Every day brings new reports of private data being stolen or inadvertently exposed. External hackers are constantly probing enterprise defenses in order to get at data they can either sell or use to harass and embarrass corporations and individuals. Insiders steal data too, and sometimes open up holes in infrastructure defenses – either purposely or accidentally – that allow others to scoop up important records.

In order to find out how real-world data centers are approaching data center security in these days of ever-heightening security threats – and how confident they are in their ability to keep important information safe and sound – we conducted the **2011 GCG Data Center Security Survey.**

As with all of our surveys, we went out to data center personnel in order to find out what's actually happening in their data centers. Over the years, we've found that these folks have the depth and breadth of experience necessary to provide the kind of keen insight into enterprise IT that we're looking for.

In this, our first security survey, we asked respondents about the following areas:

- **Security Approach & Philosophy** Do they approach security from an enterprise-wide perspective with a centralized IT security organization? Or is security more decentralized, with individual business units or functional departments handling security processes and tasks?
- **Current Security Effectiveness** Is their data center security keeping pace with the ever-increasing volume and sophistication of attacks? Do they feel that they're devoting enough resources to IT security? Does management have an accurate picture of their security exposure?
- **Security Breaches: Impact & Remediation** If they've had a significant breach (or breaches) in the recent past, how big an impact did it have on both business and IT operations? How much effort was expended by IT on remediation, and how long did it take?
- **Security: Virtualization & Cloud** Are security concerns slowing the adoption of private or public clouds?
- **Improving Data Center Security** What steps might help improve the state of data center security?
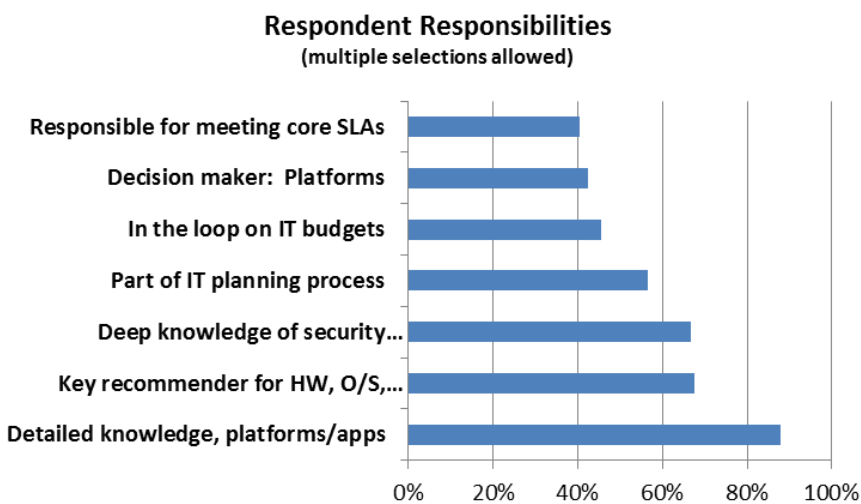
The results from this survey will be the topic of GCG press releases and web postings over the next few weeks.

Our 2011 Data Center Security Survey was in the field for 10 days during the third quarter of 2011 and had a total of 147 enterprise IT respondents. The rest of this document covers demographics and methodology for this survey, plus ways to get more information about the findings.

In this next section, we outline aggregated information about respondents to this survey and the organizations for which they work.

Survey Demographics

The value of our surveys is almost entirely dependent upon the quality of the responses we gather. This survey was aimed at data center-savvy personnel in organizations ranging from SMBs to very large multinational firms. We had a total of 147 respondents.

Respondent Responsibilities
(multiple selections allowed)

Responsibility	
Responsible for meeting core SLAs	
Decision maker: Platforms	
In the loop on IT budgets	
Part of IT planning process	
Deep knowledge of security...	
Key recommender for HW, O/S,...	
Detailed knowledge, platforms/apps	

0%   20%   40%   60%   80%   100%

Because job titles vary from company to company, we ask our respondents about their knowledge and responsibilities.

On the chart, we've listed various responsibilities that respondents cited on the survey. They were allowed to select more than one entry so that they could more precisely define their duties.

**Respondent Role**

Manager 43%

Individual contributor 57%
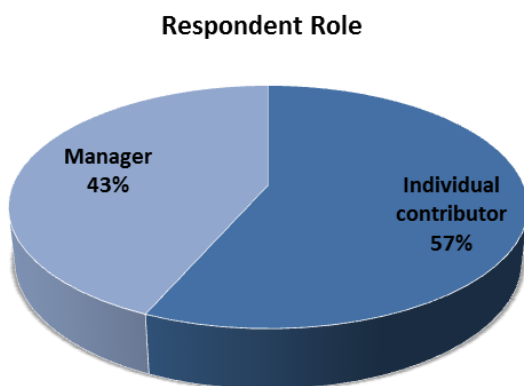
In this survey, 90% of respondents have highly detailed knowledge of their IT infrastructures, and 70% are key recommenders on hardware, operating systems, and middleware. Additionally, 70% have deep knowledge about their unique security mechanisms and challenges.

Overall, they are very well qualified to discuss the state of data center security in their organizations.

Our respondents come from organizations of all sizes. More than a third are from very large firms with more than 10,000 employees, but smaller businesses with fewer than 1,000 employees are well-represented too, accounting for 41% of the responses.

**Organization Size (total employees)**
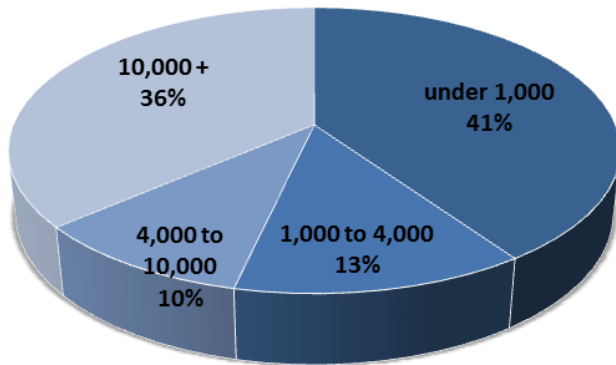
Geographic Location
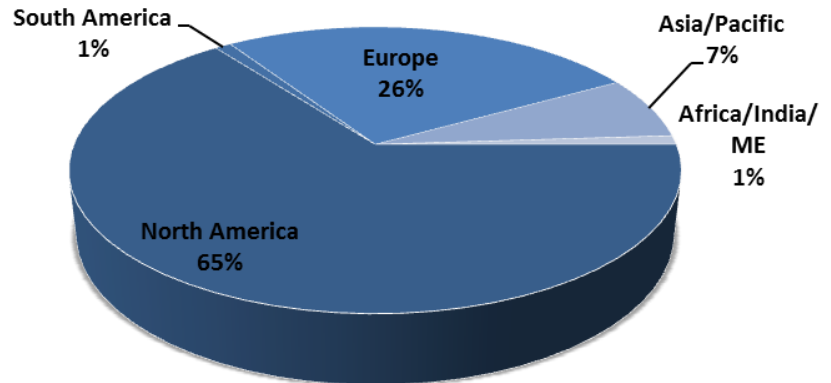
We also have reasonably good international representation on this survey; 65% of the responses are from North America and 26% from Europe. Almost 10% were from the Asia/Pacific geographic region, with the balance based in South America and Africa/India/Middle East.

We asked our survey respondents several general questions about their IT infrastructures. As you'll see in the upcoming IT demographic charts, they have a large and varied technical underpinning.
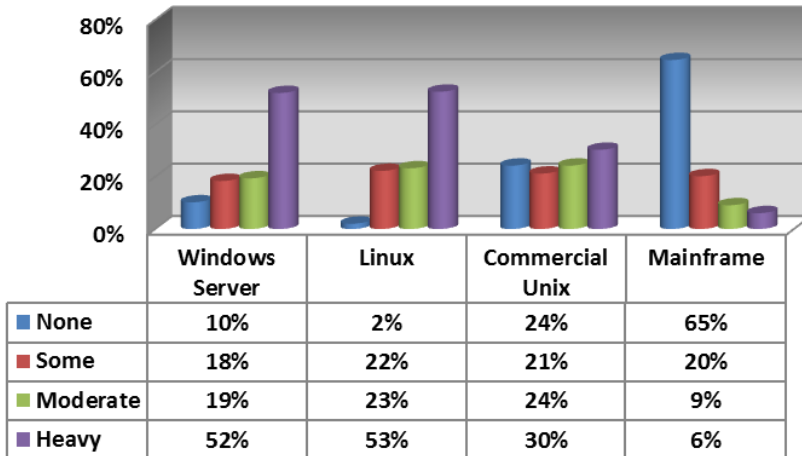
Physical Servers, Entire Organization
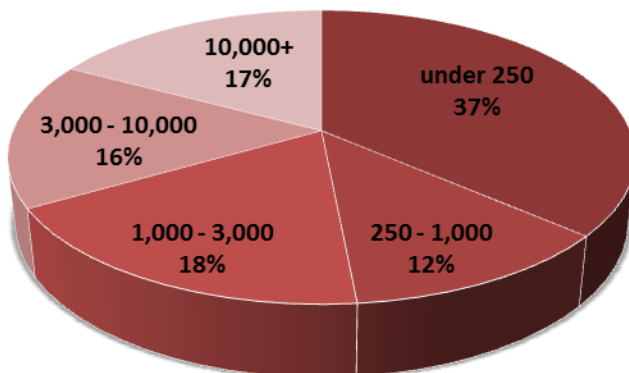
The total number of physical servers in respondents' organizations is represented on the chart at left.

It's quite a range; a third of respondents have 3,000 physical servers or more, while 37% have fewer than 250 physical systems.

Relative O/S Usage

	Windows Server	Linux	Commercial Unix	Mainframe
■ None	10%	2%	24%	65%
■ Some	18%	22%	21%	20%
■ Moderate	19%	23%	24%	9%
■ Heavy	52%	53%	30%	6%

Not surprisingly, our respondents have a wide and varied set of server technologies.

Linux operating system variants are most prevalent; 98% of our respondents have at least a smattering of Linux in their infrastructures.

The next most popular choice is Windows Server, which is present in 90% of our respondents' data centers. Commercial Unix (Solaris, AIX or HP-UX) is in use by three-quarters of our respondents, and about 35% are utilizing mainframes in some capacity.

Survey Methodology

The survey itself uses a web-based survey engine hosted on our corporate website. In general, our surveys reach two broad groups of participants. One group is our "qualified" respondents who have taken previous surveys – we've already confirmed that they're data center managers, architects, technicians, etc. The other group is comprised of readers of *The Register* and other technical publications. We've found that this mix gives us a very solid base of knowledgeable respondents.

The survey has several mechanisms in place to prevent respondents from 'ballot box stuffing' by taking the survey more than once. We also can take advantage of a token-based access mechanism that ensures that only those respondents we invite can take a particular survey.

Much of our effort is focused on data cleaning. This includes testing responses to make sure they are valid, following up with respondents to ask for additional clarification, and making sure our final data set is comprised of knowledgeable IT professionals who are giving us their honest and thoughtful opinions.

GCG Surveys & Offerings

Our publicly-released results are just a glimpse into the massive data set generated by our surveys. GCG uses these findings (along with data from other sources, client feedback, and other activities) as the foundation for our many research and consulting offerings.

We serve our clients in a number of ways, including strategy and product consulting, custom research, and brand evaluations. Clients can obtain access to historical data and customized survey results (different cuts of the data to highlight, for example, SMB respondents or those who are heavily virtualized). We also provide clients with in-depth GCG analysis delivered via research reports that highlight survey data in the context of customer needs or vendor offerings. For further details or to find out how to access these additional offerings, please contact us via email or phone.

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