TestGrid Device Cloud – Complete Product in Simple Words

🎯 Main Purpose

TestGrid lets users **test websites and mobile apps on real devices and browsers online**, without owning them.

Simple flow:

```
User → TestGrid Dashboard → Cloud Server → Real Device/Browser → Result
```

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1. Browser Cloud (Web Testing)

👉 What it is:

Test websites on **real browsers** (Chrome, Firefox, Edge, etc.)

Used for:

✔️ UI testing
✔️ Cross-browser testing
✔️ Selenium automation

Example:

> Test website on Chrome + Firefox remotely.

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2. Real Mobile Device Cloud (Mobile Testing)

👉 What it is:

Access **real Android & iPhone devices** online.

Used for:

✔️ App testing
✔️ Appium automation
✔️ Manual testing

Example:

> Run app on real Samsung/iPhone from browser.

🔐🗝️ 3. User Token (Authentication)

👉 What it is:

Security key to use APIs & automation.

Used for:

✔️ Secure login
✔️ Appium/Selenium connection

Without token → No automation.

➡️📱 4. Device Reservation System

👉 What it is:

Locks device for one user.

```
Free → Reserved → In Use → Released
```

Benefit:

✔️ No conflicts
✔️ One user = One device

📦 5. App Management

👉 What it is:

Manage installed apps.

You can:
✔️ Upload APK/IPA
✔️ Install
✔️ Remove
✔️ Update

Used for testing new builds.

📷 6. Camera & Biometric Testing

Image Injection

Fake camera input using images.

Used for:
✔️ QR apps
✔️ Camera apps

Biometric

Test fingerprint / face unlock.

Used in:
✔️ Banking apps
✔️ Secure apps

🔍 7. Inspector, Object Spy & XPath

👉 **For Automation Engineers**

Tool	Use
Inspector	View UI elements
Object Spy	Get XML layout
XPath Search	Find elements

Used to write Appium scripts.

📍 8. Geo-location Testing

👉 **What it is:**

Change device location.

Used for:
✔️ Maps apps
✔️ Delivery apps
✔️ Travel apps

Example:

Test app as if user is in USA.

⚙️ 9. ADB Native Commands

👉 What it is:

Run Android commands remotely.

Used for:
✔️ Debugging
✔️ Install apps
✔️ Logs

Example:

```
adb logcat
adb install
```

🔔 10. Push Notification Testing

👉 What it is:

Test app notifications.

Used for:
✔️ OTP apps
✔️ Chat apps
✔️ Banking alerts

🖍️ 11. Image Annotation (JIRA Bugs)

👉 What it is:

Mark bugs on screenshots.

Used for:
✔️ Reporting
✔️ Team collaboration

Example:
Circle error → Send to JIRA.

📹 12. Manual Testing & Screen Recording

👉 What it is:

Record testing session.

Used for:
✔️ Proof
✔️ Training
✔️ Bug evidence

Saved in cloud storage.

🌐 13. TG Tunnel (TG Connect)

👉 What it is:

Connect private/local apps.

Used when app is:
❌ Behind VPN
❌ On localhost

```
Local App → Tunnel → Device
```

📁 14. Central Video Repository

👉 What it is:

Stores all recordings.

Used for:
✔️ History
✔️ Audits
✔️ Review

🔑 15. PIN Configuration

👉 What it is:

Test locked devices.

Used for:
✔️ Banking apps
✔️ Secure login apps

☁️ 16. TG Drive

👉 **What it is:**

Cloud storage for files.

Used for:
✔️ APKs
✔️ Logs
✔️ Reports

🖥️ 17. Browser Resolution & Actions

👉 **What it is:**

Test different screen sizes.

Used for:
✔️ Responsive testing
✔️ Mobile web testing

Example:
Desktop / Tablet / Mobile view.

🔗 18. Remote Lite URL Access

👉 **What it is:**

Lightweight remote access link.

Used for:
✔️ Quick sharing
✔️ Guest testing

🔊 19. Audio Output Streaming

👉 **What it is:**

Hear device sound.

Used for:
✔️ Music apps
✔️ Video apps
✔️ Call apps

🔌 20. Virtual USB (vUSB)

👉 What it is:

Simulate USB connection.

Used for:
✔️ Device debugging
✔️ Special testing tools

🌍 21. Multiple Language Support

👉 What it is:

Dashboard in many languages.

Used for:
✔️ Global users
✔️ International teams

🧠 22. How Everything Works Together

Complete Flow:

```
Login
→ Get Token
→ Reserve Device
→ Install App
→ Test (Manual/Auto)
→ Record Logs/Video
→ Report Bug
→ Release Device
```

📊 23. Product in One Table

Area	Purpose
Browser Cloud	Web testing
Mobile Cloud	App testing
Token	Security
Reservation	Device control
Inspector	Automation

Area	Purpose
Tunnel	Private apps
Recording	Proof
Geo/Network	Real-world testing
Storage	Data saving

✅ Final Understanding (For Interview / Mentor)

After learning this, you can say:

> "TestGrid provides cloud-based real devices and browsers for manual and automation testing. It supports secure access, device reservation, Appium/Selenium integration, debugging tools, recording, and advanced testing like biometric, location, and network simulation."