FEDERAL CIO ROADMAP

THE COUNCIL FOR *Excellence* IN GOVERNMENT

touchstone consulting group
an SRA International, Inc. company

The Federal CIO Roadmap provides a high level look at areas of responsibility for **Federal CIOs. Specific detailed CIO responsibilities are specified in law, regulation,** and OMB circulars and guidance.

Strategic Planning

IRM/IT Strategic Planning: The Agency CIO is responsible for the development and annual maintenance of a strategic information resources management (IRM) plan describing information and technology management functions and activities. To use IT effectively it is recommended that CIOs develop a comprehensive IT/IRM strategic plan that aligns to the agency business strategy and ensures IT investments are funded only where they have the greatest impact on business results.

Federal IT Workforce: Agency CIOs are required to assess the information resources management skills needed for agency personnel and to evaluate and rectify deficiencies identified in meeting the agency performance goals. CIOs are further required to develop strategies and specific plans for the hiring, training and professional development that is needed. Agencies work with OMB and the CIO Council to identify needed competencies and to fill skill gaps. Agencies are also required to assign a qualified project manager to each project and to examine and document the qualifications of these individuals.

Enterprise Architecture (EA)

Federal laws and guidance direct agency CIOs to develop and maintain enterprise architectures as blueprints to guide IT modernization. Measurement of EA effectiveness is essential to achieving mission and business results. The EA Assessment Framework v2.0 was designed to advance agency adoption and use of EA across four primary objectives:

1. Completion of an agency's EA and related artifacts demonstrating alignment to the Federal Enterprise Architecture.
2. Use of an agency's EA to drive improved decision-making.
3. Results achieved from the use of an agency's EA improving efficiency and effectiveness.
4. Policy alignment between the agency's EA and IT policies established by OMB.

Annual EA Assessment: OMB will conduct an annual assessment of agency's EA programs. Agencies will receive an average score for each capability area above. Annual results will be reflected in the *Status* score for E-Government within the President's Management Agenda (PMA) Scorecard.

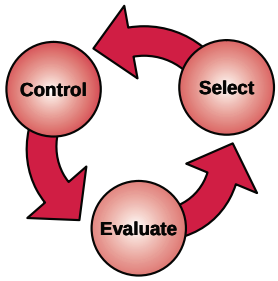
- Score equal to or greater than 3 in both the "Completion" and "Use" Capability areas OR a score equal to 3 or greater in the "Results" capability area.
- Score equal to or greater than 3 in either the "Completion" or "Use" capability area.
- Score less than 3 in each capability area

Quarterly EA Performance Review: Agencies are required to submit quarterly progress reports to OMB on the status of achieving transition strategy milestones. Results will be reflected in the *Progress* score for E-Government within the PMA scorecard. By applying the assessment for themselves, agencies can identify strengths and weaknesses within their EA program and adjust them accordingly.

Budget Formulation and Capital Planning & Investment Control (CPIC)

The Capital Planning and Investment Control process is an integral part of agency budget formulation and execution. To maximize the value of invested taxpayer dollars, CIOs are required to monitor and evaluate the performance of information resource investments through a CPIC process and advise the agency head on whether to continue, modify, or terminate a program or project. Agency CIOs may use the CPIC process to manage IT investments on an individual basis as well as in the context of the entire IT portfolio. An effective capital planning process requires long-range planning and a disciplined budget process as the basis for managing a portfolio of capital assets. A sound capital planning process defines how an agency:

- **Selects** capital investments for funding each year;
- **Controls** and manages capital investments to achieve intended cost, schedule and performance outcomes;
- **Evaluates** performance to maintain a positive return on investment.



E-Government and IT Implementation

E-Gov Implementation and Alignment: To ensure the Federal Government achieves results for E-Government, Lines of Business (LoB), and SmartBUY initiatives, OMB measures agency participation and adoption of initiative outputs against a set of established milestones agreed to by the agency and OMB.

Agency Requirements: Agencies are required to submit quarterly progress reports on the status of their E-Gov implementation milestones. For any missed milestones, CIOs are required to provide a rationale and expected date of completion. In addition, as initiatives progress and new requirements are identified, CIOs are required to update their implementation plans and milestones.

Standards for Success: Agencies must demonstrate completion of all E-Gov implementation plan milestones scheduled for that quarter or risk being downgraded in *Progress* on their E-Gov PMA scorecard. In addition, Agencies that miss a major milestone will be downgraded in *Status* on their E-Gov PMA scorecard. If an agency misses a milestone due to circumstances outside its control, its *Progress* and *Status* scores will not be downgraded.

Lines of Business Initiative: Building upon the efforts of the Federal Enterprise Architecture Program to expand E-Government, OMB and designated cross-agency task forces launched the Line of Business (LoB) Initiative for six lines of business.

- Case Management
- Federal Health Architecture
- Financial Management
- Grants Management
- HR Management
- IT Security

An LoB initiative is a cross-agency effort to define, design, implement, and monitor a set of common solutions for a government-wide business function or service of the Federal Government. The scope of a Line of Business effort is to:

- Define processes and business rules associated with goverment-wide business functions;
- Shape existing or inform future policy by making recommendations to the appropriate policy authority associated with the business function;
- Provide implementation guidance to agency IT projects or systems to come into alignment with the LoB initiatives.

SmartBUY: SmartBUY is a Federal government-wide enterprise software licensing initiative designed to streamline the acquisition process and provide the best priced, standards-compliant IT. Agencies are required to maximize the use of SmartBUY leveraging government buying power to reduce software licenses expenses and avoid redundant purchases.

Program Management and Performance

When managed effectively, IT investments can have a dramatic impact on an organization's performance. If not, however, they can result in wasteful spending and lost opportunities for improving delivery of services to citizens.

Earned Value Management (EVM): EVM is a project management tool that effectively integrates the scope of work with schedule and cost elements for optimum investment planning and control. EVM allows for the development of a performance measurement baseline against which accomplishments may be measured in an independently verifiable basis. As a result, decision-makers have consistent, quantifiable indicators of performance to determine if a project is progressing as planned.

Standards for Success: Agency CIOs are required to assign a qualified project manager to each project. In addition, agencies are expected to achieve, on average, 90% of cost, schedule, and performance goals for all major and non-major projects. OMB evaluates agencies' actual performance of major IT investments on the PMA E-Gov Scorecard as follows:

- Has demonstrated appropriate planning, execution, and management of major IT investments, using EVM or operational analysis, and have IT portfolio performance operating within 10% of cost, schedule, and performance goals.
- Has demonstrated appropriate planning, execution, and management of major IT investments, using EVM or operational analysis, and have IT portfolio performance operating within 30% of cost, schedule, and performance goals.
- Has cost and schedule overruns, and performance shortfalls, that average 30% or more.

In evaluating whether an agency has achieved the "green" standard for success for cost, schedule, and performance, OMB looks for:

1. Documented agency policy.
2. Established cost, schedule and performance baselines.
3. Examples of how the agency uses data and analysis to make decisions.
4. Contract language requiring the use of EVMS that meets the ANSI/EIA-STD 748
5. Current cumulative EVM data and variance analyses, and corrective action plans.

Security and Privacy

Security Considerations: The Federal Information Security Management Act (FISMA) provides the framework for securing the Federal Government's information technology including both unclassified and national security systems. All agencies must implement the requirements of FISMA and report annually to the Office of Management and Budget (OMB) on the effectiveness of their security programs. OMB uses the results of the reports to develop its annual security report to Congress. In addition, as part of the PMA scorecard process, agencies are required to submit quarterly reports demonstrating progress addressing security weaknesses on their Plan of Action and Milestones (POA&M).

Privacy Considerations: The Privacy Act of 1974 requires Federal agencies to develop systems of record for any information in their possession that identifies an individual by name, number, or any identifying particular assigned to that person. In addition, a notice of the existence and character of the system of records must be published in the Federal Register. Furthermore, agencies are required to:

- Provide notice to the individual of the system of record;
- Permit the individual access to that record;
- Disclose the routine uses of the information and gain consent prior to using the information beyond its original intent;
- Establish the appropriate safeguards to ensure the security and confidentiality of records.

The E-Government Act of 2002 directs agencies to conduct reviews of how information about individuals is handled within their agency when they use IT to collect new information, or when agencies develop or buy new IT systems to handle collections of personally identifiable information. In summary, Agencies are required to:

1. Conduct privacy impact assessments for electronic information systems and collections.
2. Make the privacy impact assessment publicly available through the website of the agency, publication in the Federal Register, or other means.
3. Translate privacy policies into a standardized machine-readable format.
4. Report annually to OMB on compliance with section 208 of the E-Government Act of 2002.

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FEDERAL CIO ROADMAP

Q1: Oct, Nov, Dec | Q2: Jan, Feb, Mar | Apr

INTEGRATION

STRATEGIC PLANNING

- Develop IT/IRM strategic plan in support of upcoming Budget Cycle
- Submit annual GPRA program performance report for previous FY
- Submit Quarterly ▽ President's Manage

ENTERPRISE ARCHITECTURE

- Update EA artifacts to reflect Federal target architecture and current reference models
- Submit PRA Report to OMB
- Submit agency EA artifacts to OMB (i.e. baseline & target architecture and transition plans)
- OMB FEA conducts agency EA assessment
- OMB releases agency EA assessment results
- Conduct EA an new LoBs & po
- Submit Quarterly ▽ EA Performance Re

BUDGET FORMULATION and CAPITAL PLANNING & INVESTMENT CONTROL

- 18 Month Budget Cycle Begins
- OMB releases initial draft of Spring Budget Guidance (Circular A-11)
- SELECT PHASE: Select upcoming BY portfolio
- Align curren portfolio with President's budget
- Brief OMB on agency IT budget submission
- Agency appeals
- • IT portfolio development • Issue IT investment data call • Synchronize IT budget w/ CFO • Develop acquisition strategies
- CIO testin executives
- OMB reviews agency budget submissions → OMB Passback → Preparation of President's budget → President submits budget to Congress
- Cong House & consider
- Conduct quarterly portfolio ▽ management contr

E-GOV and IT IMPLEMENTATION

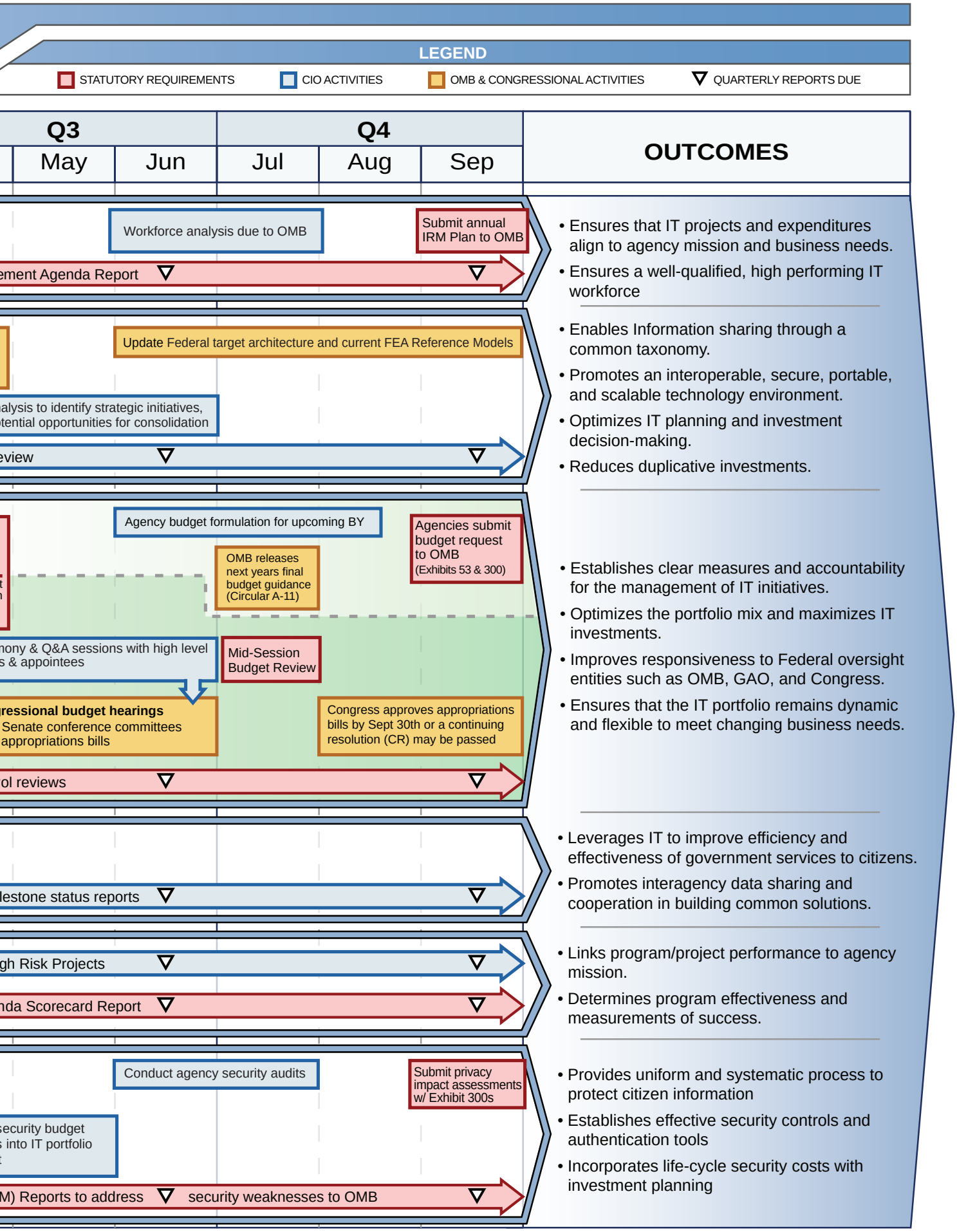
- E-Gov Status Report due to OMB
- Develop E-Gov strategy for upcoming FY
- OMB submits E-Gov report to Congress
- Submit quarterly E-Gov ▽ implementation mi

PROGRAM MANAGEMENT and PERFORMANCE

- Submit report documenting ▽ performance of Hi
- Submit quarterly President's ▽ Management Ager

SECURITY and PRIVACY

- Submit Annual FISMA Report & Privacy Manage-ment Report
- Prepare bid for security audit contract, as needed
- OMB submits FISMA Report to Congress
- Incorporate s requirements development
- Submit quarterly Plan of Action and ▽ Milestones (POA&


LEGEND
STATUTORY REQUIREMENTS
CIO ACTIVITIES
OMB & CONGRESSIONAL ACTIVITIES
QUARTERLY REPORTS DUE
Q3
Q4
May
Jun
Jul
Aug
Sep
OUTCOMES
Workforce analysis due to OMB
Submit annual IRM Plan to OMB
ement Agenda Report
• Ensures that IT projects and expenditures align to agency mission and business needs.
• Ensures a well-qualified, high performing IT workforce
Update Federal target architecture and current FEA Reference Models
alysis to identify strategic initiatives, tential opportunities for consolidation
eview
• Enables Information sharing through a common taxonomy.
• Promotes an interoperable, secure, portable, and scalable technology environment.
• Optimizes IT planning and investment decision-making.
• Reduces duplicative investments.
Agency budget formulation for upcoming BY
Agencies submit budget request to OMB (Exhibits 53 & 300)
OMB releases next years final budget guidance (Circular A-11)
nony & Q&A sessions with high level s & appointees
Mid-Session Budget Review
ressional budget hearings Senate conference committees appropriations bills
Congress approves appropriations bills by Sept 30th or a continuing resolution (CR) may be passed
ol reviews
• Establishes clear measures and accountability for the management of IT initiatives.
• Optimizes the portfolio mix and maximizes IT investments.
• Improves responsiveness to Federal oversight entities such as OMB, GAO, and Congress.
• Ensures that the IT portfolio remains dynamic and flexible to meet changing business needs.
lestone status reports
• Leverages IT to improve efficiency and effectiveness of government services to citizens.
• Promotes interagency data sharing and cooperation in building common solutions.
gh Risk Projects
nda Scorecard Report
• Links program/project performance to agency mission.
• Determines program effectiveness and measurements of success.
Conduct agency security audits
Submit privacy impact assessments w/ Exhibit 300s
security budget s into IT portfolio
M) Reports to address security weaknesses to OMB
• Provides uniform and systematic process to protect citizen information
• Establishes effective security controls and authentication tools
• Incorporates life-cycle security costs with investment planning

GAO's Summary of CIO's Information Management & Technology Responsibilities

IT/IRM Strategic Planning - The agency CIO is responsible for strategic planning for all information and technology management functions - thus, the term information resources management (IRM) strategic planning. 44 U.S.C. 3506(b)(2).

IT/IRM Workforce Planning - CIOs have responsibilities for helping the agency meet its IT/IRM workforce or human capital needs. 44 U.S.C. 3506(b) and 40 U.S.C. 11315(c).

Capital Planning and Investment Management - Federal laws and guidance direct agencies to develop and implement processes for IT capital planning and investment management. 44 U.S.C. 3506(h) and 40 U.S.C. 11312 & 11313.

Systems Acquisition, Development, and Integration - GAO found that a critical element of successful IT management is effective control of systems acquisition, development, and integration.

Major Electronic Government (E-Gov) Initiatives - Various laws and guidance have directed agencies to undertake a variety of e-gov initiatives relating to using IT to improve government services to the public, as well as operations within the government.

Enterprise Architecture (EA) - Federal laws and guidance direct agencies to develop and maintain enterprise architectures as blueprints to guide IT modernization.

Information Security - The agency CIO is responsible for protecting information and systems. 44 U.S.C. 3506(g) and 3544(a)(3).

Privacy - The agency CIO is responsible for compliance with the Privacy Act and related laws. 44 U.S.C. 3506(g).

Information Collection/Paperwork Reduction - The agency CIO is responsible for overseeing a process to review agency information collection proposals in order to maximize the utility and minimize the public "paperwork" burdens associated with the agency's collection of information. 44 U.S.C. 3506(c).

Records Management - The agency CIO is responsible for ensuring that the agency implements and enforces records management policies and procedures. 44 U.S.C. 3506(f).

Information Dissemination - The agency CIO is responsible for ensuring that the agency's information dissemination activities meet policy goals, such as timely and equitable public access to information. 44 U.S.C. 3506(d).

Information Disclosure/Freedom of Information Act (FOIA) - The agency CIO is responsible for information access requirements, such as those of the FOIA and related laws. 44 U.S.C. 3506(g).

Statistical Policy and Coordination - The agency CIO is responsible for the agency's statistical policy and coordination functions. 44 U.S.C. 3506(e)

Source: GAO-04-823, Federal Chief Information Officers Responsibilities, Reporting Relationships, Tenure, and Challenges

Key Legislation

The E-Government Act of 2002

Federal Information Security Management Act of 2002 (FISMA)

Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA)

Government Paperwork Elimination Act of 1998 (GPEA)

Clinger Cohen Act of 1996

Freedom of Information Act of 1996 (FOIA)

Paperwork Reduction Act of 1995 (PRA)

Federal Acquisition Streamlining Act of 1994, Title V (FASA V)

Government Performance Results Act of 1993 (GPRA)

The Privacy Act of 1974

Records Management by Federal Agencies (**44 U.S.C. Ch.31)**

Federal Depository Library Program Laws (44 U.S.C. **Ch.19)**

Please refer to the OMB website (http://www.whitehouse.gov/omb/inforeg/infopoltech.html) for specific memos, circulars, and other IT related guidance.

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