ARROW | Data Center

Five Years Out

Data Center

The data center. Few people ever see it, but precious little of consequence happens without passing through it. It is the core of the infrastructure. The foundation of the cloud. The architecture that supports the network, telephony and the world's increasingly mobile workforce.

Data centers enable the success of all, but managing one is not for the faint of heart. Only a few have what it takes to juggle continuous growth, keep a finger on the pulse of innovation, balance legacy systems and position data centers to make the most of evolving opportunities.

At Arrow, we've long been planning for today's innovations. In fact, we're already prepared for the advances of years to come. You see, we think Five Years Out. Which means we're well positioned to help solutions providers like you stay ahead of technologies, anticipate business model shifts and create relevant, future-proof data centers.

The way data centers are built and configured today will have longstanding ramifications for users and organizations. We understand what works—and how to ensure it will keep working.

We've mastered the possible. Married it to the practical. And blended in an exacting measure of untapped potential. Simply put, our command of the data center is extraordinary. And it's yours to put to use.

Five Years Out

Ready to get started? Join us at Five Years Out.

The Great Evolution

The data center is at the heart of a massive evolution in the way IT is and will be delivered. Your customers will be looking to you, their solutions provider, for guidance and advice.

Never before has data center design and planning been more important to accommodate the opportunities and challenges of the modern IT environment—both today and tomorrow.

Hyperconvergence, virtualization, cloud, big data and mobility remain huge trends, each placing unique demands on the data center. These trends are exacerbated by immense organizational pressures and operational risks.

Additionally, 5G challenges such as Gigabit Internet speeds, massive growth in data, login storms, system performance demands and heavy application usage all present their own challenges to the data center. The cloud has already made storage and other services more manageable for businesses, but cloud computing comes with its own concerns, such as security.

Meanwhile, at the user level, expectations for access anywhere, any time, on any device continue to grow exponentially. Users demand a seamless flow of business-critical information. They want it compliant.

And they want it yesterday. Over the next few years, 5G will transform networking, bringing an ecosystem that is smarter and better connected. The Internet of Things and its connections will bring smarter hospitals, agriculture, power and even smart cities.

These rising demands are at your doorstep, along with the pressure of tightening budgets. If you don't want to get left behind, you have little choice but to adopt new offerings and uncover new ways to be profitable.

Our end-to-end IT infrastructure solutions incorporate data storage, servers, enterprise software, network, security, unified communications, virtualization and more. We'll put an impressive portfolio of professional services and IT training at your command, along with a wealth of resources designed to support your customers in improving manageability, efficiency and simplicity.

Whether your customers are grounded in a traditional data center or already leveraging the cloud, we have answers that will keep you relevant through the data center's ongoing evolution.

Data Centers Designed for Modern Business

Over our 25 years in the IT industry, we've built powerful business alliances with the world's leading vendors. From initial consultation, planning and design—and through engineering build to implementation—we'll work with you to craft effective data center solutions that fit your customers' needs.

5G

You've probably seen 3G, 4G or LTE displayed on your phone. This indicator tells you which type of network your mobile device is connected to. The next evolution is 5G. These new networks will be between 30 and 50 times faster than 4G networks—that's faster than the speeds Google Fiber provides through a physical connection. A 5G network would be fast enough to download a movie in about 15 seconds—compare that to the same download on a 4G network at six minutes.

The path to complete 5G is still evolving. Preliminary 5G standards are expected in 2018, and those standards will continue developing through 2022 and beyond. With the capabilities 5G will bring, networks will need to be prepared with storage capacity. The increase in Internet usage is ballooning. Whether it's an Internet of Things lightswitch in your home, a long-distance, remote surgery, a self-driving car or a smart harvester, the connected infrastructures we'll see over the next five years will generate zettabytes of data.

HYPERCONVERGENCE

Your customers face a proliferation of data devices—an ever-expanding array of servers, storage and networking systems. They look to you for ways to increase performance and reduce required maintenance, to prepare for the future, for the best return on their investments.

With hyperconvergence, your customers will enjoy an infrastructure that tightly integrates virtualization, networking, computing and storage into a single system. Whether the next step is consolidation into a single stack or a transition to a fully virtualized architecture, our tools, educational materials, products and support can smooth the path to improved manageability.

As the data center authority, we can help you create a modern, complete and robust data center strategy for your clients. Draw on our expertise as you guide customers through the integration and automation of virtualization, computing, networking and storage.

Today, more than 12 billion devices are already connected—and that number is expected to increase to at least 30 billion by 2020.

Put our vision, experience and commitment to your continued growth to work for your business today.

VIRTUALIZATION

For customers looking to make the most efficient use of resources, virtualization is a standout solution. You'll dramatically reduce your number of physical servers, improve utilization and control, experience secure and continuous business operations, and enable the consolidation of IT resources through a single, easy-to-deploy interface.

We can assist in the process. Our experts identify the best solutions, including a range of vendor technologies, security to protect your customer's virtualized environment, back up and data protection along with planning and analytics to smooth the transition.

SECURITY

Security is a critical component of any data center solution. Our approach provides comprehensive corporate governance and compliance strategy across four areas:

> Security for the desktop and endpoint

> Security for the network

> Security for the data center

> Compliance for the infrastructure

MEETING ESTABLISHED NEEDS

The stack that makes the basic data center includes:

> Storage

> Network

> Compute

> Applications

ONGOING CONSIDERATIONS

Every layer of the data center requires:

> Security

> Automation and management

FUTURE-FOCUSED SOLUTIONS

The ultimate solution includes:

> The intelligent data center/hybrid integration

> Intelligent blend of traditional, private and public cloud

> Unified Communications

Building the Perfect Data Center

Create an efficient, effective and secure solution for your customers—one that fits their needs for compliance and leverages on-site stacks and private, public and combined cloud technology as needed.

INFRASTRUCTURE

An agile, well run data center and IT infrastructure is central to successful IT delivery, but with budgets shrinking, staying flat and under constant review, managers are constrained—making existing resources work harder. Spiraling volumes of business-critical data, resource-hungry applications and higher user expectations add to the pressure.

SECURITY

The world continues moving toward data center-centric and cloud computing, and this trend is changing the way that IT infrastructures are deployed. While the benefits of this technology transition are well understood, cloud technology generates its own collection of continually evolving risks and security considerations.

VIRTUALIZATION

Virtualization can be implemented across the IT infrastructure. The underlying objective is to improve utilization and control by moving duplicated and difficult-to-manage resources from remote sites onto shared platforms in the data center.

COMPLIANCE

Corporate governance and risk management continues to be a major consideration in network security planning.

Infrastructure Management

Cloud computing has become the norm, and with it comes changes to the data center. Organizations are moving toward hyperconvergence: centralized, consolidated and automated IT infrastructures. A range of solutions collectively described as Data Center Infrastructure Management (DCIM) has emerged to support this model.

At Arrow, we understand how to make DCIM work for you. Trust us to advise you as you help your customers leverage these solutions to fit their data centers to their purposes. We can ensure infrastructures are managed, optimized, protected and fully compliant—from endpoint to data center.

Leverage our expertise to make certain all aspects of your customers' infrastructures are managed, optimized, protected and fully compliant.

Unified Communications Solutions

For enterprise customers and partners, Arrow provides complete Unified Communications (UC) systems. These UC solutions optimize business processes, enhance human communications, reduce latency, manage workflows and eliminate device and media dependencies by integrating key information from all human and device communications.

We begin by developing a customized integration strategy, including implementation and optimization to fit our customers' and partners' infrastructures of choice.

Based on individual business needs, we advise, consult and innovate to create meaningful integration of all communications elements.

Arrow supports and optimizes UC (on-premise and cloud) in the following ways:

> Voice, Data, Video Network Design, Deployment

> Contact Center Design, Deployment and Optimization

> Comprehensive Network, Server and Application Managed Services

> Advanced Network, Server and Application Monitoring 24/7

> Level 1 to Level 3 Network Operation Center Support

> Customized Help Desk Services

> On-site Advisory and Technical Support

> Custom Integration and Application Development (IVR, CTI)

> Integration with Communication-Enabled Business Process (CEBP)

> Integration with WebRTC (Web Real-Time Communication)

At Arrow, we understand what you're facing. In fact, we're facing it with you. Partner with us, and you'll get access to proven, best-in-class technology that satisfies your customers' needs for efficient, affordable, future-proof solutions.

Why Arrow

Arrow works with partners, suppliers and manufacturers to bridge the gap between the possible and the practical. We can think Five Years Out because of our commitment to lasting relationships with the most forward-thinking companies in the world.

SOLUTION ARCHITECTURE AND DESIGN

Change is constant. New standards, new ideas, new breakthroughs. Faster, better, cheaper are always around the corner. What doesn't change is Arrow's persistence in thinking Five Years Out. Partner with Arrow to help you design a new device, component or finished product, or to take an existing solution to the next level. Our engineers leverage the world's best resources to help you minimize design cycles to speed your time to market. We can help you find the shortest distance between inspiration and profits.

PROTOTYPE TO SCALE

At Arrow, we know everything great and monumental begins behind the scenes. Part selection. Engineering. Design. Put your custom-designed board, component or device to the test with our prototyping and testing services. And get it certified by UL, EnergyStar or DLC. When you're ready for market, use Arrow's custom manufacturing solutions to scale production to your needs quickly.

ROUTES TO MARKET

Creating a marketable solution is only half the battle. Getting your solution to market is the other half. Boost revenues and maximize business opportunities by working with Arrow to create lead-generation programs and new routes to market. Put your designs into production quickly with Arrow's turnkey manufacturing solutions. Meet the demand for short lead times with Arrow's renowned global supply chain and logistics support. With Arrow by your side, you can keep your products on the route to profits.

HARDWARE AND SOFTWARE INTEGRATION

So many platforms. So many protocols. And so many potential problems. Arrow's integration expertise complements yours to help you bridge the practical and the possible in networks, enterprise computing, IoT and wireless communications. Whether you need device-level integration or large-scale systems integration, Arrow can handle your needs, no matter how demanding.
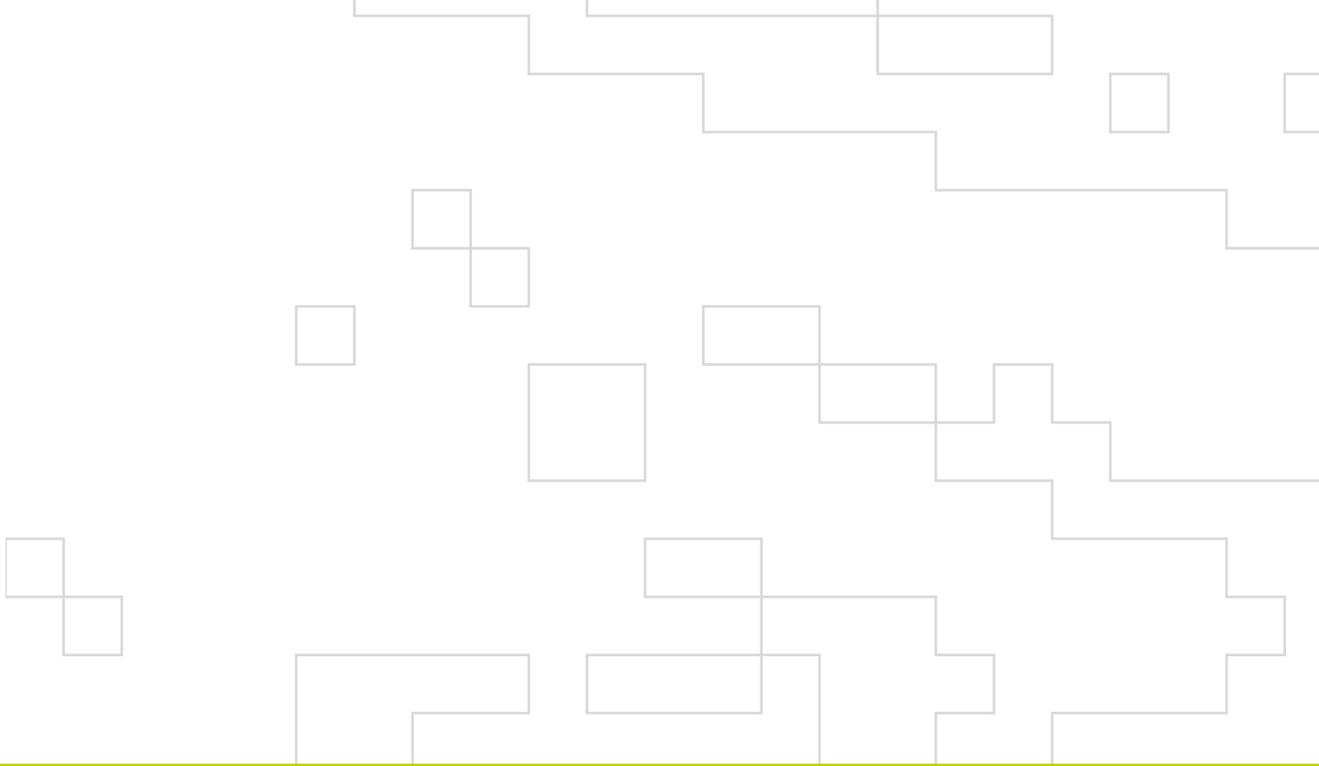
CLOUD SECURITY AND ANALYTICS

The cloud is vast and ever changing. Arrow cloud consulting, infrastructure, software and security services help you navigate the shortest distance between innovation and reality. With Arrow, the cloud is clearer so you can create solutions unique to your company, your industry, your customers. Arrow data analytic tools and expertise help you turn data into insight. And insight into action. Because what you do with your data tomorrow depends on what you put in place today.
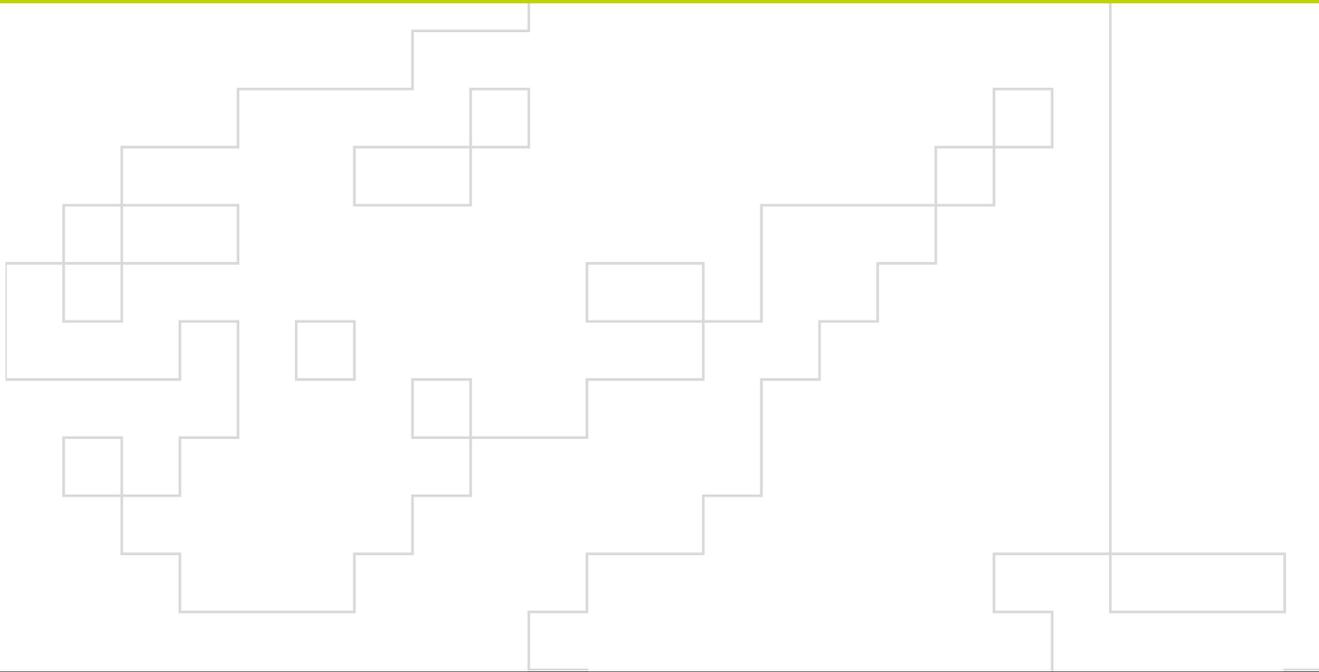
SUSTAINABILITY

Devices become obsolete. Basic materials don't. Turn to Arrow to unlock the value hiding in yesterday's innovation. Reduce, reuse and turn inefficiency into opportunity. From point of use to point of origin, Arrow's sustainable technology solutions group turns challenges into solutions, waste into profits. Arrow guides innovation forward through the reverse supply chain—spares management, returns management, inventory control, remarketing and electronic asset disposition. Arrow has you covered from sensor to sunset.

As the eyes and ears of the future, Arrow can

help you take your business to the next level.

From sensor to sunset.

Are You Five Years Out?

Most people live in the present. The world of now. But a handful of us work in a unique world that doesn't quite exist yet—the world of Five Years Out.

Five Years Out is the tangible future. And the people who live and work there know that new technologies, new materials, new ideas and new electronics will make life not only different, but better. Not just cheaper, but smarter. Not just easier, but more inspired.

Five Years Out is an exciting place to be. So exciting that, once you've been there, it's hard to get excited about the present. Because we know what's coming is going to be so much better.

Five Years Out is a community of builders, designers, engineers and imaginers who navigate the path between possibility and practicality. Creating the future of everything from cars to coffeemakers.

Are you one of them? Then you're probably working with us.

ARROW
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