ITIC 2017 Hourly Cost of Downtime and Minimum Reliability Requirements Survey

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Principal
Overview: Methodology

- The Web-based survey included multiple choice questions and one Essay question.
- The survey was independent; **No Vendor Sponsorship**
- No participants received any remuneration.
- ITIC analysts conducted two dozen first person customer interviews to validate the Web survey responses.
- Approximately 80% or 567 survey respondents hailed from North America; 20% or 142 respondents were international customers including (Australia, China, Denmark, Great Britain, France, Germany, India, Ireland, Israel, Italy, Japan, New Zealand, Norway, Poland, Spain, South Africa and Switzerland).
- All market sectors were represented: SMBs = 32%; SMEs = 31% and Enterprises = 37% of respondents.
- Survey respondents hailed from **47** vertical markets.
- ITIC deployed security and authentication mechanisms to prevent tampering.
Survey Highlights: Reliability Trends

• **Reliability Trends:**
  - 79% of corporations now require a minimum of 99.99% uptime for mission critical hardware, operating systems & main line of business (LOB) applications; this is a seven percent increase from the 72% of survey respondents who required “four nines” of uptime in ITIC’s 2016 Minimum Reliability Survey. Additionally the percentage of corporate enterprises that need 99.99% minimum uptime and availability is up 25% from the 49% of companies who required it in the 2012 survey. These minimum reliability requirements will continue to rise.
  - Security, BYOD and mobility pose the **biggest technology threats** to reliability
  - Technical service & support and fast, efficient vendor responsiveness are crucial

**Average Hourly Cost of Downtime Soars For All Businesses**

- An 81% majority of businesses across **47 vertical markets** estimate the **average** hourly cost of downtime (exclusive of catastrophic outages) exceeds $300K
- One-third or **33%** of corporate survey respondents indicated a single hour of downtime can cost their organizations upward of **$1 Million to over $5M** on average. This is exclusive of damages due to lost/stolen/changed data or any civil, criminal penalties or litigation fees.
- The average hourly downtime costs are even greater for companies in top tier and highly regulated verticals including: Banking/Finance; Government; Food; Healthcare; Hotel/Hospitality; Manufacturing; Media & Communications; Retail; Transportation and Utilities where **average hourly downtime costs exceeded $5 Million** for over 68% of respondent firms with over 1,000 employees.
Corporate enterprise minimum Server Hardware, Server OS Requirements Increase Year Over Year (Y0Y): 79% of Organizations Now Require 99.99% - “Four Nines.” This is an increase of 40% since 2013!
In 2017, what is the minimum acceptable level of uptime required for the *most* mission critical applications and server hardware?

The percentage of firms requiring high availability continues to rise. Nearly one-quarter of businesses need 99.999% uptime while 3% of firms now need the highest availability (>five nines = fault tolerance).
User Reliability Demands Increase
Enterprise Minimum Required Levels of Reliability/Uptime Increase Dramatically from 2008 to 2013

In 2013, 67% of businesses needed at 99.99% or greater reliability/uptime; up 34% from 2008. 99.99%+ and greater reliability are mission-critical.
Enterprise Minimum Required Levels of Reliability/Uptime Increase Dramatically from 2010 to 2014

In 2014, 49% of businesses require a minimum 99.99% reliability/uptime; up 12% since 2013 an increase of 46% since 2008. 99.99%+ and greater reliability are mission-critical.
In 2017, 79% of businesses require a minimum 99.99% reliability/uptime; up 30% since 2014 and an increase of 40% since 2013. 99.99%+ and greater reliability are mission-critical.
In 2017: Seventy-nine percent of Enterprises Require a Minimum of 99.99% Reliability/Availability

Between 2014 and 2017, the number of firms requiring a minimum of 99.99% availability increased 30% from 49% in 2014 to 79% in 2017; eight out of ten firms now need at least 99.99% Reliability & Availability for their mission critical systems. Three out of ten companies demand 99.999% or greater uptime.

Demand for Five Nines or greater reliability continues to increase YoY. Also noteworthy: in 2014, some 7% of companies still said they required only 99% uptime & 2% said they needed <99% availability. In 2017– none of the survey respondents said that 99% or less uptime was acceptable.

Actual unplanned annual downtime
8.76 hours | 52 minutes | 5.25 minutes or less
Security & Hourly Cost of Downtime Issues
Has your firm calculated the hourly cost of downtime for its mission critical systems and Line of Business applications?

The percentage of enterprises unable to calculate the hourly cost of downtime consistently outpaces those that can over the last 10 years. Of the 44% that responded “Yes” only half --50% - can make detailed downtime estimates. In actuality, only 22% of organizations, approximately 1 in 5 can accurately assess the hourly cost of downtime & its impact on productivity and the business’ bottom line.
Have there been any security breaches to your firm’s servers, mission critical applications, firewalls, datacenter, WAN or carrier network in the last year?

- Yes: 43%
- No: 39%
- Unsure: 18%
When was the last time your firm updated its computer security policies?

- We're doing it now: 11%
- In the last 3 to 6 months: 23%
- In the last 7 to 12 months: 26%
- One to two years ago: 21%
- Three years ago: 9%
- Four years or longer: 3%
- We don't have formal security policies: 2%
- We've never updated our original security policies: 3%
- Unsure: 2%
Is your firm increasing its security mechanisms & security training due to the recent spate of targeted attacks by organized hackers?

- Yes: 33%
- No: 22%
- We're studying the issue: 36%
- Unsure: 8%

NOTE: A 54% majority of respondents are not implementing proactive security measures or training despite the increase in organized cyber attacks
Does your firm calculate the hourly cost of downtime for mission critical systems & applications related to security breaches?

Only 2 out of 10 users calculate the hourly cost of downtime related to security breaches!
Hourly Cost of Downtime Statistics 2013 - 2017
Over 95% of respondents indicate that a single hour of downtime per year costs their company over $100,000. Over 50% say the cost exceeds $300,000 and one in 10 enterprises say hourly downtime costs their firms $1M or more.
A 98% majority of respondents say that a single hour of downtime per year costs their company over $100,000. An 81% majority say the cost exceeds $300,000 up from 76% in 2014. And 33% – three in 10 enterprises – say hourly downtime costs their firms $1M to >$5M.
## Average Hourly Downtime Costs for Nine Top Verticals

<table>
<thead>
<tr>
<th>Vertical Market Segment</th>
<th>Average Hourly Downtime Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking/Finance</td>
<td>$9.3 Million (US Dollars)</td>
</tr>
<tr>
<td>Government</td>
<td>$7.8M</td>
</tr>
<tr>
<td>Food/Hotel/Hospitality</td>
<td>$7.7M</td>
</tr>
<tr>
<td>Healthcare</td>
<td>$6.9M</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>$8.5M</td>
</tr>
<tr>
<td>Media &amp; Communications</td>
<td>$9.0 M</td>
</tr>
<tr>
<td>Retail</td>
<td>$6.6M</td>
</tr>
<tr>
<td>Transportation</td>
<td>$7.1 M</td>
</tr>
<tr>
<td>Utilities</td>
<td>$6.7M</td>
</tr>
</tbody>
</table>
### Minimum Reliability Requirements by Vertical Industry

<table>
<thead>
<tr>
<th>Minimum Reliability</th>
<th>Banking/Finance</th>
<th>Govt/Education</th>
<th>Food/Hotel</th>
<th>Healthcare</th>
<th>Manufacturing</th>
<th>Media</th>
<th>Retail</th>
<th>Transportation</th>
<th>Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>99%</td>
<td>0%</td>
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<td>0%</td>
<td>0%</td>
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<tr>
<td>99.9%</td>
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<tr>
<td>99.99%</td>
<td>14%</td>
<td>79%</td>
<td>68%</td>
<td>72%</td>
<td>56%</td>
<td>31%</td>
<td>67%</td>
<td>47%</td>
<td>52%</td>
</tr>
<tr>
<td>99.999%</td>
<td>59%</td>
<td>19%</td>
<td>25%</td>
<td>21%</td>
<td>40%</td>
<td>56%</td>
<td>30%</td>
<td>51%</td>
<td>43%</td>
</tr>
<tr>
<td>99.999% +</td>
<td>27%</td>
<td>2%</td>
<td>8%</td>
<td>7%</td>
<td>4%</td>
<td>13%</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
</tr>
</tbody>
</table>

A 79% majority of businesses of all sizes – from SMBs to the largest enterprises – now require a minimum of 99.99% reliability/uptime. This is the equivalent of 52 minutes of unplanned per server/per annum downtime, or just 4.33 minutes per server every month. The requirements are even more stringent for corporations in the top vertical market segments which are highly regulated and bound by strict compliance laws.
Questions?

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