7X EXPONENTIAL FOUNDATION

Exponential Tech Deck

The open source content platform: architecture, proof and roadmap, in the detail an investor’s technical due diligence asks for.

Version 1.1 · 11 November 2026 Exponential 6.0.15 GNU GPLv2-or-later

ABOUT THIS DECK

How to read it

Summary first

Slides 3 and 4 give the whole case in two pages. Slide 40 repeats it at the end, after the proof.

Proof in the middle

Every technical figure was measured on the code base or the running reference installation on 11 November 2026.

Gaps marked

Figures that cannot be sourced are left out or offered on request, never guessed.

Version history, copyright and the GNU GPLv2-or-later license notice close the deck.

EXECUTIVE SUMMARY · BEFORE

A mature content platform, modernized and owned by its community

- **Proven core:** a content kernel with history back to 1998 and 30,060 commits, now Exponential 6.0.15.
- **Runs anywhere:** PHP 7.4 to 8.5; MySQL/MariaDB, PostgreSQL, SQLite, Oracle and MongoDB.
- **Built to extend:** 6,547 surveyed extension points, 92 extensions on the reference site, 211 console commands.
- **Modern delivery:** Exponential Layouts page builder, the Velocity application server and an AI tool server.
- **Disciplined:** 1,304 test classes, CI gates, immutable releases, 158 translation catalogues.
- **Free software:** GNU GPLv2-or-later, so customers are never locked in.

KEY FIGURES · MEASURED 11 NOVEMBER 2026

30,060
commits in the kernel’s history

6,547
extension points surveyed

1,304
automated test classes

17,740
documentation pages, English and German

5
database engines supported

158
translation catalogues

211
console commands

62
7x Composer packages in the system

Sources: git history, setup/rad survey, tests/, doc/, composer.json of the reference installation

THE PROBLEM

Organizations are stuck between toy CMSs and locked-in suites

Simple tools outgrow

Blog-first systems struggle with structured content, many languages, fine-grained roles and large editorial teams.

Suites lock in

Enterprise and SaaS platforms tie content, hosting and license fees together, and move upgrades on the vendor’s timetable.

Legacy is abandoned

Sites built on mature open source kernels lose their upstream, then face an expensive rewrite to stay supported.

GROWTH TRACKING

Since the 2023 kickoff, the work has multiplied

Kernel repository	2023	2024	2025	2026*
Commits in the year	185	196	98	**8,288**

1,037,881
Packagist installs in 12 months, automated ones included

98
public repositories with commits in 12 months

4,193
commits across them in 12 months

Wedge: migrations and long-term support for existing installations. Expansion: new projects, page builder, hosting.

* 2026 to 11 November. Sources: git log; Packagist statistics API; GitHub API, 11 Nov 2025 to 11 Nov 2026

WHO IT IS FOR

Five audiences, one platform

Audience	What they get
Site owners	Long-term support, free license, no forced rewrite
Editors	Structured content, versions, drafts, page builder, many languages
Developers	Thousands of extension points, console commands, Composer packages
Agencies	One kernel for small and large clients; reusable themes and extensions
Public sector, nonprofits	GPL software, self-hosting, any of five databases, data stays theirs

THE PRODUCT

Exponential: one kernel, everything a content team needs

Content repository with classes, fields, versions, drafts, translations and a node tree

Five admin designs, light and dark, with roles, policies and limitations

Velocity, an application server with persistent workers and HTTPS built in

Exponential Layouts, a block-based page builder with shared zones and rules

Template engines: the native TPL language, plus Twig and Smarty siteaccesses

Newsletters, search, REST, SOAP, workflows, audit and two-factor sign-in

LINEAGE

Twenty-eight years of production use, carried forward

1998

Copyright line begins; the kernel later published as eZ Publish

2002

First commit in today’s repository history

2022

All work begins moving to 7x

2023

Official announcement and kickoff release as Exponential

2026

6.0.15: PHP 8.5, five databases, Layouts, Velocity

30,060 commits of history. Sites built on the old line upgrade in place instead of being rewritten.

Sources: COPYRIGHT.md, git log of the kernel repository, 7x

CONTENT MODEL

Structured content, not pages of HTML

Class
Article, product, event: fields with datatypes

→

Object
Versions, drafts and translations of one item

→

Node
Its places in the tree, with URL aliases

→

View
Full, line, embed: templates per siteaccess

The same item appears in many places and languages, and in any design, without being copied. Editors change content; designers change views; neither breaks the other.

EXPONENTIAL LAYOUTS

A page builder editors use without a developer

What editors do

- Drag blocks into zones: lists, grids, galleries, text, buttons
- Fill blocks from queries, tags or hand-picked items
- Share a header, footer or prefooter across every layout
- Draft, preview and publish a layout safely

How it is built

- Rules map content, sections or paths to a layout
- Core, standard blocks, site API and content browser as separate extensions
- A JSON API behind a single-page editor
- Seeds install with the site packages

ADMINISTRATION

One admin, five designs, every one in light and dark

Area	What it covers
Content	Tree, editing, versions, trash, relations, bookmarks
People	Users, roles, policies with limitations, two-factor sign-in
Setup	Caches, settings, upgrade checks, extensions, extension point survey
Design rules	Shared components and tokens; no inline CSS, enforced by a test
Accessibility	Checked at 1440px and at 200% zoom; contrast at least 4.5:1

Designs: admin, admin2, admin3, admin4, admin4l

OUT OF THE BOX · PROOF

Every class, every view, every block: rendered and tested

1,010

of 1,010 class × view combinations render

404

of 404 block, view type and item view cases render

5

siteaccesses checked: native, Twig, Smarty, two languages

A new site needs no template override to get started. Classes without content were tested with sample objects inside a database transaction that is rolled back, so nothing is left behind.

Media theme release 1.5.96, 11 November 2026

ARCHITECTURE

Old where it is proven. New where it pays.

The content kernel stays compatible with twenty years of sites. Around it: new database drivers, an application server, a page builder and AI tooling.

THE STACK

Five layers, each replaceable

Delivery	Apache + PHP-FPM, or Velocity · HTTP cache · static cache · REST, SOAP
Presentation	Siteaccesses · designs · TPL, Twig, Smarty · Exponential Layouts
Extensions	92 on the reference site · datatypes, modules, operators, events, commands
Kernel	Content repository · permissions · workflows · search · caches · audit
Storage	MySQL/MariaDB · PostgreSQL · SQLite · Oracle · MongoDB · files or cluster DFS

THE KERNEL

A large, readable PHP code base

2,648
PHP files in kernel and lib

211
console commands with one contract

87
settings files, overridable per site

- Every behavior is set in INI files, layered: kernel, extension, siteaccess, override
- Commands share exit codes and a JSON output format, so CI and automation can drive them
- Deploy is one command: autoloads, caches, PHP-FPM reload, Velocity restart, in order

Counted in the kernel repository, 11 November 2026

EXTENSION MODEL

Change the product without forking it

An extension can add

- Datatypes, modules and views
- Template operators and functions
- Event listeners and workflow events
- Console commands and cronjob parts
- Designs, settings and translations

Delivered as

- Composer packages on Packagist
- Each with its own Git repository and releases
- Version kept in ezinfo.php and extension.xml
- Activated per site or per siteaccess
- Upgraded without touching the kernel

EXTENSION POINTS · MEASURED

6,547 places a developer can plug in

Group	Count
Template overrides	1,374
Registry entries that name no class	1,351
Settings that name a class	1,201
Commands, cronjob parts, views as classes	703
Module views	670
Template operators and functions	493

Group	Count
Places the kernel looks	333
Policy limitations	238
Interfaces and abstract classes	120
Events	64
Kernel classes replaced	0
Total	**6,547**

Built-in survey at Setup › RAD. Zero kernel classes replaced: the reference site customizes everything through extension points, none by patching the kernel.

Source: /admin/setup/rad on the reference installation, 11 November 2026

DATABASES

Five engines, one content model

Engine	Driver	Typical use
MySQL / MariaDB	mysqli	The default; most hosting
PostgreSQL	postgresql	Enterprise and public sector
SQLite	sqlite3	Demos, tests, small sites, zero setup
Oracle	ezoracle extension	Organizations standardized on Oracle
MongoDB	expmongodb	Document-store deployments; newest driver

A PDO driver and a null driver complete the set. Schema and data ship in an engine-neutral format, so one package installs on any of them.

Drivers in lib/ezdb/classes and the ezoracle extension

PHP SUPPORT

From PHP 7.4 to 8.5, never dropping the newest

7.4	8.0	8.1	8.2	8.3	8.4	8.5
usable	full	full	full	full	full	runs alpha

- The reference installation runs on PHP 8.5 in production
- Composer constraints already accept later 8.x releases
- Policy: support for the newest PHP is never dropped to keep an old one

Source: composer.json of the kernel; the reference site’s PHP-FPM pool

VELOCITY APPLICATION SERVER

Boot once, serve many: the recommended engine

Persistent workers keep the kernel warm between requests

Dynamic pool grows and shrinks workers with load

HTTPS built in, with certificates from several sources

Response cache in front of the page renderer

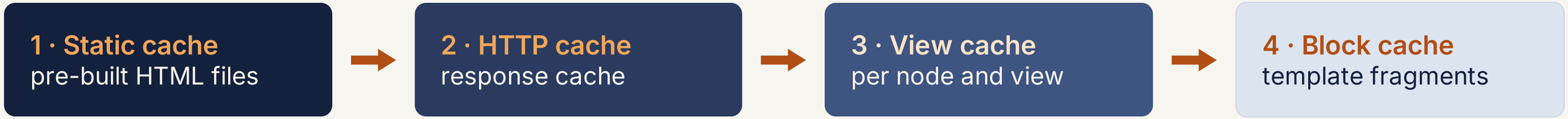
Packaged engine in one archive, rebuilt only when it changes

Familiar layout: sites, modules and config like Debian’s Apache

Built on the open Qbix web server, with fork-only behavior kept in one distribution layer so improvements can go upstream.

PERFORMANCE

Four cache layers before a page is rendered



Front page, 16 concurrent clients	Apache + PHP-FPM	Velocity
Response cache warm, requests/s	no cache in front	**6,774**
Full render, requests/s	37.4	48.8
Full render, median ms	362	287
Engine memory, total PSS, MB	1,944	2,813

ApacheBench, 20 s per run, back to back, on the reference server (client and server share a busy machine); 11 Nov 2026. Relative, not capacity.

SCALING AND OPERATIONS

From one SQLite file to a cluster

Small

One server, SQLite or MySQL, files on disk. Demos rebuild themselves on a schedule.

Medium

Separate database host, Velocity or PHP-FPM, static and HTTP caches, Solr search.

Large

Several web nodes over a cluster file system (DFS), a shared database, a CDN in front.

- Background content jobs and cronjob parts move heavy work out of requests
- One-command deploys and seamless demo rebuilds swap in under a millisecond

SECURITY

Defense in depth, built into the kernel

Roles and policies with limitations by section, subtree, class and more

Two-factor sign-in on the web form; tokens for REST and SOAP

“Verify it’s you” before sensitive actions

Secrets store: credentials by name, never in settings files

Audit log of administrative events

Form tokens against cross-site request forgery

Security settings are never weakened to make a build pass; a failing check goes to a person.

No independent penetration test yet: planned, and funded from this raise

QUALITY GATES

Nothing reaches main without passing the gates

Gate	What it checks
Syntax	php -l on every changed PHP file
Static analysis	PHPStan over the kernel
Unit tests	PHPUnit, database-free suite; 1,304 test classes in all
Engine tests	The same tests against each database engine
Design rules	No inline CSS, tokens only, a dark value for every token
Browser checks	Playwright in light and dark, at 1440px and 200% zoom

Gates run before every push to the kernel repository; GitHub CI runs them again

RELEASE DISCIPLINE

A published release is permanent

Rules

- Tags are never moved, deleted or re-cut
- A mistake is fixed by the next version
- Version chosen from what is published
- Version written into the package first

Why it matters

- One version number, one set of files
- Composer installs are reproducible
- Every change has a changelog line
- Kernel line: 6.0.12, 6.0.13, 6.0.14, 6.0.15

All packages on Packagist under se7enxweb

LANGUAGES

Multilingual by design, in content and in the interface

158

interface translation catalogues ship with the kernel

Any

number of content languages per object, with fallbacks

- Each translation of an object is versioned and published on its own
- Siteaccesses map languages to domains or paths
- New interface strings are added to every catalogue in the same change

Source: share/translations in the kernel repository

DOCUMENTATION

17,740 pages, in English and German

Collection	For whom
Guides	Site owners and administrators: install, upgrade, operate
Features	Everyone: what each release adds, with examples
Specifications	Developers: formats, contracts, interfaces
Help center	Editors: manuals with context help inside the admin
Compatibility notes	Integrators: what changed and how to adapt
Changelogs	Everyone: every change, per version

Source: doc/eng-us and doc/ger-de in the kernel repository; published on doc.exponential.earth

AI, SAFELY

AI assistants that can read the installation, not break it

Tool server (MCP)

- 23 tools: content, classes, roles, settings, templates, logs, search
- Read-only unless writing is switched on explicitly
- Runs as a chosen siteaccess and user, under its permissions

In the product

- AI features in an optional extension, with a choice of provider
- Everything an assistant reads is treated as data, not instructions
- The customer decides which provider, if any

NEXT · PLANNED

Static publishing: edit here, host free on GitHub Pages

Build
crawl a siteaccess as a visitor

→

Rewrite
links, assets, search index

→

Review
preview and diff

→

Publish
commit, tag, push to any git host

- Admin wizard, console commands and CI recipe; rollback as a new commit, never a force push
- Builds as an anonymous visitor only; debug output, tokens and sessions stripped
- Planned in eight work packages, about 54 working days

Status: planned and specified; not yet released

ROADMAP

Next twelve months

Now

- 6.0.15 line
- Migrations
- Media theme coverage

Q1 2027

- Static publishing
- MongoDB parity
- Benchmarks published

Q2 2027

- Penetration test
- Partner program
- Hosted offering

Q3 2027

- Extension marketplace
- Certification

Engineering items are scoped; dates depend on funding and are set by the Foundation.

ECOSYSTEM

An open ecosystem of packages

273
se7enxweb packages on Packagist

62
of them make up the reference system

92
extensions on the reference site

6
commit authors besides the 7x account, 12 months

- Every package is public on GitHub and Packagist under se7enxweb
- Outside pull requests are reviewed and merged, not turned away
- Installer packages build whole sites: classes, demo content, layouts

Sources: Packagist and GitHub APIs, 11 Nov 2025 to 11 Nov 2026; composer.json and extension/ of the reference installation

SEE IT RUNNING

Public demos, rebuilt from scratch automatically

Site	What it shows
latest.demo.exponential.earth	Newest kernel; rebuilt every four hours
demo.exponential.earth	Stable demo; rebuilt every three days
demo.se7enx.com	7x site package; rebuilt every three days
doc.exponential.earth	The documentation, run on Exponential itself
Reference installation	Media site, Layouts, Twig and Smarty, 92 extensions

Every rebuild is a fresh install from the published packages, so the demos also test the installer.

BUSINESS MODEL

Free software, paid certainty

Revenue line	Offer	Status
Support	Long-term support, security fixes, SLAs	Live today
Migrations	Upgrades of legacy installations	Live today
Hosting	Managed Velocity hosting	Planned
Partners	Agency program, training, certification	Planned
Extensions	Commercial add-ons and marketplace	Planned

The GPL keeps the core free for everyone. Customers pay for guarantees, time and service, never for permission.

POSITIONING

Where Exponential sits

Need	Exponential	WordPress	Drupal	Contentful
Typed content fields	Core	Plugins	Core	Core
Self-hosted, own data	Yes	Yes	Yes	No, SaaS
License	GPLv2+, free	GPLv2+, free	GPLv2+, free	Subscription
PostgreSQL	Core	No	Core	Vendor-run
Oracle	Extension	No	Contributed	Vendor-run
Page builder	Layouts	Block editor	Layout Builder	Apps
Old sites upgrade	In place	In place	Migration from 7	Not applicable

Competitor cells from the products’ public documentation; check before sending. Trademarks belong to their owners.

TRACTION · MEASURED

Usage and activity we can prove publicly

1,065,604
Packagist installs, all time

1,037,881
of them in the last 12 months

8,288
kernel commits in 2026, to 11 November

7
commit authors in 12 months

Installs include automated ones: our public demos reinstall from Packagist every few hours, and CI installs packages on every run. Customer and revenue figures are available on request.

Sources: Packagist statistics API (273 packages); git log; GitHub API; measured 11 November 2026

TEAM AND GOVERNANCE

The Exponential Foundation and 7x

Foundation

- Holds the copyright with 7x
- Keeps the core free under the GPL
- Sets direction and the roadmap
- Board oversees releases and funds

7x

- Maintains kernel and packages
- Release management
- Demos, hosting and docs
- Support and migrations

Community

- Pull requests on public repositories
- Reviewed and merged by 7x
- Extensions and translations
- Issue reports and testing

Names, legal form and seat: on request, graham@se7enx.com

RISKS AND MITIGATIONS

What could go wrong, and what we do about it

Risk	Mitigation
Small core team	Docs, one-command deploys and CI gates make knowledge transferable; funding grows the team
Large legacy code base	Static analysis, 1,304 test classes, extension points instead of kernel patches
Security incident	Policies, two-factor sign-in, audit, secrets store; external penetration test planned
PHP or database changes	PHP 7.4 to 8.5 and five engines already supported; newest PHP never dropped
Competition from SaaS	Self-hosting, no license fee, in-place upgrades of existing sites
GPL limits on add-ons	Revenue from services; legal review of any commercial extension

THE ASK

Funding to take Exponential from proven to widespread

Engineering

hires to widen the core team

Security

independent audit and certification

Hosting

a managed Velocity offering

Ecosystem

partners, training and community

Amount and terms on request: graham@se7enx.com

EXECUTIVE SUMMARY · AFTER

What the proof showed

Mature: 30,060 commits, copyright since 1998, four releases in the 6.0 line on the slides.

Extensible: 6,547 extension points; zero kernel classes replaced on the reference site.

Governed: CI gates, 1,304 test classes, immutable releases, audit and two-factor sign-in.

Portable: PHP 7.4 to 8.5; MySQL, PostgreSQL, SQLite, Oracle, MongoDB.

Ready to use: 1,010 of 1,010 class views and 404 of 404 block cases render.

Open: GPLv2-or-later, 62 public packages, 158 languages, 17,740 doc pages.

Growing: 8,288 kernel commits in 2026, 98 active repositories. On request: names, revenue and terms.

DUE DILIGENCE INDEX

Where to verify every claim

Claim	How to check it
History, commits, releases	Kernel repository: git log, git tag, GitHub releases
Extension points	Admin › Setup › RAD on any installation
PHP and databases	composer.json; database drivers in lib/ezdb
Tests and gates	tests/ folder; GitHub Actions runs
Template coverage	Media theme 1.5.96 changelog and render harnesses
Docs and languages	doc.exponential.earth; share/translations
Packages	Packagist and GitHub under se7enxweb
Running product	The public demos on slide 33

Data room access on request: graham@se7enx.com

VERSION HISTORY

This deck

Version	Date	Author	Changes
1.0	2026-11-11	7x	First version: 45 slides, summaries before and after, figures measured on 11 November 2026, commercial figures as placeholders
1.1	2026-11-11	7x	Every placeholder resolved: growth and traction measured, benchmarks run, lineage dated, roadmap quarters, named competitors, roles, uses of funds, contact; market sizes removed

Rule for later versions: re-measure every technical figure on the day, and list here which figures changed.

Deck source: the techdeck folder of the reference installation (not committed)

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Source: COPYRIGHT.md and LICENSE of the kernel repository

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Thank you

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