FREEFORM DYNAMICS

in association with

Barracuda

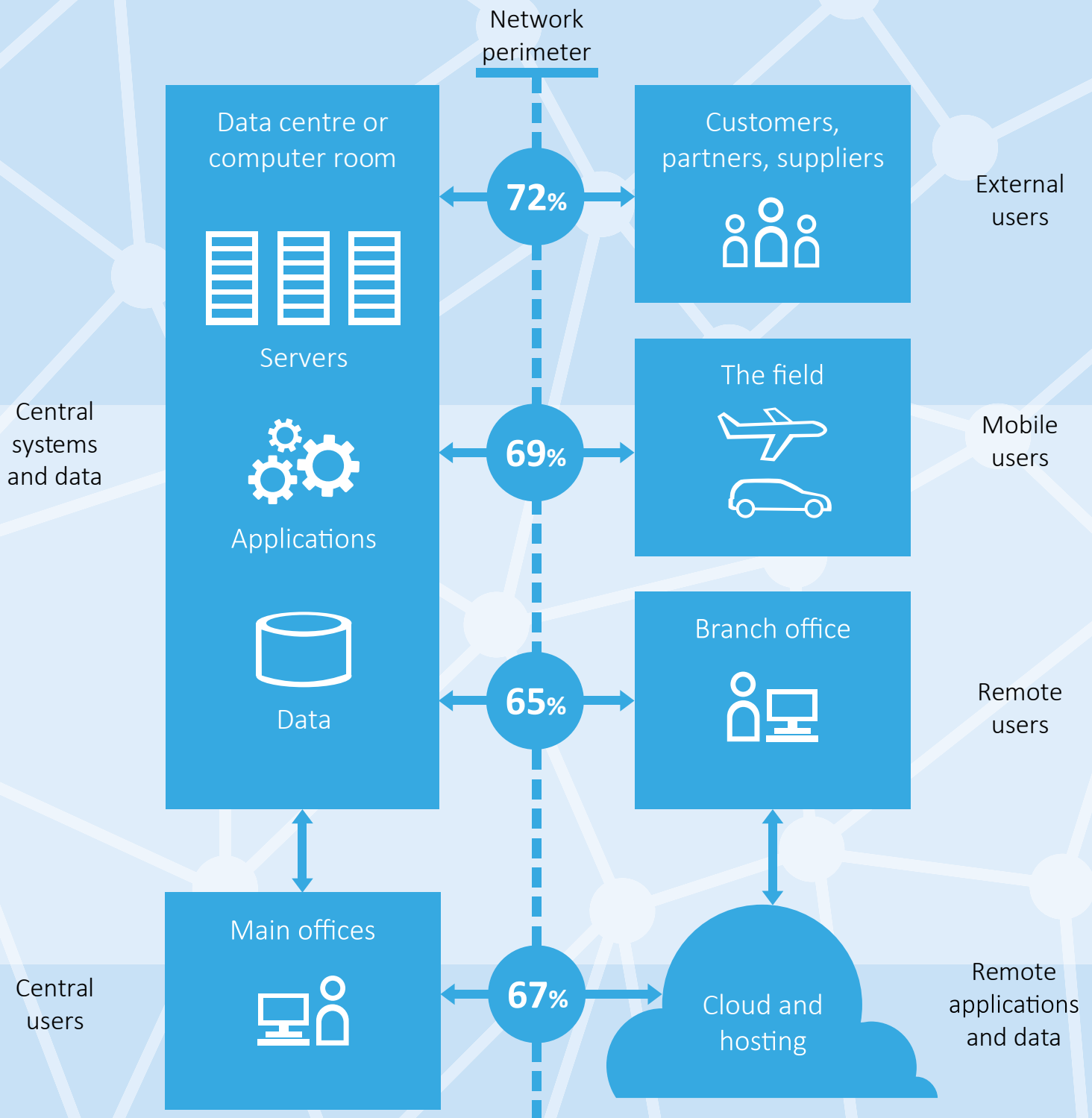# Future Proofing Your Network

Managing complexity and growth in
an increasingly distributed world

Today's Distributed Business Environment

Network perimeter

Data centre or computer room

Servers

Applications

Data

Customers, partners, suppliers

72%

The field

69%

Branch office

65%

Main offices

67%

Cloud and hosting

Central systems and data

Central users

External users

Mobile users

Remote users

Remote applications and data

Network traffic flows have become pretty complex in today's distributed business environment, and not just for large corporates. This became abundantly clear during a recent Freeform Dynamics research study in which 610 small/medium-sized businesses from the UK, France and Germany gave us feedback on changing communications patterns and the resulting implications. One of the most striking findings of this research was the degree to which traffic relating to core business activities now routinely crosses the traditional network perimeter. The majority provide direct customer access into systems (72%), and/or have employees connecting in from the field (69%) or branch offices (65%). Meanwhile, most (67%) are also seeing the cloud playing more of a role in their business.

Impacts on the Network

Relentlessly increasing traffic growth and diversity

58% seeing now **26%** expecting

Other new and evolving demands

Critical cloud services

69% seeing now **21%** expecting

Branch connectivity

58% seeing now **25%** expecting

Mobile working

62% seeing now **27%** expecting

Regulatory compliance

42% seeing now **34%** expecting

Customer / supplier access

$ £

58% seeing now **26%** expecting

Machine to machine

45% seeing now **32%** expecting

As business activity becomes more dependent on distributed communications, the network infrastructure must cope with increasing demands in a number of areas. At the highest level, most are already seeing (58%) or expecting (26%) pressure as a result of the relentless growth in traffic volume and diversity, which translates to escalating requirements in areas such as the management of capacity and quality-of-service. Some of the other, more specific demand-drivers we see above contribute to this, as well as creating additional challenges around security, access, monitoring, etc.

Communications in the Spotlight

Impact on business expectations in key areas

Network performance

74% seeing now   **19%** expecting

Network reliability

66% seeing now   **25%** expecting

Network security

66% seeing now   **26%** expecting

Apart from creating practical challenges for IT teams, the degree to which communications have become fundamental to so many aspects of business operations shines a spotlight on how well things are working (or not). Users expect performance and reliability, and in many cases need these to do their jobs effectively. Any slowdown or interruption of service is not only immediately visible to those affected, it can also result in a tangible negative impact on the company's ability to function properly. When customers' access is affected, the potential for direct loss of income is very clear. Overarching all of this, executives then worry about the security implications of hyper-connectivity.

Future ~~proof~~ risk

94%
Allude to some level of uncertainty and doubt
(about meeting future needs)

?
- Mobile
- Growth
- M2M
- Digital
- Cloud

Impact of the new demands on IT

Smarter monitoring and management
60% seeing now
26% expecting

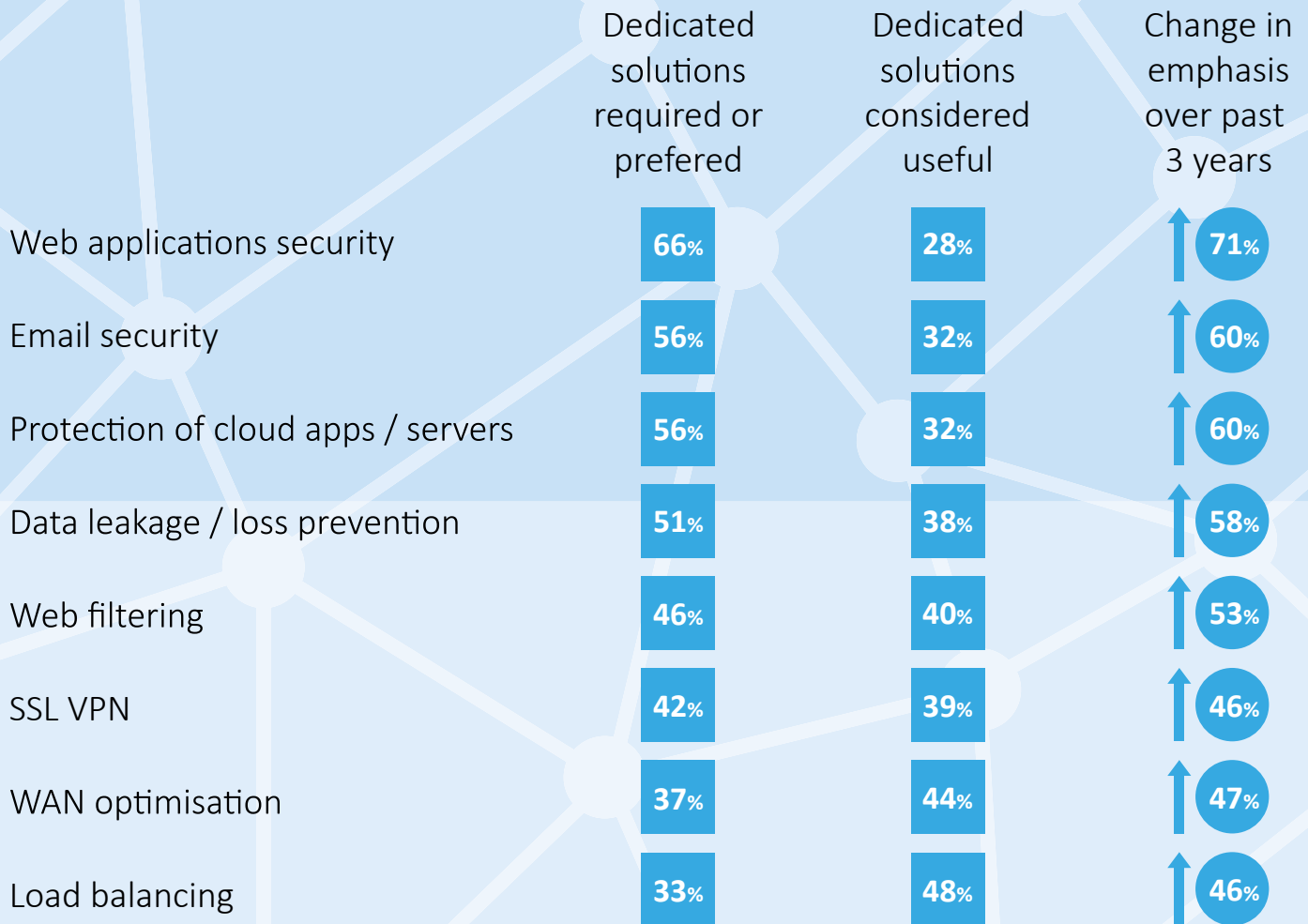### Network architecture changes
51% seeing now
32% expecting

Need for alternative solutions
56% seeing now
34% expecting

The overwhelming majority (94%) of participants in our study expressed a level of uncertainty about the ability of their network to deal with evolving demands in at least one key area. For some the concern was keeping up with growth, for others it was adequately supporting mobile access or the use of cloud services across the workforce. Fast-moving areas such as digital business and machine-to-machine (M2M) communication were also highlighted. As a result, many are seeing or expecting a requirement for smarter monitoring and management and/or a need to adjust their network architecture. Going hand-in-hand with these imperatives, it's increasingly necessary to explore alternative technology-based solutions that are better able to deal with new and changing demands.

Greater Emphasis on Dedicated Solutions

	Dedicated solutions required or prefered	Dedicated solutions considered useful	Change in emphasis over past 3 years
Web applications security	66%	28%	↑ 71%
Email security	56%	32%	↑ 60%
Protection of cloud apps / servers	56%	32%	↑ 60%
Data leakage / loss prevention	51%	38%	↑ 58%
Web filtering	46%	40%	↑ 53%
SSL VPN	42%	39%	↑ 46%
WAN optimisation	37%	44%	↑ 47%
Load balancing	33%	48%	↑ 46%

Perceived benefits of dedicated versus multi-function solutions

- ☑ Depth of functionality
- ☑ Performance / scalability
- ☑ Resilience / reliability
- ☑ Ability to tune / optimise
- ☑ Availability as software
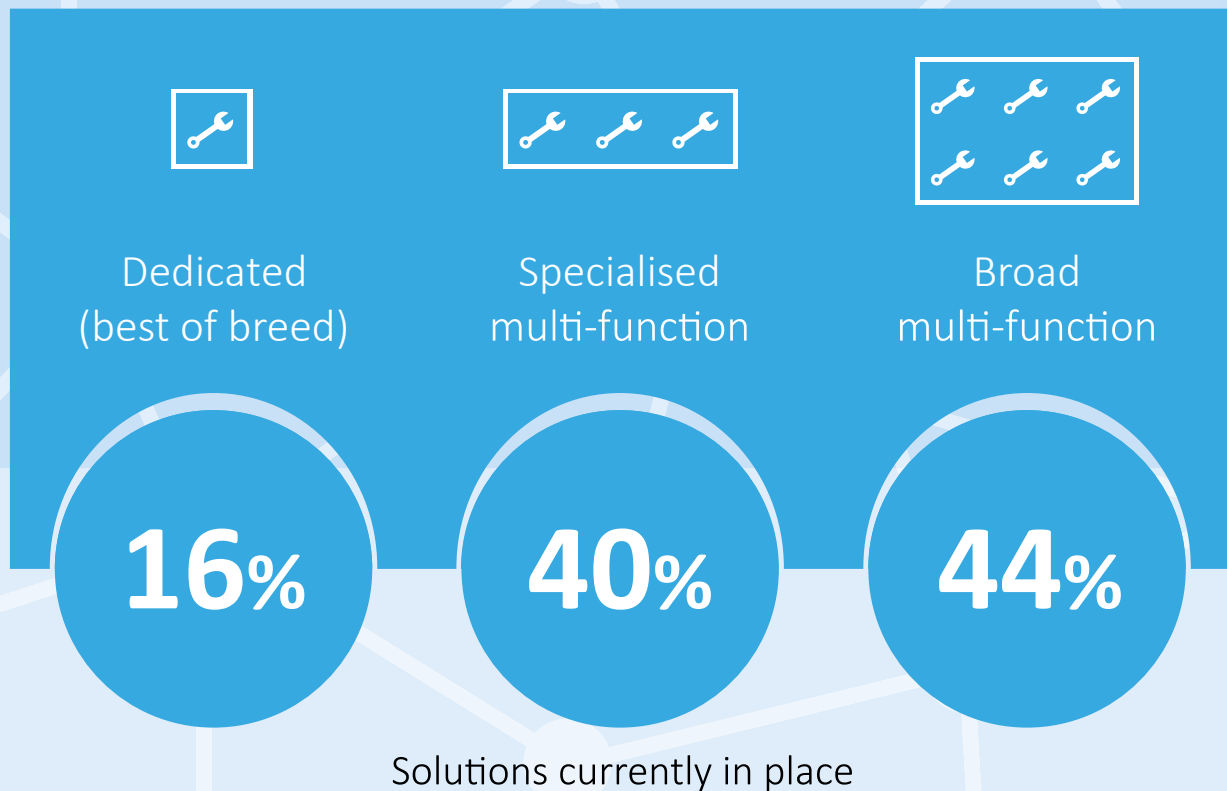- ☑ Pay for what you need

Turning to some of the specific functional areas investigated in the research, a significant level of preference for (or interest in) dedicated (best of breed) technology was evident. Many say the emphasis here has increased dramatically over the past three years as a result of escalating demands. More specialist 'single function' solutions that do one thing very well are generally perceived to be more capable than general purpose alternatives offering multiple functions in a single box or package, such as Unified Threat Management (UTM) appliances or Application Delivery Controllers (ADCs). Benefits frequently cited include richer functionality, better performance and scalability, improved reliability (avoids single points of failure) and greater flexibility to optimise. Many also highlight multi-function solutions are often only available as hardware appliances, so cannot be used to optimise or protect cloud based systems. Specialist Solutions, meanwhile, are assumed to be available in the form of software or virtual appliances that can be deployed in the cloud to deal with the needs of remote servers and hosted applications.

Moving Towards Your Goal

Highly specialised ← → General purpose

Dedicated
(best of breed)

Specialised
multi-function

Broad
multi-function

16%

40%

44%

Solutions currently in place

Despite the preference for dedicated solutions, the majority of network management, optimisation and security capabilities today are implemented in the form of multi-function packages or appliances of one form or another. The percentages shown above are overall averages across different functional areas, but the variation between web application security, email security, DLP, web filtering, WAN optimisation, and so on, were minimal. So, even in the areas where a high degree of preference for dedicated solutions is expressed, there's still less than a one in five chance of the solution in place being of that kind. Much more likely that the need is met by either a specialised multi-function box such as an ADC, or a broad function generalised appliance such as a UTM.

One way of interpreting this data is to conclude that at this moment in time, a big gap exists between where most want to be and where they actually are when it comes to the nature of the solutions in place. This is undoubtedly the case in many situations where needs have emerged that really are best met by specialised technology that can be finely tuned and optimised in a given functional area. However, previous research (see our report entitled "Controlling Application Access; A network security and QoS checkpoint", available from www.freeformdynamics.com) has highlighted the frequent problem of historical under-investment in network infrastructure and the need to modernise. It could be that respondent views are coloured by the age of the multi-function equipment in place at the moment, i.e. those participating in the current study know something different/better is required, and assume this means turning to dedicated solutions.

The reality is multi-function solutions such as ADCs and UTMs have come a long way in recent years. They may not always have the absolute depth of functionality of a dedicated solution, but won't be that far behind (or even on a par) when it comes to fundamentals such as performance, scalability, resilience, etc. So as you explore new ways to meet escalating demands in your organisation, we would encourage you to look at all classes of option, and mix/match solutions in line with your needs.

About the Research

The research upon which this report is based was independently designed and analysed by Freeform Dynamics Ltd. 610 responses from business and IT managers/professionals were collected via an online survey across the UK, France and Germany. The respondents surveyed were from small and medium sized businesses predominantly in the range of 25 to 1,000 employees and from a wide variety of industry sectors. The study was sponsored by Barracuda Networks.

For more details of the survey sample, please see: www.freeformdynamics.com/study/0336/

About Freeform Dynamics

Freeform Dynamics is an IT industry analyst firm. Through our research and insights, we aim to help busy IT and business professionals get up to speed on the latest technology developments, and make better informed investment decisions.

For more information, and access to our library of free research, visit www.freeformdynamics.com.

About Barracuda Networks, Inc. (NYSE: CUDA)

Barracuda provides cloud-connected security and storage solutions that simplify IT. These powerful, easy-to-use and affordable solutions are trusted by more than 150,000 organizations worldwide and are delivered in appliance, virtual appliance, cloud and hybrid deployments. Barracuda's customer-centric business model focuses on delivering high-value, subscription-based IT solutions that provide end-to-end network and data security.

For additional information, please visit www.barracuda.com.