Strategies for Seamless Recovery in a Dynamic Data Landscape

Speaker: Simon Ng | Sales Director of IP ServerOne
### About Us

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<th>Our Story</th>
<th>Our People</th>
<th>Our Expansion</th>
<th>Our Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Founded in 2003, Over 2 decades of success business story</td>
<td>Over 70 employees and counting</td>
<td>300 racks throughout South East Asia</td>
<td>Managing over 7000 physical servers</td>
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<td>5</td>
<td>Our Credibility</td>
<td>Our Customers</td>
<td>Our Presence</td>
<td>Our Security</td>
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<td></td>
<td>A licensed Cloud Service Provider under MCMC</td>
<td>Managing more than 5000 customers Application’s Infrastructure</td>
<td>Data centers in MY, SG and HK</td>
<td>ISO/IEC 27001, ISO/IEC 27017, SOC 2 Type II, PCI-DSS, CSA STAR-L1, CSA STAR-L2</td>
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</table>
**Who Are We**

At IPSERVERONE, we're your approachable Managed Cloud Services Provider that you can easily talk to.

We start by getting a deep understanding of your business, so we can provide the ideal solution for you.
Our Story

Discover the warmth and personalized care of our managed cloud services, and let us show you how “We Host Better.”
Our Milestones

21 Years Ago

2003
Established Year
Product: Domain name, Web Hosting
Head Count: Lone-Ranger

2008
Domain name, Web Hosting, Dedicated Server, and Co-location
Head Count: 15

2013
The Start of Cloud Hosting 1.0
Head Count: 30

2015
Incubating Cloud Hosting 2.0
Head Count: 30

2016
- ISO27001 certified
- 1st colo provider in Malaysia offers Cloud Scrubbing
- Enabled Anti-DDoS to all services
Head Count: 40

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Our Milestones

2017
- Setting up CJ1 Data Center
- Incubating Cloud Hosting 3.0
- Head Count: 48

2018
- Start of CJ1 Data Center operation
- PCI-DSS Certified
- Start of Cloud Hosting 3.0
- Head Count: 55

2019/2020
- 2019/2020 (Pandemic)
- Demand in Private Cloud, Public Cloud, IaaS
- ISO 27017 Certified
- VMware Cloud Verified, launch of Object Storage
- Head Count: 60

2021
- Expansion of CJ1 Data Center space on 3rd Floor
- Launch of VMware Singapore
- Head Count: 60

2022
- Cloud demand continues to increase, #2 in revenue.
- SOC 2 Type II Certified
- CSA STAR Level 1
- Head Count: 60

2023
- Launch of Cloud Connect service
- Launch of Load Balancer as a Service
- Stamped MOU with UTAR
- Head Count: 70
The Data Landscape

A SIMPLE | FAST I SECURE
Managed Disaster Recovery Solution
Types of **Malware**

- **Ransomware**: Encrypt data and holding it until ransom is paid
- **Adware**: Spammy ads pop up continuously
- **Fileless Malware**: Uses non-file object such as PowerShell
- **Trojan Horse**: Pretends to be a legitimate ones
- **Bots**: Attached to a file and executed once file is launched. Infect other programs
- **Spammy ads pop up continuously**
- **Keylogger**: Records of everything you type
- **Rootkit**: Gain control over a target computer
- **Spyware**: Monitor user activities
- **Worms**: Spread itself but doesn’t infect other programs
- **Virus**: Attached to a file and executed once file is launched. Infect other programs
Impact of Poor Security

Financial Losses
Inadequate information security measures can result in financial losses for organizations. These losses can arise from direct costs, such as incident response, forensic investigations, legal actions, regulatory fines, and customer compensation. Indirect costs may include the loss of business opportunities, customer churn, and damage to the organization's brand and market value.


Data Breaches
Poor information security increases the risk of data breaches, where unauthorized individuals gain access to sensitive information. The impact of data breaches can be severe, leading to financial losses, reputational damage, legal liabilities, and loss of customer trust. Personal and financial information exposed in data breaches can also be used for identity theft, fraud, or other malicious activities.


Legal and Regulatory Consequences
Inadequate information security can result in non-compliance with data protection laws and regulations. Organizations failing to meet regulatory requirements may face penalties, fines, legal actions, and regulatory scrutiny. Compliance failures can also lead to limitations on conducting business in certain industries or geographical regions.

s 20(6) of the Cyber Security Bill 2024: “Any national critical information infrastructure entity which contravenes subsection (1), (2) or (3) commits an offence and shall, on conviction, be liable to a fine not exceeding one hundred thousand ringgit or to imprisonment for a term not exceeding two years or to both.
Impact of Poor Security

Financial Losses

S’pore law firm Shook Lin & Bok hit by cyber attack; allegedly paid S$1.89mil in bitcoin as ransom

Data Breaches

An important message about your Dell information

Hello,
Dell Technologies takes the privacy and confidentiality of your information seriously. We are currently investigating an incident involving a Dell portal, which contains a database with limited types of customer information related to purchases from Dell. We believe there is not a significant risk to our customers given the type of information involved.

What data was accessed? At this time, our investigation indicates limited types of customer information was accessed, including:
- Name
- Physical address
- Dell hardware and order information, including service tag, item description, date of order and related warranty information.

The information involved does not include financial or payment information, email address, telephone number or any highly sensitive customer information.

What is Dell doing? Upon identifying the incident, we promptly implemented our incident response procedures, began investigating, took steps to contain the incident and notified law enforcement. We have also engaged a third-party forensics firm to investigate this incident. We will continue to monitor the situation.

What can I do? Our investigation indicates your information was accessed during this incident, but we do not believe there is a significant risk given the limited information impacted. However, you should always keep in mind these tips to help avoid tech support phone scams. If you notice any suspicious activity related to your Dell accounts or purchases, please immediately report concerns to secure.dell.com.

Privacy Statement
This is an automated email that cannot accept replies.


Legal and Regulatory Consequences

CYBER SECURITY BILL 2024

ARRANGEMENT OF CLAUSES

PART I
PRELIMINARY

Clause
1. Short title and commencement
2. This Act binds the Federal Government and State Governments
3. Extra-territorial application
4. Interpretation

PART II
NATIONAL CYBER SECURITY COMMITTEE

s 20(6) of the Cyber Security Bill 2024: “Any national critical information infrastructure entity which contravenes subsection (1), (2) or (3) commits an offence and shall, on conviction, be liable to a fine not exceeding one hundred thousand ringgit or to imprisonment for a term not exceeding two years or to both.”
Insider Threat

**Oblivious Insider**
Insiders with important access to company information that have been compromised from the outside.

**Negligent Insider**
Insiders that are usually uneducated on potential security threats, or simply bypass protocol to meet workplace efficiency.

**Malicious Insider**
Insiders that steal data intentionally or destroy company property – such as an employee that deletes company data on their last day of work.

**Professional Insider**
Insiders making a career of exploiting company network vulnerabilities, and selling that information on the dark web.
Social Engineering

Phishing scams are email and text message campaigns aimed at creating a sense of urgency, curiosity or fear in victims. It then prods victim into revealing sensitive information, clicking on links to malicious websites, or opening attachments that contain malware.

Baiting attacks use a false promise to pique a victim’s greed or curiosity. Baiting attacks may leverage the offer of free music or movie downloads to trick users into handing their login credentials.

Scareware involves victims being bombarded with false alarms and fictitious threats. Users are deceived to think their system is infected with malware, prompting them to install software that has no benefit or is malware itself.
How To Protect Data At Workplace
Which of the following **password** safe to use?

1. qwerty123
2. XR#LJ5lsf*bi
3. !@#$%^&*
4. taylorswift

**Strong password recommendation:**
- Contain both upper-case and lower-case characters (e.g. a-z, A-Z)
- Contain digits and punctuation characters as well as letters (e.g. 0-9, !@#$%^&*)
- At least eight alphanumeric characters long
- Not a word in any language, slang, dialect, jargon, etc.
- Are not based on personal information, names of family, etc.
The **Trifecta** of Data Recovery

**People**
- In-house/Outsource/Contract

**Infrastructure**
- Your own Data Center/Server Room/Outsource

**Technology**
- The Software/Hardware/Appliance you’re using
Our Product & Services

Providing a vast array of solutions to support the demands of our customers.
## Product & Services Overview

### IP ServerOne: What We Do

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<tr>
<th>1</th>
<th>SUBSCRIPTION</th>
<th>2</th>
<th>MAINTENANCE</th>
<th>3</th>
<th>DESIGN &amp; DEPLOY</th>
<th>4</th>
<th>SUPPORT</th>
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<tbody>
<tr>
<td></td>
<td>NovaCloud</td>
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<td>Monitoring</td>
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<td>Hardware &amp; Software</td>
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<td>IP Transit</td>
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<td>Private Cloud</td>
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<td>Server Management</td>
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<td>Storage Solution</td>
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<td>Anti-DDoS Protection</td>
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<td>Bare-Metal Server</td>
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<td>Database Management</td>
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<td>Virtualization</td>
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<td>Co-location</td>
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<td>E-mail</td>
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<td>Server Security Management</td>
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<td>Floor space</td>
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<td>Backup Storage</td>
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<td>Performance Optimization</td>
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<td>MYIX Satellite POP</td>
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<td><strong>Disaster Recovery</strong></td>
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<td>Inter-Data Center connection (DCI)</td>
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<td>DNS Hosting</td>
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<td>Domain Name</td>
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**CLOUD SERVICES**

**MANAGED SERVICES**

**IT SOLUTIONS**

**DATA CENTER**
Our Certifications

**Design**
- Uptime Institute Tier III DC on Design (TCCD)
- Uptime Institute Tier III DC on Constructed Facility (TCCF)
- ANSI/TIA-942 Rated-3
- Green Building Index (GBI) Certified

**Security**
- PCI-DSS Compliant
- ISO/IEC 27001 Compliant
- ISO/IEC 27017 Compliant
- Risk Management in Technology (RMIT)
- SOC 2 Type II
- Threat, Vulnerability, Risk Assessment (TVRA)
Acorn Recovery as a Service

A SIMPLE | FAST | SECURE
Managed Disaster Recovery Solution
When your security is BREACHED!

Acorn Recovery is your LAST LINE OF DEFENSE!

Recovery in minutes…
Story Time: Nature’s Inspiration for Acorn Recovery as a Service

1. **Hard Outer Shell**
   Just like the tough shell of an acorn protects the seed within, Acorn Recovery employs robust security measures and encryption protocols to safeguard your critical data from cyber threats. It’s like having a fortress around your most valuable assets.

2. **Nutrient-Rich**
   Acorns are known for their nutrient-rich composition, sustaining life in the natural world. Similarly, Acorn Recovery offers a bounty of features—rapid server recovery, immutable storage, dual disaster recovery centers, and a top-notch DR team—to keep your business running continuously, even in the face of adversity.

3. **Tannins**
   Ever tasted the bitterness of an acorn? That’s thanks to tannins, natural compounds that act as a defense mechanism. Similarly, our security features in Acorn Recovery deter malicious actors and safeguard your data from exploitation. No bitter taste here, just sweet security.

4. **Dormancy Mechanism**
   Acorns have a nifty trick up their sleeve—a dormancy mechanism that delays germination until the time is right for growth. Similarly, Acorn Recovery keeps your critical data dormant and readily available until needed for recovery. It’s like having an ‘insurance’ policy for your digital assets.

5. **Dispersal Strategies**
   Acorns spread their seeds through various dispersal methods, ensuring the survival of oak trees. Likewise, Acorn Recovery disperses your data across multiple locations—immutable cloud storage, off-site data centers, and redundant systems—to speed up recovery, enhance resilience, and minimize the risk of data loss.

What is Acorn Recovery as a Service?

Acorn Recovery as a Service is a SIMPLE | FAST | SECURE managed Disaster Recovery solution that's designed to help secure physical and virtual servers, ensuring uninterrupted operations.

What do we mean by SIMPLE | FAST | SECURE?

SIMPLE
- Means our solution is user friendly and easy to use.
- We provide simplified ransomware recovery steps to customer, backed by our experience DR team.

FAST
- Means fast server recovery in minutes upon DR activation by customer.
- Fast to response with our 24/7 DR team that follows the industry standards like ISO, TVRA, BNM RMiT, and SOC 2 Type II compliance.

SECURE
- Means your data is kept securely in TWO separate Disaster Recovery Centers (DRC).
- Added on with immutable storage; your data stored is not susceptible to change.
Unique Selling Points of Acorn Recovery as a Service

1. Immutable Storage
   - Time-lock storage
   - Enhanced protection from ransomware attack

2. Warm DR
   - Standby Disaster Recovery for faster Recovery Time Objective (RTO)

3. Dual DRC Design
   - Dual DataCenter design
   - DRC1 is in CJ1 | DRC2 in in AIMS KL | or vice-versa

4. Managed Backup and DR Services
   - Our dedicated team will manage the day-to-day of backup and DR operations

5. Backup Verification
   - Veeam's SureBackup technology offers a robust solution for backup validation, ensuring that backups are not only successfully created but are also reliable for restoration

6. DR Drill
   - 1x DR Drill included per year
   - Inclusive of 10 days DR Activation for DR Testing / DR Drill / Actual DR
   - DR Plan update based on executed DR Drill activity
   - DR Report inclusive activities, timelines, actions taken, and feedback
The Design of Acorn Recovery as a Service
## Scope of Acorn Recovery as a Service

<table>
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<tr>
<th>1</th>
<th>Continuous Monitoring</th>
<th>We provide round-the-clock monitoring of backup and DR systems to detect any operational anomalies or issues.</th>
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<tr>
<td>2</td>
<td>Incident Response</td>
<td>Our team ensures immediate response and resolution of any incidents related to backup or DR, minimizing downtime and ensuring business continuity.</td>
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<td>3</td>
<td>Client Communication and Reporting</td>
<td>We maintain regular communication with clients, offering transparent status updates and responsiveness to any concerns or changes in requirements.</td>
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<td>4</td>
<td>System Review and Planning</td>
<td>We conduct thorough reviews of backup and DR systems, including assessment of hardware health, software update status, and configuration settings, to optimize performance and reliability.</td>
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<tr>
<td>5</td>
<td>Backup Verification</td>
<td>Our process ensures the integrity and efficiency of backups, identifying areas for performance optimization and ensuring data protection.</td>
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<tr>
<td>6</td>
<td>DR Testing and Readiness Evaluation</td>
<td>We will conduct testing to validate the effectiveness of DR plans and ensure readiness for potential disaster scenarios, minimizing risks and maximizing recovery capabilities.</td>
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<td>7</td>
<td>Maintenance and Improvement</td>
<td>We apply scheduled updates to backup and DR software and hardware to ensure systems are up-to-date and continuously enhance backup and DR processes.</td>
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<tr>
<td>8</td>
<td>DR Activation Assistance</td>
<td>We assist customers in activating the DR virtual machine (VM) to swiftly transition to their disaster recovery environment.</td>
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<td>9</td>
<td>DR Restoration Assistance</td>
<td>We assist customers in restoring the VM into the DR VM or the Mini Hypervisor we’ve prepared for seamless recovery.</td>
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<td>10</td>
<td>Traffic Rerouting</td>
<td>We assist customers in pointing IP addresses and rerouting traffic to DRC1 or DRC2 for uninterrupted service during disaster recovery.</td>
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<td>11</td>
<td>Service Level Agreement</td>
<td>We guarantee 99.9% uptime for DR infrastructure.</td>
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In Summary: **SIMPLE | FAST | SECURE**

1. **People**
   - Image of a group of people

2. **Infrastructure**
   - Image of a data center

3. **Technology**
   - Image of technology interfaces
   - **ACORN Unique Features**
     1. Immutable Storage
     2. Warm DR
     3. Dual DRC Design
     4. Managed Backup and DR Services
     5. Backup Verification
     6. DR Drill
Discover the warmth and personalized care of our managed cloud services, and let us show you how “We Host Better.”

IP ServerOne Team