NETWORK ATTACHED STORAGE

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WHAT'S THE PROBLEM WITH STORAGE THESE DAYS?
WHY DO YOU WANT TO CONTROL YOUR DATA?

- Companies and fraudsters are monetizing your data without you knowing
- Bad actors can use your data to influence your behavior in negative ways
- Dark web costs for data is extremely high:
  - Hacked Coinbase: $610
  - Complete Health Record: $250
  - Personal Email: up to $89
  - Hacked Facebook: $65

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Cost per person</th>
<th>% of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>$0.15</td>
<td>48.59%</td>
</tr>
<tr>
<td>Female</td>
<td>$0.14</td>
<td>51.41%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>$0.36</td>
<td>11.92%</td>
</tr>
<tr>
<td>55</td>
<td>$0.05</td>
<td>32.32%</td>
</tr>
<tr>
<td>Ethnicity</td>
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<td></td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>$0.62</td>
<td>1.21%</td>
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<tr>
<td>Hispanic</td>
<td>$0.01</td>
<td>8.09%</td>
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<tr>
<td>Family Income</td>
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</tr>
<tr>
<td>$40k - $55k</td>
<td>$0.02</td>
<td>4.94%</td>
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<tr>
<td>$120k - $150k</td>
<td>$0.33</td>
<td>1.84%</td>
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</table>

<table>
<thead>
<tr>
<th>Record Type</th>
<th>Average Price</th>
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<tbody>
<tr>
<td>Health Care Record</td>
<td>$250.15</td>
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<tr>
<td>Payment Card Details</td>
<td>$5.40</td>
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<tr>
<td>Banking Records</td>
<td>$4.12</td>
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<tr>
<td>Access Credentials</td>
<td>$0.95</td>
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<tr>
<td>Social Security Number</td>
<td>$0.53</td>
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<tr>
<td>Credit Report</td>
<td>$0.31</td>
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<tr>
<td>Basic PII</td>
<td>$0.03</td>
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</tbody>
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WHAT IS NETWORK ATTACHED STORAGE (NAS)?

› Storage Device + CPU plugged into and accessible from a local network

› Useful for syncing/backing up data locally

› Typically “dumb” with simple features and interface
WHAT DO PEOPLE TYPICALLY STORE ON A NAS TODAY?

- File syncing
  - Basic data backup
  - Photo management
  - Media library
- Productivity and collaboration
  - Office documents
  - Chat logs
- Large video files
  - Surveillance videos
  - Locally backup up videos
  - Video production
Network Attached Storage - Landscape Study

Shortcomings of the Current NAS

- Simple file storage
- “Dumb” with poor UI
- Undifferentiated products
- “Complex” products not user friendly
WHERE IS THE OPPORTUNITY FOR A "SMART NAS"?

- **SMARTER** than just a plain storage device with a beautiful UI
- **Automatic and Easy** - Backup your important things regardless of source transparently (phone, social media, videos, photos)
- **Discoverability** - Make your data easy to find automatically
OPPORTUNITIES AROUND SMART NAS IDEAS

- **Discoverability**
  - Personalized Search Engine
  - ML auto-classification

- **Storage**
  - Automatic data backup from devices AND social media networks
  - Reassured your personal data is YOURS

- **Media**
  - Built in media player and library
  - Remote access and sync of your content

- **Easy to use**
  - As easy to use as your iPhone
  - It knows what you want and need
QUICK, CAN YOU NAME A NAS COMPANY?

- Probably not
- The products are completely undifferentiated
- Can somebody be the Apple of NAS?
THE NAS MARKET IS GROWING!

- Due to 5G, mobile devices, and larger data formats - there is a need for more storage
- Biggest driver for NAS growth
- Relatively even distribution of market share across companies
BUT, FOR NOW, THE PERSONAL CLOUD MARKET IS GROWING FASTER

- Personal data cloud growth from $26.8B in 2019 to $161.39B (502%) in 2027
- NAS market growth from $23.8B in 2019 to $40.8B (71.4%) in 2026
- 502% vs 71%
PRODUCTIZATION: HOW DOES A NAS GET SMART?

- Solve your customer’s biggest pain point **first**
- **Help** them find old content posted online and permanently archive it
- Build on successes with phases

**Phase 1**
Automated download/backup/archive of social media content

**Phase 2**
Indexing of automated archived content

**Phase 3**
Sharing of archived content outside of the social ecosystem

**Phase 4**
Build an attribution system and publishing system for content

**Phase 5**
Build an app store so developers can add more functionality to system
CONCLUSION

- Making a smarter NAS increases the total addressable market (TAM)
- New features can provide more secure personal data storage and sharing
- Synology and Qnap have best application support and UI today