

**Final Report**  
of the  
**Manoa Budget Advisory Group**

June, 2004

Committee Members

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Robert Bley-Vroman, Co- Chair  
Languages, Linguistics and Literature

Denise Konan  
VCAA/Economics

Kathy Cutshaw, Co-Chair  
SOEST

Lorenz Magaard  
SOEST

Thomas Bopp  
Natural Sciences

Jeff McNeill  
GSO

Patrick Frane  
HGEA

Kanoelehua Renaud  
ASUH

Wayne Fujishige  
Auxiliary Services

Dave Sanders  
Institute for Astronomy

Andy Hashimoto  
CTAHR

Mary Tiles  
Mānoa Faculty Senate

Charles Hayes  
Natural Sciences

Jim Wills  
Business

Lilikala Kame‘eleihiwa  
Kuali’i Representative

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University of Hawai‘i at Mānoa

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### Attachments:

- A. Hypothetical Examples: Transparent Budgets
- B. Hypothetical Examples: Unit Performance Reports

## **I. Introduction and executive summary**

### **A. Background**

The Manoa Budget Advisory Group (MBAG) was established by Chancellor Peter Englert to investigate and recommend a new methodology for determining unit base budgets and to establish key performance indicators to be used in developing the 2005-2007 biennium budget. This report sets forth MBAG's recommendations and describes the work that has been done over the past five months.

MBAG held its first meeting on January 19, 2004 and met regularly throughout spring semester 2004. The final report was presented to the Manoa Management Executive on June 21, 2004 and to the Manoa Leadership Team on June 22, 2004.

MBAG engaged in extensive discussions of the strengths and weaknesses of the current system of incremental budgeting and reviewed alternative budgetary models that might be implemented. These alternative approaches included various forms of formula- and performance-based budgeting, and of responsibility-centered management. As we probed the pros and cons of each model, it not only became clear that no one model held all the elements we felt necessary for strategic budget reform but, more importantly, it was clear that Manoa did not have the infrastructure in place to implement significant budgetary changes. Thus, the emphasis of our work shifted from broad-based analysis of budget models to identifying the prerequisites for implementing alternatives, in terms of managerial requirements and data needs.

### **B. General findings: Prerequisites for reform of the budget process.**

**-Analysis of activity costs:** Manoa should immediately take steps toward a system of activity-based costing. As the reliability of information improves, the question of more radical reforms, such as moving toward partially formula-driven allocation or responsibility-center management, can be addressed. In the meantime, the gradual introduction of activity-based costing can make any system of budgeting more rational.

**-Transparency:** Manoa should immediately implement a system of simple, clear presentation of budget, and a transparent method of making budgetary decisions. This can be implemented within the current system of incremental budgeting. The method of presentation should be refined iteratively as available data becomes more informative and reliable.

**-Performance reporting:** Even though the prerequisite conditions for implementing performance-based funding do not presently exist, performance reports as a part of the budget process should be instituted immediately. These can be refined over time.

### C. Specific action recommendations

**Elements for inclusion in a transparent budget.** A specific initial set of elements was developed by MBAG. These elements include both measures of activity (SSH, FTE, etc.) and budgetary allocations. It is recommended that this information be made publicly available on the web. Details are presented below in “Development of a web-based data information center.” Hypothetical examples of such transparent budgets are presented in Appendix A. This recommendation can be implemented at once, and the elements can be refined over time.

**Participation in the Delaware Study.** The Delaware Study is a national data-sharing consortium focusing on instructional costs and faculty productivity. Manoa should participate in this consortium. Details are to be found below in Section III, page 9. This recommendation can be implemented at once.

**A method for performance-reporting.** MBAG has developed a preliminary system for organizing unit (Level V) performance reports and a method of reviewing and evaluating these reports, with the outcome of adjustments to allocations. Performance is evaluated in three general categories: importance, efficiency, and excellence. The proposed system is presented in detail below in the section entitled “Performance assessment methodology.” Hypothetical examples of unit performance reports and managerial assessments are presented in Appendix B. This methodology can be implemented at once and refined over time.

**Development of a data warehouse.** Manoa should begin development of a data warehouse which organizes fiscal information in a way that is more useful for managers. For discussion, see the section “Development and maintenance of data warehouse, below. Initial selection of elements and investigation of the needed infrastructure can begin now, although it will take some time for full implementation and many cycles of refinement are to be expected.

**Adoption of activity-based costing.** Manoa should begin to develop an accounting methodology based on activity-based costing, since the current funds-based methods are insufficient to make moves toward budget reform. A full discussion is presented below in Section IV, page 12.

**Exploration of responsibility-center management concepts.** Manoa does not have the prerequisite managerial structures necessary to attempt implementation of responsibility-centered management (RCM) or similar radical reforms of the budgetary process. There are, moreover, many conceptual and practical challenges involved in the adoption of RCM. As the infrastructure of activity-based costing becomes well established, it will be possible to explore responsibility centered management concepts. Below, in Section V, page 13, we summarize the main issues.

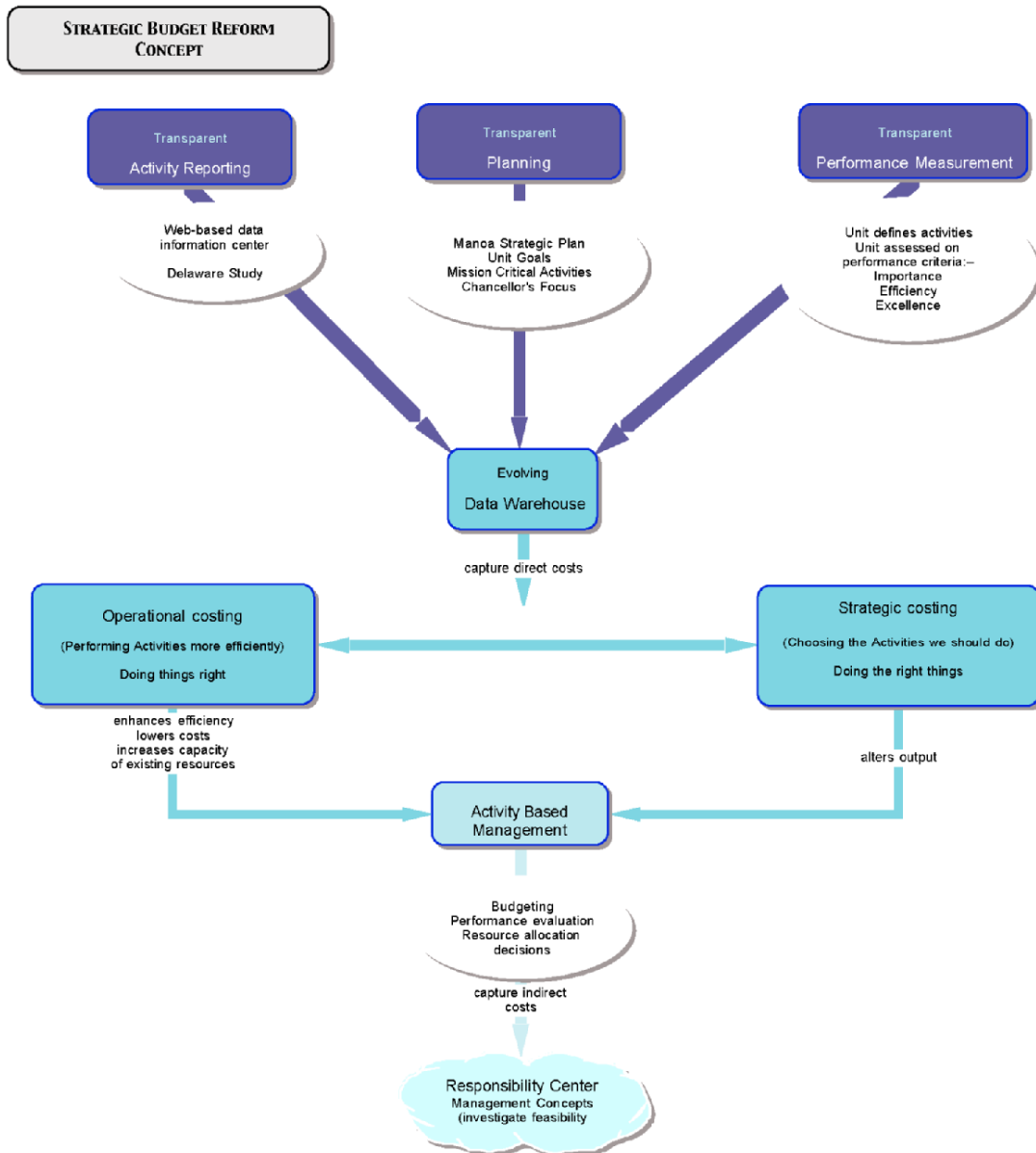
#### **D. Implementation strategies: the future of MBAG**

In completing these recommendations, MBAG has reached a natural breakpoint in laying the groundwork for budgetary reform. We move from a recommendation phase to an implementation phase. The Manoa administration must take the lead in implementation, building on MBAG's work.

Nevertheless, it would be appropriate for the administration to constitute a committee to which it would report regularly on the progress of implementation and from which it could get feedback. Reporting to such a group could help ensure effective action. We leave open the question of the composition of such a reporting group, and its relationship to existing bodies.

The following flowchart and subsequent detail depicts our recommendations and a phased iterative approach towards implementation. We stress that this is an evolutionary process, building on the data and processes that we currently have in place. A carefully thought out approach to strategic budget reform with an attitude of openness, integrity, collegiality is essential to success. It is not possible to implement big changes all at once. The concepts envisioned here will require continuous monitoring and feedback allowing for process improvement over the years.

## II. Flowchart – Strategic Budget Reform



### **III. Transparency**

It is our belief that transparency in activity reporting, planning and performance is a prerequisite for strategic budget reform. Our objective is not only to recommend initial ways in which increased transparency in these areas can be achieved but also to help promote a serious dialogue among campus constituents about enhancing these recommendations in the future.

Our goal is to establish a means of providing open, understandable and accessible information regarding the budget, the budgetary process, performance and the core data used to make decisions. It is important to keep in mind that transparency does not address the advisability of particular budget decisions or strategic plans but rather the extent to which an interested person can follow, provide input to, and understand the data and the budgetary process as they relate to Manoa goals.

We recognize that transparency is only one aspect of good management, and care is needed to distinguish transparency of information from the process of analyzing operational efficiencies and achieving strategic goals. We address these issues in the section on activity-based management.

Nevertheless, we believe that building transparency into the budgetary process is a crucial first step in fostering an overall sense of trust and fairness and promotes informed debate. We also believe that open, understandable data and processes will contribute to fiscal stability, help ensure accountability and eliminate the perception of secrecy. Building data and process transparency into the budgetary process is a prerequisite towards the successful linkage of performance with resource allocation.

#### **A. Transparency in Activity Reporting**

##### **Recommendation #1: Development of a web-based data information center**

We recommend the development of a web-based data information center providing public access to basic core data for each administrative and academic unit. We recommend that this web site also be the central repository for information on the budget building process and the allocation process.

Transparency of activities: The key to any successful budgetary process is linked to the accuracy and reliability of the data elements on which decisions are made and great care must be taken to ensure that the basis for each data element is clearly defined, is meaningful and is derived from factual data.

With those concepts in mind, we strongly recommend that the data elements posted to this web site be rolled-out incrementally and only after appropriate deliberation and consultation.

Ground rules for initial data set:

- Data must be currently available at School, College & administrative unit level
- Data elements must be clearly defined
- Data elements must not be complex, controversial, or subjective
- Data sets will continue to be refined over time to incorporate complexity and activity based-costing concepts

Data Information Center Web Site

- Provides clear definition of each data element
- Provides source of each data element with drill-down capability
- Data capture date identified and is consistent from year to year
- Is initially populated by a three-year history
- Presents two views of data
  - data elements by unit
  - combined data elements Manoa-wide
- Comment section for each unit to address uniqueness
- Mechanism to provide feedback to a review process for future enhancements

Using the work done by last year's budget committee and the ground rules established for this initial phase, we recommend that the following data, as applicable, be posted for each academic and administrative unit.

Student Data

- Number of SSH's (Fall & Spring)
  - Lower Division
  - Upper Division
  - Graduate

Faculty Data

- # FTE tenure/tenure track by rank
- # other faculty by rank
- # lecturers (analytical FTE)

Staff Data

- # APTs, CS
- # GA's (TAs, RAs)
- # RCUH

Revenue/Expenditure Data

- General Fund Allocation
- Tuition Fund Allocation
- RTRF Allocation
- Summer Session Allocation
- Contract & Grant Awards (separate training and research)
- Total Salaries (by fund source)
- Total Other (by fund source)

## **Recommendation #2: Participation in the Delaware Study**

In understanding and evaluating performance, it is essential to be able to compare what we do with what our peers do. We recommend a benchmarking approach to managing instructional costs and assessing faculty productivity through participation in, and deployment of data provided by the Delaware Study. The Delaware Study is a national data-sharing consortium focusing on instructional costs and faculty productivity at the academic discipline level of analysis. We recommend that Manoa take immediate steps to facilitate our participation in this study on a permanent basis.

We recognize that each institution of higher education is unique in mission and academic offerings. The Delaware Study does not collect data on all academic fields and some of Manoa's units will not fit into the study's pre-defined categories. Therefore while we believe it is important to participate in this study, participation itself will not provide the complete solution to capturing peer data.

### **B. Transparency in Performance Measurement**

Good strategic performance measurement models assist leaders and managers in understanding critical success factors in their institution. A well thought out model provides managers with the data necessary to make informed decisions in achieving long-term sustainable advantage by supporting objectives and influencing budgetary decisions overtime. Performance measurement is just one part of a well thought out decision support system.

Developing a set of indicators to support strategic performance measurement is a critical part of our budget reform concept and will allow us to gain an empirical assessment of how well units are doing in meeting their overall goals. Competition and complexity are realities that universities are facing in an ever increasing demand for scarce resources. It is crucial that our internal operations be monitored in order to analyze progress towards achievement of our goals and to provide a sound basis for determination of new strategic directions. The methodology and processes recommended here are based on several principles.

*Responsiveness to differences –one size does not fit all.*

Manoa is a complex and dynamic organization. We recognize that no two units are identical and we recognize that one planning year will differ from the next. It is with this in mind that we are recommending an initial model with a set of three common performance criteria and a comment page to allow units to address strategic criteria best suited to their particular circumstances. It is intended that future performance indicators and/or enhancements will be developed through an iterative and highly interactive process.

*Scalability – one style (methodology) suits all.*

While recognizing differences between units, it is intended that this approach be applied to units at all scales - both above and below level V. This acknowledges that the campus is a unit (within the UH system), defined by core activities and having strategic goals, but that these are carried out by diverse level V (school/college) and level VI (department) units, each of which in turn has its own core activities and strategic goals. The key to successful activity based management is the choreography which allows maximum autonomy to units at the lower levels while ensuring that their activities contribute effectively to fulfilling the objectives of higher level units. This can only be achieved through an interactive and dynamic process.

*Information-Based.*

The performance indicator process must be informed by and based on accurate, objective information and normative data. Initial input must be submitted using existing/established data sources, measures, and reporting activities.

*Initial simplicity.*

We can imagine performance indicator recommendations which are very elaborate and thorough. However, performance measurement itself is complex and designing a performance-reporting system that adequately reflects the mission and quality of our institution is a difficult task. A complete understanding of what it is that we want to measure and what it is that we expect to achieve by that measurement must be investigated prior to recommending a fully developed performance measurement plan. We have opted, as an initial step, to recommend simplicity in our approach.

**Recommendation #3: The committee recommends an initial performance measurement methodology which evaluates each unit's activities as they relate to three broad performance criteria - importance, efficiency and excellence.**

Recommended Process

Step one: As part of the exercise of mission clarification, units at all levels (from campus down to department and/or program) would be asked to describe the activities in which they engage and for which they can be held accountable. These activities initially should be categorized relatively simplistically (undergraduate education, graduate education, student advising, etc).

Step two: Each unit would submit a self-evaluation on these activities as they relate to each of the three performance criteria.

Step three: A Chancellor-appointed evaluation committee would evaluate and rate each unit on a scale of 1-10 in each of the three categories.

Step four: The Chancellor would make any decisions in terms budget impact.

### Short-Term Performance Model

<b>Performance Criteria (unit self-evaluation)</b>	<b>Performance Metrics (rated by Chancellor's Evaluation Committee)</b>	<b>Evaluation&amp; Feedback*</b>
<b>Importance</b> -to campus mission -to strategic plan	Scale 1 -- 10	OK/curtail/increase
<b>Efficiency</b> -output vs. cost	Scale 1 -- 10	OK/increase
<b>Excellence</b> -quality of output	Scale 1 -- 10	OK/increase

\* => recommended +/- %change in base budget

The dynamic aspect of this proposed model requires each unit to defend its current budget allocation in annual budget hearings and to petition for new revenues by showing that it has been meeting its mission effectively. Support for new or expanded programs would depend on the availability of funds from new sources or from funds being reallocated from units not performing well. When faced with budget cuts, the dynamic adjustment might include a reduction in a unit's base budget.

Utilization of performance indicators as a mechanism for analyzing a unit's performance will likely result in unforeseen challenges. As such, it should be understood and accepted at the outset that this effort will require ongoing communication and refinement as Manoa develops a base of experience with performance measurement reporting. It is our hope, however, that this recommendation will be the first step in developing a performance-reporting system which will be a valuable tool for monitoring and communicating both strategic and operational performance and trends.

## **C. Data Warehouse**

### **Recommendation #4: Development and maintenance of data warehouse**

We stress the importance of accurate and timely information as a necessary condition for successful budget restructuring and are recommending a thoughtful, phased approach to data collection. However, we envision the end product to be an information-rich environment responsive to the needs of decision-makers. It ultimately needs to be more than data reporting – more than converting current paper reports to an electronic version. The data information center should allow user functionality to aggregate and disaggregate data, select and manipulate variables and explore all exceptions.

The process of selecting data elements is an iterative one and will evolve over time. Selection of future data elements would consider the recommendations of last year's budget committee, data necessary to participate in the Delaware Study, data necessary to apply activity-based costing techniques and perhaps data on indirect costs and revenues.

## **IV. Activity-Based Management**

### **Recommendation #5: Adoption of activity-based costing methodology**

Typical universities, Manoa included, employ fund accounting systems. These accounting systems are designed primarily for compliance rather than providing the information needed for effective management and are required because the funds of universities come from multiple sources and may be restricted for specific purposes. Fund administrators are less concerned with the cost of performing a given activity than they are with conducting activities within approved budgets. Unfortunately, the budgets of universities are likely to mirror their fund accounting systems making it impossible to tie budgeting to strategic plans or measurable outcomes.

In order to obtain the data necessary to make informed management decisions, we are recommending an activity-based costing (ABC) approach in capturing the information necessary to reflect the true nature of how we operate.

As a concept, activity-based costing is straightforward. It identifies activities, not individual expenditures, as the fundamental cost objects of the institution. However, implementation is not straight-forward. It requires that costs be collected in special activity pools rather than in the traditional fund accounting method. Also, in order to identify appropriate activities, it requires that Manoa have a clearly defined mission and a means of identifying faculty and staff time spent on each of the identified activities. Although our current financial system does not support activity based cost reporting, it is possible to code activities within our financial system and do the analysis and reporting from a data warehouse.

Applying activity costing techniques to the operational functions of our units will allow us to assign costs to previously unmeasured factors and, used appropriately, can be an enabler of continuous improvement. Further, using activity costing concepts allows us to identify circumstances in which strategic goals and objectives are out of line with spending decisions. Operational costing not only allows us to analyze whether we are performing activities efficiently but when applied to achieving our strategic goals allows true activity-based management (ABM). After it has been refined and proven, it can be an effective tool for budgeting, performance evaluation and resource allocation decisions, as it makes a clear connection between costs and outputs creating a truer financial picture.

ABM serves as a self-assessment tool to aid in determining where we are, where we want to go and how far along we are in attaining our goals. It is a continuous improvement vehicle and is an integral part of a decision support system. We recognize that this is a very difficult task to achieve in a university setting where there is an absence of well-defined products or outcomes, unusual interrelationships among outcomes, and capacity constraints that are seemingly elastic. However, successful implementation of ABC can empower deans to use their expertise to make decisions on behalf of their units, to hold them accountable for those choices, and to establish the expectations that deans will first rely on their own initiatives to realign unit resources before seeking additional support from the Chancellor's Office. Faculty and administrators become actively engaged in decision making when they thoroughly understand the impact their activities have on costs.

Adopting activity-based costing represents a new way of doing business. It will not improve our accounting system, but it will provide the structure necessary to allow us to gain insight into the real cost of running our campus. Costs that are visible and explicit are essential to achieving increased efficiencies and to allocating resources wisely. The adoption of activity-based costing for direct costs will position us to explore the benefits of applying ABC techniques in capturing the indirect costs of our activities and to the investigation of responsibility-centered management concepts.

## **V. Responsibility-Centered Management (RCM)**

**Recommendation #6: The committee recommends that a working committee be formed to analyze RCM concepts and review the possible benefits and/or adverse effects of this management technique.**

Responsibility Centered-Management (RCM) is a financial management philosophy which focuses on operational decentralization. It is designed to make the relationship between revenue and expenditures more visible providing a framework for coupling decisions with consequences. RCM in its purest form attributes expenditures and revenues on a unit-by-unit basis, allowing colleges to benefit directly and immediately from their own revenue increases and cost savings.

Traditional accounting and reporting systems in higher education are designed to provide information to an institution's central administration while complying with accounting standards and government regulations. Recognizing the inability of our current financial system to provide data for management decisions, we have recommended adopting the concept of activity-based costing to capture data on direct expenditures as it relates to operational and strategic output. RCM methodology builds on activity-based costing by accounting for and apportioning indirect costs as well as calculating revenues on a per unit basis.

In various forms, RCM has taken root in public universities. To the advocates of RCM in higher education, this decentralized incentive-based approach to budgeting has empowered deans and managers to accomplish their missions in a more compelling and organized manner. The original objectives for these institutions were to clarify roles and responsibilities between local and central units, link cause and effect through revenue and indirect cost allocations, place local academic planning and decision making in a cost/benefit context and unleash entrepreneurship.

Although RCM concepts are working in many universities, they are not without criticism. There is a perception within the higher education community that RCM attempts to reduce performance to what is measurable, when so much of importance in the academic environment, is not. It is feared that the intrinsic value of education may be lost. This fear is also grounded in the view that treating academic institutions as if they were simply in the business of marketing educational products will lead to corporate culture displacing academic culture. The concern is that financial, not academic, imperatives will dominate. If RCM concepts are adopted, great care must be taken to construct a budgetary environment in which units do not see themselves as competing with one another as this would inevitably raise barriers to cross-disciplinary co-operation, to the efficient use of faculty resources and the construction of interdisciplinary programs.

However, advocates and critics alike agree that RCM increases awareness of the relationship between planning, costs and revenues. The committee feels that some RCM concepts, such as capturing data on indirect costs or revenues by unit, will be beneficial to Manoa. Other concepts, such as decentralizing revenues and all associated expenditures to the unit, might not be as beneficial. However, the committee does not know enough about RCM detail to be able to make a definitive recommendation.

## VI. Conclusion

It is important to point out that the recommendations made in this report will not require substantial monetary investment in new computer hardware and/or systems. However, implementation of these recommendations will require dedicated program management, administrative programming and institutional research support.

In conclusion, the committee emphasizes that changes in the way we budget are not an end in themselves. These recommendations will not and should not define Manoa goals. Nor will these recommendations protect us from external changes in financial support, substitute for good leadership or guarantee additional resources. They will, however, assist us in understanding the implications of various courses of action and reward success. And, with appropriate consultation and proper implementation, will do so in a way that is an improvement over the current system. We further note that moving the university to a new funding model will take time and substantial effort over the next several years and our desire to bring about immediate reform must be tempered with realism. Time is needed to create a sound, reliable system which will have the confidence of the entire community.

Respectfully submitted by the members of the Manoa Budget Advisory Group

- Robert Bley-Vroman, Co-Chair, LLL
- Kathy Cutshaw, Co-Chair, SOEST
- Tom Bopp, Natural Sciences
- Patrick Frane, HGEA, JABSOM
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