COVER INTERVIEW

A Passion
for Digitalization

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CEO of Arvato Systems, on the topics of successful
digital strategies. cloud migrations, and current AI projects.

A PASSION
FOR DIGITALIZATION

We interviewed Matthias Moeller, CEO of Arvato Systems and CIO of parent company Bertelsmann, on the topics of successful digital strategies, cloud migrations, and current AI projects

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Matthias Moeller

Age: 48

Career history: Mr. Moeller has held a number of different roles at Bertelsmann/Arvato beginning in 1995, after completing his degree in computer science and business. He has held management positions since 2003, and served as CEO of Arvato Systems Perdata from 2012 to 2016, where he was responsible for IT solutions and services for the utilities industry. As CEO, he has been responsible for all business at the Arvato Systems Group since 1 April 2016, while also serving as the CIO of the Bertelsmann Group.

IT DIRECTOR: *Mr. Moeller, you are both the CEO of Arvato Systems and the CIO of the Bertelsmann Group. How do those roles fit together?*

M. Moeller: Very well, since they produce a lot of synergies. We handle the exact same issues at Arvato Systems that concern Bertelsmann's IT strategy. This means that I deal with many issues as CEO and CIO to the same degree. In my position as CIO, I am constantly concerned about providing functioning basic infrastructures for the entire group. The latest technologies, such as cloud computing and artificial intelligence, also need to be integrated into the business models.

IT DIRECTOR: *How are IT decisions made within the group?*

M. Moeller: In terms of IT, the group is structured in a decentralized way so that the respective road map for digitalization is in the hands of each individual Bertelsmann division, such as RTL, Gruner + Jahr, or Random House. As CIO of Bertelsmann, my task is to define comprehensive framework conditions for areas such as cybersecurity and risk or cost efficiency management.

IT DIRECTOR: *Arvato Systems employs around 2,800 people and had a recent turnover of 400 million euros. As an IT service provider, you also work for many other clients besides the Bertelsmann Group. What are your main areas of focus for these clients?*

M. Moeller: We have already been working as a cloud specialist for a long time and have positioned

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ourselves as a multi-cloud provider for over three years. As part of this, we provide all cloud variants to clients and offer managed services for common hyperscalers such as Microsoft Azure, Google, and Amazon Web Services. In addition, we run our own private cloud infrastructures on our campus in Gütersloh, Germany, and in other data centers in the German states of North Rhine-Westphalia and Saxony. This is how we developed a kind of "German cloud."

IT DIRECTOR: *Which services are in high demand at the moment?*

M. Moeller: All clients are looking more and more at cloud business models. Usually we come across multi-cloud scenarios that consist of public, private, and on-premises installations. We rarely encounter public cloud-only strategies. Instead, many clients still use private cloud infrastructures exclusively, even as part of traditional IT outsourcing.

IT DIRECTOR: *What do you need to know if you want to switch from traditional IT to the cloud?*

M. Moeller: If the clients are still running their IT in their own data center, they will first need to consider private cloud structures. On the other hand, clients from the first and second outsourcing generations are a step further, and they become cloud-only users. We offer a number different ways to get to the cloud. With a "smart shift," clients bring the existing structures and the systems they

run on their own into managed outsourcing, which essentially amounts to switching over to a private cloud. In addition, we can also implement a direct transformation into the public cloud. The client's choice of model will also depend on the business requirements, the business strategy, the corporate culture, and the technical, organizational, and regulatory requirements.

IT DIRECTOR: *What is the ideal way to prepare for this?*

M. Moeller: Those in charge should determine the extent to which a cloud migration is technically and organizationally feasible and what the objective is in terms of economic benefits. If operating in the public cloud is problematic due to certain standards in heavily regulated sectors, those would be important reasons against doing so. Furthermore, security considerations are important, especially when dealing with sensitive projects like the electronic health insurance card or the establishment of smart grids or other critical infrastructures. Some calls for bids exclude management in the public cloud from the start.

IT DIRECTOR: *To what extent do public cloud services represent a cost-effective alternative?*

M. Moeller: When comparing public and private cloud models, the private cloud services are usually less expensive at the moment. Overall, it is important to keep an eye on the future road map and price fluctuations in addition to the underlying

architectures. We are currently observing how many cloud providers are tightening the screws on prices and how large providers in particular are passing their effects of scale on to prices, which means that prices will likely go down.

IT DIRECTOR: *How do you go about changing cloud providers?*

M. Moeller: If the plan is to operate only the infrastructures in the public cloud, you can basically switch freely between the hyperscalers Amazon, Google, and Microsoft. But in practice, it's not common to switch. What usually happens is that clients bring their IT operations from the public cloud back to the private cloud or to dedicated structures, since they do not see any economic benefit.

IT DIRECTOR: *Aside from cloud computing, what concerns do managers have in terms of IT outsourcing?*

M. Moeller: It is increasingly common for some parts of transformation or migration projects to be automated. This is why we focus particularly on providing standardized managed services. With regard to technology stacks and the basic infrastructures, these kinds of projects take a similar path in all sectors. We fall back on technologies such as hyperconvergence or software-defined infrastructures in such cases. However, the individual sectors differentiate themselves at the application level, which is why we provide tailored approaches

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where this is concerned.

IT DIRECTOR: *Which managers are involved from the user side?*

M. Moeller: In addition to the IT organization, there are data protection officers, works councils, and security officers. More and more companies are putting chief digital officers in charge of the digitalization of the business models. This ensures a clear separation between IT operation and digital innovation management.

IT DIRECTOR: *How common is it for German companies to already have clear digital strategies?*

M. Moeller: Managers in the top 100 companies have been aware of the significance of the digital transformation for years. But "digital thinking" has not yet reached all areas below the management level.

IT DIRECTOR: *What can be done to change that?*

M. Moeller: The corporate structures need to become more agile. The companies and communication culture often need to change too, since the working world has changed a lot over the past several years. Virtual networking makes it possible to work from anywhere. Nevertheless, at Arvato Systems we do our best to ensure that our employees are networked not only virtually but also directly. This is because personal contact is required for virtual cooperation to work as effectively as possible.

IT DIRECTOR: *Are there any other approaches?*

M. Moeller: We assist our clients in the digitalization of their companies and business models. True to our motto "Empowering Digital Leaders," we accompany our clients through the further development of their companies, which are already pioneers in terms of digital business, and drive digital innovations together with the users — in the form of road maps, workshops, feasibility studies, and showcases.

IT DIRECTOR: *Are certain sectors more deeply involved?*

M. Moeller: We have many clients from the retail, media, healthcare, energy, and utilities sectors. Our overall focus is on companies with a high number of consumers. Because of our history with Bertelsmann, we also assisted in the digitalization of the media industry since the beginning. The initial points of contact were available early on, including music, video, and movie streaming, and the provision of e-books and e-publishing via the corresponding media websites.

IT DIRECTOR: *How far along is the media sector in terms of digitalization?*

M. Moeller: Multichannel solutions are extremely important. Although many consumers still buy goods in brick-and-mortar stores, the turnover in online retailing is increasing at the same time. As the range of web offerings continues to expand, virtual advice and recommendations based on corresponding algorithms now come along with these offerings. Then there are loyalty programs individually tailored to the customer. A wide, interconnected range of products and services, various delivery methods, and a precise knowledge of customer needs help retail companies to increase their turnover.

IT DIRECTOR: *What is the main consideration in healthcare?*

M. Moeller: The initiative of Gematik (Gesellschaft für Telematikanwendungen) to roll out an electronic health insurance card several years ago is continuing on its course. A central telematics infrastructure and decentralized infrastructure components are needed so that patients, statutory health insurers, and doctors can authenticate themselves securely and in compliance with data protection regulations. The central telematics infrastructure for Germany is currently being operated at Arvato Systems facilities. At the same time, decentralized connections are being rolled out via VPN access service with corresponding connectors across Germany. As one of the partners involved, we are implementing the access services in doctors' offices and clinics, which should be completed by the middle of this year. Based on this, additional healthcare applications will be successively developed and integrated.

IT DIRECTOR: *What is the next step in the healthcare sector after that?*

M. Moeller: Since the beginning of February, it has been mandatory throughout the EU for prescription medicines to be traceable from production through to the end consumer. The aim of the new directive is to prevent falsification and guarantee high quality standards. We are one of two providers that implemented the national systems and enabled pharmaceutical manufacturers as well as retailers and pharmacies to get on board.

IT DIRECTOR: *In addition to large-scale digital projects, artificial intelligence (AI) and the Internet of Things are under discussion. What is your position here?*

M. Moeller: We help our clients integrate all the possibilities of artificial intelligence into their business development. AI is worth using for projects such as the automation of service desks, incident management, and other support services in which queries and tickets can be intelligently processed at a later stage. There are also many applications for AI in texts, images, and moving images, specifically in the media industry. AI technologies also play a big role in predictive maintenance and predicting consumer →

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behavior. We develop individual solutions for all of these fields of application, but we also integrate products from other providers.

IT DIRECTOR: *How advanced are the current AI solutions?*

M. Moeller: Automated metadata can be used with moving images to filter out celebrities or certain scenes from large media collections, for example. Employees no longer have to spend time indexing. People's moods or clothing styles can also be analyzed.

IT DIRECTOR: *Can you give any examples?*

M. Moeller: Manufacturers place their advertising where it can best reach their target group.

We carried out a feasibility study for the retail sector during which customers were greeted by a robot when they entered a store. The customers were offered different clothing suggestions depending on what they were wearing, their posture, and their mood. The robots could also lead the customers straight to the right shelf if requested.

IT DIRECTOR: *What role does AI play in media creation?*

M. Moeller: Because our parent company Bertelsmann includes many media companies, automated content creation is very important for us. It allows static content like sports results or weather reports to be

generated using AI.

IT DIRECTOR: *How has your own IT organization changed within the context of digitalization?*

M. Moeller: Digitalization, cloud computing, and especially AI require our IT team to take a new direction. We support this by providing further training, fine-tuning the qualifications of our employees, and recruiting experts. Working with artificial intelligence involves a broad range of skills, so a combination of different capabilities is always needed. We therefore need specialists for big data, data analytics, and data science as well as statisticians, mathematicians, and employees with expertise in the fields of application.