

Massachusetts Institute of Technology

Architecture Strategy and Communications Roadmap

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Architecture Strategy

Goals and Strategy

MIT's IT Architecture

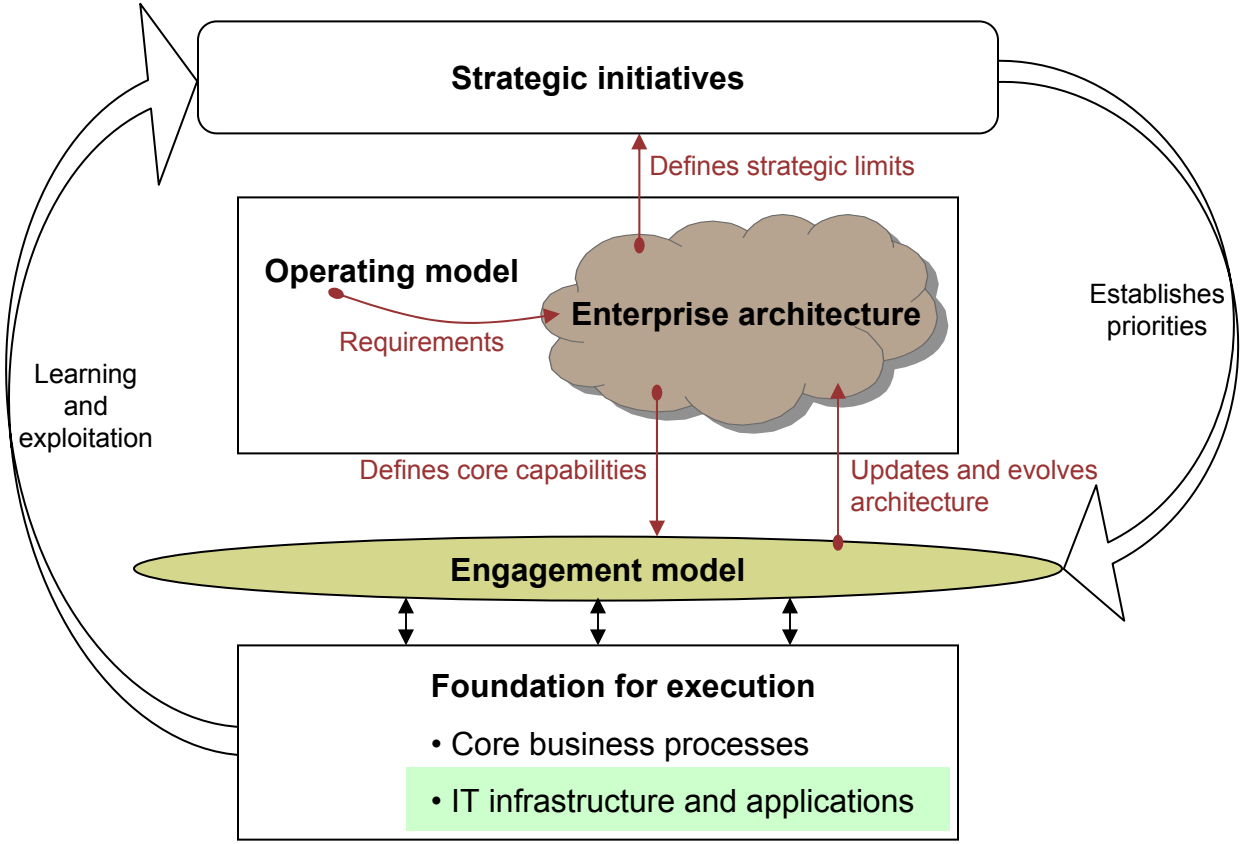
Goals

- Improve MIT's ability to build systems
  - While supporting integrated departmental systems
- Efficiency and predictability in evolving MIT's infrastructure and applications
- Allow for rapid deployment of new systems

Strategy

- MIT's structure and goals define operating model
- Shared understanding of architecture's role
- SOA – focused on business needs, not technical goals
- Define stable integration points
- Avoid system to system integration

Foundation and Strategy

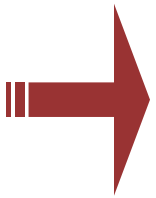


adapted from Enterprise Architecture as Strategy

Architecture to Infrastructure

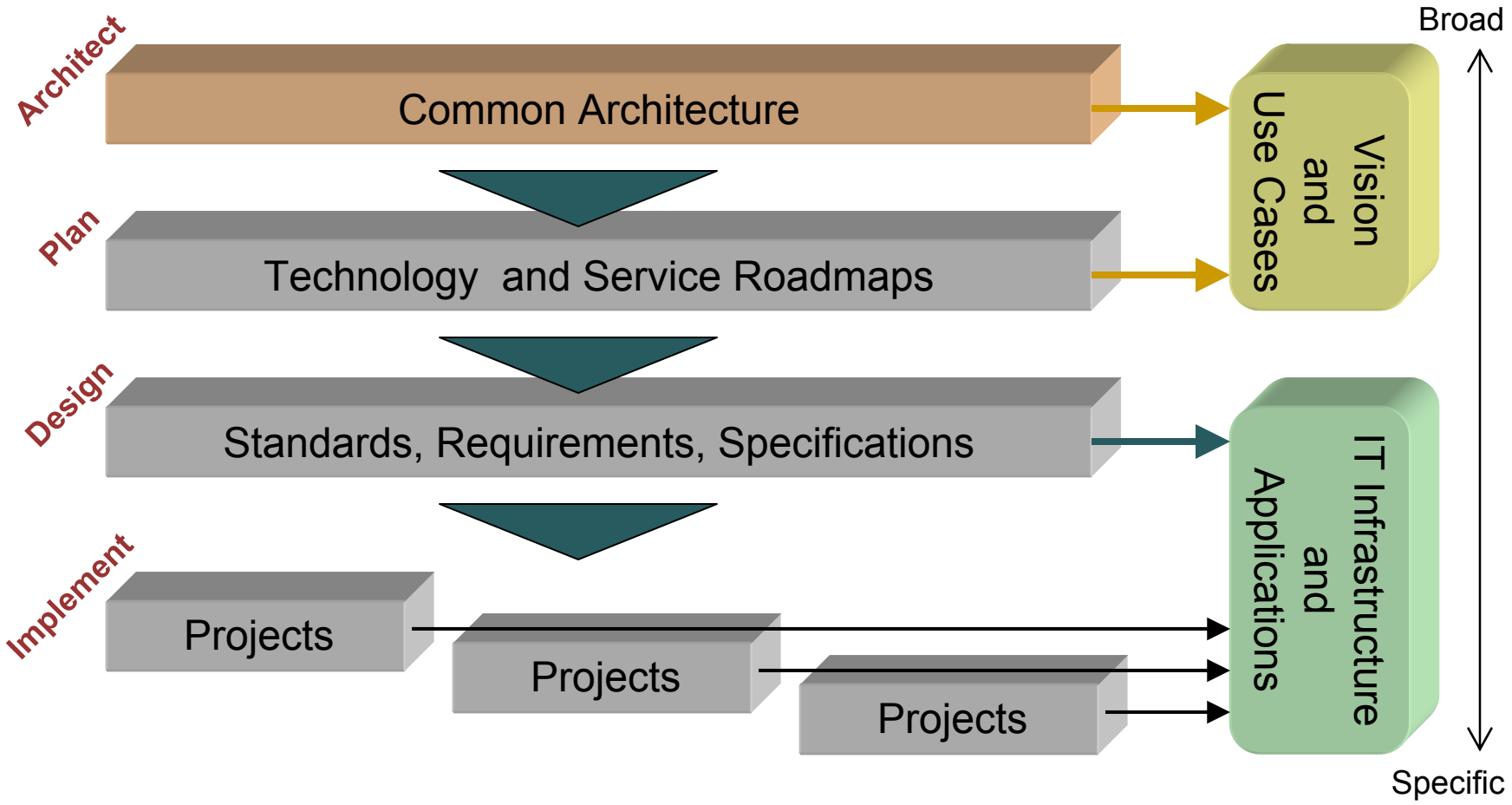
Engagement model

- Gather Input
  - MIT business and IT leaders
  - Vendors, peer organizations, standards bodies
- Publish
  - Models, roadmaps, timelines, presentations
- Implement
  - Prioritize
  - Build
- Iterate



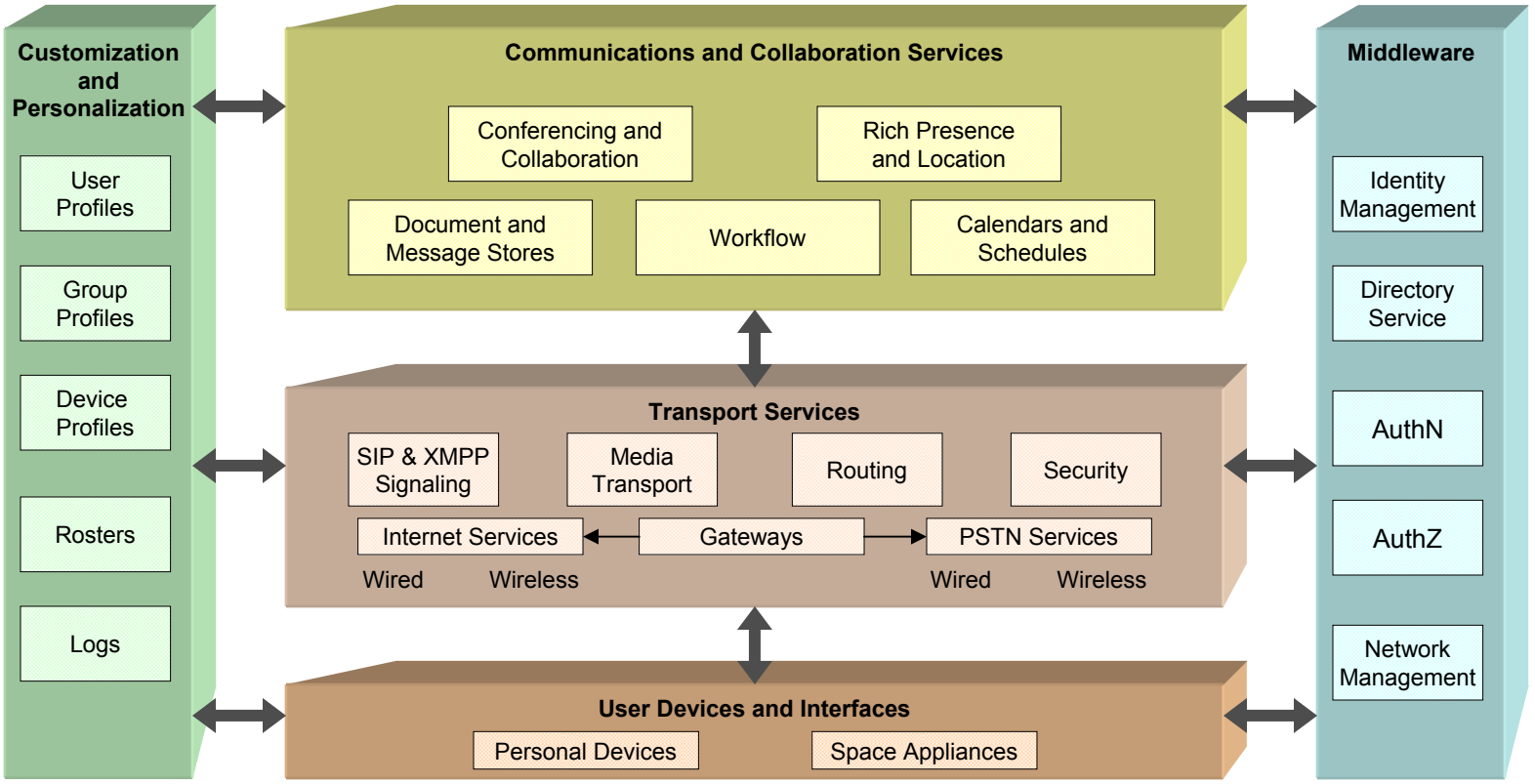
IT Infrastructure and Applications

Architecture and Projects

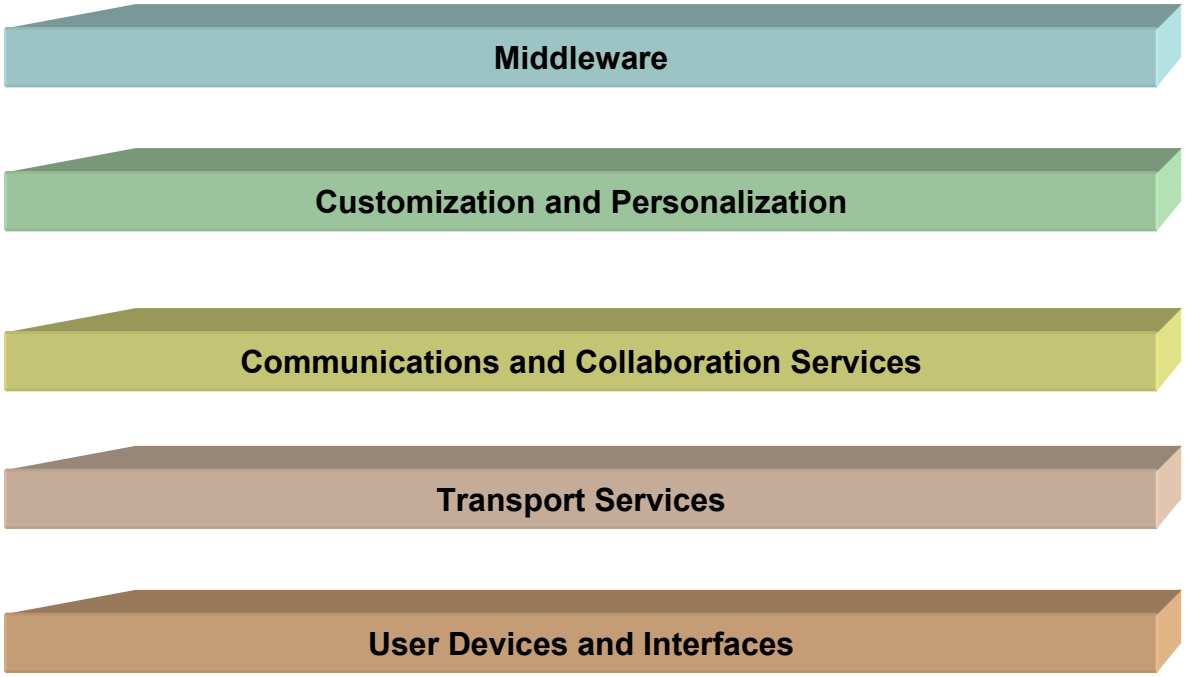


Communications Architecture and Roadmap

Communications Architecture



Communications Architecture



Communications Architecture



Vision

- Continued trend towards “always on” connectivity
- Personal devices as the key communications tool
- Spaces with communications appliances
  - Personal devices and appliances that “cooperate”
- Devices that support user authentication



Actions

- Pursue better access to multiple services from mobile devices
- Identify software clients that support both SIP and XMPP
- Traditional telephone devices will necessary for some time
  - But look for those with better integration with new features



Communications Architecture



Vision

- Future communications services will be based on IP
- SIP and XMPP both key standards
- Spam for SIP will become an issue at some point

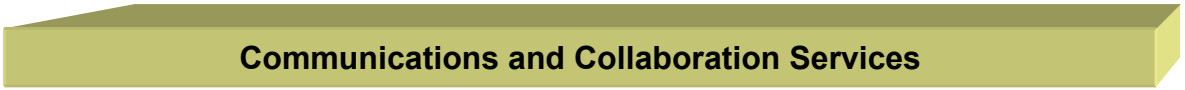


Actions

- Continue to upgrade the network
  Replace switches; deploy VLANs;
  increase redundancy; expand wireless coverage
- Migrate video conferencing to SIP
- Develop capability to authenticate SIP sessions



Communications Architecture



Vision

- Presence will evolve to be the key communications enabler
  - Rich information about your availability
  - Control over what information is accessible by whom
  - Integration with other systems
- Next generation collaboration tools will allow for ease of use
  - Fluid transition between media types
  - Same tools for one to one; one to many; many to many



Actions

- Promote the MIT.EDU communications identity
- Leverage web-based services
- Develop services that leverage location information
- Support for “on the fly” voice conferencing
- Develop a true anonymous SIP service



Communications Architecture



Vision

- Users want choice in their personal communications tools
- Self service web pages for activating and customizing services



Actions

- Deploy common web-based configuration tools
- Support both individual and group preferences



Communications Architecture



Vision

- Universal identities across systems and services
- Secure communications
- Ubiquitous network management tools



Actions

- Expand support for a single communications identity
- Look to adding Kerberos support for SIP clients
- Enhance network management tools to better support real time communications



IS&T Architecture Team

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The Architecture Team is responsible for the maintenance and enhancement of the Institute's Enterprise Architecture Guide.

They also develop product and technology roadmaps to provide a strategic plan for the introduction of new I/T services.

The Architecture Team is available to consult with I/T developers and business units on system design and modeling.