BLACK & WHITE PAPER

Choosing a Gateway to Europe

Challenges and considerations for US organizations looking to land and expand in Europe

JULY 2018

Europe is seeing an influx of US organizations keen to establish or expand operations across the region due to a number of factors, including economic opportunities and regulatory requirements. Companies will face challenges, however, before migrating technology into or across the diverse set of countries that make up the region. Based on interviews with 250 organizations investing in the region, this study examines the hurdles that are of greatest concern to US organizations, and identifies ways organizations can minimize risk and future-proof investments.

COMMISSIONED BY

interxion™

About this paper

A Black & White paper is a study based on primary research survey data that assesses the market dynamics of a key enterprise technology segment through the lens of the "on the ground" experience and opinions of real practitioners – what they are doing, and why they are doing it.

About 451 Research

451 Research is a leading information technology research and advisory company focusing on technology innovation and market disruption. More than 100 analysts and consultants provide essential insight to more than 1,000 client organizations globally through a combination of syndicated research and data, advisory and go-to-market services, and live events.

NEW YORK
1411 Broadway
New York, NY 10018
+1 212 505 3030

SAN FRANCISCO
140 Geary Street
San Francisco, CA 94108
+1 415 989 1555

LONDON
Paxton House
30, Artillery Lane
London, E1 7LS, UK
+44 (0) 207 426 1050

BOSTON
75-101 Federal Street
Boston, MA 02110
+1 617 598 7200

Introduction

There has been an increase in the number of US organizations seeking entry into Europe over the last few years, especially in the services and technology sectors. Some are driven by the requirement to host services or data assets in the region for regulatory purposes; others are attracted to the growth potential that comes with an increasingly international business environment and growing European economy. There are also those organizations that are aiming to serve the movement of European companies to cloud and the gradual uptake of other transformational technologies. Entering Europe and expanding across the region has never been an easy task, however, and modern-day political and regulatory scenarios only make things more complex.

Companies need to think beyond establishing a suitable landing point and their plans for expansion when considering Europe as a new region. They need to take into account the differences in local laws and legislation, cultures, languages, skills, new requirements for the proximity of technology services and even the various ecosystems of vendors and service providers when entering any new market. These challenges can be compounded in Europe, where all 50 countries have their own individual pros and cons and ways of doing business. The good news is there are pioneers – US-based organizations are already strong on the ground, and many have had successful deployments. A large number already serve more than one location.

For the purpose of this study, 451 Research surveyed IT decision-makers from an even mix of organizations in these industries: cloud and managed services; financial services; media, content and ad tech; enterprise; software as a service. Each vertical made up 20% of the final sample. The 250 respondents were either already present in Europe with active plans for expansion or were planning their European market entry – all were actively seeking to make technology investments in the market. Some are focused on one location, but many are seeking growth across multiple markets. Some already own or operate datacenter facilities in Europe; others leverage cloud or colocation, while others still run their tech estates from an office premises. Many have a mix of the above.

We asked our respondents their thoughts about removing risk by working with local partners and found that many will not be embarking on their European journey alone. The good news is that Western Europe, in particular, has a mature array of service providers, multi-tenant datacenter (MTDC) operators and network infrastructure providers that can meet local, regional and global requirements. For US organizations, however, the first challenge when entering Europe can be to identify who these providers are.

Key findings

- US organizations entering or expanding across Europe are doing so for a diverse set of reasons. Their deployment methods will also be varied.
- Organizations must carefully consider their requirements for a 'gateway market.' For some, it will fulfill an instant need in a location, while others will consider it an on-ramp to the rest of Europe and abroad.
- Many companies will seek low-latency high-performance technology options close to their business, or their customers' businesses.
- A hybrid approach is favored by many organizations, encompassing on-premises and off-premises server resources and a variety of cloud, colocation and managed services.
- The maturity of a market – its datacenters and service providers – does matter, along with security, the right connectivity options, regulatory environment, access to skills and culture.
- Working with local partners can help overcome some of the many challenges organizations face when entering new markets in Europe, but not all companies know how to identify suitable regional or local candidates.
- Companies entering Europe today have more challenges than those that entered Europe prior to General Data Protection Regulation (GDPR) and Brexit, which have created uncertainty across all European markets. The good news is that the technology landscape has matured along with the colocation and service providers that can provide secure, flexible options to help with certification or movement across markets.

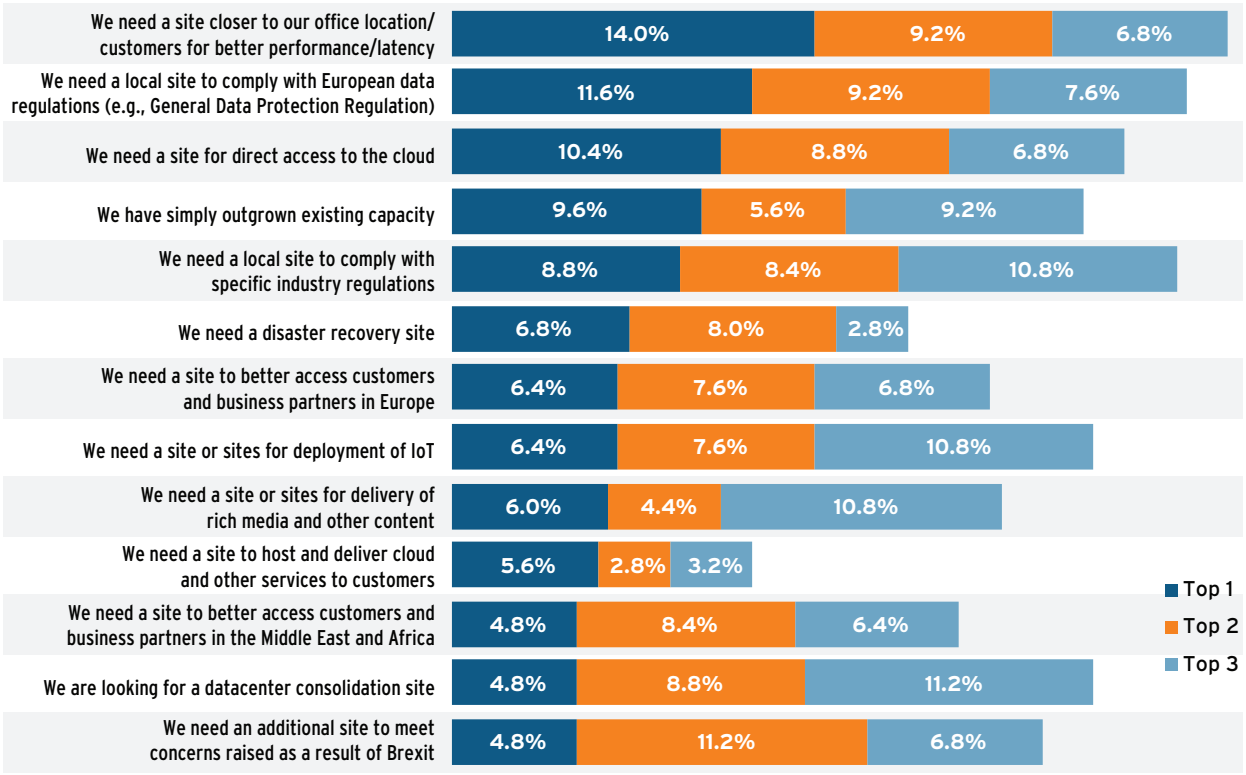
Landing and Expanding in Europe

From the 100-year-old US agribusiness looking to build new revenue streams by locating land for farming then seeking nearby datacenter investments, to the New York-based managed service provider (MSP) that will use Europe as a springboard into Africa, the reasons for US-based organizations landing their technology estates and expanding across Europe are numerous and varied (see Figure 1). Most say a European expansion will create a new profit center. Others see it as a necessity. European attitudes to data security and residency – in particular, GDPR, which went into effect in May 2018 for companies dealing with EU citizens' personally identifiable information – have led some organizations to increase investment in the region, especially those providing services. There are also enterprises seeking to expand due to the growth of operations, or in response to new requirements for disaster recovery and backup. Highlighting the influence new technology adoption can have on a market, many also seek to bring services closer to end users in the business or customers for lower latency and higher performance of applications.

Figure 1: Reasons for investing in European datacenter floor space or power capacity

Source: 451 Research custom study, Q1 2018

Q: What is driving the need for new or additional datacenter floor space or power capacity to serve your European operations?



One financial services company working within the retail sector said it has no choice but to enter Europe if it wants to expand. The region has become one of the largest markets for consumer goods. It says the fragmented nature of the European market means that instead of dealing with one or two conglomerates covering the US region as it does today, it has opportunities with a higher number of leading retailers that focus on different countries across the European region, which provides the ability to grow at scale. It is seeking to work with local partners to speed local integration and customize products across different channels. It also views local service provider partnerships as a way to minimize risk and gain access to skills and digital marketing ecosystems.

The story is somewhat different for another large US enterprise already in France, UK, Italy, Germany and Spain. This company has been expanding its technology estate across territories so it can comply with legislation and, more importantly, satisfy local attitudes toward data residency. Many of its European and international clients like to know they are dealing with a company that keeps their data local. These are only two of a large number of examples that we researched for this study.

Taking a vertical view, we found:

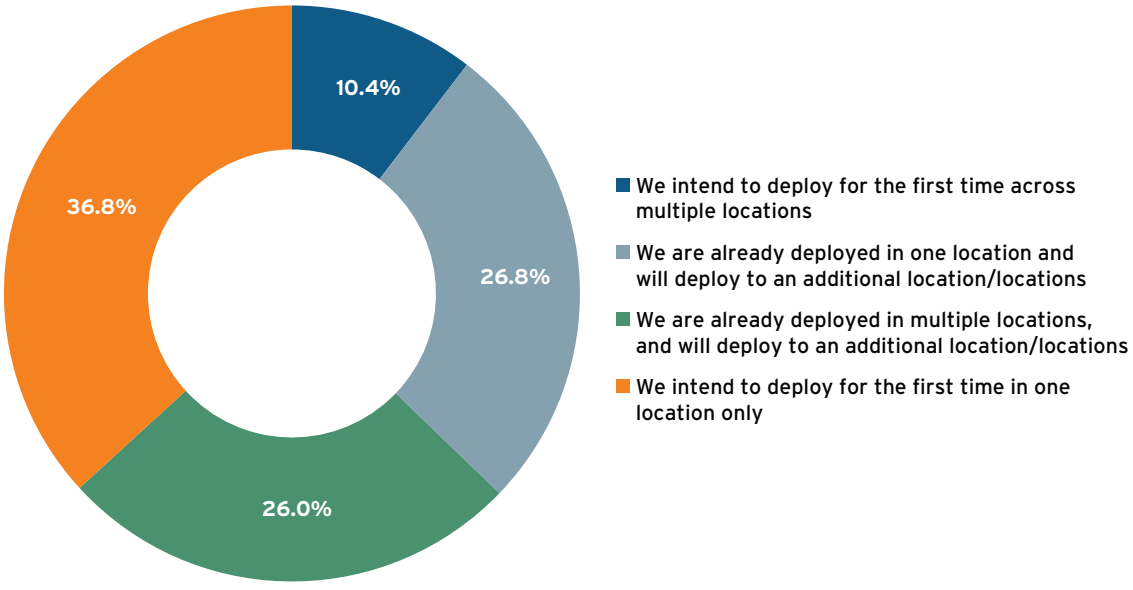
- As many as 92% of SaaS providers surveyed are already present in Europe – some have been in Europe long enough to undertake their own datacenter consolidation projects.
- Only 36% of MSPs and cloud providers polled have a European presence. The remaining 74% are seeking fast entry into the market. Almost 50% of these companies will enter Europe with just one location but will seek expansion for disaster recovery or GDPR in time.
- Of the 40% of media and content providers in Europe, about half are already in multiple locations, and many have outgrown existing capacity.
- More than half of financial services companies already have a presence in Europe, and 30% of these operate their own datacenters and expect to continue to do the same for years to come.
- Roughly 42% of enterprises surveyed are in Europe today. These companies have hybrid strategies, and many are leveraging hyperscale cloud providers, as well as MSPs and smaller cloud providers that can layer services on top. They will also use retail and wholesale colocation and their own datacenter estates.

Almost an equal number of respondents are growing existing portfolios across Europe as are entering the region for the first time. And the majority of first-timers are most likely to choose one location as a primary operation before they expand (see Figure 2)

Figure 2. Location considerations among first-time movers to Europe

Source: 451 Research custom study, Q1 2018

Q: What is your current and/or planned footprint regarding your IT presence in Europe?



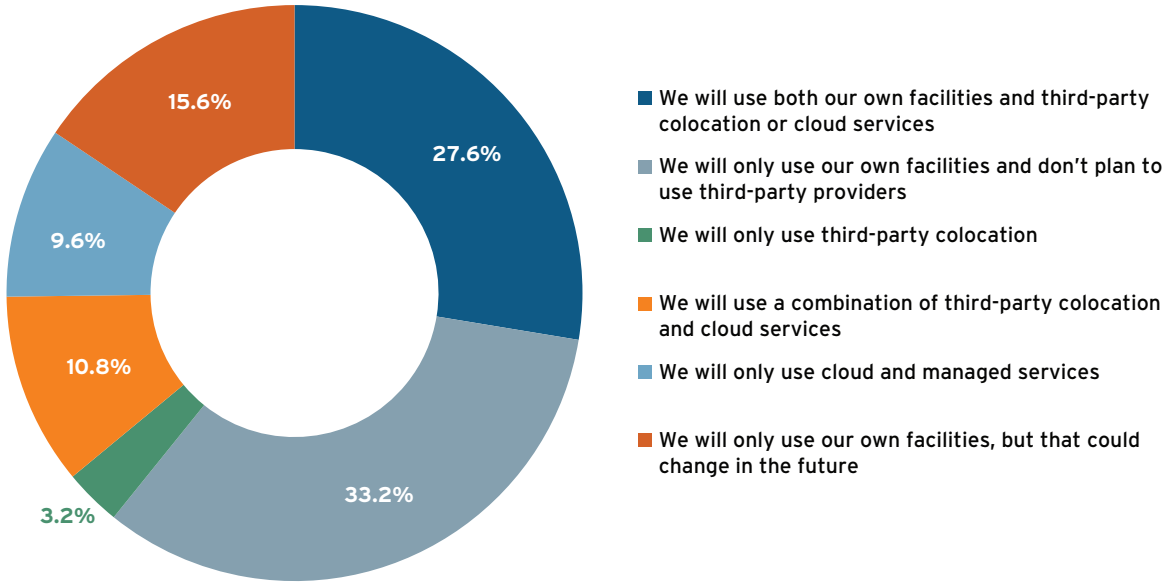
METHODS OF DEPLOYMENT IN EUROPE

The methods for deployment are just as varied as the reasons for deploying. There is an even split of those organizations that are already deployed in Europe in one location and those in multiple locations. Increasingly, more of these organizations are expecting to use a combination of colocation, cloud, managed services and their own IT estates as they progressively grow in a hybrid manner across the region (see Figure 3).

Figure 3. Intended deployment methods for European IT infrastructure

Source: 451 Research custom study, Q1 2018

Q: How will your organization's European IT infrastructure most likely be deployed in future?

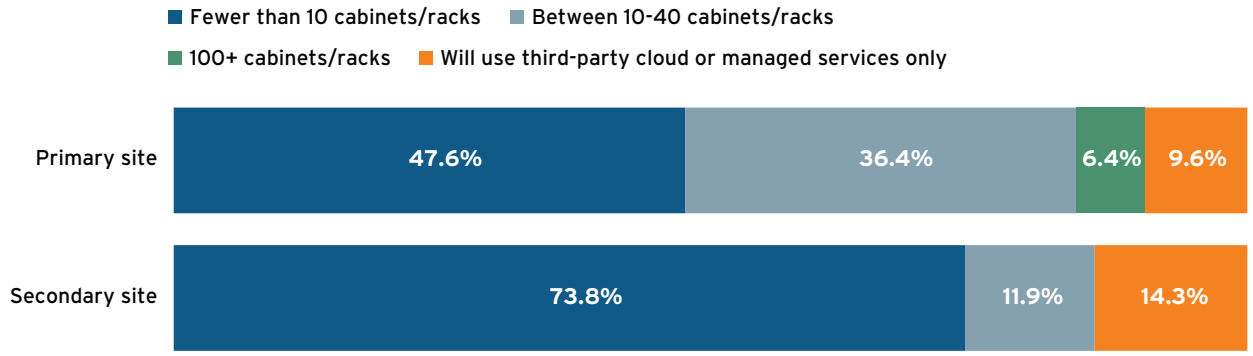


Most organizations intend to make their 'landing point' (where they will first locate their technology estate) the largest portion of their datacenter estate, with secondary locations having smaller deployments (see Figure 4). Just over 70% of respondents say they will use or may use a third-party service partner to support their entry into the region, and a high number will use MSPs and local or hyperscale cloud providers. Many will also turn to wholesale or retail colocation providers or management consultancies.

Figure 4. Landing point considerations for European expansion

Source: 451 Research custom study, Q1 2018

Q: What size of IT deployment are you most likely to make in your primary region and secondary region in Europe, if a secondary one is required?



ABOUT ONE-THIRD OF ORGANIZATIONS SAY THEY WILL GROW BY 10% OR LESS OF THEIR ENTIRE CAPACITY IN EUROPE IN THE NEXT 12-18 MONTHS; ALMOST HALF SAID THEY WILL GROW 11-20%, AND A QUARTER AGAIN UP TO 50%.

"Our main hub or center for IT will be New York. In Europe, we have multiple datacenter 'hot spots' from where the data is being shared. We have one in Germany, France, Ireland and Sweden. We also have some in Asian countries like in China, India and Singapore. We do partner with various IT providers but need an internal team of about 700 IT practitioners to engage with these third parties to ensure we get the best delivery of services. We are adopting cloud aggressively around the world, and our focus, for now, is utilizing hybrid cloud and integrating it with our current systems in the best possible way."

– Media company with 5001-10,000 employees already operating and expanding across Europe

A Gateway to European Opportunity

The term 'gateway market' is commonly used by numerous industries. Traditionally, it referred to markets where investment enters before being fanned out across a region. In the hotel industry, it is where travelers first land before setting off to explore other locations. In real estate, it can mean tier one markets that are safe havens for new investments, such as New York, London and Tokyo. In the technology industry, and in particular in datacenter and cloud and managed services, a gateway market can refer to any of the above – think of it in terms of investment in services or hosting of assets, data instead of travelers, and the reduction of risk.

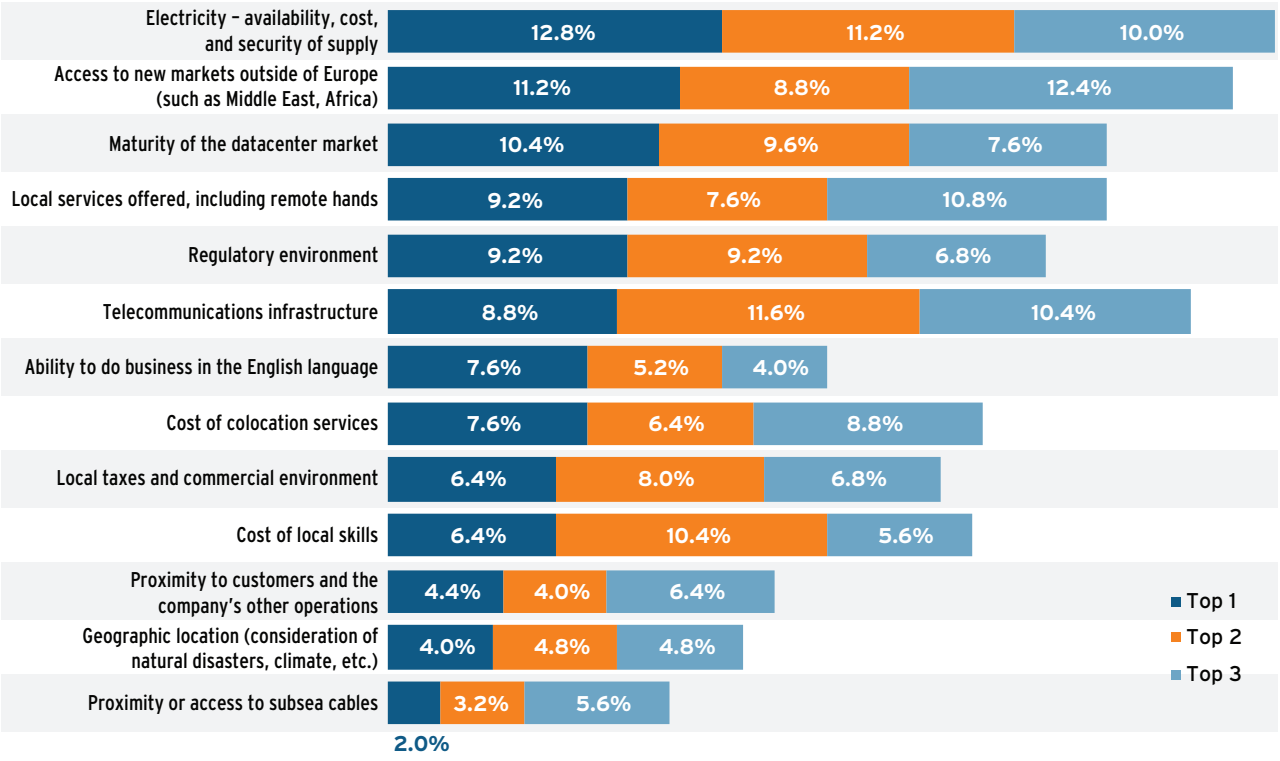
For technology deployments, a gateway could be the market that serves as a landing point for international communications networks – such as subsea cable landing markets like Marseille or Dublin – or the meeting point for terrestrial networks such as Frankfurt. For a business executive, it could be the most convenient location based on business or technology reasons to locate a primary datacenter – low political risk, easy to understand business environment, low geographic risk, maturity of market. In the case of one of our respondents, Europe is a stepping stone into the Middle East and Africa (the company is already using Amsterdam, Sweden and Marseille as points from which to reach the entire EMEA region). Another respondent already serves India from the UK and is expanding into Spain to reach Latin America (new subsea cables between Brazil and the Iberian Peninsula are opening up communications between these two regions).

Those organizations we spoke with that were entering Europe for the first time had a much more conservative approach when deciding on the location for their technical estate. Their main concerns tend to be around the reliance of local infrastructure, maturity of the datacenter market and access to the right connectivity options to cloud or to other markets (see Figure 5).

Figure 5. Top drivers in datacenter location decision-making

Source: 451 Research custom study, Q1 2018

Q: What are your organization's top three drivers for datacenter location selection?



"We assess the maturity of a market by access to power, reliability and the type of SLAs offered. Maturity is important as we need to maintain our current level of SLA to our own customers, which is extremely high."

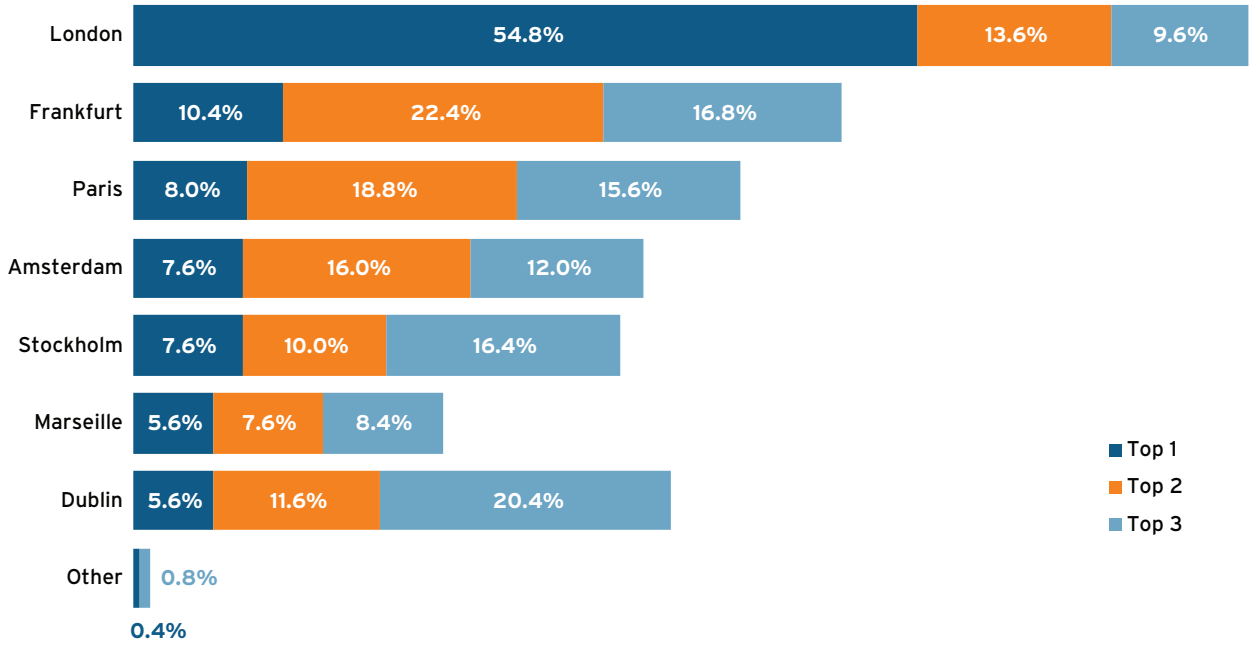
– SaaS provider with 1001-5000 employees already present in Europe

We asked our survey respondents to list where they already locate or are most likely to locate technology services in Europe (see Figure 6). Despite Brexit, London is still the preferred destination for US companies entering Europe for the first time; they favor the market for the sheer size of its economy and population, connectivity into other markets and ease of doing business. We then see a clear pattern for those seeking expansion across Europe, with many looking to expand to Frankfurt (many citing economic opportunities with the rise of the German Mittelstand, as well as local attitudes toward data, which, in some cases, require it be kept in-country). Many organizations are considering Dublin – in many cases as a secondary site to the UK post-Brexit. Dublin also appeals to US organizations entering Europe and wanting the same ease of doing business as they could find in the UK with the benefit of direct access to the EU. Paris and Stockholm have gained attention as burgeoning tech hubs. Some of these markets – London, Frankfurt, Amsterdam and Paris, in particular – are the most expensive in which to house technology in Europe, but the benefits of operating in a mature market speak for themselves when risk is reduced, especially for organizations only just becoming acquainted with the business environment and culture of a new location.

Figure 6. Preferred European locations for companies considering European expansion

Source: 451 Research custom study, Q1 2018

Q: What locations are you already leveraging or most interested in leveraging to deliver services for your organization or for customers across Europe?



European Expansion – Selecting the Right Partner

Selecting a gateway market or identifying markets for expansion is only a small part of the challenge for US organizations seeking to invest in Europe. Each country has its own laws, languages, cultures, skills, regulations and pricing structures. This is why it is important for organizations to choose the right providers or partners to help them expand (if partnering is the agenda), but selecting the right partners can be a challenge. For example, there are only a handful of US-based colocation providers operating in Europe, compared to the large number of local European providers that may be less familiar to US companies. Some providers will offer services across countries; others will focus only on their local market. The challenge is to determine your requirements and then identify a suitable provider that can work with you in-country or across the region.

There are also technical challenges, such as efficient site migration and finding the right staff to handle operations moving forward. For many organizations, hiring a local team or working with partners with ingrained local knowledge will help overcome some of these challenges. One large US-based SaaS provider confided that it employs local resources in the market to ensure it is fulfilling local requirements. Local partnerships can also help create a channel for organizations facing a wave of established competitors in the new markets they are serving. "We are trying to be careful to find partners that can help us make a smooth transition, at the right cost, quality and responsiveness of service, with the right mix of managed services and cloud services offered and good connectivity options that can help us comply with HIPAA and other market regulations. We are also concerned about getting consistent quality across Europe," another respondent said, highlighting the complex requirements that need to be raised during any prospective datacenter provider conversation.

When it comes to selecting partners, think carefully about your technical requirements for connectivity, security and cloud, as well as your own business requirements. Cost and pricing will be important, but so will uptime and service guaranties. Your supplier's ability to innovate will also matter if you consider digital transformation as integral to the way your own organization will develop and mature over time. Seek recommendations for local providers and take the time to sit down face-to-face to discuss your requirements and concerns. Ask prospective providers about their understanding of your business vertical and its requirements, and their own technology roadmap and current partnerships and services.

Recommendations for selecting a suitable colocation provider:

- If cloud is on the agenda, look for providers that offer access to suitable on-ramps to cloud or managed service providers. Ask whether your provider offers public or private access to the cloud, and whether it can provide you access to ecosystems of potential partners or even internet exchanges.
- Find out what security measures your provider has in place, its partners for managed security services or network security, and what is on its roadmap for security – physical and virtual.
- Seek carrier-neutral options if you require network redundancy or want choice over your network and the markets you will serve.
- Remember the basics: Ask whether the facilities you are considering are free of risk from natural disaster or other major events such as flooding.
- Think about energy costs – does the provider employ technologies to drive energy efficiency, and technologies such as datacenter infrastructure management that can offer insight to help you manage your own energy costs associated with datacenter supply?
- If you plan to cover more than one European market, it will be especially important to find out whether a provider can offer services across a market or region or to other global markets. Consider the cost of connectivity from your provider to your own business locations, or to other markets you may want to serve.
- Find out whether the provider offers guidance on the local business environment, such as on taxes and regulatory requirements. Also ask about local expertise on the ground for datacenter operations and support services (you may require local expertise, but the ability to correspond in your own language can be equally important).
- Think about how you will use new technologies such as IoT and artificial intelligence, and ask whether your provider has a roadmap for catering to your business requirements.
- Ensure there are options for disaster recovery or some form of backup – you may not think you require it today, but it could become a need at some point.
- Ask prospective providers for clear guidance on cost models for colocation, interconnection, remote hands and other ancillary services. Some companies with remote business needs may also require on-site office space.
- Become aware of what industry certifications your European operations will require and ask your provider whether it can fulfill this through its colocated offering.
- Ask your provider how it plans to grow or expand, especially if your own plan is to grow your own technology estate in the region.

> *"It is very important to choose the right partner. We cannot afford to make any mistake while taking our first step in a new region. We just cannot afford to lose any business from the word go… A good partnership will be one where everyone involved profits from the relationship."*
>
> **– Cloud provider with 5,000 employees entering Europe for the first time**

Cloud Considerations

Any company planning a move into or expansion across Europe must consider cloud services – whether IaaS, SaaS or PaaS – because the likelihood is that even if cloud is not on the agenda today, it will be in the near future. There are countless stories of companies that have built their own datacenter estates only to watch workloads move to the cloud, or those that signed long-term colocation contracts for rooms they have never filled. Similarly, there are companies moving to colocation or working with MSPs just to gain access to the cloud. Cloud can enable fast entry into a market and fast replication of services if done with the right connectivity, security and, of course, providers and support in place. Cloud can also create some challenges.

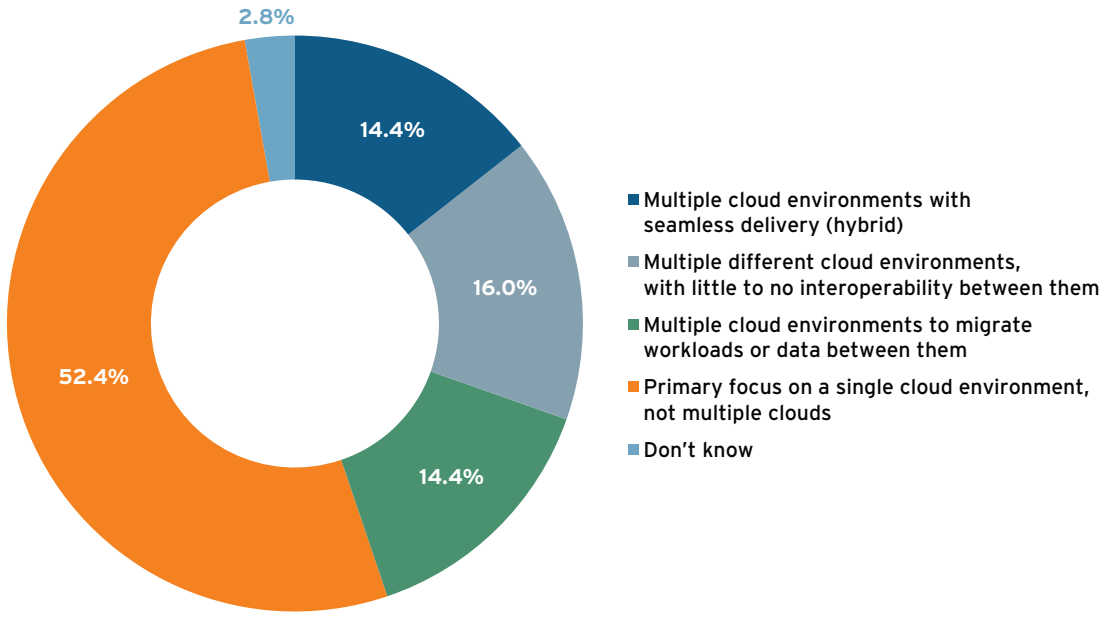
> *"We need to be a step head and think about how cloud services will evolve, and how the regulators, MSPs and security agencies will behave over time. The model has changed, and cloud is being used in a dynamic fashion. We will have to give more resources to customers and at the same time make sure we comply with security policies and get the maintenance work done without causing any disruption to service. The complexity will keep on increasing with time."*
>
> **– Enterprise with 5,001-10,000 employees already in Europe**

Complexity alone means the majority of organizations entering Europe for the first time will start by focusing on just one cloud platform – as Figure 7 shows, many will choose a hybrid approach (with a mix of on-premises and off-premises or cloud and non-cloud). Organizations should also be thinking about their multi-cloud future and the requirements that will come for seamless connectivity across platforms and environments. Furthermore, they should achieve a detailed understanding of what they can and will want to put in the cloud before working on technology deployments. Identifying the best execution venue (the most suitable home for applications, workloads and data for regulation, security and performance requirements) is important, and can be dependent upon important factors such as regulatory or application performance requirements.

Figure 7. Intended use of on/off-premises cloud environments among companies considering their European expansion plans

Source: 451 Research custom study, Q1 2018

Q: Which of the following best describes how your organization uses or will use different on-premises and off-premises cloud environments?



Other considerations: a checklist:

- Does the organization have a solid understanding of what different business departments hope to gain from a technology deployment in Europe, and what they will require? In some cases, you may find that locally positioned cloud partners can fill gaps that appear in applications or skills, or help provide customized services, certified solutions or even access to a local market through communities of partners.
- Will security, performance and latency allow or require you to have direct access to public or other cloud environments?
- Will you need to access more than one cloud provider now or in the future?
- What cloud services does your chosen colocation provider or managed service provider, SI or other provider offer, and how committed is it to adding new services you could require later?
- What is the cost of the different connectivity options for accessing cloud? Is it better to investigate options for peering and interconnection, or will you consume enough cloud services that direct private lines into providers will be required?
- Have you established a careful migration plan (migration is one of the key challenges organizations face today when entering or expanding across Europe)?
- Have you included cloud redundancy in your strategy for critical applications?
- Have you considered cloud alongside GDPR and other regulatory compliance requirements in Europe (if possible, seek legal advice before preparing your strategy)?

Remember, a move to cloud, as one respondent puts it, means your architecture and requirements 'will be evolving forever,' so make sure you have a proper cloud management team in place to look after your European requirements.

Managing Concerns About Security and Regulations

The way an organization handles security and regulatory compliance will influence the success of any expansion project. Negative implications will always come from a data breach or security incident, and non-compliance to regulations will likely lead to a loss of current or prospective customers. However, beyond a potential loss of trust and goodwill, companies also need be concerned about the risk of serious fines. In Europe, just as in any other region, security is a never-ending problem that applies to all parts of the business. This means organizations must carefully consider whether they have the right functions in-house to properly manage security requirements, or if they would be better off handing some security functions over to a third party.

It is not surprising that our respondents said security and compliance are chief concerns across the business. For 39% of our respondents, security is 'critically important' and for 32% 'very important.' It encompasses everything from the perimeter fencing of your datacenter estate and physical access to the technology to the data supply chain that covers everything from the way data is collected and stored to the way it is analyzed and used for insights and actions across the business. Security regimes should also incorporate the processes and people that touch the technology and the data.

Organizations need to have a good understanding of the security that providers offer in datacenters and networks. They should also understand the regulations and certifications European governments and organizations require. Some companies will choose datacenter and service providers on the back of certified operations, from ISO certifications to PCI compliance and on-sell these to their own customers as a stamp of approval. Others will undertake the expense of having their own operations certified.

Recommendations:

- Understand what data will be required as part of your European rollout and how it will be used, as well as who will be using it.
- Undertake a data-governance program to identify what protective measures are required in-line with regulations and compliance, as well as industry best practices.
- Seek legal guidance where possible (or guidance from service partners) regarding the effect regulatory requirements will have on your operations and security.

- Identify where your data will 'live' and gain and understanding of the capabilities your cloud, colocation, MSPs and other trusted service partners have in terms of security and compliance – can they offer security baked in to products or offered as part of access to other services? Will this be offered as part of your SLA?
- Check what controls are offered along the network and whether these are suitable for regulatory and other security requirements.
- Prepare to undertake regular audits, either of your own security practices or those of your providers and partners.

Mapping Out Connectivity Choices

Connectivity, whether between your business operations, to your customers, or from your suppliers, service providers or cloud, is one of the most important aspects your organization will need to consider when entering or expanding across Europe. Connectivity will be the blueprint for your expansion in a market, or across markets and into new geographies. It will also be integral for access to new services when the need arises. It is important that you think ahead and either build flexibility into your strategy around connectivity or select options that remove vendor lock-in and provide innovation and choice if your strategy calls for it.

Most companies are already concerned about performance and latency of applications and workloads and want direct access to cloud or connectivity for disaster recovery requirements. Many also seek access to new markets and business partners and customers in other locations. Fewer are thinking about how their organizations will use connectivity for new technology deployments – such as IoT, which could call for 'edge' deployments, or artificial intelligence and data mining, which could require access to lower-cost datacenter locations for more intensive processing requirements, for example. But these technologies are already on the agenda for organizations thinking two years ahead.

The cost of connectivity is another concern that organizations need to take into account, as well as the SLAs that will be attached to network performance. Some companies may not have the internal bandwidth to manage network requirements and may find this is something a trusted colocation provider, telco, MSP or consultancy can help with. There are many options for bundled options today, and varying options for service guarantees and control over network choices.

When thinking about connectivity, consider your need for:

Subsea connectivity

This will be particularly important for those organizations seeking access back to their technology estates or partners in the US, as well as to other markets such as Asia, Africa, Latin America and the Middle East. An increasing number of subsea cable landing points are inside carrier-neutral colocation facilities, so seek providers that can offer this access or that tap into these providers. In some cases, you may want to combine subsea connectivity access with internet exchange or peering services.

Peering services

An internet exchange (IX) is a meeting point for network operators or member parties that can agree to exchange traffic for free, with a fee or membership paid to an internet exchange. Unlike in the US, all major IXs in Europe tend to be not-for-profit or member organizations driven by a need to bring traffic into key markets – for example, LINX in London, DE-CIX in Germany, AMS-IX in Amsterdam and France-IX in France. Smaller IXs also facilitate the movement of traffic around a local market. Internet exchanges have typically been favored by content providers and those exchanging large amounts of data (that category now includes enterprises, especially those that want to bring down bandwidth costs). An IX can open up new groups of potential customers or partners, and in some cases can even open up new markets (many exchanges will have partnerships or operations in other parts of the world – for example, LINX and France-IX partner with exchanges in Africa, and DE-CIX has an exchange in New York).

Datacenter-to-datacenter connectivity

This could be between your own datacenters, to a partner's datacenter or between colocation facilities. The key is to gain an understanding of what connectivity options exist for any datacenter site and understand whether this will meet your needs. You may not require hundreds of carrier connections, but even a few to a leading carrier hotel could end up being

important, or connections to sites that house key IXs or cloud services, for example. Understand the costs involved in transit between the locations you require access to and the cost of adding additional connectivity if necessary.

Metro connectivity and backhaul routes

Most major cities in Europe have multiple options for connectivity across the metropolitan region, but carrier-neutrality can sometimes be hampered in emerging markets by the control of incumbents. This can have an effect on your strategy for resiliency/uptime and expansion, so make sure you understand what options are available. Also, gain a solid understanding of the different cost structures that exist when crossing borders in Europe and the SLAs that will be offered. Some colocation providers handle metro connectivity and terrestrial connectivity into locations up to a certain bandwidth. Also, think about your data-sovereignty requirements and options that allow you to have control over the path your data takes.

Connections to the cloud

We have already highlighted the importance of considering cloud if you are not already. How you connect with cloud could also alter the way you deploy technology across Europe. You may choose to use the public internet, but for many organizations, that option doesn't provide enough security and reliability. SLAs will be required, and in this case, you may prefer to establish your own direct private connection (suitable mainly for those with large cloud requirements). Other organizations will leave this with their MSP or cloud service provider, and some will choose to use a colocation provider that offers direct access to the cloud (sometimes through the same datacenter) that can bundle network in.

MSPs and colocation providers are more likely to offer strong SLAs on bandwidth, performance and reliability with these pre-packaged offerings, and in most cases, flexibility and choice of cloud providers. You may also find you can gain access to an ecosystem of different providers through simple cross connects. And if you are concerned about the portability of your cloud services, seek providers that operate in more than one market or that have partnerships that allow for the replication of services into new locations. Cross connects into ecosystems can minimize networking costs, reduce latency and improve application performance and may not only provide you with access to the cloud, but also access to partners and prospective customers in the datacenter campus.

> *"We deal with large amounts of complex data. Our data mainly contains a high quantity of high-quality seismic and geological information. Collaborating in real time with other offices is crucial, and for that we need high bandwidth. The only way this can be achieved is by making sure our provider chooses a node near to the entry and exit of the cable we are using. The next thing to support high bandwidth is having an infrastructure that is sturdy enough to manage the high-terabyte data that is being transmitted.*
>
> **– Enterprise with 1-200 employees entering Europe for the first time**

Summary

Organizations entering or expanding across Europe that are not familiar with their new territories already face several challenges before they even consider technology. They are entering a new competitive environment where cultures and legal requirements are different and varied, and access to skills can also pose challenges. This is why the technology journey for many companies starts with identifying their current and future requirements across Europe before selecting the right partners or service providers to work with. Careful planning will minimize risk and maximize the benefits over the long term from cost savings to greater agility and business efficiency. Europe promises a lot of opportunity for those willing to commit to a strategic approach to the market to ensure they are deploying the right technologies, partners and support networks.

GLOSSARY

Multi-tenant datacenters – While enterprises can (and do) own their own datacenters, MTDCs are multi-customer facilities that are normally owned by firms that specialize in providing internet infrastructure services, including datacenter services, to customers. Some firms lease datacenter space to other providers, as well as lease space to individual enterprises.

Retail colocation – Colocation datacenters are one type of MTDC that can be thought of as 'retail' datacenter space. Colocation datacenter space is sold on the basis of individual racks/cabinets or cages. Cages typically range from 500 to up to 5,000 square feet in size. Colocation providers sell to a wide range of customers, from Fortune 1000 enterprises to small and medium-sized businesses. Typical customers of colocation providers include:

- Large enterprises with significant IT expertise and requirements.
- SMBs looking to outsource datacenter requirements.
- Internet application providers.
- Major internet content, entertainment and social networking providers.
- Shared, dedicated and managed hosting providers.
- Telecommunications carriers.
- Content delivery networks.

Full facility maintenance and systems, including fire suppression, security, power backup and HVAC, are routinely included in managed colocation offerings. Many additional services are typically available in colocation facilities, including remote hands technician services and network monitoring services.

Interconnection services – Certain select colocation datacenter facilities also offer interconnection services, which were once synonymous with settlement-free internet peering. Many colocation customers, however, use interconnection services for a variety of tasks, including buying internet connectivity, connecting voice over IP telephone networks, performing financial exchange and settlement functions, or performing business-to-business e-commerce. Interconnection services may be offered by colocation facility operators (typical in North America and Asia) or by member-owned consortia (more common in Europe).

Managed hosting – Managed hosting services are provided by several firms that also provide datacenter colocation services. In a managed hosting environment, managed server hardware may be owned by either the hosting provider or the customer. Managed hosting services can include a combination of comprehensive systems administration, database administration and sometimes application management services. In practice, this has the effect of the managed hosting provider 'running' the customer's servers, although such administration is frequently shared. The provider may manage operating systems, databases, security and patch management, while the customer often simply manages the applications riding on top of those systems. The list of potential services offered under the rubric 'managed hosting' is actually quite large and includes remote management, custom applications, helpdesk, messaging, databases, disaster recovery, managed storage, managed virtualization, managed security, managed networks and systems monitoring.

Managed hosting services are typically used for:

- Application hosting by organizations of any size, including large enterprises.
- Hosted or managed messaging, including Microsoft Exchange and other complex messaging applications.
- Complex or highly scalable web hosting or e-commerce websites. Managed storage services (including large drive arrays or backup robots).
- Server disaster recovery and business continuity, including clustering and global server load balancing.
- Database servers, applications and services.

Whether expanding to Europe for the first time, moving from a public cloud or looking to expand data centre setup, it's most likely unknown territory. It requires being able to navigate the complexities of the local market, comply with various data regulations like GDPR, and manage infrastructure – often times remotely. This requires working with a trusted partner that understands your business, is easy to work with, and can help skyrocket growth.

With 20 years of experience and 49 data centres across 11 countries, Interxion understands the complex dynamics that impact businesses looking to expand their infrastructure in Europe and are there to support you every step of the way.

Our people aren't just data centre people, they've been in ad-tech, broadcasting, financial services and SaaS, bringing deep industry knowledge with them. This means we understand your business in ways that other providers can't and are committed to helping you succeed.