IMPROVING EDUCATION EVERYWHERE

To deliver the learning experience required in today’s world, e-Learning tools and instant access to digital content are key. The C3 Micro-Cloud is the leading solution to dramatically simplify and manage the delivery of digital content, applications, and e-Learning capabilities to schools, regardless of infrastructure challenges or internet connectivity limitations.

The C3 Micro-Cloud offers a range of powerful capabilities making it easy for students, teachers, and administrators to curate, publish, manage, and consume content. All delivered in a framework that is both powerful, flexible, and customizable.

THE C3 MICRO-CLOUD IS COMPRISED OF:

The C3 Micro-Cloud is a local appliance that provides a complete cloud-based environment in a small footprint. It creates a safe network environment with a local content repository and e-Learning tools. When Internet is available, the C3 Micro-Cloud manages, filters and optimizes connectivity. Each C3 Micro-Cloud can be managed by the C3 Cloud Control for content curation, distribution, and management.

The C3 Micro-Cloud is a complete, end-to-end software solution spanning the local micro-cloud—for classroom and school functions—to the central Cloud Control (for content and applications curation, distribution, and configuration management). When Internet is available, the C3 Micro-Cloud connects to the C3 Cloud Control to get updated and synchronized management to C3 Micro-Cloud.

The C3 Micro-Cloud comes with Foundation LMS, a basic learning management system which provides student and teacher resources to enable the e-Learning experience. For more advanced requirements, the C3 Micro-Cloud ships with Moodle - a leading LMS - to allow more advanced implementations of the e-Learning experience.

THE C3 MICRO-CLOUD PLATFORM

 Enables e-Learning in environments WITHOUT Internet connectivity

**DIGITAL CONTENT:** Access your digital content instantly (Manuals, Wikipedia, Khan Academy, Videos), etc., in any scenario

**APP HUB:** Allow easy access to locally cached resources

 Improves classrooms WITH Internet connectivity

**INTERNET SPEED:** Accelerates Internet speed with intelligent dynamic caching (videos/pages)

**INTERNET ACCESS:** Filter Internet access by user profile

**C3 CLOUD CONTROL:** Manages remotely hundreds of schools from a central dashboard

**PLUG-AND-PLAY MICRO-CLOUD:** easy to use in any scenario

**WI-FI ACCESS POINT:** To allow easy access to locally cached resources

**COMPATIBLE WITH ANY DEVICE:** Chromebook, desktops, tablets, mobile

**USER MANAGEMENT:** Manages content and configuration of schools from a central location.

**USAGE STATISTICS:** Content and Internet (when available)
HOW DOES C3 MICRO-CLOUD WORK?

The **C3 Micro-Cloud** integrates cloud-based content, curation, and management with a local point of presence. The result is the power of cloud-based e-Learning even in locations that may not always have internet access:

END-TO-END SOLUTION ARCHITECTURE

1. The **C3 Micro-Cloud** provides a local Wi-Fi access point, so that students and teachers can connect directly with the micro-cloud device and access all applications, services and content directly, even if ‘upstream’ network services are not available.

2. Content, in the form of texts and other resources, can be centrally curated in the **C3 Cloud Control**, and distributed to any authorized **C3 Micro-Cloud** whenever a network link is available. In addition, added value resources such as those from approved HTTP and HTTPS web sites can also be included in the local repository - again to be available even if the upstream network is down. Teachers can also load their own content locally, for use with their students - for a more customized learning experience.

3. With the **C3 Cloud Control**, not only can content, applications and resources be managed centrally, but so can administration and management. Security policies, usage policies, user access levels - all can be managed centrally for an entire region/country of authorized C3s, to ensure uniform compliance and education throughout the entire system.
# PRODUCT PORTFOLIO

<table>
<thead>
<tr>
<th>Features</th>
<th>C3 Classroom</th>
<th>C3 Hybrid</th>
<th>C3 School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
<td>18.3 x 19 x 2.8</td>
<td>18.5 x 4.4 x 19.7</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>Up to 1TB</td>
<td>Up to 2TB</td>
<td>Built to order</td>
</tr>
<tr>
<td><strong>RAID Support</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>Optional</td>
</tr>
<tr>
<td><strong>Wi-Fi Access Point bgn/ac</strong> <em>(up to 50 concurrent users)</em></td>
<td>Yes</td>
<td>Optional</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Supported Concurrent Users</strong> <em>external network equipment requirement</em></td>
<td>Celeron (Up to 50)</td>
<td>Celeron (Up to 100)* Core i3 (Up to 300)*</td>
<td>Xeon (from 500)*</td>
</tr>
<tr>
<td><strong>Ethernet WAN Interface</strong> <em>(1Gbps Ethernet)</em></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Ethernet LAN Interface</strong> <em>(1Gbps Ethernet)</em></td>
<td>Not available</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>External Mobile Interface</strong> <em>(3G/4G)</em></td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td><strong>Battery Backup</strong></td>
<td>Optional</td>
<td>Optional</td>
<td>N/A</td>
</tr>
</tbody>
</table>

## Learning Features

- **Digital Content Repository**
  Supports any type of content (static web sites, Office files, PDF, video, audio, images)

- **Offline Resources**
  Wikipedia, MicroBit, Khan Academy, WordPress, Moodle

- **Video Caching**
  Download video from URL for offline viewing

- **Pre Loaded Content**
  Project specific or publicly available content can be preloaded at manufacturing

- **Lesson planning**
  Teachers can aggregate related content packages in class specific lessons

- **Learning Management System**
  Interactive LMS based on latest Moodle version

## Administration Features

- **Local Network & Domain**
  Creates a local network for teachers and students with: Active Directory compatible domain, DNS, DHCP

- **User Authentication**
  Support user authentication with local or remote single sign-on capability

- **Profile Management**
  Support profile management with preconfigured standards for administrators, teachers, students and guests

- **Customizable Interface**
  Organization or school configurable logos and color branding

- **Landing Page**
  Configurable landing page per user profile (e.g. Student page; Teacher page)

- **3rd Party Applications**
  Easily add additional applications (App HUB)

## Internet Features

- **Internet Gateway**
  Routes and controls Internet bound traffic by profile

- **Internet Caching**
  Optimizes Internet usage by caching HTTP and HTTPS requests

- **Whitelisting**
  Optionally filters and limits Internet access by user profile

- **Firewall**
  Protects access to C3 Micro-Cloud applications from outside users

- **C3 Cloud Control**
  Centralized and remote dashboard for content and application distribution, and configuration management to the C3 Micro-Cloud

- **CloudVPN**
  Enables easy access to C3 Micro-Cloud for remote management/troubleshooting

- **Online Updates**
  System software updates from Critical Links managed update center

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