Nominee Showcase Presentation

ISE® Northeast Executive Forum and Awards

October 3, 2013

Company Name:	University of Massachusetts
Project Name:	Embracing a Security First Approach
Presenter:	Larry Wilson
Presenter Title:	Chief Information Security Officer

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University of Massachusetts

- Providing High Quality Education for 140 Years
- 2013 World University Ratings: 42nd of Top 100 Universities
- 5 Campuses + Systems Office
- 72,000 Students
- 17,500 Faculty & Staff
- UMass Online - 120 Degree & Certificate Programs

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Our Security-first approach

- What's at Stake
- UMASS Security Program Goals
- UMASS Security Program Design
- UMASS Security Program Implementation Roadmap
- UMASS Security Program Operations Center
- Summary of Results
- Lessons Learned / Best Practices

What's at Stake

The University Environment

- ***Threats:*** Ever changing threat landscape consisting of internal and external threats.
- ***Vulnerabilities:*** Complex / unstructured / decentralized administrative and academic computing and communications environment across 5 independent campuses and systems office.
- ***High Value Assets:*** Intellectual property, research data, student records, employee records, financial data, alumni donations, health records, credit cards.

The Challenge

- ***The Controls:*** Design, acquire, implement, maintain and operate a comprehensive set of security controls that safeguard university computing resources and information assets.

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UMASS Security Program Goals

1. Develop university-wide security framework and strategic programs.

2. Align with industry best practices [ISO 27002, SANS 20 Critical Security Controls].

3. Manage security throughout its lifecycle by integrating into “normal” operations.

4. Invest in resources (staffing, training), and technology to implement and manage the security controls.

5. Develop an implementation roadmap inclusive of all campuses and departments.

6. Develop a comprehensive communication program to increase stakeholder awareness.

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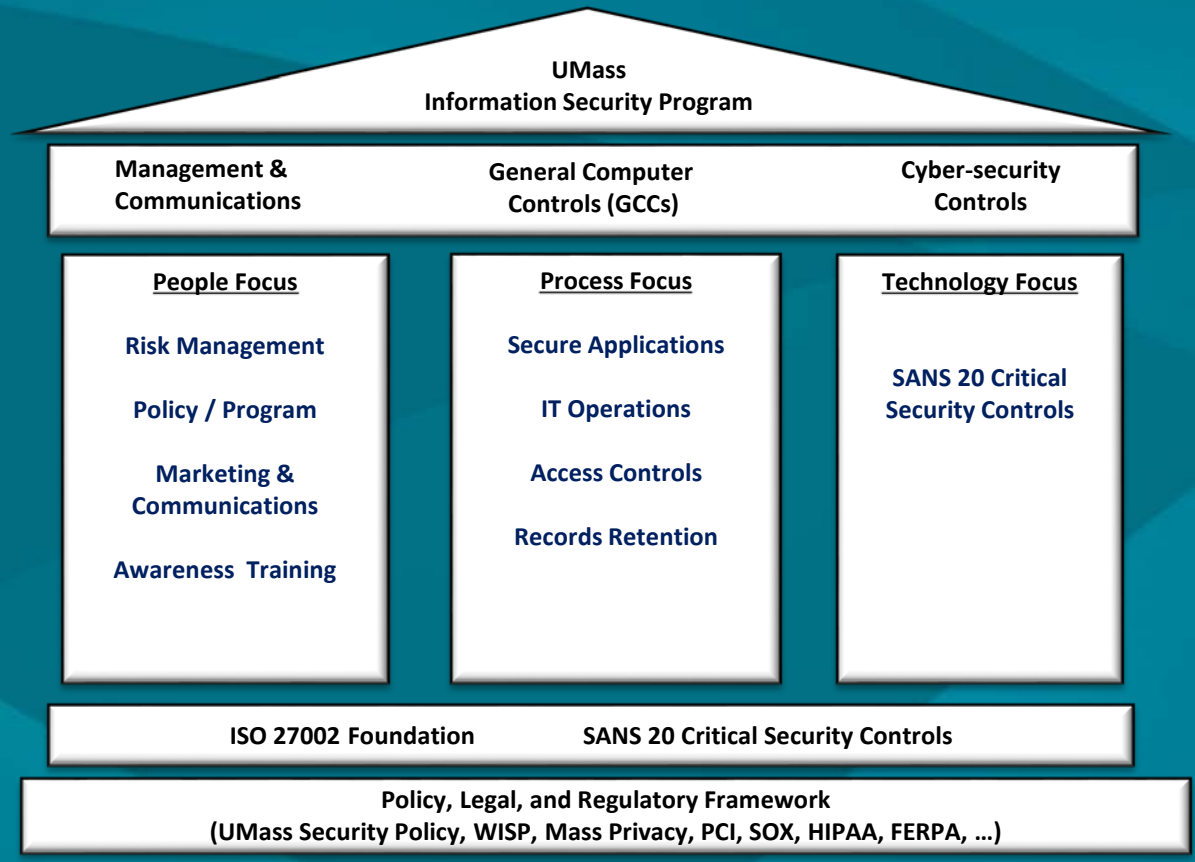
UMASS Security Program Design



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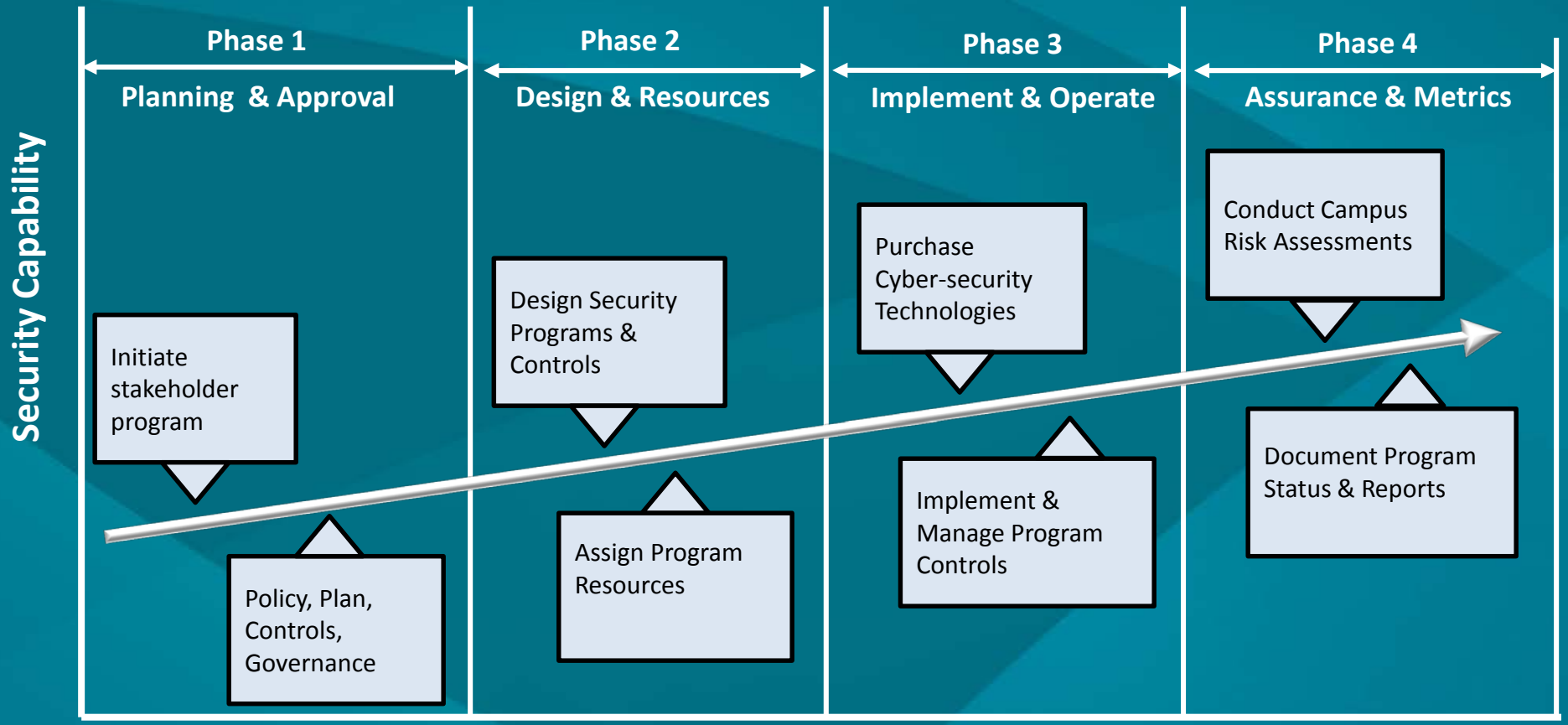
UMASS Security Program Implementation Roadmap



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UMASS Security Program Operations Center

Input

Help Desk

IT Operations

Intelligence Feeds

Work Requests, Tickets, Audit Findings

Scan, Monitor, Filter, Contain

Zero-day Threats, Zero-day Vulnerabilities

Information Security Operations Center (ISOC)

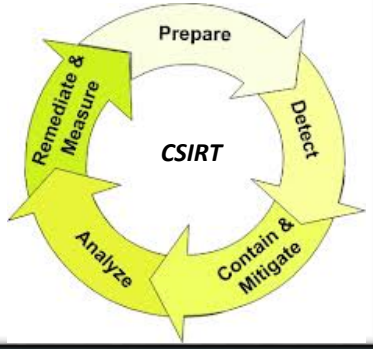
(Build, Buy, Outsource, Cloud)

Advisories & Incidents

Alerts, Metrics & Reports

Output

Incident Response Team



Data Breaches

Management Team

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Summary of Results

2012 Accomplishments

- Established security program and deliverables based on SANS Controls
- Conducted university-wide gap assessment to determine current state of compliance
- Developed budget, timeline, resources, campus implementation plans
- Established university-wide governance team and project teams

2013 Accomplishments

- Established Phase 1 Implementation Plan based on quick wins and maximum impact
- Purchased technology (as needed) and implemented Phase 1 SANS controls
- Developed management reporting to track implementation and compliance
- Established Phase 2 (2014) Implementation Plans

Lessons Learned / Best Practices

- ***Start with the Design:*** Get management buy-in including budget, resources and timelines.
- ***Implement in Phases***: Quick wins, maximum impact – need success stories!
- ***Communicate Often:*** Monthly implementation and compliance reports.
- ***Work with Partners:*** Including SANS, vendors / service providers to improve technology and service offerings – information security is a team sport!