Aspects of Smart Communities

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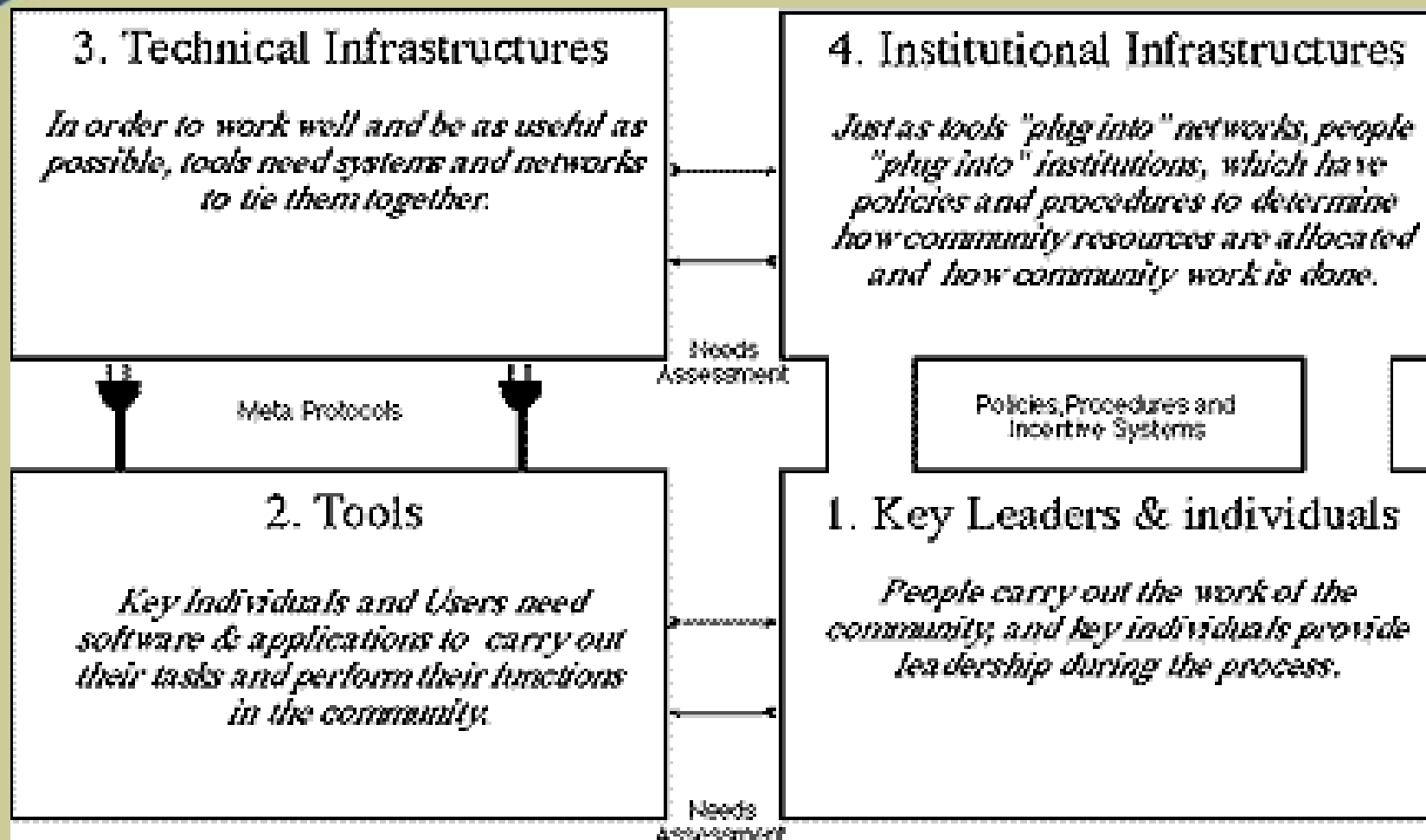
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Introduction and Overview

A "smart community" is a community in which members of local government, business, education, healthcare institutions and the general public understand the potential of information technology, and form successful alliances to work **together** to use technology to transform their community in significant and positive ways.

Planning a Smart Community

- Establishing a "big picture" perspective about the system that is your community

- Four key elements:
  - Key Individuals & Users
  - Tools
  - Institutional Infrastructure
  - Technical Infrastructure

3. Technical Infrastructures

In order to work well and be as useful as possible, tools need systems and networks to tie them together.

4. Institutional Infrastructures

Just as tools "plug into" networks, people "plug into" institutions, which have policies and procedures to determine how community resources are allocated and how community work is done.

Needs Assessment

Meta Protocols

Policies, Procedures and Incentive Systems

2. Tools

Key Individuals and Users need software & applications to carry out their tasks and perform their functions in the community.

1. Key Leaders & individuals

People carry out the work of the community, and key individuals provide leadership during the process.

Needs Assessment

Organizing the Players

- **Community Involvement**
  - Involve the entire community. Needed for support
  - Be prepared for some disappointments. Not everyone will get on board the first time.

- • **Staffing**

   - • Try for a mix of paid and volunteer staff.

      - • People will get involved for reasons other than payment.

      - • Broadens involvement

      - • Useful for controlling costs

      - • Provides broader advocacy base

Note: The organization structure may change as the Smart Community develops. People involved for development/innovative stage may not be as good for a mature community in a maintenance mode.

- **Organization Structure (5 general types)**
  - ● Non-profit
  - ● Government based
  - ● Joint ventures – usually public/private
  - ● Co-operatives
  - ● Virtual (on-line communities)

Assessing Community Needs

- **Why**

  - Defines best tools and approaches for developing the community

  - Identifies areas of possible community support and opposition

  - Encourages project to be driven by need and process rather than by technology

- **How**
  - $\square$ •   Surveys (General and Technical)
  - $\square$ •   Analysis of existing information
  - $\square$ •   Trends analysis
  - $\square$ •   Group Processes
  - $\square$ •   Town Meetings
  - $\square$ •   Public Hearings
  - $\square$ •   Nominal (Group Techniques)
  - $\square$ •   Inventory of community players/decision makers

Smart Community 'Personality'

- Aspects of Community 'Personality':
  - Commercial versus Non-Profit
  - Development standards
  - Tone or voice of the web site
  - Community Standards
  - Language(s)

Finding Resources

- Smart Communities are not Cheap
  - Expect $150,000 for a small to mid-sized community
  - $1,000,000+ for a regional project

- Expected Needs for Budgeting and Resourcing
  - ● Planning
  - ● Public Education
  - ● Training
  - ● Technical
  - ● Volunteer
  - ● Administration
  - ● Ongoing content changes
  - ● Research and Evaluation

- Non-Monetary Resources
    - □ • Volunteers
    - □ • Donated internet access
    - □ • Donated services
    - □ • Donated equipment
    - □ • Equipment loans
    - □ • Free access to specialized equipment
    - □ • Emergency backup services
    - □ • Grant writing
    - □ • Internships and student training
    - □ • Free technical assistance

- Potential Funding Sources
  - Shift monies from other operating expenses
  - Partner contributions
  - Service contracts/fees
  - Fundraising
  - Sponsorships for segments of smart community
  - Member fees
  - User fees
  - Public funding
  - Grants
  - Foundation donations

Sustainability

- **Four Factors**
  - ●Encourage community Ownership – It must be continuous. CKUA is an example of how this works in favour of an organization facing hard times
  - ●Benefits to the community – It is necessary to be a catalyst for development and change
  - ●Community Awareness – It is essential to maintain a community profile
  - ●Have Realistic Plans – Don't plan too big. Focus on the strengths of your community

The Technology

- Issues:
  - Client/Server Architecture
  - Open Standards vs Proprietary
  - Mature Technologies vs First Generation
  - Scalable or Fixed Capacity
  - Specialized or Hybrid
  - Off-the-Shelf or Develop

- Community Access:
  - Kiosks
  - Public Access Centres
  - Commercial Access Centres
- Development Options
  - Do it yourself
  - Contract it out
  - Act as a 'Broker'

Implementing

- Keys to Implementing a Smart Community
  - A clear, concise and compelling **mission** or vision statement
  - A well-defined **values** statement by participating organizations.
  - Strategic **policies** which set the boundaries
  - **Strategies** which define how you are going to carry out the mission of the smart community.
  - **Goals and objectives**: how you are going to execute the strategies, including tasks, when they are to be carried out and by whom.
  - **Evaluation** program to serve as a continuous monitoring and feedback mechanism.

Developing Policies

Necessary for a smart community to flourish in the long-term and have a sense of direction. These include:

- external policies
- internal (acceptable user policies)

- **External Policies**
  - Aimed at factors which can affect the smart community, but are not necessarily controllable by the community. Includes policies regarding the activities of:
    - Policies and legislation of higher levels of government
    - Activities of private sector and NGOs such as telecommunications policy
    - Required planning such as community plans

- Internal Policies
  - Aimed at how the smart community will function. A key policy is Acceptable Use Policy (UAP). Elements include:
    - Who is responsible for actions
    - Security, Illegal uses, Copyrights
    - Harassment
    - Commercial Activity
    - Penalties
    - Accounts for Minors (if this forms part of the service)
    - Freedom of Information