



SHIELD PLATFORM FOR DEVELOPERS

Tony Tamasi, SVP, Content & Technology, NVIDIA

THE MODERN LIVING ROOM



SMART TV EXPERIENCE





SHIELD

World's First Android TV Console



WORLD'S FIRST 4K ANDROID TV





MADE TO GAME

Ultra-responsive Wi-Fi Direct
Headphone jack for in-game chat
Voice search





INCREDIBLY SIMPLE



THE SHIELD FAMILY





**EVERYONE'S
A GAMER**

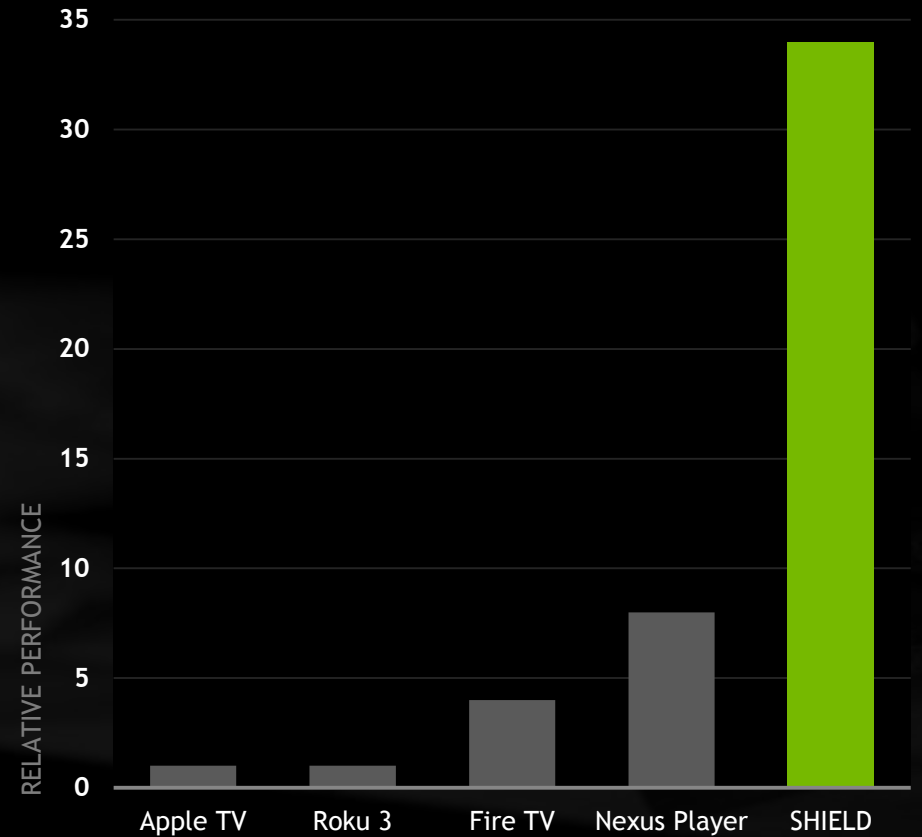
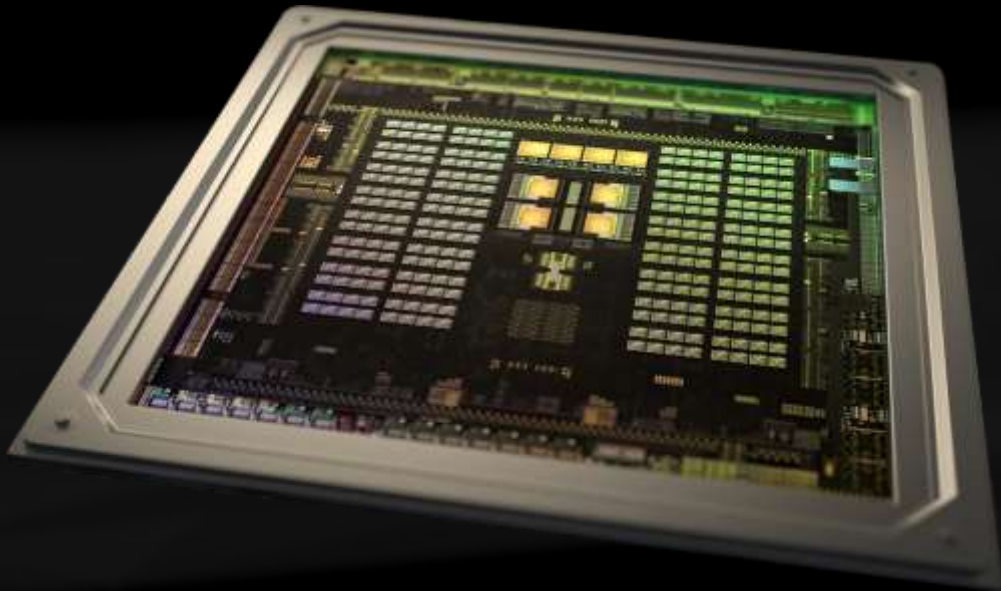


PLATFORM FROM TWO OPEN STANDARDS



TEGRA X1 MADE TO GAME

Mobile Superchip with the Soul of a Console

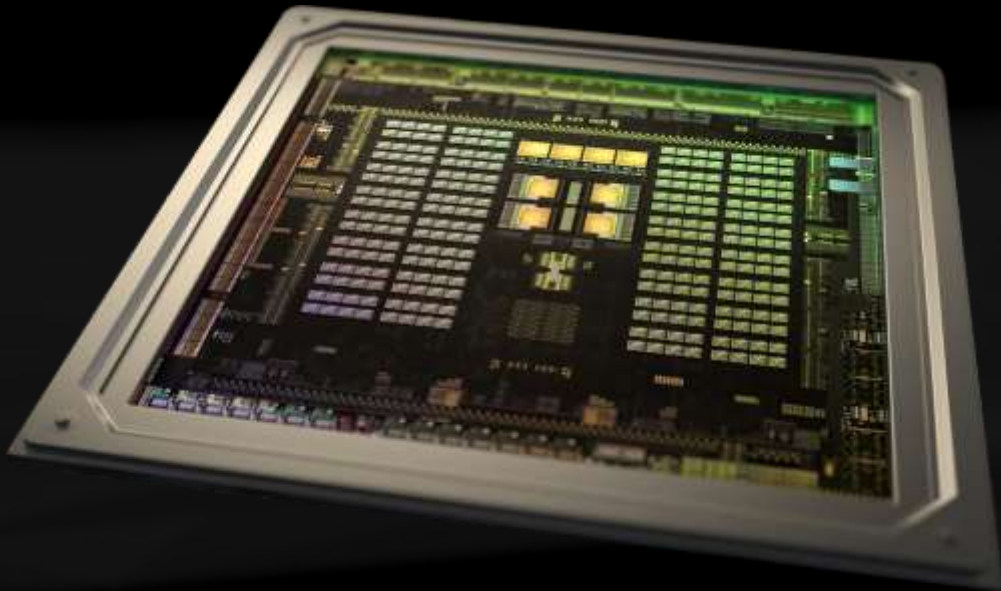


Data: GFXBench T-Rex off-screen



TEGRA X1 MADE TO GAME

Mobile Superchip with the Soul of a Console



	Xbox 360	SHIELD
GPU	DX9 240 GFLOPS	DX12 512 GFLOPS
Memory	0.5 GB	3 GB
Power	80-100 W	5-20 W



SHIELD VS. CONSOLES

	Xbox360	PS3	Tegra X1
Shader GFLOPS	240	192	512-1024 ²
Texture Gtexel/s	8	12	16
Bandwidth GB/s	22.4 ¹	28.8	25.6 ³
Features	DX9	DX9	DX12
GLB3	1	1.3	2.2
UE4 Infiltrator	1	1.4	2.5
Gameplay Power	75W	70W	15W

(1) 256 GB/s 10MB iRAM-based ROP (32GB/s I/F)

(2) Factors use of fp16 precision

(3) 256 GB/s GPU L2 Bandwidth



FEATURED ANDROID GAMES



Contrast
\$14.99



Crysis 3
COMING SOON



Borderlands The Pre-Sequel
COMING SOON



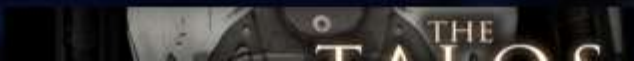
War Thunder
FREE



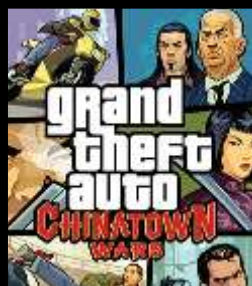
DOOM 3 BFG Edition
\$9.99



Limbo
\$9.99



50+ ANDROID LAUNCH TITLES



CRYSLIS[®] 3

SHIELD



SHIELD
\$199

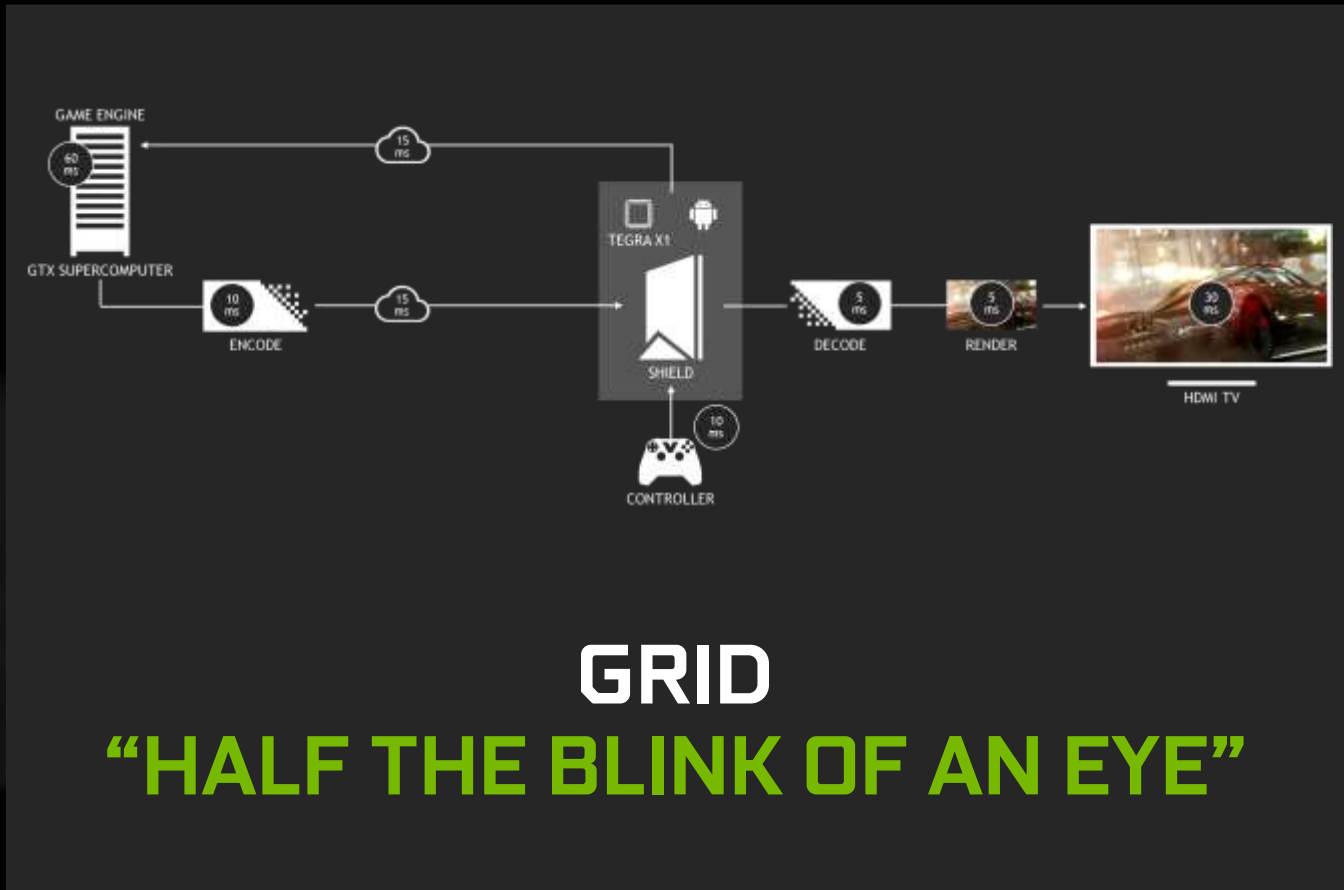




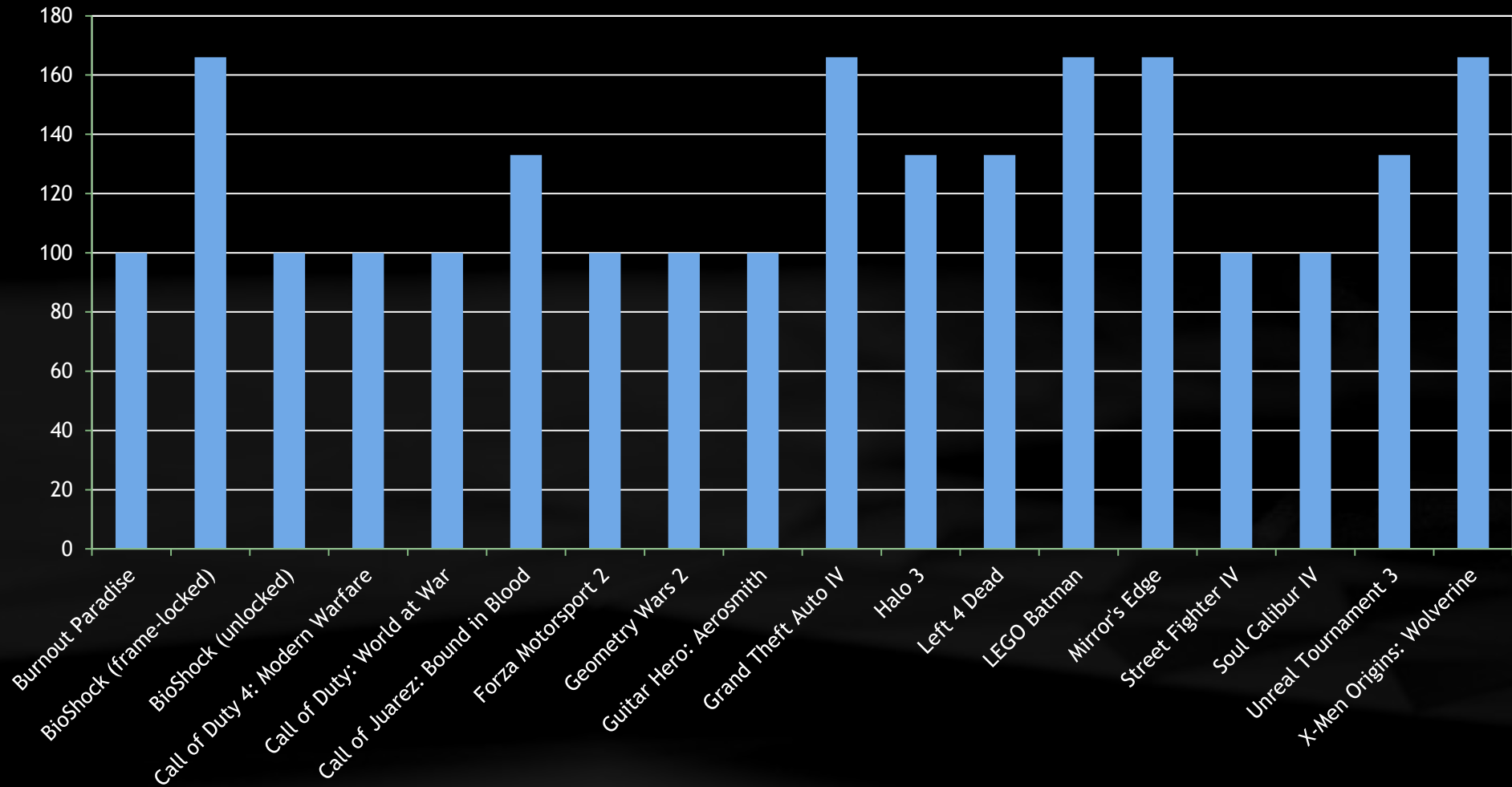
NVIDIA GRID GAME-STREAMING SERVICE

1080p 60 fps • Play in a Minute • AAA titles





EUROGAMER CONSOLE LATENCY





Dying Light

Middle-earth:
Shadow of Mo...

Free with Subscription



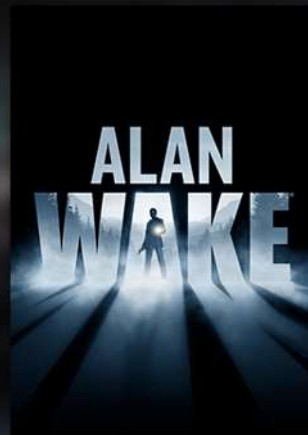
GRID 2



LEGO Marvel
Super Heroes



Metro Last Light
Redux



Alan Wake



Saints Row IV



Dead Island



The Witcher
Assassins of

FREE WITH SUBSCRIPTION

50+ game library • New games every week





Buy & Play Instantly



Batman Arkham Knight
\$59.99



The Witcher 3 Wild Hunt
\$59.99



Resident Evil Revelations 2
\$39.99



METAL GEAR
\$19.99

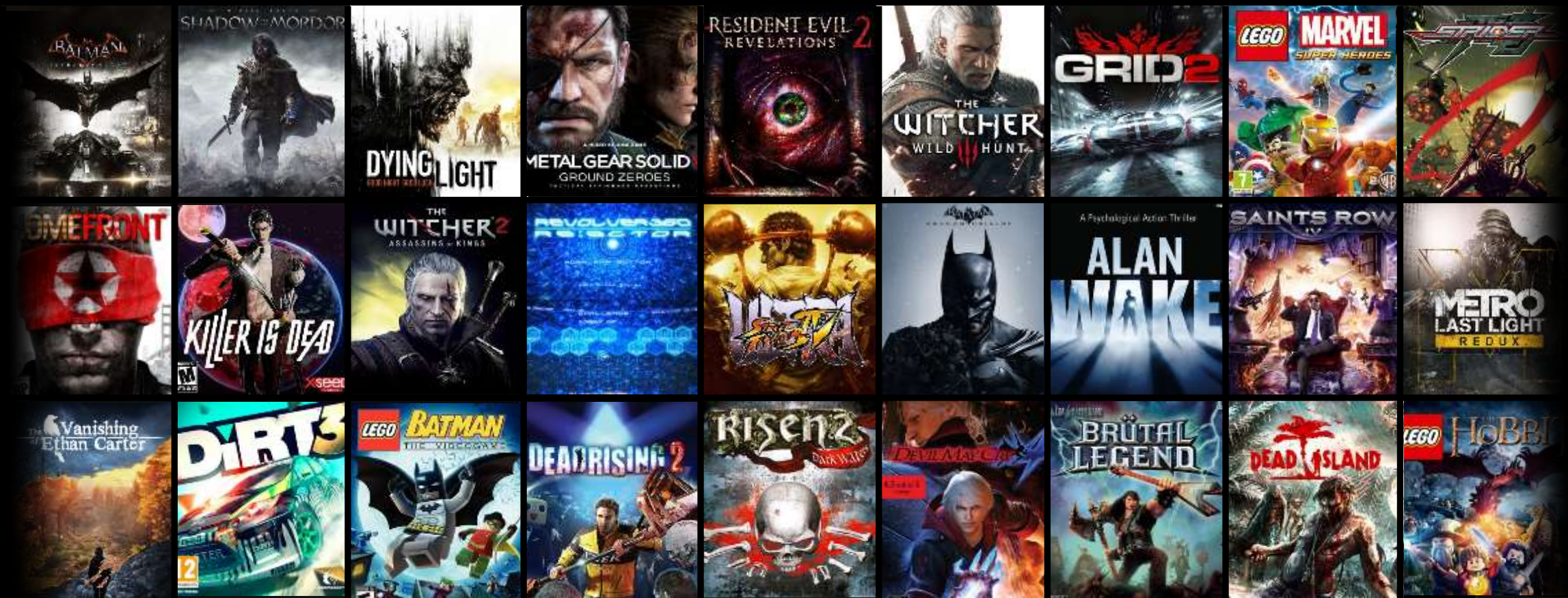
Purchased Games

BUY & PLAY IN A MINUTE

New release AAA titles



50+ LAUNCH TITLES ON GRID



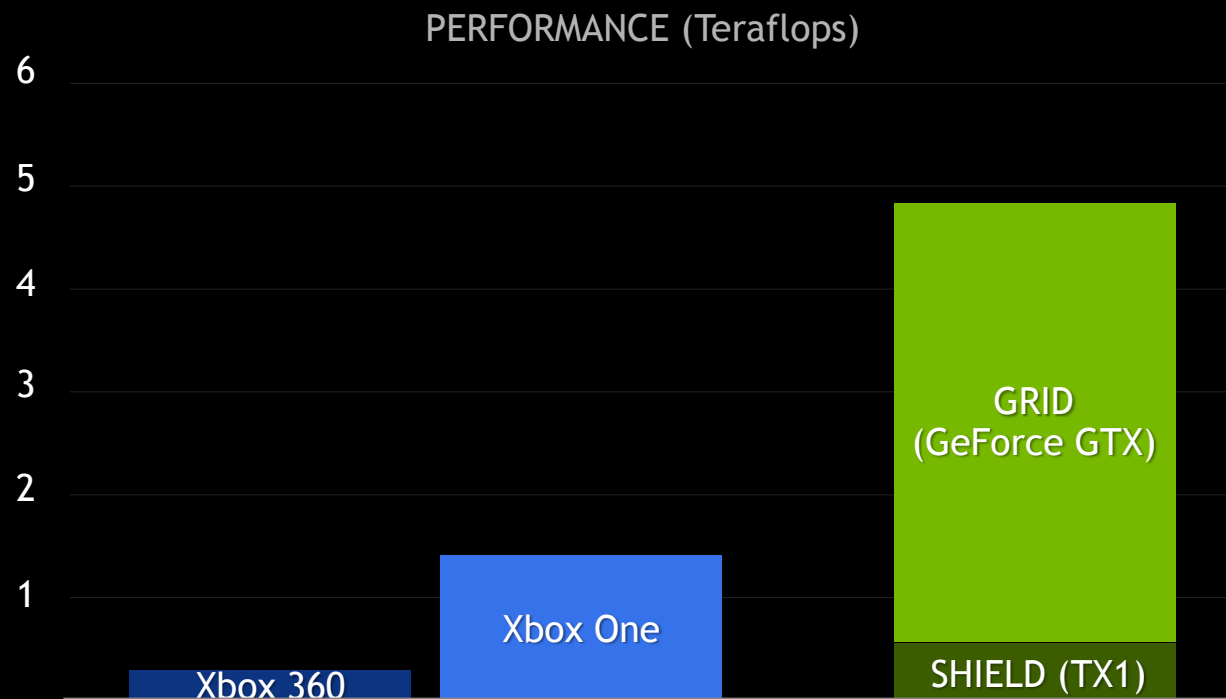


**UNREAL
ENGINE**

GRID



BACKED BY A SUPERCOMPUTER

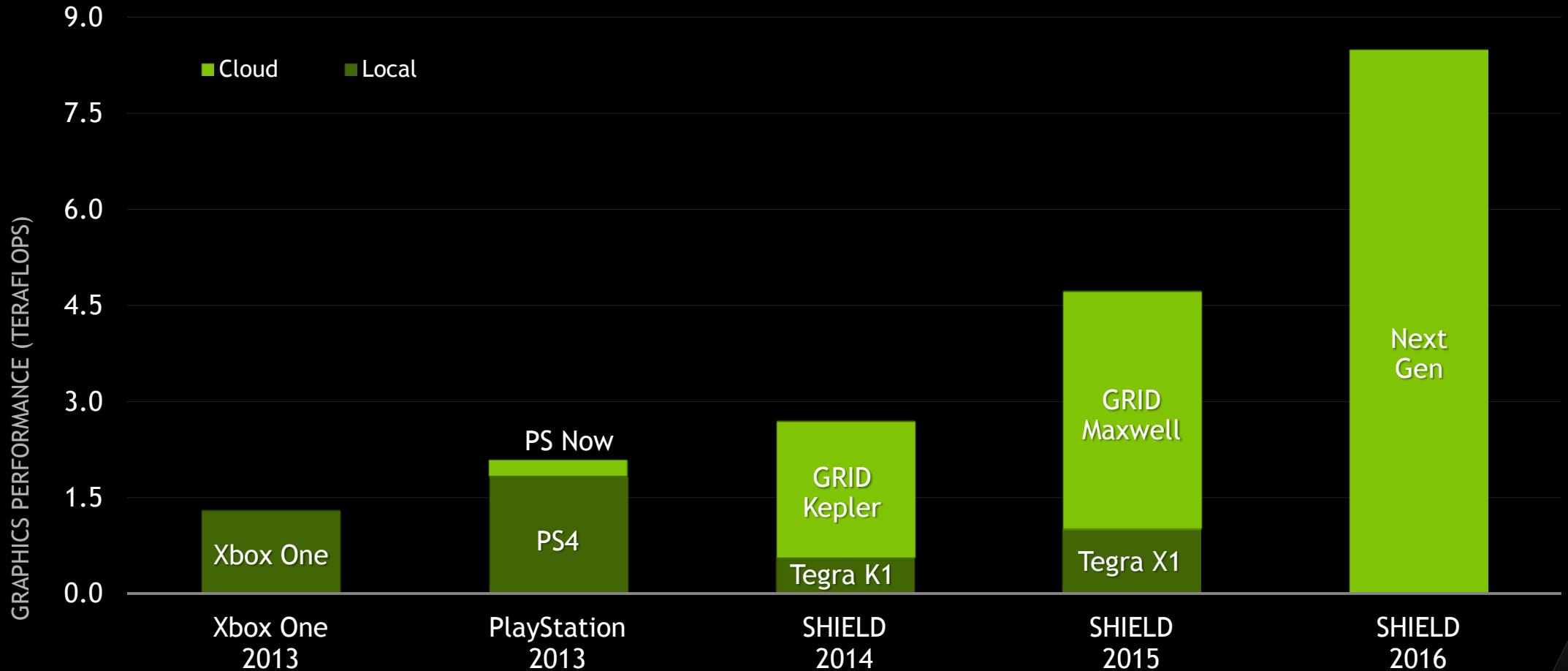


GRID PLATFORM

	Xbox One	PS4	GRID
CPU	8C 1.75 GHz AMD Jaguar	8C 1.6 GHz AMD Jaguar	4C / 8 T 3.3 GHz Xeon E5-2660 v3
RAM (GB)	8	8	15 + 8
Storage (GB)	50 (per Game)	50 (per Game)	1000 (per game)
GPU	1.3 TF 41 GT	1.8 TF 58 GT	4.8 TF 151 GT



PERFORMANCE LEAP WITH EACH GPU



THE SHIELD FAMILY



NVIDIA. Gameworks™

BUILD. DEBUG. PROFILE.

Microsoft
DirectX

OpenGL

 NVIDIA.
CUDA

OpenGL|ES



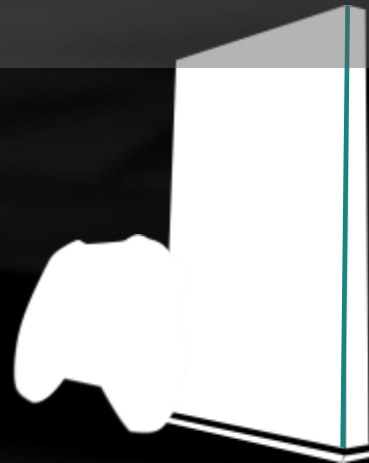
IDE INTEGRATION

 Visual Studio

STANDALONE TOOLS



SHIELD X



SHIELD



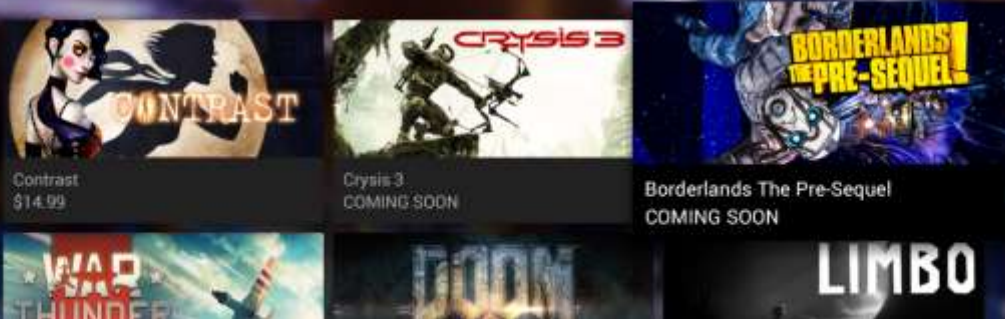
GREAT GAMES

ANDROID	GRID
Crysis 3	Batman: Arkham Knight
Borderlands: TPS	Batman: Arkham Origins
Borderlands 2	Dying Light
Doom 3: BFG	GRID 2
Metal Gear Rising: Revengeance	The Witcher: Wild Hunt
Resident Evil 5	Resident Evil Revelations 2
Game of Thrones HD, A	Lego Marvel Super Heroes
Half-Life 2: Episode One	Metal Gear Solid V: Ground Zeroes
JuJu (local multiplayer - 2 Blakes)	Metro: Last Light Redux
Limbo	Middle-Earth: Shadow of Mordor
Portal	Saints Row IV
Talos Principle, The	The Vanishing of Ethan Carter
War Thunder	Ultra Street Fighter IV



THE OPPORTUNITY

FEATURED ANDROID GAMES



Android Native
Google Play
70/30



 **NVIDIA GRID™**

Buy & Play Instantly



Purchased Games

GRID Game-Streaming Service
GRID Store
70/30



World's First
4K Android TV



AAA Games
on Android



Revolutionary
Game Streaming Service



SHIELD
MADE TO GAME



SHIELD DAY AGENDA

10:00 am – 11:00 am SHIELD Platform for Developers

11:30 am – 12:30 pm Making 5-Star games for NVIDIA SHIELD & Android TV

12:45 pm – 1:45 pm High-performance Game Engines

2:00 pm – 2:30 pm Cloud Gaming & NVIDIA GRID

3:00 pm – 3:30 pm Cutting-edge Graphics for Android

4:00 pm – 5:00 pm Bringing AAA Franchises to NVIDIA SHIELD (Roundtable)

5:30 pm – 6:30 pm Android Dev-Diaries with EA Firemonkeys
and TickTock games



GRID DAY AGENDA

10:00 am — 11:00 am The Technology behind NVIDIA GRID Game Streaming

11:30 am — 12:00 pm Data Analytics from the NVIDIA GRID Service

12:15 pm — 1:15 pm Developing Games for NVIDIA GRID

