAS THAT REQUIRE HIGH SECURITY. THE QUESTION IS WHAT BIOMETRIC TECHNOLOGY SHOULD BE USED: EACH TECHNOLOGY HAS SPECIFIC ATTRIBUTES AND MUST BE GIVEN FOR SPECIFIC INDIVIDUAL REQUIREMENTS.

### **IMPORTANT ATTRIBUTES ARE:**

- > The time needed for recognition.
- > Quality of recognition and rejection of frauds.
- > Environmental impacts such as temperature, dust and water.
- > Price for infra-structure and maintenance / work.
- > Implementation in applications and systems.
- > Social acceptance.

Quality of the biometric system  
False acceptance

2. Radio-Frequency Identification (RFID) is the use of radio waves to read and capture information stored on a tag attached to an object. A tag can be read from up to several feet away and does not need to be within direct line-of-sight of the reader to be tracked.