

Budget Proposal Narrative

2023 Strategic Budget Process

Please carefully review the [Call for Proposals](#) with particular attention to the evaluation criteria before beginning this application. Criteria should be addressed throughout the proposal narrative.

Section 1: Proposal Title and Department Contact

Proposal Title: **Modernize Enterprise Drupal Web Hosting**

Division: University Relations and Marketing and Information Technology Services

Department/College: Web Communication Technologies and Enterprise Infrastructure Services

Department Contact: Max Bronsema and Chris Miller

Section 2: Proposal Summary and Problem Statement

Check all boxes that apply or indicate.

Priority Program and Service Areas:

- Graduate Programs
- Inclusive Student Success

Identified Structural or Legacy Funding Needs (to be used sparingly and in conjunction with Division VP)

- Core Infrastructure, Safety, and Regulatory Compliance
- Remaining funding needs from partially funded prior request
If checked, please identify original funding request amount and actual funding received in narrative section
- Other [Click here to enter text](#)

Statement of Purpose (One Page or Less):

What are the challenges or opportunities being addressed? How will the new investment(s) in this proposal address this challenge or opportunity? What are the expected outcomes if this proposal is funded?

Information Technology Services (ITS), and Web Communication Technologies (WebTech) currently oversee the maintenance and management of the university's 115 Drupal websites. The Drupal installation is currently hosted on internal virtual machines (VMs) managed by Enterprise Infrastructure Services. A lean internal Web team supports the Drupal installation (currently 5 FTE) with infrastructure support from ITS.

For ITS to continue to support WebTech, the Drupal installation requires additional VMs, Operating System (OS) updates, and ongoing application maintenance and support. Areas of concern with the current state include additional FTE that may be needed to continue to support the Drupal

environment/infrastructure; added costs of continuing to host the Drupal instance on Microsoft Azure + Aegir; and ITS has competing demands from Banner and adjacent systems as well as upgrading substantial legacy technologies to support new efforts such as the Lived Name policy that require their time and attention to ensure other mission-critical applications across campus are up and running. Due to the ongoing growth of the campus web service, the ability to provide the necessary modern hosting technologies at an enterprise scale and to ensure the resiliency of the websites given its central importance to both branding/recruitment/marketing and emergency communications, ITS and WebTech are looking to move their Drupal properties to a contemporary, cost-effective, and flexible managed platform, [Pantheon](#). Pantheon is currently part of existing WaTech contracts.

Due to ongoing growth of the campus web service, and future resource constraints tied to the service, ITS and WebTech are looking to move their Drupal properties to a contemporary, cost-effective, and flexible managed platform.

Summary of Proposed New Investments:

Summarize the new investments included in this proposal (total monetary amount, number of FTE and type of positions, and other expenses). Explain the need for any goods and services or professional contracts.

ITS and WebTech is seeking to partner with technology platforms that support their broader digital experience goals moving forward. In the case of the web and Content Management Systems (CMS), Western looks to partner with a reputable cloud-based Drupal platform that can easily house new and existing Drupal sites. Priorities for the Drupal sites and the enhanced digital experience (whether on-prem or with a partner) include: overall platform cost, risk avoidance, security, speed, and scalability. Other web-specific priorities include: removing bottlenecks for security patching and site changes, a flexible platform for site management, and low administrative commitments (cost, time, and resources). The platform must also provide an efficient setting for core CMS upgrades. The ideal partnership will enable ITS and WebTech to provide better performance, security, monitoring, and visibility for university sites without having to burden Enterprise Infrastructure Services. More specifically, Western should be able to manage, maintain and update 100s of sites with minimal time, effort, and internal resources, while delivering an ideal end user experience.

For the initial partnership agreement, we are proposing a 3-year contract with the option to renew and expand on that agreement upon renewal with the vendor Pantheon.

High level cost summary is as follows, with more detailed information on the following pages:

We do want to note that the cost of migrating our entire hosting to a vendor is less than the cost of an additional engineer year over year, being added to ITS or WebTech staff to support the continued growth of web hosting.

Year 1 Cost - \$135,400; Year 2 Cost - \$138,900; Year 3 Cost - \$142,400


3 Year Total Cost - \$416,700

The total cost for 115 (growing 10-20 sites every year, starting with 115) Basic Site Plans, 1 Elite Site, Advanced CDN with WAF/IO, and Diamond Support will be \$416,700 over 3 years. Setup and Onboarding is included with Diamond Support reducing the year one costs.

Proposal Details:

Proposal is for a three (3) year contract term billed annually.

Pantheon costs details are listed in the screenshot below ([Digital Copy Linked Here](#))



Pantheon contract proposal below is prepared for Western Washington University

Proposal is for a three (3) year contract term billed annually, net 30 payment terms. Subscription Term: 7/1/2023 - 6/30/2026.

Proposal is valid through 3/15/23. Signed order form is required by 3/15/23 to take advantage this offer.

Billing/Invoicing does not begin until the updated subscription start date on 7/1/23.

(Multi-Year Pricing)									
Site Plan	Quantity	Annual Unit Cost	Discount	Annual Per Unit Cost w/ Discount	Savings	Year 1 Cost w/ Applied Discounts	Year 2 Cost w/ Applied Discounts	Year 3 Cost w/ Applied Discounts	Total
Elite 1M Site Plan	1	\$24,000.00	0.00%	\$24,000.00	\$0.00	\$24,000.00	\$24,000.00	\$24,000.00	
Basic	114	\$350.00	0.00%	\$350.00	\$0.00	\$39,900.00			
Basic	124	\$350.00	0.00%	\$350.00	\$0.00		\$43,400.00		
Basic	134	\$350.00	0.00%	\$350.00	\$0.00			\$46,900.00	
Advanced CDN with WAF/IO	1	\$25,000.00	0.00%	\$25,000.00	\$0.00	\$25,000.00	\$25,000.00	\$25,000.00	
One Time Fees									
Set Up & Onboarding (Included w/ Diamond)	1	\$2,500.00	100.00%	\$0.00	\$2,500.00	\$0.00			
SSO/SAML (Included w/ Diamond)	1	\$2,000.00	100.00%	\$0.00	\$2,000.00	\$0.00			
Support									
Diamond Support: Chat - 24x7 (Highest Priority Routing) Tickets - 24x7 1 hour response time Emergency On-Call - 24x7: 15 minute response time	1	\$46,500.00	0.00%	\$46,500.00	\$0.00	\$46,500.00	\$46,500.00	\$46,500.00	
Dedicated CSM (Included w/ Diamond)	1	\$15,000.00	100.00%	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.00	
					Total Savings Off List:	\$19,500.00			
Features									
Multi-dev									
Global CDN by Fastly (for every site)									
HTTPS Certificates managed by Pantheon									
Solr search		Not with basic							
New Relic Pro		Not with basic							
Redis: application cache		Not with basic							
99.95% uptime SLA - Elite Only									
Managed Scaling - Elite Only									
								Annual Contract Cost Before Discount	\$161,900.00
								Total Aggregate Annual Discount	12.04%
								Total Year 1 Contract Cost	\$135,400.00
								Total Year 2 Contract Cost	\$138,900.00
								Total Year 3 Contract Cost	\$142,400.00
								Total Contract Cost	\$416,700.00

Impact of New Investment on ADEI and Sustainability:

Please provide data or an analysis to support this request and illustrate the anticipated impact of this investment, including in advancing accessibility, diversity, equity, inclusion, and sustainability.

Pantheon's on-demand containerized platform runs on Google Cloud Platform. Google matches 100% of the energy consumed by its global operations, [including its Cloud Platform](#), with renewable energy and maintains a commitment to carbon neutrality.

The cost model of cloud hosting creates a financial incentive to manage the lifecycle of websites more actively, which will reduce the overall number of sites Western hosts. This in turn will make it easier to enforce accessibility and content standards across all WWU websites and better serve students and staff with accurate information on websites.

For ITS to continue to support WebTech, the Drupal installation requires additional VMs, Operating System (OS) updates, and ongoing application maintenance and support. Areas of concern with the current state include additional FTE that may be needed to continue to support the Drupal environment/infrastructure; added costs of continuing to host the Drupal instance on Microsoft Azure + Aegir; and ITS has competing demands from Banner and adjacent systems as well as upgrading substantial legacy technologies to support new efforts such as the Lived Name policy that require their time and attention to ensure other mission-critical applications across campus are up and running. Due to the ongoing growth of the campus web service, the ability to provide the necessary modern hosting technologies at an enterprise scale and to ensure the resiliency of the websites given its central importance to both branding/recruitment/marketing and emergency communications, ITS and WebTech are looking to move their Drupal properties to a contemporary, cost-effective, and flexible managed platform, [Pantheon](#).

Section 3: Performance Outcomes and Risk Mitigation

Expected Outcomes and Evaluation of Success:

Please explain how the success of the proposal will be measured, if funded. What metrics might indicate that the intended impact was achieved? How can the expected outcomes be directly tied to the investment being proposed?

Currently ITS and WebTech staff spend 10-20 hours per week managing the website hosting systems. By migrating to an external host that time will be spent on providing better services to students and staff as delivered by websites. The outcomes of moving to a 3rd party external host is increased resiliency to outages, currently averaging one to two hours per year to approximately five and half minutes per year. We anticipate the web developers on campus will become 2.5 times more efficient as they will be in control of development hosting rather than WebTech and EIS juggling that work in addition to the production web hosting. Finally, if there is ever a physical emergency at the campus datacenters such as an earthquake or fire, the websites would not be affected. Information would still be able to flow to those in crisis. This aligns with the priorities of the Comprehensive Emergency Management Plan.

The ability to rely on the hosting expertise of a company also nearly eliminates the potential of losing the staff currently managing hosting which would put Western in a vulnerable position. The current lack of redundancy in the web hosting knowledge and day to day management of infrastructure would

be mitigated as these processes will be managed by the hosting company. Western staff can focus on delivering content and tools to students and staff.

Overall, this proposal when executed will decrease the number of outages and the mean-time-to-resolution of outages, increase our resiliency in terms of web hosting uptime but also staff agility, and increase the speed of webpages delivered to the students, staff, and prospective students. Progress will be tracked via the IT service management system (Jira).

Specifically, provide the targets and explain which method(s) will be used to track progress (refer to the Provost's [Overall Metrics to track progress toward University's Strategic Plan](#)), estimated return on investment (such as enrollment increases or efficiencies), divisional KPI's, recruitment and retention especially specifics for historically marginalized populations.

Impact on Recruitment, Retention, and Satisfaction of Diverse Faculty, Staff, and Administrators:
For proposals that include personnel resources, explain how the proposal improves recruitment, retention, and satisfaction of diverse faculty, staff, and administrators.

While this proposal moves work away from on-campus staff, the result is a more attractive set of job responsibilities for WebTech staff. Work on Drupal, the campus enterprise content management system is a core competency of the existing position description of staff this proposal would impact. Drupal development time currently is always a limited resource due to the additional management duties of web hosting maintenance and development. The cost of this proposal is less than that of an additional staff member and will directly increase the job satisfaction of existing employees in both WebTech and ITS.

If the time comes to recruit for the positions that currently manage the web hosting, it will be significantly easier to find individuals with experience managing third party hosting platforms than it will be the existing decade old software that requires intimate knowledge to keep running.

Risk to Desired Outcomes:

What might occur to prevent the desired outcomes even if funding is obtained? How will these risks be mitigated? Beyond new funding, what other criteria or external factors need to occur in order for this proposal to be successful (e.g., economic or demographic factors, etc.).

Shifting to a third-party web hosting platform will require honest conversations with website owners. As sites will incur a direct cost for the University, the need for everyone to have a separate website with a bespoke subdomain such as abc.wvu.edu will eventually lead to Western having fewer websites.

This is also an opportunity to strengthen Western's presence online as we bring websites back under wvu.edu it will provide greater chances of search engines surfacing content during searches and allow stronger and more unified messaging.

Anticipated Consequences if Proposal is Not Funded:

What are the anticipated consequences of not funding this proposal?

WebTech's ability to maintain the web hosting infrastructure will become increasingly limited. Basic operational capabilities, such as creating, moving, and deleting sites, currently are beginning to pose a significant threat to the stability of the platform, including live web properties. Maintenance and troubleshooting will continue to consume an excessive amount of time and resources, limiting the ability of WebTech to meet primary mission objectives.

The most significant consequences will involve the ongoing ability of WebTech to provide security to the Western Drupal infrastructure, as the large number of sites under management already poses significant challenges in terms of scalability and governance. If one site goes down, they all go down.

Section 4: Process and Development

Describe Collaborations and Stakeholder Engagement:

What stakeholders were involved, and in what role/capacity? Which groups were engaged and at what stages? How were concerns addressed? What process have you followed to identify unintended consequences that may result from this proposal?

WebTech discussed at length with EIS in the 21-22 budget cycle the idea of migrating hosting into the cloud. Research into doing this with Azure directly as well as a technology named Kubernetes was done throughout the 21-22 academic year.

Ultimately, moving to a top-tier Drupal cloud host was determined to have the most benefits and would end up being cheaper than running in Azure alone. The known change in moving to this model will be that cost increases will need to be budgeted year over year to both account for any increases from the company itself as well as the sheer number of websites being utilized at Western.

This proposal is jointly being submitted by EIS and WebTech.

Describe which units (departments, colleges, etc.) will be involved:

Are there other potential partners across the university that could coordinate on a joint proposal? Is the issue being addressed a broader issue across the university?

While the entire university will benefit from the increased resilience and decreased operational cost of moving WWU websites to the cloud, EIS and WebTech are the only departments with the technical expertise to select the appropriate hosting partner to migrate to.

Explain how this proposal will leverage resources or commitments from other sources:

Identify any current resources in place, any new commitments, or potential funding partnerships with external entities that have been identified. If exploration is currently underway, note any conversations with university development officers, funding agencies, the Vice Provost for Research, etc.

Migrating the external websites to a cloud host will slow the growth of demand on IT infrastructure. This will also slow the increase in costs to provide service. The border firewall for instance may see significantly less threats as most of the web traffic to Western would now run through a third-party host.

Data collection tool usage such as Splunk and Grafana could be reallocated to other IT needs and possibly decrease the licensing cost as the logs and data from the webhosts would no longer need to be stored locally.

Database and file storage can also be reallocated or phased out if local hosting is no longer needed.

Has your department previously submitted this proposal?

If so, briefly outline any significant changes and indicate the feedback received during that budget process.

No, this proposal has not been submitted in the past.

Describe any funding alternatives that have been explored.

Note both alternative approaches in addressing the problem, as well as alternatives to new funding (repurposing existing divisional funding or one-time fund use). If these alternatives are not being pursued, explain why.

Western has a long history of hosting websites and applications on-campus. While that work has continued, we have seen peer institutions move to third party hosting. Allies and collaborators that use the hosting tools Western uses such as the University of Oregon have moved their Drupal hosting off campus and no longer contribute to the development of the hosting tool.

While we continue to identify ways to keep the current systems functioning there is only so much the on-campus teams can do. Research into hosting in the cloud using Western tools over the past year has shown the time, effort, and costs do not pencil out.

All explorations into self-hosting continue to make it clear that moving to a dedicated host has many benefits for Western including increased security, resiliency, and ability to adapt to the needs of Western.

Section 5: Fulfillment of WWU's Strategic Plan's Core Themes and Goals

Please explain how your proposal and the anticipated outcomes will advance the Core Themes and Goals of [WWU's 2018-2025 Strategic Plan](#) and the strategic priorities set for this budget cycle. How does this allocation or withdrawal of funding advance or hinder access to Western, academic excellence, and/or inclusive achievement?

Core Themes

Advancing Inclusive Success

Moving most websites students and staff interact with to a hosting company should increase the speed that users can interact with websites due to their global caching networks and optimized hosting infrastructure. This helps those on low-bandwidth internet connections access Western resources.

The increased availability of websites throughout the year and decoupling websites from on-campus servers will allow Western information to be accessed in the event of environmental disasters on campus.

Increasing Washington Impact

[Click here to enter text](#)

Enhancing Academic Excellence

[Click here to enter text](#)

Goals

Western will provide a transformational education grounded in the liberal arts and sciences and based on innovative scholarship, research, and creative activity.

[Click here to enter text](#)

Western will advance a deeper understanding of and engagement with place.

ITS and WebTech will select a third-party host that is at a minimum carbon neutral. We will pursue a carbon negative partner.

Western will foster a caring and supportive environment where all members are respected and treated fairly.

[Click here to enter text](#)

Western will pursue justice and equity in its policies, practices, and impacts.

[Click here to enter text](#)

Section 6: Space Planning, Capital, and Maintenance Considerations

Major Equipment of Software Needs

If the proposal includes new major equipment or software (>\$25K), please indicate its anticipated useful life, and associated operating costs such as service contracts or annual licenses.

The costs of hosting will be billed annually at an anticipated cost of \$127,500 per year. We anticipate that growing to \$138,000 after three years due to the existing demand for websites. By signing a three year contract we will ensure stability in the migration from on-campus to off-campus hosting and fix the costs over the life of the contract.

Space or Infrastructure Upgrades

Do you believe new space, space modifications, or infrastructure upgrades will be required? If so, please provide the following as best you can.

Please note that Capital Planning and Development will review and evaluate the request after the proposal is submitted to determine options.

Scope:

N/A

Square Footage:

N/A

Cost for capital component:

N/A

Changes to the Use of Existing Space

If existing space is being repurposed, explain how the proposed activities will be accommodated within existing space. For how long? Who will need to approve the proposed new use of this space?

N/A

Incorporation of Physical Accessibility and Cultural Inclusion

For proposals that include capital development or IT infrastructure, please explain how physical accessibility and cultural inclusion (beyond statutory requirements) will be resourced as foundational elements of project development.

N/A

Section 7: Additional Information Required for New State Funding

Financial Information for Program or Service Expansion Proposals

If the proposal is an expansion of existing program or service, please provide five years of detailed financial information, including FTE and other relevant information.

N/A

How Does the Proposal Relate to State Goals and Priorities?

Describe how this package relates to the [Governor's Results Washington](#) goal areas and statewide priorities.

Moving to hosting, powered by Google Cloud aligns with the Governor's goal of sustainable energy and clean environment. Currently hosting our websites generate CO2 emissions. For example, the institutional website and MyWestern generate 2,052.31 kg of CO2 per year¹. That is more carbon than 60 trees can absorb a year or equivalent to 2,978kWh of energy used. That is just two of nearly 140

¹ Carbon calculation based on data from <https://www.websitecarbon.com> and historical averages for website traffic.

websites that migrate. The total carbon impact is much greater. By migrating to a cloud host that uses Google Cloud we can significantly reduce our impact based on their [2030 carbon free energy initiative](#).

Is this proposal in response to litigation, an audit finding, executive order or task force recommendation?

This proposal is not in response to University level task force but internal discussions between ITS and WebTech.

If proposal includes new IT investments, please complete and attach the state's [IT Addendum form](#).

Proposal Title: Modernize Enterprise Drupal Web Hosting

Divison:
Department:
Department Contact:

Salary and Benefits	Description	Fiscal Year 2024					Fiscal Year 2025				
		FTE	Salary	Benefits	One-Time Costs	Total	FTE	Salary	Benefits	One-Time Costs	Total
Faculty Positions		-	\$0	\$0	\$0	\$0	-	-	-	\$0	-
Professional/Exempt Positions		-	\$0	\$0	\$0	\$0	-	-	-	\$0	-
Classified Positions		-	\$0	\$0	\$0	\$0	-	-	-	\$0	-
Student Salaries (Graduate Assistants, Hourly Student, etc)		-	\$0	\$0	\$0	\$0	-	-	-	\$0	-
Total Salaries and Benefits		-	\$0	\$0	\$0	\$0	-	-	-	\$0	-

Non-Personnel Expenses	Description	Fiscal Year 2024					Fiscal Year 2025				
		Units	Price per Unit	Recurring Costs	One-Time Costs	Total	Units	Price per Unit	Recurring Costs	One-Time Costs	Total
Supplies and Materials						\$0					\$0
Professional Service Contracts	Pantheon Web Hosting Support	1	\$46,500	\$46,500		\$46,500	1	\$46,500	\$46,500		\$46,500
Other Goods and Services, Memberships, etc.	Pantheon Web Hosting	1	\$88,900	\$88,900		\$88,900	1	\$92,400	\$92,400		\$92,400
Travel						\$0					\$0
Other						\$0					\$0
Capital Facility Expenses (New Space or Space Modifications)						\$0					\$0
Total Non-Personnel Expenses				\$135,400	\$0	\$135,400			\$138,900	\$0	\$138,900

University Indirect Costs	Description	Include?	Fiscal Year 2024			Fiscal Year 2025		
			Recurring Costs	One-Time Costs	Total	Recurring Costs	One-Time Costs	Total
Libraries** (Estimated at \$10k per faculty member)	\$10,000 per new faculty member	NO	\$0	\$0	\$0	\$0	\$0	\$0
Academic Support Services/Student Support Services	3% of Recurring Direct Costs	YES	\$4,062	\$0	\$4,062	\$4,167	\$0	\$4,167
Institutional Support	2% of Recurring Direct Costs	YES	\$2,708	\$0	\$2,708	\$2,778	\$0	\$2,778
Plant Operation and Maintenance	3% of Recurring Direct Costs	YES	\$4,062	\$0	\$4,062	\$4,167	\$0	\$4,167
Graduate TA Waiver	Input amounts for new TA Positions	NO	\$0	\$0	\$0	\$0	\$0	\$0
Total Indirect Costs			\$10,832	\$0	\$10,832	\$11,112	\$0	\$11,112

Total Proposal, All Direct and Indirect Costs	Fiscal Year 2024		Fiscal Year 2025		Fiscal Year Total				
	FTE	Head Count	Recurring Costs	One-Time Costs	FTE	Head Count	Recurring Costs	One-Time Costs	Fiscal Year Total
	0.00	0.00	\$146,232	\$0	0.00	0.00	\$150,012	\$0	\$150,012