Agenda

- Overview of IT Services
- Historical composition of IT Budget
- BP-24 IPR Proposal
- IT Strategy
- Questions
Overview of IT Services
### Networking & Communications

- **Firewalls**: 198
- **Total Network Nodes**: 21,561
  - **Desktop Connections**: 20,579
  - **Server Connections**: 797
  - **Wide Area Network Links**: 180
  - **Internet Links**: 5
- **Switches/Routers**: 478/188
- **Cellular Devices**: 3,093
  - **Smart Phones**: 1,670
  - **Standard Cell Phone**: 223
  - **Data Only Devices**: 1,086
- **Data/Voice Circuits**: 382
- **VoIP Desk Telephones**: 5,031

### Business Solutions (Services)

- Physical Access Control & Monitoring
  - NERC/CIP Sites: 74
  - Non NERC: 30
- Data Integration Layer (Hub)
  - Subject Areas: 9
  - Service Interfaces: 23

### Business Solutions (Applications)

- Critical Business Apps: 27
  - Integration Interfaces: 89
  - Energy Imbal. Mkt. Interfaces: 111
- Enterprise Business Apps: 137
  - Integration Interfaces: 195
- Total J-org Business Apps: 559

### Infrastructure & Data Center(s)

- **Windows Servers**: 2,396
- **Unix/Linux Servers**: 291
- **Virtual Hosts**: 155
- **Storage Area Network Growth/year**: 185TB
- **Virtual SAN Used**: 1.8PB
  - **Free**: 1.4PB
- **Databases**: 2,473
- **Standard account users**: 4,678
- **Elevated account users**: 612
- **E-mails Received/year**: 18,420,171
  - **E-mail Flagged [BULK MAIL]**: 46%
- **E-mail Viruses Blocked/year**: 9,148
- **Ransomware Prevented/year**: 331

### IT Client Services

- **Desktops/Laptops**: 3,046
- **Tablet/2-in-1**: 180
- **Thin Clients (myPC)**: 1,346
- **Mobile Thin (myPC)**: 180
- **Rugged**: 496
- **Printers**: 537
- **Service desk calls/mo.**: 2115
  - **Resolved in 4 hrs.**: 73%
- **Trouble tickets/mo.**: 2263*
  - **Queue time**: 2:52min
- **Abandon rate**: 5%
- **1st Tier resolution rate**: 71%

* Includes calls and email request

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**FY22 BPA IT Operations & Asset Inventory**

BPA Office of the CIO – December 7, 2021
Overview of IT Services

Chief Information Officer (CIO)

- CIO Office (J)
- Cyber Security (JB)
- Critical Business Systems Ops (JC)
- Enterprise Shared Services (JL)
- Enterprise Technology Ops (JN)

Chief Administrative Officer (CAO)

- Transmission Services (T)
- Transmission Technology Services (TT)
Historical Composition of IT Costs
IT Historical Costs by Budget Category

IT Historical Spend by Budget Category

- 1.0 - PERSONNEL COMP & BENEFITS
- 2.0 - TRAVEL AND TRAINING
- 3.0 - SUPPLEMENTAL LABOR CONTRACTS
- 3.5 - OTHER CONTRACTS
- 4.0 - RENTS AND UTILITIES
- 5.0 - MATERIALS AND EQUIPMENT


= Forecasted Spend
J Only Federal Labor Costs & Headcount

- Historical Actuals
- BP 22 Rate Case
- Proposed IPR BP 24

Historical Actuals:
- 2017: 199
- 2018: 180
- 2019: 178
- 2020: 173
- 2021: 180

Projected J Federal Labor Cost:
- 2022: 191
- 2023: 207
- 2024: 227
- 2025: 237

BP 22 Rate Case:
- 2022: 191
- 2023: 207
- 2024: 227
- 2025: 237
IT Contract Costs

• IT contracts costs are the largest component (46%) of IT’s budget
• When comparing 2017 to 2021, contract costs have increased $20.8 million, from $25.8m to $46.6m, far greater than inflation.
  – Many existing contracts increase 10% per year ($4.6 million per year)

  **Major contract increases, include:**
  - Microsoft Enterprise Agreement (OS, Office, Visio, SQL, Project …)
  - Cisco and Palo Alto networks
  - Oracle database
  - Dell desktop/laptop equipment leases
  - Pacific Office Automation printers
  - Telecom circuit providers
  - Discovery Core eDiscovery architecture
  - Server and storage hardware infrastructure
  - Smart Phone capability increases
Main drivers for increased contract costs:

1. Increases in software licensing
   - 30% increase for Microsoft Enterprise software

2. Increased usage of Software-as-a-service
   - Increased costs of subscriptions and annual contracts
   - Projects planned as capital were expensed due to cloud-based solutions

3. New compliance requirements:
   - Mandatory cyber security monitoring
   - Telecom circuits for NERC CIP sites

4. Increased costs for implementation of new systems beyond the rate of inflation

5. Increased demand for new, on-going projects
   - Grid Modernization
   - Energy Imbalance Market (EIM)
   - Asset Suite
BP-24 IT Proposal
IT requested a $17 million increase from BP20

IT requested a $17 million increase from BP20
The major drivers for the increase is due to increased contract costs (see slide 12), and increased labor costs.
IT BP 24 Proposal

IT was able to meet BP20 rate case funding levels, and will do so for BP22 as well, but at a cost of:

1. Deferring federal and contractor position backfills
   • Increased risk due to single points of failure
2. Deferring customer requests for new systems
3. Deferring some life cycle refresh activities
4. Slowing continuity for corporate systems
**IT IPR 24/25 Expense Spending Level Ask**

- **FY21: $101,795**
  - **Restore IT staffing levels:**
    - Fill 10 deferred BFTE positions (Single-Point-of-Failure, meet service capacity)
    - Convert 80 of 160 CFTE to BFTE per BPA direction (labor, management support)
  - **$1,878**

- **FY22: $115,490**
  - **Support Customer Projects Demand (expense portion only):**
    - SDN, Transmission AM efforts, DA, Grand Coulee
    - Apply APSC prioritization and CIO approval!
  - **$1,021**

- **FY23: $121,982**
  - **Support special IT core sustainment:**
    - Support Agency Enterprise Portal (external web resources and O&M)
    - Implement Next Generation Mobility Program
  - **$1,114**

- **FY24: $123,096**
  - **Address DOE, DHS system mandates and compliance requirements:**
    - Add Continuous Diagnostics & Mitigation (IT Network Operations Center)
    - Include Transmission System Ratings (O&M)
  - **$1,221**

- **FY25: $124,117**
  - **Expand Cyber Security Capability Program:**
    - Add 7 additional staff for cyber security assessment, remediation, and architecture
    - Increase capabilities for Cyber Security Operations Center (Mosaic 451 contract)
  - **$2,992**

- **$14,095**
  - **Maintain IT current service level (inflation and current projects new O&M):**
    - Difficult to keep pace with core sustainment (infrastructure & applications)
    - Include some expanded customer demand (GridMod/EIM/FinMod only + new O&M)
BP-24 IT Strategy
IT as a Customer Service Organization

Are we working on the right things?

Increasing cost of information availability

Ability to deliver through shrinking budgets

More business online
More applications
More data

The Widening Gap

More requests chasing fewer resources

DEMAND

SUPPLY
IT continues to focus on maturing effective customer service. A customer-oriented culture will:

- Help cut costs
- Increase productivity
- Improve interdepartmental communication and cooperation
- Boost employee morale
- Align goals
- Harmonize processes and procedures
- Deliver continuous measurable improved service to our customers
IT Support for Agency Initiatives

Increased O&M for Grid Modernization

- Metering and Billing
- Energy Imbalance Market (EIM)
- Data Analytics
- Customer Portal

New Initiatives

- Internet Protocol Version 6 (IPv6)
- Datacenter Consolidation to Vancouver Control Center
- Grand Coulee Dam Yard Acquisition
- Asset Management
IT Ongoing Initiatives

• **Reduce Costs:**
  - Increase IT cost transparency through IT Service Catalogue
  - Maintain reliability and operational metrics
  - Execute on service level agreements
  - Increase cloud-based solutions
  - Implement IT Service Management model

• **Improve Continuity:**  Strengthen continuity for Enterprise Business Systems

• **Effectively Manage Assets:**  Conduct life cycle updates for existing systems (eliminate break/fix approach)

• **Enhance Cyber Security and Compliance through:**
  - Zero Trust Architecture (scope to be determined)
  - Continuous Monitoring and Mitigation
  - System Assessments and Upgrades
FINANCIAL DISCLOSURE

This information was publicly available on June 9, 2022, and contains information not sourced directly from BPA financial statements.