A Guide to Open Source Transformation Services

# How and Why Organizations are Making the Move to Open Source

**OPEN SOURCE IS TRANSFORMATIVE.** Unlike commercial software, Open Source puts code directly into the hands of developers, allowing them to evaluate, modify, extend, and add features as needed. This results in solutions that truly fit the needs and goals of the businesses for which they are created.

With the ability to customize comes greater speed to market. Companies that move to Open Source Solutions ("OSS") are able to compete more effectively – almost immediately. And, because Open Source is built on top of and alongside existing technologies, the transformation is manageable. Whether adding to Open Source or proprietary technologies, OSS allows you to reuse what you already have and scale up quickly, with no licensing fees.

**OPEN SOURCE IS LIBERATING.** First, because it REDUCES COST. With no run-time licensing fees, organizations can have as many copies as needed—often with zero additional cost. This can quite literally save a company millions of dollars per year, but that's just part of what makes Open Source an affordable alternative to COTS solutions.

Open Source also REDUCES TECHNICAL DEBT for companies that adopt it into their enterprise, because Open Source technologies are extendable and reusable. By having access to the source code, adopters of OSS have the flexibility to evaluate the software or system as their needs inevitably evolve. Developers may then modify, extend, and add features to the software… as needed.
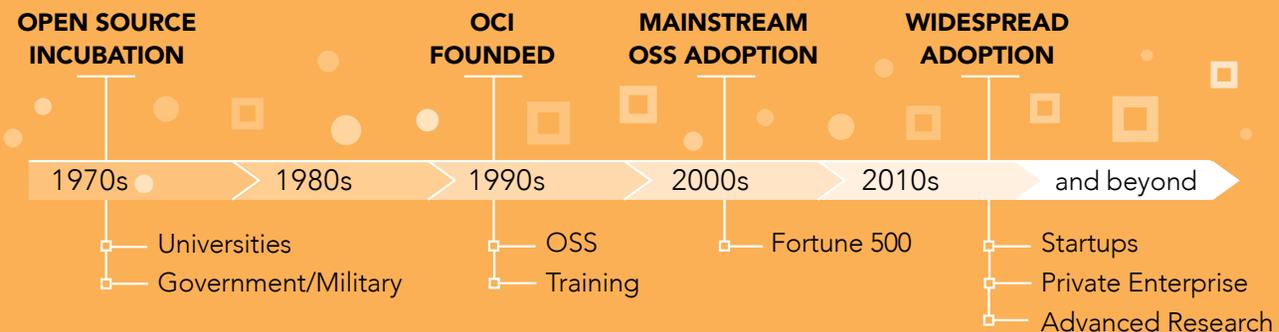
When companies move to OSS, they effectively ELIMINATE VENDOR LOCK-IN associated with commercial software. Users of OSS are not tied down to the limited feature sets, release schedules or licensing costs of a commercial vendor.

**OPEN SOURCE OFFERS DISRUPTIVE SOLUTIONS.** Twenty years ago, Open Source "lived" only in universities and government institutions. Today, Open Source is widely recognized as an enterprise scale alternative to COTS, having been proven by early adopters across a multitude of technical domains (TechCrunch[1], Wired[2]).

The community of supporters and maintainers of Open Source is massive and growing each day, driving the development and transformation of technologies to keep up with user need. This dedicated Open Source community assures rugged, around-the-clock scrutiny to identify and eliminate security threats, bugs and flaws, while making sure that Open Source technologies are continually maturing.

[1] http://techcrunch.com/2012/04/22/enterprise-open-source-usage-is-up-but-challenges-remain/
[2] http://www.wired.com/insights/2012/10open-source-center-stage/

After decades of relying on commercial off-the-shelf software (COTS), thousands are moving to Open Source Solutions. Those who make the leap for cost containment reasons soon realize the greater potential of the Open Source landscape.

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EVOLUTION OF OSS FROM INCUBATION TO MAINSTREAM

**OPEN SOURCE INCUBATION**

**OCI FOUNDED**

**MAINSTREAM OSS ADOPTION**

**WIDESPREAD ADOPTION**

| 1970s | 1980s | 1990s | 2000s | 2010s | and beyond |

Universities
Government/Military

OSS
Training

Fortune 500

Startups
Private Enterprise
Advanced Research

A 2015 survey conducted by Black Duck, indicates that an overwhelming majority of businesses are moving in the direction of OSTS. Here's why:

**BETTER TIME TO MARKET**

**90%** of companies say that Open Source Solutions have greatly impacted innovation and time to market.

**BETTER GROWTH POTENTIAL**

**80%** of companies say that Open Source Solutions improve margins and grow revenues.

**MORE COMPETITIVE**

**65%** of companies say that OSS has increased their ability to compete.

**INCREASED ADOPTION**

**88%** of companies say that they expect their Open Source adoption to increase in the next two to three years.

**FAVORED SOLUTION**

More than **66%** of companies say that they prefer Open Source over proprietary software solutions.

Specific benefits highlighted below illustrate the low-cost, low-risk, and high value of Open Source Transformation Services. Turn the page to learn about the process of adopting OSTS into your business enterprise.

**FEATURES**

License-free software

Open standards

Code available for modification

Worldwide contributors

Reusable, adaptable

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**BENEFITS**

Cost containment

Increased speed to market

No vendor lock-in

Technical debt reduction

Massive scalability
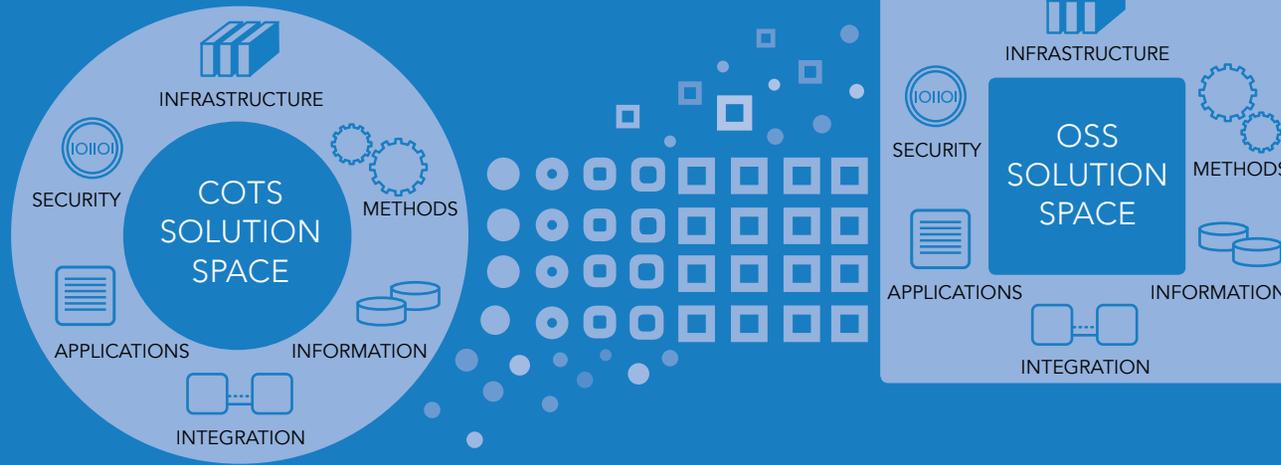
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**A**n Open Source pioneer since 1993, OCI partners with clients to build and customize Open Source Solutions. Using a four-step process, OCI matches appropriate OSS to a client's needs, then recommends architecture, support and execution strategies. OCI's customized mentoring, consulting and training programs enhance Open Source Transformation.



Like commercial off-the-shelf software (COTS) solutions, OSS offers products, features and commercial support for applications integration, security, infrastructure, information and tools.

| 1) ASSESS | 2) DEFINE | 3) PLAN | 4) EXECUTE |
|---|---|---|---|
| Tech inventory | Target architecture | Prioritization | Development |
| Strengths | Trade-offs | Resources | Migration |
| Risks | Prototyping | Infrastructure | Integration |
| Reuse | Practices | Costs | Testing |
| Supporting Org. | | Risk Mitigation | Training |
| | | Training Plan | Support |
| Assessment | Recommendations | Execution Plan | Target OSS |

**1 ASSESSMENT**

To identify OSS opportunities, OCI evaluates your current organization, taking into account risk areas and influences. You may choose to focus on a single business function or on broad scale development.

**2 DEFINITION**

During this phase, OCI provides architecture and support recommendations for those targets identified during assessment. OSS prototyping is included in this step.

**3 PLANNING**

An execution plan and cost estimate are the primary deliverables of the planning phase. Recommendations for full-scale deployment and organizational training may be included as well.

**4 EXECUTION**

OCI software engineering and training services help companies transition to OSS. This stage may include:
• architecture management
• program/project management • development • data migration • application integration • testing • training.
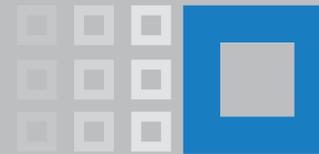
**B**ecause Open Source may be built on top of – or integrated within – existing technologies, the transition is easily managed. On the following pages, you'll find case studies illustrating the tangible benefits to OCI clients who have adoped OSS into their enterprise. We can do the same for your company.

Companies that adopt OSS experience significant gains. At OCI, we support that growth, just as we support initial transition to OSS.  Our full life-cycle software engineering services include continued maintenance and enhancement to OSS as needed.

As an early adopter of Open Source technologies, OCI continues to lead in the OSS space, bringing higher value and lower costs to clients across a wide range of business domains. We employ more than 130 of the world's most highly skilled software engineers, and we are all passionate about Open Source.

In addition to our software engineering services in OSS, OCI offers over 100 courses and workshops in software engineering and related technologies.  Our training programs are developed and led by active practitioners and subject matter experts. Customized training programs augment our Open Source Transformation Services, boosting success rates for companies new to OSS.

Transformation services, training and support combine for that 1-2-3 punch companies need.  But, like any major business decision, it is important to prepare for the transition.  Here are a few of the questions you'll want to consider as you make the move to Open Source:

If I adopt OSS, how will it impact my support and development organization?

What technologies in my current inventory are viable for OSS transition?
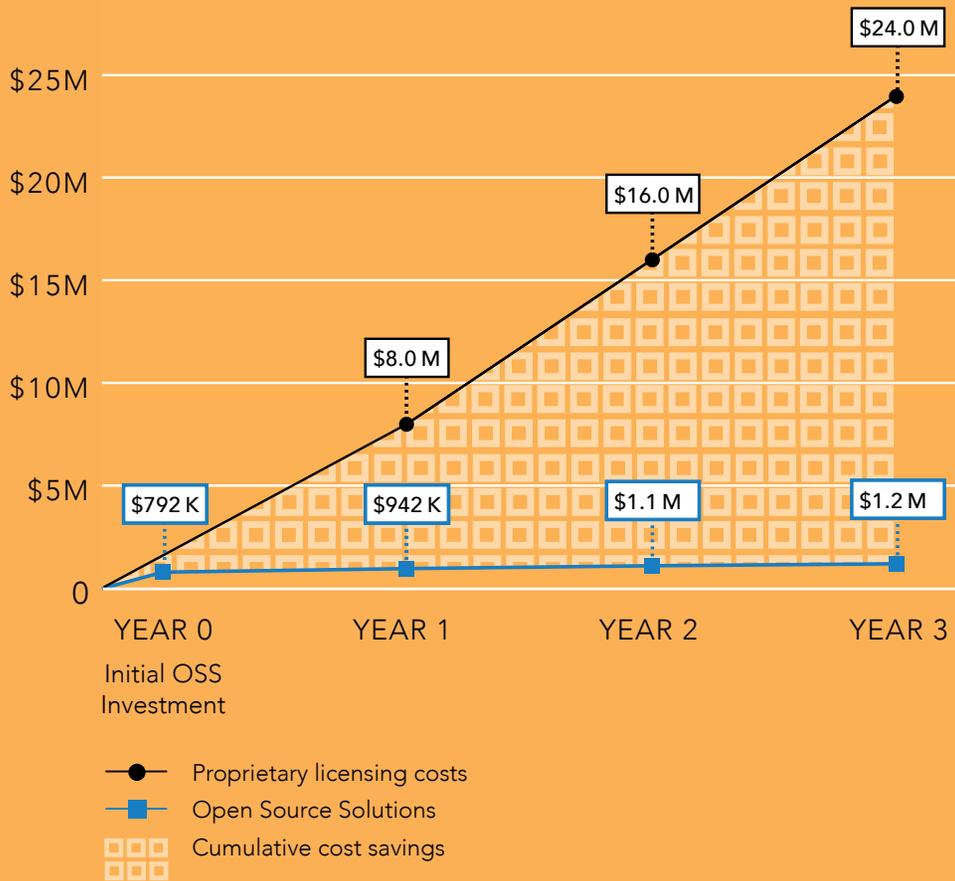
How will my newly adapted OSS technologies be supported going forward?

What kind of savings can I expect from moving to OSS?

# CUMULATIVE COST SAVINGS OF OSS OVER PROPRIETARY INFRASTRUCTURE LICENSING



**Proprietary licensing costs:** $24.0 M, $16.0 M, $8.0 M
**Open Source Solutions:** $792 K, $942 K, $1.1 M, $1.2 M

Y-axis: $25M, $20M, $15M, $10M, $5M, 0
X-axis: YEAR 0, YEAR 1, YEAR 2, YEAR 3

Initial OSS Investment

Legend:
- Proprietary licensing costs
- Open Source Solutions
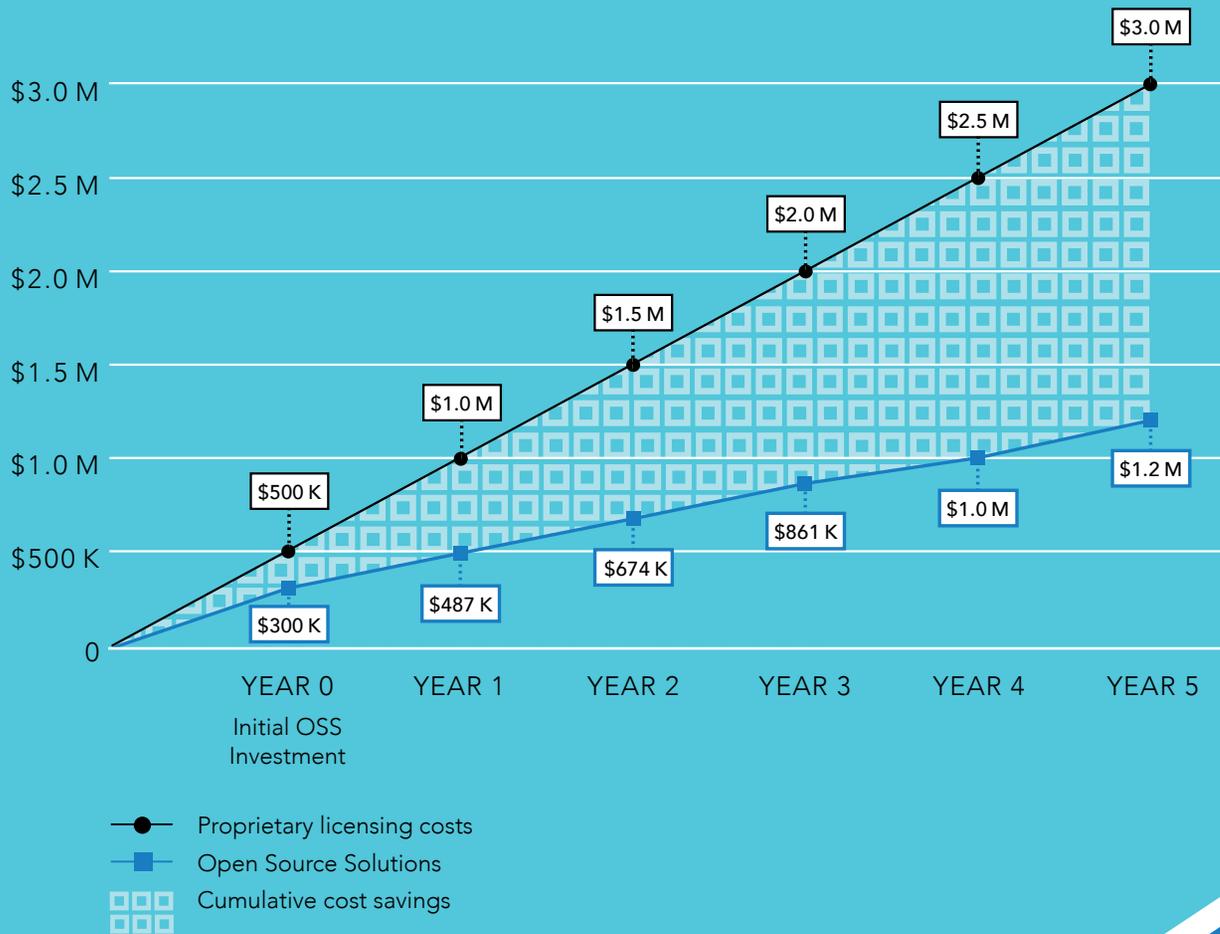- Cumulative cost savings

A large multinational defense, security and aerospace company needed to grow its intelligence geospatial network from 40 nodes to 400 nodes worldwide. The proprietary solution they were using for system infrastructure and integration was costing them significant (per node) licensing fees. Anticipated runtime costs associated with the expansion of nodes were expected to increase from $800K to $8M per year. The client contacted OCI to help identify and assess an OSS alternative.

OCI partnered with the client to identify an OSS that would include the hardening and resiliency features necessary for Fault Tolerant (FT) behavior, Robust Thread Pool Management and Advanced Service Discovery. OCI engineers completed the effort in seven (7) months, at a one-time cost of $792K. OCI offers ongoing support to the client, at approximately $150K per year. The three-year estimated savings for this Open Source Transformation is $22.8M.

**OCI** | WE ARE SOFTWARE ENGINEERS.

# CUMULATIVE COST SAVINGS OF OSS OVER PROPRIETARY CMS LICENSING



Chart: Cumulative Cost Savings of OSS over Proprietary CMS Licensing

Proprietary licensing costs: Year 0 = $500 K, Year 1 = $1.0 M, Year 2 = $1.5 M, Year 3 = $2.0 M, Year 4 = $2.5 M, Year 5 = $3.0 M

Open Source Solutions: Year 0 = $300 K, Year 1 = $487 K, Year 2 = $674 K, Year 3 = $861 K, Year 4 = $1.0 M, Year 5 = $1.2 M

Y-axis: $3.0 M, $2.5 M, $2.0 M, $1.5 M, $1.0 M, $500 K, 0

X-axis: YEAR 0 (Initial OSS Investment), YEAR 1, YEAR 2, YEAR 3, YEAR 4, YEAR 5

Legend:
- Proprietary licensing costs
- Open Source Solutions
- Cumulative cost savings

**A** large shipping and logistics company with thousands of application users contacted OCI to discuss a solution that would reduce operating costs through adoption of OSS. The client was paying annual license fees of approximately $500,000 for a proprietary content management system (CMS).

An OCI Enterprise Architect worked with the client to identify an Open Source enterprise-class CMS. OCI is providing ongoing support to the client, including engineering services for mass data migration, application integration, security and training. The five-year estimated savings for this Open Source Transformation is $1.8M.

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**THE  HOW & WHY OF OCI:**  We hope this white paper starts to address your early questions about moving to Open Source Solutions. Now we'll answer your unspoken question:

**WHY DOES OCI SUPPORT A ZERO-COST-BASED PLATFORM?**

**HERE'S WHY:**  Twenty years ago at OCI, we looked to Open Source as a cost-effective alternative to COTS, enabling us to build scalable enterprise class solutions for our clients.  Today, the performance, scalability and cost savings of Open Source make it a business necessity for most any organization. And we know how to make it happen.

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At OCI, we build high performance, real-time, mission critical systems and integration solutions. Our goal is to make solutions more open, bringing the added benefits of massive scalability, reusability, interoperablility and affordability to our clients. Please visit ociweb.com to learn more about our software engineering services and training.

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