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Cloudbrink: Fast, Secure Connectivity for Hybrid Workers

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Network Infrastructure Challenges

Modern IT environments are highly distributed and complex. TechTarget's Enterprise Strategy Group surveyed respondents to identify the areas where their organization would make the most significant investments in its network infrastructure over the next 12 to 18 months. More than one in three organizations (38%) are investing in additional training for their networking staff with 32% investing in providing improved/additional connectivity for remote employees. In addition, 53% of respondents said their organization's IT environment is more complex or significantly more complex than it was two years ago. In those organizations, 40% cited the most common reason for the added complexity is the increase in remote and hybrid workers.[1]

Cloudbrink

Cloudbrink is a software-based solution that allows hybrid, mobile, and remote workers to seamlessly access the increasingly complex SaaS distributed and/or multi-cloud applications regardless of their location. The solution leverages the power of AI and ML to provide edge-native hybrid access as a service (HAaaS), which delivers significantly increased performance for cloud, SaaS, and data center applications. In addition, Cloudbrink is a zero trust network access (ZTNA) solution that leverages highly secure zero trust and dark network concepts to provide increased security for the hybrid and remote worker, while making it easy to use for network, security, and IT administrators (see Figure 1).

Figure 1. Cloudbrink Solution Overview
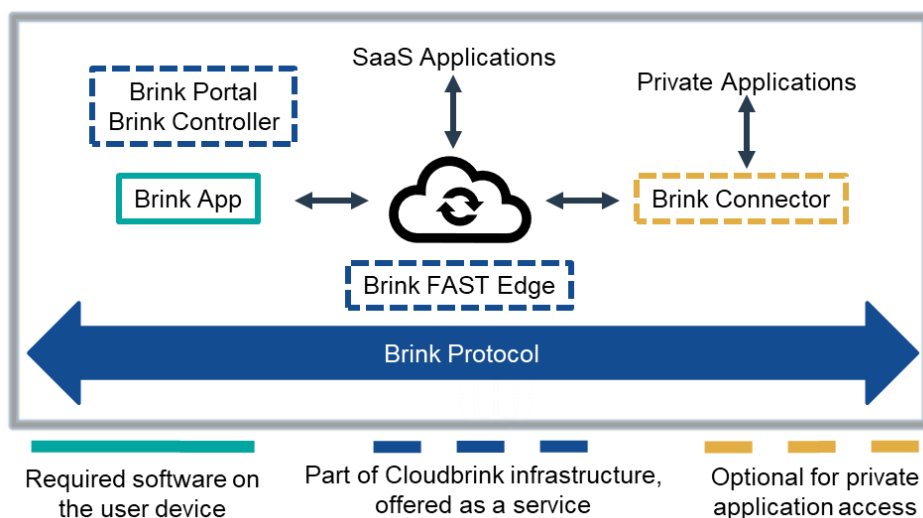
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

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[1] Source: Enterprise Strategy Group Research Brief, *Network Spending Trends for 2022*, March 2022.

The **Brink App** acts as a deny-all firewall, allowing no traffic to flow through the infrastructure (user, device, network, application) unless there are specific policies on what applications or services the remote/hybrid worker can access, and is the only component an organization needs. The **Brink Portal**, which sets up the Brink App, allows organizations to onboard users easily via a dashboard that provides visibility, performance and analytics, and troubleshooting.

Brink FAST Edge uses AI and ML technology to provide proactive provisioning and deprovisioning based on predicted usage, ensuring optimal capacity nearest to the hybrid worker/end user. The **Brink Connector** is used to securely access on-premises or private cloud applications, if needed. The **Brink Cloud Controller** is responsible for provisioning, monitoring, data collection and analytics, and intelligent algorithms related to infrastructure provisioning and connection management. **Brink Protocol** is Cloudbrink's patented programmable protocol that integrates performance acceleration, end-to-end security, application intelligence and learning-based adaptive network control to provide the best performance for applications.

The **SaaS Applications** are third-party applications, such as multimedia (UCaaS, audio/video), interactive (VDI, distributed collaboration), productivity (Adobe Creative Cloud, Google Workspace, Microsoft 365, Salesforce), and DevOps (source code control, image transfer, file sync).

Demo Highlights

Enterprise Strategy Group performed a detailed analysis of Cloudbrink, including its ease of use and accelerated performance for cloud, SaaS, and data center applications.

Ease of Use

We validated that the solution is easy to set up and use. The solution can be configured in as little as five minutes, with a typical setup of around 30 minutes. The Dashboard tab makes it easy to see the service uptime, active devices, top applications, trends, and other key metrics (see Figure 2). The Performance tab provides additional information, like packets recovered, average jitter, and RTT. Also, in addition to authentication through a user's credentials, enhanced security is easily configurable through the Brink portal, including implementing policies and rules at the application, user, and device level.

Figure 2. Cloudbrink Dashboard
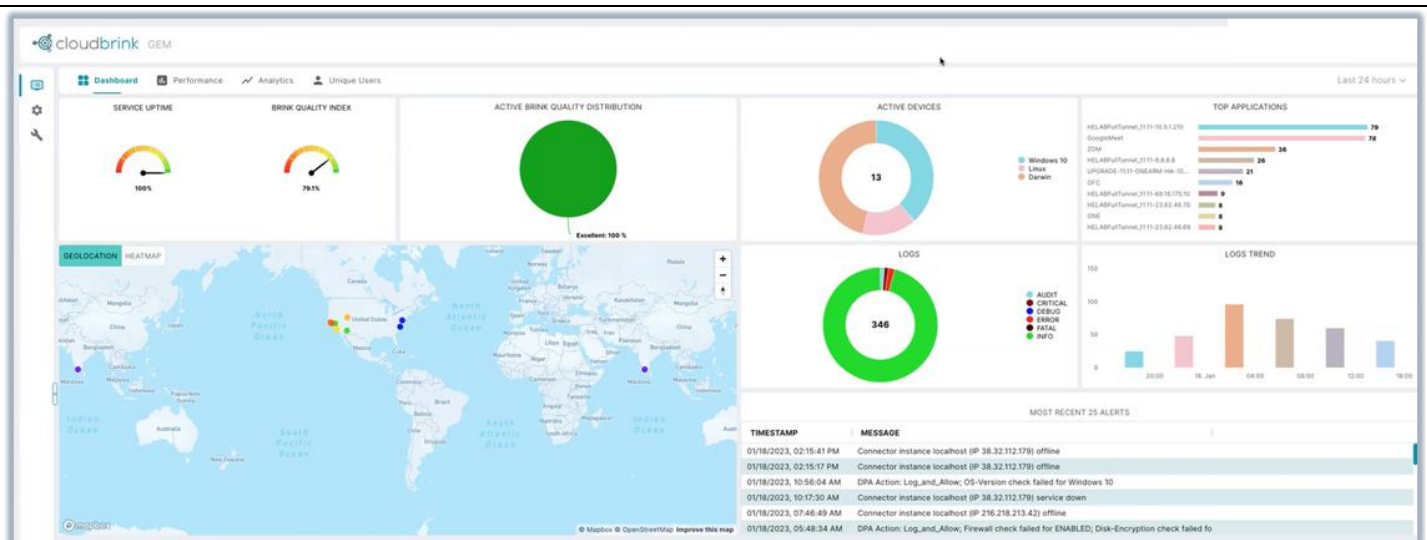
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Performance

We validated the performance of the solution based on a 100 MB file download and upload test (see Figure 3). The test showed what a home network user would experience without and then with the Cloudbrink solution. With Cloudbrink, the download (and upload) times were significantly lower, and effective bandwidth or speed was considerably higher than without Cloudbrink. In addition, packet loss was reduced to zero or near zero percent.

Figure 3. Cloudbrink Performance

100 MB File Download without Cloudbrink

```
file-transfer-demo
Press <ctrl+c> to complete file downloads
Ensuring we're logged into OneDrive

Iteration          Time                Speed
---------          ----                -----
1                  14.538   s          55.03    Mbps
2                  10.284   s          77.79    Mbps
3                  20.681   s          38.68    Mbps
4                  16.535   s          48.38    Mbps
5                  17.184   s          46.56    Mbps
6                  12.557   s          63.71    Mbps
7                  15.659   s          51.09    Mbps
8                  13.488   s          59.31    Mbps
9                  14.16    s          56.5     Mbps
10                 16.657   s          48.03    Mbps
```

100 MB File Download with Cloudbrink

```
file-transfer-demo
Press <ctrl+c> to complete file downloads
Ensuring we're logged into OneDrive

Iteration          Time                Speed
---------          ----                -----
1                  2.29     s          349.36   Mbps
2                  1.973    s          405.48   Mbps
3                  2.389    s          334.86   Mbps
4                  2.49     s          321.24   Mbps
5                  4.905    s          163.08   Mbps
6                  1.98     s          404.04   Mbps
7                  2.519    s          317.53   Mbps
8                  2.67     s          374.31   Mbps
9                  2.035    s          393.15   Mbps
10                 2.155    s          371.17   Mbps
```

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

First Impressions

With hybrid work environments becoming the norm, network infrastructure will continue to play a vital role in enabling these environments. In addition, organizations continue to invest in additional training for their networking staff and providing improved connectivity for hybrid and remote employees.

Enterprise Strategy Group's first impression was that Cloudbrink is designed to be easy to set up and manage and provides great performance. The bottom line is that end users are going to be transferring files, accessing cloud and SaaS applications, browsing the internet, participating in VDI and RDP sessions, connecting with call centers, and video conferencing. These users will experience faster downloads and uploads, and overall better network performance. All of this helps increase end-user productivity and improve a company's top line revenue.

Organizations looking to train networking staff, simplify the network infrastructure, and bring the security and speed of the office experience to the remote worker should consider Cloudbrink.

For more information, please see the blog article "How hybrid access as a service supports hybrid work."

About Enterprise Strategy Group
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