Problem Statement

► End-user access to information slow
► Information not aligned with end user
► Information published on paper

Additional Challenges

► High overhead
  ▪ CoC requests
  ▪ SPC requests
► Inconsistent IP protection forwarding original CoC
► Traceability infrastructure inadequate

Electronic communication capability lags industry needs
Traceable Verification Sub-Committee: Solution

► Aligned key characteristic supplier ↔ end user
  ▪ SCIS Sub-Committee Commodity teams

► Enable defect reduction with high-speed information exchange
  ▪ Publish information exchange model
  ▪ Extend eCoC model providing end user direct eCoC access

► Automated system allows end user
  ▪ Access CoC, SPC as needed

► Proprietary information
  ▪ Deliberate creation of external view
  ▪ End user individual NDA accountability

► Traceability supported on a consistent basis

Transparency establishes accountability across the supply chain
System Flow Chart: Chronological Summary

Connectivity increases transparency; standard model provides consistent value
## Traceable Verification Sub-Committee: Record Definition

### Internal Operating Record

<table>
<thead>
<tr>
<th>Verification Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
</tr>
<tr>
<td>Lot Number</td>
</tr>
<tr>
<td>Unique ID</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Parameter</th>
<th>Min</th>
<th>Value</th>
<th>Max</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key</td>
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<td>Length</td>
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<td>3.15</td>
<td>3.25</td>
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### Traceability Information

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<thead>
<tr>
<th>Operation</th>
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<th>Tool ID</th>
<th>Insp</th>
<th>Value</th>
<th>P/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazing</td>
<td>Dave</td>
<td>Braze</td>
<td>14D</td>
<td>Julie</td>
<td>5.0</td>
<td>P</td>
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</tbody>
</table>

### External Compliance Record - eCoC

<table>
<thead>
<tr>
<th>Verification Information - Key Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
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<tr>
<td>Lot Number</td>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
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<td>Pass</td>
<td></td>
</tr>
<tr>
<td>Key</td>
<td>Spec.</td>
<td>&lt; A</td>
<td>Pass</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Key</th>
<th>Spec.</th>
<th>Pass</th>
</tr>
</thead>
</table>

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**Information access increases alignment**
Immediate access increases speed of optimization
Traceable Verification Sub-committee: Physical Part - eCoC data Linkage

IDM Maintenance Tracking System

Lam Etch Tool ID: CF36C
Chamber O-ring: www.ecoc.com/Acme-0105-123456

eCoC: www.ecoc.com/acme-0105-123456
Traceable Verification: Summary

► SEMI SCIS Commodity subcommittee
  ▪ Standardization of key characteristics, characterization, test methodology
  ▪ Multiple commodity teams

► SEMI SCIS Traceable Verification subcommittee
  ▪ Develop open standard information exchange model

► Normalized part information + information exchange model + application
  ▪ Provide vital information to all users
  ▪ Increase accountability and transparency
  ▪ Improve part quality
  ▪ Establish traceability
  ▪ Increase optimization capability

▪ Higher product quality

High speed information highway increases quality and productivity